

# Reservoirs/Tanks Reservoir Accessories Lubrication Equipment Specialty Fittings

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ISO 9001:2015 Certified
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## RESERVOIRS/TANKS

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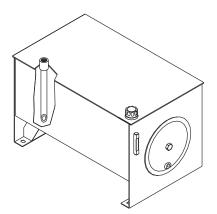
## **INSTALLED COUPLINGS & RETURN LINES**

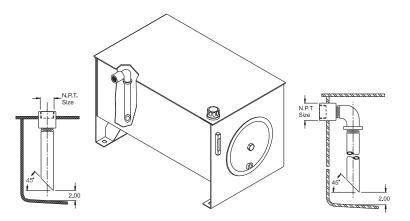
## **BASIC TOP MOUNT & BASIC SIDE MOUNT**

Have LDI install your couplings and return lines. These are our typical combintations. We can install whatever your application requires.

## **Benefits:**

- Customer specified locations
- Customer specified sizes
- No cutting of holes to install couplings
- Low cost
- Rapid assembly of power unit





	Return Lines Available with Schedule 40 Pipe								
Reservoir Size (gal)	NPT	NPT	NPT	NPT	NPT	NPT	2 1/2 inch NPT #24 SAE	NPT	
10 to 20	•	•	•						
30 to 40	•	•	•	•					
50 to 60	•	•	•	•	•				
80 to 100		•	•	•	•	•			
120 to 150			•	•	•	•	•		
200 and up			•	•	•	•	•	•	

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## STYLE A

The Style A Series JIC type reservoirs are constructed with a welded top and clean-out access on each end. The reservoir design incorporates a lengthwise baffle positioned between opposing clean-out openings. Each reservoir is supplied with a sight gage, filler breather and access covers.

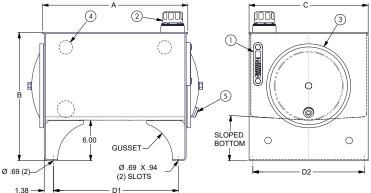
#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage on capacities of less than 300 gallons; (1) 10 inch G1615 Series sight gage on 300 gallon capacities and above
- 2. (1) Riser with filler breather
  - Bayonet style 40 micron
- 3. (2) Steel access covers with gaskets
- 4. Baffle with cutouts for circulation
- 5. 3/4 inch NPT drain with plug on (1) access cover
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative

## **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications. For these applications, consult the factory.

- 8. Materials:
  - · Carbon steel reservoir
  - Buna N seals
  - Transparent molded nylon sight gage with black powder coated steel guard for GT623 Series sight
  - Aluminum body for G1615 Series sight gage
  - Zinc plated fill cap with nylon strainer basket
- NOTE Drain plugs need to be sealed and tightened before use
  - · Sight gage and filler breather shipped loose inside reservoir
  - Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)





NOTE: All dimensions are inches

<mark>ት : 920-682-6877</mark>

	Tank Dimensions (inches)										
Capacity (gal)	Part No.	A Length	B Height	C Width	Mounting D1 ± .12	Centers D2 ± .12	Access Cover	Material 1 End	Thickness Top	Piece Weight (lb)	Gusset Qty
10	V10010	21.50	19.00	17.62	18.25	16.50	12.00	7 Ga	7 Ga	101	2
15	V10015	25.50	19.00	17.62	22.25	16.50	12.00	7 Ga	7 Ga	112	2
20	V10020	29.50	19.00	17.62	26.25	16.50	12.00	7 Ga	7 Ga	123	2
30	V10030	35.50	19.38	23.62	32.25	22.50	12.00	7 Ga	7 Ga	171	2
40	V10040	35.50	21.00	23.62	32.25	22.50	12.00	7 Ga	7 Ga	181	2
50	V10050	35.50	23.00	23.62	32.25	22.50	14.00	7 Ga	7 Ga	191	2
60	V10060	47.50	20.56	26.62	44.25	25.50	12.00	7 Ga	.25	262	2
80	V10080	60.00	21.50	27.00	56.25	25.50	14.00	7 Ga	.38	375	4
100	V100100	60.00	23.50	27.00	56.25	25.50	14.00	7 Ga	.38	380	4
120	V100120	60.00	27.00	30.00	56.25	28.50	16.00	.38	.38	539	4
150	V100150	60.00	31.00	30.00	56.25	28.50	16.00	.38	.38	587	4
200	V100200	72.00	29.38	36.00	68.25	34.50	18.00	.38	.38	827	4
300	V100300	72.00	38.50	36.00	68.25	34.50	18.00	.38	.38	980	4
400	V100400	72.00	38.50	48.00	68.25	46.50	18.00	.38	.50	1578	4
500	V100500	72.00	43.00	48.00	68.25	46.50	18.00	.38	.50	1733	4
600	V100600	96.00	43.00	48.00	92.25	46.50	18.00	.38	.50	1838	4
700	V100700	96.00	49.00	48.00	92.25	46.50	18.00	.38	.50	1996	4

## **JUMBO SERIES**

The Jumbo Series JIC type reservoirs are designed for large capacity systems. Construction consists of a welded top and multiple openings to access the inside of the reservoir. The reservoir design incorporates two lengthwise baffles positioned between opposing clean-out openings. Each reservoir is supplied with sight gages, filler breathers and access covers.

#### **Standard Features:**

- 1. (2) 10 inch G1615 Series sight gages
- 2. (2) Risers with filler breathers
  - · Bayonet style 40 micron
- 3. (4) Steel access covers with gaskets
- 4. (2) Baffles with cutouts for circulation
- 5. (2) 2 inch NPT drains with plugs
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative oil

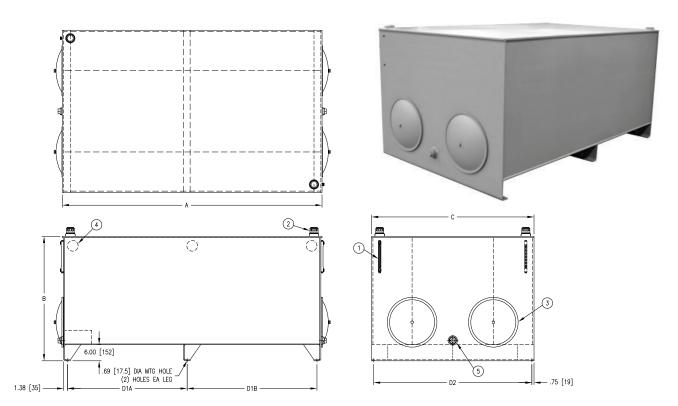
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 8. Materials:
  - Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gages
  - Zinc plated fill caps with nylon strainer baskets

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



**NOTE:** All dimensions are inches [mm]

	Tank Dimensions (inches)										
Capacity		А	В	С	Мо	Access		erial kness	Piece Weight		
(gal)	Part No.	Length	Height	Width	D1A ± .12	D1B ± .12	D2 ± .12	Cover	Тор	End	(lb)
800	V100800	96.00	46.00	60.00	44.25	48.00	58.50	18.00	.50	.38	2696
900	V100900	96.00	51.00	60.00	44.25	48.00	58.50	18.00	.50	.38	2860
1000	V1001000	96.00	56.00	60.00	44.25	48.00	58.50	18.00	.50	.38	3025

## STYLE A STAINLESS STEEL

The Style A Stainless Steel Series JIC type reservoirs are constructed with a welded top and clean-out access on each end. The reservoir design incorporates a lengthwise baffle positioned between opposing clean-out openings. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- (1) 5 inch G1620 Series sight gage on capacities of less than 300 gallons; (1) 10 inch G1615 Series sight gage on 300 gallon capacities and above
- 2. (1) Riser with filler breather
  - Bayonet style 40 micron
- 3. (2) Stainless steel access covers with gaskets
- 4. Baffle with cutouts for circulation
- 5. 3/4 inch NPT drain with plug on (1) access cover

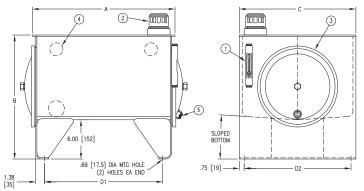
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 6. Materials:
  - 304 Stainless Steel construction
  - Buna N seals
  - Aluminum sight gage
  - Zinc plated fill cap with nylon strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather are not stainless steel
- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)





NOTE: All dimensions are inches [mm]

	Tank Dimensions (inches)										
Capacity (gal)	Part No.	A Length	B Height	C Width	Mounting D1 ± .12	Centers D2 ± .12	Access Cover	Material 1	Thickness Top	Piece Weight (lb)	
10	V23610	22.00	19.00	18.00	18.25	16.50	12.00	7 Ga	7 Ga	105	
15	V23615	26.00	19.00	18.00	22.25	16.50	12.00	7 Ga	7 Ga	115	
20	V23620	30.00	19.00	18.00	26.25	16.50	12.00	7 Ga	7 Ga	124	
30	V23630	36.00	19.38	24.00	32.25	22.50	12.00	7 Ga	7 Ga	178	
40	V23640	36.00	21.00	24.00	32.25	22.50	12.00	7 Ga	7 Ga	190	
50	V23650	36.00	23.00	24.00	32.25	22.50	14.00	7 Ga	7 Ga	200	
60	V23660	48.00	20.56	27.00	44.25	25.50	14.00	7 Ga	.25	266	
80	V23680	60.00	21.50	27.00	56.25	25.50	14.00	7 Ga	.38	398	
100	V236100	60.00	23.50	27.00	56.25	25.50	14.00	7 Ga	.38	418	
120	V236120	60.00	27.00	30.00	56.25	28.50	16.00	.38	.38	616	
150	V236150	60.00	31.00	30.00	56.25	28.50	16.00	.38	.38	681	
200	V236200	72.00	29.38	36.00	68.25	34.50	16.00	.38	.38	908	
300	V236300	72.00	38.50	36.00	68.25	34.50	16.00	.38	.38	999	
400	V236400	72.00	38.38	48.00	68.25	46.50	16.00	.38	.38	1460	
500	V236500	72.00	43.00	48.00	68.25	46.50	16.00	.38	.38	1618	
600	V236600	96.00	48.87	48.00	92.25	46.50	16.00	.38	.38	1685	
700	V236700	96.00	48.87	48.00	92.25	46.50	16.00	.38	.38	1843	



## STYLE B

The Style B Series JIC type reservoirs are constructed with a welded top and clean-out access on each end. The reservoir design incorporates a lengthwise baffle positioned between opposing clean-out openings. Each reservoir is supplied with a sight gage, filler breather and access covers. Style B reservoirs are similar to the Style A Series, but incorporate design features common to the Jumbo Series reservoirs.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. (1) Riser with filler breather
  - Bayonet style 40 micron
- 3. (2) Steel access covers with gaskets
- 4. Baffle with cutouts for circulation
- 5. 3/4 inch NPT drain with plug on (1) access cover
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative

#### **CAUTION:**

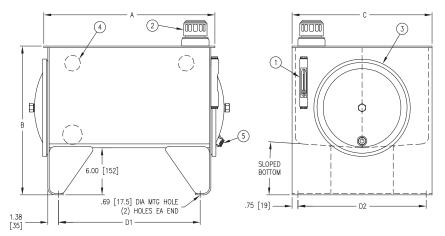
· Reservoirs are not designed for internal positive or negative pressure applications. For these applications, consult the factory.

#### 8. Materials:

- · Carbon steel reservoir
- Buna N seals
- Transparent molded nylon sight gage with black powder coated steel guard
- Zinc plated fill cap with nylon strainer basket

#### NOTE • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)





**NOTE:** All dimensions are inches [mm]

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	Tank Dimensions (inches)									
Capacity (gal)	Part No.	A Length	B Height	C Width	Mounting D1 ± .12	Centers D2 ± .12	Access Cover	Material 1 End	Thickness Top	Piece Weight (lb)
10	V37510	24.00	18.00	16.00	20.25	14.50	12.00	11 Ga	7 Ga	80
20	V37520	32.00	18.00	21.00	28.25	19.50	12.00	11 Ga	7 Ga	130
60	V37560	38.00	25.00	25.00	34.25	23.50	14.00	7 Ga	.25	236
80	V37580	47.00	26.88	30.00	43.25	28.50	14.00	7 Ga	.25	337
100	V375100	47.00	29.00	30.00	43.25	28.50	14.00	7 Ga	.25	355
120	V375120	60.00	27.00	30.00	56.25	28.50	14.00	7 Ga	.38	450
150	V375150	59.62	31.19	30.00	55.88	28.50	14.00	7 Ga	.38	496
200	V375200	72.00	29.00	36.00	68.00	34.50	18.00	.25	.38	769
250	V375250	72.00	35.00	36.00	68.00	34.50	18.00	.25	.38	900
300	V375300	82.00	29.00	48.00	77.00	45.00	18.00	.25	.50	1306
400*	V375400	96.00	23.75	72.00	92.25	70.50	18.00	.38	.50	2066

<sup>\*</sup> NOTE: 400 gallon reservoir includes (2) access covers per end and (2) baffles

## STYLE RB REMOVABLE BAFFLE

The Style RB Series JIC type reservoirs are constructed with a welded top and clean-out access on each end. The reservoir design incorporates a lengthwise, removable baffle positioned between opposing clean-out openings. For more thorough cleaning, the baffle can be removed through clean-out opening. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- 1. (1) 5 inch G1620 Series sight gage
- 2. (1) Riser with filler breather
  - Bayonet style 40 micron
- 3. (2) Steel access covers with gaskets
- 4. Removable baffle
- 5. 3/4 inch NPT drain with plug on (1) access cover
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative oil

#### **CAUTION:**

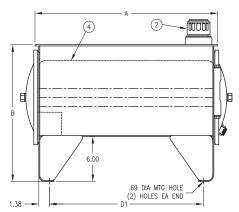
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

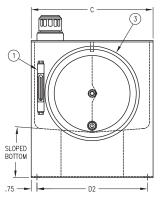
#### 8. Materials:

- Carbon steel reservoir
- Buna N seals
- Aluminum sight gage
- Zinc plated fill cap with nylon strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)







NOTE: All dimensions are inches [mm]

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	Tank Dimensions (inches)										
Capacity	Doub No.	A	В	C	Mounting		Access	Material 1		Piece Weight	
(gal)	Part No	Length	Height	Width	D1 ± .12	D2 ± .12	Cover	End	Тор	(lb)	
10	V19910	24.00	18.00	16.00	20.25	14.50	12.00	11 Ga	7 Ga	80	
15	V19915	26.00	19.00	18.00	22.25	16.50	12.00	7 Ga	7 Ga	105	
20	V19920	32.00	18.00	21.00	28.12	19.50	12.00	11 Ga	7 Ga	124	
30	V19930	36.00	19.38	24.00	32.25	22.50	12.00	7 Ga	7 Ga	178	
40	V19940	36.00	21.00	24.00	32.25	22.50	12.00	7 Ga	7 Ga	190	
50	V19950	36.00	23.00	24.00	32.25	22.50	12.00	7 Ga	7 Ga	200	
60	V19960	38.00	25.00	25.00	34.25	23.50	18.00	7 Ga	.25	242	
80	V19980	47.00	26.88	30.00	43.25	28.50	18.00	7 Ga	.25	365	
100	V199100	47.00	29.00	30.00	43.25	28.50	18.00	7 Ga	.25	375	
120	V199120	60.00	27.00	30.00	56.25	28.50	18.00	7 Ga	.38	512	
150	V199150	60.00	31.00	30.00	56.25	28.50	18.00	7 Ga	.38	523	
200	V199200	72.00	29.00	36.00	68.25	34.50	18.00	.25	.38	769	
300	V199300	82.00	29.00	48.00	77.00	45.00	18.00	.25	.50	1306	

## STYLE RT

The Style RT Series JIC type reservoir has clean-out access on end(s) of reservoir and designed to accept a removable top. The reservoir has a lengthwise baffle positioned between opposing ends with circulation notch and one return connection. All reservoirs are supplied with a sight gage, access cover(s) and channel gasket. Reservoir tops are sold separately.

## **Standard Features:**

- 1. (1) 5 inch G1620 Series sight gage
- 2. Access cover(s) with gasket(s)
- 3. Baffle with cutout for circulation
- 4. (1) 3/4 inch NPT drain with plug
- 5. (1) Return connection
- 6. Channel gasket (not shown) for removable top
  - Removable top plates are ordered as separate items (see page page 6)
- 7. Exterior of reservoir prime painted
- 8. Interior of reservoir coated with rust preventative oil

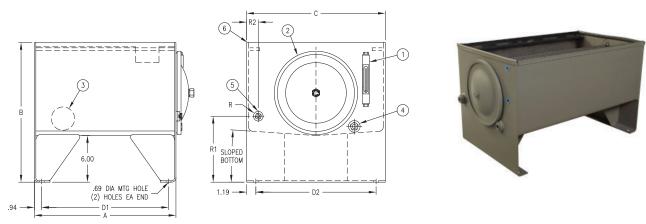
## **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 9. Materials
  - Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gage

**NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches

		Clean Out Cov	vers
	Capacity (gal)	Diameter (inches)	Number of Covers
ı	10	10.00	(1) an eight gang and anl.
ı	20	10.00	(1) on sight gage end only
ı	35	10.00	(2) with one on each end
ı	50 to 210	14.00	(2) with one on each end

	Tank Dimensions (inches)										
					Mounting	Centers	Return	Connect	ions	Piece	
Capacity (gal)	Part No.	A Length	B Height	C Width	D1 ± .12	D2 ± .12	R NPT	R1	R2	Weight* (lb)	
10	V12210	18.25	18.00	17.88	16.38	15.50	1/2	8.50	1.50	90	
20	V12220	29.38	18.00	17.88	27.50	15.50	1	8.50	1.50	120	
35	V12235	35.38	18.25	23.88	33.50	21.50	1-1/2	9.50	3.00	160	
50	V12250	35.38	23.00	23.88	33.50	21.50	1-1/2	9.50	3.00	200	
70	V12270	47.38	21.00	26.88	45.50	24.50	1-1/2	9.50	3.00	240	
90	V12290	59.38	21.50	26.88	57.50	24.50	2	9.50	3.00	281	
130	V122130	59.38	26.00	29.88	57.50	27.50	2	9.50	3.00	345	
160	V122160	59.38	31.00	29.88	57.50	27.50	2	9.50	3.00	398	
210	V122210	71.38	28.25	35.88	69.00	33.50	2	9.50	3.00	484	

\*Note: Above weights do not include covers

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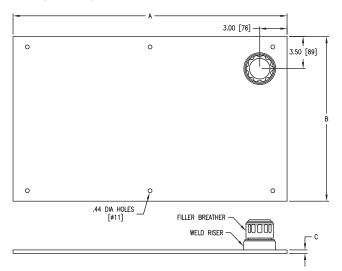


## STYLE RT REMOVABLE TOP

The Style RT Reservoir Top Series provides users with multiple options of cover thickness for each size Style RT reservoir. The reservoir tops have pre-drilled mounting holes and a welded riser for mounting a filler breather provided loose with each reservoir top. Reservoirs are sold separately.

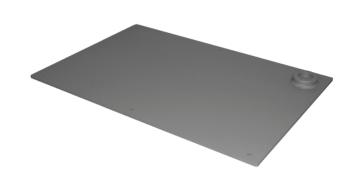
#### **Standard Features:**

- Mate with Style RT Series reservoirs ranging in size from 10 to 210 gallons
- 2. Depending on reservoir capacity, cover thickness ranges from 1/4 to 1.00 inch thick
- Exterior and side surfaces painted with LDI gray primer
- 4. Interior surface coated with a rust preventative oil
- 5275 riser for mounting 5201 filler breather (included)



#### 6. Materials:

- Carbon steel top
- Zinc plated carbon steel fill cap with nylon strainer basket



NOTE: All dimensions are inches [mm]

Reservoir Top Dimensions (inches)									
		D	imensior	าร	Piece				
Capacity (gal)	Part No.	A	В	С	Weight (lb)				
10	465001	19.00	18.00	.25	25				
10	465002	19.00	18.00	.38	37				
10	465003	19.00	18.00	.50	50				
20	465004	30.00	18.00	.25	39				
20	465005	30.00	18.00	.38	59				
20	465006	30.00	18.00	.50	78				
35/50	465007	36.00	24.00	.25	62				
35/50	465008	36.00	24.00	.38	94				
35/50	465009	36.00	24.00	.50	123				
35/50	465010	36.00	24.00	.75	184				
70	465015	48.00	27.00	.25	93				
70	465016	48.00	27.00	.38	140				
70	465017	48.00	27.00	.50	186				
70	465018	48.00	27.00	.75	279				

Re	Reservoir Top Dimensions (inches)									
		D	Piece							
Capacity (gal)	Part No.	A	В	С	Weight (lb)					
90	465019	60.00	27.00	.25	116					
90	465020	60.00	27.00	.38	175					
90	465021	60.00	27.00	.50	232					
90	465022	60.00	27.00	.75	348					
130/160	465023	60.00	30.00	.25	129					
130/160	465024	60.00	30.00	.38	194					
130/160	465026	60.00	30.00	.50	258					
130/160	465027	60.00	30.00	.75	387					
130/160	465028	60.00	30.00	1.00	516					
210	465034	72.00	36.00	.25	186					
210	465035	72.00	36.00	.38	278					
210	465036	72.00	36.00	.50	371					
210	465037	72.00	36.00	.75	566					
210	465038	72.00	36.00	1.00	736					

#### **Ordering Information:**

- Reservoirs do not include Removable Tops
- Removable Tops are ordered as separate items
- Please use LDI part number when ordering

Example:	465009	)
-		
Cover Part No. —		

**Note:** Removable Top in example is a .38 inch thick top for a 35 gallon RT Reservoir

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

03/18



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## CONTAINMENT TRAY

Containment trays are an optional accessory to JIC type reservoirs to contain minor leaks or weapage from system components during normal operation. Proper containment of these escaping fluids may help to limit contamination of the nearby environment and provide safer working conditions in areas otherwise negatively affected when exposed to the escaping fluid from the system. Reservoirs are sold separately.

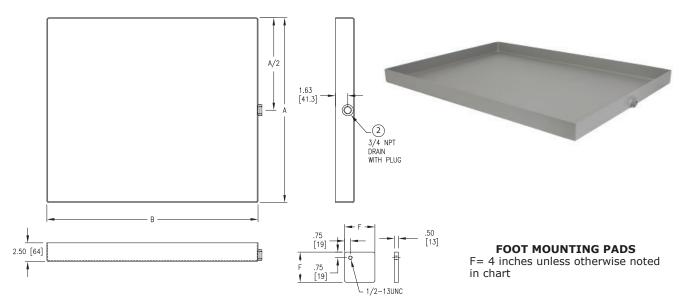
#### **Standard Features:**

- 1. Mate with JIC type reservoirs ranging in size from 10 to 500 gallons
- 2. (1) 3/4 inch NPT drain port with plug
- 3. Foot mounting pads shipped loose
- 4. Prime painted LDI gray

- 5. Material
  - Carbon steel construction

NOTE • Drain plugs need to be sealed and tightened before use

> See page 16 for reservoir/containment tray assembly



NOTE: All dimensions are inches [mm]

Ph : 920-682-6877 Fx : 920-684-7210

		Dimer	ay nsions hes)	Re		rvo pe	oir	
Reservoir Capacity (gal)	Part No.	A	В	Style A	Style B	Style RB	Style RT	Piece Weight (lb)
10	DPA-10	24.50	28.00	•		•	•	42
15	DPA-15	24.50	32.00	•		•		42
20	DPA-20	24.50	36.00	•			•	50
20	DPB-20	27.50	38.00		•	•		57
30	DPA-30	30.50	42.00	•		•		66
35	DPA-30	30.50	42.00				•	66
40	DPA-30	30.50	42.00	•		•		66
50	DPA-30	30.50	42.00	•		•	•	66
60	DPA-60	33.50	54.00	•				87
60	DPB-60	31.50	44.00		•	•		70
70	DPA-60	33.50	54.00				•	87
80	DPA-80	33.50	66.00	•				102
80	DPB-80	36.50	53.00		•	•		91
90	DPA-80	33.50	66.00				•	102

		Dime	ay nsions hes)	Re		rvo pe	oir	
Reservoir Capacity (gal)	Part No.	A	В	Style A	Style B	Style RB	Style RT	Piece Weight (lb)
100	DPA-80	33.50	66.00	•				91
100	DPB-80	36.50	53.00		•	•		102
120	DPA-120	36.50	66.00	•	•	•		110
130	DPA-120	36.50	66.00				•	110
150	DPA-120	36.50	66.00	•	•	•		110
160	DPA-120	36.50	66.00				•	110
200	DPA-200	42.50	78.00	•	•	•		144
210	DPA-200	42.50	78.00				•	144
250	DPA-200	42.50	78.00		•			144
300	DPA-200	42.50	78.00	•				144
300	* DPB-300	54.50	88.00			•		200
400	* DPA-400	54.50	78.00	•				179
500	* DPA-400	54.50	78.00	•				179
	* 5 inch foot	mounting	pads for	the	se p	art	nun	nbers.

**NOTE**: For Reservoir sizes not listed or custom sizes — consult

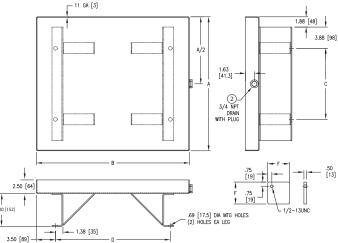
factory

## **CONTAINMENT STAND**

Containment stands with integral containment tray are an optional accessory to JIC type reservoirs to contain minor leaks or weapage from system components during normal operation. The stand feature provides for more convenient movement and placement of the system within the work place once assembled. Proper containment of fluids escaping from the system may help to limit contamination of the nearby environment and provide safer working conditions in areas otherwise negatively affected when exposed to the escaping fluid. Reservoirs are sold separately.

#### **Standard Features:**

- 1. Mate with JIC type reservoirs ranging in size from 10 to 500 gallons
- 2. (1) 3/4 inch NPT drain port with plug
- 3. Foot mounting pads (shipped loose)
- 4. Prime painted LDI gray
- 5. Material:
  - Carbon steel construction
- $\ensuremath{\textbf{NOTE}}$  Drain plugs need to be sealed and tightened before use
  - See page 16 for reservoir/containment stand assembly
  - Part numbers are for 6 inch high containment stands.
  - For 12 inch high containment stands, substitute -12 in part number example: **DSA-10-12**



NOTE: All dimensions are inches [mm]

		Sta	nd Dir	mensi	ons	R	256	rvo	nir		
		560		hes)	0113	-		рe	<b>,</b>		
Reservoir Capacity (gal)		A	В	С	D	Style A	Style B	Style RB	Style RT	Wei	ece ight os) 12 inch
10	DSA-10-6	24.50	28.00	13.00	21.00	•		•	•	72	91
15	DSA-15-6	24.50	32.00	13.00	25.00	•		•		72	91
20	DSA-20-6	24.50	36.00	13.00	29.00	•			•	80	99
20	DSB-20-6	27.50	38.00	16.00	31.00		•	•		91	113
30	DSA-30-6	30.50	42.00	19.00	35.00	•		•		104	127
35	DSA-30-6	30.50	42.00	19.00	35.00				•	104	127
40	DSA-30-6	30.50	42.00	19.00	35.00	•		•		104	127
50	DSA-30-6	30.50	42.00	19.00	35.00	•		•	•	104	127
60	DSA-60-6	33.50	54.00	22.00	47.00	•				130	155
60	DSB-60-6	31.50	44.00	20.00	37.00		•	•		110	135
70	DSA-60-6	33.50	54.00	22.00	47.00				•	130	155
80	DSA-80-6	33.50	66.00	22.00	59.00	•				144	180
80	DSB-80-6	36.50	53.00	25.00	46.00		•	•		138	171
90	DSA-80-6	33.50	66.00	22.00	59.00				•	148	184
100	DSA-80-6	33.50	66.00	22.00	59.00	•				148	184
100	DSB-80-6	36.50	53.00	25.00	46.00		•	•		142	181
120	DSA-120-6	36.50	66.00	25.00	59.00	•	•	•		161	190
130	DSA-120-6	36.50	66.00	25.00	59.00				•	161	190
150	DSA-120-6	36.50	66.00	25.00	59.00	•	•	•		160	189
160	DSA-120-6	36.50	66.00	25.00	59.00				•	160	189
200	DSA-200-6	42.50	78.00	31.00	71.00	•	•	•		205	238
210	DSA-200-6	42.50	78.00	31.00	71.00				•	205	238
250	DSA-200-6	42.50	78.00	31.00	71.00		•			205	238
300	DSA-200-6	42.50	78.00	31.00	71.00	•				205	238
300	* DSB-300-6	54.50	88.00	43.00	81.00		•	•		278	314
400	*DSA-400-6	54.50	78.00	43.00	71.00	•				256	298
500	*DSA-400-6	54.50	78.00	43.00	71.00	•				256	298
	* 5 inch foot n	nounting	g pads f	or these	e part n	umi	bers	5.			

## FOOT MOUNTING PADS

F= 4 inches unless otherwise noted in chart



Note: For reservoir sizes not listed or custom sizes - consult factory

Ph : 920-682-6877 Fx : 920-684-7210



## **OVERHEAD RESERVOIR BASE - BOTTOM SECTION**

## 10 to 100 Gallon Reservoir Capacity

Containment trays are an optional accessory to JIC type reservoirs to contain minor leaks or weapage from system components during normal operation. Proper containment of these escaping fluids may help to limit contamination of the nearby environment and provide safer working conditions in areas otherwise negatively affected when exposed to the escaping fluid from the system. Reservoirs are sold separately.

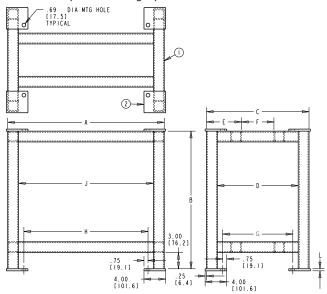
## **Standard Features:**

- 1. Square tube construction
- 2. (4) .38 inch thick (.69 inch dia clearance hole) mounting pads (shipped loose)
- 3. Mate with JIC type reservoirs ranging in size from 10 to 100 gallons
- 4. Base provides 3.38 inches of floor clearance
- 5. Prime painted LDI gray

## 6. Material:

Carbon steel construction

**NOTE** • See page 16 for reservoir containment stand assembly



.69 DIA MTG HOLE [17.5]
TYPICAL

**FOOT MOUNTING PADS** 

N= 4 inches (10 to 210 GALLON) N= 5 inches (250 GALLON AND UP)

NOTE: All dimensions are inches [mm]

		Ov	erhea	d Res	ervoir	Base I	Dimen	sions	(inche	es)		Re	ese Ty	rvo pe	oir	
Reservoir Size (gal)	Part No.	A	В	С	D	E	F	G	н	J	L	Style A	Style B	Style RB	Style RT	Piece Weight (lbs)
10	V-7202-B	21.00	25.50	19.00	15.00	6.50	6.00	13.00	15.00	17.00	.38	•				97
10	V-7217-B	23.00	25.50	17.00	13.00	5.50	6.00	11.00	17.00	19.00	.38		•	•		97
10	V-7299-B	18.25	24.50	19.00	15.00	6.50	6.00	13.00	12.25	12.25	.38				•	97
15	V-7203-B	25.00	25.50	19.00	15.00	6.50	6.00	13.00	19.00	21.00	.38	•		•		103
20	V-7204-B	29.00	25.50	19.00	15.00	6.50	6.00	13.00	23.00	25.00	.38	•			•	109
20	V-7218-B	31.00	25.50	22.00	18.00	8.00	6.00	16.00	25.00	27.00	.38		•	•		115
30	V-7205-B	35.00	25.50	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	•		•		126
35	V-7205-B	35.00	25.50	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38				•	126
40	V-7205-B	35.00	25.50	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	•		•		126
50	V-7205-B	35.00	25.50	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	•		•	•	126
60	V-7208-B	47.00	31.75	28.00	24.00	9.50	9.00	22.00	41.00	43.00	.38	•				156
60	V-7220-B	37.00	31.75	26.00	22.00	8.50	9.00	20.00	31.00	33.00	.38		•	•		139
70	V-7208-B	47.00	31.75	28.00	24.00	9.50	9.00	22.00	41.00	43.00	.38				•	156
80	V-7209-B	59.00	30.75	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38	•				172
80	V-7221-B	46.00	30.75	31.00	27.00	11.00	9.00	25.00	40.00	42.00	.38		•	•		157
90	V-7210-B	59.00	36.00	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38				•	180
100	V-7210-B	59.00	36.00	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38	•				180
100	V-7222-B	46.00	30.75	31.00	27.00	11.00	9.00	25.00	40.00	42.00	.38		•	•		157

Note: For reservoir sizes not listed or custom sizes - consult factory

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

## **OVERHEAD RESERVOIR BASE - BOTTOM SECTION**

## 120 to 500 Gallon Reservoir Capacity

Containment trays are an optional accessory to JIC type reservoirs to contain minor leaks or weapage from system components during normal operation. Proper containment of these escaping fluids may help to limit contamination of the nearby environment and provide safer working conditions in areas otherwise negatively affected when exposed to the escaping fluid from the system. Reservoirs are sold separately.

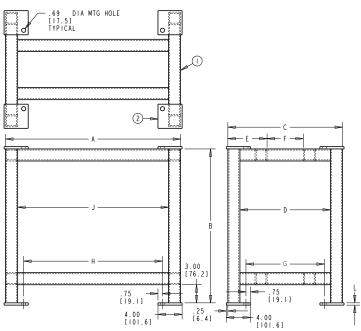
## **Standard Features:**

- 1. Square tube construction
- 2. (4) .38 or .50 inch thick (.69 inch dia clearance hole) mounting pads (shipped loose)
- 3. Mate with JIC type reservoirs ranging in size from 120 to 500 gallons
- 4. Base provides 3.38 inches of floor clearance
- 5. Prime painted LDI gray

#### 6. Material:

Carbon steel construction

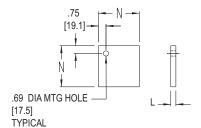
**NOTE** • See page 16 for reservoir containment stand assembly





ያት : 920-682-6877 fx : 920-684-7210





**FOOT MOUNTING PADS** 

N= 4 inches (10 to 210 GALLON) N= 5 inches (250 GALLON AND UP)

			(	Overhe	ead Re	servoi	r Bas	e Dime	ension	s (inch	nes)		Re	ese Ty		ir	
Reservoir Size (gal)	Part No.	A	В	С	D	E	F	G	н	J	L	М	Style A	Style B	Style RB	Style RT	Piece Weight (lbs)
120	V-7211-B	59.00	36.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19	•				184
120	V-7223-B	59.00	30.75	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19		•	•		176
130	V-7211-B	59.00	36.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19				•	184
150	V-7211-B	59.00	36.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19	•				184
150	V-7223-B	59.00	30.75	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19		•	•		176
160	V-7212-B	59.00	36.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19				•	184
200	V-7213-B	71.00	36.00	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19	•				210
200	V-7225-B	71.00	30.75	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19		•	•		202
210	V-7213-B	71.00	36.00	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19				•	210
250	V-7384-B	71.00	30.75	37.00	31.00	14.00	9.00	29.00	63.00	65.00	.50	3.00 x .19		•			328
300	V-7214-B	71.00	40.00	37.00	31.00	14.00	9.00	29.00	63.00	65.00	.50	3.00 x .19	•				340
300	V-7226-B	81.00	30.75	49.00	43.00	20.00	9.00	41.00	73.00	75.00	.50	3.00 x .19		•	•		369
400	V-7215-B	71.00	40.00	49.00	43.00	20.00	9.00	41.00	63.00	65.00	.50	3.00 x .19	•				367
400	V-7227-B	95.00	30.75	73.00	67.00	32.00	9.00	65.00	87.00	89.00	.50	3.00 x .19		•			456
500	V-7215-B	71.00	40.00	49.00	43.00	20.00	9.00	41.00	63.00	65.00	.50	3.00 x .19	•				367

Note: For reservoir sizes not listed or custom sizes - consult factory

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

## **OVERHEAD RESERVOIR BASE - TOP SECTION**

## 10 to 100 Gallon Reservoir Capacity

The top section overhead reservoir base is designed to be mounted to a bottom section for additional components. Together these overhead reservoir bases provide the system framework required to vertically layer mounting of the reservoir and other major system components to minimize the overall system footprint. Reservoirs are sold separately.

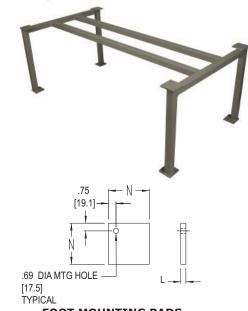
#### **Standard Features:**

- 1. Square tube construction, 2.00 x .19W
- 2. (4) .38 inch thick (.69 inch dia clearance hole) mounting pads (shipped loose)
- 3. Mate with JIC type reservoirs ranging in size from 10 to 100 gallons
- 4. Designed to be assembled to a bottom section overhead reservoir base
- 5. Prime painted LDI gray



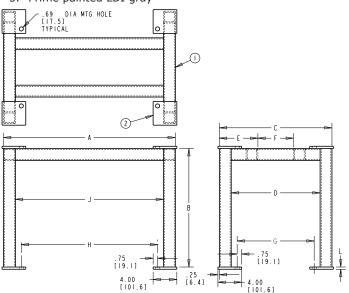
· Carbon steel construction

**NOTE** • See page 16 for reservoir containment stand assembly



FOOT MOUNTING PADS

N= 4 inches (10 to 210 GALLON) N= 5 inches (250 GALLON AND UP)



NOTE: All dimensions are inches [mm]

		Ov	erhea	d Rese	ervoir	Base I	Dimen	sions	(inche	es)		Re		rvo pe	oir	
Reservoir Capacity (gal)	Part No.	A	В	С	D	E	F	G	н	J	L	Style A	Style B	Style RB	Style RT	Piece Weight (lbs)
10	V-7202-T	21.00	20.00	19.00	15.00	6.50	6.00	13.00	15.00	17.00	.38	•				65
10	V-7217-T	23.00	20.00	17.00	13.00	5.50	6.00	11.00	17.00	19.00	.38		•	•		65
10	V-7299-T	18.25	21.00	19.00	15.00	6.50	6.00	13.00	12.25	14.25	.38				•	65
15	V-7203-T	25.00	20.00	19.00	15.00	6.50	6.00	13.00	19.00	21.00	.38	•		•		68
20	V-7204-T	29.00	20.00	19.00	15.00	6.50	6.00	13.00	23.00	25.00	.38	•			•	71
20	V-7218-T	31.00	20.00	22.00	18.00	8.00	6.00	16.00	25.00	27.00	.38		•	•		75
30	V-7205-T	35.00	20.00	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	•		•		80
35	V-7205-T	35.00	20.00	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38				•	80
40	V-7205-T	35.00	20.00	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	٠		٠		80
50	V-7205-T	35.00	20.00	25.00	21.00	9.50	6.00	19.00	29.00	31.00	.38	•		•	•	80
60	V-7208-T	47.00	25.75	28.00	24.00	9.50	9.00	22.00	41.00	43.00	.38	•				99
60	V-7220-T	37.00	25.75	26.00	22.00	8.50	9.00	20.00	31.00	33.00	.38		•	•		90
70	V-7208-T	47.00	25.75	28.00	24.00	9.50	9.00	22.00	41.00	43.00	.38				•	99
80	V-7209-T	59.00	25.75	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38	•				108
80	V-7221-T	46.00	25.75	31.00	27.00	11.00	9.00	25.00	40.00	42.00	.38		•	•		100
90	V-7210-T	59.00	28.00	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38				•	110
100	V-7210-T	59.00	28.00	28.00	24.00	9.50	9.00	22.00	53.00	55.00	.38	•				110
100	V-7222-T	46.00	25.75	31.00	27.00	11.00	9.00	25.00	40.00	42.00	.38		•	•	•	100

Note: For reservoir sizes not listed or custom sizes - consult factory



## **OVERHEAD RESERVOIR BASE - TOP SECTION**

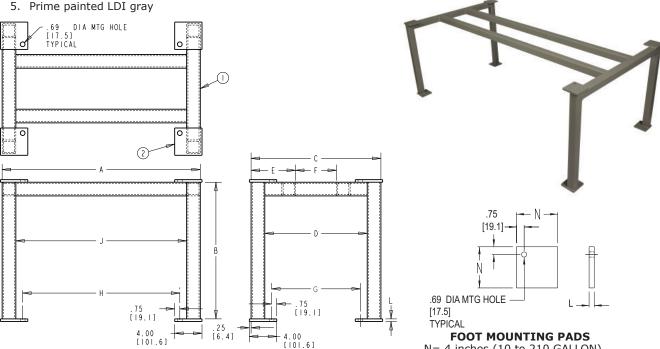
## 120 to 500 Gallon Reservoir Capacity

The top section overhead reservoir base is designed to be mounted to a bottom section for additional components. Together these overhead reservoir bases provide the system framework required to vertically layer mounting of the reservoir and other major system components to minimize the overall system footprint. Reservoirs are sold separately.

## **Standard Features:**

- 1. Square tube construction
- 2. (4) .38 or .50 inch thick (.69 inch dia clearance hole) mounting pads (shipped loose)
- 3. Mate with JIC type reservoirs ranging in size from 120 to 500 gallons
- 4. Designed to be assembled to a bottom section overhead reservoir base
- 6. Material:
  - Carbon steel construction

NOTE • See page 16 for reservoir containment stand assembly



**NOTE:** All dimensions are inches [mm]

N= 4 inches (10 to 210 GALLON) N= 5 inches (250 GALLON AND ÚP)

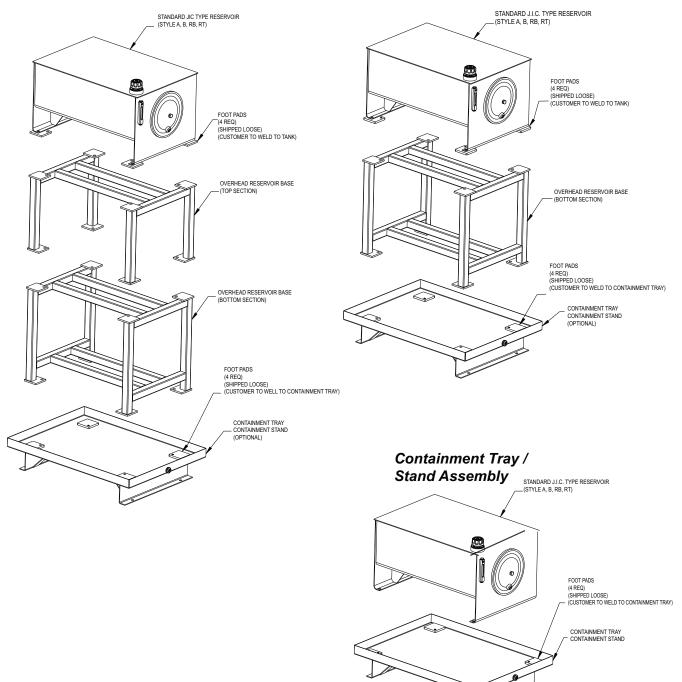
	Servoir spacity (gal)   Part No.   A   B   C   D   E   F   G   H   J   L   M   V   V   V   V   V   V   V   V   V														oir		
Reservoir Capacity (gal)	Part No.	A	В	C	D	E	F	G	н	J	L	М	Style A		<b>(1)</b>	Style RT	Piece Weight (lbs)
120	V-7211-T	59.00	28.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19	•				115
120	V-7223-T	59.00	25.75	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19		•	•		109
130	V-7211-T	59.00	28.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19				•	115
150	V-7211-T	59.00	28.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19	•				115
150	V-7223-T	59.00	25.75	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19		•	•		109
160	V-7212-T	59.00	28.00	31.00	27.00	11.00	9.00	25.00	53.00	55.00	.38	2.00 x .19				•	115
200	V-7213-T	71.00	28.00	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19	•				128
200	V-7225-T	71.00	25.75	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19		•	•		123
210	V-7213-T	71.00	28.00	37.00	33.00	14.00	9.00	31.00	65.00	67.00	.38	2.00 x .19				•	128
250	V-7384-T	71.00	25.75	37.00	31.00	14.00	9.00	29.00	63.00	65.00	.50	3.00 x .19		•			202
300	V-7214-T	71.00	28.00	37.00	31.00	14.00	9.00	29.00	63.00	65.00	.50	3.00 x .19	•				202
300	V-7226-T	81.00	25.75	49.00	43.00	20.00	9.00	41.00	73.00	75.00	.50	3.00 x .19		•	•		223
400	V-7215-T	71.00	40.00	49.00	43.00	20.00	9.00	41.00	63.00	65.00	.50	3.00 x .19	•				244
400	V-7227-T	95.00	25.75	73.00	67.00	32.00	9.00	65.00	87.00	89.00	.50	3.00 x .19		•			266
500	V-7215-T	71.00	40.00	49.00	43.00	20.00	9.00	41.00	63.00	65.00	.50	3.00 x .19	•				244

Note: For reservoir sizes not listed or custom sizes - consult factory

# RESERVOIR CONTAINMENT STAND ASSEM

## **Double Overhead** Reservoir Assembly

## Single Overhead Reservoir Assembly



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

02/14

## SERVOIRS W/INTEGRAT

## STYLE C, L-SHAPED

The Style C, L-Shaped Series provide users with a vertical reservoir and an adjacent platform for mounting system components. The reservoir cover is hinged for convenient access to the inside of the reservoir. The reservoir and platform are fully supported by and welded to a skid allowing for most system assembly to be completed remotely and then transported to another location for drop in installation.

#### Standard Features:

- 1. (1) 5 inch G1620 Series sight gage on capacities of less than 300 gallons; (1) 10 inch G1615 Series sight gage on 300 gallon capacities and above
- 2. (1) 5201 Filler Breather
- 3. (1) Hinged Cover with gasket
- 4. (1) 3/4 inch NPT drain with plug
- 5. (2) T-Handles, (3) for 200 gallon and up
- 6. Baffle(s) with cutout for circulation
- 7. Exterior painted with a LDI gray primer

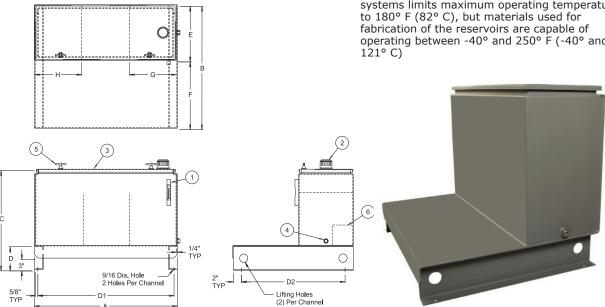
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications. For these applications, consult the factory.

- 8. Interior coated with rust preventative oil
- 9. 100 gallon and 120 gallon include (1) door chain (not shown)
- 10. Materials
  - · Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gage
  - Zinc plated fill cap with nylon strainer basket

#### **NOTE** • Drain plugs need to be sealed and tightened before use

- · Sight gage, filler breather and T-handles shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and



NOTE: All dimensions are inches

				1	ank D	imensi	ons (in	ches)				
Capacity	Devis No.					_	_				Centers	Piece Weight
(gal)	Part No.	Α	В	С	D	Е	F	G	Н	D1 ± .12	<b>D2±</b> .12	(lbs)
10	VL-10	24.00	23.38	23.88	6.00	11.12	12.25	11.00	N/A	22.25	19.00	129
20	VL-20	30.00	27.38	25.88	6.00	13.50	13.88	12.00	N/A	28.25	23.00	180
30	VL-30	36.00	30.38	29.88	6.00	13.75	16.62	12.00	N/A	34.25	26.00	231
45	VL-45	54.00	31.38	29.88	6.00	13.75	17.62	12.00	12.00	52.25	27.00	335
60	VL-60	48.00	37.38	35.75	6.00	16.75	20.62	16.00	N/A	46.25	33.00	362
80	VL-80	66.00	38.56	35.94	6.00	16.38	22.00	16.00	16.00	64.25	34.00	670
100	VL-100	60.00	42.56	38.94	6.00	19.38	23.00	16.00	N/A	58.25	38.00	715
120	VL-120	72.00	42.56	39.06	6.00	19.38	23.00	16.00	16.00	70.25	38.00	836
150	VL-150	72.00	50.56	39.06	6.00	25.38	25.00	16.00	N/A	70.25	46.00	939
200	VL-200	84.00	51.56	42.06	6.00	25.38	26.00	16.00	16.00	82.25	47.00	1128
300	VL-300	84.00	60.00	54.19	6.00	25.38	34.44	16.00	16.00	82.25	55.50	1400
400	VL-400	84.00	60.00	54.19	6.00	28.38	31.44	16.00	16.00	82.25	55.50	1610
500	VL-500	84.00	60.00	60.19	6.00	32.38	27.44	18.00	18.00	82.25	55.50	1782
600	VL-600	90.00	62.00	66.19	6.00	30.38	31.44	22.00	22.00	88.25	57.50	1838



## STYLE C, T-SHAPED

The Style C, T-Shaped Series provide users with a vertical reservoir straddled by platforms for mounting system components. The reservoir cover is hinged for convenient access to the inside of the reservoir. The reservoir and platforms are fully supported by and welded to a skid allowing for most system assembly to be completed remotely and then transported to another location for drop in installation.

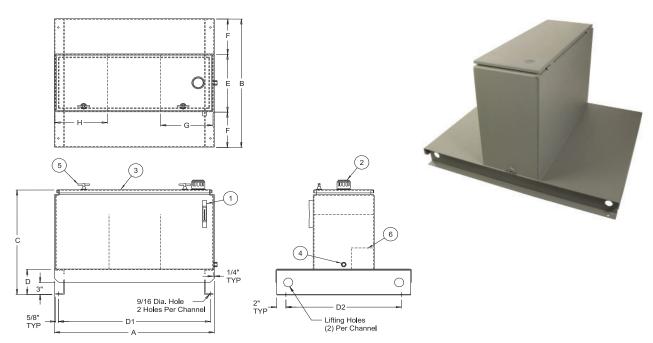
#### **Standard Features:**

- 1. (1) 5 inch G1620 Series sight gage on capacities of less than 300 gallons; (1) 10 inch G1620 Series sight gage on 300 gallon capacities and above
- 2. (1) 5201 filler breather
  - Bayonet style 40 micron
- 3. (1) Hinged Cover with gasket
- 4. (1) 3/4 inch NPT drain with plug
- 5. (2) T-handles
  - (3) for 200 & 300 gallon tanks
  - Baffle(s) with cutout for circulation
- 6. Reservoir covers are secured with multiple T-handle latches and supported by chain when opened
- 7. Exterior painted with a LDI gray primer
- 8. Interior coated with rust preventative oil

#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications. For these applications, consult the factory.

- 9. 100 gallon to 300 gallon include (1) door chain (not shown)
- 10. Materials
  - · Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gage
  - Zinc plated fill cap with nylon strainer basket
- **NOTE** Drain plugs need to be sealed and tightened before use
  - Sight gage, filler breather and T-handles shipped loose inside reservoir
  - Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches

				1	ank D	imensi	ons (in	ches)				
Capacity										Mounting	Centers	Shipping Weight
(gal)	Part No.	A	В	С	D	E	F	G	н	D1 ± .12	D2± .12	(lbs)
20	VLT-20	30.00	40.62	25.88	6.19	13.50	13.56	12.00	N/A	28.25	36.25	220
60	VLT-60	48.00	58.00	35.88	6.19	16.75	20.62	16.00	N/A	46.25	53.62	455
100	<b>VLT-100</b>	60.00	66.12	39.06	6.38	19.38	23.38	16.00	N/A	58.25	61.38	944
120	VLT-120	72.00	68.12	39.06	6.38	19.38	24.38	16.00	16.00	70.25	63.38	1130
150	VLT-150	71.88	76.12	39.06	6.38	25.38	25.38	16.00	N/A	70.25	71.38	1228
200	VLT-200	84.00	78.12	42.06	6.38	25.38	26.38	16.00	16.00	82.25	73.38	1470
300	VLT-300	83.88	77.75	54.19	6.50	25.38	26.19	16.00	16.00	82.25	73.25	1839

## RESERVOIRS W/INTEGRATED SKIDS

## STYLE D, CUSTOM L-SHAPED

The Style D, L-Shaped Series provide users with a vertical reservoir and an adjacent platform for mounting system components. The reservoir cover is hinged for convenient access to the inside of the reservoir. The reservoir and platform are fully supported by and welded to a skid allowing for most system assembly to be completed remotely and then transported to another location for drop in installation.

#### **Standard Features:**

- 1. (1) 5 inch G1620 Series sight gage
- 2. (1) Riser with 5201 Filler Breather
  - Bayonet style 40 micron
- 3. Baffle with cutout for circulation
- 4. (1) 3/4 inch NPT drain with plug
- 5. (1) Return connection
- 6. Channel gasket installed on reservoirs with bolt-on top
- 7. Exterior painted with a LDI gray primer
- 8. Interior coated with rust preventative oil

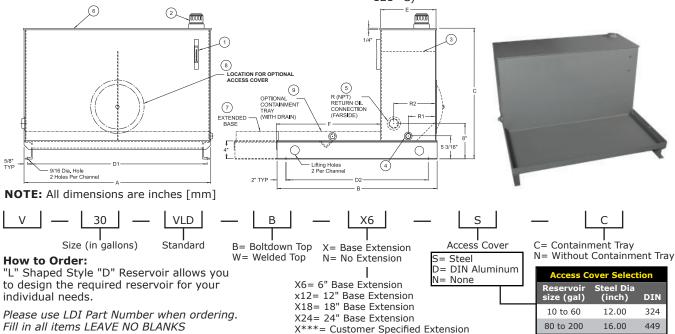
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 9. Materials
  - Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gage
  - Zinc plated fill cap with nylon strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Channel gasket installed on reservoirs with bolt-on top
- Mounting hardware is supplied with bolt-on tops
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



				Та	nk Dimens	sions (inc	hes)				
						Mountin	g Centers	Retu	rn Connec	tions	Piece
Capacity (gal)	LDI Model Code	A	В	С	E F	D1	D2	R1	R2	R	Weight (lbs)
10	VLD	24.00	22.00	26.31 6.5	0 15.44	22.25	18.00	3.06	4.50	.50	151
20	VLD	36.00	27.00	26.31 7.5	0 19.44	34.25	23.00	3.56	5.50	1.00	238
30	VLD	36.00	30.00	28.31 10.	50 19.44	34.25	26.00	5.06	7.50	1.50	258
45	VLD	42.00	36.00	29.31 12.	50 23.44	40.25	32.00	6.06	9.50	1.50	327
60	VLD	42.00	36.00	29.31 16.	50 19.44	40.25	32.00	8.06	13.50	1.50	351
80	VLD	48.00	42.00	30.31 18.	50 23.50	46.25	38.00	9.06	15.50	1.50	432
100	VLD	50.00	47.00	31.38 21.	50 25.50	48.25	43.00	10.56	18.50	2.00	493
120	VLD	52.00	50.00	32.38 22.	50 27.50	50.25	46.00	11.06	19.50	2.00	528
150	VLD	60.00	50.00	33.38 22.	50 27.50	58.25	46.00	11.06	19.50	2.00	605
200	VLD	60.00	57.00	40.38 25.	50 31.50	58.25	53.00	12.56	22.50	2.00	771

\*Note: Dimensions above do not include extensions

h : 920-682-6877 x : 920-684-7210

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

## RESERVOIRS W/INTEGRATED SKIDS

## STYLE F, L-SHAPED

The Style F, L-Shaped Series provide users with a vertical reservoir and an adjacent platform for mounting system components. The reservoir cover is partially hinged for convenient access to the inside of the reservoir, but also has a welded section designed for mounting accessories directly to the top of the reservoir. The reservoir and platform are fully supported by and welded to a skid allowing for most system assembly to be completed remotely and then transported to another location for drop-in installation.

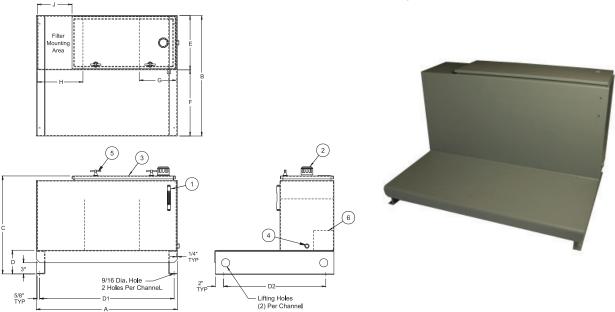
#### **Standard Features:**

- ((1) 5 inch G1620 Series sight gage on capacities of less than 300 gallons; (1) 10 inch G1620 Series sight gage on 300 gallon capacities and above
- 2. (1) 5201 filler breather
  - Bayonet style 40 micron
- 3. (1) Hinged cover with gasket
- 4. (1) 3/4 inch NPT drain with plug
- 5. (2) T-handles
  - •(3) for 200 gallon and up
- 6. Baffle(s) with cutout for circulation
- 7. Reservoir covers are secured with multiple T-handle latches and supported by chain when opened
- 8. Exterior painted with a LDI gray primer

## **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 9. Interior coated with rust preventative oil
- 10. 100 gallon to 600 gallon include (1) door chain (not shown)
- 11. Materials
  - Carbon steel reservoir
  - Buna N seals
  - Aluminum sight gage
  - Zinc plated fill cap with nylon strainer basket
- **NOTE** Drain plugs need to be sealed and tightened before use
  - Sight gage, filler breather and T-handles shipped loose inside reservoir
  - Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches [mm]

					Tan	ık Dime	ension	s (incl	nes)				
Capacity										WELDED	Mounting	g Centers	Piece Weight
(gal)	Part No.	Α	В	С	D	E	F	G	н	TOP J	D1 ± .12	D2 ± .12	(lbs)
80	V25880	59.88	38.38	36.06	6.38	13.38	25.00	16.00	16.00	12.00	58.25	34.00	574
100	V258100	59.88	42.56	36.06	6.38	16.38	26.00	16.00	16.00	12.00	58.25	38.00	720
120	V258120	72.00	42.56	36.06	6.38	16.38	26.00	16.00	16.00	12.00	70.25	38.00	847
150	V258150	72.00	50.56	39.06	6.38	18.38	32.00	16.00	16.00	12.00	70.25	46.00	945
200	V258200	84.00	51.56	42.06	6.38	18.38	33.00	16.00	24.00	16.00	82.25	47.00	1136
300	V258300	84.00	60.00	54.19	6.50	25.38	34.44	16.00	24.00	16.00	82.25	55.50	1409
400	V258400	84.00	60.00	54.19	6.50	28.38	31.44	16.00	24.00	16.00	82.25	55.50	1618
500	V258500	84.00	60.00	60.19	6.50	32.38	27.44	18.00	24.00	18.00	82.25	55.50	1793
600	V258600	90.00	62.00	66.19	6.50	30.38	31.44	22.00	30.00	20.00	88.25	57.50	1849

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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## HORIZONTAL REMOVABLE TOP

The non-JIC type horizontal steel reservoirs have a bolt on top and an internal baffle extending from one end with clearance above and on the return side of the reservoir. The reservoirs have a low profile flat bottom with mounting feet outward from the ends. Each reservoir is supplied with a sight gage, filler breather, steel top and top cover gasket.

## **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. Filler breather (no hole provided)
  - Bayonet style 40 micron
- 3. (1) 3/4 inch NPT drain with plug
- 4. Top plate gasket
- 5. Steel construction with removable top
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative oil

#### **CAUTION:**

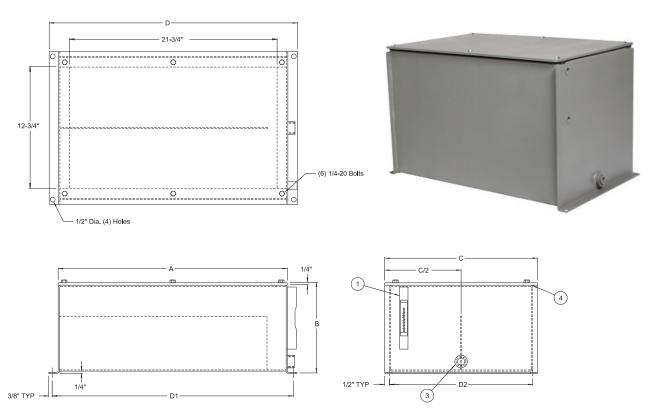
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

#### 8. Materials

- Carbon steel construction
- Buna N sight gage seals and neoprene top gasket
- Transparent molded nylon sight gage with black powder coated steel guard
- Zinc plated fill cap with nylon strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)



NOTE: All dimensions are inches [mm]

		Ta	ank Dim	ension	s (inche	es)		
Capacity						Mounting	i	Piece Weight
(gal)	Part No.	Α	В	С	D	D1 ± .12	D2± .12	(lbs)
10	V5300	24.00	9.75	16.00	26.00	25.25	15.00	72
20	V5301	24.00	15.75	16.00	26.00	25.25	15.00	80
30	V5302	24.00	21.75	16.00	26.00	25.25	15.00	112
40	V5303	24.00	27.75	16.00	26.00	25.25	15.00	133

LDI Part Number No Baffle	
V215310	
V215320	
V215330	
V215340	

## HORIZONTAL W/WELDED TOP (SMALL)

The small non-JIC type horizontal steel reservoirs with welded on top have an internal baffle extending from one end with clearance above and on the return side of the reservoir. The reservoirs have a low profile flat bottom with mounting feet outward from the ends. Clean-out access is provided from each end of the reservoir to facilitate cleaning on both sides of the baffle. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. Filler breather (no hole provided)
  - Bayonet style 40 micron
- 3. (2) 6 inch access covers
- 4. Baffle with cutout for circulation
- 5. (1) 3/4 inch NPT drain with plug
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative oil

#### **CAUTION:**

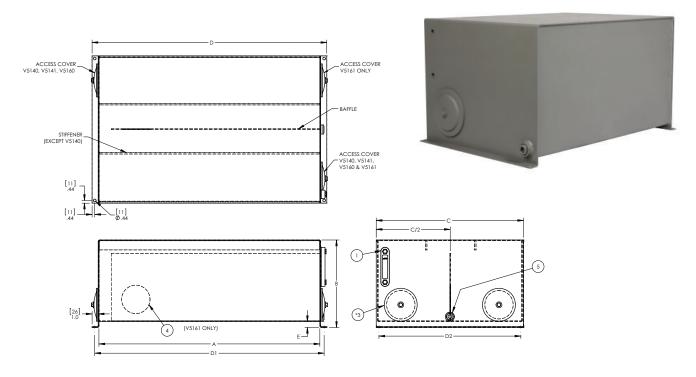
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

#### 8. Materials

- Carbon steel construction
- Buna N seals
- Transparent molded nylon sight gage with black powder coated steel guard
- Zinc plated fill cap with nylon strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)



NOTE: All dimensions are inches [mm]

h: 920-682-6877

x: 920-684-7210

	Tank Dimensions (inches)													
Capacity			Mounting	Centers	Piece Weight									
(gal)	Part No.	Α	В	С	D	E	<b>D1</b> ± .12	<b>D2±</b> .12	(lbs)					
10	V5140	20.00	12.25	14.00	22.25	.69	21.38	13.12	55					
20	V5141	24.00	14.25	18.00	26.25	.82	25.38	17.12	84					
30	V5160	36.00	14.25	18.00	38.25	.94	37.38	17.12	114					
40	V5161	36.00	14.25	24.00	38.25	.95	37.38	23.12	138					

## HORIZONTAL W/WELDED TOP (LARGE)

The large non-JIC type horizontal steel reservoirs have welded on tops and clean-out access on each end. The reservoir design incorporates a lengthwise baffle positioned between opposing clean-out openings. The internal baffle extends the full height of the reservoir with added circulation passages. The reservoirs have a low profile flat bottom with mounting feet outward from the ends. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. Filler breather (no hole provided)
  - Bayonet style 40 micron
- 3. (2) 12 inch access covers
- 4. Baffle with cutouts for circulation
- 5. 3/4 inch NPT drain with plug
- 6. Welded top
- 7. Exterior of reservoir prime painted
- 8. Interior coated with rust preventative oil

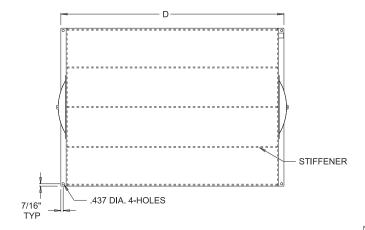
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

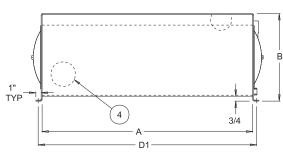
- 9. Materials
  - · Carbon steel construction
  - Buna N seals
  - Transparent molded nylon sight gage with black powder coated steel guard
  - Zinc plated fill cap with nylon strainer basket

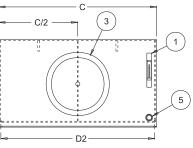
**NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)









NOTE: All dimensions are inches [mm]

	Tank Dimensions (inches)													
Canacity														
(gal)	Part No.	Α	В	С	D	D1 ± .12	D2± .12	Weight (lbs)						
60	V5162	40.00	16.62	30.00	42.38	41.50	29.12	236						
80	V5163	48.00	16.62	30.00	50.38	49.50	29.12	273						
100	V5164	52.00	16.62	36.00	54.38	53.50	35.12	290						
100	V5165	48.00	19.00	30.00	50.38	49.50	29.12	290						



## T100 SERIES

The non-JIC type horizontal steel reservoirs come fully assembled with sight gage, filler breather and bolt on top. The larger capacity reservoirs in this series utilize a baffle that reduces direct recirculation of fluid returning to the reservoir. The design incorporates a raised, flat bottom profile with mounting feet and drain connections beneath the reservoir body. No cover gasket is used on this design.

#### **Standard Features:**

- 1. Reservoir capacities ranging from 1 to 15 gallons
- Internal baffle (reservoirs capacities > 2 gallons only)
- Removable, bolt on top suitable for mounting motors, pumps and other components
- 4. Reservoir bottom is flat
- 5. 1/2 NPT drain(s) with plug(s)
- 6. Exterior painted with a LDI gray primer
- 7. Interior coated with rust preventative oil
- 8. G610 Series sight gage
- 9. No cover gasket is utilized

#### **CAUTION:**

- Reservoirs are not designed for internal positive or negative pressure applications.
   For these applications, consult the factory.
- Metal contact between cover and reservoir body seal reservoir from outside contaminants. Excessive splashing of fluid or overfill may lead to fluid leakage past the metal to metal barrier.

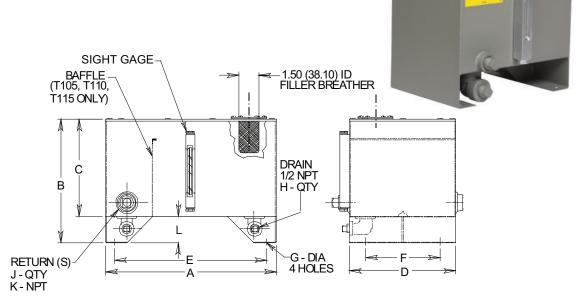
#### 10. Materials

- Carbon steel construction
- Buna N seals
- Aluminum sight gage
- Zinc plated fill cap with stainless steel strainer basket

## **NOTE** • Drain plugs need to be sealed and tightened before use

• Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)

LDI



NOTE: All dimensions are inches (mm)

	Tank Dimensions in inches (mm)												
Capa Gallons	city Liters	Part No.	Α	В	С	D	E	F	G	H Qty	J Qty	K NPT	
1	3.8	T101	6.00 (152.40)	10.00 (254.00)	7.75 (196.85)	7.50 (190.50)	4.75 (120.65)	6.25 (158.75)	.34 (8.64)	1	0	0	2.25 (57.15)
2	7.6	T102	10.00 (254.00)	10.00 (254.00)	7.75 (196.85)	7.50 (190.50)	8.75 (222.25)	6.25 (158.75)	.34 (8.64)	1	1	1/2	2.25 (57.15)
5	18.9	T105	16.00 (406.40)	11.69 (296.93)	9.19 (233.43)	10.00 (254.00)	14.25 (361.95)	7.00 (177.80)	.53 (13.46)	2	2	1	2.50 (63.50)
10	37.9	T110	20.00 (508.00)	15.19 (385.83)	12.19 (309.63)	12.00 (304.80)	18.25 (463.55)	9.00 (228.60)	.53 (13.46)	2	2	1	3.00 (76.20)
15	56.8	T115	24.00 (609.60)	15.19 (385.83)	12.19 (309.63)	15.00 (381.00)	21.75 (552.45)	12.75 (323.85)	.53 (13.46)	2	2	1	3.00 (76.20)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

01/18



## **ALUMINUM SERIES (STEEL COVER)**

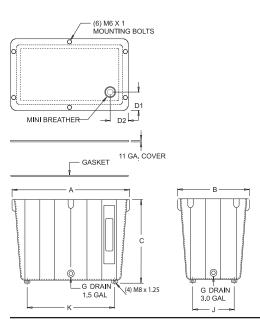
The aluminum horizontal reservoirs have a bolt on steel top. The design incorporates a low, center sloping bottom profile with tapped mounting bosses directed into the bottom of the reservoir body. Each reservoir is supplied with a steel cover, cover gasket & hardware, sight gage and filler breather.

#### **Standard Features:**

- 1. (1) Steel cover plate
- 2. (1) Mini breather (3/4 inch NPT)
- 3. (1) Cover gasket
- 4. (1) Set cover mounting hardware
- \* 5. (1) 3 inch G1620 Series sight gage on capacities of 5 gallons or less; (1) 5 inch GT623 Series sight gage on 8 gallon capacity
  - 6. Drain plug

#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.



#### 7. Materials

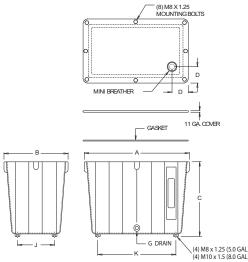
- Aluminum reservoir body
- · Carbon steel cover
- Buna N seals
- Gray polymer breather
- G1620 Series aluminum construction sight gage
- GT623 Series transparent molded nylon sight gage with black powder coated steel guard

## NOTE •\*Sight gage on opposite end on LDI Part No. V63705 reservoir

- Sight gage and filler breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)



	Tank Dimensions (inches)												
	Capacity Dimensions										Piece		
Part No.	Gallons	Liters	A	В	С	D1	D2	G BSPP	J	К	Weight (lbs)		
V63705	1.50	6.50	11.02	7.87	6.93	1.38	1.28	.25	5.12	8.27	8.50		
V63706	3.00	12.00	333 33 333 333 333 333 333 333 333										



	Tank Dimensions (inches)													
	Сара	acity			Dii	mensio	ons			Piece				
							G			Weight				
Part No.	Gallons	Liters	Α	В	С	D	BSPP	J	K	(lbs)				
V63707	5.00	20.00	14.49	11.42	9.57	1.25	.50	7.56	10.63	17.00				
V63708	8.00	30.00	19.29	13.39	11.22	1.75	.50	6.93	12.84	25.00				

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

04/20

## **VERTICAL SERIES**

The Vertical Series Non-JIC reservoirs incorporate a square body with a flat bottom that extends past the reservoir body to serve as the mounting surface of the reservoir. A sight glass and hardware to mount a cover are supplied loose with each reservoir.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage location varies by reservoir selected
- 2. (4) Cover mounting bolts
- 3. Channel gasket for cover plate seal
- 4. (1) 1/2 inch NPT drain with plug
- 5. Steel construction with customer choice of top
- 6. Exterior of reservoir prime painted
- 7. Interior of reservoir coated with rust preventative

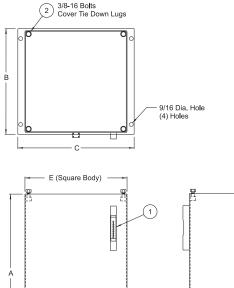
## **CAUTION:**

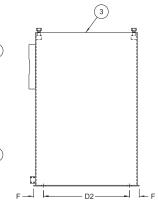
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 8. Materials
  - Carbon steel construction
  - Buna N seals
  - Transparent molded nylon sight gage with black powder coated steel guard

# **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight gage shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)
- Cover Plates Series 1, 2, 2A or 3 ordered as separate items, filler breather included with cover plate (see pages 31-34)







NOTE: All dimensions are inches

	Tank Dimensions (inches)													
Capacity (gal)	LDI Part No.	A	В	С	Mounting	Centers	E	F	G	Piece Weight (lbs)				
5	V215145	10.00	12.50	14.50	13.50	10.00	12.00	1.25	.50	23				
10	V215146	19.69	12.50	14.50	13.50	10.00	12.00	1.25	.50	39				
10	V215147	11.75	16.50	19.00	17.50	14.00	16.00	1.25	.75	37				
10	V215173	15.00	16.50	19.00	17.50	14.00	16.00	1.25	.75	44				
20	V215148	23.69	16.50	19.00	17.50	14.00	16.00	1.25	.75	62				
20	V215174	18.00	18.00	20.50	19.00	15.00	17.50	1.50	.75	56				
30	V215149	35.69	16.50	19.00	17.50	14.00	16.00	1.25	.75	88				
30	V215175	26.00	18.00	20.50	19.00	15.00	17.50	1.50	.75	74				
40	V215176	34.00	18.00	20.50	19.00	15.00	17.50	1.50	.75	93				

## **DUAL VERTICAL SERIES**

The Dual Vertical Series Non-JIC reservoirs incorporate a rectangular body and a flat bottom that extends past the reservoir body to serve as the mounting surface of the reservoir. An internal baffle divides the reservoir into two chambers but has open areas above and through the baffle for circulation between chambers. Designed to accept an independent cover for each reservoir chamber.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. (8) Cover mounting bolts
- 3. (2) Channel gaskets for cover plate seals
- 4. (1) 3/4 inch NPT drain with plug
- 5. (1) Baffle with cutouts for circulation
- 6. Partial height baffle divides reservoir into two equal size chambers and has cut outs for circulation
- 7. Reservoir covers sold separately (two required)
- 8. Exterior painted with a LDI gray primer
- 9. Interior coated with rust preventative oil

#### **CAUTION:**

h : 920-682-6877 x : 920-684-7210

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

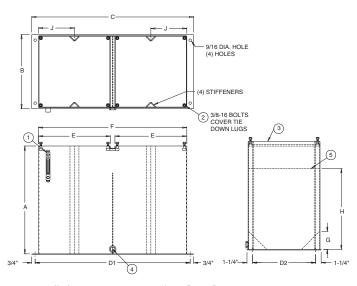
#### 10. Materials

- Carbon steel construction
- Transparent molded nylon sight gage with black powder coated steel guard
- Buna N seals

# **NOTE** - Sight gage and hardware to mount a cover provided loose with reservoir

- Drain plugs need to be sealed and tightened before use
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)
- Cover Plates Series 2 or 3 ordered as separate items, filler breather included with cover plate (see pages 31-34)





NOTE: All dimensions are inches [mm]

Series 2	Dimensio	ons (inc	ches)									
Capacity					Mounting	Centers						Piece Weight
(gal)	Part No.	Α	В	С	D1 ± .12	D2± .12	E	F	G	н	J	(lbs)
40	V215188	24.00	16.50	36.00	34.50	14.00	16.00	33.00	4.00	18.00	8.00	128
60	V215189	36.00	16.50	36.00	34.50	14.00	16.00	33.00	4.00	24.00	8.00	179

All Series 2 Vertical Reservoirs use standard LDI Series 2 cover plates. See page page 25 for cover plate availability.

Series 3	Series 3 Dimensions (inches)													
Canacity	LDI Part				Mounting	Centers						Piece Weight		
(gal)	No.	A	В	С	D1 ± .12	D2± .12	E	F	G	н	J	(lbs)		
50	V215195	22.50	18.00	39.00	37.50	15.50	17.50	36.00	5.00	19.00	8.75	135		

All Series 3 Vertical Reservoirs use standard LDI Series 3 cover plates. See page 25 for cover plate availability.



## **VARI-PAK SERIES - SMALL**

## 2, 3, & 5 GALLONS

A Vari-Pak Series reservoir is a variation of the the vertical series reservoirs. This series reservoir has a flat bottom that extends past the reservoir body to serve as the mounting surface of the reservoir. Custom, bolt-on cover configurations are available for mounting the most common system components such as filler breathers and motor adapters.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. (1) 1/2 inch NPT drain with plug
- 3. Channel gasket installed for cover plate seal
- 4. Exterior painted with a LDI gray primer
- 5. Interior coated with rust preventative oil

#### **CAUTION:**

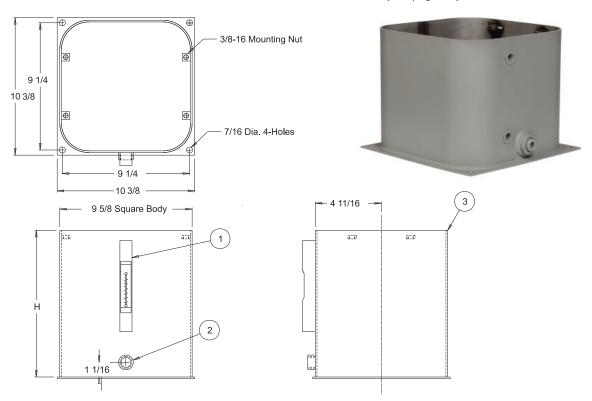
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

#### 6. Materials

- Carbon steel construction
- Transparent molded nylon sight gage with black powder coated steel guard
- Buna N seals

# **NOTE** • Sight gage and hardware to mount a cover provided loose with reservoir

- Drain plugs need to be sealed and tightened before use
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)
- Cover Plates Series 4 ordered as separate items (see page 35)



NOTE: All dimensions are inches

Ta	ank Dimensio	ons (inch	es)						
Capacity (gal)	Part No.	н	Piece Weight (lbs)						
2	V29902	8	14						
3	V29903	12	19						
5	V29905	16	23						
Weight does not include covers									

## **VARI-PAK SERIES - LARGE**

## 8,10, & 14 GALLONS

A Vari-Pak Series reservoir is a variation of the the vertical series reservoirs. This series reservoir has a flat bottom that extends past the reservoir body to serve as the mounting surface of the reservoir. Custom, bolt-on cover configurations are available for mounting the most common system components such as filler breathers and motor adapters.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. 6 inch access cover
- 3. (1) 3/4 inch NPT drain with plug
- 4. Gasket for cover plate seal
- 5. Exterior painted with a LDI gray primer
- 6. Interior coated with rust preventative oil

#### **CAUTION:**

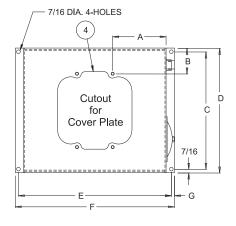
 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

#### 7. Materials

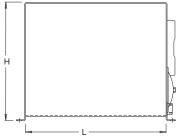
- Carbon steel construction
- Transparent molded nylon sight gage with black powder coated steel guard
- Buna N sight gage seals and access cover gasket
- Neoprene flat cover plate gasket

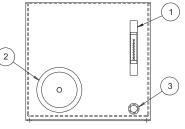
# **NOTE** • Sight gage and hardware to mount a cover provided loose with reservoir

- Drain plugs need to be sealed and tightened before use
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)
- Cover Plates Series 4 ordered as separate items (see page 35)









NOTE: All dimensions are inches

	Tank Dimensions (inches)												
Capacity (gal)	Part No.	A	В	С	D	E	F	G	н	L	Piece Weight (lbs)		
8	V29908	5.00	1.62	11.12	12.00	13.38	14.25	.44	18.12	12.00	39		
10	V29910	6.38	3.06	14.00	14.88	18.12	19.00	.44	14.12	16.75	47		
14	V29914	7.00	1.62	11.12	12.00	19.38	20.25	.44	20.12	18.00	55		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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h: 920-682-6877

# VARI-PAK SERIES - LARGE (CONT'D)

## **20 & 25 GALLON**

A Vari-Pak Series reservoir is a variation of the the vertical series reservoirs. This series reservoir has a flat bottom that extends past the reservoir body to serve as the mounting surface of the reservoir. Custom, bolt-on cover configurations are available for mounting the most common system components such as filler breathers and motor adapters.

#### **Standard Features:**

- 1. (1) 5 inch GT623 Series sight gage
- 2. 6 inch access cover
- 3. (1) 3/4 inch NPT drain with plug
- 4. Gasket for cover plate seal
- 5. Exterior painted with a LDI gray primer
- 6. Interior coated with rust preventative oil

#### **CAUTION:**

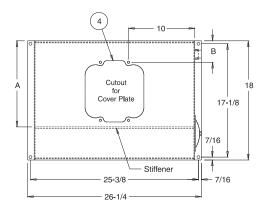
 Reservoirs are not designed for internal positive or negative pressure applications. For these applications, consult the factory.

#### 7. Materials

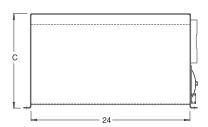
- Carbon steel construction
- Transparent molded nylon sight gage with black powder coated steel guard
- Buna N sight gage seals and access cover gasket
- Neoprene flat cover plate gasket

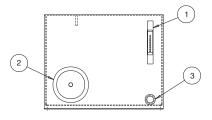
#### NOTE • Sight gage and hardware to mount a cover provided loose with reservoir

- Drain plugs need to be sealed and tightened before use
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 212° F (-40° and 100° C)
- Cover Plates Series 4 ordered as separate items (see page 35)









NOTE: All dimensions are inches

	Tank D	imensio	ons (inc	ches)	
Capacity gal	Part No.	A	В	С	Piece Weight (lbs)
20	V29920	13.00	3.25	14.25	80
25	V29925	12.25	3.00	18.12	94

## **COVER PLATES - SERIES 1**

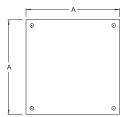
LDI's standard offering of cover plates for vertical series reservoirs range from just a blank cover with mounting holes for fastening to reservoir to additional cut out detail for mounting a pump motor adapter, filler/breather and more.

#### **Standard Features:**

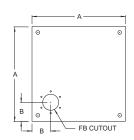
- 1. 7 Ga (.1793 inch) thick
- 2. Mate with reservoirs V215145 and V215146
- 3. All covers come with (4) .50 inch diameter clearance holes for mounting to reservoir
- 4. 5201 filler breather included
- 5. Top and sides prime painted LDI gray
- 6. Filler breather cut
- 7. Four different configurations are available.
  - Blank cover
  - Cover with filler breather cut out
  - Cover with filler breather and 56C/145TC adapter cut outs
  - Cover with filler breather and 182TC/256TC adapter cut outs

- 8. Materials:
  - Carbon steel
  - Filler breather 5201: Zinc plated fill cap with nylon strainer basket

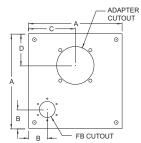
**NOTE** • Filler breather provided loose with cover



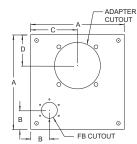
Blank Cover Part Number 99920



Cover with Filler Breather Cutout Part Number 99923



Cover with Filler Breather Cutout and 56C/145TC Adapter Cutout (Adapter Style 1, 1A, 1B) Part Number 99926



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 7) Part Number 99929

Standard Dimensions for Vertical Tops (inches)					
A (SQ)	В	С	D		
12.50	2.50	6.25	5.00		

Cover Plate Part No.	Description	Series
99920	Blank Cover	1
99923	Cover with Filler Breather Cutout	1
99926	Cover with 56C/145TC Adapter Cutout	1
99929	Cover with 182C/256TC Adapter Cutout	1

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## **COVER PLATES - SERIES 2**

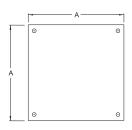
LDI's standard offering of cover plates for vertical series reservoirs range from just a blank cover with mounting holes for fastening to reservoir to additional cut out detail for mounting a pump motor adapter, filler/breather and more.

#### **Standard Features:**

- Series 2 covers differ from Series 2A covers only by the location of cut out for filler breather
- 2. .25 inch thick
- Mate with reservoirs V215147, V215148, V215149, V215188 and V215189
- 4. All covers come with (4) .50 inch diameter clearance holes for mounting to reservoir
- 5. Filler breather included
- 6. Top and sides prime painted LDI gray
- 7. Five different configurations are available.
  - Blank cover
  - Cover with filler breather cut out
  - Cover with filler breather and 56C/145TC adapter cut outs (Adapter Style 1, 1A and 1B)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 7)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 6)

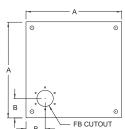
- 8. Materials
  - Carbon steel
  - Filler breather 5201: Zinc plated fill cap with nylon strainer basket

NOTE • Filler breather provided loose with cover

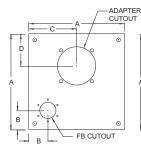


Blank Cover Part Number 99931

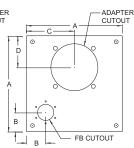
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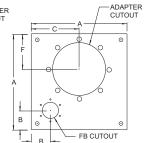
Cover with Filler Breather Cutout Part Number 99934



Cover with Filler Breather Cutout and 56C/145TC Adapter Cutout (Adapter Style 1, 1A, 1B) Part Number 99937



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 7) Part Number 99940



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 6) Part Number 99943

Standard Dimensions for Vertical Tops (inches)					
A (SQ)	В	С	D	F	
16.50	2.50	8.25	5.50	6.25	

Cover Plate Part No.	Description	Series
99931	Blank Cover	2
99934	Cover with Filler Breather Cutout	2
99937	Cover with 56C/145TC Adapter Cutout	2
99940	Cover with 182C/256TC Adapter Cutout	2
99943	Cover with 182C/256TC Vert. Adapter Cutout	2

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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## **COVER PLATES - SERIES 2A**

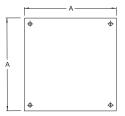
LDI's standard offering of cover plates for vertical series reservoirs range from just a blank cover with mounting holes for fastening to reservoir to additional cut out detail for mounting a pump motor adapter, filler/breather and more.

#### **Standard Features:**

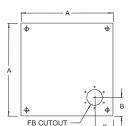
- Series 2A covers differ from Series 2 covers only by the location of cut out for filler breather
- 2. .25 inch thick
- 3. Mate with reservoir V215173
- 4. All covers come with (4) .50 inch diameter clearance holes for mounting to reservoir
- 5. 5201 filler breather included
- 6. Top and sides prime painted LDI gray
- 7. Five different configurations are available.
  - Blank cover
  - Cover with filler breather cut out
  - Cover with filler breather and 56C/145TC adapter cut outs (Adapter Style 1, 1A and 1B)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 7)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 6)

- 8. Materials
  - Carbon steel
  - Filler breather 5201: Zinc plated fill cap with nylon strainer basket

**NOTE** • Filler breather provided loose with cover



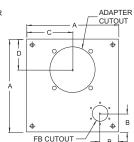
Blank Cover Part Number 99931A



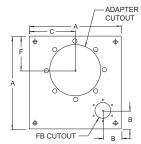
Cover with Filler Breather Cutout

Part Number 99934A

Cover with Filler Breather Cutout and 56C/145TC Adapter Cutout (Adapter Style 1, 1A, 1B) Part Number 99937A



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 7) Part Number 99940A



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 6) Part Number 99943A

ı	Standard Dimensions for Vertical Tops (inches)					
	A (SQ)	В	С	D	F	
ı	16.50	2.50	8.25	5.50	6.25	

Cover Plate Part No.	Description	Series
99931A	Blank Cover	2A
99934A	Cover with Filler Breather Cutout	2A
99937A	Cover with 56C/145TC Adapter Cutout	2A
99940A	Cover with 182C/256TC Adapter Cutout	2A
99943A	Cover with 182C/256TC Adapter Cutout	2A

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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## **COVER PLATES - SERIES 3**

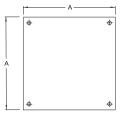
LDI's standard offering of cover plates for vertical series reservoirs range from just a blank cover with mounting holes for fastening to reservoir to additional cut out detail for mounting a pump motor adapter, filler/breather and more.

#### Standard Features:

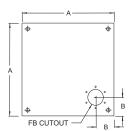
- Mate with reservoirs V215174, V215175, V215176, V215195 and V215196
- 2. .25 inch thick
- 3. All covers come with (4) .50 inch diameter clearance holes for mounting to reservoir
- 4. 5201 filler breather included
- 5. Top and sides prime painted LDI gray
- 6. Five different configurations are available.
  - Blank cover
  - Cover with filler breather cut out
  - Cover with filler breather and 56C/145TC adapter cut outs (Adapter Style 1, 1A and 1B)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 7)
  - Cover with filler breather and 182TC/256TC adapter cut outs (Adapter Style 6)

- 7. Materials
  - Carbon steel
  - Filler breather 5201: Zinc plated fill cap with nylon strainer basket

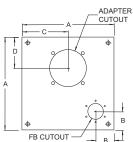
**NOTE** • Filler breather provided loose with cover



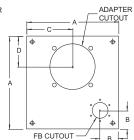
Blank Cover Part Number 99946



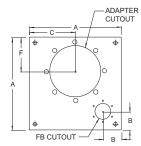
Cover with Filler Breather Cutout Part Number 99949



Cover with Filler Breather Cutout and 56C/145TC Adapter Cutout (Adapter Style 1, 1A, 1B) Part Number 99952



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 7) Part Number 99955



Cover with Filler Breather Cutout and 182TC/256TC Adapter Cutout (Adapter Style 6) Part Number 99958

Standard Dimensions for Vertical Tops (inches)					
A (SQ)	В	С	D	F	
18.00	2.50	9.00	5.50	6.25	

Cover Plate Part No.	Description	Series
99946	Blank Cover	3
99949	Cover with Filler Breather Cutout	3
99952	Cover with 56C/145TC Adapter Cutout	3
99955	Cover with 182C/256TC Adapter Cutout	3
99958	Cover with 182C/256TC Vert. Adapter Cutout	3

## **COVER PLATES - SERIES 4 (VARI-PAK)**

#### **Standard Features:**

- 1. Mate with Vari-Pak Series reservoirs V29902, V29903, V29905, V29908, V29910, V29914, V29920 and V29925
- 2. 7 Ga (.1793 inch) thick
- 3. All covers come with (4) .50 inch diameter clearance holes for mounting to reservoir
- 4. PMB-07-10 mini breather included
- 5. Top and sides prime painted LDI grayl
- 6. Five different configurations are available.
  - Blank cover
  - Cover with 3/4 inch NPT port for breather
  - Cover with 3/4 inch NPT port for breather and 56C/145TC adapter cut out
  - Cover with 3/4 inch NPT port for breather and 56C/145TC adapter cut out and 1/2 NPT full coupling
  - Cover with 3/4 inch NPT port for breather and 182TC/256TC adapter cut out

- 7. Materials
  - Carbon steel
  - Breather PMB-07-10: Gray polymer

NOTE • Filler breather provided loose with cover



Part Number 99908



Part Number 99909



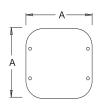
Part Number 99910



Part Number 99911

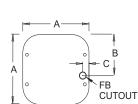


Part Number 99907

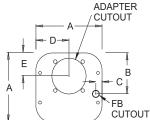


Style A Cover Plate Blank Cover

Part Number 99908

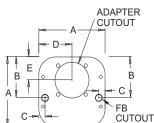


Style B Cover Plate with Breather Cutout Part Number 99909

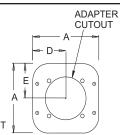


Style C Cover Plate with Breather Cutout and 56C/145TC Adapter Cutout (Adapter Style 1, 1A, 1B)

Part Number 99910



Style D Cover Plate with Breather Cutout and 56C/145TC Adapter Cutout 1/2" NPT Connection (Adapter Style 1, 1A, 1B) Part Number 99911



Style E Cover Plate 182/256TC Adapter Cutout (Adapter Style 7) Part Number 99907

Cover Plate Dimensions (inches)						
Cover Plate Part No.	A (SQ)	В	С	D	E	
99908 99909 99910 99911	10.12	5.94	1.19	5.06	3.65	
99907	10.12	N/A	N/A	5.06	5 .06	
All covers include (1) PMB-07-10 Mini Breather						

### STYLE 1

The Style 1 Series DIN type steel reservoir is constructed with a recessed welded top and front clean-out access. The reservoir has an elevated reservoir floor sloped toward the front clean-out access with drain exiting from the bottom of the reservoir. Each reservoir is supplied with a sight gage, filler breather and access cover.

#### **Standard Features:**

- (1) 5 inch G1620 Series sight gage on capacities of less than 100 gallons; (1) 10 inch G1615 Series sight gage on 100 gallon capacities and above
- 2. Riser with filler breather
  - Bayonet Style 40 micron
- DIN type access cover, gasket and mounting hardware
- 4. SAE O-ring drain with plug

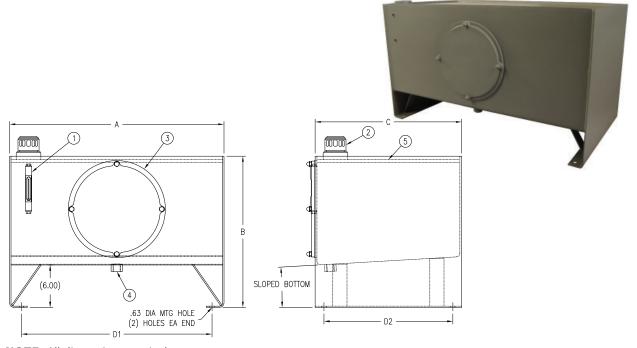
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 5. Recessed top (drip tray)
- 6. Exterior of reservoir prime painted
- Interior of reservoir coated with rust preventative oil

### **NOTE** • Drain plugs need to be sealed and tightened before use

- Sight Gage and Filler Breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches

	Tank Dimensions (inches)											
Capa Gallons	city Liters	Part No.	Sight Gage (Mtg. Ctrs.)	A Length	B Height	C Width	Mountin	g Centers D2	Access Cover	Piece Weight (lbs)		
			499XXX SER	IES ARE	HEAVY D	UTY RES	ERVOIRS			. ,		
20	76	V49920	5	24.38	21.00	18.00	21.75	15.50	324	128		
30	114	V49930	5	30.38	21.44	20.75	27.00	18.25	324	170		
40	151	V49940	5	36.38	22.75	20.75	33.00	18.25	324	231		
60	227	V49960	5	42.38	24.25	24.00	39.00	21.50	324	301		
80	303	V49980	5	42.38	25.38	30.00	39.00	27.50	324	371		
100	379	V499100	10	42.38	29.25	30.00	39.00	27.50	449	400		
120	454	V499120	10	48.50	30.25	30.00	45.00	27.50	449	554		
150	568	V499150	10	60.50	30.25	30.00	57.00	27.50	449	665		
200	757	V499200	10	72.75	29.81	36.00	69.00	33.50	449	973		
300	1136	V499300	10	72.75	38.69	36.00	69.00	33.50	449	1142		
400	1514	V499400	10	84.75	43.19	36.00	80.75	33.50	449	1495		
500	1892	V499500	10	84.75	44.75	42.00	80.75	39.50	449	1701		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

### STYLE 2

The Style 2 Series DIN type steel reservoir is constructed with a recessed welded top and clean-out access on each end. The reservoir has an elevated bottom sloped toward front with bottom exit drain port. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- (1) 5 inch G1620 Series sight gage on capacities of less than 100 gallons; (1) 10 inch G1615 Series sight gage on 100 gallon capacities and above
- 2. Riser with filler breather
  - Bayonet Style 40 micron
- DIN type access cover, gasket and mounting hardware
- 4. SAE O-ring drain with plug
- 5. Recessed top (drip tray)
- 6. Baffle with cutouts for circulation

- 7. Exterior of reservoir prime painted
- Interior of reservoir coated with rust preventative oil

**NOTE** • Drain plugs need to be sealed and tightened before use

- Sight Gage and Filler Breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)

#### **CAUTION:**

NOTE: All dimensions are inches

	Tank Dimensions (inches)										
	Capacity		Sight Gage	A	В	C	Mounting Centers		Access	Piece Weight	
Gallons	Liters	Part No.	(Mtg. Ctrs.)	Length	Height	Width	D1	D2	Cover	(lbs)	
			599XXX SE	KIES AKE	HEAVYL	JUIT KES	EKVUIKS				
20	76	V59920	5	24.38	21.00	18.00	21.75	15.50	324	141	
30	114	V59930	5	30.38	21.44	20.75	27.00	18.25	324	185	
40	151	V59940	5	36.38	22.75	20.75	33.00	18.25	324	248	
60	227	V59960	5	42.38	24.25	24.00	39.00	21.50	324	321	
80	303	V59980	5	42.38	25.38	30.00	39.00	27.50	324	398	
100	379	V599100	10	42.38	29.25	30.00	39.00	27.50	449	430	
120	454	V599120	10	48.50	30.25	30.00	45.00	27.50	449	584	
150	568	V599150	10	60.50	30.25	30.00	57.00	27.50	449	695	
200	757	V599200	10	72.75	29.81	36.00	69.00	33.50	449	1029	
300	1136	V599300	10	72.75	38.69	36.00	69.00	33.50	449	1213	
400	1514	V599400	10	84.75	43.19	36.00	80.75	33.50	449	1575	
500	1892	V599500	10	84.75	44.75	42.00	80.75	39.50	449	1798	



### STYLE 3

The Style 3 Series DIN type steel reservoir is constructed with a recessed welded top and front clean-out access. The reservoir has a low profile with mounting feet outward from tank. The reservoir bottom is sloped toward the front clean-out access with drain port exiting from the front of the reservoir. Each reservoir is supplied with a sight gage, filler breather and access cover.

#### **Standard Features:**

- (1) 5 inch G1620 Series sight gage on capacities of less than 100 gallons; (1) 10 inch G1615 Series sight gage on 100 gallon capacities and above
- 2. Riser with filler breather
  - Bayonet Style 40 micron
- DIN type access cover, gasket and mounting hardware
- 4. SAE O-ring drain with plug

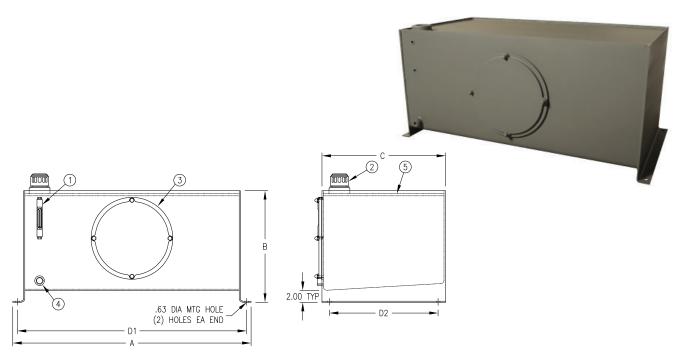
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 5. Recessed top (drip tray)
- 6. Exterior of reservoir prime painted
- Interior of reservoir coated with rust preventative oil

**NOTE** • Drain plugs need to be sealed and tightened before use

- Sight Gage and Filler Breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches

	Tank Dimensions (inches)										
Capacity			Sight Gage A B C			Mounting Centers		Access	Piece Weight		
Gallons	Liters	Part No.	(Mtg. Ctrs.)	Length	Height	Width	D1	D2	Cover	(lbs)	
	699XXX SERIES ARE HEAVY DUTY RESERVOIRS										
20	76	V69920	5	28.00	17.00	18.00	26.50	15.50	324	118	
30	114	V69930	5	34.00	17.44	20.75	32.50	18.25	324	158	
40	151	V69940	5	40.00	18.75	20.75	38.50	18.25	324	190	
60	227	V69960	5	46.00	20.25	24.00	44.50	21.50	324	219	
80	303	V69980	5	46.00	21.38	30.00	44.50	27.50	324	287	
100	379	V699100	10	46.00	25.25	30.00	44.50	27.50	449	348	
120	454	V699120	10	52.00	26.25	30.00	50.50	27.50	449	530	
150	568	V699150	10	64.00	26.25	30.00	62.50	27.50	449	633	
200	757	V699200	10	77.00	25.81	36.00	75.50	33.50	449	930	

### STYLE 4

The Style 4 Series DIN type steel reservoir is constructed with a recessed welded top and clean-out access on each end. A baffle positioned front to back with circulation passages divides the reservoir into two chambers. The reservoir has a low profile bottom sloped toward front wall with a drain port exiting out the front. Mounting feet our located outward from the ends. Each reservoir is supplied with a sight gage, filler breather and access covers.

#### **Standard Features:**

- (1) 5 inch G1620 Series sight gage on capacities of less than 100 gallons; (1) 10 inch G1615 Series sight gage on 100 gallon capacities and above
- 2. Riser with filler breather
  - Bayonet Style 40 micron
- DIN type access covers gasket and mounting hardware
- 4. SAE O-ring drain with plug

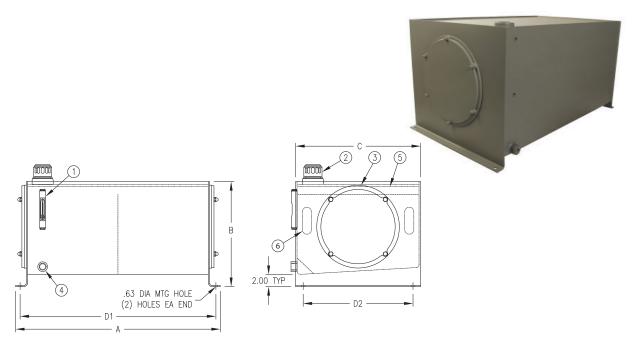
#### **CAUTION:**

 Reservoirs are not designed for internal positive or negative pressure applications.
 For these applications, consult the factory.

- 5. Recessed top (drip tray)
- 6. Baffle with cutouts for circulation
- 7. Exterior of reservoir prime painted
- 8. Interior of reservoir coated with rust preventative oil

**NOTE** • Drain plugs need to be sealed and tightened before use

- Sight Gage and Filler Breather shipped loose inside reservoir
- Industry accepted design practice for hydraulic systems limits maximum operating temperature to 180° F (82° C), but materials used for fabrication of the reservoirs are capable of operating between -40° and 250° F (-40° and 121° C)



NOTE: All dimensions are inches

	Tank Dimensions (inches)											
Capa Gallons	city Liters	Part No.	Sight Gage A B C Part No. (Mtg. Ctrs.) Length Height Width D1 D2		Access Cover	Piece Weight (lbs)						
Gallolis	Litters	Part No.	799XXX SEI					DZ.	COVE	(IDS)		
20	76	V79920	5	28.00	17.00	18.00	26.50	15.50	324	125		
30	114	V79930	5	34.00	17.44	20.75	32.50	18.25	324	166		
40	151	V79940	5	40.00	18.75	20.75	38.50	18.25	324	207		
60	227	V79960	5	46.00	20.25	24.00	44.50	21.50	324	240		
80	303	V79980	5	46.00	21.38	30.00	44.50	27.50	324	314		
100	379	V799100	10	46.00	25.25	30.00	44.50	27.50	449	376		
120	454	V799120	10	52.00	26.25	30.00	50.50	27.50	449	570		
150	568	V799150	10	64.00	26.25	30.00	62.50	27.50	449	673		
200	757	V799200	10	77.00	25.81	36.00	75.50	33.50	449	987		

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Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Ph: 920-682-6877 Fx: 920-684-7210



### **BAFFLE MOUNT — STEEL AND STAINLESS STEEL**

Access Covers (Cleanout Covers) are designed to allow access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir.

#### **Standard Features:**

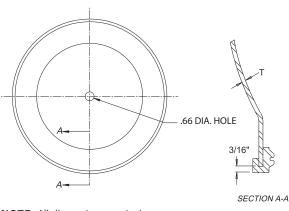
- Center clearance hole for mounting bolt
- With or without drain connection
- Buna N lip gasket
- Reference Spec Sheet for Access Cover kits that includes the mounting hardware

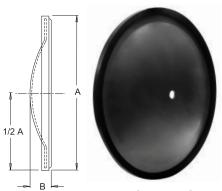
#### **Standard Materials:**

- Carbon Steel
- 304 Stainless Steel

#### **NOTE:**

• Recommended Torque = 15 ft·lb



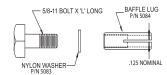




**Carbon Steel** 

304 Stainless Steel

NOTE: All dimensions are inches



	Access Covers: Baffle Mount - Steel										
Access Cover Size (inches)	*Kit w/o Drain Part No.	*Kit with 3/4 inch NPT Drain Part No.	†Cover Only w/o Drain Part No.	†Cover Only with Drain Part No.	*Kit with SAE-12 Drain Part No.	†Cover Only with SAE-12 Drain Part No.					
10	5067	5068	5070	5072	5053-D	5053					
12	5080	5080-D	5085	5086-D	5054-D	5054					
14	5065	5066	5071	5073	5055-D	5055					
16	5087	5087-D	5089	5090-D	5056-D	5056					
18	5091	5091-D	5095	5094-D	5057-D	5057					

	Access Covers: Baffle Mount - Stainless Steel											
Access Cover Size (inches)	*Kit w/o Drain Part No.			†Cover Only with Drain Part No.								
10	5067-SS	5067-D-SS	5070-SS	5072-D-SS								
12	5080-SS	5080-D-SS	5085-SS	5085-D-SS								
14	5065-SS	5065-D-SS	5071-SS	5071-D-SS								
16	5087-SS	5087-D-SS	5089-SS	5089-D-SS								
18	5091-SS	5091-D-SS	5095-SS	5095-D-SS								

Access Cover Dimensions (inches)										
Access Cover Size	A	*В	т	L	Access Hole Dia.					
10	10.75	1.50	11 GA	1.25	8					
12	12.50	1.81	7 GA	1.75	10					
14	14.12	1.81	8 GA	1.75	12					
16	16.06	2.25	7 GA	2.00	14					
18	18.50	2.62	7 GA	2.50	16					
* All "B" dim	nensions	are ref	erence (	only						

\*NOTE: Access Cover Kit includes - (1) access cover. (1) Buna N gasket, (1) 5/8-11 bolt, (1) Nylon washer, (1) baffle lug †NOTE: Access Cover only includes - (1) access cover, (1) Buna N gasket

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### **ACCESS COVERS**

**Standard Material:** 

Zinc plated carbon steel

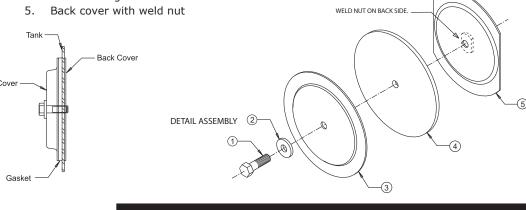
### **6 INCH ACCESS COVER**

Access Covers (Cleanout Covers) are designed to allow access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir.

#### **Standard Features:**

- 1. (1) 3/8 inch x 1-1/14 inch long hex head bolt
- 2. (1) Nylon washer
- 3. Cover

4. Buna N flat gasket



6 Inch Access Cover									
Part No.	Opening Diameter (inches)	Recommended Torque (ft·lb)							
V1917	4 5/8	8							

### **BAFFLE MOUNT — STEEL W/ FLOW RESTRICTORS**

Access Covers (Cleanout Covers) with flow restrictors are designed to help prevent hydraulic fluid from by-passing the baffle cutout by flowing around the cover dome. It will also allow access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir.

#### **Standard Features:**

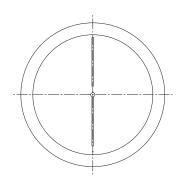
- Center clearance hole for mounting bolt
- •One piece design
- · With or without drain connection
- Buna N lip gasket

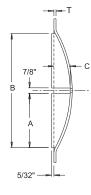
#### **Standard Material:**

Carbon Steel

#### **NOTES:**

- Stainless steel also available upon request
- Recommended Torque = 15 ft·lb







NOTE: All dimensions are inches

	Access Covers: Baffle Mount - Steel w/Flow Restrictors										
Access		Dime	nsions		Access Cover	Steel Access Cover w/Restrictor	Steel Access Cover w/Restrictor	Steel Access Cover w/Restrictor			
Cover Size (inches)		B (inches)	C (inches)	т	Openings (inches)		w/o Drain Part No.	w/SAE-12 Drain Part No.			
12	4.50	9.88	1.50	7 GA	10.00	5080-R	50800-R	50540			
14	5.00	11.88	1.50	7 GA	12.00	5065-R	5066-R	50550			
16	5.62	12.12	1.75	7 GA	12.25	5087-R	50870-R	50560			
18	7.50	15.88	2.25	7 GA	16.00	5091-R	50910-R	50570			

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

09/18

Ph: 920-682-6877 Fx: 920-684-7210



### **ACCESS COVERS**

#### **BRACKET MOUNTS - STEEL**

Bracket Mounted Access Covers (Cleanout Covers) are removable and designed to be used when a baffle is unavailable to mount the cover and when access to inside of reservoir is required. This allows access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir with full access through the opening in the reservoir.

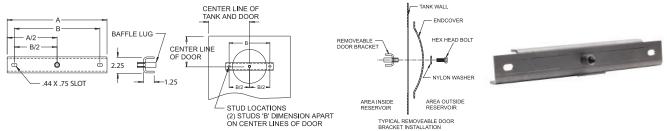
#### **Standard Features:**

#### **Standard Material:**

Carbon Steel

- Spider bracket mounted kits are available in two sizes with different options
- A removable bracket style is available
- Quick and easy installation

### REMOVABLE ACCESS COVER BRACKET



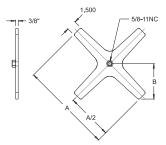
NOTE: All dimensions are inches

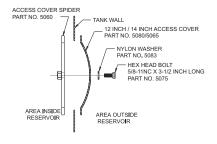
	Removable Access Cover Brackets										
Access Cover Dia (inches)	Access Hole Diameter (inches)	Part No.	A (inches)	A/2 (inches)	B (inches)	B/2 (inches)					
10	8	V-5393	12.00	6.00	10.00	5.00					
12	10	V-5392	14.00	7.00	12.00	6.00					
14 / 16	12 / 12.25	V-5390	16.25	8.12	14.25	7.12					
18	16	V-5391	20.00	10.00	18.00	9.00					

### **Each Removable Access Cover Bracket includes:**

- (1) Removable Access Cover Bracket
- \*(2) Studs 3/8 inch x 3/4 inch long
- \*(2) 3/8 inch hex nuts
- \*(2) lockwashers
  - \*When installed by LDI

### REMOVABLE ACCESS COVER WITH SPIDER







NOTE: All dimensions are inches

Ph : 920-682-6877 Fx : 920-684-7210

**NOTE:** Recommended Torque = 15 ft·lb

Removable Access Cover With Spider										
Access Cover Description	Access Hole Diameter (inches)	Part No.	A (inches)	A/2 (inches)	B (inches)					
12 inch w/no drain	10	5060-12-S	14.00	7.00	5.31					
14 inch w/no drain	12	5060-14-S	14.00	7.00	5.31					
12 inch w/ 3/4 inch NPT Drain	10	5060-12-N-S	14.00	7.00	5.31					
14 inch w/ 3/4 inch NPT Drain	12	5060-14-N-S	14.00	7.00	5.31					
12 inch w/SAE-12 Drain	10	5060-12-S-S	14.00	7.00	5.31					
14 inch w/SAE-12 Drain	12	5060-14-S-S	14.00	7.00	5.31					

#### Available as kit only Each kit includes:

- (1) access cover with gasket
- (1) removable access cover spider
- (1) hex head bolt
- (1) Nylon washer



### **ACCESS COVERS**

### **CAST BOLT MOUNT — DIN TYPE**

DIN Type access covers (Cleanout Covers) are designed to allow access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir.

#### **Standard Features:**

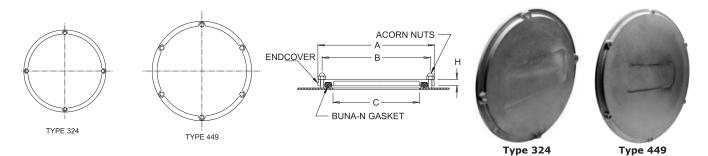
- Multi-bolt mounting for positive sealing
- Available in two sizes
- Does not require a baffle for mounting
- Buna N gasket

#### **Standard Material:**

Cast Aluminum

#### **NOTES:**

Recommended Torque = 35 in·lb



Access Covers: Cast Bolt Mount - DIN Type										
Access Cover Type	*Access Cover Kit No. For All Parts	M10 Acorn Nut Part No.	DIN Type Access Cover Gaskets (Buna N) Part No.	DIN Type Access Cover Part No.	A Dia inches (mm)	B BC inches (mm)	C Cutout inches (mm)	H inches (mm)		
324	136699	108499	V-6701	DIN324	13.78 (350)	12.75 (324)	9.76 (248)	.70 (18)		
449	136799	108499	V-6702	DIN449	18.70 (475)	17.68 (449)	15.08 (383)	.70 (18)		

\*NOTE: Access cover kit includes- (1) DIN type door, (1) Buna N gasket, (4) or (6) acorn nuts. Access cover includes (1) DIN type door and (1) Buna N gasket

### MULTIPLE BOLT ACCESS COVERS

Multiple Bolt Access Cover (Cleanout Cover) are designed to allow access into a dry (drained) reservoir for cleaning, inspection or mounting of components inside of the reservoir.

#### **Standard Features:**

h: 920-682-6877

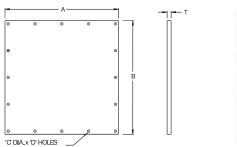
- Multi-bolt mounting bolts for positive sealing
- Larger access hole in the reservoir
- Available in different sizes
- Does not require a baffle for mounting

#### **Standard Material:**

• Carbon Steel

#### NOTES:

• Recommended Torque = 25 ft·lb



	Multiple Bolt Access Cover										
Access Cover Size (inches)	Access Hole Size (inches)	Part No.	A (inches)	B (inches)	C (inches)	Qty D	т	Buna N Gasket Part No.			
18x18	16×16	5334	18.00	18.00	.44	16	.25	5335			
12x14	10×12	5283	14.00	12.00	.44	16	.25	5079			
24x24	20x20	5338	24.00	24.00	.44	24	.25	5339			



# **ACCUMULATOR BRACKETS & CLAMPS**

### **VMB SERIES**

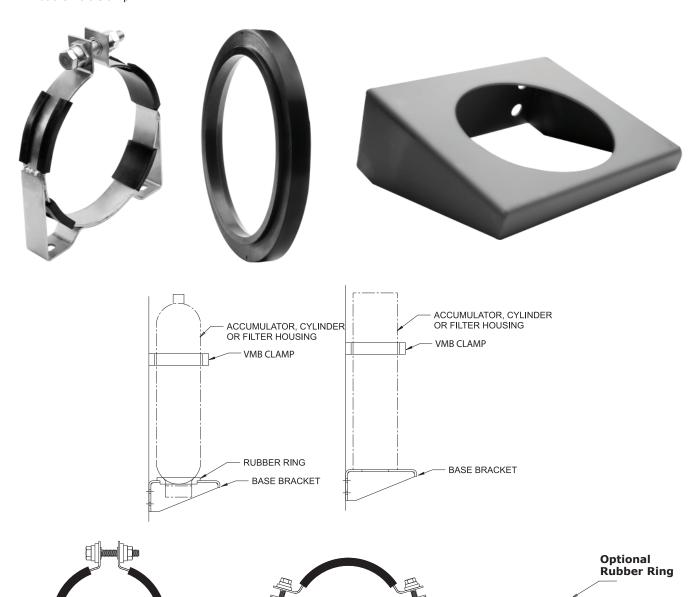
Mounting Brackets are designed to provide simple and secure mounting for accumulators, cylinders and filter housings.

#### **Standard Features:**

- Rubber cushioning to reduce vibration and noise
- Compensation for thermal expansion and contraction
- Exclusively designed for all types of accumulators, cylinders and filter housings
- Clear Zinc plated to resist corrosion
- Single Bolt Clamp
- Double Bolt Clamp

#### **Standard Material:**

• Rubber ring - Buna N, 70 Durometer



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

02/14

**Base Bracket** 

Type 1



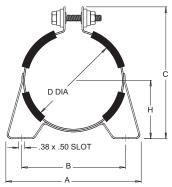
Type 2

### **ACCUMULATOR BRACKETS & CLAMPS**

### VMB SERIES SPECIFICATIONS

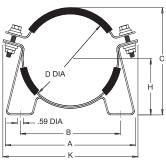
VMB Series Clamps - Type 1 and Type 2											
		inches									
Part No.	A	В	С	D	н	К	Width	Weight (lbs)			
CLAMP-TYF	CLAMP-TYPE 1										
VMB-42	5.43	3.94	5.91	4.25	2.52	_	1.25	1.60			
VMB-45	5.26	3.94	6.68	4.51	2.87	_	1.25	1.80			
VMB-50	6.89	5.35	7.12	4.96	3.03	_	1.25	1.80			
VMB-57	6.63	5.35	7.75	5.75	3.50	_	1.25	2.00			
VMB-66	7.50	6.02	9.00	6.75	3.94		1.25	2.30			
CLAMP-TYF	CLAMP-TYPE 2										
VMB-81	10.24	8.19	9.06	8.11	4.65	10.83	1.50	3.20			
VMB-89	10.00	8.50	9.89	9.12	4.95	12.48	1.50	3.40			

VMB Series Clamp - Base Brackets and Rubber Ring										
		inches Piece Weight								
Part No.	A	В	С	D	E	F	G	Н	L	(lbs)
Base Bracke	t									
VMB-47	10.24	7.87	3.94	4.72	2.95	1.38	8.86	3.62	.67	5.5
VMB-67	10.24	7.87	3.94	6.69	2.95	1.38	8.86	4.84	.67	5.3
Rubber Ring										
VMB-425	5.91	4.72	4.69	4.25	.79	.59	Use wi	th VMB	-47 Bas	e Bracket
VMB-625	7.87	6.69	6.65	6.26	.79	.59	Use wi	th VMB	-67 Bas	e Bracket
Note: Base B	Note: Base Bracket and Rubber Ring must be ordered as separate items								·	



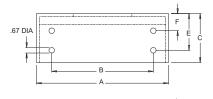
Single Bolt Clamp - Type 1

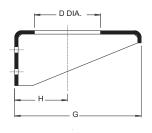
NOTE: All dimensions are inches

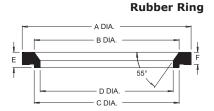


**Double Bolt Clamp - Type 2** 

#### **Base Bracket**







Nominal diameter required for bladder accumulators

Accumulator Size	Clamp Part No.	Qty	Dia (inches)	Base Bracket
1.00 qt	VMB-45	1	4.50	_
2.00 qt	VMB-45	1	4.50	_
1.00 gal	VMB-66	1	6.70	VMB-47
2.50 gal	VMB-89	1	9.00	VMB-67
5.00 gal	VMB-89	2	9.00	VMB-67
7.50 gal	VMB-89	2	9.00	VMB-67
10.00 gal	VMB-89	2	9.00	VMB-67
15.00 gal	VMB-89	3	9.00	VMB-67

**Note:** All dimensions and weights are for general information only. Since products are in continual state of refinement, please verify all critical dimensions with our engineering department.

Nominal diameter required for piston type accumulators									
Accumulator Size	Clamp Part No.	Qty	Dia (inches)	Base* Bracket	A				
1.00 qt	VMB-45	1	4.50	_					
2.00 qt	VMB-45	1	4.50	_					
1.00 gal	VMB-45	1	4.50	_					
1.00 gal	VMB-57	2	5.50	_					
1.00 gal	VMB-66	1	7.00	VMB-47					
1.50 gal	VMB-45	2	4.50	_					
1.50 gal	VMB-57	2	5.50	_					
1.50 gal	VMB-66	1	7.00	VMB-47					
2.00 gal	VMB-45	1	4.50	_					
2.50 gal	VMB-57	2	5.50	_					
2.50 gal	VMB-66	1	7.00	VMB-47					
2.50 gal	VMB-81	1	8.00	VMB-67					
3.00 gal	VMB-57	2	5.50	_					
3.00 gal	VMB-66	1	7.00	VMB-47					
3.00 gal	VMB-81	1	8.00	VMB-67					
4.00 gal	VMB-57	2	5.50	_					
4.00 gal	VMB-66	1	7.00	VMB-47	L				

)	rs		No	te: *No Ru	ıbber Ring
	Accumulator Size	Clamp Part No.	Qty	Dia (inches)	Base* Bracket
	4.00 gal	VMB-81	1	8.00	VMB-67
	5.00 gal	VMB-57	3	5.50	_
	5.00 gal	VMB-66	2	7.00	VMB-47
	5.00 gal	VMB-81	1	8.00	VMB-67
	5.00 gal	VMB-89	1	9.00	VMB-47
	7.50 gal	VMB-66	2	7.00	VMB-67
	7.50 gal	VMB-81	2	8.00	VMB-67
	7.50 gal	VMB-89	1	9.00	VMB-67
	10.00 gal	VMB-81	2	8.00	VMB-67
	10.00 gal	VMB-89	2	9.00	VMB-67
	15.00 gal	VMB-81	2	8.00	VMB-67
	15.00 gal	VMB-89	2	9.00	VMB-67
	17.50 gal	VMB-89	3	9.00	VMB-67
	20.00 gal	VMB-81	3	8.00	VMB-67
	20.00 gal	VMB-89	3	9.00	VMB-67
	23.00 gal	VMB-89	3	9.00	VMB-67
	25.00 gal	VMB-89	4	9.00	VMB-67

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

03/1/



### AIR OIL COOLERS

Air Oil Coolers are used to cool fluid power systems, gear drives, machine tools, torque converters and hydraulic presses.

#### **Standard Features:**

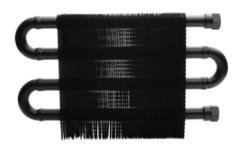
- ·Oil Cooler
  - Rugged construction that resists vibration
  - □1/2 inch NPT internal thread mounting connection

#### • TEFC Rear Mount Oil Cooler

- Compact, efficient design
- Low cost case drain cooling
- Mounts behind existing TEFC motor
- Mounting backets and gasket
- Operating Pressure 300 PSI
- Operating Temperature 350°F
- Air filter has Stainless Steel frame with washable media

#### · AC Fan Driven Oil Cooler

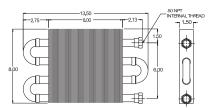
- Compact, quiet, efficient design
- Rugged construction resists vibration and stress
- <sup>a</sup>Mounting brackets included
- Operating Pressure 300 PSI
- Operating Temperature 350°F
- Air filter has Stainless Steel frame with washable media







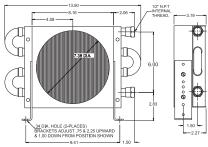
### **OILCOOLER**



- Highly Efficient Design
- Rugged Construction Resists Vibration

Order Data / Specifications								
Part No.	Flow Range (GPM)	HP Heat Removed	Piece Weight (lbs)					
VOC-5-P	0.3-2	1.0	3.0					

### TEFC REAR MOUNTED OIL COOLER

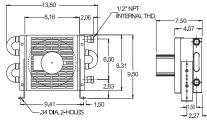


Bracket Adjustment .75 inch and 2.25 inches Upward 1.00 inch Downward (from position shown)

- Uses air stream from fan of electric motor
- Sized to fit popular electric motor frame sizes
- Durable powder painted cabinet
- Maximizes efficiency with contoured air side fins and internal oil turbulators
- Includes motor gasket and mounting bracket
- Fits Nema frame sizes 48 thru 184T

Order Data / Specifications									
Part No.	Flow Range (GPM)	HP Heat Removed	Piece Weight (lbs)						
VOCS-5-P	0.3-2	1.0	6.0						

### **FORCED AIR OIL COOLER**

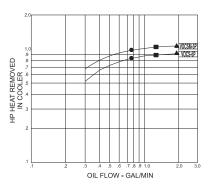


- Bracket Adjustment .75 inch and 2.25 inches Upward 1.00 inch Downward (from position shown)
- NOTE: All dimensions are inches

- Compact, highly efficient design with contoured side fins and internal oil turbulators
- Rugged construction resists vibration and stress
- Eliminates sewer and water costs
- Mounting bracket included for easy installation
- Motor voltage 115/230 single phase, 50/60 hertz, 1.2/.60 amps

Order Data / Specifications								
Part No.	Flow Range (GPM)	HP Heat Removed	Piece Weight (lbs)					
VOCSM-5-P	0.3-2	1.0	13.0					

#### **PERFORMANCECURVES**



- VOC-5-P Performance: D-Rate VOCS-DP Curve by 25 %(When used behind TEFC motor)
- Curves are based in a 40°F approach temperature (oil out °F-amb air °F)
- Oil Press Drop Coding

 $\bullet$  = 5 PSI

= 10 PSI

 $\triangle$  = 20 PSI

- Average Oil Viscocity = 100 SSU for performance rating
- All models above:
  - □ Maximum Pressures 300 P.S.I.
  - ${}^{\scriptscriptstyle \mathrm{o}}$  Maximum Temperature  $-350^{\circ}$  F



### **TOP MOUNT — STANDARD FLOW**

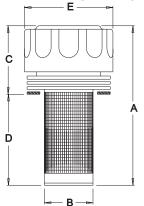
Top Mount Filler Breathers are designed to be used as a filler port for tanks, hydraulic power units or other fluid containers. These units also let the tank breathe while keeping out airborne particles.

#### **Standard Features:**

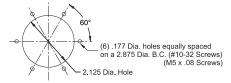
- Bayonet zinc plated steel cap large capacity
- \*Twist to lock removable cap breathes and filters air
- Concealed air vents allowing for outdoor applications
- Flute finger inserts for easy gripping (vented style only)
- 10 or 40 micron filtration (vented style only)
- Safety chain prevents loss of cap
- Heavy duty Cork-Neoprene gasket provides a positive seal between flanges
- Zinc plated flange bayonet flange (SAE J829)
- Strainer basket
  - •4 inch long Nylon with solid dome bottom to prevent punchout
  - -3 inch long Stainless Steel, 30 mesh
- Thread forming screws -- prevents particles from entering reservoir during installation by forming threads rather than cutting them

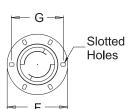


#### **Standard Bayonet Style**

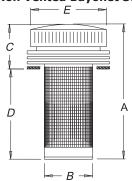


#### **Mounting Information**





#### Non Vented Bayonet Style



NOTE:	ΔII	dimensions	are	inches
INOIL.	AII	ullilelisiolis	alc	111111111111111111111111111111111111111

			Technic	al and Dir	nensio	nal Deta	ils							
	Сар	Breather	Strainer			Air Flow Capacity	Oil Transfer Rate	Bayonet Flange (inches)						
Part No.	Style	(PSI)	Basket Type	Level	Media	(CFM)	(GPM)	Α	В	С	D	E	F	G
Non-Press	urized, Stanc	lard Filler B	reather - Bayon	et Style										
5201	Standard	N/A	Nylon	40 Micron	Foam	25	192	6.10	1.90	2.30	3.80	3.00	3.25	2.88
5204	Standard	N/A	Nylon	10 Micron	Foam	15	115	6.10	1.90	2.30	3.80	3.00	3.25	2.88
5216	Standard	N/A	Stainless Steel	40 Micron	Foam	25	192	5.10	1.90	2.30	2.80	3.00	3.25	2.88
5220	Standard	N/A	Stainless Steel	10 Micron	Foam	15	115	5.10	1.90	2.30	2.80	3.00	3.25	2.88
Pressurize	d, Standard I	Filler Breatl	ner - Bayonet St	yle										
5205	Standard	5	Stainless Steel	10 Micron	Foam	25	192	5.10	1.90	2.30	2.80	3.00	3.25	2.88
Non-Press	urized, Non-\	Vented Fille	r Breather - Bay	onet Style										
5232	Non Vented	N/A	Nylon	N/A	N/A	N/A	N/A	6.10	1.90	1.30	3.80	2.44	3.25	2.88
5227	Non Vented	N/A	Stainless Steel	N/A	N/A	N/A	N/A	5.10	1.90	1.30	2.80	2.44	3.25	2.88
Non-Press	urized, Metri	c Mounting	Filler Breather -	Bayonet T	уре									
5203	Standard	N/A	Nylon	40 Micron	Foam	25	192	6.10	1.90	2.30	3.80	3.00	3.25	2.88

#### **Ordering Information Options**

Ph : 920-682-6877 Fx : 920-684-7210

• For Locking Tabs add LT to part number (3/8 inch dia. hole to accept padlock)(not available in non vented breathers)

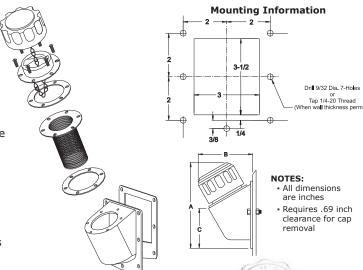


### SIDE MOUNT — STANDARD FLOW

Side Mount Filler Breathers are designed to be used where top surfaces are not readily available for locating a filler port. This unit easily mounts on vertical tank walls. These units filter the fluid as it is added and also lets the tank breathe while keeping out airborne particles.

#### **Standard Features:**

- Zinc plated steel cap large capacity
- •Twist to lock removable cap breathes and filters air
- Air vents are concealed allowing for outdoor application
- Fluted finger insertions for easy gripping
- 10 or 40 micron filtration
- Safety chain prevents loss of cap
- Heavy duty Cork-Neoprene gaskets provide a positive seal between flanges
- Zinc plated flange bayonet type (SAE J829)
- 3 inch, 30 mesh Stainless Steel strainer
- Thread forming screws prevents particles from entering reservoir during installation by forming threads instead of cutting them
- Tough glass-reinforced Nylon housing
- Includes (7) 1/4-20 NC x 1 inch bolts, nylon washers and nuts for mounting



S	Side Mount Filler Breathers - Technical and Dimensional Details													
	Con			Strainer		Air Filtration		trainer			Oil Transfer	1	net Fl inches	
Part No.	Cap Style	Breather	Basket Type		Media	Capacity (CFM)	Rate (GPM)	A	В	С				
SM-5201	Std.	Non-Pres	Stainless	40 Micron	Foam	25	192	6.10	3.90	3.20				
SM-5204	Std.	Non-Pres	Stainless	10 Micron	Foam	15	115	6.10	3.90	3.20				

### SCREW-IN BREATHER — NICKEL PLATED STEEL W/FILTER

Screw-In Breather insures a free flow of air into hydraulic tanks or other fluid containers. These units let the tank breathe while keeping out airborne particles.

#### **Standard Features:**

- Chrome plated cap -- large capacity
- Cap breathes and filters air
- Air vents are concealed allowing for outdoor applications
- Fluted finger inserts for easy gripping
- 40 micron filtration

#### **Standard Material:**

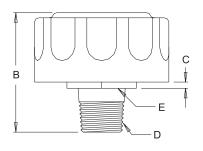
Nickel plated steel

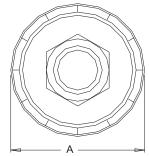
#### Temperature Rating:

-212°F (100°C)

#### **Mounting Information:**

 Any standard 3/4 inch NPT (female) threaded pipe port







	Miniature Breather - Technical and Dimensional Details											
Air Filtratio			ation	ion Air Flow	Oil Transfer	Dimensions (inches)						
Part No.	Cap Style	Breather	Nominal Level	Media	Capacity (CFM)	Rate (GPM)	A	В	С	D NPT	E Hex	
V-5213	Blank	Screw-In	40 Micron	Foam	30	192	3.00	2.70	.50	3/4 inch	1.38	

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### MINIATURE BREATHER — POLYMER W/FILTER

LDI Miniature Tank Breathers are designed to replace more costly, less efficient breathers and to improve the filtering performance of the breather vent.

#### **Standard Features:**

- 40 micron air filtration
- Gray cap for high visibility

#### **PMB Series Features**

 Suitable for use on hydraulic power packs or tanks subject to change in liquid volume

#### **SGB Series Features**

- Splash guard that prevents oil loss
- Suitable for use where oil is violently agitated and could be splashed against breather cap

#### **Standard Material:**

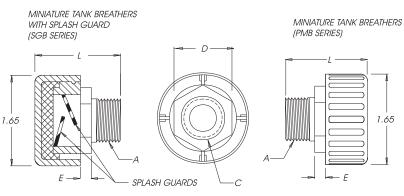
Polyamide based technopolymer cap

#### **Temperature Rating:**

--22°F (-30°C) to 212°F (100°C)

#### **Mounting Information:**

- PMB/SGB-02-10 Any standard 1/4 inch NPT (female) threaded pipe port
- PMB/SGB-05-10 Any standard 3/8 inch NPT (female) threaded pipe port
- PMB/SGB-03-10 Any standard 1/2 inch NPT (female) threaded pipe port
- PMB/SGB-07-10 Any standard 3/4 inch NPT (female) threaded pipe port





NOTE: All dimensions are inches

PMB and	SGB Ser	ies - Ted	chnical 8	k Dimen	sional D	etails
Part No.	A NPT	C Hole Dia	D Hex	E Flat	L Overall Length	Splash Guard
PMB-02-10	1/4	.27	.62	.27	1.53	No
PMB-05-10	3/8	.31	.75	.27	1.73	No
PMB-03-10	1/2	.47	1.00	.27	1.85	No
PMB-07-10	3/4	.70	1.13	.27	1.85	No
SGB-02-10	1/4	.27	.62	.27	1.53	Yes
SGB-05-10	3/8	.31	.75	.27	1.73	Yes
SGB-03-10	1/2	.47	1.00	.27	1.85	Yes
SGB-07-10	3/4	.70	1.13	.27	1.85	Yes

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### **TOP MOUNT — HIGH FLOW**

Top Mount Filler Breathers protect your hydraulic systems from ingesting airborne particles. These breathers feature a large pleated surface area providing an exceptional dirt holding capacity that extends the life of the breather and thus the length of time between servicing.

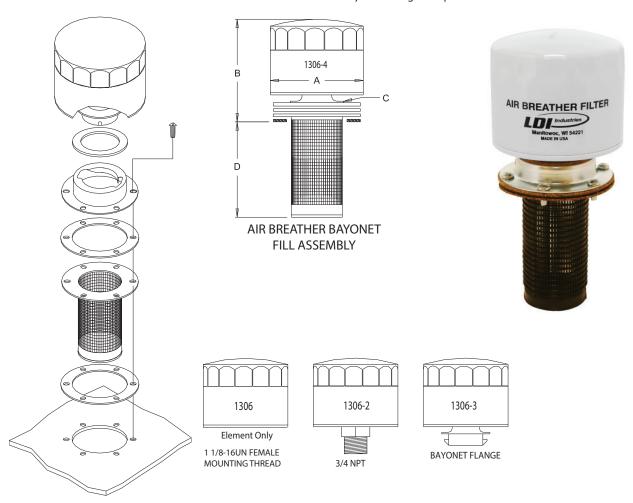
#### **Standard Features:**

- 3 micron and above filtration
- · High capacity air flow

Ph : 920-682-6877 Fx : 920-684-7210

#### **Mounting Information:**

- 3/4 inch NPT (male) adapter any standard 3/4 inch NPT (female) threaded pipe port
- SAE bayonet flange adapter any mating SAE bayonet flange adapter



	Т	echnical an	d Dimensio	nal Deta	ils		
Part No.	Description	Normal Capacity (SCFM)	Air Flow PSI Drop	A Dia (inches)	B Dim (inches)	C Adapter	D Dim (inches)
1306	Air Breather Filter Element Only	40			3.25	N/A	N/A
1306-2	Air Breather w/ 3/4 inch NPT Adapter		.4 PSI @ 20 SFM	2.60	4.38	3/4 inch NPT (male)	N/A
1306-3	Air Breather with Bayonet Flange Adapter	40	1.25 PSI at 40 SCFM	3.68	4.50	SAE Bayonet	N/A
1306-4*	Air Breather Bayonet Fill Assembly				4.50	SAE Bayonet	3.80

\*NOTE: 1306-4 includes (1) air breather filter, (1) cap gasket, (1) flange gasket, (1) flange SAE J829, (1) 4 inch Nylon strainer basket, (1) tank gasket, (6) mounting screws



#### **DES-CASE**

#### Attack the cause of oil contamination

Industry spends millions of dollars annually treating the negative effects of oil contamination. Des-Case Breather attacks the cause as opposed to treating the problem of contamination.

Designed and developed by filtration engineers, the hygroscopic breather is a unique, patented air filter and water vapor removal system. It will virtually eliminate moisture and particulate contamination in industrial equipment reservoirs such as hydraulic tanks and gear boxes.

#### **Unique Filtration Process**

Moisture and particulate accumulation are major factors of oil contamination in industrial equipment. Neglected, these detriments restrict equipment efficiency, causing machine downtime and significant expense in replacement oil, parts and repair labor.

Des-Case breathers incorporate a proven, field tested design. They prevent water and contaminants from entering fluid reservoirs as differential pressures occur through thermal expansion and contraction of the fluid, or during the filling or emptying process.

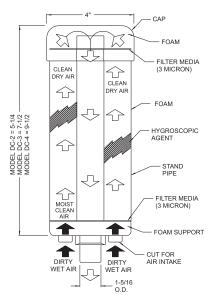
Manufactured with a hygroscopic agent, Des-Case breathers utilize the entire filter area, and have the capability of extracting water vapor from the air as it is drawn through the unit. Accompanying solid particulate is then removed by a patented polyester fabric filter, allowing only clean, dry air to enter the system.

#### **Change to Des-Case™ for Maximum Machine Performance**

Hygroscopic breather elements are state-of-the-art in design and function, and are industry's best choice for assuring maximum machine performance.

Des-Case offers these cost-saving benefits:

- Elimination of water-contaminated oil which leads to additive stripping
- Less abrasive particles to prolong machine operating life
- Elimination of rust-forming condensation
- · Longer oil and oil filter life
- Elimination of sludge deposits



#### **Resilient Construction...Multiple Applications**

Every Des-Case hygroscopic breather is manufactured in a durable, shock absorbing clear plastic casing with resilient qualities to withstand the customary abuse associated with heavy manufacturing equipment. The units are disposable, and are manufactured entirely of environmentally safe components.

Des-Case disposable hygroscopic breathers are manufactured in three sizes DC2, DC3, and DC4 to accommodate different mounting space requirements. All three models are rated for 20 cfm of air in and out of the tank or reservoir (the equivalent of 150 gpm fluid level change in the reservoir). The patented air flow design produces a partial regeneration of the hygroscopic agent and a back flushing (cleaning) of the particulate filter when the air leaves the reservoir.

#### **Color Visually Indicates Unit Condition**

To activate the unit, the protruding air intake nipples must be opened. The more nipples cut, the greater the breathing capacity.

Every Des-Case breather will remain effective as long as the hygroscopic agent's color in the transparent unit remains **BLUE**. A light **PINK** color indicates 100% saturation and the need to replace the unit.

#### Low Unit Cost...Long Shelf Life... Varied Industrial and Commercial Applications

Des-Case hygroscopic breathers are readily available and the modest price of these units is insignificant when compared to the costs associated with machine down time, replacement parts and labor. Each Des-Case breather is packaged and shipped in an airtight container for long-lasting shelf life.

Manufactured in the U.S.A., Des-Case units have excellent field test records and are utilized in a wide range of industries-food processing, automotive manufacturing, paper mills, transportation, robotics, power generation and many more.

#### Design Flexibility Permits Easy Installation Regardless of Equipment Location

Des-Case hygroscopic breathers are designed for installation on most equipment regardless of location. For installation in difficult areas, Des-Case offers (2) mounting options for ease of installation and unit maintenance.



### **DES-CASE**

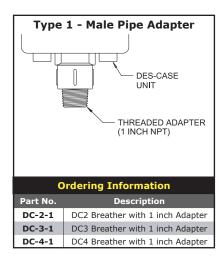
Des-Case's desiccant breathers incorporate a high-efficiency filter to help sustain cleanliness levels by preventing the ingression of even minute particulate matter. Water adsorbing silica gel creates low relative humidity levels in the headspace to make condensation and absorption by the lubricant unlikely.

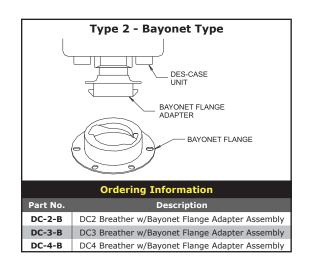
#### **Standard Features:**

- •1 inch NPT or bayonet flange adapter
- Multi-tiered filtration process
- Filter element captures particles at 3-micron absolute
- Filter media changes color to indicate need for replacement
- Rated for 20 CFM

#### **Standard Materials:**

- Nylon standpipe
- Clear Polycarbonate casing
- Silica gel hydrophilic agent
- Polyester filter







	DES-CASE Basic Specifications												
Type 1 Male Pipe Adapter Part No.	Type 2 Bayonet Part No.	Body Material	Unit Height inches (cm)	Diameter inches (cm)	Absorbance Capacity	Operating Temp.	Silica Gel Amount	Сар	Shipping Weight (unit/case)				
DC-2-1	DC-2-B		6.125 (15.56)		0.13 L		11 oz	Black	1 lb 3 oz / 9 lbs				
DC-3-1	DC-3-B	Polycarbonate and Nylon	8.125 (20.64)	4.00 (10.16)	0.23 L	-20F° to 200F° (-29C° to 93C°)	1 lb 4 oz	Blue	1 lb 12 oz / 11 lbs 8 oz				
DC-4-1	DC-4-B	and Nylon	10.125 (25.72)	. ,	0.35 L		1 lb 14 oz	White	2 lbs 7 oz / 16 lbs				

### **SERIES AB**

### WITH POLYESTER, PAPER OR WIRE MESH ELEMENT

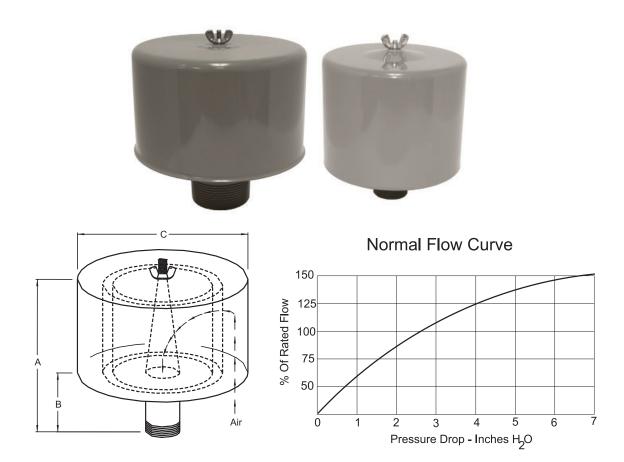
Air Breathers stop airborne dirt from entering the reservoir as the oil is removed. They allow the reservoir to breathe with clean, filtered air as the oil level changes.

#### **Standard Features:**

- Fully drawn weatherhood -- no welds to rust or vibrate apart
- •Low entry velocity air gap between base and cover
- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Interchangeable elements
- Center bracket located for minimal flow restriction

#### **Standard Materials:**

Durable carbon steel construction with powder coat finish



	AB Series											
	Part No.		Effective Su of Element in		Application CFM NPT			Dimensions (inches)				
Polyester Element	Paper Element	Wire Mesh Element	Polyester	Paper	Pulsating Flow	Continuous Flow	Connection (inch)	ı A	В	С		
AB-E19P-125	AB-E18P-125	AB-E18S-125	1.5	3.0	60	80	1 1/4	6.50	1.50	6.00		
AB-E19P-150	AB-E18P-150	AB-E18S-150	1.5	3.0	60	80	1 1/2	6.50	1.50	6.00		
AB-E31P-200	AB-E30P-200	AB-E30S-200	2.3	5.7	60	135	2	7.25	2.25	7.75		
AB-E31P-250	AB-E30P-250	AB-E30S-250	2.3	5.7	80	195	2 1/2	7.50	2.50	7.75		
AB-E231P-300	AB-E230P-300	AB-E230S-300	4.5	10.9	300	300	3	13.00	3.00	10.00		



### **SERIES AB REPLACEMENT ELEMENTS**

Air Breathers stop airborne dirt from entering the reservoir as the oil is removed. They allow the reservoir to breathe with clean, filtered air as the oil level changes.

#### **Standard Features - Polyester Elements:**

- Pleated industrial needle felt polyester media
- Reinforced with epoxy coated steel wire on both sides of the media
- · Washable with warm water and mild detergent
- Dust loading capacity is increased 40-50% with prefilter "P" designation at end of element part number
- •5 micron, 99% efficiency

#### **Standard Features - Paper Elements:**

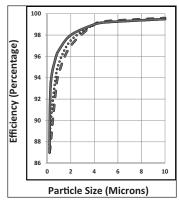
- Heavy duty industrial strength paper surrounded by heavy gauge galvanized expanded metal
- · Lightly blow out media to clean
- Dust loading capacity is increased 40-50% with prefilter "P" designation at end of element part number
- 2 micron, 99% efficiency

#### **Standard Features - Wire Mesh:**

- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor
- More durable than paper media
- Moisture resistant
- · Epoxy coated wire mesh pleated media

#### **Temperature Rating:**

•Temperature range -26° F to 220° F (-15° C to 104°C)

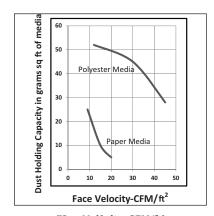


P<sup>o</sup>lyester Medi<sup>a</sup> Efficiency Ch<sup>a</sup>rt

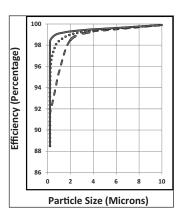
P<sup>a</sup>rticle Size vs. Filter Efficiency P<sup>o</sup>lyester Medi<sup>a</sup> <sup>a</sup>t Indic<sup>a</sup>ted F<sup>a</sup>ce Vel<sup>o</sup>city:



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Face Velocity-CFM/ft<sup>a</sup> Dust Holding Capacity



P<sup>a</sup>per Medi<sup>a</sup> Efficiency Ch<sup>a</sup>rt

P<sup>a</sup>rticle Size vs. Filter Efficiency P<sup>a</sup>per Medi<sup>a a</sup>t Indic<sup>a</sup>ted F<sup>a</sup>ce Vel<sup>o</sup>city:

10 CFM/ft² media	
15 CFM/ft² media	•••••
20 CFM/ft² media	



	AB Series Replacement Elements											
	Part No.			Effective Su of Element in		Dime	nsions (in	ches)				
Polyester Element	Paper Element	Wire Mesh Element	Flow CFM	Polyester	Paper	ID	OD	нт				
E19P	E18P	E18S	100	1.5	3.0	3.00	4.75	4.75				
E31P	E30P	E30S	195	2.3	5.7	3.38	5.75	4.75				
E231P	E230P	E230S	300	4.5	10.9	3.75	5.75	9.50				

### SAE COUPLINGS

Our SAE couplings are designed to be welded into a reservoir, terminal bar or inline piping. The SAE tees can reduce the need for multiple fittings.

#### **Standard Features:**

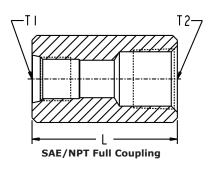
- Provides a o-ring seal to prevent leaks
- Couplings are available in full and half thread
- Full couplings are available in SAE to SAE, SAE to NPT and SAE to Socket Weld
- Tee's are available in reduced branch thread sizes

#### **Standard Materials:**

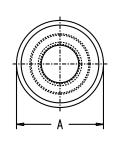
- •1117 CRS
- 316 Stainless Steel

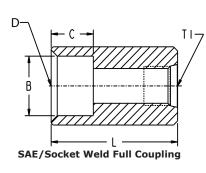
#### **Temperature Ratings:**

 Temperature ratings vary by material selection for o-ring tank seal



920-682-6877 920-684-7210







### SAE/NPT FULL COUPLING

		SAE/NPT	Full Coup	ling		
Steel Part No.	Stainless Steel Part No.	L Length inches	A Dia inches	T1 SAE Dash Size	T1	T2 (NPTF)
1000	11600	1.875	1.125	-6	9/16-18	1/2-14
1001	11601	1.875	1.125	-8	3/4-16	1/2-14
1002	11602	2.000	1.375	-10	7/8-14	3/4-14
1003	11603	2.000	1.375	-12	1 1/16-12	3/4-14
1005	11605	2.375	1.750	-16	1 5/16-12	1-11 1/2
1006	11606	2.625	2.250	-20	1 5/8-12	1 1/4-11 1/2
1007	11607	3.000	2.500	-24	1 7/8-12	1 1/2-11 1/2
1008	11608	3.375	3.000	-32	2 1/2-12	2-11 1/2

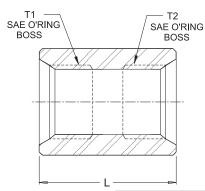
### SAE/SOCKET WELD FULL COUPLING

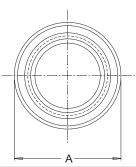
	SAE/Socket Weld Full Coupling											
Steel Part No.	Part No. Part No. inches inches Dash Size T1 (inches) inches inch											
1080	_	1.875	1.125	-6	9/16-18	1/2	.855	.625				
1081	11681	1.875	1.125	-8	3/4-16	1/2	.855	.625				
1083	11683	2.000	1.375	-12	1 1/16-12	3/4	1.065	.750				
1085	11685	2.375	1.750	-16	1 5/16-12	1	1.330	1.000				
1086	11686	2.625	2.250	-20	1 5/8-12	1 1/4	1.675	1.000				
1087	11687	3.000	2.500	-24	1 7/8-12	1 1/2	1.915	1.000				
1088	_	3.375	3.250	-32	2 1/2-12	2	2.406	1.250				



### SAE COUPLINGS (CONT'D)

### SAE O-RING BOSS FULL COUPLING

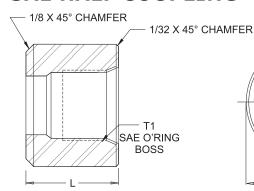


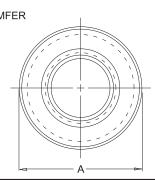




		SAE O-Ri	ng Boss Full (	Coupling		
Steel Part No.	L Length inches	A Dia inches	Т1	T1 SAE Dash Size	Т2	T2 SAE Dash Size
1020	1.500	.875	7/16-20	-4	7/16-20	-4
1021	1.375	1.000	9/16-18	-6	9/16-18	-6
1022	1.500	1.250	3/4-16	-8	3/4-16	-8
1023	1.750	1.500	7/8-14	-10	7/8-14	-10
1024	2.000	1.625	1 1/16-12	-12	1 1/16-12	-12
1026	2.000	2.000	1 5/16-12	-16	1 5/16-12	-16
1027	2.500	2.500	1 5/8-12	-20	1 5/8-12	-20
1028	2.500	2.500	1 7/8-12	-24	1 7/8-12	-24
1029	2.750	3.250	2 1/2-12	-32	2 1/2-12	-32

### **SAE HALF COUPLING**







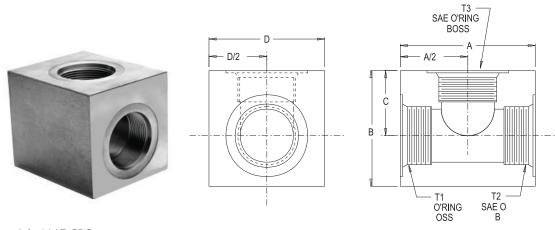
	SAE Ha	lf Couplii	ng		
Steel Part No.	Stainless Steel Part No.	L Length inches	A Diameter inches	T1 thread	T1 SAE Dash Size
6206	8906	.750	.875	7/16-20	-4
6207	_	.750	1.000	1/2-20	-5
6208	8908	.750	1.000	9/16-18	-6
6209	8909	.750	1.250	3/4-16	-8
6210	8910	.875	1.500	7/8-14	-10
6211	8911	1.000	1.625	1 1/16-12	-12
6213	8913	1.250	2.000	1 5/16-12	-16
6214	8914	1.250	2.500	1 5/8-12	-20
6215	8915	1.250	2.500	1 7/8-12	-24
6216	8916	1.375	3.250	2 1/2-12	-32

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

02/14

### SAE COUPLINGS (CONT'D)

### SAE STRAIGHT THREAD TEE COUPLING



Material: 1117 CRS

Ph : 920-682-6877 Fx : 920-684-7210

			Thre	ead Tee	Couplin	g				
				SA	AE Dash S	i70		Dime	nsions	
							A	В	С	D
Part No.	T1	T2	Т3	T1	T2	Т3	inches	inches	inches	inches
1040	2 1/2-12	2 1/2-12	2 1/2-12	-32	-32	-32	5.00	4.00	2.19	4.00
1041	2 1/2-12	2 1/2-12	1 7/8-12	-32	-32	-24	5.00	4.00	2.19	4.00
1043	2 1/2-12	1 7/8-12	1 7/8-12	-32	-24	-24	5.00	4.00	2.19	4.00
1045	1 7/8-12	1 7/8-12	1 7/8-12	-24	-24	-24	4.12	3.50	2.00	3.50
1048	1 7/8-12	1 5/8-12	1 5/8-12	-24	-20	-20	4.12	3.50	2.00	3.50
1050	1 5/8-12	1 5/8-12	1 5/8-12	-20	-20	-20	3.50	2.75	1.62	2.75
1051	1 5/8-12	1 5/8-12	1 5/16-12	-20	-20	-16	3.50	2.75	1.62	2.75
1052	1 5/8-12	1 5/16-12	1 5/8-12	-20	-16	-20	3.50	2.75	1.62	2.75
1053	1 5/8-12	1 5/16-12	1 5/16-12	-20	-16	-16	3.50	2.75	1.62	2.75
1054	1 5/16-12	1 5/16-12	1 5/8-12	-16	-16	-20	3.25	2.50	1.50	2.50
1055	1 5/16-12	1 5/16-12	1 5/16-12	-16	-16	-16	3.25	2.50	1.50	2.50
1056	1 5/16-12	1 5/16-12	1 1/16-12	-16	-16	-12	3.25	2.50	1.50	2.50
1060	1 1/16-12	1 1/16-12	1 1/16-12	-12	-12	-12	3.00	2.12	1.31	2.12
1070	3/4-16	3/4-16	3/4-16	-8	-8	-8	2.62	1.75	1.12	1.75
1075	9/16-18	9/16-18	9/16-18	-6	-6	-6	2.62	1.75	1.12	1.75

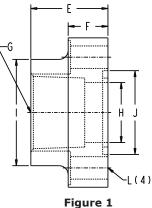
### 4 BOLT FLANGE - THREADED x O-RING FACE

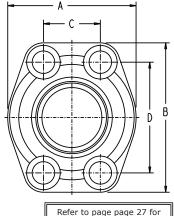
The 4 Bolt Flange is a known leak-free connection. It is specifically designed for use in high pressures, larger pipes and tight quarters applications. They are commonly used to connect larger sized hose and tubing in fluid power systems.

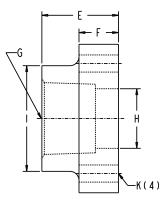
#### **Standard Materials:**

Carbon Steel









Refer to page page 27 for metric mounting options

Figure 2

				Cod	le 61	L - 30	00 PS	I NP	TF 1	hrea	ad					
							inche	s								
O-Ring	Flat Face	G Port											L		unting H	ardware
Part No. Fig 1	Part No. Fig 2	Size (NPTF)	Pad Size		В	С	D	E	F	н	I	J	Drill Dia	K Tap	O-Ring	SHCS
W43-8-8-U	W104-8-8	1/2	.50	1.81	2.13	.688	1.500	1.42	.63	.50	1.25	1.000	.344	5/16-18	210	5/16-18x1.25
W43-12-12-U	W104-12-12	3/4	.75	1.97	2.56	.875	1.875	1.42	.71	.75	1.54	1.250	.406	3/8-16	214	3/8-16x1.50
W43-16-16-U	W104-16-16	1	1.00	2.17	2.75	1.031	2.062	1.50	.71	1.00	1.81	1.560	.406	3/8-16	219	3/8-16x1.50
W43-20-20-U	W104-20-20	1 1/4	1.25	2.68	3.12	1.188	2.312	1.61	.83	1.25	2.22	1.750	.469	7/16-14	222	7/16-14x1.75
W43-24-24-U	W104-24-24	1 1/2	1.50	3.07	3.66	1.406	2.750	1.77	.98	1.50	2.50	2.115	.531	1/2-13	225	1/2-13x1.75
W43-32-32-U	W104-32-32	2	2.00	3.54	4.00	1.688	3.062	1.77	.98	2.00	3.12	2.490	.531	1/2-13	228	1/2-13x1.75
W43-40-40-U	W104-40-40	2 1/2	2.50	4.09	4.49	2.000	3.500	1.97	.98	2.50	3.62	2.995	.531	1/2-13	232	1/2-13x1.75
W43-48-48-U	W104-48-48	3	3.00	4.88	5.28	2.438	4.188	1.97	1.06	3.00	4.47	3.615	.656	5/8-11	237	5/8-11x2.00
Part Numbers with	"U" suffix include B	olt Kit and	O Rin	g												

ı	rait	Numbers	VVILII	U	Sullix Illicidde	DUIL KIL	and O King
۰							

			Code	e <b>61</b>	- 30	00 PS	SI NP	TF TI	irea	d Re	duci	ng				
							inche	s								
O-Ring	Flat Face	G Port											L	Мог	unting H	ardware
Part No. Fig 1	Part No. Fig 2	Size (NPTF)	Pad Size		В	С	D	E	F	н	1	J	Drill Dia	K Tap	O-Ring	SHCS
W43-12-16-U	-	3/4	1.00	2.17	2.75	1.031	2.062	1.50	.71	.75	1.81	1.560	.406	-	219	3/8-16x1.50
W43-16-20-U	-	1	1.25	2.68	3.12	1.188	2.312	1.61	.83	1.00	2.22	1.750	.469	-	222	7/16-14x1.75
W43-20-24-U	-	1 1/4	1.50	3.07	3.66	1.406	2.750	1.77	.98	1.25	2.50	2.115	.531	-	225	1/2-13x1.75
W43-24-32-U	-	1 1/2	2.00	3.54	4.00	1.688	3.062	1.77	.98	1.50	3.12	2.490	.531	-	228	1/2-13x1.75
Part Numbers with	n "U" suffix include E	Bolt Kit and	d O Rin	ng												

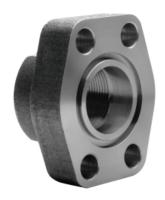
				Coc	le 62	2 - 60	00 PS	I NP	TF T	hrea	ad					
							inche	s								
O-Ring	Flat Face	G Port											L	Мо	unting H	ardware
Part No. Fig 1	Part No. Fig 2	Size (NPTF)	Pad Size		В	С	D	E	F	н	1	J	Drill Dia	K Tap	O-Ring	SHCS
W44-8-8-U	-	1/2	.50	1.81	2.21	.718	1.594	1.25	.63	.50	1.33	1.000	.344	5/16-18	210	5/16-18x1.25
W44-12-12-U	-	3/4	.75	2.17	2.80	.937	2.000	1.25	.83	.75	1.65	1.250	.406	3/8-16	214	3/8-16x1.50
W44-16-16-U	-	1	1.00	2.56	3.19	1.093	2.250	1.50	.98	1.00	1.98	1.560	.492	7/16-14	219	7/16-14x1.75
W44-20-20-U	-	1 1/4	1.25	3.07	3.75	1.250	2.625	1.50	1.06	1.25	2.36	1.750	.531	1/2-13	222	1/2-13x1.75
W44-24-24-U	-	1 1/2	1.50	3.70	4.41	1.437	3.125	1.75	1.18	1.50	2.68	2.115	.656	5/8-11	225	5/8-11x2.25
W44-32-32-U	-	2	2.00	4.50	5.28	1.750	3.812	1.75	1.46	2.00	3.38	2.490	.781	3/4-10	228	3/4-10x2.75
Part No. with "U"	suffix include Bolt K	it and O Ri	ng													

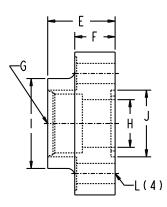
Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### 4 BOLT FLANGE - THREADED x O-RING FACE (CONT'D)





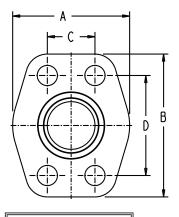


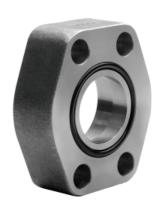
Figure 1

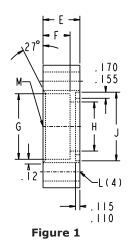
Refer to page page 27 for metric mounting options

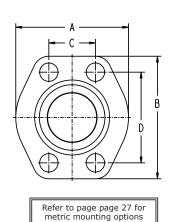
					Cod	le 61	- 30	00 P	SI SAE St	raigl	nt Th	read				
				in	ches						inc	ches				
	SAE	Pad							G Straight			,	L Drill	К	Mounti	ng Hardware
		Size		В	С	D	E	F	Thread	н	I	Max	Dia	Тар	O-Ring	SHCS
W46-12-12-U	-12	.75	1.97	2.56	.875	1.875	1.42	.71	1 1/16-12	.75	1.54	1.255	.406	-	214	3/8-16x1.50
W46-16-16-U	-16	1.00	2.17	2.75	1.031	2.062	1.50	.71	1 5/16-12	1.00	1.81	1.565	.406	-	219	3/8-16x1.50
W46-20-20-U	-20	1.25	2.68	3.12	1.188	2.312	1.61	.83	1 5/8-12	1.25	2.22	1.755	.469	-	222	7/16-14x1.75
W46-24-24-U	-24	1.50	3.07	3.66	1.406	2.750	1.77	.98	1 7/8-12	1.50	2.50	2.125	.531	-	225	1/2-13x1.75
Part Numbers wit	h "U"	suffix I	include	Bolt I	Kit and (	O Ring	, in the second		·						·	

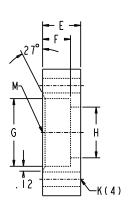
					Cod	le 62	- 60	00 P	SI SAE St	raigh	nt Th	read				
				in	ches						inc	hes				
O-Ring	SAE								G				L		Mounti	ng Hardware
Part No. Fig 1		Pad Size		В	С	D	E	F	Straight NPTF	н	I	Max	Drill Dia	K Tap	O-Ring	SHCS
W48-12-12-U	-12	.75	2.17	2.80	.937	2.000	1.25	.83	1 1/16-12	.75	1.65	1.255	.406	3/8-16	214	3/8-16x1.50
W48-16-16-U	-16	1.00	2.56	3.19	1.093	2.250	1.50	.98	1 5/16-12	1.00	1.98	1.565	.492	7/16-14	219	7/16-14x1.75
W48-20-20-U	-20	1.25	3.07	3.75	1.250	2.625	1.50	1.06	1 5/8-12	1.25	2.36	1.755	.531	1/2-13	222	1/2-13x1.75
W48-24-24-U	-24	1.50	3.70	4.41	1.437	3.125	1.75	1.18	1 7/8-12	1.50	2.68	2.125	.656	5/8-11	225	5/8-11x2.25
W48-32-32-U	-32	2.00	4.50	5.28	1.750	3.812	1.75	1.46	2 1/2-12	2.00	3.38	2.500	.781	3/4-10	228	3/4-10x2.75
Part No. with "U"	suffix	includ	e Bolt	Kit an	d O Ring	7										•

### **4 BOLT FLANGE - SOCKET x O-RING FACE**









NOTE: All dimensions are inches

Figure 2

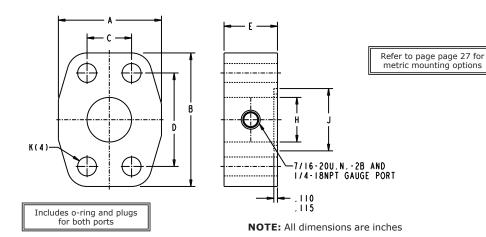
				C	ode 6	1 - 30	00 PS	SI FI	at So	ocket-	Pipe					
							inche	es						Мог	unting H	ardware
O-Ring	Flat Face	M	Pad									_	_ L	.,		
Part No. Fig 1	Part No. Fig 2	Port Size	Dash Size	Α	В	С	D	E	F	G Dia	н	J Max	Drill Dia	K Tap	O-Ring	SHCS
W4-8-8-U	W61-8-8	1/2	-8	1.813	2.125	.688	1.500	.75	.560	.855	.50	1.005	.344	5/16-18	210	5/16-18x1.50
W4-12-12-U	W61-12-12	3/4	-12	2.063	2.563	.875	1.875	.75	.560	1.062	.75	1.255	.406	3/8-16	214	3/8-16x1.50
W4-16-16-U	W61-16-16	1	-16	2.313	2.750	1.031	2.063	.88	.630	1.326	1.00	1.565	.406	3/8-16	219	3/8-16x1.75
W4-20-20-U	W61-20-20	1 1/4	-20	2.875	3.125	1.188	2.313	.94	.690	1.672	1.25	1.755	.469	7/16-14	222	7/16-14x1.75
W4-24-24-U	W61-24-24	1 1/2	-24	3.250	3.688	1.406	2.750	1.19	.750	1.922	1.50	2.125	.531	1/2-13	225	1/2-13x2.25
W4-32-32-U	W61-32-32	2	-32	3.813	4.000	1.688	3.063	1.38	.875	2.406	2.00	2.500	.531	1/2-13	228	1/2-13x2.50
W4-40-40-U	W61-40-40	2 1/2	-40	4.281	4.500	2.000	3.500	1.75	1.00	2.906	2.50	3.005	.531	1/2-13	232	1/2-13x2.75
W4-48-48-U	W61-48-48	3	-48	5.156	5.313	2.438	4.188	2.12	1.25	3.547	3.00	3.625	.656	5/8-11	237	5/8-11x3.50
Part No. with "U"	" suffix include B	olt Kit a	and O R	ing												

					5	00 PS	I Flat	Soc	ket-	Pipe						
							inche	es						Μοι	ınting H	ardware
O-Ring	Flat Face	_М	Pad Dash J										_ L	.,		
Part No. Fig 1	Part No. Fig 2		Dash Size	A	В	С	D	E	F	G	н	Max	Drill Dia	K Tap	O-Ring	SHCS
W72-48-48-U	-	3	-48	5.12	5.31	2.438	4.188	1.38	1.12	3.547	3.00	3.625	.656	-	237	5/8-11x2.50
W72-56-56-U	-	3 1/2	-56	5.50	6.00	2.750	4.750	1.44	1.19	4.047	3.50	4.115	.656	-	241	5/8-11x2.75
W72-64-64-U	-	4	-64	6.00	6.38	3.062	5.125	1.50	1.25	4.578	4.00	4.615	.656	-	245	5/8-11x2.75
Part No. with "U"	suffix include B	olt Kit a	and O Ri	ing												

				C	ode 6	2 - 60	00 PS	SI Fla	at So	cket-	Pipe					
							inche	es						Мог	unting H	ardware
O-Ring Part No.	Flat Face Part No.		Pad Dash									,	L Drill	K		
Fig 1			Size		В	С	D	E	F	G	Н	Max			O-Ring	SHCS
-	W60-20-20	1 1/4	-20	3.06	3.75	1.250	2.625	1.50	.690	1.672	1.25	1.755	.531	1/2-13	222	1/2-13x2.50
-	W60-24-24	1 1/2	-24	3.75	4.44	1.437	3.125	1.75	.750	1.922	1.50	2.125	.656	5/8-11	225	5/8-11x3.00

### **4 BOLT FLANGE - GAGE PORT SPACER**



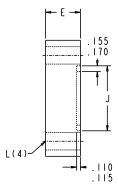


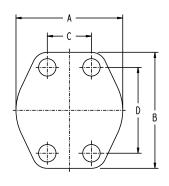
Code 61 - SAE O Ring Spacer											
inches											
Part No.	Pad   C D J J K   Tt No. Size A B ±.010 ±.010 E H Min. Max. Dia.										O-ring No.
AS-12-GP	-12	2.063	2.563	0.875	1.875	0.88	0.750	1.250	1.255	0.406	214
AS-16-GP	-16	2.313	2.750	1.031	2.063	0.88	1.000	1.560	1.565	0.406	219
AS-20-GP	-20	2.875	3.125	1.188	2.313	0.94	1.250	1.750	1.755	0.469	222
AS-24-GP	-24	3.250	3.688	1.406	2.750	1.19	1.500	2.115	2.125	0.531	225
AS-32-GP	-32	3.813	4.000	1.688	3.063	1.38	2.000	2.490	2.500	0.531	228

Code 62 - SAE O Ring Spacer											
					inch	es					
Part No.	Pad Dash Size	A	В	C ±.010	D ±.010	E	н	J Min.	J Max.	K Dia.	O-ring No.
ASX-20-GP	-20	3.06	3.75	1.250	2.625	1.500	1.250	1.750	1.755	0.531	222

### 4 BOLT FLANGE - BLANKING x O-RING FACE



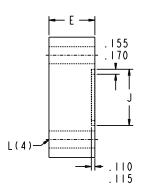


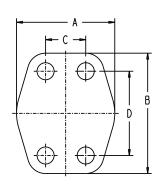


Refer to page page 27 for metric mounting options

NOTE: All dimensions are inches

Code 61 - 3000 PSI Blanking											
					inches	;					
O-Ring	Pad Dash						J	J	L Drill	Mounti	ng Hardware
Part No.	Size	A	В	С	D	E	Min	Max	Dia	O-Ring	SHCS
W36-12-12-U	-12	2.063	2.563	.875	1.875	.750	1.250	1.255	.406	214	3/8-16x1.50
W36-16-16-U	-16	2.313	2.750	1.031	2.063	.880	1.560	1.565	.406	219	3/8-16x1.75
W36-20-20-U	-20	2.875	3.125	1.188	2.313	.940	1.750	1.755	.469	222	7/16-14x1.75
W36-24-24-U	-24	3.250	3.688	1.406	2.750	1.190	2.115	2.125	.531	225	1/2-13x2.25
W36-32-32-U	-32	3.813	4.000	1.688	3.063	1.440	2.490	2.500	.531	228	1/2-13x2.50
<b>W36-40-40-U</b> -40   4.281   4.500   2.000   3.500   1.815   2.995   3.005   .531   232   1/2-13x2.75											
The Part No. suffix "U" reflects Bolt Kit and O-Ring are included.											

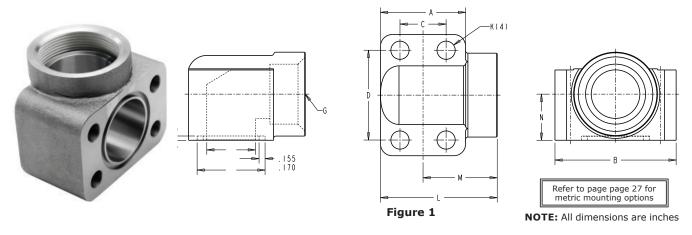




NOTE: All dimensions are inches

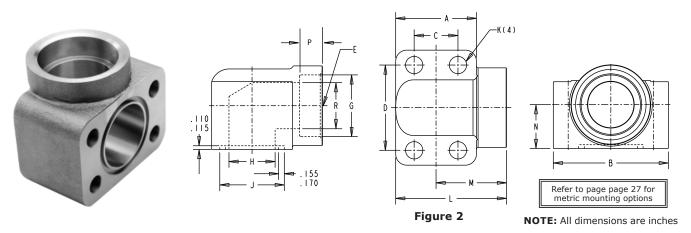
Code 62 - 6000 PSI Blanking												
					inches	;						
O-Ring	Pad Dash						,	٠, ا	L Drill	Mounti	ng Hardware	
Part No.	Size	Α	В	С	D	E	Min	Max	Dia	O-Ring	SHCS	
W38-12-12-U	-12	2.50	2.95	.937	2.000	1.250	1.250	1.255	.406	214	3/8-16x1.50	
W38-16-16-U	<b>W38-16-16-U</b> -16 2.75 3.19 1.093 2.250 1.500 1.560 1.565 .469 219 7/16-14x1.75											
<b>W38-24-24-U</b> -24 3.75 4.44 1.437 3.125 1.815 2.115 2.125 .656 225 5/8-11x2.25												
The Part No. suffix "U" reflects Bolt Kit and O-Ring are included.												

### **ELBOW - 4 BOLT FLANGE x NPTF**



	Code 61 - 3000 PSI Elbow NPTF Thread															
	inches															
O-Ring												Mounting Hardware				
Part No. Fig 1	Size (NPTF)	Dash Size										N	O-Ring	SHCS		
W168-16-16-U	1	-16	1.94	2.75	1.031	2.062	1.50	1.00	1.560	1.565	.406	2.62	1.66	1.062	219	3/8-16x2.25
W168-20-20-U	1 1/4	-20	2.19	3.12	1.188	2.312	1.81	1.25	1.750	1.755	.469	3.00	1.91	1.188	222	7/16-14x2.75
Part No. with "U" su	Part No. with "U" suffix include Bolt Kit and O Ring															

### **ELBOW - 4 BOLT FLANGE x PIPE SOCKET**



	Code 61 - 3000 PSI Elbow Socket Weld																	
			inches															
O-Ring Part No.	E Port	Pad Dash	h J J Drill												Mounting Hardware			
Fig 2	Size	Size	Α	В	С	D	G	Н	Min	Max	Dia	L	М	N	Р	R	O-Ring	SHCS
W176-12-12-U	3/4	-12	1.69	2.56	.875	1.875	1.062	.75	1.250	1.255	.406	2.28	1.44	.875	.56	0.75	214	3/8-16x2.00
W176-16-16-U	1	-16	1.94	2.75	1.031	2.062	1.328	1.00	1.560	1.565	.406	2.62	1.66	1.062	.56	1.00	219	3/8-16x2.25
W176-20-20-U	1 1/4	-20	2.19	3.12	1.188	2.312	1.672	1.25	1.750	1.755	.469	3.00	1.91	1.188	.62	1.25	222	7/16-14x2.75
W176-24-24-U	1 1/2	-24	2.56	3.69	1.406	2.750	1.922	1.50	2.115	2.125	.531	3.28	2.05	1.312	.69	1.50	225	1/2-13x3.00
W176-32-32-U	2	-32	3.06	4.33	1.688	3.062	2.406	2.00	2.490	2.500	.531	3.81	2.28	1.656	.75	2.00	228	1/2-13x3.50
Part No. with "U" su	Part No. with "U" suffix include Bolt Kit and O Ring																	

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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Ph: 920-682-6877 Fx: 920-684-7210



### **SAE J518 SPLIT FLANGE**

A Split Flange is made of two halves, and installment is easy on existing piping. Designed to allow easy assembly of the hose in tight quarters applications and provide tilt proof clamping. Split Flanges come in two varieties.

#### **Standard Features:**

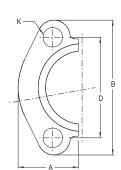
- Conforms to SAE J518 / ISO 6162
- •Code 61 (3000 PSI) Series SF
- •Code 62 (6000 PSI) Series SFX
- Each Kit contains: (2) split flange halves, (4) hex head bolt and lock washers, (1) Buna N o-ring



See below for metric mounting options

#### **Standard Materials:**

- Carbon Steel
- Zinc Plated



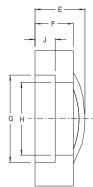


Figure 1

	Code 61 Split Flange (Figure 1)											
Part No.	Flange Size inches	A inches ±.030	B inches ±.030	D inches ±.010	E inches ±.030	F inches ±.016	G inches ±.010	H inches ±.010	J inches ±.005	K inches ±.010	Mounting O-Ring	Hardware HHCS
12 SF-0	.75	.98	2.56	1.875	.88	.56	1.531	1.265	.245	.406	214	3/8-16 x 1.25
16 SF-0	1.00	1.11	2.75	2.062	.94	.62	1.781	1.515	.295	.406	219	3/8-16 x 1.25
20 SF-0	1.25	1.39	3.12	2.312	.88	.56	2.031	1.720	.295	.469	222	7/16-14 x 1.50
24 SF-0	1.50	1.58	3.69	2.750	1.00	.62	2.406	2.000	.295	.531	225	1/2-13 x 1.50
32 SF-0	2.00	1.86	4.00	3.062	1.03	.62	2.844	2.470	.355	.531	228	1/2-13 x 1.50
40 SF-0	2.50	2.09	4.50	3.500	1.50	.75	3.344	2.950	.355	.531	232	1/2-13 x 1.75
48 SF-0	3.00	2.53	5.31	4.188	1.62	.88	4.031	3.580	.355	.656	237	5/8-11 x 2.00
56 SF-0	3.50	2.70	6.00	4.750	1.12	.88	4.531	4.030	.422	.656	241	5/8-11 x 2.00

	Code 62 Split Flange (Figure 1)											
Part No.	Flange Size inches		B inches ±.030								Mounting O-Ring	Hardware HHCS
12SFX-0	.75	1.14	2.81	2.00	1.12	.75	1.656	1.280	.325	.406	214	3/8-16 x 1.50
16SFX-0	1.00	1.33	3.19	2.250	1.31	.94	1.906	1.530	.355	.469	219	7/16-14 x 1.75
20SFX-0	1.25	1.48	3.75	2.625	1.50	1.06	2.156	1.750	.385	.531	222	1/2-13 x 1.75
24SFX-0	1.50	1.83	4.44	3.125	1.69	1.19	2.531	2.030	.475	.656	225	5/8-11 x 2.25
32SFX-0	2.00	2.20	5.25	3.812	2.06	1.44	3.156	2.660	.475	.781	228	3/4-10 x 2.75

#### **Metric Mounting Options**

Code	e 61 Metric	Mounting
Pad Size	Metric Drilled Bolt Holes	Metric Tapped Bolt Holes
8	8.5 mm	M8 x 1.25
12	10.5 mm	M10 x 1.50
16	10.5 mm	M10 x 1.50
20	10.5 mm	M10 x 1.50
24	12.5 mm	M12 x 1.75
32	12.5 mm	M12 x 1.75
40	12.5 mm	M12 x 1.75
48	16.5 mm	M16 x 2.00
56	16.5 mm	M16 x 2.00
64	16.5 mm	M16 x 2.00

Code	e 62 Metric	: Mounting
Pad Size	Metric Drilled Bolt Hole	Metric Tapped Bolt Holes
8	8.5 mm	M8 x 1.25
12	10.5 mm	M10 x 1.50
16	12.5 mm	M12 x 1.75
20	14.5 mm	M14 x 2.00
24	16.5 mm	M16 x 2.00
32	21.0 mm	M20 x 2.50

# All items in our SAE Flange line are available with Metric Mounting options. Listed here are the standard metric dilled hole diameters and metric tapped holes which are provided both for the Code 61 and Code 62 applications.

#### O Ring Information

		amp He	
O-Ring	Size inch	A inch	B inch
210	0.50	0.75	0.139
214	0.75	1.00	0.139
219	1.00	1.31	0.139
222	1.25	1.60	0.139
228	2.00	2.25	0.139
232	2.50	2.75	0.139
237	3.00	3.38	0.139
241	3.50	3.88	0.139
245	4.00	4.38	0.139





### SUCTION FLANGES FOR PIPE/TUBING

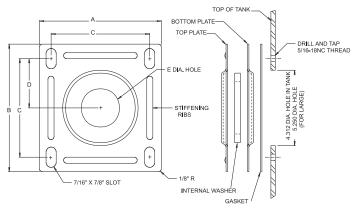
Suction/Return Flanges and Grommets are designed to seal pipe or tube lines when passing through the top plate of a hydraulic reservoir or similar applications. Suction Flanges also allow access for removal of a suction element for inspection without draining the reservoir.

#### **Standard Features:**

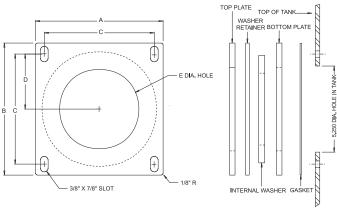
- •(1) Top plate
- •(1) Internal washer
- •(1) Bottom plate
- •(1) Gasket
- (4) 5/16-18 thread forming screws

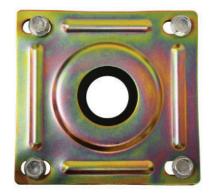
#### **Standard Material:**

Zinc plated Carbon Steel



Part Numbers 5100-5179 and 5880-5891





Part Numbers 5180-5181

	Suction Flanges for Pipe											
			Dimensi	ons (incl	hes)							
Part No.	A	В	С	D	E	Pipe Size						
5100	5.25	5.50	4.25	2.12	1.19	1/2						
5101	5.25	5.50	4.25	2.12	1.19	3/4						
5102	5.25	5.50	4.25	2.12	1.75	1						
5103	5.25	5.50	4.25	2.12	1.75	1 1/4						
5104	5.25	5.50	4.25	2.12	2.50	1 1/2						
5105	5.25	5.50	4.25	2.12	2.50	2						
5187	7.25	7.50	6.25	3.12	3.12	1 1/2						
5188	7.25	7.50	6.25	3.12	3.12	2						
5178	7.25	7.50	6.25	3.12	3.75	2 1/2						
5179	7.25	7.50	6.25	3.12	3.75	3						
5180	7.25	7.50	6.25	3.12	4.75	3 1/2						
5181	7.25	7.50	6.25	3.12	4.75	4						

Ph : 920-682-6877 Fx : 920-684-7210

Suction Flanges for Tubing						
			Dimensi	ons (incl	hes)	
						Tube Size
Part No.	A	В	С	D	E	OD
5891	5.25	5.50	4.25	2.12	1.19	.38
5880	5.25	5.50	4.25	2.12	1.19	.50
5881	5.25	5.50	4.25	2.12	1.19	.62
5882	5.25	5.50	4.25	2.12	1.19	.75
5883	5.25	5.50	4.25	2.12	1.75	1.00
5884	5.25	5.50	4.25	2.12	1.75	1.25
5885	5.25	5.50	4.25	2.12	2.50	1.50

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### RETURN FLANGES FOR PIPE AND TUBING

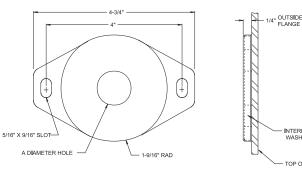
Suction/Return Flanges and Grommets are designed to seal pipe or tube lines when passing through the top plate of a hydraulic reservoir or similar applications. Suction Flanges also allow access for removal of a suction element for inspection without draining the reservoir.

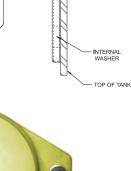
#### **Standard Features:**

- •(1) Flange
- •(1) Internal washer
- (2) 1/4-20 thread forming screws



Zinc plated Carbon Steel







Return Flanges for Pipe					
A Diameter Hole Pipe Size Part No. (inches) (inches)					
5110	1.19	1/2			
5111	1.75	3/4			
5112	1.75	1			
5113	2.50	1 1/4			
5114	2.50	1 1/2			
5115	2.50	2			

Return Flanges for Tube					
Part No.	A Diameter Hole (inches)	Tube Size OD (inches)			
5772	1.19	3/8			
5765	1.19	1/2			
5766	1.19	5/8			
5767	1.19	3/4			
5768	1.75	1			
5769	2.50	1 1/4			
5770	2.50	1 1/2			
5771	2.50	2			

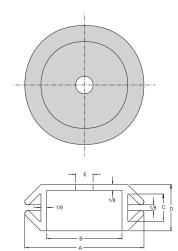
### RUBBER GROMMETS FOR RESERVOIR DOWNPIPES

#### **Standard Features:**

- Blank size with 'E' hole shall be furnished.
- Maximum O.D. limited to 'B' dimsension

#### **Standard Material:**

- Buna N rubber
- NOTE:
- Drill hole in tank top per cutout size "F'
- Snap in grommet

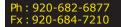




Rubber Grommets for Reservoir Downpipes								
	Dimensions (inches)							
Part No.	A	A B C D E Cutout Size						
131499	1.88	.78	.62	1.00	.25	1.12		
131599	2.38	1.20	.62	1.00	.25	1.44		
131699	3.00	1.84	.62	1.00	.38	2.06		
131799	3.50	2.41	.62	1.00	.50	2.62		
131899	4.50	3.50	.69	1.19	.50	3.88		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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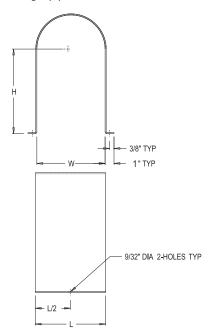
### COUPLING GUARDS

### **CG SERIES**

Coupling Guards are used to cover a rotating drive coupling assembly that's connecting shafts of an electric motor to a hydraulic pump.

#### **Standard Features:**

- Foot mounting holes
- •LDI gray primer



#### **Standard Material:**

Carbon Steel



Coupling Guards					
Dimensions (nominal)					
	H W L Pie				
Motor Frame	Part No.	(inches)	(inches)	(inches)	(lbs)
143/145	CG-145	3.50	3.50	3.75	1.00
182/184	CG-184	4.50	4.00	4.25	1.25
213/215	CG-215	5.25	4.50	4.75	1.50
284/286	CG-286	7.00	5.50	5.75	2.50

### SINGLE AND SINGLE STACK CUSHION CLAMPS

Cushion Clamps assemblies are designed to resist crushing while absorbing shock and suppressing vibration and noise.

#### **Standard Features:**

- Low temperature impact resistance
- •Long life to temperature of 220°F (120° C)
- Remains stable in light acids, solvents, fuels, mineral oils, alcohol, paints, and salt water
- Single clamp sizes from 1/8 inch to 4 inch pipe and .25 inch to 4.5 inch tube/hose
- Stack/twin clamp sizes up to 2 inch pipe and up to 2.5 inch tube/hose

#### **Standard Materials:**

- Cushions made of high impact copolymer
- Zinc plated steel hardware



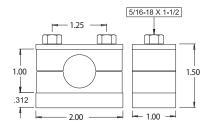






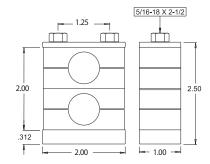
### SINGLE AND SINGLE STACK CLAMP **SERIES A**

.125 thru .750 **SERIES AA** 

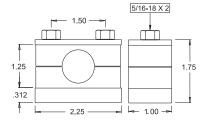


NOTE: All dimensions are inches

Series A and Series AA					
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.		
1/8	12P	.25	25T		
1/4	25P	.50	50H		
3/8	37P	.56	56H		
		.62	62H		
		.69	68H		
		.75	75H		



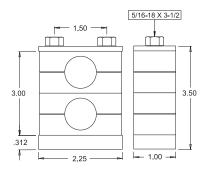
### SINGLE AND SINGLE STACK CLAMP **SERIES B**



NOTE: All dimensions are inches

Series B and Series BB					
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.		
1/2	50P	.81	81H		
3/4	75P	.88	87H		
		.94	93H		
		1.00	100H		

### .500 thru 1.00 **SERIES BB**



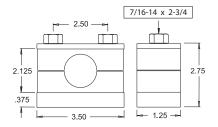
**How to Order** 

Example: single clamp A25TH single stack clamp BB100H100HH

Series Part Number H = All Hardware = Cushion half

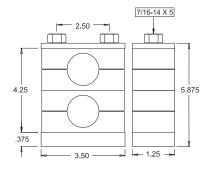
### SINGLE AND SINGLE STACK CLAMP **SERIES C**

### 1.00 thru 1.50 **SERIES CC**

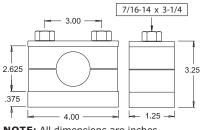


NOTE: All dimensions are inches

Series C and Series CC					
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.		
1	100P	1.06	106H		
		1.12	112H		
		1.19	118H		
		1.25	125H		
		1.31	131H		
		1.38	137H		
		1.44	143H		
		1.50	150H		



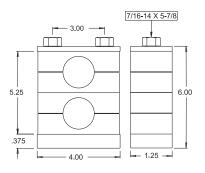
### SINGLE AND SINGLE STACK CLAMP **SERIES D**



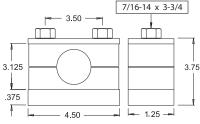
NOTE: All dimensions are inches

Series D and Series DD					
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.		
1 1/4	125P	1.56	156H		
1 1/2	150P	1.62	162H		
		1.69	168H		
		1.75	175H		
		1.81	181H		
		1.88	187H		
		1.94	193H		
		2.00	200H		

### 1.25 thru 2.00 **SERIES DD**



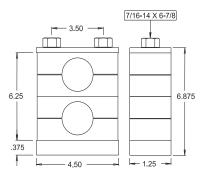
### SINGLE AND SINGLE STACK CLAMP **SERIES E**



NOTE: All dimensions are inches

Series E and Series EE					
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.		
2	200P	2.06	206H		
		2.12	212H		
		2.19	218H		
		2.25	225H		
		2.31	231H		
		2.38	237H		
		2.44	243H		
		2.50	250H		

### 2.00 thru 2.50 **SERIES EE**



**How to Order** 

Example: single clamp

single stack clamp EE225H250HH

D125PH

H = All Hardware Series Part Number C = Cushion half

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

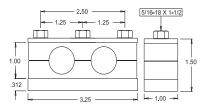
Ph : 920-682-6877 Fx : 920-684-7210



# CUSHION CLAMPS FOR PIPE & TUBE

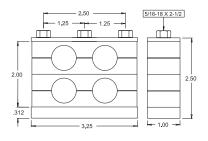
# TWIN AND TWIN STACK CLAMP SERIES F

# .125 thru .750 SERIES FF

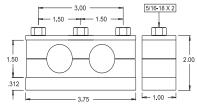


NOTE: All dimensions are inches

Series F and Series FF							
Nominal Tube/Hose OD Pipe Size Part No. (inches) Part No.							
1/8 x 1/8	1212P	.2525	2525T				
1/4 x 1/4	2525P	.5050	5050H				
3/8 x 3/8	3737P	.5656	5656H				
		.6262	6262H				
		.6969	6868H				
		.7575	7575H				



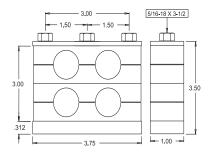
# TWIN AND TWIN STACK CLAMP SERIES G



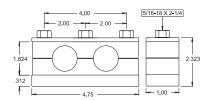
NOTE: All dimensions are inches

	Series G and Series GG								
	Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.					
ſ	1/2 x 1/2	5050P	.8181	8181H					
ı	3/4 x 3/4	7575P	.8888	8787H					
I			.9494	9393H					
L			1.00-1.00	1010H					

# .500 thru 1.00 SERIES GG



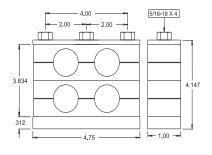
# TWIN AND TWIN STACK CLAMP SERIES L



NOTE: All dimensions are inches

	Series L and Series LL									
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.							
1 x 1	1010P	1.06-1.06	106106H							
					1.12-1.12	112112H				
		1.19-1.19	118118H							
				1.25-1.25	125125H					
						1.31-1.31	131131H			
		1.38-1.38	137137H							
		1.44-1.44	143143H							
		1.50-1.50	150150H							

# 1.00 thru 1.50 SERIES LL



**How to Order** 

**Example:** twin clamp G7575PH

twin stack clamp FF5050H2525TH

Series Part Number H = All Hardware C = Cushion half

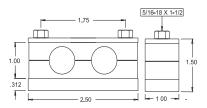
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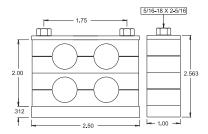


# MINI TWIN & MINI TWIN STACK CLAMP **SERIES M**

# .125 thru 5.00 **SERIES MM**



Series M and Series MM							
Nominal Pipe Size Part No.	Tube/Hose OD (inches)	Part No.					
1/8 x 1/8 <b>1212P</b>	.2525	2525T					
1/4 x 1/4 <b>2525P</b>	.5050	5050T					



NOTE: All dimensions are inches

**How to Order** 

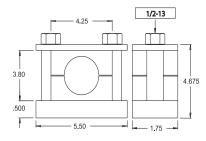
Example: mini twin clamp

M5050TH mini twin stack clamp MM2525T5050TH

H = All Hardware C = Cushion half Series Part Number

# SINGLE CLAMP **SERIES K**

2.50 thru 3.00



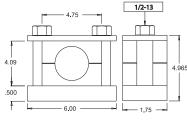
Se	eries K - 2	2.50 thru 3.00	
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.
2 1/2	250P	3.00	300T

**How to Order** Example: K250PH Series Part Number H = All Hardware C = Cushion half

NOTE: All dimensions are inches

# SINGLE CLAMP **SERIES K**

3.00 thru 3.50



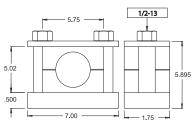
Se	eries K - 3	3.00 thru 3.50	
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.
3.00	300P	3.50	300P

**How to Order** Example: K300PH Series Part Number H = All Hardware C = Cushion half

NOTE: All dimensions are inches

# SINGLE CLAMP **SERIES K**

4.00 thru 4.50



Series K - 4.00 thru 4.50							
Nominal Pipe Size	Part No.	Tube/Hose OD (inches)	Part No.				
4.00	400P	4.00	400T				
		4.50	400P				

**How to Order** Example: K400PH Series Part Number H = All Hardware C = Cushion half

NOTE: All dimensions are inches

# FLEXIBLE JAW - SPIDER PERFORMANCE DATA

Four types of elastomer designs and materials are offered to allow for flexibility in addressing specific application requirements.

### **Standard Materials:**

- SOX (NBR) Rubber (Black) Nitrile Rubber
  - Considered the standard and most economical for jaw coupling spiders
  - Offers the best combination of temperature and chemical resistance, misalignment, and dampening ability
  - Only material suitable for reciprocating engine applications
  - -80A Shore Hardness except L035=60A
  - $^{\circ}\text{Temperature Range}$  40° F to 212° F (-40° C to 100° C)
  - Resembles natural rubber in resilience and elasticity
  - -Also applies to SXB Cushions

### Urethane (Blue)

- Greater torque capability than NBR (1.5 times), provides less dampening effect and operates in a smaller temperature range
- Good resistance to oil and chemicals
- Not recommended for cyclic or start/stop applications
- L050 to L110 Shore Hardness 55D, L150 to L225 Shore Hardness 90-95A
- ∘Temperature Range -30° F to 160° F (-34° C to 71° C)

### Hytrel (Tan)

- •Flexible elastomer designed for high torque and high temperature operations
- Excellent resistance to oil and chemicals
- <sup>o</sup>Not recommended for cyclic or start/stop applications
- 55D Shore Hardness
- $^{\circ}\text{Temperature Range -60° F to 250° F (-51° C to 121° C)}$

### Bronze

- Rigid, porous oil-impregnated metal insert exclusively for low speed (max 250 RPM) applications requiring high torque capabilities
- Not affected by extreme temperatures, water, oil, or
- $^{\circ}\text{Temperature Range}$  -40° F to 450° F (-40° C to 232° C)

### **Standard Styles:**

- Solid Center
  - Commonly used when shafts of the driver and driven equipment can be kept separate by a standard gap

### Open Center

- Allows for the shafts of the driver and driven to be positioned within a short distance
- Offer shaft positioning flexibility but have a lower RPM capacity (1,750 RPM Max for NBR, 3,600 Max for Urethane/Hytrel)

### Snap Wrap Flexible

- Design allows for easy removal of the spider without moving the hubs
- $^{\circ}\text{Allows}$  for close shaft separation all the way up to the hubs maximum bore
- Maximum RPM is 1,750 RPM with the retaining ring, but if used with the LC Type (with collar) the normal RPM rating of the coupling applies
- Style is available in NBR and Urethane only, and in limited sizes

### Cushions

- Used exclusively for the C Type couplings
- <sup>e</sup>Load cushions are held in place radially by a steel collar which is attached to one of the hubs



# **FLEXIBLE JAW - SPIDERS & CUSHIONS**









				Spid	lers for	L Type	Hubs						
Туре	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
SOX (NBR) (solid)	10118	10194	10406	10621	11070	11070	11494	11494	11724	12001	12274	12409	
SOX (NBR) (open center)			10393	10620	10968	10968	11492	11492	11711	37880	37881	12406	12612
Urethane (solid)		37786	10395										
Urethane (open center)			10411	10626	11075	11075	11499	11499	11729	12006	12280	12417	
Hytrel (solid)		25307							11717	11993	12265	12401	
Hytrel (open center)			25308	25309	25310	25310	11486	11486	38097	38098	38099	12400	
Bronze (open center)		10498	10409	10624	11073	11073	11497	11497	11727	12004	12277	34517	25767
Snap Wrap w/ring					24669	24669	24670	24670	24671	24672	24673		
Snap Wrap w/o ring					11071	11071	11495	11495	11725	12002	12275		
Snap Wrap Urethane (Solid Ring)							41170	41170	41171		28284	26093	

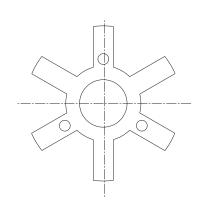
Spiders for AL Type Hubs									
Туре	AL050	AL070	AL075	AL090	AL095	AL099	AL100	AL110	AL150
SOX (NBR) (solid)	10194	10406	10621	11070	11070	11494	11494	11724	18027
SOX (NBR) (open center)		10393	10620	10968	10968	11492	11492	11711	
Urethane (solid)	37786	10395							
Urethane (open center)		10411	10626	11075	11075	11499	11499	11729	
Hytrel (solid)	25307							11717	
Hytrel (open center)		25308	25309	25310	25310	11486	11486	38097	
Bronze (open center)	10198	10409	10624	11073	11073	11497	11497	11727	
Snap Wrap w/ring				24669	24669	24670	24670	24671	
Snap Wrap w/o ring				11071	11071	11495	11495	11725	

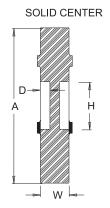


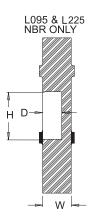
Cushi	ons and	Collar	s for C	Туре	Hubs		
Size		C226	C276	C280	C285	C295	C2955
No. of Cushions	<b>→</b>	6	6	6	6	6	10
SXB(NBR) cushion set		14547	14633	14712	14771	14805	14856
HYTREL cushion set		27529	14637	14716	14774	14808	14859
BRONZE cushion set		14545				51914	51915
COLLAR with hardware		40122	40123	40124	40292	40293	40293

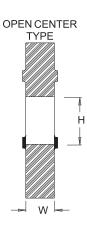


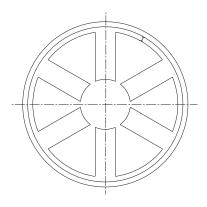
# FLEXIBLE JAW - SPIDERS & CUSHIONS DIMENSIONS

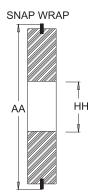












	Solid Center Spiders								
	Ма	terial .	Availal	ble					
Size	SOX NBR	URE	нүт	BRZ	A	Dimensior D	ns H		
L035	10118				.062				
L050	10194	37786	25307		1.06				
L070	10406				1.38				
L075	10621				1.75				
L090	11070				2.12	.18	.87		
L095	11070				2.12	.18	.87		
L099	11494				2.53	.25	1.03		
L100	11494				2.53	.25	1.03		
L110	11724		11717		3.31	NBR .25 HYT .18	1.18		
L150	12001		11993		3.75	NBR .31 HYT .21	1.25		
L190	12274		12265		4.50	NBR .31 HYT .18	1.38		
L225	12409		12400		5.00	NBR .38 HYT .18	1.75		
L276									

Open Center Spiders									
	Ма	terial							
Size	SOX NBR	URE	нүт	BRZ	Dimer A	nsions H			
L035									
L050				10498	1.06	.31			
L070	10393	10395	25308	10409	1.38	.50			
L075	10620	10626	25309	10624	1.75	.75			
L090	10968	11075	25310	11073	2.12	.87			
L095	10968	11075	25310	11073	2.12	.87			
L099	11492	11499	11486	11497	2.53	1.03			
L100	11492	11499	11486	11497	2.53	1.03			
L110	11711	11729	38097	11727	3.31	1.18			
L150	37880	12006	38098	12004	3.75	1.25			
L190	37881	12280	38099	12274	4.50	1.38			
L225	12406	12417	12401	34517	5.00	1.75			
L276	12612			25767	6.18	1.75			

Snap	Wra	Spi	ders
Size	SOX NBR	Dim AA	ens. HH
L035	N/A		
L050	N/A		
L070	N/A		·
L075	N/A		
L090	24669	2.56	1.06
L095	24669	2.56	1.06
L099	24670	3.08	1.37
L100	24670	3.08	1.37
L110	24671	3.87	1.50
L150	24678	4.56	1.75
L190	24673	5.18	2.25
L225	URE	5.44	2.75
L276	N/A		

L075 .44 L090 .44. L095 .44 1099 .63 L100 .63 L110 .75 L150 .88 L190 .88 L225 .92 L276 1.50

All

Size L035

L070

w

.27

.42

# **FLEXIBLE JAW - L TYPE HUBS**

The Flexible Jaw Coupling is the industry's largest variety of stock bore/keyway combinations. These couplings require no lubrication and provide highly reliable service for light, medium, and heavy duty electrical motor and internal combustion power transmission applications.

### **Standard Features:**

- Industry's standard shaft coupling
- Accommodates for angular and parallel shaft misalignment
- No metal to metal contact
- Keyed inch/metric
- Without keyway inch/metric
- Splined bore
- Resistant to oil, dirt, sand, moisture, and grease
- Max Bore: 2.875 inches / 70 mm •Max Torque: 12,500 in-lbs (1412Nm)

### **Standard Materials:**

- Sintered Iron (L035 L150)
- Cast Iron (L190-L276)

NOTE: A full L Type Coupling is comprised of two hubs and one elastomeric spider of the same size





		L1	Гуре In	ch Hub	os Stan	dard B	ore and	l Keyw	ay Cha	rt Sele	ction			
Bore	Keyway	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
1/8	No KW	10124												
3/16	No KW	10126												
1/4	No KW	10127	10206	10416	10680	10766								
1/4	1/8 x 1/16				35744									
5/16	No KW	10128	10207	10417	10681	26209								
3/8	No KW	24687	10208	10418	10682	10767								
3/8	3/32 x 3/64		46121	41985	37234	37235								
3/8	1/8 x 1/16		44136	48829	35745	37236								
7/16	No KW		10209	10419	10683	10768	11082	31297	11505					
7/16	3/32 x 3/64		44713	44007	28089	28877	27613	38198	37237					
7/16	1/8 x 1/16			44066	28875	28878	28879	38199	37238					
1/2	No KW		10210	10420	10684	10769	11083	11333	11506					
1/2	1/8 x 1/16		10211	10421	10685	26087	26088	11334	26089					
9/16	No KW		10212	52338	10686	24976	37239	11335	11508					
9/16	1/8 x 1/16		10213	10423	10687	28876	11084	38200	11509					
5/8	No KW		10214	24771	44322	46052	41911	44174	44291	11733	12101			
5/8	5/32 x 5/64			51104	37240	37241	37242	38201	37243	37244	37245			
5/8	3/16 x 3/32			10424	10688	10771	11085	11336	11510	26211	26212			
11/16	3/16 x 3/32			10425	10689	10772	11086	11337	11511	11734	12102			
3/4	No KW			46116	56140	54282	56887	11455	45212			12285	12422	
3/4	1/8 x 15/16			51719	35881	37246	37074	38202	37247	37248	37249	37250		
3/4	3/16 x 3/32			10426	10690	10773	11087	11338	11512	11735	12103	38468	35882	
13/16	3/16 x 3/32				10691	10774	11088	11339	11513	11736	12104	37252	37255	
7/8	No KW				56941			59063						12582
7/8	3/16 x 3/32				10692	10775	11089	11340	11514	11737	12105	12286	12423	12585
7/8	1/4 x 1/8					38188	35747	38203	35686	35749	35750	37256	35753	54883
15/16	1/4 x 1/8					32332	11090	11341	11515	11738	12106	12287	12424	
1	3/16 x 3/32					37257	37258	38204	37259	37260	37261		37263	
1	1/4 x 1/8					31296	11091	11342	11516	11739	12107	12288	12425	12586
1 1/16	1/4 x 1/8						11092	11343	11517	11740	12108	12289	12426	
1 1/8	1/4 x 1/8						11093	11344	11518	11741	12109	12290	12427	12587
1 3/16	1/4 x 1/8							11345	11519	11742	12110	12291	12428	
1 1/4	1/4 x 1/8								11520	11743	12111	12292	12429	12588
1 1/4	5/16 x 5/32								35748	35752	35751	37264	35754	12589
1 5/16	5/16 x 5/32								11521	11744	12112	12293	26090	
1 3/8	5/16 x 5/32								11522	11745	12113	12294	12430	12590
1 3/8	3/8 x 3/16								44348	37265	37266	37267	37268	46758
1 7/16	3/8 x 3/16									11746	12114	12295	12431	12591
1 1/2	5/16 x 5/32									37269	37270	37271	37272	

NOTE: All finished bore hubs are provided with one set screw as standard. Non-standard bores available, consult engineering.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability. Ph : 920-682-6877 Fx : 920-684-7210



# FLEXIBLE JAW - L TYPE HUBS (CONT'D)





		L Type	Inch H	lubs St	andard	Bore a	and Key	way C	hart Se	election	(cont	'd)		
Bore	Keyway	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
1 1/2	3/8 x 3/16									11747	12115	12296	12432	12592
1 9/16	3/8 x 3/16									11748	12116	37273	12433	45689
1 5/8	3/8 x 3/16									11749	12117	12297	12434	12593
1 11/16	3/8 x 3/16										12118	12298	12435	60057
1 3/4	3/8 x 3/16										12119	12299	12436	12594
1 3/4	7/16 x 7/32										37274	37275	37276	48250
1 13/16	1/2 x 1/4										12120	12300	26091	
1 7/8	1/2 x 1/4										12121	12301	12437	12595
1 15/16	1/2 x 1/4											12302	12438	49762
2	1/2 x 1/4											12303	12439	12596
2 1/16	1/2 x 1/4											12304	26092	
2 1/8	1/2 x 1/4											12305	12440	12597
2 3/16	1/2 x 1/4												12441	12598
2 1/4	1/2 x 1/4												12442	12599
2 3/8	5/8 x 5/16												12443	12602
2 5/8	5/8 x 5/16												41809	12605
2 7/8	3/4 x 3/8													12607

NOTE: All finished bore hubs are provided with one set screw as standard. Non-standard bores available, consult engineering.





	L Type Hub Spline Bore Chart													
No. Teeth	Pitch	SAE	Shaft Di Major	ameters Minor	Shaft Maj. Dia.	L090	L095	L099	L100	L110	L150	L190	L225	L276
9	16/32	Α	.651	.509	.625	38568	37900	38571	37904					
11	16/32		.776	.631	.750	38569	37901	38572	37905	37909	37917	37925		
13	16/32	В	.901	.754	.875	38570	37902	38573	37906	37910	37918	37926	37935	
13	8/16	D, E	1.798	1.506	1.750					37915	37923	37931	37940	38576
14	12/24	С	1.289	1.087	1.250					37912	37920	37928	37937	38577
15	16/32	BB	1.026	.877	1.000			38574	37907	37911	37919	37927	37936	38578
15	8/16	F	2.048	1.753	2.000							37933	37942	
21	16/32		1.401	1.250	1.375					37913	37921	37929	37938	
23	16/32		1.526	1.375	1.500					37914	37922	37930	37939	
27	16/32		1.776	1.625	1.750					37916	37924	37932	37941	38579



# FLEXIBLE JAW - L TYPE HUBS (CONT'D)





		L Type	Metric	Hubs	Standa	rd Bore	e and K	(eyway	Chart	Selecti	on (mr	n)		
Bore	Keyway	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
4	No KW	41850												
5	No KW	47419	46214											
6	No KW	45872	50351											
7	No KW	60679	10215	58803										
8	No KW	55169	41460	46151		60945								
9	3 x 1.4		41313	56177	44298									
10	No KW		10216	41452	41456									
10	3 x 1.4		41450	49870	41457	52828								
11	4 x 1.8		41314	41453	50811		49424							
12	No KW		48510	51562		48276								
12	4 x 1.8		41315	41454	44153	44329	44832		55195					
14	No KW		58036	47505		41461	41465							
14	5 x 2.3		41316	41317	41321	51231	41466	60094	45101					
15	No KW		60708		10693		46561	52697	41469					
15	5 x 2.3		41451	41455	41458	52096	45778	46972	47123					
16	5 x 2.3		56176	41318	41322	49198	41325	52098	55534	52092	52471			
17	5 x 2.3			45333	49398		49704		56178	60067	60156			
18	6 x 2.8			59724	41884	46433	46626	44647	41926	44288				
19	No KW					10777				41471				
19	6 x 2.8			41319	41323	41462	41326	44157	41329	49700	48821	46717		
20	6 x 2.8				41459	41925	41467	47122	52093	41804	61218	61497		
22	6 x 2.8				58246	41968	44827	41959	44467	45214	44720			
24	8 x 3.3					41463	41327	41990	41330	48301	48182	59109		
25	8 x 3.3					41464	41468	45055	41470	41906	46751	52153		
28	No KW										56179	56182		
28	8 x 3.3						41328	50103	41331	41333	45679	52976		
30	8 x 3.3							47132	48317	45681	41738	44471	48982	
32	No KW										41472	41473	48319	56232
32	10 x 3.3								41332	41334	41873	45562	41849	41885
35	No KW										56180	56183	56184	
35	10 x 3.3								49925	45682	46562	58035	52197	
38	10 x 3.3									41335	41337	41474	49664	52961
40	12 x 3.3									45683	48318	48320	49605	59308
42	12 x 3.3									41336	41338	41475	47492	45609
45	14 x 3.8										45102	56017	52674	50292
48	No KW										56181	51995		
48	14 x 3.8										56227	48322	47569	61202
50	No KW											56228	56230	56233
50	14 x 3.8											44392	48797	45062
55	No KW											56229	56231	56234
55	16 x 4.3											47006	44089	56067
60	No KW												56185	56235
60	18 x 4.4												44598	56236
65	No KW												56185	56237
65	18 x 4.4												56544	50102
70	20 x 4.9													58268

NOTE: All finished bore hubs are provided with one set screw as standard. Non-standard bores available, consult engineering.

# **FLEXIBLE JAW - AL TYPE HUBS**

The AL Type coupling is the lightweight version of the standard L Type coupling. These couplings require no lubrication and provide highly reliable service for light, medium and heavy duty electrical motor and internal combustion power transmission applications.

### **Standard Features:**

- Lightweight aluminum version of the industry standard shaft coupling
- Interchangeable with L and SS line of hubs (except AL150)
- Corrosion resistant (finished bores passivated for additional protection)
- Accommodates for angular and parallel shaft misalignment
- No metal to metal contact

- Keyed inch/metric
- Without keyway inch/metric
- Resistant to oil, dirt, sand, moisture, and grease
- Max Bore: 1.875 inches (48 mm)
- Max Torque: 2,268 in-lbs (256 Nm)

**NOTE:** A full AL Type Coupling is comprised of two AL hubs and one elastomeric spider of the same size

	AL Ty	pe Inc	h Hubs	Stand	ard Bo	re and	Keywa	y Chart	t	
Bore	Keyway	AL050	AL070	AL075	AL090	AL095	AL099	AL100	AL110	AL150
1/4	No KW	10252	10463	10630	10791					
5/16	No KW	10253	10464	10631	10792					
3/8	No KW	10254	10466	10632	10793					
7/16	No KW	10256	10469	10633	10794					
1/2	No KW	10257	10471	10634	10795	17847	17880	17914		
1/2	1/8 x 1/16	49706	10473	10635	10796	17848	17881	17915		
9/16	No KW			10637	10797			56473		
9/16	1/8 x 1/16			10638	44812	37994	44323	17917		
5/8	No KW	10259	10480	61817	44004				17977	18035
5/8	3/16 x 3/32		10482	10639	10798	17850	17882	17918	38888	44828
11/16	3/16 x 3/32			45227	10799	17851	45494	17919	44059	46642
3/4	1/8 x 1/16			47835	47725	46295				
3/4	3/16 x 3/32			10640	10800	17852	17883	17920	17978	18036
13/16	3/16 x 3/32			10641	10801	17853	17884	17921		
7/8	3/16 x 3/32			10642	10802	17854	17885	17922	17979	18037
15/16	1/4 x 1/8					17855	17886	17923	17980	18038
1	1/4 x 1/8					17856	17887	17924	17981	18039
1 1/16	1/4 x 1/8					17857	17888	17925	26094	18040
1 1/8	1/4 x 1/8					17858	17889	17926	17982	18041
1 3/16	1/4 x 1/8						17890	17927	17983	18042
1 1/4	1/4 x 1/8							17928	17984	18043
1 5/16	5/16 x 5/32							17929	17985	18044
1 3/8	5/16 x 5/32							17930	17986	18045
1 7/16	3/8 x 3/16							45508	17987	18046
1 1/2	3/8 x 3/16								17988	18047
1 9/16	3/8 x 3/16								17989	18048
1 5/8	3/8 x 3/16								17990	18049
1 11/16	3/8 x 3/16									18050
1 3/4	3/8 x 3/16									18051
1 13/16	1/2 x 1/4									18052
1 7/8	1/2 x 1/4									18053



**NOTE**: Reboring AL hubs is not recommended. All hubs are supplied standard with one set screw



# FLEXIBLE JAW - AL TYPE HUBS (CONT'D)

AL Type Metric Hubs Standard Bore and Keyway Chart (mm)											
Bore	Keyway	AL050	AL070	AL075	AL090	AL095	AL099	AL100	AL110	AL150	
8	No KW			48973							
10	3 x1.4			41924	56514						
11	4 x 1.8		65694	51098	58620						
12	4 x 1.8		56487	65655	60429						
14	5 x 2.3		65696	47302	58621	56800	58624				
15	5 x 2.3		62906	49633	58622	56801		49629			
16	5 x 2.3			52221		47014		45012			
17	5 x 2.3				60887	44712		59164			
19	6 x 2.8		65698	47427	44679	47012	58625	47253	59064		
20	No KW			56137							
20	6 x 2.8			59394		48327	49634	49630	49631	60878	
22	6 x 2.8					47013					
24	8 x 3.3					45736	58626	44058	45690	64634	
25	8 x 3.3						49709	55687	45933	64633	
28	8 x 3.3					47105	58627	47393	45463		
30	8 x 3.3						52048	58266	49632	45063	
32	10 x 3.3								54417	44347	
35	10 x 3.3								46215		
36	10 x 3.3									51737	
38	10 x 3.3								52692	58215	
42	12 x 3.3									45404	

**NOTE**: Reboring AL hubs is not recommended. All hubs are supplied standard with one set screw



# **FLEXIBLE JAW - C TYPE HUBS**

The C Type Coupling offers greater torque and larger bore capacity (compared to L type). It is the industry's largest available selection from stock.

## **Standard Features:**

- Elastomeric cushions are radially removable
- Accommodates for angular and parallel shaft misalignment
- No metal to metal contact
- Resistant to oil, dirt, sand, moisture, and grease
- Max Bore: 4.000 inches (102mm)Max Torque: 37,800 in-lbs (4271 Nm)

## **Standard Material:**

Cast Iron

**NOTE:** A full C Type Coupling is comprised of two standard C Type hubs, one cushion set, and one collar with hardware.

С Тур	e Metric	Hubs S	Standa	d Bore	and K	eyway	(mm)
Bore	Keyway	C226	C276	C280	C285	C295	C2955
30	8 X 3.3	62792					
35	10 X 3.3	60243	47386				
38	10 X 3.3	45348	62160				
40	12 X 3.3	49379	54037				
42	12 X 3.3		45219				
45	14 X 3.8	52550	44723	58265			
48	14 X 3.8	54288		52205			
55	16 X 4.3	58011	58444	49012			
60	18 X 4.4		47265	49378			
65	18 X 4.4		52008				58676
70	20 X 4.9		59032		56794	54355	58677
75	22 X 5.4					47813	58678
80	22 X 5.4				44487	58675	58679
90	25 X 5.4				54363		
95	25 X 5.4						62695



C.	Type Inch	Hubs	Standa	ard Bo	re and	Keywa	ay
Bore	Keyway	C226	C276	C280	C285	C295	C2955
7/8 RSB		40125	40126				
1 1/8	1/4 x 1/8	26036	26050				
1 1/4 RSB				26067	41036		
1 1/4	1/4 x 1/8	26037	26051	48988	47173		
1 3/8	5/16 x 5/32	26038	26052	46278	55546		
1 7/16	3/8 x 3/16	26039					
1 1/2RSB						41037	
1 1/2	3/8 x 3/16	26040	26053	46277	48366	44824	
1 5/8	3/8 x 3/16	26041	26054	46194	41892	56078	
1 3/4RSB							41038
1 3/4	3/8 x 3/16	26042	26055	44011	52311	45780	
1 7/8	1/2 x 1/4	26043	26056	44012	51533	47080	49075
2	1/2 x 1/4	26044	26057	48194			
2 1/8	1/2 x 1/4	26045	26058	44370	49809	44711	
2 1/4	1/2 x 1/4	26046	44547				
2 3/8	5/8 x 5/16	26047	26060	44014	47288	44825	52703
2 1/2	5/8 x 5/16	26048	46120	51998	56779	45249	48454
2 5/8	5/8 x 5/16		46755	44013		50145	54549
2 7/8	3/4 x 3/8		26064	51525	49456	52702	48108
3	3/4 x 3/8			48193			
3 3/8	7/8 x 7/16				47171	45402	49077
3 1/2	7/8 x 7/16				46844	52988	44545
3 5/8	7/8 x 7/16						50106
3 3/4	7/8 x 7/16						58378
3 7/8	1 x 1/2				48247		49351
4	1 x 1/2						55016

**Note**: RSB (Rough Stock Bore) hub has no keyway or set screw hole, it is not useable as shown and must be machined to proper bore tolerances. Hub includes inside sleeve and is drilled and tapped for collar bolts. Non-standard bores available, consult engineering

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# FLEXIBLE JAW COUPLINGS - PERFORMANCE DATA

		F	lexible Sha	ft Couplings	s - Performa	ance Data			
				Ratings ing RPM	Torque	Rating	Вс	ore	Maximum
Size	Elastomeric Member	Number of Jaws	100	1800	in-lbs	Nm	inch	Nm	RPM 1000
55				L and AL					
L035	SOX (NBR)	2	.006	.10	3.5	.40	.375	9	31.0
L050/AL050	SOX (NBR)	2	.042	.75	26.3	2.97	.625	16	18.0
	Hytrel	2	.080	1.43	50.0	5.65	.625	16	18.0
L070/AL070	SOX (NBR)	2	.070	1.23	43.2	4.88	.750	19	14.0
	Hytrel	2	.180	3.26	114.0	12.88	.750	19	14.0
L075/AL075	SOX (NBR)	3	.140	2.57	90.0	10.17	.875	22	11.0
	Hytrel	3	.360	6.48	227.0	25.65	.875	22	11.0
L090/AL090	SOX (NBR)	3	.230	4.11	144.0	16.27	1.00	25	9.0
	Hytrel	3	.640	11.50	401.0	45.31	1.00	25	9.0
L095/AL095	SOX (NBR)	3	.310	5.50	194.0	21.92	1.12	28	9.0
	Hytrel	3	.890	16.00	561.0	63.38	1.12	28	9.0
L099/AL099	SOX (NBR)	3	.500	9.10	318.0	35.93	1.18	30	7.0
	Hytrel	3	1.260	22.60	792.0	89.48	1.18	30	7.0
L100/AL100	SOX (NBR)	3	.660	11.90	417.0	47.11	1.38	35	7.0
	Hytrel	3	1.800	32.40	1134.0	128.12	1.38	35	7.0
L110/AL110	SOX (NBR)	3	1.260	23.00	792.0	89.48	1.62	42	5.0
	Hytrel	3	3.600	65.00	2268.0	256.25	1.62	42	5.0
L150	SOX (NBR)	3	2.000	35.00	1240.0	140.10	1.88	48	5.0
	Hytrel	3	5.900	106.00	3708.0	418.95	1.88	48	5.0
AL150	SOX (NBR)	4	2.300	41.40	1450.0	163.63	1.88	48	5.0
L190	SOX (NBR)	3	2.700	49.00	1728.0	195.24	2.12	55	5.0
	Hytrel	3	7.400	134.00	4680.0	528.77	2.12	55	5.0
L225	SOX (NBR)	3	3.700	67.00	2340.0	264.38	2.62	65	4.2
	Hytrel	3	9.900	178.00	6228.0	703.67	2.62	65	4.2
L276	SOX (NBR)	3	7.500	135.00	4716.0	532.84	2.88	73	1.8
				C TYP	E				
C226	SXB (NBR)	3	4.700	85.00	2988.0	337.60	2.50	64	4.8
	Hytrel	3	9.400	170.00	5940.0	671.13	2.50	64	4.8
C276	SXB (NBR)	3	7.500	135.00	4716.0	532.84	2.88	73	4.2
	Hytrel	3	15.000	269.00	9432.0	1065.67	2.88	73	4.2
C280	SXB (NBR)	3	12.000	216.00	7560.0	254.17	3.00	76	3.5
	Hytrel	3	22.000	396.00	13866.0	1566.65	3.00	76	3.5
C285	SXB (NBR)	3	14.600	262.00	9182.0	1037.43	4.00	102	3.2
	Hytrel	3	26.000	476.00	16660.0	1882.33	4.00	102	3.2
C295	SXB (NBR)	3	18.000	324.00	11340.0	1281.25	3.50	89	2.3
	Hytrel	3	36.000	648.00	22680.0	2562.50	3.50	89	2.3
C2955	SXB (NBR)	5	30.000	540.00	18900.0	2135.42	4.00	102	2.3
	Hytrel	5	60.000	1080.00	37800.0	4270.83	4.00	102	2.3

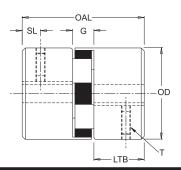
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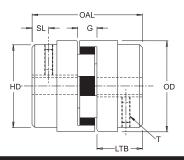
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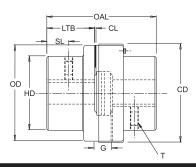


# FLEXIBLE JAW COUPLINGS - DIMENSIONAL DATA

L TYPE STYLE 1 L TYPE STYLE 2 C TYPE STYLE 3

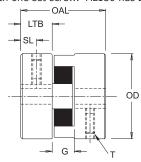




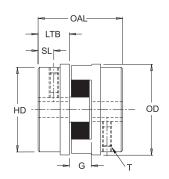


	L Type, C Type and AL Type Flexible Couplings Dimensional Data (inches)														
Part No.	Style Number	Bc Min	ore     Max	Outer Dia. OD	Overall Length OAL	Gap G	Length Thru Bore LTB	Hub Dia. HD	Clearance I CL	Set Screw Location SL	Collar Dia. CD	Set Screw Size T	Weigh Solid	t (lbs) Max Bore	Moment of Inert WR <sup>2</sup> in-lbs <sup>3</sup> (solid)
L035	1	.12	.38	.62	.81	.27	.27	.62	-	.13		#6-32	.10	.10	0.003
L050	1	.25	.62	1.08	1.72	.48	.62	1.08	-	.31	-	1/4-20	.30	.20	0.054
L070	1	.25	.75	1.36	2.00	.50	.75	1.36	-	.38	-	1/4-20	.60	.40	0.115
L075	1	.25	.88	1.75	2.12	.50	.81	1.75	-	.31	-	1/4-20	1.00	.80	0.388
L090	1	.25	1.00	2.11	2.12	.50	.81	2.11	-	.44	-	1/4-20	1.50	1.20	0.772
L095	1	.44	1.12	2.11	2.50	.50	1.00	2.11	-	.44	-	5/16-18	1.80	1.30	0.890
L099	1	.44	1.19	2.54	2.87	.75	1.06	2.54	-	.44	-	5/16-18	2.50	2.00	2.048
L100	1	.44	1.38	2.54	3.50	.75	1.37	2.54	-	.44	-	5/16-18	3.50	2.50	2.783
L110	1	.62	1.62	3.31	4.25	.87	1.69	3.31	-	.75	-	3/8-16	6.60	5.00	8.993
L150	1	.62	1.88	3.75	4.50	1.00	1.75	3.75	-	.75	-	3/8-16	9.10	7.00	11.477
L190	2	.75	2.12	4.50	4.88	1.00	1.94	4.00	-	.88	-	1/2-13	17.00	13.00	39.256
L225	2	.75	2.62	5.00	5.38	1.00	2.19	4.25	-	1.00	-	1/2-13	23.00	18.00	65.000
L276	2	.88	2.88	6.18	7.87	1.63	3.12	5.00	-	1.56	-	1/2-13	47.00	36.00	188.000
C226	3	.88	2.50	5.15	7.00	1.50	2.75	4.12	.12	1.38	5.50	1/2-13	29.00	22.00	74.000
C276	3	.88	2.88	6.18	7.87	1.63	3.12	5.00	.12	1.56	6.53	1/2-13	47.00	36.00	188.000
C280	3	1.25	3.00	7.50	7.87	1.63	3.12	5.50	.12	1.56	7.81	1/2-13	61.00	49.00	362.000
C285	3	1.25	4.00	8.50	9.13	1.63	3.75	6.50	.12	1.75	8.88	5/8-11	87.00	68.00	642.000
C295	3	1.50	3.50	9.12	9.38	1.88	3.75	6.31	.12	1.88	9.62	5/8-11	97.00	78.00	862.000
C2955	3	1.75	4.00	9.12	10.38	1.88	4.25	7.12	.12	2.12	9.62	5/8-11	117.00	90.00	392.000
AL050	4	.25	.62	1.08	1.72	.48	.56	1.08	-	.31	-	1/4-20	.20	.20	0.020
AL070	4	.25	.75	1.36	2.00	.50	.75	1.36	-	.38	-	1/4-20	.30	.20	0.040
AL075	5	.25	.88	1.75	2.12	.50	.81	1.53	-	.31	-	1/4-20	.40	.30	0.121
AL090	5	.50	.88	2.12	2.34	.52	.91	1.53	-	.34	-	1/4-20	.50	.40	0.271
AL095	4	.50	1.12	2.12	2.50	.50	1.00	2.12	-	.44	-	5/16-18	.80	.60	0.336
AL099	5	.50	1.19	2.53	2.81	.75	1.03	2.06	-	.44	-	5/16-18	1.00	.80	0.644
AL100	5	.50	1.38	2.53	3.50	.75	1.37	2.41	-	.44	-	5/16-18	1.50	1.10	1.207
AL110	4	.62	1.62	3.31	4.25	.87	1.69	3.31	-	.75	-	5/16-18	2.70	2.10	3.531
AL150	5	.62	1.88	4.25	4.50	1.00	1.75	3.19	-	.63	-	5/16-18	3.70	2.80	7.002

Hubs are standard with one set screw. AL150 has 2 set screws provided.



AL TYPE STYLE 4



AL TYPE STYLE 5

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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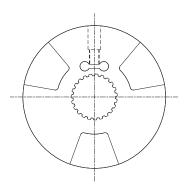
# FLEXIBLE JAW - SPLINED SHAFT INSTALLATION DATA

## **Installation Instructions for Fluid Power Applications**

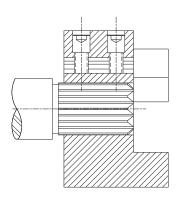
Spline bores furnished by LDI are provided with a special spline locking feature called Centaloc (see Figure 1)

Spline shafts: For optimum spline shaft life, LDI recommends full shaft engagement in the coupling hub (see Figure 2). Caution: If only partial spline shaft engagement is used, tightening of the special Centaloc spline locking feature set screw over the unused section of

the spline bore will result in damage to the hub. Before tightening the Centaloc set screws, check to see if the spline shaft is engaged under the set screws. Then tighten the Centaloc set screws to the recommended torque shown below. If only one of the two Centaloc set screws is used because of limited shaft engagement, please remove the unused set screw (see Figure 3).



**Figure 1**Spline Bore with Centaloc spline locking feature



**Figure 2**Recommended for spline engagement with Centaloc locking feature

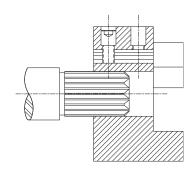


Figure 3
Remove second Centaloc set screw if not used

## Flexible Couplings with splined shafts for Fluid Power Applications

	mum Equip aration (inc	
Coupling Size	G	Min-Shaft Separation <sup>†</sup>
L035	9/32	9/32
L050	15/32	1/8
L070	1/2	1/8
L075	1/2	1/8
L090	1/2	1/8
L095	1/2	1/8
L099	3/4	1/8
L100	3/4	1/8
L110	7/8	1/8
L150	1	1/8
L190	1	1/8
L225	1	1/8
L276	1 5/8	1/8
C226	1 1/2	1/8
C276	1 5/8	1/8
C280	1 5/8	1/8
C285	1 5/8	1/8

NOTE: † indicates that the min. shaft separation is based on Open Center or Snap Wrap Spiders or Style 3 couplings

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Spline Bore Centaloc Set Screw Torque									
Coupling Size	Set Screw Size UNC	Torque ft·lb							
L090	5/16-18	13							
L095	5/16-18	13							
L099	5/16-18	13							
L100	5/16-18	13							
L110	3/8-16	23							
L150	3/8-16	23							
L190	5/8-11	100							
L225	5/8-11	100							
L276	*	*							
C226	*	*							
C280	*	*							

* Consult Engineering.	Items shipped are
marked with appropria	te torque values

Straight Bore & Keyway Set Screw Torque								
Coupling Size	Set Screw Size	Torque ft·lb						
L035	6-32	10						
L050-L090	1/4-20	80						
L095-L100	5/16-18	160						
L110-L150	3/8-16	275						
L190-L276	1/2-13	600						
C225	1/2-13	600						
C280	1/2-13	600						
C285	5/8-11	1200						

Misalignment Data							
Type of Spider	Angular	Parallel					
SOX (NBR)	1°	.015					
Hytrel	1/2°	.015					
Urethane	1°	.015					



# **HOW TO SELECT A FLEXIBLE JAW COUPLING**

The selection process for determining the proper jaw coupling size and elastomer requires using the charts shown on the following pages. There are three components to be selected, two hubs and one elastomer. When the shaft size of the driver and driver of the application are of the same diameter, the hubs selected will be the same. When shaft diameters differ, hubs selected will differ accordingly.

Information necessary before a coupling can be selected: HP (or KW) and RPM or Torque of driver

Shaft sizes of driver and driven equipment and corresponding keyways

Application description

Environmental conditions (i.e. extreme temperature, corrosive conditions, space limitations)

List of charts provided for Selection

Chart 1 - Application Service Factors Chart 2 - Spider Performance Data

Chart 3 - Coupling Nominal Rated Torque

Formulas: Nominal Torque = in-lb =  $(HP \times 63025)$ 

 $Nm = \frac{RPM}{(KW \times 9550)}$ RPM

Design Torque=Nominal Torque x Application Service Factor

### Steps in Selecting a Jaw Coupling

**Step 1**: Determine the Nominal Torque of your application by using the following formula:

Nominal Torque= in-lb =  $\frac{\text{(HP x 63025)}}{\text{RPM}}$ Nm = (KW x 9550)

**Step 2**: Using the Application Service Factors Chart 1 select the service factor which best corresponds to your application.

**RPM** 

**Step 3**: Calculate the Design Torque of your application by multiplying the Nominal Torque calculated in Step 1 by the application Service Factor determined in Step 2. Design Torque=Nominal Torque x Application Service Factor

**Step 4**: Using the Spider Performance Data Chart 2, select the elastomer material which best corresponds to your application.

**Step 5**: Using the coupling Nominal Rated Torque Chart 3, locate the appropriate elastomer material column for the elastomer selected in Step 4.

Scan down this column to the first entry where the Torque Value in the appropriate column is greater than or equal to the Design Torque calculated in Step 3.

Once this value is located, refer to the corresponding coupling size in the first column of the Coupling Nominal Rated Torque Chart 3.

Refer to the maximum RPM value for this elastomer torque capability to ensure that the application requirements are met. If the requirement is not satisfied at this point, another type of coupling may be required for the application. Please consult our engineers.

**Step 6**: Compare the application driver/driven shaft sizes to the maximum bore size available on the coupling selected. If coupling bore size is not large enough for the shaft diameter, select the next largest coupling that will accommodate the drive/driven shaft diameters. Refer to Chart 3.

**Step 7**: Using the item Number Selection Charts, find the appropriate Bore and keyway sizes required and locate the item number.

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### **Selection Example**

A coupling is needed to connect a 20HP standard electric motor rated at 1800 RPM to a rotary pump. The shaft sizes of the electric motor (driver) is 2.0 inches and the pump (driven) is 1.75 inches. There are no special environmental conditions and the general operating temperature is normal room temperature, 72°F. Less than 1° of misalignment is expected.

Step 1: Determi =  $(HP \times 63025)$  orque: Nominal Torque =  $\frac{RPM}{(20 \times 63025)}$  =  $\frac{180}{700.28 \text{ in-lb}}$ 

**Step 2**: Using the Application Service Factor Chart 1, select the service factor which best correspond's to your application. The application Service Factor for an electric motor with standard torque driving a rotary pump is 1.25. The value of 1.25 is found under the application category Pumps, Rotary, column: Electric Motor w/Standard Torque in Chart 1.

**Step 3**: Calcul. = Nominal Torque x Application Service Factor Design Torque = 700.28 x 1.25 = 875.35 in-lb

**Step 4:** Using the Elastomer Performance Data Chart 2, select the elastomer material which best corresponds to your application. Since there are not special environmental conditions, the operating temperature is 72°F and less than 1° of angular misalignment is required, the NBR elastomer material is selected.

**Step 5**: Using the Coupling Nominal Rated Torque Chart 3, the NBR elastomer column is used to determine the proper coupling size. Scanning down the NBR column, the first entry to accommodate the Design Torque value of 875.35 in-lb is the size L150 with a nominal torque rating of 1,240 in-lb. Referring to the maximum RPM of 1800 on the electric motor of the application does not exceed the 5000 RPM maximum allowed for the L150 size coupling with an NBR elastomer.

**Step 6**: Compare the application driver/driven shaft size to the maximum bore available in the coupling selected. The electric motor (driver) of this application has a shaft size of 2.0 inches and the pump (driven) has a shaft size of 1.75 inches. The L150 coupling has a maximum bore less than the driver shaft size. Continuing down the Maximum Bore column, in Chart 3, the L190 size is found to have a maximum bore size 2.125 and is able to accommodate the driver/driven shaft sizes. Therefore the proper coupling size for the application is a L190 coupling with an NBR elastomer.

**Step 7**: Using the item number Selection charts, locate the appropriate item numbers. The L Type Coupling Elastomer Chart, and the L Type Coupling Inch Hubs Chart, provides easy reference to the item numbers.

Locate the L Type Coupling Inch Hubs Elastomer Chart.

The elastomer is selected by scanning down the type column and locating the NBR (Solid) entry. Read across to the L190 column and locate the item number 12274.

Locate the L Type coupling Inch Hubs selection chart.

The first bore size to be located is for the 2 inch shaft on the electric motor. Scan down the Bore/Keyway column to the 2 inch bore entry. Read across to the L190 column to locate item number of 12303.

The second bore size is located for the 1.75 inch shaft on the pump. Scan down the Bore/Keyway column to the 1 3/4 inch bore entry. Read across to the L190 column to locate the item number of 12299.



			Flex	ible Ja	w Cou	ıpling - Chart 1					
		Ser	vice F	actors				Ser	vice F	actors	
			& more cyl.						& more cyl.		
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines Engines w/4 or r	Reciprocating	Engines		Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines Engines w/4 or r	Reciprocating	Engines
	Ele	Ee Hig	Ste	1-Cyl			Ele	Ele Hig	Ste	1-Cyl	2-Cyl
Agitators Band Resaw (lumber) Barge Haul Puller Beaters	1.00 1.50 2.00 1.50	1.25 1.75 2.25 1.75	1.00 1.50 2.00 1.50	1.7 2.2 2.7 2.2	1.3 1.8 2.3 1.8	Machine Tools Punch Press-Gear Driven, Plate Planer Tapping Machinery, Bending Roll	2.00 2.00	2.25 2.25	2.00 2.00	2.7 2.7	2.3
Blowers Centrifugal Lobe, Vane Bottling Machinery	1.00 1.25 1.25	1.25 1.50 1.50	1.00 1.25 1.25	1.7 2.0 2.0	1.3 1.6 1.6	Main Drive Auxiliary Drives Metal Forming Machines Draw Bench-carriage & Main Drive	1.50 1.00 2.00	1.75 1.25 2.25	1.50 1.00 2.00	2.2 1.7 2.7	1.8 1.3
Brew Kettles (distilling) Can Filling Machinery Car Dumpers	1.25 1.00 2.50	1.50 1.25 2.75	1.25 1.00 2.50	2.0 1.7 3.2	1.6 1.3 2.8	Extruder, Forming Machine, Wire Drawing Table Conveyors	2.00 2.50	2.25 2.75	2.00 2.50	2.7 3.2	2.3 2.8
Car Pullers Card Machine Chiller (oil) Compressors	1.50 1.75 1.50	1.75 2.00 2.00	1.75 1.25	2.2 2.5 2.0	1.8 2.0 2.0	Wire Winding, Coilers, Slitters Mills, Rotary Type Ball, Kilns, Pebble, Rolling, Tube Cement Kilns, Dryers, Coolers	2.00 2.00	1.75 2.25 2.25	2.00 2.00	2.2 2.7 2.7	2.3 2.3
Centrifugal Screw, Lobe Reciprocating Conveyors, Uniformly Fed	1.00 1.25	1.25		1.7 2.0 ote	1.3	Tumbling Mixers Concrete, continuous Muller	1.50 1.75 1.50	1.75 2.00 1.75	1.50 1.75 1.50	2.2 2.5 2.2	1.8 2.0 1.8
Assembly, Belt Screw Bucket, Sawdust Live Roll, Shaker, Reciprocating	1.00 1.25 3.00	1.25 1.50 3.25	1.00 1.25 3.00	1.7 2.0 3.7	1.3 1.6 3.3	Paper Mills Agitator (mixers), Reel, Winder Winder	1.20 1.20	1.45 1.45	1.20 1.20	1.9 1.9	1.5 1.5
Conveyors, Not Uniformly Fed Assembly, Belt, Oven, Screw Reciprocating Shaker	1.20 2.50 3.00	1.45 2.75 3.25	1.20 2.50 3.00	1.9 3.2 3.7	1.5 2.8 3.3	Barker (mechanical), Log Haul Chipper Barking Drum (spur gear) Beater, Pulper, Jordans, Dresses	2.00 2.50 2.00	2.25 2.75 2.25	2.00 2.50 2.00	2.7 3.2 2.7	2.3 2.8 2.3
Cookers-Brewing, Distilling Food Cranes and Hoist Crushers-Cane (Sugar, Stone, or Ore)	1.25 2.00 3.00	1.50 2.75 3.25	1.25 2.00 3.00	2.0 2.7 3.7	1.6 2.3 3.3	Calendars, Dryers, Washers, Thickener Converting Machines, Conveyors Printing Presses	1.50 1.20 1.50	1.75 1.45 1.75	1.50 1.20 1.50	2.2 1.9 1.7	1.8 1.5 1.3
Dredges Cable Reels Conveyors, Pumps Maneuvering Winches	2.00	2.25	2.00	2.7	2.3	Pug Mill Pumps Centrifugal	1.75	2.00 1.25 1.50	1.75	1.7	1.6 1.3 1.6
Cutter Head Drives Dynamometer Evaporators	1.50 2.50 1.50 1.00	2.75	2.50 1.50	2.2 3.2 2.2 1.7	1.8 2.8 1.8 1.3	Gear, Rotary, Vane Reciprocating: 1-Cyl. Single or Double Acting 2-Cyl. Single Acting	2.00 2.00	2.25 2.25	2.00 2.00	2.0 2.7 2.7	2.3
Fans Centrifugal Cooling Towers Forced Draft, Propeller	1.00 2.00 1.50	1.25 2.25 1.75	2.00	1.7 2.7 2.2	1.3 2.3 1.8	2-Cyl. Double Acting 3 or more Cyl. Rubber Machinery Mixers	1.75 1.50 2.50	2.00 1.75 2.75	1.75 1.50 2.50	2.5 2.2 3.2	2.0 1.8 2.8
Induced Draft w/dampener control Induced Draft w/o damper control Feeders	2.00 1.25	2.25	2.00	2.7 2.0	2.3	Rubber Calendar Screens Air washing, Water	2.00	2.25	2.00	2.7	2.3
Belt, Screw Reciprocating Filter, press-oil Generators	1.00 2.50 1.50	1.25 2.75 1.75	2.50	1.7 3.2 2.2	1.3 2.8 1.8	Rotary-stone or gravel, Dewatering Vibrating Grizzly Shredders	1.50 2.50 2.00 1.50	1.75 2.75 2.25 1.75	1.50 2.50	2.2 3.2 2.7 2.2	1.8 2.8 2.3 1.8
Not Welding Welding Hoist Hammermills	1.00 2.00 1.50 2.00	1.25 2.25 1.75 2.25	2.00 1.50	1.7 2.7 2.2 2.7	1.3 2.3 1.8 2.3	Steering Gears Stokers Suction Roll (paper) Textile Machinery	1.00 1.00 1.50	1.25 1.25 1.75	1.00 1.00	1.7 1.7 2.2	1.3 1.3 1.8
Kilns Laundry Washers-Reversing Lumber Machinery	1.50 2.00	1.75 2.25	1.50 2.00	2.2 2.7	1.8 2.3	Dryers, Dyeing Machinery, Mangle Loom Spinner, Tenter Frames Tumbling Barrels	1.20 1.50 1.75	1.45 1.75 2.00	1.75	2.0 2.2 2.5	1.6 1.8 2.0
Barkers, Edger Feeder, Live Roll Planer, Slab Conveyor	2.00 2.00	2.25 2.25		2.7 2.7	2.3 2.3	Windlass Woodworking Machine	2.00 1.00	2.25 1.25		2.7 1.7	2.3 1.3

**NOTE:** Applications involving reciprocating engines and reciprocating driven devices are subject to critical rotational speeds which may damage the coupling and/or connected equipment. Contact engineering with specific requirements.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Ph: 920-682-6877 Fx: 920-684-7210



	Flexible Jaw	Coupling	- Chart 2			_	
		Misalig	nment				
Characteristics	Temperature Range	Angular Degree	Parallel Inch	Shore Hardness	Dampening Capacity	Chemical Resistance	Color
<b>SOX(NBR) Rubber</b> - Nitrile Butadiene (Buna N) Rubber is a flexible elastomer material that is oil resistant resembles natural rubber in resilience and elasticity. Good resistance to oil. Standard elastomer. (Also applies to SXB Cushions.)	-40° to +212°F -40° to +100°C	1°	.015	80A	High	Good	Black
URETHANE - Urethane has greater torque capability than NBR (1.5 times) and provides less dampening effect. Good resistance to oil and chemicals	-30° to +160°F -34° to +71°C	1°	.015	55D L050-L095 40D L099-L225	Low	Very Good	Blue
HYTREL - Hytrel is a flexible elastomer designed for high torque and high temperature operations. Has an excellent resistance to oil and chemicals. Not recommended for cyclic or start/stop applications	-60° to +250°F -51° to +121°C	1/2°	.015	55D	Low	Excellent	Tan
BRONZE - Bronze is a rigid, porous oil- impregnated metal insert exclusively for slow speed (maximum 250 RPM) applications requiring high torque capabilities. Bronze operations are not affected by extreme temperatures, water, oil or dirt.	-40° to +450°F -40° to +232°C	1/2°	.010	-	None	Excellent	Bronze

NOTE: NBR standard shore hardness is 80A±5A-except L035=60A. Other softer or harder designs are available in NBR material, consult engineering

	Flexible Jaw Coupling - Chart 3									
		mum	COV (ND			Spider I			_	
		ore 		R) Torque		Urethane Torque		Torque 		Torque
Size	inch	mm	in-lbs	Nm	in-lbs	Nm	in-lbs	Nm	in-lbs	Nm
L035	.375	9	3.5	0.4	N/A	N/A	N/A	N/A	N/A	N/A
L/AL050	.625	16	26.3	3.0	39	4.5	50	5.6	50	5.6
L/AL070	.750	19	43.2	4.9	65	7.3	114	12.9	114	12.9
L/AL075	.875	22	90.0	10.2	135	15.3	227	25.6	227	25.6
L/AL090	1.000	25	144.0	16.3	216	24.4	401	45.3	401	45.3
L/AL095	1.125	28	194.0	21.9	291	32.9	561	63.4	561	63.4
L/AL099	1.188	30	318.0	35.9	477	53.9	792	89.5	792	89.5
L/AL100	1.375	35	417.0	47.1	626	70.7	1134	128.0	1134	128.0
L/AL110	1.625	42	792.0	89.5	1188	134.0	2268	256.0	2268	256.0
L150	1.875	48	1240.0	140.0	1660	210.0	3708	419.0	3706	419.0
AL150	1.875	48	1450.0	163.8	N/A	N/A	N/A	N/A	N/A	N/A
L190	2.125	55	1726.0	195.0	2592	293.0	4680	529.0	4680	529.0
L225	2.625	65	2340.0	264.0	3510	397.0	6228	704.0	6228	704.0
L276	2.875	73	4716.0	533.0	N/A	N/A	N/A	N/A	N/A	N/A
C226	2.500	64	2988.0	338.0	N/A	N/A	5940	671.0	5940	671.0
C276	2.875	73	4716.0	533.0	N/A	N/A	9432	1066.0	N/A	N/A
C280	3.000	76	7560.0	854.0	N/A	N/A	13866	1567.0	N/A	N/A
C285	4.000	102	9182.0	1038.0	N/A	N/A	16680	1882.0	N/A	N/A
C295	3.500	89	11340.0	1281.0	N/A	N/A	22680	2563.0	22680	2563.0
C2955	4.000	102	18900.0	2136.0	N/A	N/A	37800	4271.0	37800	4271.0

**NOTE:** Bronze has a maximum RPM capability of 250 RPM. N/A indicates not available.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability. Ph : 920-682-6877 Fx : 920-684-7210

# **FLEXIBLE DRIVE COUPLINGS - GROMMETS**

Grommets offer complete electrical insulation and eliminate contact between the Flexible Drive Couplings halves.

### **Standard Features:**

- •P380 (Black)
  - Good for moderate cyclic loading
  - <sup>o</sup>Offers good oil and chemical resistance, misalignment and dampening capacty.
  - Shore Hardness 38D
  - $^{\circ}\text{Temperature Range}$  -30° F to 175° F (-34° C to 79° C)
- Hytrel (Blue)
  - <sup>o</sup>Recommended for severe duty applications
  - <sup>o</sup>Excellent oil and chemical resistance
  - <sup>o</sup>Torisionally stiffer than P380
  - Shore Hardness 55D
  - $^{\circ}\text{Temperature Range -60° F to 250° F (-51° C to 121°C)}$





<b>Grommet Part Numbers</b>									
	Ту	ре							
Size	P380	Hytrel							
RC1	RG1-P9	RG1-H5							
RC2	RG2-P9	RG2-H5							
RC3	RG3-P9	RG3-H5							
RC4	RG4-P9	RG4-H5							
RC5	RG5-P9	RG5-H5							
RC6	RG6-P9	RG6-H5							
RC7	RG7-P9	RG7-H5							
RC8	RG8-P9	RG8-H5							

	Grommet Data										
Туре	Temperature Range	Misalig Angular	nment Parallel Inches	Shore Hardness	Characteristics						
P380	-30°F to 175°F	1°	.015	38D	Good for moderate cyclic loading, offers good oil and chemical resistence, misalignment and dampening capacity						
Hytrel	-60°F to 250°F	0.5°	.015	55D	Recommended for severe duty applications, excellent oil and chemical resistance, torsionally stiffer than P380						

# **FLEXIBLE DRIVE COUPLINGS**

Flexible Drive Couplings are lighter than steel and cast iron couplings, which helps prolong bearing and seal life on pumps, gear boxes and motors. Our Couplings and Pump Motor Adapters work together to reduce vibration, heat, noise and wear and tear.

### **Standard Features:**

- Made from Lightweight Aluminum
- Machined with tight tolerances to help eliminate vibration and noise
- Alignment can easily be made with a straight edge and a feeler gage
- Double set screws are standard which creates a more secure fit from coupling to shaft
- Max Bore 3.875 (60 mm)
- Max Torque 47,269 in-lbs

# **Styles Available:**

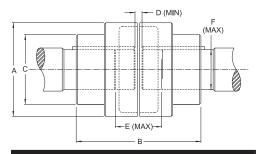
- Standard Bore and Key
- Metric Bore and Key
- Steel Set Screw (Style SS)
- Steel Clamp (Style SC)
- Set Screw (Style AS)
- Clamp (Style AC)



	Flexible Drive Coupling Data											
	Maximum Bore (inches)	Dimensions (inches)		Betwee	Distance Between Shafts (inches)		100	Rated HP a	t   1800	Inertia		
Size	F	A	В	С	D (min)	E (max)	Torque in-lbs	RPM	RPM	RPM	ft-lb	Grommet
RC1	1.12	2.62	2.56	2.12	.06	0.75	473	0.75	9	13.5	0.005	P380
RC1	1.12	2.62	2.56	2.12	.06	0.75	630	1	12	18	0.005	Hytrel
RC2	1.38	2.91	3.17	2.31	.06	0.88	630	1	12	18	0.009	P380
RC2	1.38	2.91	3.17	2.31	.06	0.88	1103	1.75	21	31.5	0.009	Hytrel
RC3	1.62	3.44	3.60	2.97	.06	0.88	1261	2	24	36	0.022	P380
RC3	1.62	3.44	3.60	2.97	.06	0.88	2206	3.5	42	63	0.022	Hytrel
RC4	1.88	4.00	4.24	3.12	.06	1.12	1576	2.5	30	45	0.039	P380
RC4	1.88	4.00	4.24	3.12	.06	1.12	3309	5.25	63	94.5	0.039	Hytrel
RC5	2.38	4.81	4.68	4.06	.06	1.25	3466	5.5	66	99	0.100	P380
RC5	2.38	4.81	4.68	4.06	.06	1.25	6933	11	132	198	0.100	Hytrel
RC6	2.62	5.97	6.04	4.56	.06	1.38	7563	12	144	216	0.260	P380
RC6	2.62	5.97	6.04	4.56	.06	1.38	15756	25	300	450	0.260	Hytrel
RC7	2.88	6.91	7.01	5.25	.06	1.88	12605	20	240	360	0.480	P380
RC7	2.88	6.91	7.01	5.25	.06	1.88	28361	45	540	810	0.480	Hytrel
RC8	3.88	8.62	7.92	7.12	.06	2.00	31513	50	600	900	1.560	P380
RC8	3.88	8.62	7.92	7.12	.06	2.00	47269	75	900	1350	1.560	Hytrel

Spline Coupling Data*										
Spline Specifications										
Number of Teeth	Pitch	SAE	Coupling Sizes							
9	16/32	A, AA	RC1-RC5							
13	8/16	D,E	RC4-RC8							
13	16/32	В	RC1-RC6							
14	12/24	С	RC2-RC8							
15	8/16	F	RC4-RC8							
15	16/32	BB	RC1-RC6							
17	12/24	CC	RC3-RC8							
21	16/32	_	RC3-RC8							
23	16/32	_	RC3-RC8							
27	16/32	_	RC4-RC8							
* All splines are SAE 30° PA, flat root, side fit										

Ph : 920-682-6877 Fx : 920-684-7210



Nominal Bore Diameter								
From	To (including)	Tolerance						
.375	1.000	+.0008/+.0003						
1.000	2.000	+.0013/+.0005						
2.000	3.000	+.0018/+.0008						
3.000	3.875	+.0020/+.0010						



# FLEXIBLE DRIVE COUPLINGS - STANDARD BORE AND KEY





			Flexi	ble Drive Co	uplings - Sta	ndard Bore a	nd Key		
						art Numbers			
Bore	Key	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8
3/8	3/32	RC1-0375-094	RC2-0375-094						
7/16	3/32	RC1-0437-094	RC2-0437-094						
7/16	1/8	RC1-0437-125	RC2-0437-125						
1/2	1/8	RC1-0500-125	RC2-0500-125	RC3-0500-125					
9/16	1/8	RC1-0562-125	RC2-0562-125	RC3-0562-125					
5/8	5/32	RC1-0625-156	RC2-0625-156	RC3-0625-156					
5/8	3/16	RC1-0625-187	RC2-0625-187	RC3-0625-187	RC4-0625-187				
11/16	3/16	RC1-0687-187	RC2-0687-187	RC3-0687-187	RC4-0687-187				
3/4	1/8	RC1-0750-125	RC2-0750-125	RC3-0750-125	RC4-0750-125				
3/4	3/16	RC1-0750-187	RC2-0750-187	RC3-0750-187	RC4-0750-187	RC5-0750-187	RC6-0750-187		
7/8	3/16	RC1-0875-187	RC2-0875-187	RC3-0875-187	RC4-0875-187	RC5-0875-187	RC6-0875-187		
7/8	1/4	RC1-0875-250	RC2-0875-250	RC3-0875-250	RC4-0875-250	RC5-0875-250	RC6-0875-250		
15/16	1/4	RC1-0937-250	RC2-0937-250	RC3-0937-250	RC4-0937-250	RC5-0937-250	RC6-0937-250		
1	3/16 1/4	RC1-1000-187 RC1-1000-250	RC2-1000-187 RC2-1000-250	RC3-1000-187 RC3-1000-250	RC4-1000-187 RC4-1000-250	RC5-1000-187 RC5-1000-250	RC6-1000-187 RC6-1000-250		
1 1/8	1/4	RC1-1000-250	RC2-1125-250	RC3-1000-250	RC4-1000-250 RC4-1125-250	RC5-1125-250	RC6-1125-250	RC7-1125-250	
1 3/16	1/4	RC1-1125-250	RC2-1123-250	RC3-1123-250	RC4-1123-250	RC5-1123-250	RC6-1123-250	RC7-1123-250	
1 1/4	1/4		RC2-1250-250	RC3-1250-250	RC4-1250-250	RC5-1250-250	RC6-1250-250	RC7-1250-250	RC8-1250-250
1 1/4	5/16		RC2-1250-312	RC3-1250-312	RC4-1250-312	RC5-1250-312	RC6-1250-312	RC7-1250-312	RC8-1250-312
1 3/8	5/16		RC2-1375-312	RC3-1375-312	RC4-1375-312	RC5-1375-312	RC6-1375-312	RC7-1375-312	RC8-1375-312
1 3/8	3/8		RC2-1375-375	RC3-1375-375	RC4-1375-375	RC5-1375-375	RC6-1375-375	RC7-1375-375	RC8-1375-375
1 7/16	3/8			RC3-1437-375	RC4-1437-375	RC5-1437-375	RC6-1437-375	RC7-1437-375	RC8-1437-375
1 1/2	5/16			RC3-1500-312	RC4-1500-312	RC5-1500-312	RC6-1500-312	RC7-1500-312	RC8-1500-312
1 1/2	3/8			RC3-1500-375	RC4-1500-375	RC5-1500-375	RC6-1500-375	RC7-1500-375	RC8-1500-375
1 5/8	3/8			RC3-1625-375	RC4-1625-375	RC5-1625-375	RC6-1625-375	RC7-1625-375	RC8-1625-375
1 3/4	3/8				RC4-1750-375	RC5-1750-375	RC6-1750-375	RC7-1750-375	RC8-1750-375
1 3/4	7/16				RC4-1750-437	RC5-1750-437	RC6-1750-437	RC7-1750-437	RC8-1750-437
1 7/8	1/2				RC4-1875-500	RC5-1875-500	RC6-1875-500	RC7-1875-500	RC8-1875-500
1 15/16	1/2					RC5-1937-500	RC6-1937-500	RC7-1937-500	RC8-1937-500
2	1/2					RC5-2000-500	RC6-2000-500	RC7-2000-500	RC8-2000-500
2 1/8	1/2					RC5-2125-500	RC6-2125-500	RC7-2125-500	RC8-2125-500
2 1/4	1/2					RC5-2250-500	RC6-2250-500	RC7-2250-500	RC8-2250-500
2 3/8	5/8					RC5-2375-625	RC6-2375-625	RC7-2375-625	RC8-2375-625
2 1/2	5/8						RC6-2500-625	RC7-2500-625	RC8-2500-625
2 5/8	5/8						RC6-2625-625	RC7-2625-625	RC8-2625-625
2 3/4	5/8							RC7-2750-625	RC8-2750-625
2 7/8	3/4							RC7-2875-750	RC8-2875-750
3	3/4								RC8-3000-750
3 1/4	3/4								RC8-3250-750
3 3/8	7/8								RC8-3375-875
3 1/2	7/8								RC8-3500-875
3 5/8	7/8								RC8-3625-875
3 3/4	7/8								RC8-3750-875
3 7/8	1								RC8-3875-100

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

# FLEXIBLE DRIVE COUPLINGS - METRIC BORE AND KEY





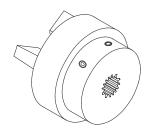
	Flexible Drive Couplings - Metric Bore and Key Chart											
		Coupling Part Numbers										
Bore	Key	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8			
19	6	RC1-M019-06	RC2-M019-06	RC3-M019-06	RC4-M019-06	RC5-M019-06						
20	6	RC1-M020-06	RC2-M020-06	RC3-M020-06	RC4-M020-06	RC5-M020-06	RC6-M020-06					
24	8	RC1-M024-08	RC2-M024-08	RC3-M024-08	RC4-M024-08	RC5-M024-08	RC6-M024-08					
25	8	RC1-M025-08	RC2-M025-08	RC3-M025-08	RC4-M025-08	RC5-M025-08	RC6-M025-08	RC7-M025-08				
28	8	RC1-M028-08	RC2-M028-08	RC3-M028-08	RC4-M028-08	RC5-M028-08	RC6-M028-08	RC7-M028-08				
30	8		RC2-M030-08	RC3-M030-08	RC4-M030-08	RC5-M030-08	RC6-M030-08	RC7-M030-08				
32	10		RC2-M032-10	RC3-M032-10	RC4-M032-10	RC5-M032-10	RC6-M032-10	RC7-M032-10				
35	10			RC3-M035-10	RC4-M035-10	RC5-M035-10	RC6-M035-10	RC7-M035-10				
38	10			RC3-M038-10	RC4-M038-10	RC5-M038-10	RC6-M038-10	RC7-M038-10				
40	12				RC4-M040-12	RC5-M040-12	RC6-M040-12	RC7-M040-12	RC8-M040-12			
42	12				RC4-M042-12	RC5-M042-12	RC6-M042-12	RC7-M042-12	RC8-M042-12			
45	14				RC4-M045-14	RC5-M045-14	RC6-M045-14	RC7-M045-14	RC8-M045-14			
50	14					RC5-M050-14	RC6-M050-14	RC7-M050-14	RC8-M050-14			
60	18						RC6-M060-18	RC7-M060-18	RC8-M060-18			



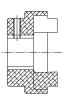
# FLEXIBLE DRIVE COUPLINGS - SET SCREW TYPE STYLE AS











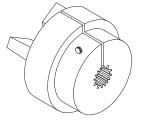
	Style AS - Spline Part Numbers												
No. of Teeth	Pitch	SAE	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8			
9	16/32	A, AA	RC1-0916-AS	RC2-0916-AS	RC3-0916-AS	RC4-0916-AS	RC5-0916-AS	-	-	-			
13	8/16	D, E	-	-	-	RC4-1308-AS	RC5-1308-AS	RC6-1308-AS	RC7-1308-AS	RC8-1308-AS			
13	16/32	В	RC1-1316-AS	RC2-1316-AS	RC3-1316-AS	RC4-1316-AS	RC5-1316-AS	RC6-1316-AS	-	-			
14	12/24	С	-	RC2-1412-AS	RC3-1412-AS	RC4-1412-AS	RC5-1412-AS	RC6-1412-AS	RC7-1412-AS	RC8-1412-AS			
15	8/16	F	-	-	-	RC4-1508-AS	RC5-1508-AS	RC6-1508-AS	RC7-1508-AS	RC8-1508-AS			
15	16/32	BB	RC1-1516-AS	RC2-1516-AS	RC3-1516-AS	RC4-1516-AS	RC5-1516-AS	RC6-1516-AS	-	-			
17	12/24	CC	-	-	RC3-1712-AS	RC4-1712-AS	RC5-1712-AS	RC6-1712-AS	RC7-1712-AS	RC8-1712-AS			
21	16/32	-	-	-	RC3-2116-AS	RC4-2116-AS	RC5-2116-AS	RC6-2116-AS	RC7-2116-AS	RC8-2116-AS			
23	16/32	-	-	-	RC3-2316-AS	RC4-2316-AS	RC5-2316-AS	RC6-2316-AS	RC7-2316-AS	RC8-2316-AS			
27	16/32	-	-	-	-	RC4-2716-AS	RC5-2716-AS	RC6-2716-AS	RC7-2716-AS	RC8-2716-AS			

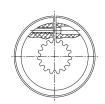
All Splines are SAE 30° PA, Flat Root, Side Fit

# FLEXIBLE DRIVE COUPLINGS - CLAMP TYPE STYLE AC











	Style AC - Spline Part Numbers													
No. of Teeth	Pitch	SAE	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8				
9	16/32	A, AA	RC1-0916-AC	RC2-0916-AC	RC3-0916-AC	RC4-0916-AC	RC5-0916-AC	-	-	-				
13	8/16	D, E	-	-	-	RC4-1308-AC	RC5-1308-AC	RC6-1308-AC	RC7-1308-AC	RC8-1308-AC				
13	16/32	В	RC1-1316-AC	RC2-1316-AC	RC3-1316-AC	RC4-1316-AC	RC5-1316-AC	RC6-1316-AC	-	-				
14	12/24	С	-	RC2-1412-AC	RC3-1412-AC	RC4-1412-AC	RC5-1412-AC	RC6-1412-AC	RC7-1412-AC	RC8-1412-AC				
15	8/16	F	-	-	-	RC4-1508-AC	RC5-1508-AC	RC6-1508-AC	RC7-1508-AC	RC8-1508-AC				
15	16/32	BB	RC1-1516-AC	RC2-1516-AC	RC3-1516-AC	RC4-1516-AC	RC5-1516-AC	RC6-1516-AC	-	-				
17	12/24	CC	-	-	RC3-1712-AC	RC4-1712-AC	RC5-1712-AC	RC6-1712-AC	RC7-1712-AC	RC8-1712-AC				
21	16/32	-	-	-	RC3-2116-AC	RC4-2116-AC	RC5-2116-AC	RC6-2116-AC	RC7-2116-AC	RC8-2116-AC				
23	16/32	-	-	-	RC3-2316-AC	RC4-2316-AC	RC5-2316-AC	RC6-2316-AC	RC7-2316-AC	RC8-2316-AC				
27	16/32	-	-	-	-	RC4-2716-AC	RC5-2716-AC	RC6-2716-AC	RC7-2716-AC	RC8-2716-AC				

All Splines are SAE 30° PA, Flat Root, Side Fit

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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# HOW TO SELECT A FLEXIBLE DRIVE COUPLING

Just because applications have the same horsepower doesn't mean they require the same size flexible couplings. If you follow these simple steps, you can easily find the flexible coupling that's perfect for your application in the following Selection Chart.

### **Step 1: Determine the Service Factor**

Motors with the same horsepower are assigned different Service Factors to reflect the different loads and stresses. For example, a 40HP motor running a standard hydraulic application with infrequent stops carries a Service Factor of 1.00 while another 40HP application on an injection molding machine has a Service Factor of 3.00. This means the second motor requires a larger flexible coupling than the first. Ignoring the Service Factor can cause you to buy a coupling too small for your application, leading to premature wear and maintenance.

For applications with intermittent starts and stops and no reversing, a 1.50 to 1.75 Service Factor would be appropriate. Applications with frequent starts and stops or reversing duty normally carry a 2.00 Service Factor. Typically, motors designed for high torque or reversing applications have a 3.00 Service Factor. Service Factors for other typical applications include:

Application	Service Factor
Hydraulics applications with infrequent stops	1.00-1.50
Hydraulic units with cycling loads	1.50-2.50
Conveyors	1.50-2.50
Internal combustion engines	1.75-2.50
Machine tool, textile, cranes and woodworking machinery	2.0
Saw mill machines	3.0
Injections molding machines	3.0

Note: The standard P380 insert is rated for Service Factors up to 1.5. For applications rated above 1.5, we highly recommend using our hytrel insert.

### Step 2: Determine Minimum Torque Rating in Lbs.-In.

If the minimum Torque Rating is not known, it can be calculated using the HP and RPM: Minimum torque = (HP x 63000)/RPM

### Step 3: Multiply Full Load Torque by the Selected Service Factor.

## Step 4: Determine Shaft Size

A shaft diameter MUST NOT EXCEED a coupling's maximum bore. For example, RC3 flexible drive coupling has a 1 5/8 inch maximum bore (shaft diameter). Therefore, 1 5/8 inch is the largest shaft that can be installed in the coupling.

### Step 5: Go to the Flexible Drive Coupling Data Table on page 51.

Select the coupling size that meets or exceeds your minimum Torque and Service Factor calculation. Then go to the coupling Availability Chart to match Bore & Key. (Make sure the motor shaft does not exceed the coupling's maximum bore.)

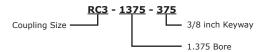
### **Part Numbers**

h : 920-682-6877

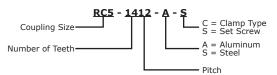
: 920-684-7210

LDI part numbering system us based on the coupling's size, bore & key or spline. The first three digits represent the coupling size. The next four digits refer to the bore or number of teeth/pitch (in inches or millimeters). The last grouping indicates keyways, clamps, set screws or spline options.

### **Bore & Keyway Example**



### Spline Example



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



Pg RA-55

# FOOT MOUNTING BRACKETS

# **USAF17 4-BOLT**

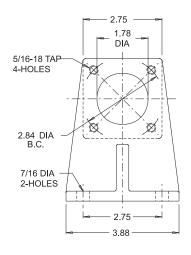
This Foot Mounting Bracket is designed to mount a USAF17 4-bolt hydraulic pump or motor with supporting feet.

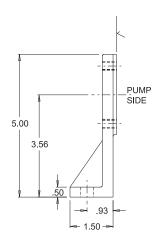
## **Standard Features:**

- · Light weight High strength
- Two foot mounting holes provided
- Machined to a 3.56 inch shaft centerline height

### **Standard Material:**

Cast Aluminum







USAF17 4-E	Solt Foot Mounting Bracket
Part No.	Description
FM100	USAF17 4-Bolt Foot Bracket

NOTE: All dimensions are inches

# **SAE AA 2-BOLT**

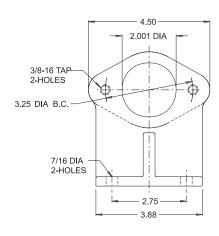
This Foot Mounting Bracket is designed to mount a SAE AA 2-bolt hydraulic pump or motor with supporting feet.

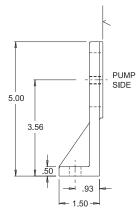
### **Standard Features:**

- · Light weight High strength
- Two foot mounting holes provided
- Machined to a 3.56 inch shaft centerline height

### **Standard Material:**

Cast Aluminum







NOTE: All dimensions are inches

Part No.

Part No.

Part No.

Description

FM150

SAE AA 2-Bolt Foot Bracket

# **SAE A 2-BOLT**

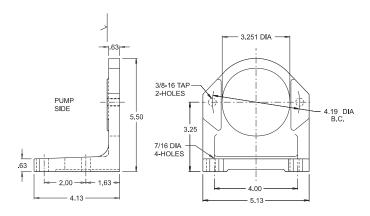
This Foot Mounting Bracket is designed to mount a SAE A 2-bolt hydraulic pump or motor with supporting feet.

## **Standard Features:**

- · Light weight High strength
- Four foot mounting holes provided
- Machined to a 3.25 inch shaft centerline height

### **Standard Material:**

Cast Aluminum





SAE A 2-Bo	It Foot Mounting Bracket
Part No.	Description
FM200	SAE A 2-Bolt Foot Bracket

NOTE: All dimensions are inches

# **SAE B 2-BOLT**

This Foot Mounting Bracket is designed to mount a SAE B 2-bolt hydraulic pump or motor with supporting feet.

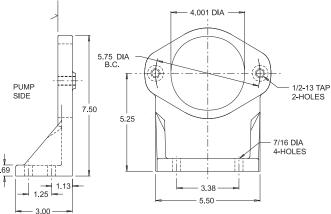
### **Standard Features:**

## · Light weight - High strength

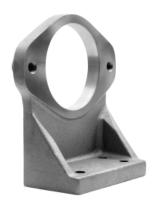
- Four foot mounting holes provided
- Machined to a 5.25 inch shaft centerline height

### **Standard Material:**

Cast Aluminum



NOTE: All dimensions are inches



SAE B 2-B	SAE B 2-Bolt Foot Mounting Bracket								
Part No.	Description								
FM300	SAE B 2-Bolt Foot Bracket								



# FOOT MOUNTING BRACKETS

# SAE B 2/4-BOLT

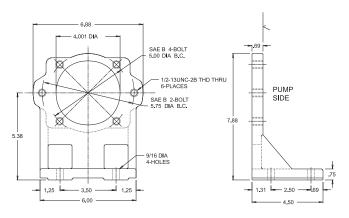
This Foot Mounting Bracket is designed to mount a SAE B 2 or 4-bolt hydraulic pump or motor with supporting feet.

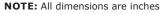
## **Standard Features:**

- · Light weight High strength
- Four foot mounting holes provided
- Machined to a 5.375 inch shaft centerline height

### **Standard Material:**

Cast Aluminum







SAE B 2/4-E	Bolt Foot Mounting Bracket
Part No.	Description
FM350	SAE B 2/4-Bolt Foot Bracket

# SAE C 2/4-BOLT

This Foot Mounting Bracket is designed to mount a SAE C 2 or 4-bolt hydraulic pump or motor with supporting feet.

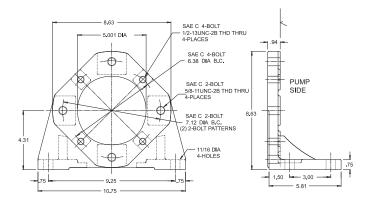
### **Standard Features:**

## · Light weight - High strength

- Four foot mounting holes provided
- Machined to a 4.312 inch shaft centerline height

### **Standard Material:**

• Cast Iron



NOTE: All dimensions are inches



SAE C 2/4-E	Bolt Foot Mounting Bracket
Part No.	Description
FM400	SAE C 2/4-Bolt Foot Bracket

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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# GAS ENGINE MOUNTING FLANGE INFORMATION

### **Standard Features:**

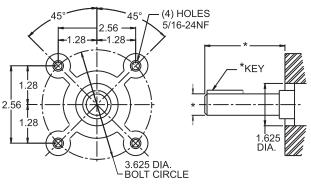
- Decrease assembly time bolt mount to side of gas engine
- Made of lightweight but strong cast aluminum
- Proper shaft alignment assured
- Reduced cost no need for foot brackets, shims or risers
- Provide a clean, neat appearance for your finished product
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

# **Easy Assembly Pump to Gas Engine:**

- Place coupling half for engine on engine shaft and lightly tighten set screw
- Mount pump to pump end of gas engine adapter
- Place coupling half for pump on pump shaft and lightly tighten set screw
- Position coupling insert Bolt gas engine adapter with pump installed to the face of the gas engine
- Adjust coupling thru access opening Thoroughly tighten set screws and mounting bolts

# **PEM-F FLANGE**

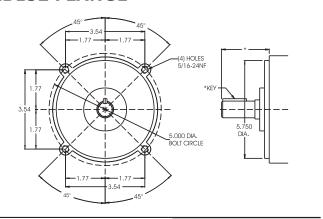
\*Dimensions to be furnished by custome



MOUNTING FLANGE PER SAE J609a

# **LB152 FLANGE**

\*Dimensions to be furnished by customer

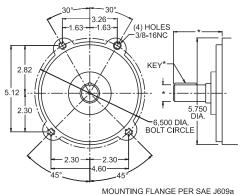


# **PEM-G FLANGE**

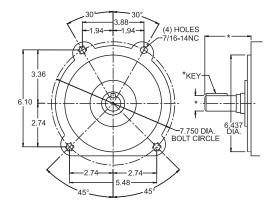
\*Dimensions to be furnished by customer

# **PEM-H FLANGE**

\*Dimensions to be furnished by customer

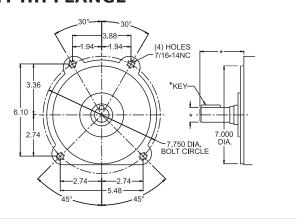


MOUNTING FLANGE PER SAE J6



# **PEM-HH FLANGE**

\*Dimensions to be furnished by custome



NOTE: All dimensions are inches

# PEM-F FLANGE

Pump Gas Engine Adapters (Bell Housings) are designed to assure proper shaft alignment between the gasoline engine and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

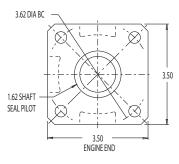
### **Standard Features:**

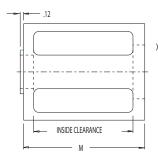
- · Light weight High strength
- Drive coupling accessibility
- Proper shaft alignment assured
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

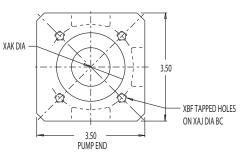
# **Standard Material:**

Cast Aluminum

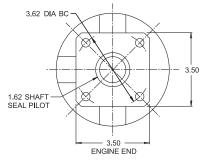


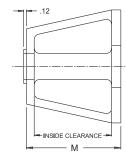


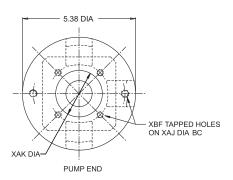




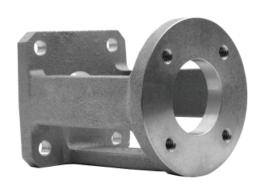
Adapter 6049 6061







NOTE: All dimensions are inches.



	Gas Engine Adapter - PEM-F Flange (inches)												
XBF Pump MAX XAJ XAK Mounting M Pump Mounting Coupling Bolt Pump Holes Face to Inside Part No. Type Flange Dia Circle Pilot (NC) Face Clearance													
6048	USAF 4F17	4 Bolt	2.63	2.84	1.78	5/16-18	4.50	3.38					
6049	SAE AA	2 Bolt	2.81	3.25	2.00	3/8-16	4.50	3.38					
6061	SAE A	2 Bolt	2.81	4.19	3.25	3/8-16	4.69	3.38					

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

sales@ldi-industries.com

# **LB152 FLANGE**

Pump Gas Engine Adapters (Bell Housings) are designed to assure proper shaft alignment between the gasoline engine and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

### **Standard Features:**

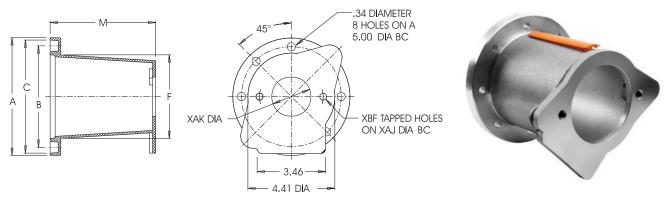
- · Light weight High strength
- Drive coupling access hole
- Safety orange removable cover for coupling access
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

### **Standard Material:**

Cast Aluminum

### **WARNING:**

• To avoid possible injury, access hole cover must be in place during operation



NOTE: All dimensions are inches.

Gas Engine Adapter - LB152 Flange (inches)												
Part No.	XBF Pump XAJ XAK Mounting Dimensions Pump Mounting Bolt Pump Holes							M Face to Face				
Pait No.	Type	Flange	Circle	Pilot	(NC)	A	P			гасе		
LB152825A	SAE A	2 Bolt	4.19	3.25	M10x1.5	5.98	5.00	5.74	4.33	5.59		

# PEM-G FLANGE

Pump Gas Engine Adapters (Bell Housings) are designed to assure proper shaft alignment between the gasoline engine and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

### **Standard Features:**

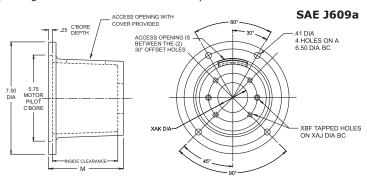
- · Light weight High strength
- Drive coupling access hole
- Safety orange removable cover for coupling access hole
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

### **Standard Material:**

Cast Aluminum

### **WARNING:**

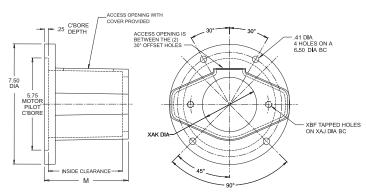
• To avoid possible injury, access hole cover must be in place during operation





NOTE: All dimensions are inches.

	Gas Engine Adapter - PEM-G Flange (inches)												
Part No.	Pump Type	Pump Mounting Flange	MAX Coupling Dia	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes (NC)	M Face to Face	Inside Clearance					
6025	USAF 4F17	4 Bolt	4.00	2.84	1.78	5/16-18	5.00	4.00					
6021	U3AF 4F17	4 0010	4.00	2.04	1.76		5.62	4.50					
6023	SAE AA	2 Bolt	4.00	3.25	2.00	3/8-16	5.00	4.00					
6020	SAE AA	Z DOIL	4.00	3.23	2.00	3/8-10	5.62	4.50					
6024	SAE A	2 Bolt	4.00	4.19	3.25	3/8-16	5.00	4.00					
6019	SAE A	2 DOIL	4.00	4.19	3.23	3/0-10	5.62	4.50					



NOTE: All dimensions are inches. Standard metric series pump flanges also available - Consult factory.

	Gas Engine Adapter - PEM-G Flange (inches)											
Part No.	Pump Type	Pump Mounting Flange	MAX Coupling Dia	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes (NC)	M Face to Face	Inside Clearance				
196899	SAE B	2 Bolt	3.50	5.75	4.00	1/2-13	5.25	4.62				



# PEM-H FLANGE

Pump Gas Engine Adapters (Bell Housings) are designed to assure proper shaft alignment between the gasoline engine and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

### **Standard Features:**

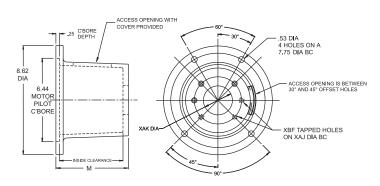
- · Light weight High strength
- Drive coupling access hole
- Safety orange removable cover for coupling access hole
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

# **Standard Material:**

Cast Aluminum

### **WARNING:**

• To avoid possible injury, access hole cover must be in place during operation





NOTE: All dimensions are inches.

Ph : 920-682-6877 Fx : 920-684-7210

Gas Engine Adapter - PEM-H Flange (inches)											
Part No.	Pump Type	Pump Mounting Flange	MAX Coupling Dia	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes (NC)	M Face to Face	Inside Clearance			
6067	SAE A	2 Bolt	4.00	4.187	3.251	3/8-16	5.625	4.50			

# PEM-HH FLANGE

Pump Gas Engine Adapters (Bell Housings) are designed to assure proper shaft alignment between the gasoline engine and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

### **Standard Features:**

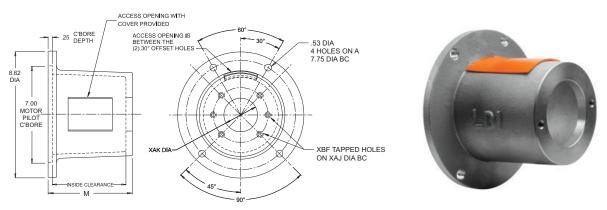
- · Light weight High strength
- Drive coupling access hole
- Safety orange removable cover for coupling access hole
- Gas Engine Adapters are designed to be used with gas engines with horizontal shafts only.

### **Standard Material:**

Cast Aluminum

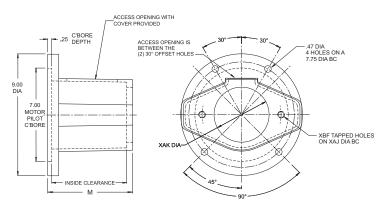
### **WARNING:**

• To avoid possible injury, access hole cover must be in place during operation



NOTE: All dimensions are inches.

	Gas Engine Adapter - PEM-HH Flange (inches)												
XBF Pump MAX XAJ XAK Mounting M Pump Mounting Coupling Bolt Pump Holes Face to Inside Part No. Type Flange Dia Circle Pilot (NC) Face Clearance													
6017	SAE A	2 Bolt	4.00	4.19	3.25	3/8-16	5.62	4.50					



NOTE: All dimensions are inches. Standard metric series pump flanges also available - Consult factory.

	Gas Engine Adapter - PEM-HH Flange (inches)												
Part No.	Pump Type	Pump Mounting Flange	MAX Coupling Dia	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes (NC)	M Face to Face	Inside Clearance					
196199	SAE A	2 Bolt	3.50	4.19	3.25	3/8-16	7.00	5.12					
196399	SAE B	2 Bolt 4 Bolt	3.50	5.75 5.00	4.00	1/2-13	7.00	5.12					
196599	SAE C	2 Bolt	3.50	7.12	5.00	5/8-11	7.00	5.12					



### **Product Range**

Gear pump range includes single pumps of groups AP100 and AP212. Displacements range from 0.073 in<sup>3</sup>/ rev to 1.599 in<sup>3</sup>/rev.

### Suction

The absolute suction pressure must be 11 PSI. It is also advisable to choose a filter of suitable size to minimize any pressure drop and to take measures to prevent gradual clogging over time.

# **Recommended Fluids/Allowed Temperatures**

Mineral oil based hydraulic fluids that comply with ISO/DIN standards is recommended.

The following items are also available (consult factory)

- Spline Shafts
- · Left Hand Rotation (CCW)
- Viton Seal Kits

Viscosity Range										
Recommended	Permitted									
100 to 500 SUS	up to 3000 SUS									

Operating Temperature										
Seal Type	Temperature									
Buna N	5° to 176° F -15° to 80°C									
Viton	14° to 248° F -10° to 120°C									



**AP100** 



**AP212** 

1.355

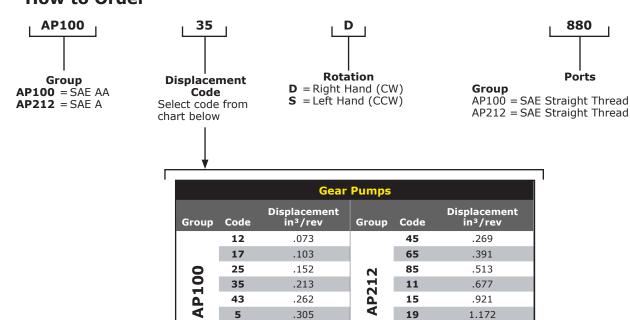
1.599

26

880

**Ports** 

# **How to Order**



65

8

.396

.476

Code

880

880

# GEAR PUMPS

# **AP100 SERIES**

AP100 Gear pumps are widely used in modern hydraulic systems due to their high performance, long service life and low purchase and maintenance costs. The essential components of the AP100 series external gear pumps are an aluminum alloy body and two gearwheels, supported by plain bearings.

### **Standard Features:**

- High overall efficiency thanks to optimized hydraulic compensation
- Design and materials that guarantee excellent technical specifications and long life service
- Recommend using only mineral oil-based hydraulic fluids that comply with the ISO/DIN standards
- Buna N Seal

# **Operating Temperature:**

•5° to 176°F (-15 to 80°C)

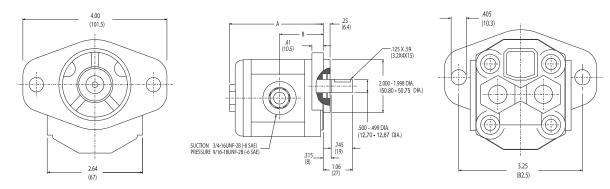
### Suction:

- Absolute suction pressure must be 11 PSI
- It is also advisable to choose a filter of a suitable size to minimize any pressure drop and to take measures to prevent gradual clogging over time

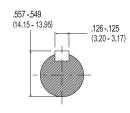
# **Viscosity Range:**

- Recommended 20 + 120 mm<sup>2</sup>/s (cSt)
- Permitted up to 700 mm<sup>2</sup>/s (cSt)

**CAUTION: ·Not to be used with Water Glycol** 



NOTE: All dimensions are inches (mm)





			A	P100 Series								
		Flo	ow	Ma	x Pressure		Max	Dimensions				
	Displacement	@1725 RPM	@3450 RPM	Continuous Intermittent		Peak	Speed		A		В	
Part No.	in³/rev	GPM	GPM	PSI	PSI	PSI	RPM	in	mm	in	mm	
AP10012D880	.073	.546	1.091	3000	3600	4000	5000	3.29	83.50	1.56	39.50	
AP10017D880	.103	.770	1.540	3000	3600	4000	5000	3.37	85.50	1.60	40.50	
AP10025D880	.152	1.136	2.272	3000	3600	4000	5000	3.50	89.00	1.65	42.00	
AP10035D880	.213	1.592	3.184	3000	3300	3600	4000	3.66	93.00	1.75	44.50	
AP10043D880	.262	1.958	3.917	3000	3300	3600	4000	3.82	97.00	1.81	46.00	
AP1005D880	.305	2.280	4.560	3000	3300	3600	3500	3.92	99.50	1.87	47.50	
AP10065D880	.396	2.957	5.914	2700	3150	3400	3000	4.11	104.50	1.97	50.00	
AP1008D880	.476	3.554	7.109	2600	3000	3300	3000	4.33	110.00	2.09	53.00	



# GEAR PUMPS

# **AP212 SERIES**

AP212 gear pumps are widely used in modern hydraulic systems due to their high performance, long service life and low purchase and maintenance costs. The AP212 series is able to achieve high operating pressures, excellent volumetric and mechanical efficiency.

### Standard Features:

- New generation optimized and standardized balancing blocks
- New gears profile (12 teeth) with increased transmissible torque
- Design and materials that guarantee excellent technical specifications and long life service
- Recommend using only mineral oil-based hydraulic fluids that comply with the ISO/DIN standards
- Buna N Seals

### Suction:

- Absolute suction pressure must be 11 PSI
- It is also advisable to choose a filter of a suitable size to minimize any pressure drop and to take measures to prevent gradual clogging over time

# **Viscosity Range:**

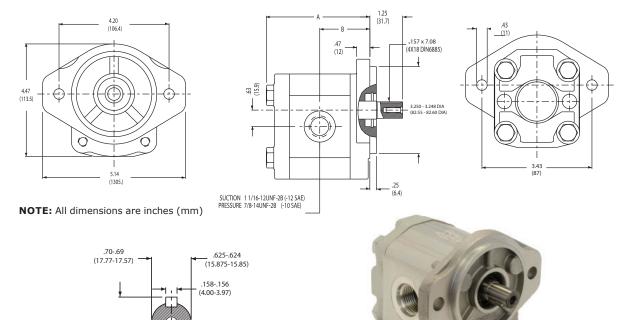
- Recommended 20 + 120 mm<sup>2</sup>/s (cSt)
- Permitted up to 700 mm<sup>2</sup>/s (cSt)

# Operating Temperature:

•5° to 176°F (-15 to 80°C)

### **CAUTION: ·Not to be used with Water Glycol**

- •The coupling joint must be able to absorb any discrepancies in the coaxial alignment of the motor-pump shafts without placing any load on the pump shaft
- Absolutely no radial or axial forces should be transmitted to the drive shaft in the motorpump coupling
- Such forces cause rapid and irregular wear on the balancing surface of the bushings and gear support, with a consequent worsening in pump performance



			A	P212 Series									
		Flo	ow	Ma	x Pressure		Max	Dimensions					
	Displacement	@1725 RPM	@3450 RPM	Continuous	Intermittent	Peak	Speed	A		В			
Part No.	in³/rev	GPM	GPM	PSI	PSI	PSI	rpm	in	mm	in	mm		
AP21245D880	.269	1.888	3.776	3600	4000	4300	4000	3.48	88.5	1.67	42.5		
AP21265D880	.391	2.745	5.489	3600	4000	4300	4000	3.60	91.5	1.73	44.0		
AP21285D880	.513	3.601	7.202	3600	4000	4300	4000	3.72	94.5	1.79	45.5		
AP21211D880	.677	4.752	9.504	3600	4000	4300	4000	3.88	98.5	1.87	47.5		
AP21215D880	.921	6.465	12.930	3600	4000	4300	3500	4.11	104.5	1.99	50.5		
AP21219D880	1.172	8.227	16.454	3000	3500	3700	3500	4.35	110.5	2.11	53.5		
AP21222D880	1.355	9.511	19.023	2600	3000	3300	3000	4.52	115	2.18	55.5		
AP21226D880	1.599	11.224	22.448	2500	2850	3150	3000	4.76	121	2.30	58.5		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

1/4"-28UNF



# IMMERSION HEATERS

# **ET SERIES**

Immersion Heaters are primarily used to help maintain oil temperature to avoid cold startups in cold operating conditions. They may also be utilized in water and other solutions.

### **Standard Features:**

- Keeps oil at approximately 80°F
- Automatic built-in fixed setting thermostat normally closes at 70°F and opens at 100°F
- Will not burn oil
- UL recognized and CSA certified
- Weatherproof wiring enclosure (NEMA 4)
- 22 W/sq in power density on all ET Series heaters
- •Interior thermostat has a 250VAC maximum rating

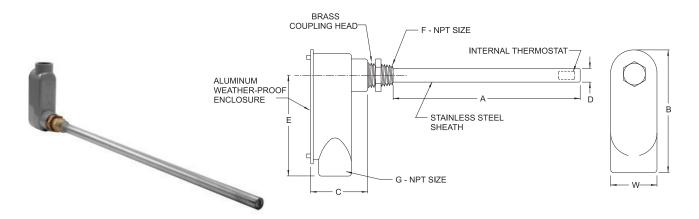
### **CAUTION:**

- · Heaters must be mounted horizontally
- · Do not mount from the top down
- · Heaters must be immersed at all times
- · Heaters are not rated for DC current

- For tanks larger than 500 gallon use multiple heaters
- Heaters over 10 amps, 480 volt, or three phase must be used with a contactor
- Amps = Watts ÷ Volts for single phase
- Amps = Watts ÷ (Volts x 1.73) for three phase
- Wiring diagram included with heater
- Please refer to Immersion Heaters Install and Wiring Instructions for information on installation (Appendix RA-13 on page RA-A13

### **NOTE:**

The ET Series heaters will function when operated at lower than rated voltage, but with associated reductions in power output and efficiency



### **Common Options Available**

• Ambiant Thermostat: open at 60° F/close at 40° F - 10A/240 VAC max (Part No. T-60)

# **Custom Options Available**

920-682-6877

- Three Phase available on ET8 Models (add -3 to part number)
- Explosion proof models available

ET Series													
	Reservoir Size		NI	PT	Dimensions (inches)								
Part No.	(gal)	Wattage	Volts	F	G	A	В	С	D	E	W		
ET2-121	up to 10	125	120	1/2*	1/2	7.00	4.50	2.20	.70	3.60	1.30		
ET2-251	up to 25	250	120	1/2*	1/2	8.00	4.50	2.20	.70	3.60	1.30		
ET2-252	up to 25	250	240	1/2*	1/2	8.00	4.50	2.20	.70	3.60	1.30		
ET3-501	25-50	500	120	3/4	3/4	12.60	5.10	2.50	.75	4.10	1.50		
ET3-502	25-50	500	240	3/4	3/4	12.60	5.10	2.50	.75	4.10	1.50		
ET3-504	25-50	500	480	3/4	3/4	12.60	5.10	2.50	.75	4.10	1.50		
ET3-1001	50-100	1000	120	3/4	3/4	22.60	5.10	2.50	.75	4.10	1.50		
ET3-1002	50-100	1000	240	3/4	3/4	22.60	5.10	2.50	.75	4.10	1.50		
ET3-1004	50-100	1000	480	3/4	3/4	22.60	5.10	2.50	.75	4.10	1.50		
ET8-2502	100-250	2500	240	2	1 1/4	23.00	8.20	3.70	1.90	6.70	2.80		
ET8-2504	100-250	2500	480	2	1 1/4	23.00	8.20	3.70	1.90	6.70	2.80		
ET8-5002	250-500	5000	240	2	1 1/4	44.00	8.20	3.70	1.90	6.70	2.80		
ET8-5004	250-500	5000	480	2	1 1/4	44.00	8.20	3.70	1.90	6.70	2.80		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

## MOTOR BASE PLATES

Motor Base Plates may be used where the mounting surface is to thin to drill & tap, where the motor foot may need to over hang, on structural frames or increase the motor/pump centerline for piping mounting ease.

## **Standard Features:**

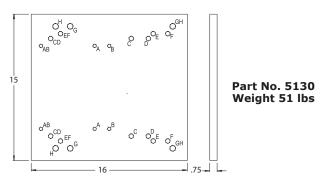
- Easily welded in place
- Each Motor Base Plate has multiple NEMA motor frame mounting patterns (sets of 4 holes)
- •LDI gray primer

## **Standard Material:**

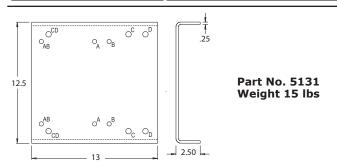
Carbon Steel

#### **NOTE:**

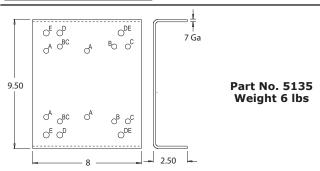
• All dimensions are inches



Pattern	Tap Size	Motor Frame	Pattern	Tap Size	Motor Frame
Α	3/8-16	213TC	E	1/2-13	284TC/TSC
В	3/8-16	215TC	F	1/2-13	286TC/TSC
С	1/2-13	254TC	G	5/8-11	324TC/TSC
D	1/2-13	256TC	н	5/8-11	326TC/TSC

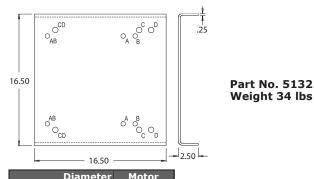


Pattern	Diameter (inch)	Motor Frame
Α	.44	213TC
В	.44	215TC
С	.56	254TC
D	.56	256TC

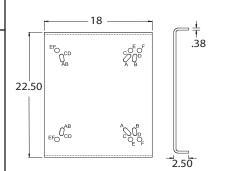


Pattern	Diameter (inch)	Motor Frame
Α	.38	56C
В	.38	143TC
С	.38	145TC
D	.44	182TC
E	.44	184TC





Pattern	Diameter (inch)	Motor Frame
Α	.56	284TC/TSC
В	.56	286TC/TSC
С	.69	324TC/TSC
D	.69	326TC/TSC



Part No. VPM324 Weight 51 lbs

Pattern	Diameter (inch)	Motor Frame
Α	.66	324TC/TSC
В	.66	326TC/TSC
С	.66	364TC/TSC
D	.81	365TC/TSC
E	.81	404TC/TSC
F	.81	405TC/TSC

## MOUNTING PLATES

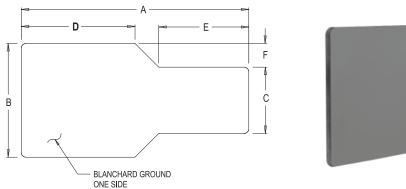
These mounting plates are used when mounting a motor to a pump using a foot bracket.

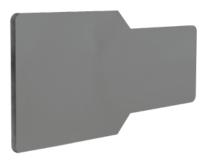
## **Standard Features:**

## **Standard Material:**

Carbon Steel

- •Blanchard ground on one side to help shaft alignment
- Room for mounting a coupling guard to cover a rotating drive coupling assembly
- •LDI gray primer





Mounting Plates									
			inches						
									Piece Weight
Style	Part No.	A	В	С	D	E	F	Material	(lbs)
10	5269	24.00	12.00	7.00	12.00	9.50	2.50	.75 x 12.00 x 24.00	50
20	5270	27.00	13.00	9.00	13.50	11.50	2.00	.75 x 13.00 x 27.00	65
30	5271	35.00	16.00	11.00	17.50	15.00	2.50	.75 x 16.00 x 35.00	95

## **DAMPENING BARS - BOLT DOWN**

Motor Dampening Bars are designed to reduce vibration and structure borne noise levels from the motor to the mounting surface.

## **Standard Features:**

- Average expected reduction of structure borne noise is 3 - 4 dBA
- Full mounting range for NEMA frame motors
- Two are required per motor
- Horizontal installation only

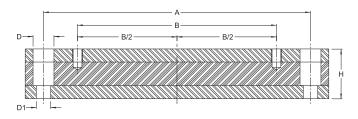
#### **Standard Material**

Natural rubber vulcanized bonded to carbon steel

## **Temperature Ratings:**

 Recommended operating temperature is -40° to 167° F (75°C).

Caution: Not intended for use in vertical applications







Motor Dampening Bars - Bolt Down										
					Dime	ensions (inc	ches)			
Part No.	Motor Size		w	н	Α	В	С	D	D1	T1 (NC)
VSM-56-B	56C	7.25	2.00	1.56	5.75	3.00	.88	.81	.56	5/16-18
VSM-143-B	143TC	7.75	2.00	1.56	6.25	4.00	.81	.81	.56	5/16-18
VSM-145-B	145TC	8.75	2.00	1.56	7.25	5.00	.81	.81	.56	5/16-18
VSM-182-B	182TC	8.75	2.00	1.56	7.25	4.50	.94	.81	.56	3/8-16
VSM-184-B	184TC	9.75	2.00	1.56	8.25	5.50	.94	.81	.56	3/8-16
VSM-213-B	213TC	10.00	2.00	1.56	8.50	5.50	.94	.81	.56	3/8-16
VSM-215-B	215TC	11.50	2.00	1.56	10.00	7.00	.94	.81	.56	3/8-16
VSM-254-B	254TC	13.00	2.00	1.75	11.50	8.25	.94	.81	.56	1/2-13
VSM-256-B	254TC 256TC	14.75	2.00	1.75	13.25	10.00	.94	.81	.56	1/2-13
VSM-284-B	284TC/TSC	14.75	2.75	2.38	12.75	9.50	1.12	1.25	.69	
	•									1/2-13
VSM-286-B	286TC/TSC	16.00	2.75	2.38	14.25	11.00	1.12	1.25	.69	1/2-13
VSM-324-B	324TC/TSC	16.00	3.00	2.38	14.00	10.50	1.56	1.25	.81	5/8-11
VSM-326-B	326TC/TSC	17.50	3.00	2.38	15.50	12.00	1.56	1.25	.81	5/8-11
VSM-364-B	364TC/TSC	17.00	3.00	2.38	15.00	11.25	1.56	1.25	.81	5/8-11
VSM-365-B	365TC/TSC	18.00	3.00	2.38	16.00	12.25	1.56	1.25	.81	5/8-11
VSM-404-B	404TC/TSC	19.50	4.00	2.38	17.25	12.25	2.00	1.56	1.06	3/4-10
VSM-405-B	405TC/TSC	21.00	4.00	2.38	18.75	13.75	2.00	1.56	1.06	3/4-10
VSM-444-B	444TC/TSC	23.00	4.50	2.38	20.75	14.50	2.25	1.56	1.06	3/4-10
VSM-445-B	445TC/TSC	26.00	4.50	2.38	23.75	16.50	2.25	1.56	1.06	3/4-10
VSM-447-B	447TC/TSC	36.00	4.50	2.38	33.00	20.00	2.31	1.75	1.06	3/4-10
VSM-449-B	449TC/TSC	36.00	4.50	2.38	33.00	25.00	2.31	1.75	1.06	3/4-10

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



## **DAMPENING BARS - WELDABLE**

Motor Dampening Bars are designed to reduce vibration and structure borne noise levels from the motor to the mounting surface.

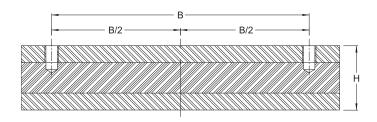
## **Standard Features:**

- Average expected reduction of structure borne noise is 3 - 4 dBA
- Full mounting range for NEMA frame motors
- Two are required per motor
- Horizontal installation only

## NOTE:

 Please refer to Appendix RA-4 on page RA-A4 for welding instructions

## Caution: Not intended for use in vertical applications





#### **Standard Materials:**

Natural rubber vulcanized bonded to carbon steel

## **Temperature Ratings:**

 Recommended operating temperature is -40° to 167° F (75°C).



Motor Dampening Bars - Weldable										
			Dimensions (inches)							
Doub No.	Motor		w				T1			
Part No.	Size	L		H	В	С	(NC)			
VSM-56-W	56C	4.75	2.00	1.56	3.00	.88	5/16-18			
VSM-143-W	143TC	5.50	2.00	1.56	4.00	.81	5/16-18			
VSM-145-W	145TC	6.50	2.00	1.56	5.00	.81	5/16-18			
VSM-182-W	182TC	6.00	2.00	1.56	4.50	.94	3/8-16			
VSM-184-W	184TC	7.00	2.00	1.56	5.50	.94	3/8-16			
VSM-213-W	213TC	7.75	2.00	1.56	5.50	.94	3/8-16			
VSM-215-W	215TC	9.00	2.00	1.56	7.00	.94	3/8-16			
VSM-254-W	254TC	10.50	2.00	1.75	8.25	.94	1/2-13			
VSM-256-W	256TC	12.25	2.00	1.75	10.00	.94	1/2-13			
VSM-284-W	284TC/TSC	12.00	2.75	2.38	9.50	1.12	1/2-13			
VSM-286-W	286TC/TSC	13.25	2.75	2.38	11.00	1.12	1/2-13			
VSM-324-W	324TC/TSC	12.50	3.00	2.38	10.50	1.56	5/8-11			
VSM-326-W	326TC/TSC	14.00	3.00	2.38	12.00	1.56	5/8-11			
VSM-364-W	364TC/TSC	13.50	3.00	2.38	11.25	1.56	5/8-11			
VSM-365-W	365TC/TSC	14.50	3.00	2.38	12.25	1.56	5/8-11			
VSM-404-W	404TC/TSC	15.50	4.00	2.38	12.25	2.00	3/4-10			
VSM-405-W	405TC/TSC	17.00	4.00	2.38	13.75	2.00	3/4-10			
VSM-444-W	444TC/TSC	19.50	4.50	2.38	14.50	2.25	3/4-10			
VSM-445-W	445TC/TSC	21.00	4.50	2.38	16.50	2.25	3/4-10			
VSM-447-W	447TC/TSC	26.00	4.50	2.38	20.00	2.31	3/4-10			
VSM-449-W	449TC/TSC	31.00	4.50	2.38	25.00	2.31	3/4-10			



## **182TC THRU 256TC & 213UC THRU 256UC**

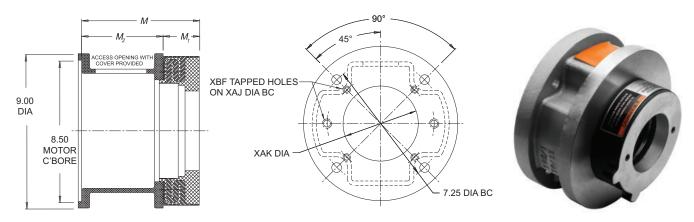
Dampening Flanges are designed to reduce the structure-borne and air-borne noise that is generated when the motor and pump are coupled together.

## **Standard Features:**

- Machined for mounting the motor and hydraulic pump
- Assures proper shaft alignment
- Average expected reduction of air-borne noise is 3 6 dBA

## **Standard Materials:**

 Aluminum casting mounted to a locked vulcanized dampening flange



NOTE: All dimensions are inches

Dampening Flange D150								
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.		
SAE A	2 Bolt	4.19	3.25	3/8-16	1.750	D150-A2		

OVERALL Face to Face DIMENSION M = M, + M,

Adapter For D150 Dampening Flange							
Motor Frame Size	M <sub>2</sub> Face to Face	Part No.					
182/TC	3.500	182-L1					
thru	3.937	182-L2					

4.375

256/TC

256/TC

	M Face to Face
1	5.250
	5.687
╛	6.125

182-L3

182-L3

	Dampening Flange D190									
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.				
SAE A	2 Bolt	4.19	3.25	3/8-16	1.750	D190-A2				
SAE B	2 Bolt	5.75	4.00	1/2-13	1.750	D190-B2				
SAE B	4 Bolt	5.00	4.00	1/2-13	1.750	D190-B4				

OVERALL Face to Face DIMENSION  $M = M_1 + M_2$ 

Adapter For D190 Dampening Flange					
Motor	M <sub>2</sub> Face				
Frame Size	to Face	Part No.			
182/TC	3.500	182-L1			
thru	3.812	182-L2			

4.375

M Face to Face
5.250
5.562
6.125

	Dampening Flange D230					
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.
SAE B	2 Bolt	5.75	4.00	1/2-13	2.250	D230-B2
SAE B	4 Bolt	5.00	4.00	1/2-13	2.250	D230-B4
SAE C	2 Bolt	7.12	5.00	5/8-11	2.250	D230-C2
SAE C	4 Bolt	6.38	5.00	1/2-13	2.250	D230-C4

OVERALL Face to Face DIMENSION  $M = M_1 + M_2$ 

#### Adapter For D230 Dampening Flange M<sub>2</sub> Face Frame Size to Face Part No. 3.500 182-L1 182/TC

#### thru 3.937 182-L2 256/TC 4.375 182-L3

Face to Face
5.750
6.187
6.625

## **MODEL CODE - ORDERING INFORMATION FOR COMPLETE ASSEMBLY**

D230 182-L2 **Dampening Flange** Part Number Adapter Part Number **Dampening Flange SAE Pump Mounting** 

If your required model or dampening flange is not known, or you wish to verify your selection, please provide LDI with the following information:

- 1. Motor HP with frame size
- 2. Pump manufacturer and complete model number
- 3. Pump weight
- 4. Coupling manufacturer and model

LDI will then select the correct assembly and provide you with a computer generated drawing for assembling the adapter and coupling

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



Pg RA-73

## 284 THRU 286TC/TSC & 284 THRU 286UC/USC

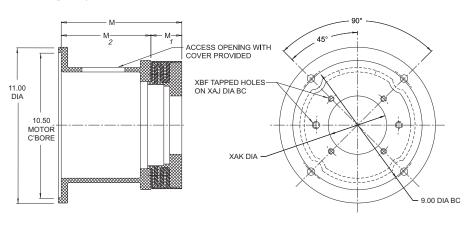
Dampening Flanges are designed to reduce the structure-borne and air-borne noise that is generated when the motor and pump are coupled together.

#### **Standard Features:**

- Machined for mounting the motor and hydraulic pump
- Assures proper shaft alignment
- Average expected reduction of air-borne noise is 3 6 dBA

## **Standard Materials:**

Aluminum casting mounted to a locked vulcanized dampening flange





NOTE: All dimensions are inches

	Dampening Flange D190					
M <sub>1</sub> Pump Pump XAJ XAK XBF Face to Type Flange Bolt Circle Pump Pilot Holes Face Part					Part No.	
SAE A	2 Bolt	4.19	3.25	3/8-16	1.750	D190-A2
SAE B	2 Bolt	5.75	4.00	1/2-13	1.750	D190-B2
SAE B	4 Bolt	5.00	4.00	1/2-13	1.750	D190-B4

OVERALL Face to Face DIMENSION  $M = M_1 + M_2$ 

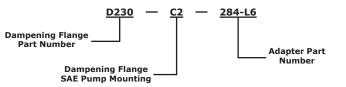
Adapter Fo	ening Flange		
Motor Frame Size	M <sub>2</sub> Face to Face	Part No.	M Face to Face
	3.625	284-L1	5.375
	4.063	284-L2	5.812
	4.375	284-L3	6.125
	4.750	284-L4	6.500
284/TC/TSC thru	5.063	284-L5	6.812
286/TC/TSC	5.375	284-L6	7.125
	5.750	284-L7	7.500
	6.437	284-L8	8.187
	6.750	284-L9	8.500
	7.000	284-L10	8.750

	Dampening Flange D230					
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.
SAE B	2 Bolt	5.75	4.00	1/2-13	2.250	D230-B2
SAE B	4 Bolt	5.00	4.00	1/2-13	2.250	D230-B4
SAE C	2 Bolt	7.12	5.00	5/8-11	2.250	D230-C2
SAE C	4 Bolt	6.38	5.00	1/2-13	2.250	D230-C4

OVERALL Face to Face DIMENSION M =  $M_1 + M_2$ 

Adapter Fo	ening Flange		
Motor Frame Size	M₂ Face to Face	Part No.	M Face to Face
Trume 5120	3.625	284-L1	5.875
	4.063	284-L2	6.312
	4.375	284-L3	6.625
	4.750	284-L4	7.000
284/TC/TSC thru	5.063	284-L5	7.312
286/TC/TSC	5.375	284-L6	7.625
	5.750	284-L7	8.000
	6.437	284-L8	8.687
	6.750	284-L9	9.000
	7.000	284-L10	9.250

#### **MODEL CODE - ORDERING INFORMATION FOR COMPLETE ASSEMBLY**



If your required model or dampening flange is not known, or you wish to verify your selection, please provide LDI with the following information:

- Motor HP with frame size
- 2. Pump manufacturer and complete model number
- 3. Pump weight
- 4. Coupling manufacturer and model

LDI will then select the correct assembly and provide you with a computer generated drawing for assembling the adapter and coupling Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Ph: 920-682-6877 Fx: 920-684-7210



## 324 THRU 405TC/TSC & 324 THRU 405UC/USC

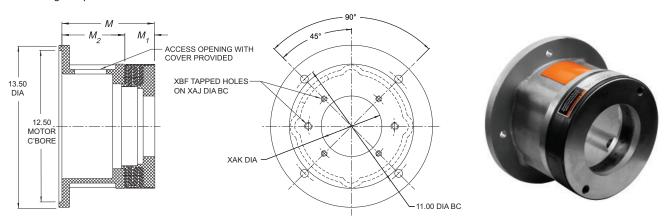
Dampening Flanges are designed to reduce the structure-borne and air-borne noise that is generated when the motor and pump are coupled together.

#### **Standard Features:**

- Machined for mounting the motor and hydraulic pump
- Assures proper shaft alignment
- Average expected reduction of air-borne noise is 3 6 dBA

## **Standard Materials:**

Aluminum casting mounted to a locked vulcanized dampening flange



NOTE: All dimensions are inches

	Dampening Flange D230					
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.
SAE B	2 Bolt	5.75	4.00	1/2-13	2.250	D230-B2
SAE B	4 Bolt	5.00	4.00	1/2-13	2.250	D230-B4
SAE C	2 Bolt	7.12	5.00	5/8-11	2.250	D230-C2
SAE C	4 Bolt	6.38	5.00	1/2-13	2.250	D230-C4

OVERALL Face to Face DIMENSION M =  $\rm M_1 + \rm M_2$ 

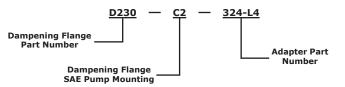
Adapter Fo	r D230 Damp	ening Flange	
Motor Frame Size	M <sub>2</sub> Face to Face	Part No.	M Face to Face
	3.812	324-L1	6.063
	4.563	324-L2	6.812
	5.187	324-L3	7.437
324/TC/TSC	5.875	324-L4	8.125
thru	6.250	324-L5	8.500
405/TC/TSC	6.375	324-L6	8.625
	7.125	324-L7	9.375
	7.375	324-L8	9.625
	8.125	324-L9	10.375

	Dampening Flange D260					
Pump Type	Pump Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Holes	M <sub>1</sub> Face to Face	Part No.
SAE B	2 Bolt	5.75	4.00	1/2-13	2.250	D260-B2
SAE B	4 Bolt	5.00	4.00	1/2-13	2.250	D260-B4
SAE C	2 Bolt	7.12	5.00	5/8-11	2.250	D260-C2
SAE C	4 Bolt	6.38	5.00	1/2-13	2.250	D260-C4
SAE D	2 Bolt	9.00	6.00	3/4-10	2.250	D260-D2
SAE D	4 Bolt	9.00	6.00	3/4-10	2.250	D260-D4

OVERALL Face to Face DIMENSION M =  $\rm M_1 + \rm M_2$ 

Adapter Fo	ening Flange		
Motor Frame Size	M <sub>2</sub> Face to Face	Part No.	M Face to Face
	3.812	324-L1	6.063
	4.563	324-L2	6.812
	5.187	324-L3	7.437
324/TC/TSC	5.875	324-L4	8.125
thru	6.250	324-L5	8.500
405/TC/TSC	6.375	324-L6	8.625
	7.125	324-L7	9.375
	7.375	324-L8	9.625
	8.125	324-L9	10.375

## **MODEL CODE - ORDERING INFORMATION FOR COMPLETE ASSEMBLY**



If your required model or dampening flange is not known, or you wish to verify your selection, please provide LDI with the following information:

- 1. Motor HP with frame size
- 2. Pump manufacturer and complete model number
- 3. Pump weight
- 4. Coupling manufacturer and model

LDI will then select the correct assembly and provide you with a computer generated drawing for assembling the adapter and coupling

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



## **VERTICAL DAMPENING RINGS**

Vertical Dampening Rings are designed to reduce the noise between the motor and pump assembly and the mounting surface.

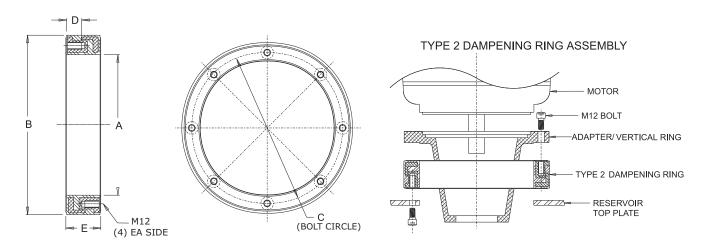
## **Standard Features:**

#### • Resistance to hydraulic fluid.

- Seals between the adapter and the mounting surface
- Average expected reduction of air-bore noise is 3 5 dBA
- Working temperature of 176° F (80° C)

## **Standard Material:**

Locked vulcanized design



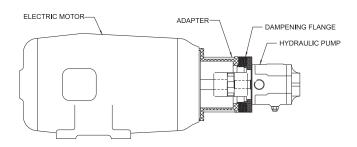


Type 2 Dampening Ring Dimensional Data (inches)										
Part No.	A	B	C	D	E					
	inches	inches	inches	inches	inches					
	(mm)	(mm)	(mm)	(mm)	(mm)					
A300	9.25	11.81	10.43	.70	2.20					
	(235)	(300)	(265)	(18)	(56)					

	Vertical Mounting Gaskets - Adapter and Cutout Information										
NEMA Motor Frame Size	Dampening Ring Part No.	Use with Adapter Style	Cutout Information								
182TC to 256TC	A300	Vertical Style 6 Vertical Ring 268299	Requires a 9.12 inch diameter hole with (4) .563 inch diameter holes equally spaced on a 10.433 inch (265mm) diameter bolt circle								

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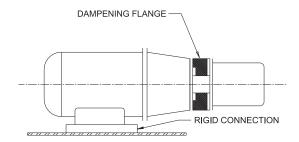
## DAMPENING OF STRUCTURE BORNE NOISE



Due to substantial investigations and measurements in practical operation, the following approximate values can be presumed:

- 1. Pump motor adapter with dampening flange: 3 to 6 dB(A)
- 2. Dampening bar VSM: 3 to 4 dB(A)
- 3. Pump motor adapter with dampening flange and dampening bar VSM: 6 to 8 dB(A)

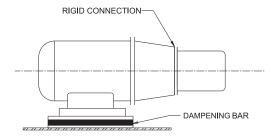
The maximum values can be achieved when it is possible to reduce the resonances in the power unit with the aid of a dampening element, these resonances might arise, because the main exiting frequency of the hydraulic pump corresponds to the natural frequency of machine parts with large surfaces.



#### **DAMPENING FLANGE**

The flexible dampening flange renders possible and efficient structure-borne noise separation directly at the hydraulic pump.

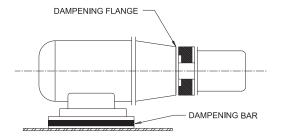
Average expected reduction of airborne noise 3 - 6 dB(A)



## DAMPENING BAR

The flexible dampening bar prevents the transmission of structure-borne noise between pump/motor and aggregate.

Average expected reduction of airborne noise 3 - 4 dB(A)



# DAMPENING FLANGE and DAMPENING BAR

Both dampening flanges and dampening bars render possible and optimum of structure-borne noise dampening of pump and motor.

Average expected reduction of airborne noise 3 - 4 dB(A)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

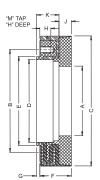




## ABOUT THE DAMPENING FLANGE



- Locked vulcanized design not bolted together
- High weight loading possible (with multiple pumps)
- Excellent dampening properties
- Excellent resistance against ozone and oil
- Integral sealing lip no additional sealing required
- Fully machined to most SAE 2 & 4 bolt and ISO 2 & 4 bolt mounting flanges
- Easily bolts to LDI Dampening Flange Adapter
- Can be mounted horizontally or vertically
- Furnished as complete assembly only



	Dimensional Data													
Dampening	Į ,	١	В	С	D	E	F	G	н	J	К	М	Max Clpg.	
Flange	Min	Max											O.D.	
D150	USA4F17 32mm	SAE A 80mm	4.803 122mm	5.827 148mm	3.268 83mm	3.937 100mm	1.772 45mm	.236 6mm	.590 15mm	.629 16mm	1.377 35mm	M8	3.000	
D190	SAE A 32mm	SAE B 112mm	5.906 150mm	7.480 190mm	4.567 116mm	5.119 130mm	1.772 45mm	.236 6mm	.590 15mm	.709 18mm	1.299 33mm	M10	4.375	
D230	SAE B 100mm	SAE C 140mm	7.677 195mm	9.212 234mm	5.354 136mm	6.299 160mm	2.322 59mm	.236 6mm	.709 18mm	.906 23mm	1.653 42mm	M12	5.125	
D260	SAE B 100mm	SAE D 160mm	0.200	10.394 264mm		7.087 180mm	2.322 59mm	.236 6mm	.787 20mm	.906 23mm	1.653 42mm	M16	6.000	

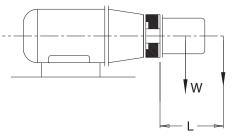
NOTE: Special pump and metric flanges also available - Consult factory.

## SELECTING A DAMPENING FLANGE

The first step in selecting a dampening flange is to insure that the torque required by your pump does not exceed the maximum rating of the dampening flange. The torque required by the pump is determined by the pump displacement and maximum operating pressure. This information is typically available from the pump Manufacturer's Website. Once this maximum torque is known, it cannot exceed the nominal torque rating of the dampening flange in the chart below. The maximum torque in the chart below is what the pump will require at start up but generally, this is not an issue. If in doubt, compare the motor torque at stall with the maximum torque in the chart. As long as the motor torque at stall is less than the maximum value in the chart, there should be no issues.

Dampening Flange Torque Ratings										
	Dampening Flange									
Load Types	D150	D190	D230	D260						
Nominal Torque Rating (lb in)	638	4425	7080	9956						
Maximum Torque Rating (lb in)	2213	13275	21240	29869						

## DAMPENING FLANGE FOR A HORIZONTAL INSTALLATION



To select the proper dampening flange for your application, you will need to know the weight of your pump and the distance from the mounting flange to the location of the pump weight (center of gravity). This information is available from the pump Manufacturer.

If the location of the center of gravity is not known, a reasonable approximation can be determined by assuming it is 2/3 the total length of the pump from the mounting flange.

The maximum pump weight for each of the dampening flanges is given in the chart at the top of the following page. Also in the chart is the maximum distance

from the mounting flange that the maximum pump weight can be located at. As the distance to the center of gravity of the pump goes beyond the maximum distance in the chart, the allowable weight of the pump decreases. Note that even if the distance to the center of gravity of the pump is LESS than shown in the chart, the maximum weight of the pump cannot exceed that shown in the chart.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



## DAMPENING FLANGE FOR A HORIZONTAL INSTALLATION (CONT'D)

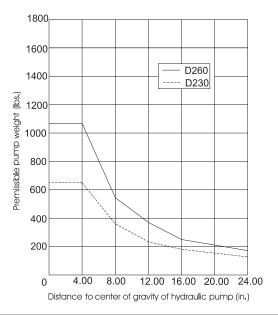
Also shown in the below chart is the maximum movement (weight multiplied by distance) that each of the dampening flanges is rated for. The chart at the top of the following page will quickly narrow down the choices of acceptable dampening flanges.

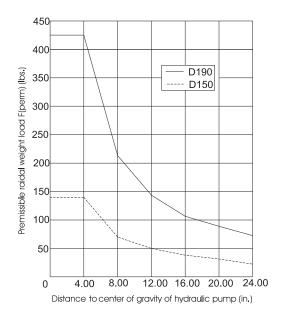
Maximum Pump Weight of Dampening Flanges for a Working Temperature of 140°F (60°C)											
D150 D190 D230 D260											
Distance to Pump Center of Gravity (in)	4.00	4.00	4.00	8.00							
Pump Weight (lbs)	145	405	675	510							
Maximum Moment (in-lbs)	580	1620	2700	4080							

For other center distances  $L_X$  the permissible load may be calculated

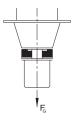
If you choose to calculate whether or not your pump is acceptable for the dampening flange you have selected, simply take the weight of the pump and multiply it by the distance from the mounting flange to the pump's center of gravity (a moment) and compare it to the maximum moment listed in the chart. If your calculated moment does not exceed the moment in the chart, you have selected an appropriate dampening flange.

An alternate method of confirming your selection would be to use the appropriate graph below once you've tentatively selected a dampening flange. To do so, simply locate the curve on the graphs for your flange selection. Next, on the vertical access, locate the weight of your pump and make a horizontal line. From where your horizontal line intersects the curve for your flange, drawn a vertical line all the way to the bottom axis which is the maximum distance from the dampening flange that pump weight can be applied. Compare the distance to the center of gravity of your pump to that value. As long as the distance to the center of gravity of your pump is LESS than the distance shown where your vertical line meets the horizontal axis, your pump selection is valid.





## DAMPENING FLANGE FOR A VERTICAL INSTALLATION



If you are specifying a vertical system, you will need to know only the weight of your pump. You then compare it to the maximum allowable weight in the chart below.

Dampening Flange for Vertical Installation Information									
	Dampening Flange								
	D150	D190	D230	D260					
Maximum Pump Weight (lb)	225	238	540	861					

You are now ready to order your dampening flange from LDI Industries.

## VPG SERIES

Glycerine filled Pressure Gages provide added durability in applications where vibration or pulsation is present. Stainless Steel case and bezel, copper alloy internals. Available in both Lower and U-Clamp Panel Mount.

## **Standard Features:**

- 2.5 inch dial
- 1/4 inch NPT thread connection
- Glycerine filled
- Stainless Steel case and bezel
- Copper Alloy internals
- Polycarbonate lens
- Dual Scale -- PSI/Bar (x 100 = kPa)

## **Ambient Temperature:**

•30°F to 160°F (-1°C to 71°C)

## Accuracy:

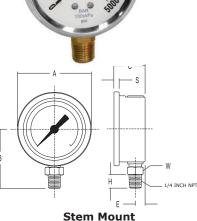
2-1-2% of span ASME B40.1 Grade A







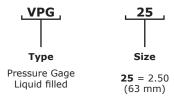




**Panel Mount** 

**VPG Series** w В С Е **P1 Dimensions** 2.50 1.97 1.20 0.22 .563 0.39 2.12 0.51 2.83 3.84 1.50 63.00 50.00 30.50 5.60 14.00 10.00 53.85 13.00 72.00 97.50 38.00 mm \*Nominal Size

## **How to Order**









**B**=Panel

L=Stem

## **Options**

- Dial Face Artwork—2.50 inch
- Special Liquid—Silicone
- Glass Face—Resists solvents and abrasives

## **Options requirements**

- 125 minimum order
- 12 week lead time

▲ 10=0-100 PSI **30**=0-300 PSI **60**=0-600 PSI 1K=0-1000 PSI 150=0-1500 PSI 2K=0-2000 PSI **3K**=0-3000 PSI **5K**=0-5000 PSI

6K=0-6000 PSI 10K=0-10000 PSI

- Stem Mount Only

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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## **56C THRU 145TC & 182UC THRU 184UC**

Pump Motor Adapters (Bell Housings) are designed to assure proper shaft alignment between the electric motor and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

#### **Standard Features:**

- Drive coupling access hole with safety orange removable cover
- Electric Motor mounting bolts provided
- Pump mounting orientation can be rotated in 90 degree increments by rotating the adapter on the electric motor.
- Available for mounting your assembly horizontal and vertical with most adapter styles

#### **Standard Material:**

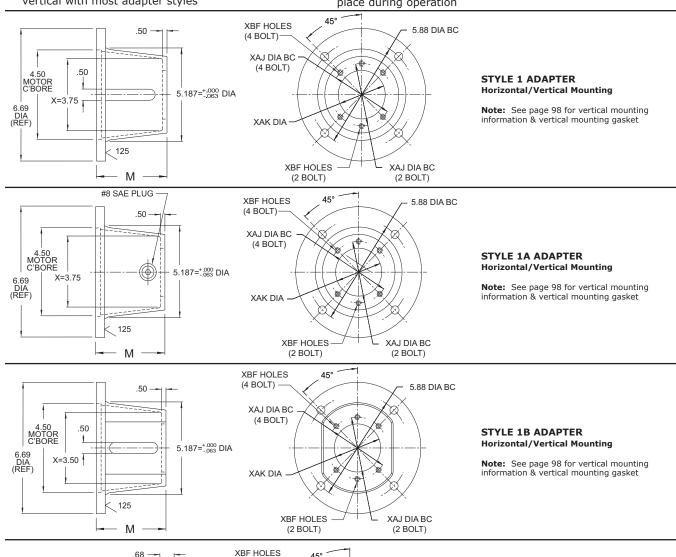
• Die and Cast Aluminum

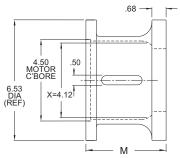
#### NOTES:

- X = Permissable inside radial clearance
- · All dimensions are inches

#### **WARNING:**

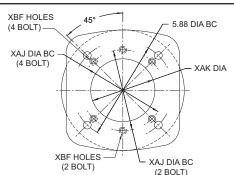
 To avoid possible injury, access hole cover must be in place during operation





<mark>ት : 920-682-687</mark>7

x:920-684-7210



STYLE 3 ADAPTER
Horizontal Mounting Only

If your pump is not listed or is a non-standard pump, contact us for special machining and/or information. Not all pump mounting holes are supplied on every adapter.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

11/



## **56C THRU 145TC & 182UC THRU 184UC (CONT'D)**

Motor Size	56C	143TC	145TC	182UC	184UC
HP/1800 RPM	1/4-1/2	1	2	1	1-1/2
<b>Shaft Diameter</b>	.62	.88	.88	.88	.88
Key Size	3/16	3/16	3/16	3/16	3/16
Shaft Length	2.06	2.12	2.12	2.12	2.12



						Moun	nting	_ м														
Pump Type	Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes	Adapter Style	Horizontal	Vertical	Face to Face	Part No													
	E Pump Flan			,	,	,																
	•				1	Yes	Yes	3.53	17059													
					1A	Yes	Yes	3.50	6094													
					1B	Yes	Yes	3.81	15219													
JSA 4F17	4 Bolt	2.84	1.781	5/16-18	1	Yes	Yes	4.25	6029													
					1A	Yes	Yes	4.25	6070													
					1B	Yes	Yes	4.50	15019													
					1	Yes	Yes	3.53	17069													
					1A	Yes	Yes	3.50	6093													
CAFAA	2 0 - 14	2.25	2.001	2/0.16	1B	Yes	Yes	3.81	15229													
SAE AA	2 Bolt	3.25	2.001	3/8-16	1	Yes	Yes	4.25	6027													
					1B	Yes	Yes	4.50	15029													
					1	Yes	Yes	5.00	17149													
SAE A	2 Bolt	4.19	3.251	3/8-16	1A	Yes	Yes	3.50	6091													
SAE A	2 B0IL	4.19	3.231	3/8-10	1A	Yes	Yes	4.25	6071													
					1	Yes	Yes	3.53	17079													
						1B	Yes	Yes	3.81	15239												
SAE A	2 Bolt	4.19	3.251	2/0.16	1	Yes	Yes	4.25	6028													
SAL A	2 6010	4.19	3.251	3.231	3.231	3.251	3.231	3.251	3.251	3.251	3.251	3.231	3.231	3.251	3/6-10	3/0-10	3/8-16	1B	Yes	Yes	4.50	15049
							1	Yes	Yes	5.00	6042											
					1B	Yes	Yes	5.25	15059													
	2 Polt	F 7F			3	Yes	No	4.25	14919													
SAE B	2 Bolt 4 Bolt	5.75 5.00	4.001	1/2-13	3	Yes	No	5.00	14979													
	4 Boit	3.00			3	Yes	No	5.56	6085													
SAE C	4 Bolt	6.38	5.001	1/2-13	3	Yes	No	5.56	6074													
Bolt Moun	ting Flange																					
3H	3 Bolt	2.75	2.121	1/4-20	1	Yes	Yes	4.25	6062													
<b>Bolt Moun</b>	ting Flange																					
6HB	6 Bolt	3.25	2.626	3/8-16	1	Yes	Yes	4.25	1948													
ouble A Pu	mps (BSM)																					
.4-42-PFG	4 Bolt	Spl. Mtg.	1.249	15/64 Dia.	1	Yes	Yes	4.25	1937													
etric Serie	s 4 Bolt Flan	ge																				
R4M	4 Bolt	63mm	50.02mm	.312 Dia.	1	Yes	Yes	4.25	6075													

\*NOTE: Also contains additional SAE-A 4 bolt mounting suitable for mounting SAE-A 45°

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability. Ph : 920-682-6877 Fx : 920-684-7210

## **182TC THRU 256TC & 213UC THRU 256UC**

Pump Motor Adapters (Bell Housings) are designed to assure proper shaft alignment between the electric motor and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

## **Standard Features:**

- Drive coupling access hole with safety orange removable cover
- Electric Motor mounting bolts provided
- Pump mounting orientation can be rotated in 90 degree increments by rotating the adapter on the electric motor
- Available for mounting your assembly horizontal and vertical with most adapter styles

## **Standard Material:**

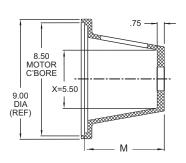
• Die and Cast Aluminum

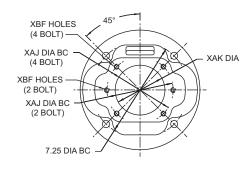
#### NOTES:

- X = Permissable inside radial clearance
- All dimensions are inches

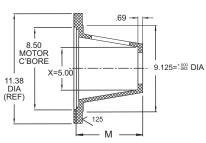
#### WARNING:

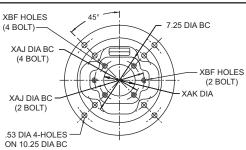
 To avoid possible injury, access hole cover must be in place during operation





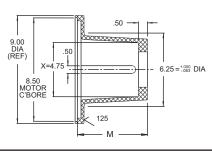
STYLE 5 ADAPTER
Horizontal Mounting Only

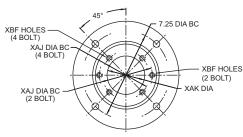




## STYLE 6 ADAPTER Vertical Mounting Only

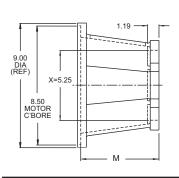
**Note:** See page 98 for vertical mounting information & vertical mounting gasket

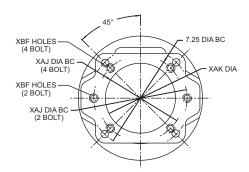




## STYLE 7 ADAPTER Horizontal/Vertical Mounting

**Note:** See page 98 for vertical mounting information & vertical mounting gasket





STYLE 8 ADAPTER
Horizontal Mounting Only

If your pump is not listed or is a non-standard pump, contact us for special machining and/or information. Not all pump mounting holes are supplied on every adapter.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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# **182TC THRU 256TC & 213UC THRU 256UC (CONT'D)**

Motor Size	182TC	184TC	213TC	215TC	254TC	256TC	213UC	215UC	254UC	256UC
HP/1800 RPM	3	5	7-1/2	10	15	20	2	3	7-1/2	10
<b>Shaft Diameter</b>	1.12	1.12	1.38	1.38	1.6258	1.62	1.12	1.12	1.38	1.38
Key Size	1/4	1/4	5/16	5/16	3/8	3/8	1/4	1/4	5/16	5/16
Shaft Length	2.62	2.62	3.12	3.12	3.75	3.75	2.75	2.75	3.50	3.50



Pump		XAJ	XAK	XBF	Adapter	Mour	nting	M Face to				
Туре	Flange			Mounting Holes	Style	Horizontal	Vertical	Face	Part N			
andard SA	E Pump Flar	iges										
					7	Yes	Yes	4.63	337			
					7	Yes	Yes	5.00	603			
SA 4F17	4 Bolt	2.84	1.781	5/16-18	6	No	Yes	5.00	605			
					5	Yes	No	5.81	196			
					7	Yes	Yes	5.88	603			
					7	Yes	Yes	4.38	219			
SAE AA	2 Bolt	3.25	2.001	3/8-16	7	Yes	Yes	4.63	337			
					5	Yes	No	5.00	199			
					7	Yes	Yes	5.00	603			
					7	Yes	Yes	5.25	1682			
	2 0-14	2.25	2.004	3/8-16	7	Yes	Yes	5.44	1572			
SAE AA	2 Bolt	3.25	2.001	3/8-16	6	No	Yes	5.75	605			
					7	Yes	Yes	5.88	603			
					7	Yes	Yes	6.88	6039			
					7	Yes	Yes	4.38	219			
					7	Yes	Yes	4.63	602			
						5	Yes	No	5.00	196		
							7	Yes	Yes	5.00	603	
						6	No	Yes	5.00	605		
			3.251					7	Yes	Yes	5.25	1683
	2 Bolt				7	Yes	Yes	5.44	3364			
SAE A		4.19		3/8-16	6	No	Yes	5.75	605			
		4.19			3/0 10	5	Yes	No	5.81	195		
					7	Yes	Yes	5.88	6034			
					8	Yes	No	6.38	336			
					5	Yes	No	6.81	195			
					6	No	Yes	6.81	605			
					7	Yes	Yes	6.88	603			
					8	Yes	No	7.38	336			
		<del>                                     </del>			5	Yes	No	5.00	196			
					6	No	Yes	5.00	603			
					8	Yes	No	5.44	2541			
					6	No	Yes	5.75	603			
SAE B	2 Bolt	5.75	4.001	1/2-13	5	Yes	No	5.81	195			
	4 Bolt	5.00		_,	8	Yes	No	6.38	2542			
					5	Yes	No	6.81	195			
					6	No	Yes	6.81	604			
					8	Yes	No	7.38	2543			
					8	Yes	No	5.44	194			
SAE C	2 Bolt	7.12	5.001	5/8-11	8	Yes	No	6.38	195			
SAL C	4 Bolt	6.38	3.001	1/2-13	8	Yes	No	7.38	195			
	2 P-15	+			Steel	Yes	No	7.00	188			
SAE D	2 Bolt 4 Bolt	9.00	6.001	3/4-10	Steel	Yes	No	8.25	188			

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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Ph: 920-682-6877 Fx: 920-684-7210



# **182TC THRU 256TC & 213UC THRU 256UC (CONT'D)**

	Pump Mounts - 182TC thru 256TC and 213UC thru 256UC (CONT'D)												
Pump Type	Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes	Adapter Style	Moun Horizontal	ting Vertical	M Face to Face	Part No.				
SAE 2 Bolt 45	5° Offset Mo	unting Flang	e										
					8	Yes	No	5.44	2116				
SAE B (45°)	2 Bolt	5.75	4.001	1/2-13	8	Yes	No	6.38	2117				
					8	Yes	No	7.38	2118				
SAE C (45°)	2 Bolt	7.12	5.001	5/8-11	8	Yes	No	6.38	2110				
3AL C (43 )	2 Doit	7.12	3.001	3/6-11	8	Yes	No	7.38	2109				
4 Bolt Square	e Mounting I	Flanges											
4HNA	4 Bolt	5.006	3.742	3/8-16	5	Yes	No	5.00	2108				
4HV	4 Bolt	5.00	3.750	3/8-16	5	Yes	No	5.00	1943				
<b>Metric Series</b>	Pump Flan	ges											
80mm	4 Bolt	100mm	80.02mm	5/16-18	7	Yes	Yes	6.88	3366				
80mm	2 Bolt 4 Bolt	109mm 103mm	80.02mm	3/8-16 5/16-18	8	Yes	No	6.38	2154 <sup>†</sup>				
100mm	2 Bolt	140mm	100.02mm	1/2-13	5	Yes	No	5.00	1878 <sup>†</sup>				
100mm	4 Bolt	125mm	100.02mm	3/8-16	5	Yes	No	6.81	2156 <sup>†</sup>				
125mm	2 Bolt	180mm	125.02mm	5/8-11	8	Yes	No	6.38	2174				
12311111	4 Bolt	160mm	123.02111111	1/2-13	8	Yes	No	7.38	2187 <sup>†</sup>				
<b>Metric Series</b>	4 Bolt Flan	ges											
R4	4 Bolt	80mm	63.02mm	13/32 Dia	7	Yes	Yes	5.88	2183				

 $<sup>^\</sup>dagger Non\text{-}stock$  special order item  $^\ast NOTE$ : Also contains additional SAE-A 4 bolt mounting suitable for mounting SAE-A 45°

## 284 THRU 286TC/TSC & 284 THRU 286UC/USC

Pump Motor Adapters (Bell Housings) are designed to assure proper shaft alignment between the electric motor and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

## **Standard Features:**

- Drive coupling access hole with safety orange removable cover
- Electric Motor mounting bolts provided
- Pump mounting orientation can be rotated in 90 degree increments by rotating the adapter on the electric motor

## **Standard Material:**

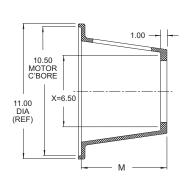
Cast Aluminum

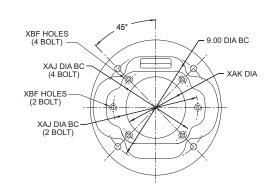
#### **NOTES:**

- X = Permissable inside radial clearance
- All dimensions are inches

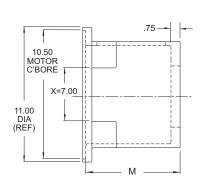
#### **WARNING:**

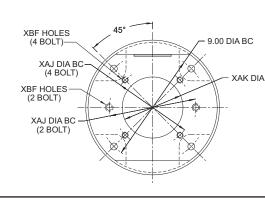
 To avoid possible injury, access hole cover must be in place during operation





STYLE 11 ADAPTER Horizontal Mounting Only





STYLE 12 ADAPTER Horizontal Mounting Only

If your pump is not listed or is a non-standard pump, contact us for special machining and/or information. Not all pump mounting holes are supplied on every adapter.

Motor Size	284TSC	286TSC	284TC	286TC	284UC	286USC
HP/1800 RPM	25	30	25	30	15	20
<b>Shaft Diameter</b>	1.62	1.62	1.88	1.88	1.62	1.62
Key Size	3/8	3/8	1/2	1/2	3/8	3/8
Shaft Length	3.00	3.00	4.38	4.38	4.62	4.62



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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## 284 THRU 286TC/TSC & 284 THRU 286UC/USC (CONT'D)

		Pump Mo	unts - 284 i	thru 286TC/TS	and 284	thru 286U	C/USC		
Pump		XAJ	XAK	XBF	Adapter	Mour		M Face to	
Туре	Flange	Bolt Circle	Pump Pilot	Mounting Holes	Style	Horizontal	Vertical	Face	Part No.
Standard SA	E Pump Flan	ges							
					11	Yes	No	5.88	1851
					11	Yes	No	6.75	167199
SAE A	2 Bolt	4.19	3.251	3/8-16	11	Yes	No	7.19	1975
					11	Yes	No	7.88	1852
					11	Yes	No	8.88	1978
					11	Yes	No	5.88	1853
	2 Bolt	5.75			11	Yes	No	6.75	167299
SAE B	4 Bolt	5.00	4.001	1/2-13	11	Yes	No	7.19	1979
	. Boic	3.00			11	Yes	No	7.88	1854
					11	Yes	No	8.88	1980
					11	Yes	No	5.88	1855
	2 0 - 14	7 10		E/0 11	11	Yes	No	6.75	167399
SAE C	2 Bolt 4 Bolt	7.12 6.38	5.001	5/8-11 1/2-13	11	Yes	No	7.19	1981
				_,,	11	Yes	No	7.88	1856
					11	Yes	No	8.88	1982
SAE D	2 Bolt 4 Bolt	9.00	6.001	3/4-10	12	Yes	No	7.91	161699
CAE D (4E0)	2.0-15	F 7F	4.001	1/2 12	11	Yes	No	7.19	1857
SAE B (45°)	2 Bolt	5.75	4.001	1/2-13	11	Yes	No	7.88	181499
SAE C (45°)	2 Bolt	7.12	5.001	5/8-11	12	Yes	No	7.91	1858
4 Bolt Squar	e Mounting I	Flanges							
4HC	4 Bolt	8.48	3.751	5/8-11	12	Yes	No	7.91	1887
Metric Series	Pump Flan	ges							
125mm	2 Bolt 4 Bolt	180mm 160mm	125.02mm	5/8-11 1/2-13	11	Yes	No	7.88	3858
140mm	2 Bolt 4 Bolt	200mm 180mm	140.02mm	5/8-11	12	Yes	No	7.88	148399†

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Ph: 920-682-6877 Fx: 920-684-7210



## 324 THRU 405TC/TSC & 324 THRU 405UC/USC

Pump Motor Adapters (Bell Housings) are designed to assure proper shaft alignment between the electric motor and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

## **Standard Features:**

- Drive coupling access hole with safety orange removable cover
- Electric Motor mounting bolts provided
- Pump mounting orientation can be rotated in 90 degree increments by rotating the adapter on the electric motor

## **Standard Material:**

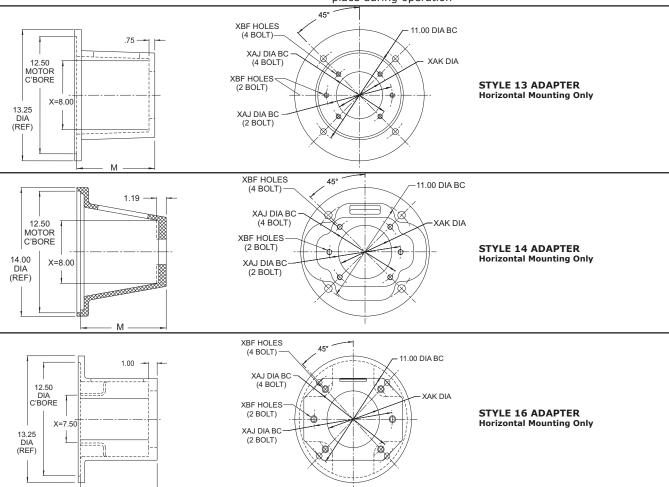
Cast Aluminum

#### **NOTES:**

- X = Permissable inside radial clearance
- All dimensions are inches

#### **WARNING:**

• To avoid possible injury, access hole cover must be in place during operation



If your pump is not listed or is a non-standard pump, contact us for special machining and/or information. Not all pump mounting holes are supplied on every adapter.



		324/326				364/365			404/405			
Motor Size	TSC	TC	USC	UC	TSC	TC	USC	UC	TSC	TC	USC	UC
HP/1800 RPM	40/50	40/50	25/30	25/830	60/75	60/75	40/50	40/50	100/125	100/125	60/75	60/75
<b>Shaft Diameter</b>	1.88	2.12	6.25	1.88	1.88	2.38	1.88	2.125	2.12	2.88	2.12	2.38
Key Size	1/2	1/2	3/8	1/2	1/2	5/8	1/2	1/2	1/2	3/4	1/2	5/8
Shaft Length	3.50	5.00	3.00	5.38	3.50	5.62	3.50	6.125	4.00	7.00	4.00	6.88

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.





## **324 THRU 405TC/TSC & 324 THRU 405UC/USC (CONT'D)**

		Pump Mo	unts - 324 t	thru 405TC/TSC	and 324	thru 405U	C/USC		
Pump		XAJ	XAK	XBF	Adapter	Mour	nting	M Face to	
Туре	Flange	Bolt Circle	Pump Pilot   Mounting Holes		Style	Horizontal	Vertical	Face	Part No.
Standard SA	E Pump Flan	ges							
					13	Yes	No	6.30	260199
SAE B	2 Bolt	5.75	4.001	1/2-13	14	Yes	No	7.68	1974
SAL B	4 Bolt	5.00	4.001	1/2-13	14	Yes	No	8.88	1969
					13	Yes	No	9.88	260599
					13	Yes	No	6.30	260399
		7.12		= 10	14	Yes	No	7.68	1984
SAE C	2 Bolt 4 Bolt	6.38	5.001	5/8-11 1/2-13	13	Yes	No	8.38	168799
	1 2010	0.56		1,2 13	14	Yes	No	8.88	1983
					13	Yes	No	9.88	260799
SAE D	2 Bolt	9.00	6,001	3/4-10	14	Yes	No	7.68	1986
SAL D	2 Buit	9.00	0.001	3/4-10	14	Yes	No	8.88	1985
					16	Yes	No	7.68	3370
					16	Yes	No	8.38	234299
SAE D	2 Bolt 4 Bolt	9.00	6.001	3/4-10	16	Yes	No	8.75	1883
	1 2010				16	Yes	No	8.88	3372
					16	Yes	No	9.63	235099
SAE 2 Bolt 4	5° Offset Mo	unting Flang	е						
SAE B (45°)	2 Bolt	5.75	4.001	1/2-13	14	Yes	No	7.68	2133
3AL D (43*)	2 0010	3.73	4.001	1/2-13	14	Yes	No	8.88	2191
					14	Yes	No	7.68	2119
SAE C (45°)	2 Bolt	7.12	5.001	5/8-11	14	Yes	No	8.88	2120
					13	Yes	No	9.88	2121
4 Bolt Squar	e Mounting	Flanges							
4HC	4 Bolt	8.48	3.751	5/8-11	14	Yes	No	7.68	1999
7110	- DOIC	0.40	3.731	3,0-11	14	Yes	No	8.88	1949

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Ph: 920-682-6877 Fx: 920-684-7210



## **444 THRU 445TSC/TC/USC/UC & 447 THRU 449TSC/TC**

Pump Motor Adapters (Bell Housings) are designed to assure proper shaft alignment between the electric motor and your hydraulic pump. They also reduce assembly cost over using a foot mounting bracket or riser.

#### **Standard Features:**

- Drive coupling access hole with safety orange removable cover
- Electric Motor mounting bolts provided
- Pump mounting orientation can be rotated in 90 degree increments by rotating the adapter on the electric motor

## **Standard Material:**

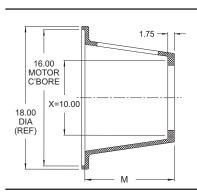
Cast Aluminum

#### **NOTES:**

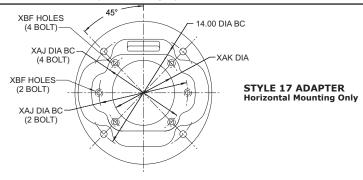
- X = Permissable inside radial clearance
- All dimensions are inches

#### **WARNING:**

 To avoid possible injury, access hole cover must be in place during operation



Ph : 920-682-6877 Fx : 920-684-7210



If your pump is not listed or is a non-standard pump, contact us for special machining and/or information. Not all pump mounting holes are supplied on every adapter.



Motor Size	444/445TSC	444/445TC	447/449TSC	447/449TC	444/445USC	444/445UC
HP/1800 RPM	150/200	150/200	250/300	250/300	75/100	75/100
<b>Shaft Diameter</b>	2.38	3.38	2.38	3.38	2.12	2.88
Key Size	5/8	7/8	5/8	7/8	1/2	3/4
Shaft Length	4.50	8.25	4.50	8.25	4.00	8.38

	Pump Mounts - 444 thru 445TSC/TC/USC/UB & 447 thru 449TSC/TC										
Pump Type	Flange	XAJ Bolt Circle	XAK Pump Pilot	XBF Mounting Holes	Adapter Style	Moui Horizontal		M Face to Face	Part No.		
Standard SA	E Pump Flan	ges									
SAE C	2 Bolt	7.120	5.001	5/8-11	17	Yes	No	8.88	1880		
SAE D	2 Bolt	9.000	6.001	3/4-10	17	Yes	No	8.88	1881		
SAE D	4 Bolt	9.000	0.001	3/4-10	17	Yes	No	9.75	197499		



## **ANSI PUMP/MOTOR SHAFT INFORMATION**

Shaft ID Code	Shaft Diameter	Short Shaft Length	Long Shaft Length	Key Width	*SAE Ref.
13-1	.50	.75	_	.12	A-A
16-1	.62	.94	2.00	.16	Α
22-1	.88	1.31	2.50	.25	В
25-1	1.00	1.50	2.75	.25	В-В
32-1	1.25	1.88	3.00	.31	С
38-1	1.50	2.12	3.25	.38	C-C
44-1	1.75	2.62	3.62	.44	D, E

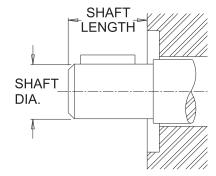
\*Reference letters indicate the matching SAE front flange for each diameter

Shaft ID Code	Shaft Diameter	STR. Shaft Length	Thread Length	Thread Width	Key Width
13-2	.50	.75	.56	3/8-24	.12
16-2	.62	.94	.72	1/2-20	.16
22-2	.88	1.31	.91	5/8-18	.25
25-2	1.00	1.50	1.06	3/4-16	.25
32-2	1.25	1.88	1.22	1-12	.31
38-2	1.50	2.12	1.38	1 1/8-12	.38
44-2	1.75	2.62	1.56	1 1/4-12	.44

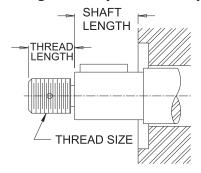
Shaft ID Code	Shaft Diameter	Tapered Shaft Length	Thread Length	Thread Width	Key Width
13-3	.50	.69	.50	5/16-32	.12
16-3	.62	.69	.72	1/2-20	.16
22-3	.88	1.12	.91	5/8-18	.25
25-3	1.00	1.38	1.06	3/4-16	.25
32-3	1.25	1.38	1.22	1-12	.31
38-3	1.50	1.88	1.38	1 1/8-12	.38
44-3	1.75	2.12	1.56	1 1/4-12	.44
50-3	2.00	2.88	1.56	1 1/4-12	.50

Shaft ID Code	Shaft Diameter	Shaft Length	Spline Specifications	*SAE Ref.
13-4	.50	.75	9T, 20/40 DP	A-A
16-4	.62	.94	9T, 16/32 DP	Α
22-4	.88	1.31	13T, 16/32 DP	В
25-4	1.00	1.50	15T, 16/32 DP	В-В
32-4	1.25	1.88	14T, 12/24 DP	С
38-4	1.50	2.12	17T, 12/24 DP	C-C
44-4	1.75	2.62	13T, 8/16 DP	D, E
50-4	2.00	3.12	15T, 8/16 DP	F
*Referen		cate the ma	tching SAE front flang	e for

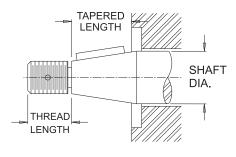
## **Straight Shaft (without threads)**



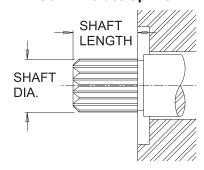
## Straight Shaft (with threads)



## **Tapered Shaft (with threads)**



## 30° Involute Spline

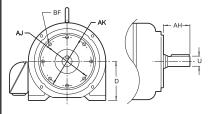


Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

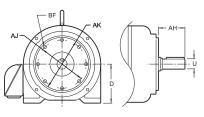


## STANDARD NEMA "C" FACE ELECTRIC MOTOR DIMENSIONS

			"T"	Frame Ele	ectric M	otor D	ata			
Ne	ma	Bolt	Dogistor	Shaft	Shaft	Kov	Kev	B (Tapped	F Holes)	D
Motor	Frames	AJ	AK	Diameter U	Length AH	Key Sq	Length	Size	Qty	Max
	56C 143TC 145TC	5 7/8 5 7/8 5 7/8	4 1/2 4 1/2 4 1/2	5/8 7/8 7/8	2 1/16 2 1/8 2 1/8	3/16 3/16 3/16	1 1 3/8 1 3/8	3/8-16 3/8-16 3/8-16	4 4 4	3 1/2 3 1/2 3 1/2
	182TC 184TC 213TC 215TC 254TC 256TC	7 1/4 7 1/4 7 1/4 7 1/4 7 1/4 7 1/4	8 1/2 8 1/2 8 1/2 8 1/2 8 1/2 8 1/2	1 1/8 1 1/8 1 3/8 1 3/8 1 5/8 1 5/8	2 5/8 2 5/8 3 1/8 3 1/8 3 3/4 3 3/4	1/4 1/4 5/16 5/16 3/8 3/8	1 3/4 1 3/4 2 3/8 2 3/8 2 7/8 2 7/8	1/2-13 1/2-13 1/2-13 1/2-13 1/2-13 1/2-13	4 4 4 4 4	4 1/2 4 1/2 5 1/4 5 1/4 6 1/4
284TSC 286TSC	284TC 286TC	9 9 9	10 1/2 10 1/2 10 1/2 10 1/2	1 7/8 1 5/8 1 7/8 1 5/8	4 3/8 3 4 3/8 3	1/2 3/8 1/2 3/8	3 1/4 1 7/8 3 1/4 1 7/8	1/2-13 1/2-13 1/2-13 1/2-13	4 4 4 4	7 7 7 7
324TSC 326TSC	324TC 326TC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	2 1/8 1 7/8 2 1/8 1 7/8	5 3 1/2 5 3 1/2	1/2 1/2 1/2 1/2	3 7/8 2 3 7/8 2	5/8-11 5/8-11 5/8-11 5/8-11	4 4 4 4	8 8 8
364TSC 365TSC	364TC 365TC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	2 3/8 1 7/8 2 3/8 1 7/8	5 5/8 3 1/2 5 5/8 3 1/2	5/8 1/2 5/8 1/2	4 1/4 2 4 1/4 2	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	9 9 9
404TSC 405TSC	404TC 405TC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	2 7/8 2 1/8 2 7/8 2 1/8	7 4 7 4	3/4 1/2 3/4 1/2	5 5/8 2 3/4 5 5/8 2 3/4	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	10 10 10 10
444TSC 445TSC	444TC 445TC	14 14 14 14	16 16 16 16	3 3/8 2 3/8 3 3/8 2 3/8	8 1/4 4 1/2 8 1/4 4 1/2	7/8 5/8 7/8 5/8	7 3 7 3	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	11 11 11 11
447TSC 449TSC	447TC 449TC	14 14 14 14	16 16 16 16	3 3/8 2 3/8 3 3/8 2 3/8	8 1/4 4 1/2 8 1/4 4 1/2	7/8 5/8 7/8 5/8	7 3 7 3	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8 8	11 11 11 11

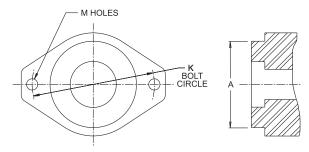


			"U"	Frame Ele	ectric M	otor D	ata			
Ne				Shaft Diameter U	Shaft Length	Key	Key	(Tappe	Holes)	D
Motor	Frames 182UC 184UC	<b>AJ</b> 5 7/8 5 7/8	4 1/2 4 1/2	7/8 7/8	2 1/8 2 1/8	<b>Sq</b> 3/16 3/16	1 3/8 1 3/8	3/8-16 3/8-16	<b>Qty</b> 4 4	Max 4 1/2 4 1/2
	213UC 215UC 254UC 256UC	7 1/4 7 1/4 7 1/4 7 1/4	8 1/2 8 1/2 8 1/2 8 1/2	1 1/8 1 1/8 1 3/8 1 3/8	2 3/4 2 3/4 3 1/2 3 1/2	1/4 1/4 5/16 5/16	1 7/8 1 7/8 2 3/4 2 3/4	1/2-13 1/2-13 1/2-13 1/2-13	4 4 4 4	5 1/4 5 1/4 6 1/4 6 1/4
	284UC 286UC	9 9	10 1/2 10 1/2	1 5/8 1 5/8	4 5/8 4 5/8	3/8 3/8	3 3/4 3 3/4	1/2-13 1/2-13	4 4	7 7
324USC 326USC	324UC 326UC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	1 7/8 1 5/8 1 7/8 1 5/8	5 3/8 3 5 3/8 3	1/2 3/8 1/2 3/8	4 1/4 1 7/8 4 1/4 1 7/8	5/8-11 5/8-11 5/8-11 5/8-11	4 4 4 4	8 8 8
364USC 365USC	364UC 365UC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	2 1/8 1 7/8 2 1/8 1 7/8	6 1/8 3 1/2 6 1/8 3 1/2	1/2 1/2 1/2 1/2	5 2 5 2	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	9 9 9 9
404USC 405USC	404UC 405UC	11 11 11 11	12 1/2 12 1/2 12 1/2 12 1/2	2 3/8 2 1/8 2 3/8 2 1/8	6 7/8 4 6 7/8 4	5/8 1/2 5/8 1/2	5 1/2 2 3/4 5 1/2 2 3/4	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	10 10 10 10
444USC 445USC	444UC 445UC	14 14 14 14	16 16 16 16	2 7/8 2 1/8 2 7/8 2 1/8	8 3/8 4 8 3/8 4	3/4 1/2 3/4 1/2	7 2 3/4 7 2 3/4	5/8-11 5/8-11 5/8-11 5/8-11	8 8 8	11 11 11 11

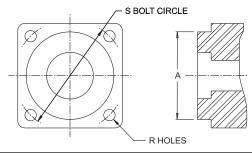


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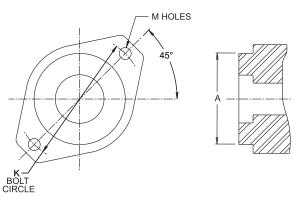
# PUMP MOUNTING FLANGE INFORMATION SAE FLANGES



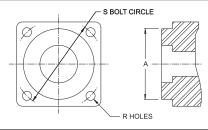
	SA	E 2 Bo	It Mounting	Flange	
	lountin Flange	g	Pilot Dimensions		nge nsions
ANSI	USA	SAE	A	K	М
50-2	-	AA	2.000/1.998	3.255 3.245	0.406
82-2	2F32	Α	3.250/3.248	4.192 4.182	0.438
101-2	2F40	В	4.000/3.998	5.755 5.745	0.562
127-2	2F50	С	5.000/4.998	7.130 7.120	0.687
152-2	2F60	D	6.000/5.998	9.005 8.995	0.812
165-2	2F65	Е	6.500/6.498	12.503 12.495	1.062
177-2	2F70	F	7.000/6.998	13.786 13.776	1.062



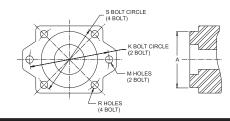
	SAE 4 Bolt Mounting Flange									
	lountin Flange	g	Pilot Dimensions		nge nsions					
ANSI	USA	SAE	A	s	R					
-	4F17	-	1.781/1.799	2.843 2.833	0.375					
-	-	А	3.250/3.248	4.130 4.120	0.438					
101-4	4F40	В	4.000/3.998	5.005 4.995	0.562					
127-4	4F50	С	5.000/4.998	6.380 6.370	0.562					
152-4	4F60	D	6.000/5.998	9.005 8.995	0.812					
165-4	4F65	Е	6.500/6.498	12.505 12.495	0.812					
177-4	4F70	F	7.000/6.998	13.786 13.776	1.062					



SAE 2 Bolt 45° Offset Mounting Flange										
Mounting Flange			Pilot Dimensions	Fla: Dimer	nge nsions					
ANSI	USA	SAE	Α	К	М					
50-2 (45°)	-	AA (45°)	2.000/1.998	3.255 3.245	0.406					
82-2 (45°)	2F32	A (45°)	3.250/3.248	4.192 4.182	0.438					
101-2 (45°)	2F40	B (45°)	4.000/3.998	5.755 5.745	0.562					
127-2 (45°)	2F50	C (45°)	5.000/4.998	7.130 7.125	0.687					



SAE 4 Bolt Mounting Flange (Modified)							
Mounting Flange	Pilot Dimensions	Flange Dimensions					
. idiige	A	S	R				
4BM	4.000/3.998	5.005 4.995	0.438 0.433				

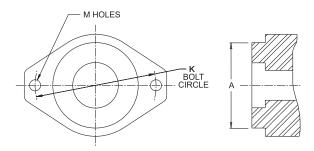


SAE 2 and 4 Bolt "B" with "A" Pilot								
Mounting Flange			Ing Dimensions 2 Bolt		Flange Dimensions 2 Bolt		mensions olt	
riunge	A	K	М	S	R			
SAE BA	3.250/3.248	5.755 5.745	0.562	5.005 4.995	0.562			

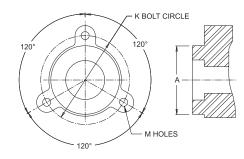
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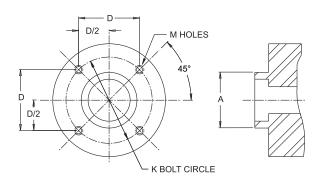
## **SAE FLANGES**



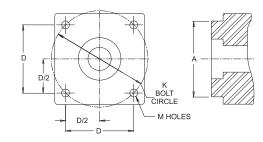
2 Bolt Special Mounting Flange							
Mounting Flange	Pilot Dimensions	Flange ns Dimensions					
lange	A	K	М				
2H	2.000/1.998	4.192 4.182	0.438				



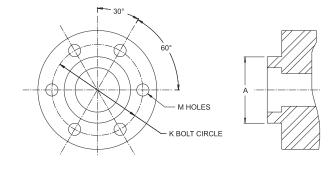
3 Bolt Mounting Flange							
Mounting Flange	Pilot Dimensions	Fla Dimer	nge nsions				
. idiige	A	K	М				
3H	2.125/2.123	2.755 2.745	0.281				



4 Bolt Round Mounting Flange							
Mounting Flange	Pilot Dimensions	Flange S Dimensions					
riange	A	D	М	K			
4RB	1.627/1.625	1.727 1.717	1/4-20NC	2.435			



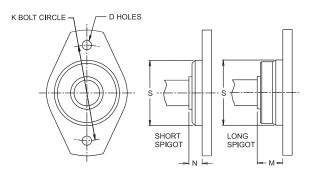
4 Bolt Square Mounting Flanges									
Mounting Flange	Pilot Dimensions D		Flange Dimensions						
. idiige	A	D	М	K					
4HC	3.750/3.748	6.005 5.995	0.687	8.485					
4HNA	3.741/3.739	3.545 3.535	0.438	5.006					
4HNB	5.315/5.313	4.895 4.875	0.531	6.901					
4HV	3.749/3.747	3.541 3.531	0.438	5.000					



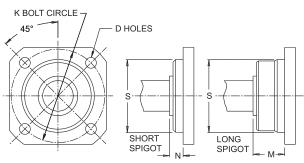
6 Bolt Mounting Flange									
Mounting Flange	Pilot Dimensions		ange ensions						
riange	A	K	М						
6НА	2.625/2.623	3.255 3.245	3/8-16NC						
6НВ	2.625/2.623	3.255 3.245	0.438						
6HC	2.247/2.246	2.879 2.869	3/8-16NC						
6HD	2.999/2.998	4.755 4.745	3/8-16NC						

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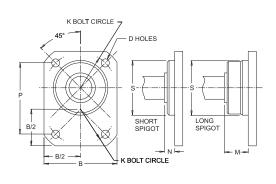
## **METRIC FLANGES**



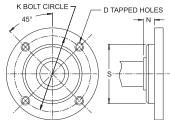
	Metric 2-Bolt Mounting Flanges (Oval)								
Mounting Flange	Metric Code	Spigot Diameter		ange Di limens	Series				
90		S	K	D	М	N			
32	A2	32	56	6.6	16	8	PREF		
40	A2	40	63	6.6	16	8	PREF		
50	A2	50	80	9	20	8	PREF		
63	A2	63	100	9	20	8	PREF		
80	A2	80	109	11	20	8	PREF		
100	A2	100	140	14	25	10	PREF		
112	A2	112	160	14	25	10	NON-PREF		
125	A2	125	180	18	32	10	PREF		
140	A2	140	200	18	32	10	NON-PREF		
160	A2	160	224	22	40	10	PREF		
180	A2	180	250	22	40	10	NON-PREF		
200	A2	200	280	26	50	10	PREF		



	Metric 4-Bolt Mounting Flanges (Square)									
	Mounting Flange							Series		
			S	K	D	М	N			
	63	B4	63	85	9	20	8	PREF		
	80	B4	80	103	9	20	8	PREF		
	80	Non-Code	80	100	9	20	8	NON-PREF		
	100	B4	100	125	11	25	10	PREF		
-	112	B4	112	140	11	25	10	NON-PREF		
	125	B4	125	160	14	32	10	PREF		
	140	B4	140	180	14	32	10	NON-PREF		
	160	B4	160	200	18	40	10	PREF		
	180	B4	180	224	18	40	10	NON-PREF		
	200	B4	200	250	22	50	10	PREF		
	224	B4	224	280	22	50	10	NON-PREF		
	250	B4	250	315	26	50	10	PREF		



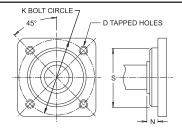
	Metric 4-Bolt Mounting Flanges (Rectangular)								
Mounting Flange	Metric Code	Spigot Diameter				mensi ions ir			Series
riunge	Couc	S	K	P	В	D	М	N	
50	C4	50	68	72	62	6.6	20	8	PREF
63	C4	63	85	90	80	9	20	8	PREF
80	C4	80	103	109	100	9	20	8	PREF
100	C4	100	125	132	125	11	25	10	PREF
112	C4	112	140	148	132	11	25	10	NON-PREF
125	C4	125	160	170	150	14	32	10	PREF
140	C4	140	180	191	170	14	32	10	NON-PREF
160	C4	160	200	212	190	18	40	10	PREF
180	C4	180	224	265	212	18	40	10	NON-PREF
200	C4	200	250	265	236	22	50	10	PREF



63

tric 4-Bo	it Mounti	ng Flange (R4)
Metric Code	Spigot Diameter	Flange Dimensions (all dimensions in mm

80



Me	Metric 4-Bolt Mounting Flange (R4M)							
Mounting Flange	Metric Code	Spigot Flange Dimensions Diameter (all dimensions in mm						
Tiange	Code	s	K	D	N			
R4M	Non-Code	50	63	M6	8			

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

6.5

D

M8

02/15

Non-Code

Mounting Flange

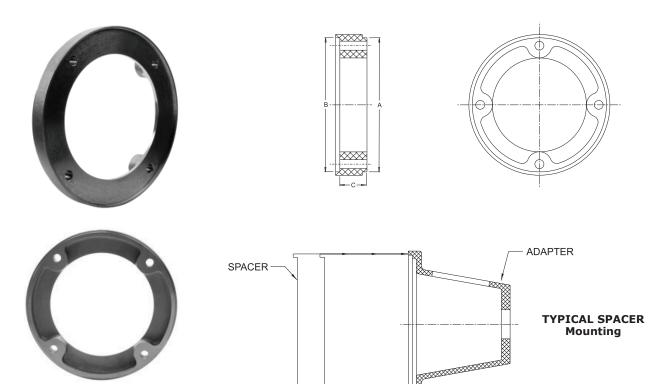
## ADAPTER MOUNTING SPACER

Adapter Mounting Spacers are designed to be used in conjunction with a pump motor adapter to increase the face to face spacing between the motor and pump when a standard pump motor adapter alone does not have the proper face to face spacing required for the application.

#### **Standard Feature:**

## **Standard Material:**

- Machined pilots that easily mount to the motor end of the adapter
- Cast Aluminum



	Adapter Mounting Spacers								
	Dime	nsions (in	iches)						
Motor Size	A	В	С	Part No.	Remarks	Example			
56C, 143TC, 145TC, 182/184UC	4.500 4.497	4.501 4.504	1.000 .998	2114	Spacer can be used with any 56/145 size pump/motor mount to add 1.00 inch to the face to face dimension	(1) 2114 spacer + (1) 6028 pump/motor = 5.25 inches face to face dimension			
182/256TC 213/256UC	8.500 8.497	8.501 8.503	1.000 .998	1962	Spacer can be used with any 182/256 size pump/motor to add 1.00 inch to the face to face dimension	(1) 1962 spacer+ (1) 1960 pump/motor mount = 6.00 inches face to face dimension			
284/286TC 284/286TSC 284/286UC	10.500 10.497	10.501 10.503	.500 .498	3047	Spacer can be used with any 284/286 size pump/motor mount to add .50 inch to the face to face dimension	(1) 3047 spacer+ (1) 1981 pump/motor mount = 7.69 inches face to face dimension			
284/286TC 284/286TSC 284/286UC	10.500 10.497	10.501 10.503	1.750 1.747	1992	Spacer can be used with any 284/286 size pump/motor amount to add 1.75 inches to the face to face dimension	(1) 1992 spacer+ (1) 1981 pump/motor mount = 8.94 inches face to face dimension			
324/405TC 324/405TSC 324/405UC 324/405USC	12.500 12.497	12.501 12.503	1.250 1.247	1993	Spacer can be used with any 324/405 size pump/motor mount to add 1.25 inches to the face to face dimension	(1) 1993 spacer + (1) 1984 pump/motor mount = 8.87 inches face to face dimension			



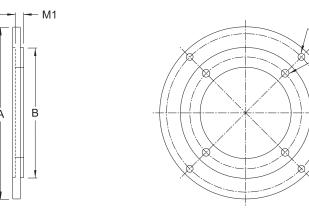
## VERTICAL MOUNTING ADAPTER RINGS

Vertical Adapter Rings are designed to convert a horizontal style pump motor adapter for use in a vertical application.

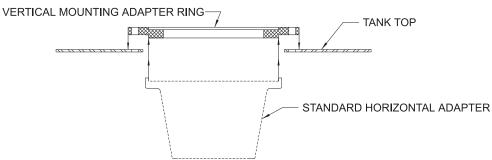
## **Standard Feature:**

## **Standard Material:**

• Machined pilots that easily mount to the motor end of • Cast Aluminum and Carbon Steel the adapter







Vertical Mou						ınting Ad	apter Rings	
Dimensions					Part			
Motor Size	A	В	С	D	M1	No.	General Information	Mounting Info.
182TC thru 256TC 213UC thru 256UC	11.50 inch Dia.	8.50 inch Dia.	4 Slots .53 inch dia. on 10.25 to 10.50 B.C.	4 Holes .56 inch dia. on 7.25 inch dia. B.C.	.50 inch	268299	For use with 182TC/256TC and 213UC/256UC pump motor adapters. (add .50 inch to "M" dimension of adapter) See page 98 for optional Vertical Mounting Gasket	Tank top requires 9.12 inch dia. hole with (4) .56 inch dia. holes equally spaced on a 10.25 inch dia. bolt circle
284TC/TSC 286TC/TSC 284UC/286UC	13.50 inch Dia	10.50 inch Dia.	4 Holes .56 inch dia. on 12.50 inch dia. B.C.	4 Holes .56 inch dia. on 9 inch dia. B.C.	.50 inch	268399	For use with 284/286TC thru 284/286/ TSC and 284/286UC pump motor adapters (add .50 inch to "M" dimension of adapter) See page 98 for optional Vertical Mounting Gasket	Tank top requires a 11.12 inch dia. hole with (4) .56 inch dia. holes equally spaced on a 12.50 inch dia. bolt circle
324TC/TSC thru 405TC/TSC 324UC/USC thru 405UC/USC	16.75 inch Dia.	12.50 inch Dia.	4 Holes .69 inch dia. on 15.50 inch dia. B.C.	4 Holes .69 inch dia. on 11 inch dia. B.C.	.62 inch	268499	For use with 324TC/TSC thru 405TC/TSC and 324UC/USC thru 405UC/USC pump motor adapters. (add .62 inch to "M" dimension of adapter) See page 98 for optional Vertical Mounting Gasket	Tank top requires 14.12 inch dia. hole with (4) .69 inch dia. holes equally spaced on a 15.50 inch dia. bolt circle



## **VERTICAL GASKET INFORMATION**

## **VERTICAL MOUNTING INFORMATION**

Vertical Pump/Motor Adapters require a cutout to mount adapters vertically. See chart below for mounting/cutout information.

	Vertical Adapters						
Motor Size	Adapter Style	Cutout Information					
56C, 143TC, 145TC, 182/184UC	Style 1, 1A, 1B	Requires a 5.19 inch diameter hole with (4) .44 inch diameter holes equally spaced on 5.88 inch diameter B.C.					
182/256TC 213/256UC	Style 6	Requires a 9.31 inch diameter hole with (4) .56 inch diameter holes equally spaced on 10.25 inch diameter B.C.					
182/256TC 213/256UC	Style 7	Requires a 6.25 inch diameter hole with (4) .56 inch diameter holes equally spaced on 7.25 inch diameter B.C.					
182/256TC 213/256UC	Vertical M	lounting Adapter Ring <b>268299</b> on Horizontal Adapter (see information in chart below)					
284/286TC/TSC 284/286UC	None (Use Vertical Mounting Adapter Ring <b>268399</b> ) (see information in chart below)						
324/405TC/TSC 324/405UC/USC	None (Use Vertical Mounting Adapter Ring <b>268499</b> ) (see information in chart below)						
444/445TSC	Not Available						

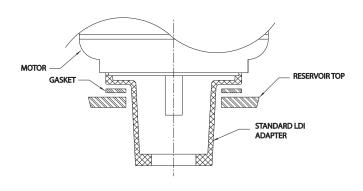
Vertical Rings					
Motor Size	Cutout Information				
182/256TC 213/256UC	268299	Requires a 9.12 inch diameter hole with (4) .56 inch diameter holes equally spaced on 10.25 inch diameter B.C.			
284/286TC/TSC 284/286UC	268399	Requires a 11.12 inch diameter hole with (4) .56 inch diameter holes equally spaced on 12.50 inch diameter B.C.			
324/405TC/TSC 324/405UC/USC <b>268499</b>		Requires a 14.12 inch diameter hole with (4) .69 inch diameter holes equally spaced on 15.50 inch diameter B.C.			

## **VERTICAL MOUNTING GASKETS**

Vertical Mounting Gaskets are used with LDI Pump/Motor Adapters to seal adapter to reservoir top.

## **Standard Material:**

• 0.09 inch thick cork neoprene



Vertical Mounting Gaskets						
Adapter Size	Adapter Style	Part No.				
56C, 143TC, 145TC, 182/184UC	1 1A 1B	268599				
182/256TC 213/256UC	6	268699				
182/256TC 213/256UC	7	268799				
182/256TC 213/256UC	Vertical Ring 268299	268699				
284/286TC/TSC 284/286UC	Vertical Ring 268399	268899				



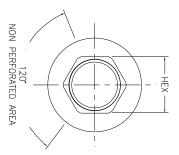
## RETURN LINE DIFFUSERS

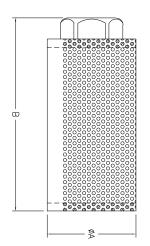
Return Line Diffusers are an economical and highly effective way to reduce aeration, foaming, turbulence and noise caused by return lines. Baffles can usually be eliminated, provided that the holes in the diffuser are positioned away from the pump suction inlet and below the oil level.

## **Standard Features:**

## **Standard Materials:**

- Max working pressure 290 PSI (20 bar)
- Zinc plated steel
- Working temperature -13° to 230°F (-25° to 110°C)







RLD Series													
	Pipe Size NPT	Return Flow @ 20 ft/second		Dimensions A B				Hex					
Part No.	(inch)	GPM	L/min	in	mm	in	mm	in	mm				
RLD30	3/4	33	125	3.40	86	3.00	76	1.31	33				
RLD50	1	53	201	3.40	86	4.20	107	1.62	41				
RLD90	1 1/4	93	342	3.40	86	6.50	165	1.88	48				
RLD120	1 1/2	126	479	4.50	114	6.60	168	2.12	54				
RLD200	2	209	794	4.50	114	10.30	262	2.75	70				
RLD290*	2 1/2	298	1128	5.20	132	9.13	232	N/A	N/A				
RLD450*	3	460	1748	5.20	132	10.00	254	N/A	N/A				
*uses round	d half coupli	na versu	s hex sto	ck			*uses round half coupling versus hex stock						

## RISERS

## FILLER BREATHER

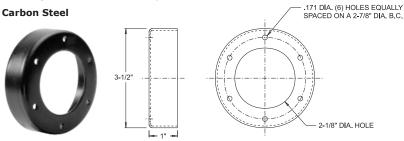
Filler Breather Weld Riser is designed to raise the filler breather mounting surface an additional one inch above the cover mounting surface of a reservoir.

#### **Standard Features:**

- Eliminates the need to drill the 6 mounting holes
- Helps prevent contamination from entering the reservoir
- Designed to be welded in place

## **Standard Materials:**

- Carbon steel
- Stainless Steel



Filler Breather					
Part No.	Style	Description			
5275	Round	Filler Breather Weld Riser			
5275SS	Square	Filter Breather Weld Riser 316 Stainless Steel			

# Stainless Steel .171 DIA. (6) HOLES EQUALLY SPACED ON A 2.875 DIA. B.C.

2.125 DIA. HOLE

NOTE: All dimensions are inches

1.00

## **SUCTION FLANGE**

Suction Flange Weld Risers are designed to raise the suction flange mounting surface an additional one inch above the cover mounting surface of a reservoir.

C DIA. HOLE

•

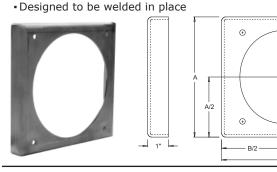
## **Standard Features:**

## • Eliminates the need to drill the 4 mounting holes

 $\mbox{-}\!\operatorname{Helps}$  prevent contamination from entering the reservoir

## **Standard Material:**

Carbon steel



Suction Flange						
Part No.	A B inches		C Dia. inches	Use with Pipe/Tube inches		
5150	5.75	6.25	4.50	.50 to 2.00		
5151	7.75	8.25	6.50	1.50 to 4.00		

NOTE: All dimensions are inches

## RETURN FLANGE

Return Flange Weld Riser is designed to raise the return flange mounting surface an additional one inch above the cover mounting surface of a reservoir.

## **Standard Features:**

## • Eliminates the need to drill the 2 mounting holes

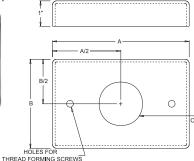
- Helps prevent contamination from entering the reservoir
- Designed to be welded in place

## **Standard Material:**

Carbon steel

(4) HOLES FOR THREAD FORMING SCREW





		Return	Flange		
Part No.	A inches	B inches	C Dia. inches	Use with Pipe inches	Use with Tube inches
5156	5.38	3.50	2.12	.50 to 1.50	.38 to 1.50
5157	5.38	4.00	2.56	2.00	2.00
DIAMETER HOLE					

NOTE: All dimensions are inches

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

## SIGHT GAGES - CLOSED CIRCUIT

## **G601 SERIES**

The G601 Series front mount closed circuit sight gages provide front viewing of the fluid level through a clear glass sight all secured within an aluminum body. Functionally equivalent to the G605 Series sight gages, but miniaturized with smaller mounting studs, a lower profile and a smaller width viewing window.

#### **Standard Features:**

- Front mount
- Fluid level visible from the front of gage (.31 inches wide)
- Clear borosilicate sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- Aluminum construction
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

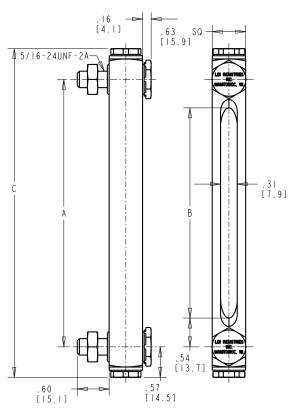
## **Temperature and Pressure Ratings:**

- Maximum working pressure up to 200 PSI (1379 kPa) at 150°F (65°C), no corrosion
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-6 on page RA-A6 for installation instructions

CAUTION: • Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids
• If aluminum construction is selected for a water application, anodizing is recommended



NOTE: All	dimensions	are	inches	[mm]
-----------	------------	-----	--------	------

G601 Series			
Part No.	A	B	C
	inches	inches	inches
	(mm)	(mm)	(mm)
G601-03-A-1	3.00	1.93	4.15
	(76.20)	(49.02)	(105.41)
G601-05-A-1	5.00	3.93	6.15
	(127.00)	(99.82)	(156.21)



## **ORDERING OPTIONS CODES:**

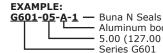
-A- Aluminum gage body (standard) -B- Brass gage body (optional)

### **SEAL MATERIAL**

-1--2-Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

#### **HOW TO ORDER**



· Buna N Seals · Aluminum body · 5.00 (127.00 mm) mounting centers

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



## SIGHT GAGES - CLOSED CIRCUIT

## **G603 SERIES**

The G603 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, flexible tubular vinyl sight providing 360° viewing of the fluid level. The flexible vinyl sight bends easily to conform to irregular or cylindrical shaped reservoir bodies.

#### **Standard Features:**

- Front mount
- 360° of viewing fluid level
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum end blocks and mounting bolts
- Vinyl tubular sight
- Buna N seals

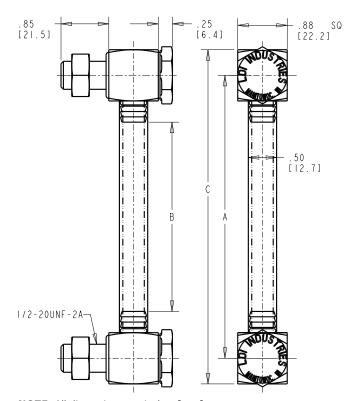
## **Temperature and Pressure Ratings:**

- 150°F (65°C) maximum operating temperature
- •5 psi (35 kPa) maximum operating pressure
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-11 on page RA-A11 for installation instructions

## CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



NOTE: All	dimensions	are	inches	[mm]	
-----------	------------	-----	--------	------	--

G603 Series			
A	B	C	
inches	inches	inches	
(mm)	(mm)	(mm)	
3.00	1.34	3.91	
(76.20)	(34.04)	(9.93)	
4.00	2.34	4.91	
(101.60)	(59.44)	(124.71)	
5.00	3.34	5.91	
(127.00)	(84.84)	(150.11)	
6.00	4.34	6.91	
(152.40)	(110.24)	(175.51)	
7.00	5.34	7.91	
(177.80)	(135.64)	(200.91)	
8.00	6.34	8.91	
(203.20)	(161.04)	(226.31)	
9.00	7.34	9.91	
(228.60)	(186.44)	(251.71)	
10.00	8.34	10.91	
(254.00)	(211.84)	(277.11)	
11.00	9.34	11.91	
(279.40)	(237.24)	(302.51)	
12.00	10.34	12.91	
(304.80)	(262.64)	(327.91)	



#### **ORDERING OPTIONS CODES:**

920-682-6877 920-684-7210

**BODY MATERIAL** 

-A- Aluminum end blocks (standard) -B- Brass end blocks (optional)

SEAL MATERIAL

-1- Buna N seals (standard) -2- Butyl seals (optional)

-3- Viton® seals (optional) -4- Ethylene propylene seals (optional) **HOW TO ORDER** 

EXAMPLE:
G603-05-A-1 — Buna N Seals
Aluminum end blocks
5.00 (127.00 mm) mounting centers
Series G603



## **GA603 SERIES**

The GA603 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, flexible tubular vinyl sight providing 360° viewing of the fluid level. The flexible vinyl sight bends easily to conform to irregular or cylindrical shaped reservoir bodies. Pipe adapters are provided with the gage for mounting directly to NPT couplings.

## **Standard Features:**

- Front mount
- 360° of viewing fluid level
- \*Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum end blocks and mounting bolts
- Brass pipe adapters
- · Vinyl tubular sight
- Buna N seals

## Temperature and Pressure Ratings:

- 150°F (65°C) maximum operating temperature
- 5 psi (35 kPa) maximum operating pressure
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

**Pipe Adapter** 

E inches

(mm)

.57

(14.48)

.76

(14.48) (30.99)

(19.30) (29.46)

**NPTF** 

1/4-18

3/8-18

3/4-14

inches

(mm)

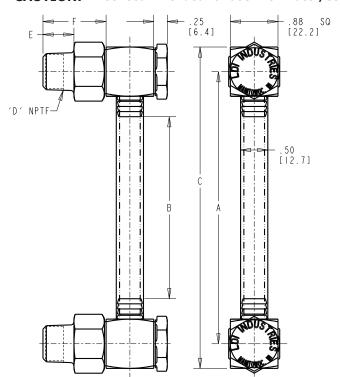
1.16

(29.46)

1.16 (19.30) (29.46)

• Please refer to Appendix RA-7 on page RA-A7 for installation instructions

## CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



NOTE: All dimensions are inches [mm]

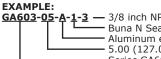
## **ORDERING OPTIONS CODES:**

<b>BODY MATERIAL</b>		
-A-	Aluminum end blocks (standard)	
-B-	Brass end blocks (optional)	
SEAL MATERIAL		
-1-	Buna N seals (standard)	
-2-	Butyl seals (optional)	
-3-	Viton® seals (optional)	
-4-	Ethylene propylene seals (optional)	
PIPE SIZE	, , , , , , , , , , , , , , , , , , , ,	
-2-	1/4-18 male pipe thread	
-3-	3/8-18 male pipe thread	
-4-	1/2-14 male pipe thread	
-5-	3/4-14 male pipe thread	

GA603 Series		
A	B	C
inches	inches	inches
(mm)	(mm)	(mm)
3.00	1.34	3.91
(76.20)	(34.04)	(9.93)
4.00	2.34	4.91
(101.60)	(59.44)	(124.71)
5.00	3.34	5.91
(127.00)	(84.84)	(150.11)
6.00	4.34	6.91
(152.40)	(110.24)	(175.51)
7.00	5.34	7.91
(177.80)	(135.64)	(200.91)
8.00	6.34	8.91
(203.20)	(161.04)	(226.31)
9.00	7.34	9.91
(228.60)	(186.44)	(251.71)
10.00	8.34	10.91
(254.00)	(211.84)	(277.11)
11.00	9.34	11.91
(279.40)	(237.24)	(302.51)
12.00	10.34	12.91
(304.80)	(262.64)	(327.91)



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



Series GA603





## GAT603 SERIES

The GAT603 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, flexible tubular vinyl sight providing 360° viewing of the fluid level. The flexible vinyl sight bends easily to conform to irregular or cylindrical shaped reservoir bodies. A wetted dial thermometer provides direct reading of the fluid temperature and pipe adapters are provided with the gage for mounting directly to NPT couplings.

#### Standard Features:

- Front mount
- 360° of viewing fluid level
- 1.38 inch diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- Aluminum end blocks and mounting bolts
- Brass pipe adapters
- Vinyl tubular sight
- Buna N seals

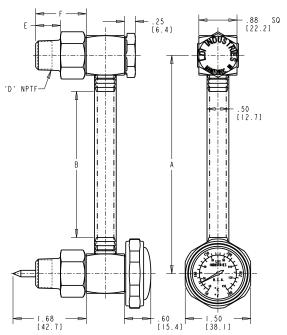
## Temperature and Pressure Ratings:

- 150°F (65°C) maximum operating temperature
- 5 psi (35 kPa) maximum operating pressure
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-7 on page RA-A7 for installation instructions

CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids · Reservoir must be drained to remove dial thermometer or loss of fluid will occur



**NOTE:** All dimensions are inches [mm]

GA <sup>T</sup>	Г603 Se	ries
A	B	C
inches	inches	inches
(mm)	(mm)	(mm)
3.00	1.34	3.91
(76.20)	(34.04)	(9.93)
4.00	2.34	4.91
(101.60)	(59.44)	(124.71)
5.00	3.34	5.91
(127.00)	(84.84)	(150.11)
6.00	4.34	6.91
(152.40)	(110.24)	(175.51)
7.00	5.34	7.91
(177.80)	(135.64)	(200.91)
8.00	6.34	8.91
(203.20)	(161.04)	(226.31)
9.00	7.34	9.91
(228.60)	(186.44)	(251.71)
10.00	8.34	10.91
(254.00)	(211.84)	(277.11)
11.00	9.34	11.91
(279.40)	(237.24)	(302.51)

TYPICAL TANK INSTALLATION	
П	

(304.80) (262.64) (327.91)

Pipe Adapter			
D NPTF	E inches (mm)	F inches (mm)	
1/4-18	.57 (14.48)	1.22 (30.99)	
3/8-18	.57 (14.48)	1.16 (29.46)	
1/2-14	.76 (19.30)	1.16 (29.46)	
3/4-14	.76 (19.30)	1.16 (29.46)	



#### **ORDERING OPTIONS CODES:**

**BODY MATERIAL** 

Aluminum end blocks (standard) -A--B-Brass end blocks (optional)

**SEAL MATERIAL** 

Buna N seals (standard) -1-Butyl seals (optional) -2-

Viton® seals (optional) -3-Ethylene propylene seals (optional) -4-

3/4-14 male pipe thread

PIPE SIZE - GA603, GAT603 ONLY

-2-1/4-18 male pipe thread -3-3/8-18 male pipe thread -4-1/2-14 male pipe thread

**HOW TO ORDER** 

**EXAMPLE:** GAT603-1 3/8 inch NPTF Buna N Seals

Aluminum end blocks 11.00 (279.40 mm) mounting centers Series GAT603

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

sales@ldi-industries.com

www.ldi-industries.com

### **GT603 SERIES**

The GT603 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, flexible tubular vinyl sight providing 360° viewing of the fluid level. A wetted dial thermometer provides direct reading of the fluid temperature.

#### **Standard Features:**

- Front mount
- 360° of viewing fluid level
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- · Aluminum end blocks and mounting bolts
- Vinyl tubular sight
- Buna N seals

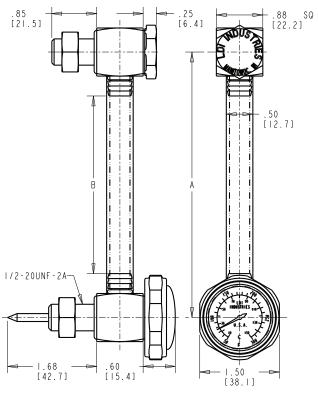
### **Temperature and Pressure Ratings:**

- 150°F (65°C) maximum operating temperature
- 5 psi (35 kPa) maximum operating pressure
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-11 on page RA-A11 for installation instructions

CAUTION: • Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids
• Reservoir must be drained to remove dial thermometer or loss of fluid will occur



NOTE: All	dimensions	are inches	[mm]
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GT603 Series		
A	B	C
inches	inches	inches
(mm)	(mm)	(mm)
3.00	1.34	3.91
(76.20)	(34.04)	(9.93)
4.00	2.34	4.91
(101.60)	(59.44)	(124.71)
5.00	3.34	5.91
(127.00)	(84.84)	(150.11)
6.00	4.34	6.91
(152.40)	(110.24)	(175.51)
7.00	5.34	7.91
(177.80)	(135.64)	(200.91)
8.00	6.34	8.91
(203.20)	(161.04)	(226.31)
9.00	7.34	9.91
(228.60)	(186.44)	(251.71)
10.00	8.34	10.91
(254.00)	(211.84)	(277.11)
11.00	9.34	11.91
(279.40)	(237.24)	(302.51)
12.00	10.34	12.91
(304.80)	(262.64)	(327.91)





#### **ORDERING OPTIONS CODES:**

### **BODY MATERIAL**

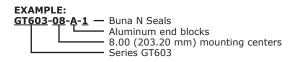
-A- Aluminum end blocks (standard) -B- Brass end blocks (optional)

# SEAL MATERIAL

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

#### HOW TO ORDER







### **G605 SERIES**

The G605 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body. HIGH-LOW markings are stamped into the aluminum body.

#### Standard Features:

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel locknuts

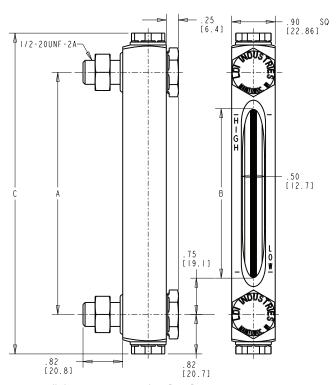
### **Temperature and Pressure Ratings:**

- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

Please refer to Appendix RA-2 on page RA-A2 for installation instructions

CAUTION: • Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids
• If aluminum construction is selected for a water application, anodizing is recommended



G605 Series		
A	B	C
inches	inches	inches
(mm)	(mm)	(mm)
3.00	1.50	4.62
(76.20)	(38.10)	(117.35)
4.00	2.50	5.62
(101.60)	(63.50)	(142.75)
5.00	3.50	6.62
(127.00)	(88.90)	(168.15)
6.00	4.50	7.62
(152.40)	(114.30)	(193.55)
7.00	5.50	8.62
(177.80)	(139.70)	(218.95)
8.00	6.50	9.62
(203.20)	(165.10)	(244.35)
9.00	7.50	10.62
(228.60)	(190.50)	(269.75)
10.00	8.50	11.62
(254.00)	(215.90)	(295.15)
11.00	9.50	12.62
(279.40)	(241.30)	(320.55)
12.00	10.50	13.62
(304.80)	(266.70)	(345.95)



NOTE: All dimensions are inches [mm]

### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-A-B-S-Steel gage body (optional)
-Y-SStainless Steel gage body (optional)

#### **SEAL MATERIAL**

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

-10- Neoprene seals (optional)

**NOTE**: The sight opening in all cases is 1.50 inches (38.10mm) less than mounting centers and overall length is 1.62 inches (41.15mm) greater than mounting centers. Gages with 13.00 inch (330.20mm) and greater mounting centers are furnished with spacer sleeves to space gage from tank allowing for bowing of the tank wall in larger reservoirs. Center mounting kits are furnished with gages 48.00 inches (1219.20mm) and greater mounting centers.

#### **HOW TO ORDER**

EXAMPLE:

G605-05-A-1 — Buna N Seals

Aluminum gage body
5.00 (127.00 mm) mounting centers
Series G605

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### G607 SERIES

The G607 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body (HIGH-LOW markings). Brass pipe adapters are provided with the sight gages for direct assembly of the sight gage to NPT couplings.

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Brass pipe adapters
- Buna N seals
- Borosilicate glass sight

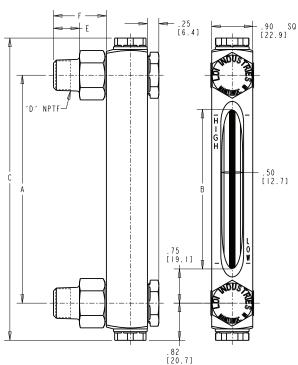
#### Temperature and Pressure Ratings:

- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-117 on page RA-A7RA-A7 for installation instructions

### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



NOTE: All dimensions	are	inches	[mm]
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#### **BODY MATERIAL**

-A-Aluminum gage body (standard)

-B-

Brass gage body (optional) Steel gage body (optional) -S-

Stainless Steel gage body (optional)

#### **SEAL MATERIAL**

-1-Buna N seals (standard)

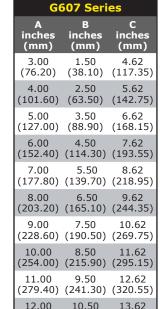
-2-Butyl seals (optional)

-3-Viton® seals (optional) -4-

Ethylene propylene seals (optional) Silicone seals (optional)

### **SPECIFY PIPE THREAD SIZE:**

-2-1/4 male pipe thread -3-3/8 male pipe thread -4-1/2 male pipe thread 3/4 male pipe thread



(266.70)

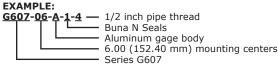
(345.95)

(304.80)

Pipe Adapter		
D NPTF	E inches (mm)	F inches (mm)
1/4-18	.57 (14.48)	1.22 (30.99)
3/8-18	.57 (14.48)	1.16 (29.46)
1/2-14	.76 (19.30)	1.16 (29.46)
3/4-14	.76 (19.30)	1.16 (29.46)



**HOW TO ORDER** 



### G608 SERIES

The G608 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body (HIGH-LOW markings). Brass pipe adapters with integral needle valves are provided with the sight gages for direct assembly of the sight gage to NPT couplings. The needle valves allow a user to shut off flow to the sight gage allowing the sight gage to be removed from the reservoir with minimal loss of fluid

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- Aluminum gage body and mounting bolts
- Brass pipe adapters (with needle valves)
- Buna N seals
- Borosilicate glass sight

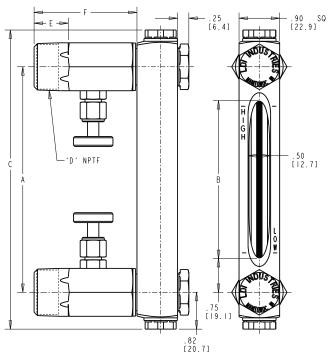
### **Temperature and Pressure Ratings:**

- Maximum working pressure as noted in table below at 150°F (65°C), no corrosion
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-7 on page RA-A7 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



G608 Series			
A inches (mm)	B inches (mm)	C inches (mm)	Max. Work. Pressure PSI (kPa)
10.00	8.50	11.62	275
(254.00)	(215.90)	(295.15)	(1896)
12.00	10.50	13.62	270
(304.80)	(266.70)	(345.95)	(1862)
15.00	13.50	16.62	260
(381.00)	(342.90)	(422.15)	(1793)
18.00	16.50	19.62	240
(457.20)	(419.10)	(498.35)	(1655)
24.00	22.50	25.62	210
(609.60)	(571.50)	(650.75)	(1448)
30.00	28.50	31.62	185
(762.00)	(723.90)	(803.15)	(1276)

Pipe Adapter		
D NPTF	E inches (mm)	F inches (mm)
1/4-18	.57 (14.48)	2.09 (53.09
3/8-18	.57 (14.48)	2.09 (53.09)
1/2-14	.76 (19.30)	2.28 (57.91)
3/4-14	.76 (19.30)	2.28 (57.91)

NOTE: All dimensions are inches [mm]

**ORDERING OPTIONS CODES:** 

### **BODY MATERIAL**

-A-	Aluminum gage body (standard)
-B-	Brass gage body (optional)
-S-	Steel gage body (optional)
-Y-	Stainless Steel gage hody (ontion

### SEAL MATERIAL

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

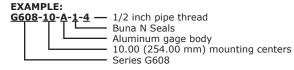
-5- Silicone seals (optional)

### SPECIFY PIPE THREAD SIZE:

Ph : 920-682-6877 Fx : 920-684-7210

-2- 1/4 male pipe thread -3- 3/8 male pipe thread -4- 1/2 male pipe thread -5- 3/4 male pipe thread

### **HOW TO ORDER**





### **G609 SERIES**

The heavy duty G609 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body. Installation is the similar to the G605 Series, but the robust construction of the G609 Series allows these gages to operate at higher working pressures.

### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.62 inch wide)
- Viewing enhanced by redline on white background integral to sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

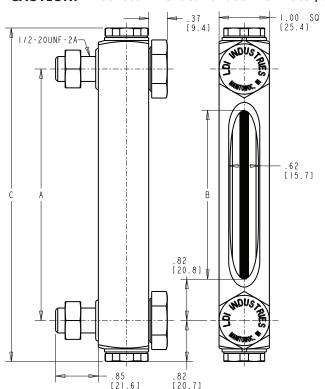
#### **Temperature and Pressure Ratings:**

- 600 psi (4137 kPa) maximum working pressure at 150°F (65°C) for centerline lengths from 5 to 12 inches (Consult factory for pressure ratings on centerline lengths outside this range)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-2 on page RA-A2 for installation instructions

### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

### BODY MATERIAL

-A-B-S-S-Y-Steel gage body (optional)
-Steinless Steel gage body (optional)

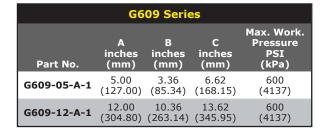
### SEAL MATERIAL

Ph : 920-682-6877 Fx : 920-684-7210

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

-10- Neoprene seals (optional)





**HOW TO ORDER** 

EXAMPLE:

G609-05-A-1 — Buna N Seals
Aluminum gage body
5.00 (127.00 mm) mounting centers
Series G609



### **G610 SERIES**

The G610 Series back mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body. HIGH-LOW markings are stamped into the aluminum body.

#### Standard Features:

- Back mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

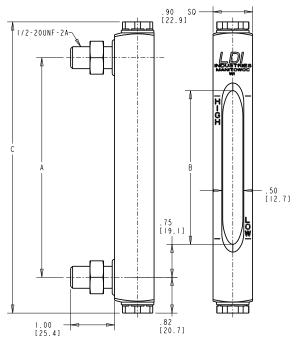
### **Temperature and Pressure Ratings:**

- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTES:

- Access to inside of reservoir is required to mount this style sight gage
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

CAUTION: • Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids
• If aluminum construction is selected for a water application, anodizing is recommended



A	B	C
inches	inches	inches
(mm)	(mm)	(mm)
3.00	1.50	4.62
(76.20)	(38.10)	(117.35)
4.00	2.50	5.62
(101.60)	(63.50)	(142.75
5.00	3.50	6.62
(127.00)	(88.90)	(168.15)
6.00	4.50	7.62
(152.40)	(114.30)	(193.55)
7.00	5.50	8.62
(177.80)	(139.70)	(218.95)
8.00	6.50	9.62
(203.20)	(165.10)	(244.35)
9.00	7.50	10.62
(228.60)	(190.50)	(269.75)
10.00	8.50	11.62
(254.00)	(215.90)	(295.15)
12.00	10.50	13.62
(304.80)	(266.70)	(345.95)

**G610** Series



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

#### **SEAL MATERIAL**

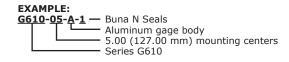
-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

-10- Neoprene seals (optional)

**NOTE**: The sight opening in all cases is 1.50 (38.10mm) less than mounting centers and overall lengh is 1.62 (41.15mm) greater than mounting centers.

#### **HOW TO ORDER**



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### G613 SERIES

The G613 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, rigid tubular Nylon sight providing 360° viewing of the fluid level. The Nylon sight combines rigidity with break resistant toughness.

#### **Standard Features:**

- Front mount
- 360° of viewing fluid level
- Suitable for use with most hydraulic and machine lubricating oils

#### Standard Materials:

- Aluminum end blocks and mounting bolts
- Nylon tubular sight
- Buna N seals

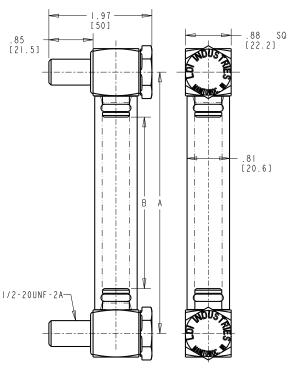
### Temperature and Pressure Ratings:

- 225°F (107°C) maximum operating temperature
- 125 psi (862 kPa) maximum working pressure at 70°F (21°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-8 on page RA-A8 for installation instructions

**CAUTION:** Not recommended for use with diesel fuel, gasoline, ethylene glycol (antifreeze), polyglycols, ethyl alcohol, methyl alcohol, methyl ethyl ketone (MEK), acetone, isopropanol, water exceeding 194°F (90°C), steam, acidic, caustic and volatile fluids



<b>G613 Series</b>		
A	B	
inches	inches	
(mm)	(mm)	
3.00	1.28	
(76.20)	(32.51)	
4.00	2.28	
(101.60)	(57.91)	
5.00	3.28	
(127.00)	(83.31)	
6.00	4.28	
(152.40)	(108.71)	
7.00	5.28	
(177.80)	(134.11)	
8.00	6.28	
(203.20)	(159.51)	
9.00	7.28	
(228.60)	(184.91)	
10.00	8.28	
(254.00)	(210.31)	
11.00	9.28	
(279.40)	(235.71)	
12.00	10.28	
(304.80)	(261.11)	



**NOTE:** All dimensions are inches [mm]

### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-B-**SEAL MATERIAL** 

Aluminum end blocks (standard) Brass end blocks (optional)

Buna N seals (standard) -2-Butyl seals (optional)

-3-Viton® seals (optional) Ethylene propylene seals (optional)

#### **HOW TO ORDER**

**EXAMPLE:** G613-05-A-1 Buna N Seals

Aluminum end blocks 5.00 (127.00 mm) mounting centers

Series G613



### **GA613 SERIES**

The GA613 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, rigid tubular Nylon sight providing 360° viewing of the fluid level. The Nylon sight combines rigidity with break resistant toughness. Pipe adapters are provided with the gage for mounting directly to NPT couplings.

### **Standard Features:**

- Front mount
- 360° of viewing fluid level
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- · Aluminum end blocks and mounting bolts
- Brass pipe adapters
- Nylon tubular sight
- Buna N seals

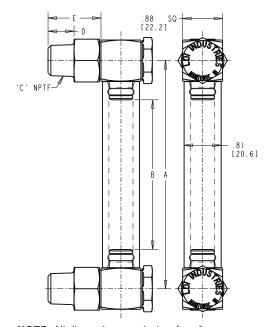
#### **Temperature and Pressure Ratings:**

- 225°F (107°C) maximum operating temperature
- 125 psi (862 kPa) maximum working pressure at 70°F (21°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-7 on page RA-A7 for installation instructions

# CAUTION: Not recommended for use with diesel fuel, gasoline, ethylene glycol (antifreeze), polyglycols, ethyl alcohol, methyl alcohol, methyl ethyl ketone (MEK), acetone, isopropanol, water exceeding 194°F (90°C), steam, acidic, caustic and volatile fluids



NOTE: All dimensions are inches [mm]

GAGIS	Series
A	B
inches	inches
(mm)	(mm)
3.00	1.28
(76.20)	(32.51)
4.00	2.28
(101.60)	(57.91)
5.00	3.28
(127.00)	(83.31)
6.00	4.28
(152.40)	(108.71)
7.00	5.28
(177.80)	(134.11)
8.00	6.28
(203.20)	(159.51)
9.00	7.28
(228.60)	(184.91)
10.00	8.28
(254.00)	(210.31)
11.00	9.28
(279.40)	(235.71)
12.00	10.28
(304.80)	(261.11)

CAC12 Carlos

Pipe Adapter			
C NPTF	D inches (mm)	E inches (mm)	
1/4-18	.56 (14.22)	1.19 (30.23)	
3/8-18	.56 (14.22)	1.12 (28.45)	
1/2-14	.75 (19.05)	1.12 (28.45)	
3/4-14	.75 (19.05)	1.12 (28.45)	



#### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-A- Aluminum end blocks (standard) -B- Brass end blocks (optional)

-S- Steel end blocks (optional) -Y- Stainless Steel end blocks (optional)

SEAL MATERIAL

-1- Buna N seals (standard) -2- Butyl seals (optional)

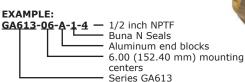
-3- Viton® seals (optional)

-4- Ethylene propylene séals (optional) -5- Silicone seals (optional)

SPECIFY PIPE THREAD SIZE:

-2- 1/4 male pipe thread -3- 3/8 male pipe thread

-3- 3/8 male pipe thread -4- 1/2 male pipe thread -5- 3/4 male pipe thread **HOW TO ORDER** 



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **GT613 SERIES**

The GT613 Series front mount closed circuit sight gage is mounted securely with end blocks made from aluminum. These end blocks are connected with a clear, rigid tubular Nylon sight providing 360° viewing of the fluid level. The Nylon sight combines rigidity with break resistant toughness. A wetted dial thermometer provides direct reading of the fluid temperature.

### **Standard Features:**

- Front mount
- 360° of viewing fluid level
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum end blocks and mounting bolts
- Nylon tubular sight
- Buna N seals

#### **Temperature and Pressure Ratings:**

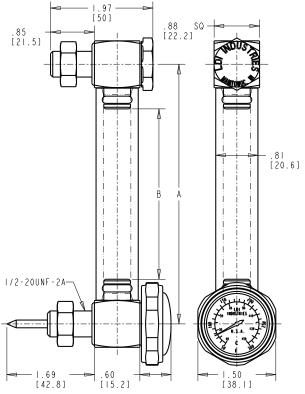
- 225°F (107°C) maximum operating temperature
- 125 psi (862 kPa) maximum working pressure at 70°F (21°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-8 on page RA-A8 for installation instructions

CAUTION: • Not recommended for use with diesel fuel, gasoline, ethylene glycol (antifreeze), polyglycols, ethyl alcohol, methyl alcohol, methyl ethyl ketone (MEK), acetone, isopropanol, water exceeding 194°F (90°C), steam, acidic, caustic and volatile fluids

· Reservoir must be drained to remove dial thermometer or loss of fluid will occur



GT613	Series
A	B
inches	inches
(mm)	(mm)
3.00	1.28
(76.20)	(32.51)
4.00	2.28
(101.60)	(57.91)
5.00	3.28
(127.00)	(83.31)
6.00	4.28
(152.40)	(108.71)
7.00	5.28
(177.80)	(134.11)
8.00	6.28
(203.20)	(159.51)
9.00	7.28
(228.60)	(184.91)
10.00	8.28
(254.00)	(210.31)
11.00	9.28
(279.40)	(235.71)
12.00	10.28
(304.80)	(261.11)



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

**BODY MATERIAL** 

-A- Aluminum end blocks (standard) -B- Brass end blocks (optional)

SEAL MATERIAL

- -1- Buna N seals (standard) -2- Butyl seals (optional)
- -3- Viton® seals (optional) -4- Ethylene propylene seals (optional)

**HOW TO ORDER** 



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **G615 SERIES**

The G615 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body. HIGH-LOW markings are stamped into the aluminum body and a wetted dial thermometer provides direct reading of the fluid temperature.

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

#### **Temperature and Pressure Ratings:**

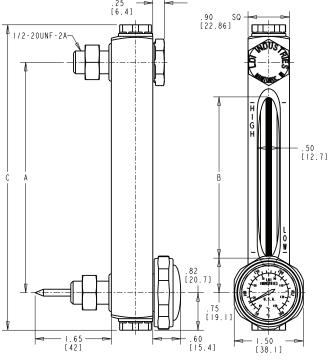
- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-2 on page RA-A2 for installation instructions

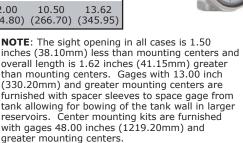
#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids

- · If aluminum construction is selected for a water application, anodizing is recommended
- · Reservoir must be drained to remove dial thermometer or loss of fluid will occur



NOTE: All dimensions are inches [mm]

#### **G615 Series** В inches inches inches (mm) (mm) (mm) 3.00 1.50 4.62 (76.20)(38.10)(117.35)4.00 2.50 5.62 (101.60)(63.50)(142.75)3.50 5.00 6.62 (88.90)(127.00)(168.15)6.00 4.50 7.62 (152.40) (114.30) (193.55) 7.00 5.50 8.62 (177.80) (139.70) (218.95) 8.00 6.50 9.62 (203.20)(165.10) (244.35) 7.50 9.00 10.62 (228.60)(190.50)(269.75)(254.00)(215.90)(295.15)11.00 9.50 12.62 (279.40)(241.30)(320.55)12.00 10.50 13.62 (304.80)(266.70)(345.95)



#### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-A-B-S-S-Y-Steel gage body (optional)
Stainless Steel gage body (optional)

#### **SEAL MATERIAL**

<mark>ት : 920-682-6877</mark>

920-684-7210

-1- Buna N seals (standard)
-2- Butyl seals (optional)
-3- Viton® seals (optional)
-4- Ethylene propylene seals (optional)

Ethylene propylene seals (optional) Neoprene seals (optional) HOW TO ORDER

EXAMPLE:
G615-05-A-1 — Buna N Seals
Aluminum gage body
5.00 (127.00 mm) mounting centers
Series G615

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

### **G617 SERIES**

The G617 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). Brass pipe adapters are provided with each sight gage for assembly of the sight gage to NPT couplings. Integral to the sight gage body is a wetted dial thermometer providing direct reading of the fluid temperature.

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Brass pipe adapters
- Buna N seals
- Borosilicate glass sight

### **Temperature and Pressure Ratings:**

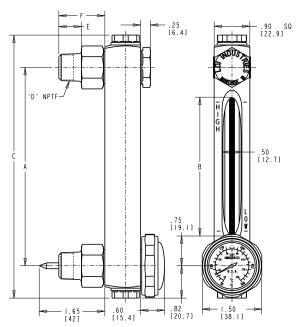
- 125 psi (862 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-7 on page RA-A7 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids

- If aluminum construction is selected for a water application, anodizing is recommended
- Reservoir must be drained to remove dial thermometer or loss of fluid will occur



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

### **BODY MATERIAL**

Aluminum gage body (standard) -B-Brass gage body (optional) -S-Steel gage body (optional) Stainless Steel gage body (optional)

### **SEAL MATERIAL**

-3-

Buna N seals (standard) -2-Butyl seals (optional)

Viton® seals (optional) -4-Ethylene propylene seals (optional)

Silicone seals (optional)

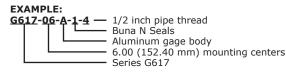
### SPECIFY PIPE THREAD SIZE:

1/4 male pipe thread -2--3-3/8 male pipe thread 1/2 male pipe thread 3/4 male pipe thread

G617 Series				
A	B	C		
inches	inches	inches		
(mm)	(mm)	(mm)		
5.00	3.50	6.62		
(127.00)	(88.90)	(168.15)		
6.00	4.50	7.62		
(152.40)	(114.30)	(193.55)		
7.00	5.50	8.62		
(177.80)	(139.70)	(218.95)		
8.00	6.50	9.62		
(203.20)	(165.10)	(244.35)		
9.00	7.50	10.62		
(228.60)	(190.50)	(269.75)		
10.00	8.50	11.62		
(254.00)	(215.90)	(295.15)		
12.00	10.50	13.62		
(304.80)	(266.70)	(345.95)		

Pipe Adapter			
D NPTF	E inches (mm)	F inches (mm)	
1/4-18	.56 (14.22)	1.19 (30.23)	
3/8-18	.56 (14.22)	1.12 (28.45)	
1/2-14	.75 (19.05)	1.12 (28.45)	
3/4-14	.75 (19.05)	1.12 (28.45)	

### **HOW TO ORDER**



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **G619 SERIES**

The heavy duty G619 Series front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body. A dry dial thermometer allows for temperature monitoring. The thermowell for the thermometer combines with the thermometer shield to serve as one of the mounting bolts for the sight gage. This construction allows the thermometer orientation to be adjusted independent of the sight gage and replaced without having to drain the reservoir. Installation is the similar to the G615 Series, but the robust construction of the G619 Series allows these gages to operate at higher working pressures.

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.62 inch wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Dial thermometer may be removed from a filled reservoir without loss of fluid
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolt
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

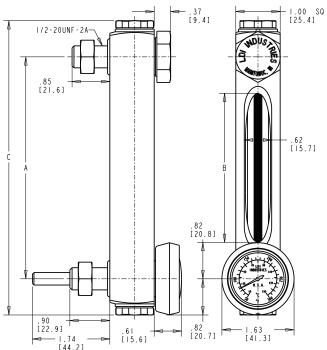
### **Temperature and Pressure Ratings:**

- 600 psi (4137 kPa) maximum working pressure at 150°F (65°C) for centerline lengths from 4 to 12 inches (Consult factory for pressure ratings on centerline lengths outside this range)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

• Please refer to Appendix RA-2 on page RA-A2 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



#### **BODY MATERIAL**

-A-B-SSteel gage body (optional)

**SEAL MATERIAL** 

<mark>ት : 920-682-6877</mark>

x:920-684-7210

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

Stainless Steel gage body (optional)

-10- Neoprene seals (optional)

**G619 Series** Max. Work. inches inches PSI inches Part No. (kPa) (mm) (mm) (mm) 5.00 600 3.36 6.62 G619-05-A-1 (127.00)(85.34)(168.15)(4137)12.00 10.36 600 13.62 G619-12-A-1 (304.80)(345.95)(4137)(263.14)



**HOW TO ORDER** 

EXAMPLE:

G619-05-A-1 — Buna N Seals
Aluminum gage body
5.00 (127.00 mm) mounting centers
Series G619



# GHT GAGES - CLOSED

### G620 SERIES

The G620 Series back mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). A wetted dial thermometer provides an analog display of the fluid temperature.

#### **Standard Features:**

- Back mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Aluminum tube shields thermometer probe extending into reservoir
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

### **Temperature and Pressure Ratings:**

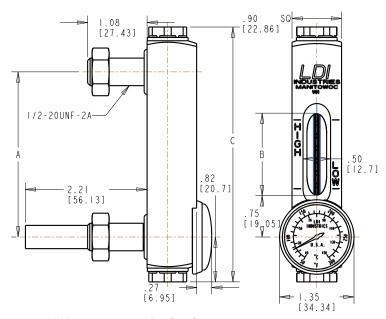
- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount this style sight gage
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids

- If aluminum construction is selected for a water application, anodizing is recommended
- · Reservoir must be drained to remove dial thermometer or loss of fluid will occur



G620 Series			
A	B	C	
inches	inches	inches	
(mm)	(mm)	(mm)	
3.00	1.50	4.62	
(76.20)	(38.10)	(117.35)	
4.00	2.50	5.62	
(101.60)	(63.50)	(142.75	
5.00	3.50	6.62	
(127.00)	(88.90)	(168.15)	
6.00	4.50	7.62	
(152.40)	(114.30)	(193.55)	
7.00	5.50	8.62	
(177.80)	(139.70)	(218.95)	
8.00	6.50	9.62	
(203.20)	(165.10)	(244.35)	
9.00	7.50	10.62	
(228.60)	(190.50)	(269.75)	
10.00	8.50	11.62	
(254.00)	(215.90)	(295.15)	
12.00	10.50	13.62	
(304.80)	(266.70)	(345.95)	



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-A-Aluminum gage body (standard) -B-Brass gage body (optional) -S-Steel gage body (optional)

Stainless Steel gage body (optional)

**SEAL MATERIAL** 

Buna N seals (standard) -1--2-Butyl seals (optional)

Viton® seals (optional) -4-Ethylene propylene seals (optional)

Neoprene seals (optional)

NOTE: The sight opening in all cases is 1.50 inch (38.10mm) less than mounting centers and overall lengh is 1.62 inch (41.15mm) greater than mounting centers.

#### **HOW TO ORDER**

**EXAMPLE:** G620-05-A-1 Buna N Seals Aluminum gage body 5.00 (127.00 mm) mounting centers Series G620

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

-3-



### **G623 SERIES**

G623 Series front mount closed circuit low profile sight gages are molded from a clear Nylon providing 180° of viewing. A white insert integral to the sight gage helps draw eye contact to the fluid level quickly.

#### **Standard Features:**

- Front mount
- Tough, break resistant, transparent molded Nylon gage body
- 180° of viewing fluid level (without metal guard)
- Viewing enhanced by white background integral to molded gage body
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Constructed with a molded, transparent Nylon
- Buna N seals
- · Black, powder coated steel guard

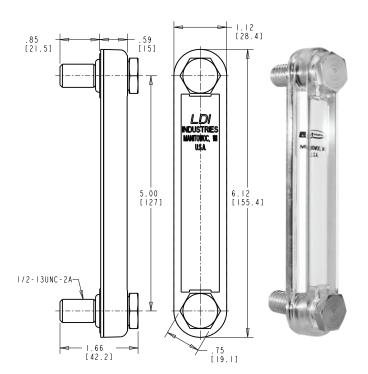
### **Temperature and Pressure Ratings:**

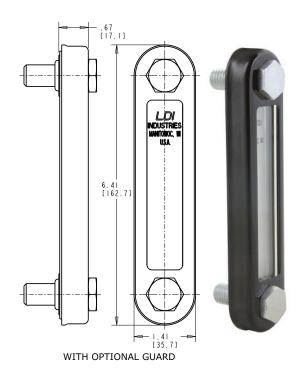
- 212°F (100°C) maximum operating temperature
- 50 psi (345 kPa) maximum operating pressure at 70°F (21°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

### NOTE:

• Please refer to Appendix RA-9 on page RA-A9 for installation instructions

### **CAUTION: · Not recommended for use with alcohol or steam**





NOTE: All dimensions are inches [mm]

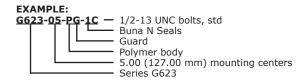
### **ORDERING OPTIONS CODES:**

### SEAL MATERIAL

-1- Buna N seals (standard) -3- Viton® seals (optional) -M- M12 x 1.75 bolts (optional)

-G- Guard (optional)

### HOW TO ORDER



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **GT623 SERIES**

GT623 Series front mount closed circuit low profile sight gages are molded from a clear Nylon providing 180° of viewing. A white insert integral to the sight gage helps draw eye contact to the fluid level quickly.

#### **Standard Features:**

- Front mount
- •Tough, break resistant, transparent molded Nylon gage body
- 180° of viewing fluid level
- Viewing enhanced by white background integral to molded gage body
- Card thermometer, dual scale 0°F to 220°F and -20°C to 110°C
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Constructed with a molded, transparent Nylon
- Red color alcohol within thermometer bulb
- Buna N seals

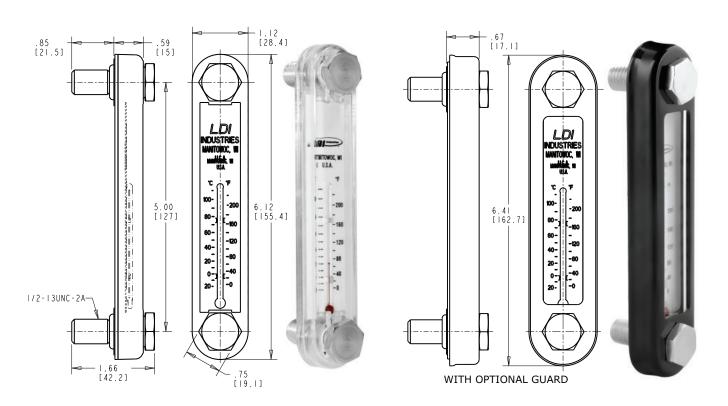
### **Temperature and Pressure Ratings:**

- •212°F (100°C) maximum operating temperature
- 50 psi (345 kPa) maximum operating pressure at 70°F (21°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

Please refer to Appendix RA-9 on page RA-A9 for installation instructions

#### CAUTION: · Not recommended for use with alcohol or steam



NOTE: All dimensions are inches [mm]

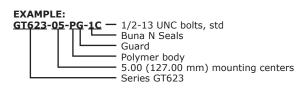
### **ORDERING OPTIONS CODES:**

#### SEAL MATERIAL

-1- Buna N seals (standard) -3- Viton® seals (optional) -M- M12 x 1.75 bolts (optional)

-G- Guard (optional)

#### **HOW TO ORDER**



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **G632 SERIES**

The G632 Series back mount closed circuit sight gages provide 270° of viewing the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). A wetted front facing dial thermometer provides an analog display of the fluid temperature. The oversized gage body allows a deeper recess of the sight glass and dial thermometer for maximum protection of these components against damage.

#### **Standard Features:**

- Back mount
- 270° of viewing the fluid level (.88 inch front and .50 inch side width windows)
- Viewing enhanced by redline on white background integral to sight glass
- 1.38 inch diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Aluminum tube shields thermometer probe extending into reservoir
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- · Borosilicate glass sight
- Zinc plated, steel hex nuts

### Temperature and Pressure Ratings:

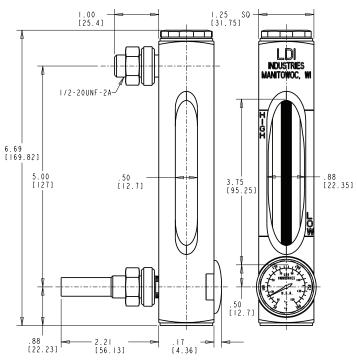
- 125 psi (862 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount this style sight gage
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

**CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids** 

· Reservoir must be drained to remove dial thermometer or loss of fluid will occur





NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

**BODY MATERIAL HOW TO ORDER** Aluminum gage body (standard) SEAL MATERIAL **EXAMPLE:** Buna N seals (standard) -1-G632-05-A Buna N Seals -2-Butyl seals (optional) Aluminum gage body Viton® seals (optional) -3-5.00 (127.00 mm) mounting centers -4-Ethylene propylene seals (optional) Series G632 -5-Silicone seals (optional)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



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### G635 SERIES

The G635 Series front mount closed circuit sight gage provides 270° of viewing the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). The oversized gage body allows a deeper recess of the sight glass for maximum protection of the sight glass against damage.

### **Standard Features:**

Front mount

270° of viewing the fluid level (.88 inch front and .50 inch side width windows)

Viewing enhanced by redline on white background integral to sight glass

Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

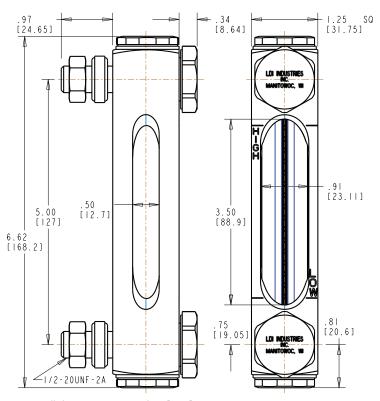
#### Temperature and Pressure Ratings:

- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5))

#### NOTE:

• Please refer to Appendix RA-2 on page RA-A2 for installation instructions

CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids · If aluminum construction is selected for a water application, anodizing is recommended





NOTE: All dimensions are inches [mm]

### **ORDERING OPTIONS CODES:**

Aluminum gage body (standard) -B-Brass gage body (optional) **SEAL MATERIAL** 

Buna N seals (standard) -1--2-Butyl seals (optional) -3-Viton® seals (optional)

-4-Ethylene propylene séals (optional)

Silicone seals (optional)

#### **HOW TO ORDER**

**EXAMPLE:** <u>G635-05-</u>А

Buna N Seals

Aluminum gage body 5.00 (127.00 mm) mounting centers

Series G635



### **G640 SERIES**

The G640 Series back mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). A wetted dial thermometer provides an analog display of the fluid temperature.

#### **Standard Features:**

- Back mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.81" diameter dual scale dial thermometer, 0° to 300°F and -20° to 150°C
- Aluminum tube shields thermometer probe extending into reservoir
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

#### **Temperature and Pressure Ratings:**

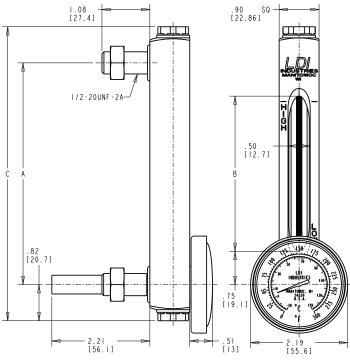
- 125 psi (862 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount this style sight gage
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids

- · If aluminum construction is selected for a water application, anodizing is recommended
- · Reservoir must be drained to remove dial thermometer or loss of fluid will occur



G640 Series			
A	B	C	
inches	inches	inches	
(mm)	(mm)	(mm)	
5.00	3.50	6.62	
(127.00)	(88.90)	(168.15)	
6.00	4.50	7.62	
(152.40)	(114.30)	(193.55)	
10.00	8.50	11.62	
(254.00)	(215.90)	(295.15)	
12.00	10.50	13.62	
(304.80)	(266.70)	(345.95)	



NOTE: All dimensions are inches [mm]

### **ORDERING OPTIONS CODES:**

### **BODY MATERIAL**

-A- Aluminum gage body (standard)
-B- Brass gage body (optional)
-S- Steel gage body (optional)
-Y- Stainless Steel gage body (optional)

### SEAL MATERIAL

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-4- Ethylene propylene seals (optional)

-5- Silicone seals (optional)

#### **HOW TO ORDER**

EXAMPLE:

G640-05-A-1 — Buna N Seals
Aluminum gage body
5.00 (127.00 mm) mounting centers
Series G640

# GHT GAGES - CLOSED

### **G642 SERIES**

The G642 Series back mount closed circuit sight gages provide 270° of viewing the fluid level clearly delineated by a redline on white background integral to the sight glass all secured within an aluminum body (HIGH-LOW markings). A wetted front facing dial thermometer provides an analog display of the fluid temperature.

#### Standard Features:

- Back mount
- 270° of viewing the fluid level (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 1.81 inch diameter dual scale dial thermometer, 0° to 300°F and -20° to 150°C
- Aluminum tube shields thermometer probe extending into reservoir
- Suitable for use with most hydraulic and machine lubricating oils

### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

### **Temperature and Pressure Ratings:**

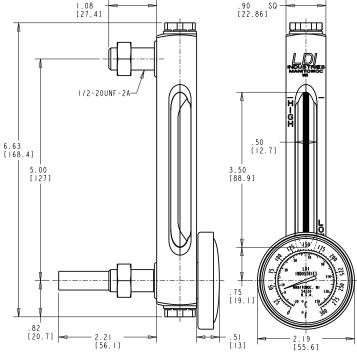
- 125 psi (862 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount this style sight gage
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids

- · If aluminum construction is selected for a water application, anodizing is recommended
- · Reservoir must be drained to remove dial thermometer or loss of fluid will occur





NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-S-

Aluminum gage body (standard) -B-Brass gage body (optional)

Steel gage body (optional) Stainless Steel gage body (optional)

### **SEAL MATERIAL**

Buna N seals (standard) -1-Butyl seals (optional)

Viton® seals (optional) -3-Ethylene propylene seals (optional)
Silicone seals (optional) -4-

### **HOW TO ORDER**

**FXAMPLE:** G642-05-A Buna N Seals

Aluminum gage body 5.00 (127.00 mm) mounting centers Series G642

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **G645 SERIES**

The G645 front mount closed circuit sight gages provide front viewing of the fluid level clearly delineated by a redline on white background integral to the glass sight all secured within an aluminum body (HIGH-LOW markings). A dry dial thermometer allows for temperature monitoring. The thermowell for the thermometer also serves as one of the mounting bolts for the sight gage. This construction allows the thermometer orientation to be adjusted independent of the sight gage and removed if necessary without having to drain the reservoir.

#### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.50 inches wide)
- Viewing enhanced by redline on white background integral to sight glass
- 2.00" diameter dual scale dial thermometer, 0° to 300°F and -20° to 150°C
- Dial thermometer may be removed from a filled reservoir without loss of fluid
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Borosilicate glass sight
- Zinc plated, steel hex nuts

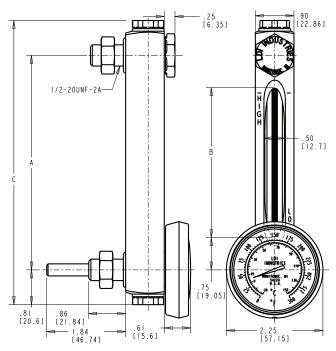
### **Temperature and Pressure Ratings:**

- Please refer to Appendix RA-1 on page RA-A1 for Sight Opening & Pressure Rating information
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE:

Please refer to Appendix RA-2 on page RA-A2 for installation instructions

### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



G645 Series				
A	B	C		
inches	inches	inches		
(mm)	(mm)	(mm)		
5.00	3.50	6.62		
(127.00)	(88.90)	(168.15)		
8.00	6.50	9.62		
(203.20)	(165.10)	(244.35)		
10.00	8.50	11.62		
(254.00)	(215.90)	(295.15)		
12.00	10.50	13.62		
(304.80)	(266.70)	(345.95)		



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

Select mounting centers of 5.00 inches (127.00 mm) , 8.00 inches (203.20 mm) or 10.00 inches (254.00 mm) available from stock.

#### Consult factory for other lengths

#### **BODY MATERIAL**

-A-B-SSteel gage body (optional)

-Y- Stainless Steel gage body (optional)

### SEAL MATERIAL

<mark>ት : 920-682-6877</mark>

920-684-7210

-1- Buna N seals (standard) -2- Butyl seals (optional) -3- Viton® seals (optional)

-3- Viton® seals (optional) -4- Ethylene propylene seals (optional)

-5- Silicone seals (optional)

**HOW TO ORDER** 

EXAMPLE:

G645-05-A-1 — Buna N Seals
Alumming agge body
5.00 (127.00 mm) mounting centers
Series G645



### **G1615 SERIES**

The G1615 Series front mount closed circuit sight gages provide front viewing of the fluid level through a clear glass sight. Integral to the sight gage is a thermometer contained within a white colored card for direct reading of the fluid temperature. The white colored card helps draw eye contact to the fluid level quickly.

#### Standard Features:

- Front Mount
- Fluid level visible from front of gage (.75 inches wide)
- Clear glass sight
- Card thermometer (3.00 inch centerline only), dual scale 60° to 180°F and 20° to 80°C graduations
- Card thermometer (on 5.00 inch and 10.00 inch centerline), dual scale 0° to 220°F and -20° to 110°C graduations
- 1/2-20UNF mounting bolts accommodate reservoir wall thicknesses up to .62 inches
- Suitable for use with most hydraulic and machine lubricating oils

### **Standard Materials:**

- Aluminum gage body and mounting bolts
- Buna N seals
- Borosilicate glass
- Red color alcohol within thermometer bulb
- Steel, zinc plated hex nuts

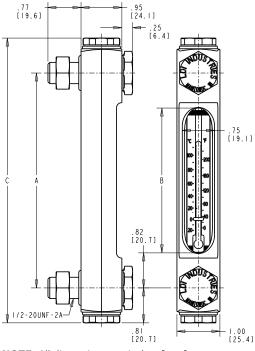
### **Temperature and Pressure Ratings:**

- Maximum working pressure up to 20 PSI (138 kPa) at 150°F (65°C), no corrosion
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### NOTE

• Please refer to Appendix RA-2 on page RA-A2 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



G	G1615 Series				
Part No.	A	B	C		
	inches	inches	inches		
	(mm)	(mm)	(mm)		
:	una N SE	ALS			
G1615-03-A-1	3.00	1.37	4.62		
	(76.20)	(34.80)	(117.35)		
G1615-05-A-1	5.00	3.37	6.62		
	(127.00)	(85.60)	(168.15)		
G1615-10-A-1	10.00	8.37	11.62		
	(254.00)	(212.60)	(295.15)		
v	ITON® SE	ALS			
G1615-03-A-3	3.00	1.37	4.62		
	(76.20)	(34.80)	(117.35)		
G1615-05-A-3	5.00	3.37	6.62		
	(127.00)	(85.60)	(168.15)		
G1615-10-A-3	10.00	8.37	11.62		
	(254.00)	(212.60)	(295.15)		

- Buna N Seals

Series G1615

Aluminum gage body

10.00 (254.00 mm) mounting centers



**NOTE:** All dimensions are inches [mm]

#### **ORDERING OPTIONS CODES:**

### **BODY MATERIAL**

SEAL MATERIAL

Aluminum gage body (standard)

-1- Buna N seals (standard) -3- Viton® seals (optional)

#### **OPTIONS:**

· EPDM Seals

- Specify -4 in place of -1 or -3 in catalog number

- 1/2-13 Coarse thread for mounting
  - Specify "C" after the seal number
- M12 x 1.75 thread for mounting
  - Specify "M" after seal number
- Consult factory for availablility & price on blue fluid in thermometer
  - Specify "B" after seal number (Not available for 3.00 [76.20mm] centers)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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**HOW TO ORDER** 

G1615-10-A-1

**EXAMPLE:** 

### **G1620 SERIES**

The G1620 Series back mount closed circuit sight gages provide front viewing of the fluid level through a clear sight glass. Integral to the sight gage is a thermometer contained within a white colored card for direct reading of the fluid temperature. The white colored card helps draw eye contact to the fluid level quickly.

#### Standard Features:

- Back mount
- Fluid level visible from front of gage (.75 inches wide)
- Clear sight glass
- Card thermometer (3.00 inch centerline only), dual scale 60° to 180°F and 20° to 80°C graduations
- Card thermometer (5.00 inch and 10.00 inch centerline), dual scale 0° to 220°F and -20° to 110°C graduations
- Suitable for use with most hydraulic and machine lubricating oils

#### **Standard Materials:**

- Aluminum construction
- Buna N or Fluorocarbon (Viton®) seals
- Borosilicate glass sight
- Red color alcohol within thermometer bulb
- Zinc plated, steel locknuts

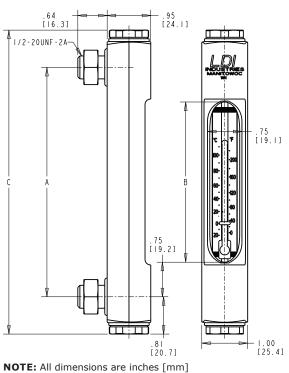
### **Temperature and Pressure Ratings:**

- 20 psi (138 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount this style sight gage.
- Please refer to Appendix RA-3 on page RA-A3 for installation instructions

#### CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



G1620 Series				
Part No.	A	B	C	
	inches	inches	inches	
	(mm)	(mm)	(mm)	
В	una N SE	ALS		
G1620-03-A-1	3.00	1.37	4.62	
	(76.20)	(34.80)	(117.35)	
G1620-05-A-1	5.00	3.37	6.62	
	(127.00)	(85.60)	(168.15)	
G1620-10-A-1	10.00	8.37	11.62	
	(254.00)	(212.60)	(295.15)	
V:	ITON® SE	ALS		
G1620-03-A-3	3.00	1.37	4.62	
	(76.20)	(34.80)	(117.35)	
G1620-05-A-3	5.00	3.37	6.62	
	(127.00)	(85.60)	(168.15)	
G1620-10-A-3	10.00	8.37	11.62	
	(254.00)	(212.60)	(295.15)	
	,/	, , , ,	, /	

Buna N Seals

Series G1620

Aluminum gage body

5.00 (127.00 mm) mounting centers



NOTE: All dimensions are inches [min]

### **ORDERING OPTIONS CODES:**

#### **BODY MATERIAL**

-A- Aluminum gage body (standard) **SEAL MATERIAL** 

-1- Buna N seals (standard) -3- Viton® seals (optional)

#### **OPTIONS:**

• EPDM Seals

- Specify -4 in place of -1 or -3 in catalog number
- · Consult factory for availablility & price on blue fluid in thermometer
  - $\mbox{\ensuremath{}^{\scriptscriptstyle \circ}}\mbox{Specify "B" after seal number (Not available for 3.00 [76.20mm] centers)}$

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



**HOW TO ORDER** 

**EXAMPLE:** 

G1620-05-A

### **SGC SERIES**

The SGC Series front mount closed circuit sight gages provide front viewing of the fluid level through a clear sight glass. Integral to the sight gage is a thermometer contained within a white colored card for direct reading of the fluid temperature. The white colored card helps draw eye contact to the fluid level quickly. Check valves integral to mounting studs allow for removal of sight gage without having to drain the reservoir.

### **Standard Features:**

- Front mount
- Fluid level visible from front of gage (.75 inches wide)
- Clear sight glass
- Card thermometer, dual scale 0° to 220°F and -20° to 110°C graduations
- Mounting studs accommodate reservoir wall thicknesses up to .56 inches
- Suitable for use with most hydraulic and machine lubricating oils

### **Standard Materials:**

- · Aluminum & Brass Construction
- Buna N seals
- Borosilicate glass sight

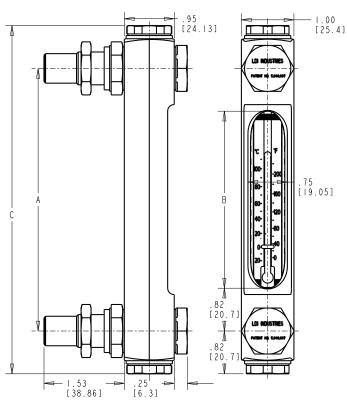
#### **Temperature and Pressure Ratings:**

- 20 psi (138 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)

#### **NOTES:**

- Access to inside of reservoir is required to mount studs with integral check valves.
- Please refer to Appendix RA-11 on page RA-A10 for installation instructions

CAUTION: · Not recommended for use with water, steam, acidic fluids, caustic fluids and volatile fluids



NOTE: All	dimensions	are	inches	[mm]

### HOW TO ORDER

**EXAMPLE:** 

Sec-10 — 10.00 inch (254.00 mm) mounting centers

Series SGC

When ordering, specify either 5.00 inch (127.00mm) or 10.00 inch (254.00mm) mounting centers following the series number, separated with a dash(-).

SGC Series									
Part No.	A	B	C						
	Centers	Sight	Length						
	inches	inches	inches						
	(mm)	(mm)	(mm)						
SGC5	5.00	3.50	6.62						
	(127.00)	(88.90)	(168.15)						
SGC10	10.00	8.50	11.62						
	(254.00)	(215.90)	(295.15)						







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### TMA SERIES

TMA Series dial thermometers come in two assembly styles. TMA100 Series dial thermometers have a straight thread, bulkhead style mounting and the TMA200 Series dial thermometers mount directly into pipe threaded couplings.

#### Standard Features - TMA100 Series:

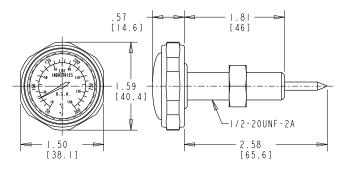
- An aluminum enclosure shields side of thermometer face
- 1.38 inch diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Aluminum stud extends into reservoir to partially shield Stainless Steel thermometer probe
- Buna N o-rings
- Back mount
- Zinc plated hex jam nut

### NOTES:

- Access to inside of reservoir is required to mount the TMA100 Series thermometer
- For both TMA100 and TMA200 series, please refer to Appendix RA-12 on page RA-A12 for installation instructions

#### **Standard Materials:**

- Aluminum construction
- Stainless Steel thermometer probe



NOTE: All dimensions are inches [mm]

TMA100 Series									
Part No.		B inches (mm)	C inches (mm)	D UNF	Scale				
TMA111-A-1	1.50 (38.10)	1.59 (40.39)	.50 (12.70)	1/2-20	50° to 300° F 10° to 150° C				

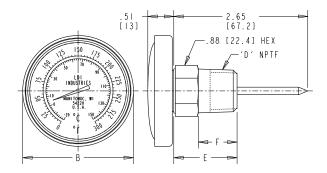


#### Standard Features - TMA200 Series:

- An aluminum enclosure shields side of thermometer face
- 1.38 inch diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C (TMA202 & TMA204)
- 1.81inch diameter dual scale dial thermometer, 0° to 300°F and -20° to 150°C (TMA214)
- Buna N o-rings
- Front mount threads into pipe threaded coupling
- Brass pipe adapter

### **Temperature and Pressure Ratings:**

- 125 psi (862 kPa) maximum working pressure at 150°F (65°C)
- Please refer to Temperature Ratings by Seal Material for additional operating conditions (Appendix RA-5 on page RA-A5)



NOTE: All dimensions are inches [mm]

	TMA200 Series										
Part No.	B inches (mm)	D NPTF	E inches (mm)	F inches (mm)	Scale						
TMA202-A-1	1.45 (36.83)	1/4-18	1.06 (26.92)	.56 (14.22)	50° to 300° F 10° to 150° C						
TMA204-A-1	1.45 (36.83)	1/2-14	1.25 (31.75)	.75 (19.05)	50° to 300° F 10° to 150° C						
TMA214-A-1	2.19 (55.63)	1/2-14	1.25 (31.75)	.75 (19.05)	0° to 300° F -20° to 150° C						



#### **ORDERING OPTIONS CODES FOR TMA200 SERIES:**

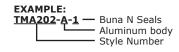
BODY	MATE	RIAL
------	------	------

**SEAL MATERIAL** 

-A- Aluminum body (standard)
-B- Brass construction (optional)

-1- Buna N seals (standard) -3- Viton ® seals (optional)

#### **HOW TO ORDER TMA200 SERIES**



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **LSP51 SERIES**

The LSP51 Series fused high pressure steel sight plug has a clear glass sight and male NPT thread connection. The fused, one-piece construction allows for higher operating temperatures and pressures. The sight plug can be accessorized with reflector and float ball. Boxed quantities may apply.

### **Standard Features:**

- Stud end sizes from 1/4 NPT to 2-111/2 NPT
- Fused clear glass sight
- Electroless Nickel finish
- Available with open view, with reflector or with reflector and float ball

#### **Standard Materials:**

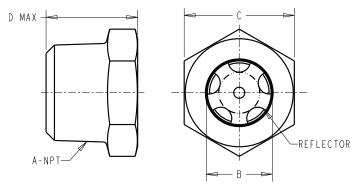
- Carbon steel construction
- Stainless Steel reflector (when applicable)

### **Temperature and Pressure Ratings:**

- Maximum operating temperature, 500°F (260°C)
- See chart below for pressure ratings

### CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- · Scratched glass significantly reduces the pressure rating of the sight plug





NOTE: All dimensions are inches (mm)

			LSP51 Serie	S			
Part Open View	: No. Reflector	Min/Mult Box Quantity	A NPT	B inches (mm)	C inches (mm)	D inches (mm)	Max. Work. Pressure @ 69°F (20°C) PSI (kPa)
LSP51-02	-	25	1/4-18	.34 (8.64)	.62 (15.75)	.64 (16.26	2000 (13790)
LSP51-03	LSP51-03-01	25	3/8-18	.44 (11.18)	.75 (19.05)	.73 (18.54)	1850 (12755)
LSP51-04	LSP51-04-01	25	1/2-14	.56 (14.22)	.94 (23.88)	.79 (20.07)	1750 (12066)
LSP51-05	LSP51-05-01	25	3/4-14	.75 (19.05)	1.06 (26.92)	.95 (24.13)	1500 (10342)
LSP51-06	LSP51-06-01	15	1-11 1/2	.94 (23.88)	1.38 (35.05)	1.07 (27.18)	1250 (8618)
LSP51-07	LSP51-07-01	15	1 1/4-11 1/2	1.19 (30.23)	1.75 (44.45)	1.23 (31.24)	1000 (6895)
LSP51-08	LSP51-08-01	10	1 1/2-11 1/2	1.44 (36.58)	2.00 (50.80)	1.23 (31.24)	750 (5171)
LSP51-09	LSP51-09-01	10	2-11 1/2	1.88 (47.75)	2.50 (63.50)	1.28 (32.77)	500 (3447)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **LSP101 SERIES**

The LSP101 Series low pressure aluminum sight plug inserts through a clearance hole and utilizes a lock nut assembled from within the reservoir to seal on a flange gasket. A clear glass sight provides good open view visibility with options to further enhance visibility by accessorizing the sight plug with combinations of reflector and float ball options. Access to inside of reservoir is required to secure the lock nut. Box quantities may apply.

### **Standard Feature:**

Clear glass sight

### **Standard Materials:**

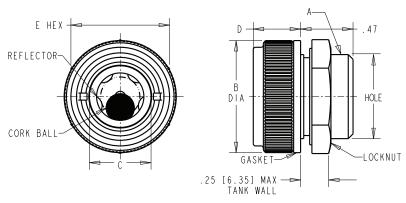
- Aluminum construction
- Buna N seals
- Soda lime glass sight
- Stainless Steel reflector (when applicable)
- Cork float ball

### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 180°F (82°C). (For applications requiring maximum operating temperatures in excess of 180°F (82°C), consult factory for available options.)
- See chart below for pressure ratings

CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- · Scratched glass significantly reduces the pressure rating of the sight plug





NOTE: All dimensions are inches (mm)

	LSP101 Series										
Open View	Part No. Reflector	Reflector and Ball	Min/Mult Box Quantity	A	Hole Dia* inches (mm)	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	Max. Work. Pressure @ 69°F (20°C) PSI (kPa)	
LSP101-04	LSP101-04-01	LSP101-04-02	25	3/4-27	.75 (19.05)	1.00 (25.40)	.55 (13.97)	.42 (10.67)	.88 (22.35)	50 (345)	
LSP101-06	LSP101-06-01	LSP101-06-02	25	1-24	1.00 (25.40)	1.25 (31.75)	.75 (19.05)	.42 (10.67)	1.12 (28.45)	50 (345)	
LSP101-08	LSP101-08-01	LSP101-08-02	15	1 1/4-24	1.25 (31.75)	1.50 (38.10)	.94 (23.88)	.42 (10.67)	1.38 (35.05)	25 (172)	
LSP101-13	LSP101-13-01	LSP101-13-02	10	1 7/8-24	1.88 (47.75)	2.12 (53.85)	1.38 (35.05)	.62 (15.75)	2.00 (50.80)	25 (172)	
LSP101-17	LSP101-17-01	LSP101-17-02	10	2 3/8-24	2.38 (60.45)	2.62 (66.55)	1.88 (47.75)	.62 (15.75)	2.62 (66.55)	10 (69)	

<sup>\*</sup> tolerance +.02/-.00 (+0.5/-.00)

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### **LSP151 SERIES**

The LSP151 Series low pressure brass sight plug has a clear glass sight and male PTF pipe thread connection. Designed to be an economical alternative to high performance fused sight plugs, the LSP151 Series sight plug features a tamper resistant construction and can be accessorized with reflector and float ball. Box quantities may apply.

#### **Standard Features:**

- Stud end sizes from 1/4 inch NPT to 2-111/2 inch NPT
- Clear glass sight
- Available open view, with reflector or with reflector and float ball

#### Standard Materials:

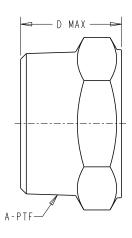
- Brass construction
- Soda lime glass sight
- Buna N seals
- Stainless Steel reflector (when applicable)
- Cork float ball (when applicable)

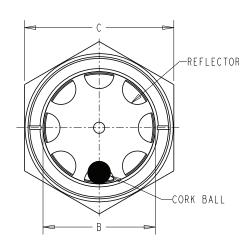
### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 180°F (82°C). (For applications requiring maximum operating temperatures in excess of 180°F (82°C), consult factory for available options.)
- See chart below for pressure ratings

#### CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- · Scratched glass significantly reduces the pressure rating of the sight plug







			LSP151	Series				
Open View	Part No. Reflector	Reflector and Ball	Min/Mult Box Quantity	A PTF	B inches (mm)	C inches (mm)	D inches (mm)	Max. Work. Pressure @ 69°F (20°C) PSI (kPa)
LSP151-02	-	-	25	1/4-18	.34 (8.64)	.62 (15.75)	.79 (20.07)	150 (1034)
LSP151-03	LSP151-03-01	LSP151-03-02	25	3/8-18	.44 (11.18)	.75 (19.05)	.86 (21.84)	100 (690)
LSP151-04	LSP151-04-01	LSP151-04-02	25	1/2-14	.56 (14.22)	.88 (22.35)	1.01 (25.65)	100 (690)
LSP151-05	LSP151-05-01	LSP151-05-02	25	3/4-14	.75 (19.05)	1.12 (28.45)	1.01 (25.65)	60 (414)
LSP151-06	LSP151-06-01	LSP151-06-02	15	1-11 1/2	.94 (23.88)	1.44 (36.58)	1.24 (31.50)	60 (414)
LSP151-07	LSP151-07-01	LSP151-07-02	15	1 1/4-11 1/2	1.19 (30.23)	1.75 (44.45)	1.42 (36.07)	25 (172)
LSP151-08	LSP151-08-01	LSP151-08-02	10	1 1/2-11 1/2	1.44 (36.58)	2.00 (50.80)	1.52 (38.61)	25 (172)
LSP151-09	LSP151-09-01	LSP151-09-02	10	2-11 1/2	1.88 (47.75)	2.50 (63.50)	1.70 (43.18)	10 (69)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### LSP201 SERIES

The LSP201 Series medium pressure brass sight plug has a clear glass sight and male PTF pipe thread connection. Designed to be an economical alternative to high performance fused sight plugs and with pressure ratings exceeding the LSP151 Series. The LSP201 Series sight plug features a tamper resistant construction and can be accessorized with reflector and float ball. Box quantities may apply.

### **Standard Features:**

- Stud end sizes from 1/4 NPT to 2-11½ NPT
- Clear glass sight
- Available with open view, with reflector or with reflector and float ball

#### **Standard Materials:**

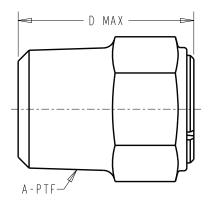
- Brass construction
- Stainless Steel reflector (when applicable)
- Cork float ball (when applicable)

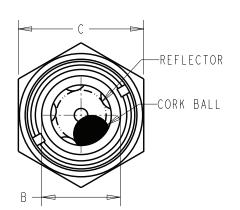
### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 180°F (82°C). (For applications requiring maximum operating temperatures in excess of 180°F (82°C), consult factory for available options.)
- See chart below for pressure ratings

CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- · Scratched glass significantly reduces the pressure rating of the sight plug







			LSP201 S	Series				
Open View	Part No. Reflector	Reflector and Ball	Min/Mult Box Quantity	A PTF	B inches (mm)	C inches (mm)	D inches (mm)	Max. Work. Pressure @ 69°F (20°C) PSI (kPa)
LSP201-02	-	-	25	1/4-18	.33 (8.38)	.62 (15.75)	1.10 (27.94)	675 (4654)
LSP201-03	LSP201-03-01	LSP201-03-02	25	3/8-18	.44 (11.18)	.75 (19.05)	1.12 (28.45)	415 (2861)
LSP201-04	LSP201-04-01	LSP201-04-02	25	1/2-14	.56 (14.22)	.88 (22.35)	1.16 (29.46)	250 (1724)
LSP201-05	LSP201-05-01	LSP201-05-02	25	3/4-14	.75 (19.05)	1.12 (28.45)	1.28 (32.51)	200 (1379)
LSP201-06	LSP201-06-01	LSP201-06-02	15	1-11 1/2	.94 (23.88)	1.44 (36.58)	1.48 (37.59)	100 (690)
LSP201-07	LSP201-07-01	LSP201-07-02	15	1 1/4-11 1/2	1.12 (28.45)	1.75 (44.45)	1.54 (39.12)	60 (414)
LSP201-08	LSP201-08-01	LSP201-08-02	10	1 1/2-11 1/2	1.38 (35.05)	2.00 (50.80)	1.57 (39.88)	50 (345)
LSP201-09	LSP201-09-01	LSP201-09-02	10	2-11 1/2	1.88 (47.75)	2.50 (63.50)	1.70 (43.18)	20 (138)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **LSP501 SERIES**

The LSP501 Series low pressure aluminum sight plug has a clear glass or polycarbonate sight and a reflector machined into the plug body. Sight options include screen printed level lines. An economical alternative to threaded sight plugs requiring only a reamed hole or equivalent to provide a secure fit. Box quantities may apply.

#### **Standard Features:**

- Sight: Clear or with level lines
- · Available in sight material and level line combinations

#### **Standard Materials:**

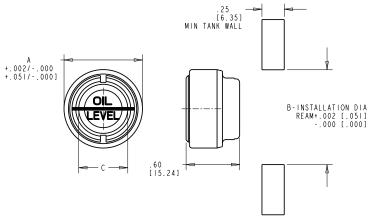
- Aluminum construction
- Buna N seals (other seal material is available please specify )
- Soda lime glass or polycarbonate sight material

### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 180°F (82°C). (For applications requiring maximum operating temperatures in excess of 180°F (82°C), consult factory for available options.)
- 25 psi (172 kPa) maximum operating pressure at 69°F (20°C)

### **CAUTION: · Not recommended for steam applications**

· Scratched glass significantly reduces the pressure rating of the sight plug





NOTE: All dimensions are inches [mm]

	LS	P501 Series			
Part	No.		Α	В	C
No Fluid Level Line	With Fluid Level Line	Min/Mult Box Quantity	inches (mm)	inches (mm)	inches (mm)
-	LSP501-07RPL	25	.878 (22.301)	.875 (22.225)	.55 (13.97)
-	LSP501-08RGL	25	1.003 (25.476)	1.000 (25.400)	.66 (16.76)
-	LSP501-10RPL	25	1.253 (31.826)	1.250 (31.750)	.75 (19.05)
-	LSP501-12RPL	15	1.503 (38.176)	1.500 (38.100)	1.00 (25.40)
LSP501-16RP	-	15	2.003 (50.876)	2.000 (50.800)	1.56 (39.62)

#### **Suffixes**

**R** = Reflector

RP = Reflector, polycarb sight
RGL = Reflector, glass sight , level line
RPL = Reflector, polycarb sight, level

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **LSP701 SERIES**

The LSP701 Series low pressure aluminum sight plug has a clear glass sight with 4-bolt flange mounting pad. The sight plug installs through a clearance hole and utilizes a flange gasket compressed uniformly with four socket head cap screws to create a low profile assembly. Access to inside of reservoir is not required. Box quantities may apply.

#### **Standard Features:**

- Clear glass sight
- (4) Socket Head Cap Screws

#### **Standard Materials:**

Plug and reflector material: AluminumSeal Material: Buna N filled Cork

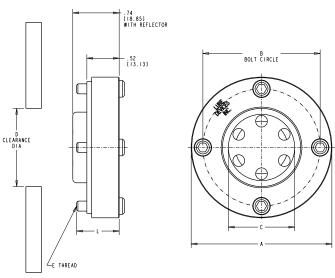
• Sight material: Soda lime glass

### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 250°F (121°C). (For applications requiring maximum operating temperatures in excess of 250°F (121°C), consult factory for available options.)
- 10 psi (69 kPa) maximum operating pressure at 69°F (20°C)

#### **CAUTION: ·Not** recommended for steam applications

· Scratched glass significantly reduces the pressure rating of the sight plug





NOTE: All dimensions are inches [mm]

LSP701 Series									
Part No.	A inches (mm)	B inches (mm)	C inches (mm)	D inches (mm)	E thread	L inches (mm)			
LSP701-10-01	2.25 (57.15)	1.88 (47.75)	1.06 (26.92)	1.25 (31.75)	8-32UNF	.68 (17.27)			
LSP701-12-01	2.62 (66.55)	2.16 (54.86)	1.31 (33.27)	1.50 (38.10)	8-32UNF	.68 (17.27)			
LSP701-16-01	3.25 (82.55)	2.69 (68.33)	1.81 (45.97)	2.00 (50.80)	10-32UNF	.70 (17.78)			

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### LSP1301 SERIES

The LSP1301 Series low pressure steel sight plug has a clear glass sight and male SAE straight thread connection. Designed to be an economical alternative to high performance fused sight plugs, the LSP1301 Series sight plug features a tamper resistant construction with the reliability of an o-ring seal. The sight plug can be accessorized with reflector, float ball and choice of tank seal material. Box quantities may apply.

#### **Standard Features:**

- Stud end sizes from dash 08 (3/4-16UNF) to dash 28 (2¼-12UN) per SAE J1926/3
- Clear glass sight
- Zinc clear finish
- Available with open view or combination of reflector, float ball and tank seal

### **Standard Materials:**

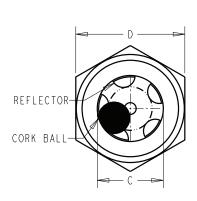
- · Carbon steel construction
- Glass sight
- Stainless Steel reflector (when applicable)
- Cork float ball (when applicable)

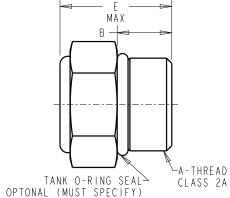
### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 180°F (82°C). (For applications requiring maximum operating temperatures in excess of 180°F (82°C), consult factory for available options.)
- See chart below for pressure ratings

CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- Scratched glass significantly reduces the pressure rating of the sight plug







	LSP1301 Series										
Open View	Part No. Reflector	Reflector and Ball	Min/Mult Box Quantity	A thread	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	Max. Work. Pressure @ 69°F (20°C) PSI (kPa)		
LSP1301-08	LSP1301-08-01	LSP1301-08-02	25	3/4-16UNF	.44 (11.18)	.56 (14.22)	.88 (22.35)	.91 (23.11)	75 (517)		
LSP1301-12	LSP1301-12-01	LSP1301-12-02	25	1 1/16-12UN	.59 (14.99)	.77 (19.56)	1.25 (31.75)	1.05 (26.67)	75 (517)		
LSP1301-16	LSP1301-16-01	LSP1301-16-02	15	1 5/16-12UN	.59 (14.99)	.96 (24.38)	1.50 (38.10)	.99 (25.15)	75 (517)		
LSP1301-24	LSP1301-24-01	LSP1301-24-02	10	1 7/8-12UN	.59 (14.99)	1.44 (36.58)	2.00 (50.80)	1.17 (29.72)	20 (138)		

#### **ORDERING OPTIONS CODES:**

Tank O-Ring Seal Codes:

-TB- Buna N seals -TV- Viton® seals

#### **HOW TO ORDER**

EXAMPLE: LSP1301-12 TB-01 - Reflector Tank O-Ring Seal 1 1/16-12UN Series LSP1301

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### LSP1351 SERIES

The LSP1351 Series fused high pressure steel sight plug has a clear glass sight and male SAE straight thread connection. The fused, one-piece construction allows for higher operating pressures. The sight plug can be accessorized with reflector and float ball. The material choice for o-ring tank seal typically determines the operating temperature range for this series sight plug. Box quantities may apply.

#### **Standard Features:**

- Stud end sizes from dash 04 (7/16-20UNF) to dash 28 (2¼-12UN) per SAE J1926/3
- Fused clear glass sight
- Electroless Nickel finish
- · Available with reflector and float ball or just reflector

### Standard Materials:

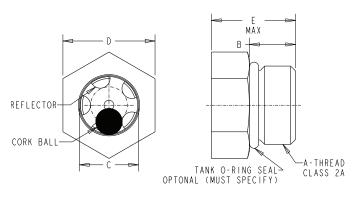
- Carbon steel construction
- Glass sight
- Stainless Steel reflector (when applicable)
- Cork float ball (when applicable)

### **Temperature Ratings:**

 Temperature ratings vary by material selection for o-ring tank seal. Consult Temperature Ratings by Seal Material in appendix (see Appendix RA-5)

#### CAUTION: Do not use an impact wrench to install a sight plug

- Not recommended for steam applications
- Scratched glass significantly reduces the pressure rating of the sight plug



#### **ORDERING OPTIONS CODES:**

Tank O-Ring Seal Codes:

-TB- Buna N seals -TV- Viton® seals

#### **HOW TO ORDER**

EXAMPLE:
LSP1351-08 TB-01 - Reflector
Tank O-Ring Seal
3/4-16UNF Thread
Series LSP1351



			LSP:	1351 Series					
	Part No.	ı	Min/Mult		В	С	D	E	Max. Work. Pressure @ 69°F (20°C)
Open View	Reflector	Reflector With Ball	Box Quantity	A thread	inches (mm)	inches (mm)	inches (mm)	inches (mm)	PSI (kPa)
LSP1351-04	-	-	25	7/16-20UNF	.36 (9.14)	.28 (7.11)	.56 (14.27)	.67 (17.02)	2000 (13790)
LSP1351-05	-	-	25	1/2-20UNF	.36 (9.14)	.34 (8.64)	.62 (15.88)	.67 (17.02)	1900 (13100)
LSP1351-06	-	-	25	9/16-18UNF	.39 (9.91)	.38 (9.65)	.69 (17.48)	.73 (18.54)	1850 (12756)
LSP1351-08	LSP1351-08-01	LSP1351-08-02	25	3/4-16UNF	.44 (11.18)	.56 (14.22)	.88 (22.35)	.81 (20.57)	1750 (12066)
LSP1351-10	-	-	25	7/8-14UNF	.50 (12.70)	.64 (16.26)	1.00 (25.40)	.84 (21.34)	1600 (6232)
LSP1351-12	LSP1351-12-01	LSP1351-12-02	25	1 1/16-12UN	.59 (14.99)	.75 (19.05)	1.25 (31.75)	.92 (23.37)	1500 (10342)
LSP1351-16	-	-	15	1 5/16-12UN	.59 (14.99)	1.05 (26.67)	1.50 (38.10)	1.02 (25.91)	1050 (7240)
LSP1351-20	-	-	15	1 5/8-12UN	.59 (14.99)	1.19 (30.23)	1.88 (47.75)	1.10 (27.94)	900 (6205)
LSP1351-24	-	-	10	1 7/8-12UN	.59 (14.99)	1.62 (41.15)	2.12 (53.98)	1.12 (28.45)	600 (4137)
LSP1351-28	LSP1351-28-01	LSP1351-28-02	10	2 1/4-12UN	.63 (16.00)	1.88 (47.75)	2.50 (63.50)	1.03 (26.16)	500 (3448)

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Industries

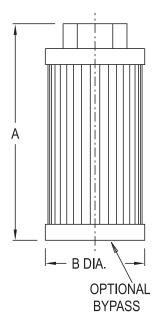
# SUCTION STRAINERS

# **PSS SERIES (NYLON HEX)**

PSS Series (Nylon Hex) Suction Strainers offer reliable, low-cost filtering of petroleum base hydraulic fluids, phosphate esters, water glycols, lubricating oils, coolants, fuels and water in fluid reservoirs, sumps and similar applications.

#### **Standard Features:**

- Cap assembly epoxy bonded to body for superior strength
- •One piece, high strength Nylon hex cap
- Re-usable
- Easily cleaned in non-caustic solvent
- Nominal filter rating of 140 microns

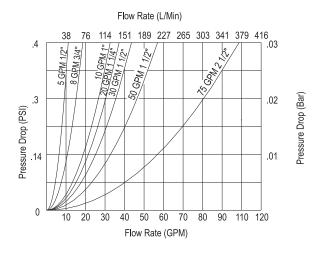


### **Standard Materials:**

- Nylon fitting
- Pleated 100 mesh stainless wire cloth
- Steel support tube

### **Ordering Information:**

 To specify 3 PSI By-Pass option, add-RV3 to Part Number





PSS Series										
	Nomin	al Flow	Port NPT (inch)	Filter	Area	А		nsions B		
Part No.	GPM	L/min		in	cm	in	mm	in	mm	
PSS5*	5	19	1/2	25	161	4.19	106	1.90	48	
PSS8	8	31	3/4	40	258	4.19	106	2.70	67	
PSS10	10	38	1	70	451	5.60	140	2.70	67	
PSS20	20	88	1 1/4	128	825	5.38	137	3.40	86	
PSS30*	30	120	1 1/2	128	825	5.50	140	3.40	86	
PSS50*	50	198	1 1/2	200	1290	8.00	200	4.00	100	
PSS100	100	379	3	376	2425	10.90	272	5.20	130	
*By-Pass not available on this model										

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# SUCTION STRAINERS

# SS SERIES (STEEL)

SS Series (Steel) Suction Strainers offer a reliable, low-cost filtering of petroleum base hydraulic fluids, phosphate esters, water glycols, lubricating oils, coolants, fuels and water in fluid reservoirs, sumps and similar applications.

#### **Standard Features:**

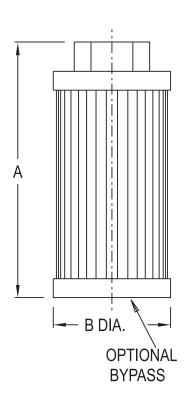
- Cap assembly epoxy bonded to body for superior strength
- Re-usable
- Easily cleaned in non-caustic solvent
- Nominal filter rating of 140 microns

#### **Standard Materials:**

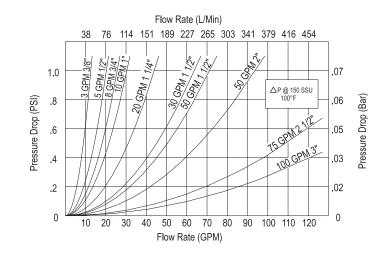
- Plated steel end cap
- Pleated 100 mesh stainless wire cloth
- Steel support tube

### **Ordering Information:**

 To specify 3 PSI By-Pass option, add-RV3 to Part Number



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Series SS										
	Nominal Flow		Port NPT (inch)		r Area	А		nsions B		
Part No.	GPM	GPM L/min.		in	cm	in	mm	in	mm	
SS3*	3	11	3/8	34	220	2.25	57	1.90	48	
SS5	5	19	1/2	62	400	3.10	78	2.70	67	
SS8	8	31	3/4	62	400	3.50	89	2.70	67	
SS10	10	38	1	110	710	5.40	136	2.70	67	
SS20	20	88	1 1/4	162	1050	6.90	174	3.40	86	
SS30	30	120	1 1/2	225	1450	8.10	204	3.40	86	
SS50	50	198	1 1/2	340	2190	10.00	225	4.00	100	
SS51	50	198	2	340	2190	10.00	225	4.00	100	
SS75	75	283	2 1/2	400	2580	10.10	257	5.20	130	
SS100	100	379	3	500	3230	11.63	295	5.20	130	
*By-Pass not available on this model										



# SUCTION STRAINERS

## **SSTM SERIES — TANK MOUNTED**

SSTM Series Tank Mounted Suction Strainers offer easy installation. Access to reservoir interior is not required. You can mount these units through a sidewall.

### **Standard Features:**

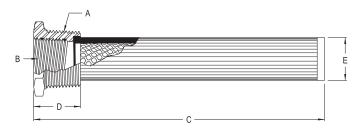
- Epoxy bonded bushing
- Nominal filter rating of 140 microns

### **Standard Materials:**

- Cast iron bushing
- Pleated 100 mesh stainless wire cloth
- Steel support tube

### **Ordering Information:**

 To specify 5 PSI By-Pass option, add-RV5 to Part Number





SSTM Series											
		Α	В	Dimensions C D E						Savas	
Part No.	GPM Rating	NPT (inch)	NPT (inch)	in	C mm	in	mm	in	mm	in <sup>2</sup>	n Area cm²
SSTM5	5	1	1/2	5.34	136.00	1.06	27.00	1.17	30.00	35.00	225.00
SSTM10	10	1 1/4	3/4	8.17	207.00	1.20	30.00	1.36	34.00	64.00	412.00
SSTM15	15	1 1/2	1	8.20	208.00	1.22	31.00	1.66	42.00	86.00	554.00
SSTM25	25	2	1 1/4	9.04	230.00	1.35	34.00	2.12	54.00	125.00	806.00
SSTM50	50	3	2	9.70	246.00	1.70	43.00	3.00	76.00	260.00	1328.00
SSTM100	100	4	3	11.30	287.00	1.80	46.00	4.00	102.00	315.00	2032.00

# TANK MAGNETS

LDI Tank Magnets Pay Off For You because they pick-up material that ordinary filters miss. Tank Magnets help maintain clean oil. The cleaner the oil can be kept in your reservoirs, the less your troubles will be and the greater your savings will be.

**REGULAR TANK MAGNETS** – This Heavy Duty model uses 5/8 inch solid steel rod, furnished with a 5 inch support rod. However, these support rods can be ordered any length desired, either shorter or longer than 5 inches to suit the reservoir. Heavy Duty comes with the end threaded 5/8-18 NF. The support rod can also be furnished with special threads or with special means of attachment brazed on. Pipe plugs are optional and are furnished in 2 ½ inch NPT size. The recommended opening that will accommodate the unit is a 2 ½ inch pipe flange or a hole approximately 2 ¼ inches in diameter. If desired, it can be installed in the cover of any opening larger than this.

**Construction** – The magnetic unit of the LDI Tank Magnet is exceptionally efficient. Each section is composed of a larger doughnut shaped ceramic magnet and two disc shaped pole pieces. This unique design adds the area of the discs to the area of the magnets to give the greatest amount of magnetic surface possible. This design also permits the hydraulic fluid to flow in and around the magnets and discs, thus allowing the oil to come in intimate contact with the magnets and discs to facilitate the removal of ferrous particles.

SLIM LINE TANK MAGNETS consists of Alnico V Magnets encased in a non-magnetic tube with the major difference between it and regular tank magnet being that it is only 5/8 inch in diameter. This means that it can be put through a hole tapped for ¾ inch pipe plug and can be used where mounting space is a premium. Slim Line Tank Magnets come in two types, the Slim Line and Extra Sturdy Slim Line, with standard aluminum or optional Stainless Steel housings. The aluminum housing series are numbers SL-11, etc. for the Slim Lines and SLX-11, etc. for the Extra Sturdy lines. To designate the Stainless Steel housing units, SS is added after the appropriate catalog number, i.e., SLX-13 SS.

**Construction** – **Magnetic units** – Basically the same for all types of Slim Lines, the magnetic units vary only in length. Support rods – All Slim Lines are normally furnished with a 5 inch long support rod, but can be furnished with any length, either longer or shorter than the standard 5 inch length. **Housing** - Slim Lines come with aluminum housing for use with ordinary hydraulic fluids. For use where conditions might cause problems such as water glycols or phosphate esters, a Stainless Steel housing is provided. **Mounting** – Pipe plugs for mounting in the reservoir top are optional and are furnished in any size from ¾ inch NPT to 3 inch NPT, with a 1 ¼ inch NPT or larger being recommended.

**Application** – For greatest protection – Use a size such, that the magnetic unit extends from 1 inch off the floor of the reservoir to the top of the oil level.

For lowest cost – Use a standard unit of any series for all sizes of reservoirs. Position is 1 inch from the bottom of the reservoir with proper length support rod.

No maintenance is needed except for periodic cleaning, with cleaning once a month recommended. To clean, remove from the reservoir, wipe with a clean cloth and reinstall.

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#### WHICH ONE SHOULD I USE?

#### **STANDARD**

When...

- The support rod is short
- The magnetic unit is small
- Normal use can be expected
- Cost is important

#### **HEAVY DUTY**

When...

- The support rod is greater than 12 inches
- The magnetic unit is large
- Abuse in shipping or operation is expected
- A little more can be spent

#### **CLEANING**

Cleaning a Tank Magnet couldn't be easier. An ordinary air hose using shop compressed air does the job in seconds.

#### STANDARD MAGNETS







Cat. No. TM-14 with 5 inch support rod and 2 1/2 inch pipe plug STANDARD

#### SLIM LINE MAGNETS



Cat. No. SL-18-5 with 5 inch support rod and 1 1/4 inch pipe plug STANDARD

Cat. No. SLX-18 with 5 inch support rod and 1 1/4 inch pipe plug HEAVY DUTY



Tank Magnets are used in conjunction with conventional filter systems. When used properly as a backup to a filter system they help trap small ferrous particles that may be missed by the filtration system.

#### **Standard Features:**

#### TM Series:

- · Doughnut shaped ceramic magnets
- •Use with PM-250 plug (2.50 inch NPT)

#### **HDM Series:**

- Doughnut shaped ceramic magnets
- •Use with PM-250HD plug (2.50 inch NPT)

#### **SL Series:**

- Aluminum housing
- •Use with PM-125 plug (1.25 inch NPT)

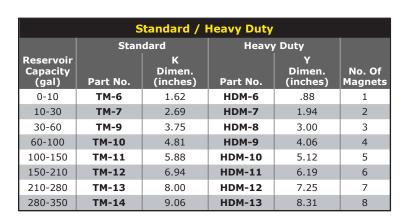
#### **SLX Series:**

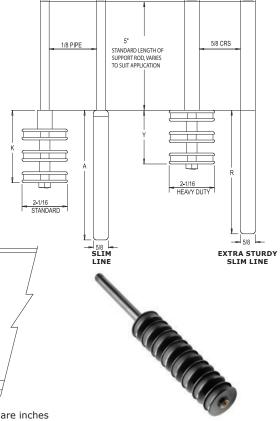
- Aluminum housing
- Use with PM-125X plug (1.25 inch NPT)

#### **Magnetic Plugs:**

- Steel body
- Ceramic magnet
- Permanent magnet fastened to plug body

1/8 NPT





\_\_\_\_5/8-18 NF

Slim Line / Extra Sturdy Slim Line				
Slim	Line	Extra Sturdy Slim Line		
A Dimen. Part No. (inches)		Part No.	R Dimen. (inches)	
SL-11	6.00	SLX-11	5.75	
SL-13.5	8.50	SLX-13	8.25	
SL-16	11.00	SLX-16	10.75	
SL-18.5	13.50	SLX-18	13.25	
SL-21	16.00	SLX-21	15.75	
SL-23.5	18.50	SLX-23	18.25	
SL-26	21.00	SLX-26	20.75	
SL-28.5	23.50	SLX-28	23.25	
SL-31	26.00	SLX-31	25.75	

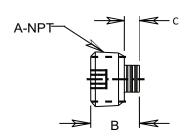
Our experienced design engineers are available to give you quick and efficient help on any problems you may have with magnetic applications or with special designs



- **WHEN ORDERING BE SURE TO:** List number of the magnetic unit
- Give part number of plug (if plug is desired)
- Give length of support rod (if other than standard 5 inches)
- Add SS to unit number if Stainless Steel housings are desired

### **MAGNETIC DRAIN PLUGS**

Use as drain plug at lowest location in sump. Magnet will attract and hold magnetic particles that may be in fluid line.



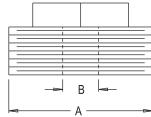
Magnetic Drain Plug					
Part No.	A NPT (inch)	B inch (mm)	C inch (mm)		
MDP101	1/8	.62 (15.75)	.25 (6.35)		
MDP102	1/4	.69 (17.53)	.28 (7.11)		
MDP103	3/8	.69 (17.53)	.31 (7.87)		
MDP104	1/2	.81 (20.57)	.20 (5.08)		
MDP105	3/4	.75 (19.05)	.22 (5.59)		
MDP106	1	.75 (19.05)	.18 (4.57)		

**INLET** 

APPROX. 1"

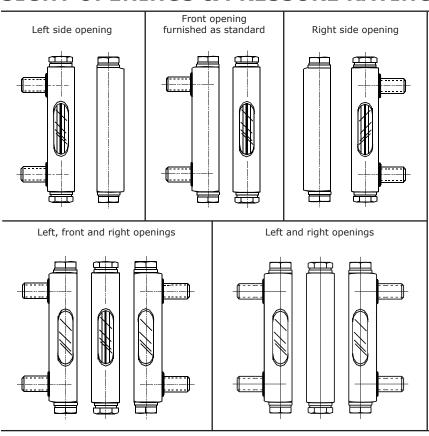
NOTE: All dimensions are inches

Pipe Plug for Tank Magnets						
Part No.	A NPT (inch)	B Thread	Use with Magnet			
PM-125	1 1/4	1/8 inch NPT	SL Series			
PM-125X	1 1/4	5/8-18NF	SLX Series			
PM-250	2 1/2	1/8 inch NPT	TM Series			
PM-250HD	2 1/2	5/8-18NF	HDM Series			
_						





### **SIGHT OPENINGS & PRESSURE RATINGS**



#### **MODIFICATIONS AVAILABLE:**

#### 1. SIGHT MODIFICATIONS:

- A. Polycarbonate
- B. Clear borosilicate
- Ball float indicator

#### 2. SURFACE FINISH:

- A. Aluminum
  - Clear anodize
  - Color anodize
  - · Mil. Spec. anodize
- B. Brass or steel
  - Zinc plate
  - Nickel plate
  - Chrome plate

#### 3. SPECIAL MARKINGS - EXAMPLES:

- A. No markings
- B. Run
- C. Oil level D. Full

- E. Refill F. Add G. Hot
- H. Cold
- I. Fuel
- 4. MOUNTING BOLT THREADS

# A. 1/2 - 13 B. M12 x 1.75 C. M10 x 1.50

- 5. MADE TO ORDER

A. Steel, Stainless Steel or brass FRACTIONAL CENTERS

**MADE TO ORDER** PLEASE SPECIFY WHEN ORDERING.

Maximum Recommended Working Pressure in PSI						
Mounting Centers inches (mm)	Pressure Rating PSI (kPa)	Mounting Centers inches (mm)	Pressure Rating PSI (kPa)	Mounting Centers inches (mm)	Pressure Rating PSI (kPa)	
For .50 (12.70mm)	Diameter Bo	rosilicate Redline Ga	ge Glass			
3-9	290	17	250	26 - 31	185	
(76.2 - 228.6)	(1999.5)	(431.8)	(1723.8)	(660.4 - 787.4)	(1275.6)	
10 & 11	275	18 & 19	240	32 - 37	160	
(254 & 279.4)	(1896.1)	(457.2 & 482.6)	(1654.8)	(812.8 - 939.8)	(1103.2)	
12 & 13	270	20 & 21	230	38 - 49	130	
(304.8 & 330.2)	(1861.7)	(508 & 533.4)	(1585.8)	(965.2 - 1244.6)	(896.4)	
14 & 15	260	22 & 23	225	50 - 61	100	
(355.6 & 381)	(1792.7)	(558.8 & 584.2)	(1551.4)	(1270 - 1549.4)	(689.5)	
16	255	24 & 25	210	62 - 72	75	
(406.4)	(1758.2)	(609.6 & 635)	(1447.9)	(1574.8 - 1828.8)	(517.1)	
For .88 (22.23mm)	Diameter Bo	rosilicate Redline Ga	ge Glass			
3 - 9	235	17	215	26 - 31	185	
(76.2 - 228.6)	(1620.3)	(431.8)	(1482.4)	(660.4 - 787.4)	(1275.6)	
10 & 11	230	18 & 19	210	32 - 37	160	
(254 & 279.4)	(1585.8)	(457.2 & 482.6)	(1447.9)	(812.8 - 939.8)	(1103.2)	
12 & 13	228	20 & 21	205	38 - 49	130	
(304.8 & 330.2)	(1572.1)	(508 & 533.4)	(1413.5)	(965.2 - 1244.6)	(896.3)	
14 & 15	225	22 & 23	200	50 - 61	100	
(355.6 & 381)	(1551.4)	(558.8 & 584.2)	(1379.0)	(1270 - 1549.4)	(689.5)	
16	220	24 & 25	195	62 - 72	75	
(406.4)	(1516.9)	(609.6 & 635)	(1344.5)	(1574.8 - 1828.8)	(517.1)	

- All pressure ratings for temperatures to 150°F (65.6°C ) and no corrosion.
- All pressure ratings for gages without dial or card thermometers.
- For gages with dial thermometers, maximum pressure is 125 PSI (861.9kPa) unless lower rating is shown in chart. Mounting centers will determine the pressure rating.

\*.50 (12.70mm) DIA. GLASS FOR .88 (22.23mm) NOMINAL SQ. BODY; .88 (22.23mm) DIA. GLASS FOR 1.25 (31.75mm) SQ. BODY.

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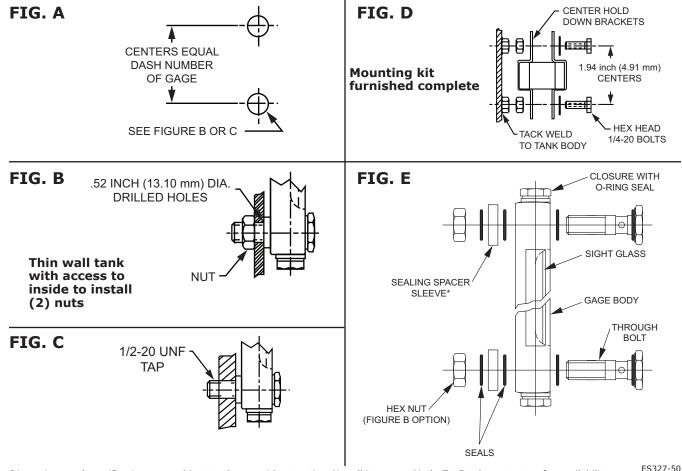


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## PPENDIX RA-

#### FRONT MOUNT GAGE INSTALLATION INSTRUCTIONS

- 1. At the desired gage location: FIG. A, B, C
  - A.Locate centers
  - B.For thin wall tank, drill two .52 inch (13.10mm) diameter holes in tank wall corresponding to centers of gage
    - OR -
  - C.If preferred, where tank wall is heavy enough to tap: Drill and tap two holes per your selected mounting bolt thread (ie. 1/2-20UNF, or M12x1.75, etc.) in tank wall corresponding to centers of gage
- 2. Remove burrs from holes to provide good sealing surfaces FIG. A, B, C
- 3. Install gage to tank make sure O-rings are set properly in recess provided, either in gage body or in sealing spacer sleeve, (outside of tank wall between gage and tank) FIG. E
- 4. Tighten through bolt with a socket wrench. Torque mounting bolt to 60 in-lbs (6.78N-m). It is not necessary to over compress seals to make a liquid tight seal **FIG. E.**
- 5. Gages 3.00 inches through 12.00 inches (76.20mm through 304.80mm) centers inclusive have tank seals recessed into the gage body - Gages 13.00 inches through 72.00 inches (330.20 mm through 1828.80 mm) centers inclusive are furnished with sealing spacer sleeves.\* FIG. E.
- 6. For gages with centers of 48.00 inches (1219.20mm) or more, center mounting kit brackets are furnished. To install the center mounting kit bracket, tack weld two 1/4-20 full nuts to the tank wall as shown below FIG. D.



#### BACK MOUNT GAGE INSTALLATION INSTRUCTIONS

- 1.At the desired location, drill two .52 INCH (13.10 mm) diameter holes in tank wall corresponding to mounting centers of gage. **FIG. A.**
- 2. Remove burrs from holes to provide good sealing surfaces. FIG. A.
- 3. Install gage to tank Make sure O-rings are set properly in recess provided, either in gage body or in sealing spacer sleeve, (outside of tank wall between gage and tank.)
- 4. Tighten mounting nut with a socket wrench. Torque mounting nut to 60 in-lbs (6.78N-m). It is not necessary to over compress seals to make a liquid tight seal. FIG. B.
- 5. Gages 3.00 inches through 12.00 inches (76.20mm through 304.80 mm) centers inclusive have tank seals recessed in gage body -Gages 13.00 inches through 20.00 inches (330.20 mm through 508.00 mm) centers inclusive are furnished with sealing spacer sleeves. **FIG. B.**

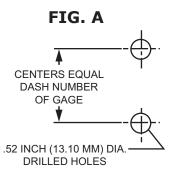
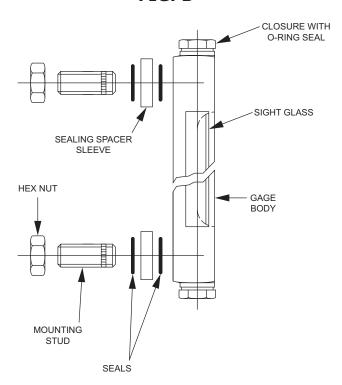
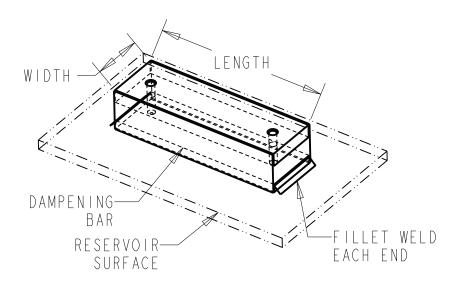


FIG. B





#### WELD INSTRUCTIONS FOR DAMPENING BAR



To minimize localized separation of the rubber from the steel bar, welding must be limited to each end along the width of the dampening bar using welding parameters at the upper limits of the manufacturer's recommendations for the filler metal with increased travel speed to reduce overall bead size.

The chart below provides the recommended fillet weld size for our most common dampening bars.

If staining caused by trapped condensation from beneath dampening bars is a concern after painting, caulk the edges not welded with a paintable caulk.

	Recommended Fillet Weld Sizes					
Part Number	Description	Weld Fillet Size (inch)				
VSM-56-W	Bar Dampening .312-18 4.75	.19				
VSM-143-W	Bar Dampening .312-18 5.50	.19				
VSM-145-W	Bar Dampening .312-18 6.50	.19				
VSM-182-W	Bar Dampening .375-16 6.00	.19				
VSM-184-W	Bar Dampening .375-16 7.00	.19				
VSM-213-W	Bar Dampening .375-16 7.75	.19				
VSM-215-W	Bar Dampening .375-16 9.00	.19				
VSM-254-W	Bar Dampening .500-13 10.50	.19				
VSM-256-W	Bar Dampening .500-13 12.25	.19				
VSM-284-W	Bar Dampening .500-13 12.00	.31				
VSM-286-W	Bar Dampening .500-13 13.25	.31				
VSM-324-W	Bar Dampening .625-11 12.50	.31				
VSM-326-W	Bar Dampening .625-11 14.00	.31				
VSM-364-W	Bar Dampening .625-11 13.50	.31				
VSM-365-W	Bar Dampening .625-11 14.50	.31				
VSM-404-W	Bar Dampening .750-10 15.50	.31				
VSM-405-W	Bar Dampening .750-10 17.00	.31				
VSM-444-W	Bar Dampening .750-10 19.50	.31				
VSM-445-W	Bar Dampening .750-10 21.00	.31				

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### APPENDIX RA-5

### SERVICE TEMPERATURE RANGES BY SEAL MATERIAL

Seal Material	Temperature Range
Buna N or Nitrile (NBR)	-40°F to 250°F (-40° C to 121° C)
Butyl (IIR)	-75°F to 250°F (-59° C to 121° C)
Fluorocarbon (Viton®)	-15°F to 400°F (-26° C to 204° C)
Ethylene Propylene (EPDM)	-70°F to 250°F (-56° C to 121° C)
Neoprene	-35°F to 225°F (-37° C to 107° C)
Silicone	-65°F to 450°F (-53° C to 232° C)
Fluorosilicone	-100°F to 350°F (-73° C to 176° C)

**NOTE:** These temperature ranges will apply to the majority of media for which the material is potentially recommended. With some media however, the service temperature range may be significantly different. Always test seal and media combinations under actual service conditions.

ES390 02/14



## **SIGHT GAGES - CLOSED CIRCUIT G601 SERIES - INSTALLATION INSTRUCTIONS**

- 1. For thin wall tank, drill two .34 inch (8.6mm) diameter holes in tank wall corresponding to centerline of gage -OR- drill and tap tank wall to mate with selected mounting bolt and centerline of gage. The acceptable tolerance between drilled mounting holes is [+/- .03 inch (+/-0.8 mm)]
- 2. Remove burrs from holes to provide good sealing surfaces.
- 3. Verify o-rings are set properly in recess provided on backside of gage body and under the head of the mounting bolt.
- 4. Install gage by first tightening the mounting bolts by hand until secure.
- 5. Then using a torque wrench, uniformly tighten mounting bolts to 11 in-lbs (1.24 N-m).

NOTE: The tank seal is designed to space the gage body away from the tank wall. Excessive assembly torque may cause the tank seal to fail prematurely.

Ph : 920-682-6877 Fx : 920-684-7210

### SIGHT GAGES - CLOSED CIRCUIT

### GAGES W/PIPE ADAPTERS INSTALLATION INSTRUCTIONS

**NOTE:** The centerline distance between pipe couplings in the reservoir to mate with selected centerline of gage to be the nomimal gage centerline +/- .03 inch (+/-0.8 mm).

- 1. Remove pipe adapters from package or from sight gage if received assembled.
- 2. Apply an anaerobic thread sealant or pipe dope to the male pipe thread of each adapter. Do not use RTV or teflon tape as the thread sealant.
- 3. Assemble pipe adapters into pipe couplings on reservoir by hand until firmly secured.
- 4. Mark one hex flat on each adapter extending the mark onto the coupling surface. These marks will be used to identify each adapter's relative position while further tightening the pipe adapters with a wrench.
- 5. Use a wrench to further tighten each adapter 1 to 1-1/2 turns beyond finger tight to achieve a leak free joint. Use the marks previously placed on the hex flats to aid in identifying when the correct number of assembly turns has been achieved.
- 6. Verify o-rings on back of gage and under the head of the mounting bolts (or thermometer shield) are in place on the gage body. Secure the gage to the pipe adapters by first tightening each mounting bolt (or thermometer shield) by hand.
- 7. Using a torque wrench, uniformly tighten the mounting bolts (or thermometer shield) to 60 in-lbs (6.78 N-m).

**NOTE:** The tank seal is designed to space the gage body away from the tank wall. Excessive assembly torque may cause the tank seal to fail prematurely.

### SIGHT GAGES - CLOSED CIRCUIT

#### **G613 & GT613 SERIES INSTALLATION INSTRUCTIONS**

- 1. For thin wall tank, drill two .52 inch (13.1 mm) diameter holes in tank wall corresponding to centerline of gage -OR- drill and tap tank wall to mate with selected mounting bolt and centerline of gage. The acceptable tolerance between drilled mounting holes is [+/-.03 inch (+/-0.8 mm)]
- 2. Remove burrs from holes to provide good sealing surfaces.
- 3. Verify o-rings are set properly in recess provided on backside of gage body and under the head of the mounting bolt/thermometer shield.
- 4. Install gage by first tightening the mounting bolts (or thermometer shield) by hand until secure.
- 5. Then using a torque wrench, uniformly tighten mounting bolts (or thermometer shield) to 60 in-lbs (6.78 N-m). Prevent twisting between aluminum blocks and Nylon sight by holding mounting block orientation with a wrench while tightening the mounting bolts (or thermometer shield).

**NOTE:** The tank seal is designed to space the end blocks away from the tank wall. Excessive assembly torque may cause the tank seal to fail prematurely.

### APPENDIX RA-9

### **SIGHT GAGES - CLOSED CIRCUIT**

#### **G623 & GT623 SERIES INSTALLATION INSTRUCTIONS**

- 1. For thin wall tank, drill two .52 inch (13.1 mm) diameter holes in tank wall corresponding to centerline of gage -OR- drill and tap tank wall to mate with selected mounting bolt and centerline of gage. The acceptable tolerance between drilled mounting holes is [+/- .016 inch (+/-0.4 mm)]
- 2. Remove burrs from holes to provide good sealing surfaces.
- 3. Verify o-rings are set properly in recess provided on backside of gage body and under the head of the mounting bolt.
- 4. Install gage by first tightening the mounting bolts by hand until secure.
- 5. Then using a torque wrench, uniformly tighten mounting bolts to 80 in-lbs (9.04 N-m).

**NOTE:** The tank seal is designed to space the gage body away from the tank wall. Excessive assembly torque may damage the gage or seals causing the gage to fail prematurely.

### APPENDIX RA-10

# SIGHT GAGES - CLOSED CIRCUIT SGC SERIES INSTALLATION INSTRUCTIONS

#### Access to inside of reservoir is required

#### **Existing Reservoir Applications**

1. When modifications to the reservoir walls are required, a complete draining of the reservoir is recommended to facilitate removal of possible debris within the tank after modifications are made. At a minimum, draining to a fluid level below the lower mounting hole of the sight gage is required for installation of the SGC sight gage.

#### **New or Existing Reservoir Applications**

- 2. When the reservoir wall thickness is thin, drill two .66 inch (16.8 mm) diameter holes through the reservoir wall corresponding to the centerline of the sight gage -OR- when reservoir wall thickness permits, drill and tap reservoir wall to mate with 5/8-27UNS thread (studs) and centerline of gage. The acceptable tolerance between drilled mounting holes is [+/- .03 inch (+/-0.8 mm)]
- 3. Remove burrs from holes to provide good sealing surfaces.
- 4. Remove bulkhead adapters from sight gage.
- 5. Remove locknuts from bulkhead adapters and insert bulkhead adapters through mounting holes with flat gasket contacting exterior wall of reservoir. Secure each adapter with a locknut [torque to 80 in-lb (9.04 N-m)]. Prevent bulkhead adapters from rotating while the locknuts are being tightened by holding the head of the adapter with a wrench.
- 6. Verify o-rings are set properly in recess provided on backside of the sight gage body and under the head of the mounting bolts.
- 7. Install gage by first tightening the mounting bolts by hand until secure.
- 8. Then using a torque wrench, uniformly tighten mounting bolts to 60 in-lbs (6.78 N-m).

**NOTE:** The tank seal is designed to space the gage body away from the heads of the adapters leaving the o-rings visible after assembly. Excessive assembly torque may cause the tank seal to fail prematurely.

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### PENDIX RA-11

### SIGHT GAGES - CLOSED CIRCUIT

#### G603 & GT603 SERIES INSTALLATION INSTRUCTIONS

- 1. For thin wall tank, drill two .52 inch (13.1 mm) diameter holes in tank wall corresponding to centerline of gage -OR- drill and tap tank wall to mate with selected mounting bolt and centerline of gage. The acceptable tolerance between drilled mounting holes is [+/-.03 inch (+/-0.8 mm)]
- 2. Remove burrs from holes to provide good sealing surfaces.
- 3. Verify o-rings are set properly in recess provided on backside of gage body and under the head of the mounting bolt/thermometer shield.
- 4. Install gage by first tightening the mounting bolts (or thermometer shield) by hand until secure.
- 5. Then using a torque wrench, uniformly tighten mounting bolts (or thermometer shield) to 60 in-lbs (6.78 N-m). Prevent twisting between aluminum blocks and vinyl sight by holding mounting block orientation with a wrench while tightening the mounting bolts (or thermometer shield).

**NOTE:** The tank seal is designed to space the end blocks away from the tank wall. Excessive assembly torque may cause the tank seal to fail prematurely.

### PPENDIX RA-12

#### SIGHT GAGES - CLOSED CIRCUIT

#### TMA SERIES THERMOMETER INSTALLATION INSTRUCTIONS

#### **TMA100 Series**

- 1. Select a reservoir location to drill the access hole that is accessible from inside the reservoir and at a height to provide your most optimal point of use temperature. Verify there is sufficient clearance for the stud and thermometer probe inside the reservoir.
- 2. Drill a .52 inch (13.1 mm) diameter hole through the tank wall.
- 3. Remove burrs from the hole to provide a good sealing surface.
- 4. Verify o-ring is set properly in recess provided on backside of aluminum enclosure.
- 5. Insert stud of probe assembly through tank wall rotating to desired position of the thermometer face. While maintaining this position, tighten the lock nut by hand until secure.
- 6. Then use a torque wrench to tighten the lock nut to 60 in-lbs (6.78 N-m). Maintain the orientation of the thermometer by holding the aluminum enclosure during tightening either by hand or if necessary with a wrench.

**NOTE:** The tank seal is designed to space the aluminum enclosure away from the tank wall. Excessive assembly torque may cause the tank seal to fail prematurely.

#### TMA200 Series

- 1. Select a reservoir location to drill and weld a pipe coupling sized to mate with the TMA200 thermometer selected and at a height to provide your most optimal point of use temperature. Verify there is sufficient clearance for the thermometer probe inside the reservoir.
- 2. Apply an anaerobic thread sealant or pipe dope to the male pipe thread of the adapter. Do not use RTV or Teflon tape as the thread sealant.
- 3. Assemble the thermometer subassembly into the pipe coupling by hand until firmly secured.
- 4. Mark one hex flat on the adapter extending the mark onto the coupling surface. This mark will be used to identify the adapter's relative position while further tightening the pipe adapter with a wrench.
- 5. Use a wrench to further tighten the adapter 1 to 1-1/2 turns beyond figure tight to achieve a leak free joint. Use the mark previously placed on the hex flat to aid in identifying when the correct number of assembly turns has been achieved. Do not apply any torque to the aluminum enclosure protecting the thermometer face.

NOTE: The orientation of the thermometer face cannot be rotated independent from the pipe adapter.

ES396

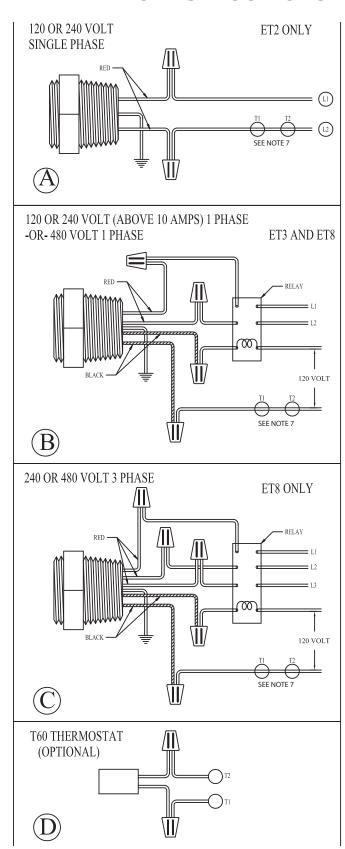
### APPENDIX RA-13

### **IMMERSION HEATER**

### IMMERSION HEATER INSTALL AND WIRING INSTRUCTIONS

- 1.On ET2 models only, install into a 3/4 inch NPT coupling using a reducer bushing supplied; or for existing/replacement applications the 1/2 inch NPT connection in the reservoir requires a 23/32 inch drill opening.
- 2. Must be immersed at all times
- 3. Mount horizontally only
- 4. Operate on a rated voltage heaters are not dual voltage
- 5.Use on AC only
- 6.Lead wires are color coded heater leads are red, thermostat leads are black. The ET2 Series heaters have the thermostat wired internally and no black leads are present.
- 7.T-60 ambient air thermostat (optional) set to close at 40° F. To be wired into circuit at points T1 and T2 see diagram D.
- 8.Above 10 AMP draw or 480V or 3 phase, use relay see diagram B or C
- 9. To calculate amperage draw:

SINGLE PHASE	THREE PHASE
$AMPS = \frac{WATTAGE}{VOLTS}$	$AMPS = \frac{WATTAGE}{VOLTS \times 1.73}$



### **APPENDIX RA-14**

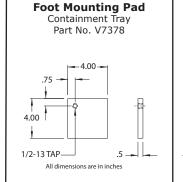
### **REPLACEMENT PARTS**

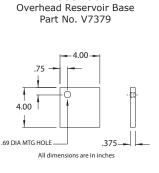
Reservoirs				
Description	Part No.			
T Handle for L & T Tank Covers	681010110			
Buna-N Channel Gasket for L & T Tank Covers	CH201			
Neoprene Gasket for Non-JIC w/Removable Top	99915			
Neoprene Gasket Set for Non-JIC w/Removable Top	5300-5302			
Neoprene Gasket for Vari-Paks 8 to 25 Gal.	99905			
Buna-N Channel Gasket for Vari-Paks 2 to 5 Gal.	CH201-VP			
Cover Plate for Non-JIC w/Removable Top	5300-1-2			
Filler Breather (Bayonet Flange 40 micron)	5201			
Back Mount Sight Gage with thermometer (5 inch center)	G1620-05-A-1			
Back Mount Sight Gage with thermometer (10 inch center)	G1620-10-A-1			
Side Mount Filler Breather (40 micron)	SM-5201			
Miniature Tank Breather (3/4 inch NPT)	PMB-07-10			
Buna-N Channel Gasket for V215145, V215146	5145G			
Buna-N Channel Gasket for V215147, V215148, V215149, V215173, V215188, V215189	5147G			
Buna-N Channel Gasket for V215174, V215175, V215176, V218195, V215196	5174G			

	Access Covers						
Door Size	Buna-N Gasket Part No.	EPDM Gasket Part No.	5/8-11 Bolt Part No.	Nylon Washer Part No.	Baffle Lug Part. No	Removable Door Bracket Part No.	Magnetic Drain Plug NPT 3/4 inch Part No.
10 inch	5069	EP-5069	5062	5083	5084	V-5393	MDP105
12 inch	5081	EP-5081	5082	5083	5084	V-5392	MDP105
14 inch	507403	EP-5074	5082	5083	5084	V-5390	MDP105
16 inch	508802	EP-5088	5058	5083	5084	V-5390	MDP105
18 inch	509202	EP-5092	5093	5083	5084	V-5391	MDP105

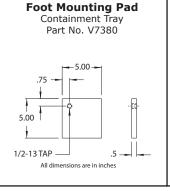
DIN Type Access Covers				
Endcover Type	Endcover Part No.	Gasket Part No.	M10 Acorn Nuts Part No.	
324	DIN324	V-6701	108499	
449	DIN449	V-6702	108499	

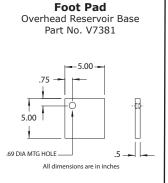
	Drain Plugs				
Door Size	Drain Plug 3/4 inch NPT Part No.	Drain Plug #12 SAE Part No.			
10 - 18 inch	PFH60-12	R771-12			





**Foot Pad** 





### **REPLACEMENT PARTS**

Filler Breathers - Non Vented						
LDI Breather Strainer Flange Part No. Gasket Basket SAE J829 Cap						
5232	1321	1300	1310	5NV		
5227	1321	803690	1310	5NV		

Filler B	reathers	- SAE Bay	onet F	langes
LDI Part No.	Breather Flange Gasket	Strainer Basket	Flange	Mounting
5201	1321	1300	1310	805960
5201-P	1321	1300	1310	805960
5205	1321	1325	1310	805960
5203	1321	1300	1310	836434
5204	1321	1300	1310	805960
5220	1321	803690	1310	805960

Filler Breathers - Side Mount					
LDI Part No.	Breather Flange Gasket	Strainer Basket	Flange SAE J829		
SM-5201	1321	803690	1310		
SM-5204	1321	803690	1310		

Large Air Breather Elements						
Polyester Element	Paper Element	Wire Mesh Element				
E19P	E18P	E18S				
E31P	E30P	E30S				
E231P	E230P	E230S				

	Air Breather Filter						
LDI Part No.	Breather Flange Gasket	Strainer Basket	Flange Gasket	Flange SAE J829	Filter Element	Adapters	
1306-2	N/A	N/A	N/A	N/A	1306	1311	
1306-3	1321	N/A	N/A	N/A	1306	1312	
1306-4	1321	1300	1320	1310	1306	1312	

## **LUBRICATION EQUIPMENT**

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### AIR OVER OIL RESERVOIRS

#### **BASE MOUNT**

Air over oil reservoirs provide precision hydraulic power from shop air. Exact cylinder movement is achieved without the high cost of conventional hydraulic power requiring pump, motor, filter, etc.

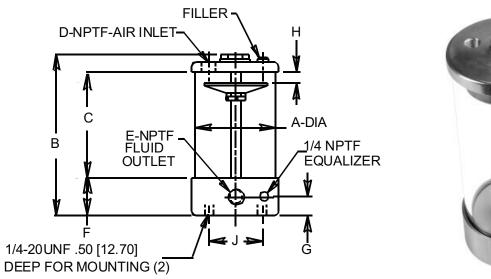
Basic circuits, when used with low pressure hydraulic check, flow control and directional valves, allow oil (driven at 1:1 ratio) to force piston rod at the same speed through both forward and return stroke. The speed control is adjustable to your work requirement.

#### **Standard Materials:**

- Aluminum base and cover
- Buna N seals
- Steel stem
- Break resistant, colorless, transparent polymer bowl
- Aluminum bowl and sight gage may be specified

#### **Temperature and Pressure Ratings:**

- Maximum working temperature
  - Polymer up to 140°F (60°C)
  - Aluminum up to 250°F (121.1°C)
- Maximum working pressure
  - Polymer up to 80 PSI (552 kPa)
  - Aluminum up to 125 PSI (861.9 kPa)





NOTE: All dimensions are inches [mm]

Air Over Oil Reservoir - Base Mount												
Part N	umber	incl	acity nes³ n³)	Dimensional Information inches (mm)								
Polymer	Aluminum w/gage	Polymer	Aluminum	A	В	С	D	E	F	G	н	J
A/OR1009-1	_	6.90 (113.10)	8.80 (144.20)	2.50 (63.50)	4.12 (104.60)	2.25 (57.20)	1/8	1/4	1.44 (36.60)	.81 (20.60)	.25 (6.40)	1.25 (31.80)
A/OR1018-2	A/OR11018-2	14.00 (229.40)	18.00 (295.00)	2.50 (63.50)	6.62 (168.10)	4.75 (120.60)	1/4	1/4	1.44 (36.60)	.81 (20.60)	.25 (6.40)	1.25 (31.80)
A/OR1024-2	_	20.00 (327.70)	26.00 (426.10)	2.50 (63.50)	8.62 (218.90)	6.75 (171.40)	1/4	1/4	1.44 (36.60)	.81 (20.60)	.25 (6.40)	1.25 (31.80)
A/OR1030-2	A/OR11030-2	26.00 (426.10)	33.00 (540.80)	2.50 (63.50)	10.62 (269.70)	8.75 (222.20)	1/4	1/4	1.44 (36.60)	.81 (20.60)	.25 (6.40)	1.25 (31.80)
A/OR1042-2	_	35.00 (573.40)	45.00 (737.40)	2.50 (63.50)	13.62 (345.90)	11.75 (298.40)	1/4	1/4	1.44 (36.60)	.81 (20.60)	.25 (6.40)	1.25 (31.80)
A/OR2053-3	A/OR12053-3	47.00 (770.20)	56.00 (917.70)	3.50 (88.90)	8.94 (227.10)	6.88 (174.8)	1/4	3/8	1.62 (41.10)	.94 (23.90)	.50 (12.70)	2.00 (50.80)
A/OR2075-3 A/OR2075-4	_	67.00 (1098.00)	79.00 (1295.00)	3.50 (88.90)	11.81 (300.00)	9.75 (247.60)	1/4	3/8 1/2	1.62 (41.10)	.94 (23.90)	.50 (12.70)	2.00 (50.80)
A/OR2100-3	_	88.00 (1442.00)	104.00 (1704.00)	3.50 (88.90)	15.08 (383.00)	12.75 (323.80)	1/4	3/8	1.62 (41.10)	.94 (23.90)	.50 (12.70)	2.00 (50.80)
A/OR2150-3	_	130.00 (2130.00)	153.00 (2507.00)	3.50 (88.90)	20.81 (528.60)	18.75 (476.20)	1/4	3/8	1.62 (41.10)	.94 (23.90)	.50 (12.70)	2.00 (50.80)
A/OR2200-3	_	171.00 (2802.00)	201.00 (3294.00)	3.50 (88.90)	27.02 (686.30)	24.75 (628.60)	1/4	3/8	1.62 (41.10)	.94 (23.90)	.50 (12.70)	2.00 (50.80)

MADE TO ORDER MODIFICATIONS AVAILABLE - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

## AIR OVER OIL RESERVOIRS

#### WALL MOUNT

Air over oil reservoirs provide precision hydraulic power from shop air. Exact cylinder movement is achieved without the high cost of conventional hydraulic power requiring pump, motor, filter, etc.

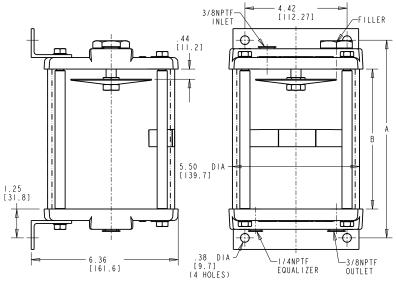
Basic circuits, when used with low pressure hydraulic check, flow control and directional valves, allow oil (driven at 1:1 ratio) to force piston rod at the same speed through both forward and return stroke. The speed control is adjustable to your work requirement.

#### **Standard Materials:**

- Aluminum base and cover
- Buna N seals
- Break resistant, colorless, transparent polymer
- Aluminum bowl and sight gage may be specified

#### **Temperature and Pressure Ratings:**

- Maximum working temperature
  - Polymer up to 140°F (60°C)
  - -Aluminum up to 250°F (121.1°C)
- Maximum working pressure
  - Polymer up to 60 PSI (413.7 kPa)
  - Aluminum up to 100 PSI (689.5 kPa)





NOTE: All dimensions are inches [mm]

Air Over Oil Reservoir - Wall Mount						
Part No.		Capacity inches³ (cm³)		A	В	
Polymer	Alumunium w/gage	Polymer	Alum.	inches (mm)	inches (mm)	
A/OR5075-3	_	97.00 (1589.50)	102.0 (1671.50)	7.06 (179.32)	4.56 (115.82)	
A/OR5100-3	_	127.00 (2081.20)	133.00 (2179.50)	8.56 (217.42)	6.06 (153.92)	
_	A/OR15175-3	196.00 (3211.90)	205.00 (3359.30)	12.06 (306.32)	9.56 (242.82)	
A/OR5200-3	_	220.0 (3605.2)	231.0 (3785.4)	13.31 (388.07)	10.81 (274.57)	

MADE TO ORDER MODIFICATIONS AVAILABLE - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

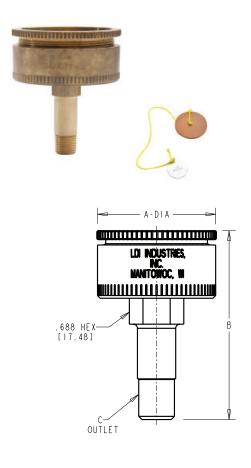
Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

### GREASE CARTRIDGE ADAPTER

Grease Cartridge Adapters are designed to take advantage of readily available grease cartridges. These cartridges are available in most commonly used NLGI grades at the retail or wholesale level. These brass adapters are ideally suited for operation with LDI's Precision Metering Pumps PMP100 (air operated) and PMP200 (motor operated).

#### **Standard Materials:**

- Brass construction
- Buna N seals

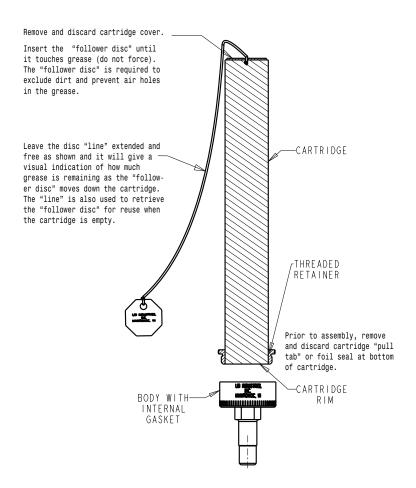


#### **Standard Features:**

- GCA100 Adapts the nominal 3 ounce (85g) standard cartridge size 1.31 (33.27mm) dia x 6.00 (152.40mm) long
- GCA200 Adapts the nominal 14 ounce (397g) standard cartridge size 2.12 (53.85mm) dia x 9.00 (228.60mm) long

#### **Temperature Rating:**

Maximum operating temperature up to 120°F (48°C)



NOTE: All dimensions are inches [mm]

Grease Cartridge Adapters							
Part No.	A Inches (mm)	B Inches (mm)	C Outlet	Capacity Nominal Cartridge Weight			
GCA100	1.75 (44.45)	2.75 (69.85)	1/4-18NPTF	3 oz. (85g)			
GCA200	2.50 (63.50)	2.81 (71.37)	1/4-18NPTF	14 oz. (397g)			

 $\begin{array}{l} \textbf{GCA100} \text{ adapts the nominal 3 ounce (85 g)} \\ \text{standard cartridge size 1.31 in (33.27 mm)} \\ \text{diameter x 6.00 in (152.40 mm) long} \end{array}$ 

**GCA200** adapts the nominal 14 ounce (397 g) standard cartidge size 2.12 (53.85 mm) diameter  $\times$  9.00 in (228.60 mm) long

Patent Number: 6,149,037

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **GREASE RESERVOIRS - REMOTE/WALL MOUNT**

Grease Reservoirs are ideal for supplying positive displacement pumps, such as the PMP100 or PMP200 Precision Metering Pumps, when larger capacities are required than offered by the GCA100 or GCA200 Grease Cartridge Adapters. These reservoirs feature a conveniently located grease fitting for filling, an internal follower piston to prevent air passing through the grease to the outlet and a large outlet to minimize restriction when connecting to a pump. Top and bottom mounting brackets minimize installation time. The reservoir must be mounted vertically with the outlet down and must not be pressurized on the grease side or the vent side.

#### **Standard Materials:**

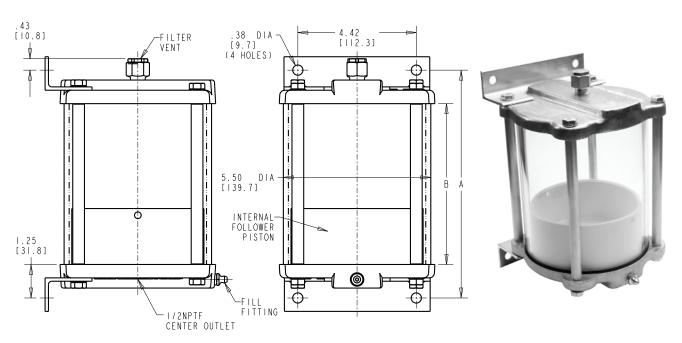
- Aluminum construction
- Buna N seals
- Break resistant, colorless, transparent acrylic bowl

#### Standard Features:

- 40 micron air filter vent to minimize contamination
- Full 360° visual check of the grease level
- Mounting brackets feature (4) .38 inch diameter mounting holes

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 160°F (71°C)
- Working pressure is from atmospheric to minus 29 inHg (737 mmHg)



NOTE: All dimensions are inches [mm]

	Grease Reservoir Series						
Part No.	Capacity (weight)	A inches (mm)	B inches (mm)				
GR75	75 in³ (1229 cm³) [41 oz (1.16 kg)]	8.50 (215.90)	6.06 (153.92)				
GR168	168 in³ (2753 cm³) [91 oz (2.58 kg)]	13.25 (336.55)	10.69 (271.53)				



### PMP100 SERIES - PNEUMATIC

The PMP100 Series air operated metering pumps are unique in that each outlet/feed is an individual positive displacement pump. These pumps are ideal for dispensing precise, easily adjustable volumes of a variety of fluids including: oils or grease for lubrication, inks, dyes, chemical additives and cutting fluids. The factory should be consulted before using with high water base fluids.

The air operated metering pumps are:

- Positive displacement
- Self priming with up to 27 InHg (686mmHg)
- Will operate in any position.

They are available in 1 to 15 feeds for oil or 1 to 5 feeds for grease with each feed independently and externally adjustable from 0 to .01 cu. in. (0 to .20 cu. cm.) by a micrometer thread .02 (.57mm) pitch.

A patented feature allows additional pumps (AMP100) to be easily added to a PMP100-02 or more pump banks. The air operated metering pumps are intended for "on command", higher output pressure applications where a compressed air supply of 25 to 125 PSIG (172.50 to 862.50 kPa) is available.

All feeds will actuate at the same time "on command" by using compressed air or other fluids through LDI Industries' 3-way Solenoid Valve (item no. **832160**) actuated by LDI's Repeat Cycle Timers (item no. **833380**). LDI's R100 Series filtered reservoirs are ideal for oil applications.

Grease applications should use LDI's **GCA100** or **GCA200** Grease Cartridge Adapters or **GR75** or **GR168** Grease Reservoirs.

#### **Standard Materials:**

- · Aluminum, Brass, Steel, Acrylic
- Buna N & Viton® seals

#### **Temperature and Pressure Ratings:**

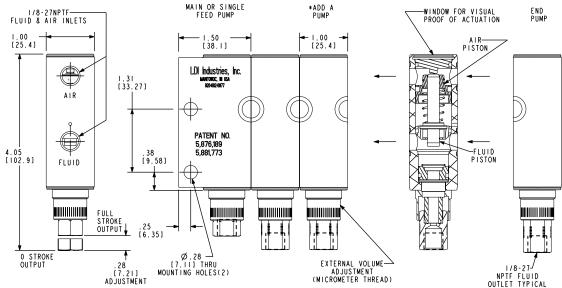
- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 250 PSIG (1725 kPa)

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps.

#### NOTE:

• Please refer to Appendix LE-2 on page LE-A2 for PMP100 Installation information



NOTE: All dimensions are inches [mm]

#### **HOW TO ORDER:**

Ph : 920-682-6877 Fx : 920-684-7210

After **PMP100** (Part Number), specify the number of feeds required, separated by a dash (-). Specify 1 through 15 feeds (-01/-15).

Example PMP100-05 — 5 FEED

To Add A Pump to existing multiple feed bank, order Part Number AMP100 (Not used with single feed P/N PMP100-01)
Patent Numbers: 5,876,189 and 5,881,773

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **PMP200 SERIES - ELECTRIC**

Motor operated metering pumps are unique in that each outlet/feed is an individual positive displacement pump. These pumps are ideal for dispensing precise easily adjustable volumes of a variety of fluids including: oils or grease for lubrication, inks, dyes, chemical additives and cutting fluids.

The factory should be consulted before using with high water base fluids.

The motor operated metering pumps are:

- Positive displacement, self priming with up to 27 InHg (686mmHg)
- Will operate in any position.
- Are available in 1 to 4 pumps with each pump independently and externally adjustable from 0 to .01 cu. in. (0 to .20 cu. cm.) by a micrometer thread .02 (.57mm) pitch.
- Each pump will actuate once per minute of motor run time. The motor operated metering pumps are intended for lower output pressure applications or where a compressed air supply is not available.
- Oil applications should use R100 series filtered reservoirs.
- Grease applications should use GCA100 or GCA200, GR75 or GR168 Grease Reservoirs.

#### **Standard Materials:**

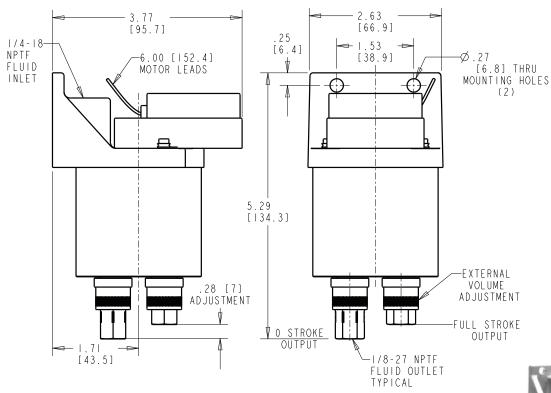
- Aluminum, Brass, Steel, Acrylic
- Buna N & Viton® seals

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 50 PSIG (345 kPa)
- -120V, 60Hz, 4W

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps



NOTE: All dimensions are inches [mm]

#### **HOW TO ORDER:**

Ph : 920-682-6877 Fx : 920-684-7210

After **PMP200** (Part Number), specify the number of feeds required, separated by a dash (-). Specify 1 through 4 feeds (-01/-04).

Example PMP200-04 \_\_\_\_ 4 FEED (shown)

Patent Number: 5,876,189



us for availability

sales@ldi-industries.com www.ldi-industries.com

### PMP300 SERIES - PNEUMATIC PANEL MOUNT SYSTEMS

These "quick install" cost effective Centralized Lubrication Systems are pre-assembled with compatible components to minimize specification, purchasing and installation time. The automatic lubrication systems operate on 25 to 125 PSIG regulated & filtered shop air and a 120V, 60Hz 1Ph electrical supply for the included dual adjustable Repeat Cycle Timer and 3-Way Solenoid Valve. The systems are sized to meet most lubrication requirements. Each feed pump is independently and externally adjustable 0 to .01 cu in (0 to .20 cu cm) by using a fine micrometer thread .02 (.57mm) pitch adjustment. A clear window is provided on each Metering Pump for visual proof of actuation.

#### **Standard Materials:**

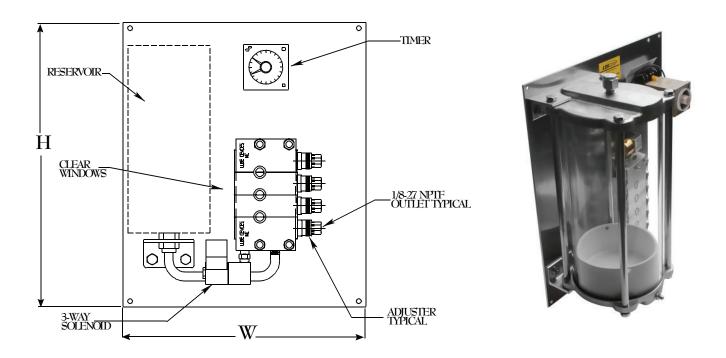
- · Aluminum, Brass, Steel, Acrylic
- Buna N & Viton® seals
- Nema compliant panels

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 300 PSIG (2068 kPa)

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps.

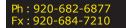


PMP300 Series (Oil Application)						
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)		
PMP340-04	1 quart	4				
PMP340-06	1 quart	6		4.75		
PMP340-08	1 quart	8	10.88			
PMP360-06	.5 gallon	6	x 12.75			
PMP360-08	.5 gallon	8		6.00		
PMP360-12	.5 gallon	12				

PMP300 Series (Grease Application)						
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)		
PMP330-02		2	10.88			
PMP330-04	75 in³	4	X			
PMP330-06		6	12.75	7.00		
PMP350-02		2	12.88	7.00		
PMP350-04	168 in³	4	X			
PMP350-06		6	14.75			
PMP390-02	14 oz	2	8.88			
PMP390-04	Cartridge	4	X	3.75		
PMP390-06	Adapter	6	14.75			

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.





### PMP400 SERIES - ELECTRIC PANEL MOUNT SYSTEMS

These "quick install" cost effective Centralized Lubrication Systems are pre-assembled with compatible components to minimize specification, purchasing and installation time. The automatic lubrication systems operate on a 120V, 60Hz 1Ph electrical supply for the motor. The systems are sized to meet most lubrication requirements where a compressed air supply is not available. Each feed pump is independently and externally adjustable 0 to .01 cu in (0 to .20 cu cm) by using a fine micrometer thread .02 (.57mm) pitch adjustment. Each feed pump will actuate once per minute of motor run time.

#### **Standard Materials:**

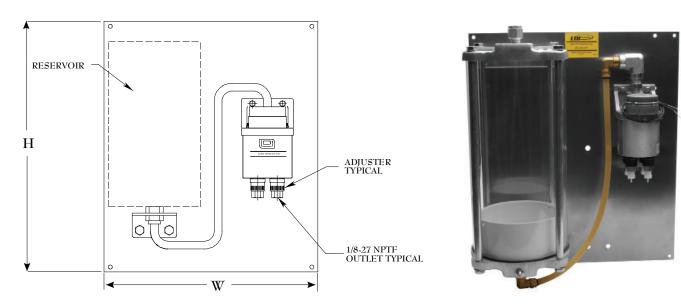
- · Aluminum, Brass, Steel, transparent polymer
- Buna N & Viton® seals
- Nema compliant panels

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 50 PSIG (345 kPa)
- 120V, 60Hz, 4W

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps.



PMP400 Series (Oil Application)							
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)			
PMP440-01		1					
PMP440-02	1 guart	2	10.88	4.75			
PMP440-03	1 quart	3		4.73			
PMP440-04		4					
PMP460-01		1	x 12.75				
PMP460-02	E gallon	2		6.00			
PMP460-03	.5 gallon	3		0.00			
PMP460-04		4					

PMP400 Series (Grease Application)				
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)
PMP430-01		1		
PMP430-02	75 in³	2	10.88 x	
PMP430-03		3	12.75	
PMP430-04		4		7.00
PMP450-01		1		7.00
PMP450-02	168 in <sup>3</sup>	2	12.88 x	
PMP450-03	100 111	3	14.75	
PMP450-04		4		
PMP490-01		1		
PMP490-02	14 oz	2	8.88	4.00
PMP490-03	Cartridge Adapter	3	" x 14.75	4.00
PMP490-04	,	4		

## MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

02/14

Ph: 920-682-6877 Fx: 920-684-7210



### PMP500 SERIES - PNEUMATIC NEMA MOUNT SYSTEMS

These "quick install" cost effective Centralized Lubrication Systems are pre-assembled with compatible components to minimize specification, purchasing and installation time. The automatic lubrication systems operate on 25 to 125 PSIG regulated & filtered shop air and a 120V, 60Hz 1Ph electrical supply for the included dual adjustable Repeat Cycle Timer and 3-Way Solenoid Valve. The systems are sized to meet most lubrication requirements. Each pump outlet is independently and externally adjustable 0 to .01 cu in (0 to .20 cu cm) by using a fine micrometer thread .02 (.57mm) pitch adjustment.

#### **Standard Materials:**

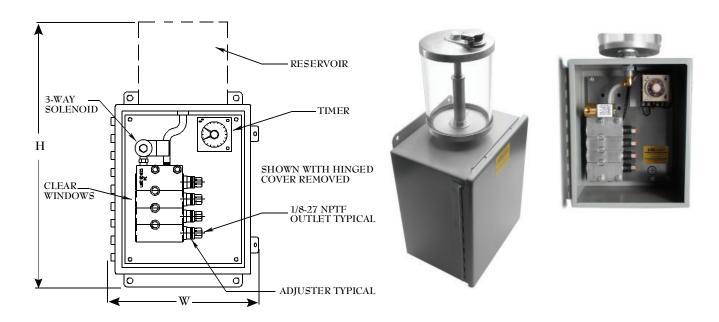
- · Aluminum, Brass, Steel, transparent polymer
- Buna N & Viton® seals
- Patined Steel Nema Type 12 & 13 Box

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 300 PSIG (2068 kPa)

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps.



PMP500 Series (Oil Application)					
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)	
PMP540-04		4	9.00		
PMP540-06	1 quart	6	X		
PMP540-08		8	18.00	6.38	
PMP560-06		6	9.00	0.36	
PMP560-08	.5 gallon	8	X		
PMP560-12		12	20.12		

PMP500 Series (Grease Application)					
	Reservoir	No. of	Nema Panel W x H	O. A. Depth	
Part No.	Capacity	Feeds	(inches)	(inches)	
PMP530-02		2	9.00		
PMP530-04	75 in³	4	×		
PMP530-06		6	19.80	6.56	
PMP550-02		2	9.00	0.50	
PMP550-04	168 in³	4	X		
PMP550-06		6	24.55		

## MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

02/14

Ph: 920-682-6877 Fx: 920-684-7210



### PMP600 SERIES - ELECTRIC NEMA MOUNT SYSTEMS

These "quick install" cost effective Centralized Lubrication Systems are pre-assembled with compatible components to minimize specification, purchasing and installation time. The automatic lubrication systems operate on a 120V, 60Hz 1Ph electrical supply for the motor. The systems are sized to meet most lubrication requirements where a compressed air supply is not available. Each pump outlet is independently and externally adjustable 0 to .01 cu in (0 to .20 cu cm) by using a fine micrometer thread .02 (.20 mm) pitch adjustment. Each pump outlet will actuate once per minute of motor run time.

#### **Standard Materials:**

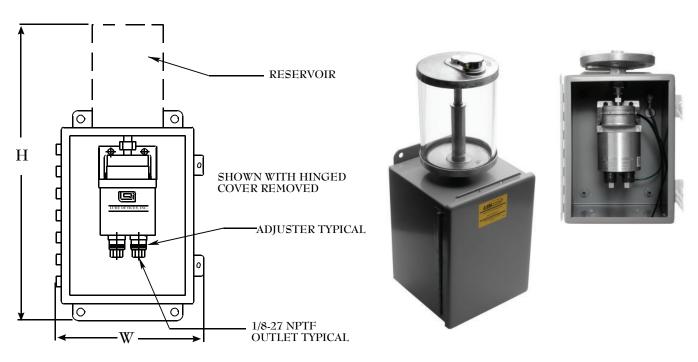
- · Aluminum, Brass, Steel, transparent polymer
- Buna N & Viton® seals
- Patined Steel Nema Type 12 & 13 Box

#### **Temperature and Pressure Ratings:**

- Maximum operating temperature up to 120°F (48°C)
- Minimum operating temperature 0°F (-17°C), oil
- Minimum operating temperature 32°F (0°C), grease
- Maximum output pressure up to 50 PSIG (345 kPa)
- 120V, 60Hz, 4W

#### **CAUTION:**

• For grease applications, the combination of higher viscosities, ambient temperatures lower than 32°F (0°C), excessively long runs of output feed lines, along with the type and use of smaller inside diameter feed lines, will have an effect on the feed rate and output capabilities of these pumps.



PMP600 Series (Oil Application)				
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)
PMP640-01		1		
PMP640-02	1 quart	2	7.00 x	
PMP640-03		3	16.00	
PMP640-04		4		6.38
PMP660-01		1		0.50
PMP660-02	.5 gallon	2	7.00	
PMP660-03		3	x 18.12	
PMP660-04		4		

PMF	PMP600 Series (Grease Application)					
Part No.	Reservoir Capacity	No. of Feeds	Nema Panel W x H (inches)	O. A. Depth (inches)		
PMP630-01		1				
PMP630-02	75 in³	2	7.00 x			
PMP630-03		3	17.80			
PMP630-04		4		6.56		
PMP650-01		1		0.50		
PMP650-02	168 in³	2	7.00 x			
PMP650-03		3	22.55			
PMP650-04		4				

## MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.





### REPEAT CYCLE TIMER

This versatile timer is ideal for controlling the 3-Way Normally Closed Air Solenoid Valve (Part No: 832160) used to activate PMP100 when a PLC, touch activated switch, photo cell or proximity sensor are not available.

#### **Standard Materials:**

- Molded plastic
- Screw terminals
- Operating instructions included
- Mounting hardware not furnished
- •8-Pin mounting base

#### NOTE:

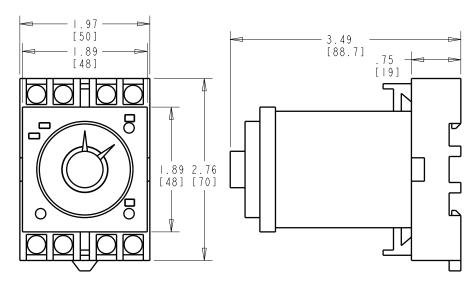
Recommended for use with PMP100 grease applications

#### **Standard Features:**

- •"On time" setting energizes the solenoid valve which activates the PMP100.
- "Off time" setting de-energizes the solenoid valve which allows the PMP100 to reset for the next cycle and controls when that next cycle will occur.
- Will accommodate most industrial applications.
- Can be wired through a relay so it is only active when the "machine" to be lubricated by the PMP100 is actually running; or, it can be wired uninterrupted for continual operation.

#### **Operating Conditions:**

- For operation on 100 to 240V, 60Hz, 1Ph
- Output DPDT rated 5A max @ 240V, 60Hz, 1Ph
- Independently adjustable on time & off time by multiple ranges of 1.20 seconds to 300 hours
- 0.10 to 10.10 minute adjustable off time
- 14°F(-10°C) to 131°F(55°C) operating temperature



**NOTE:** All dimensions are inches [mm]



Repeat Cycle Timer Part No. 833380



### **SOLENOID VALVE**

This compact low wattage 3-way valve is ideally suited for operating the PMP100. This 3-way valve should be mounted close to the PMP100 to insure a fast response time and minimize the quantity of compressed air used.

#### **Standard Materials:**

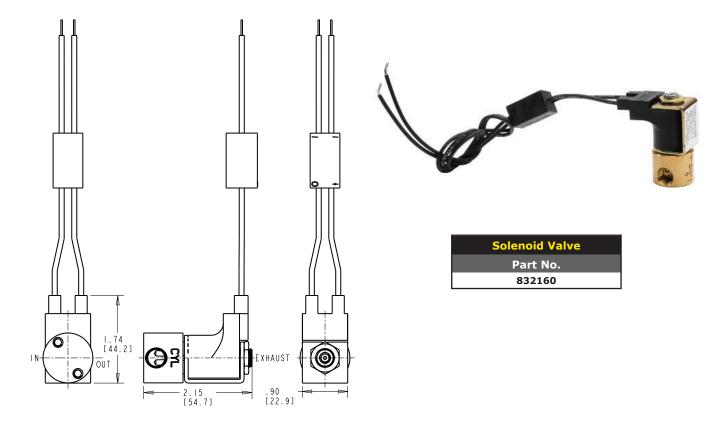
- Brass body (with two #8-32UNF-2B mounting holes) and stainless steel internals compatible with air, water and inert gasses
- \*Class F, Nema 4 / 4X molded coil

#### **Standard Features:**

- 1/8-27 NPT inlet and outlet ports
- 1/16 inch diameter orifice
- #10-32UNF-2B exhaust port
- #20 AWG lead wires, 18 inches long

#### **Operating Conditions:**

- For operation on 120V, 60Hz, 1Ph; 6W
- 125 PSIG max working pressure
- -40°F(-40°C) to +180°F(+82°C) media temperature
- +311°F(+155°C) max coil operating temperature





## **NVB SERIES - STRAIGHT VALVE BRUSH, ROUND OR FLAT**

The NVB Series of brushes with metering valves are designed to apply lubricant to chain drives and they can be connected in series to lubricate several points and feed from a central reservoir.

Straight valve with either a round or flat brush can be used to apply lubricant to chain drives traveling in a horizontal or slightly inclined plane. Valve brushes for vertical chains are available. Used with reservoir series **RFF/REF**.

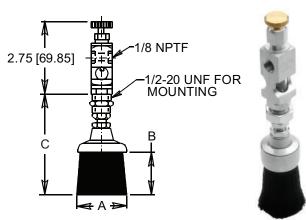
#### **Standard Materials:**

- Aluminum construction body
- Nylon brush
- Pipe threads are dryseal

#### **Temperature Rating:**

Nylon maximum working temperatures up to 250°F (121°C)

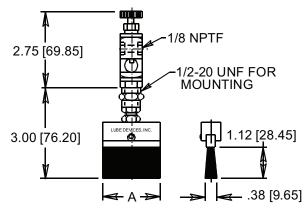
#### **NVB100 SERIES - STRAIGHT VALVE WITH ROUND BRUSH**



Straight Valve w/Round Brush					
A Dia B C Brush inches inches inches Part No. Material (mm) (mm) (mm)					
NVB103-2	Nylon	1.00	1.62	3.62	
NVB103-3	Stainless Steel	(25.40)	(41.15)	(91.95)	

**NOTE:** All dimensions are inches [mm]

#### **NVB300 SERIES - STRAIGHT VALVE WITH FLAT BRUSH**





Straight Valve w/Flat Brush					
Part No.	Brush Material	A inches (mm)			
NVB301-2	Nylon	.50 (12.70)			
NVB303-2	Nylon	1.00 (25.40)			
NVB304-2	Nylon	1.50			
NVB304-3	Stainless Steel	(38.10)			
NVB305-2	Nylon	2.25			
NVB305-3	Stainless Steel	(57.15)			

NOTE: All dimensions are inches [mm]

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **NVB SERIES - FLAT STRIP BRUSH, STRAIGHT OR 45°**

The NVB Series of brushes with metering valves are designed to apply lubricant to chain drives and they can be connected in series to lubricate several points and feed from a central reservoir.

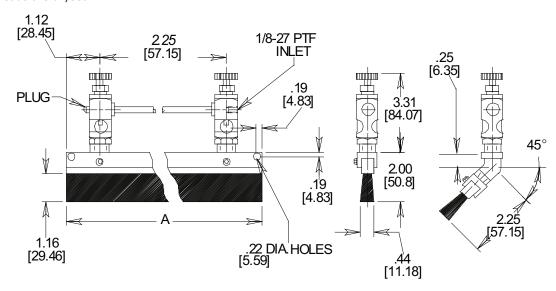
Provides precision control of lubricant to drive chains, strip stock, gears, conveyors, etc. Strip brushes are available in 2.25 inch (57.15mm) increments. Valves allow accurate feed control with drip rate readily visible through the sight window. Brush holder provides (2) .22 inch diameter (5.59mm) holes for easy mounting.

#### **Standard Materials:**

- Aluminum construction body
- Nylon brush
- Pipe threads are dryseal

#### **Temperature Rating:**

Nylon maximum working temperatures up to 250°F (121°C)



NOTE: All dimensions are inches [mm]





Straight Strip Brush						
Part no.	Brush Material	A inches (mm)	Feeds			
NVB201-2	Nylon	2.25 (57.15)	1			
NVB202-2	Nylon	4.50 (114.30)	2			

45°



45° Strip Brush						
Part No.	Brush Material	A inches (mm)	Feeds			
NVB251-2	Nylon	2.25 (57.15)	1			
NVB252-2	Nylon	4.50 (114.30)	2			

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **NVB SERIES - 45° VALVE WITH FLAT BRUSH**

The NVB Series of brushes with metering valves are designed to apply lubricant to chain drives and they can be connected in series to lubricate several points and feed from a central reservoir.

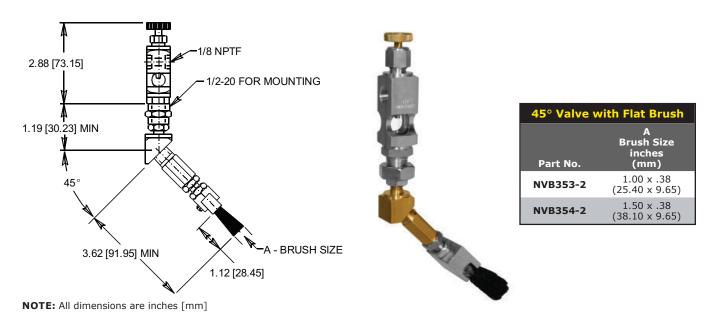
These are for applications where conditions require the lubricant to be applied at an angle. Two sizes of brushes allow selection to fit almost any chain width.

#### **Standard Materials:**

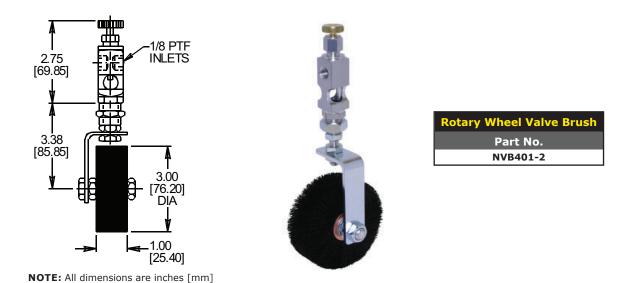
- Aluminum construction body
- Nylon brush
- Pipe threads are dryseal

#### **Temperature Rating:**

Nylon maximum working temperatures up to 250°F (121°C)



### **NVB SERIES - ROTARY WHEEL VALVE BRUSH**





#### **RDB300 SERIES**

The RDB300 Series of manual control chain oilers offers a selection of nine long wearing nylon or stainless steel bristle brushes. The toggle shut-off on the reservoir can be turned on and off without affecting the previously set feed rate. The drip rate is clearly visible through the large viewing window in the mounting shank.

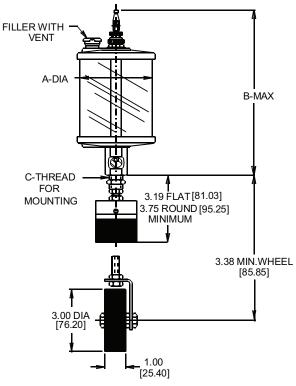
There are five sizes of flat brushes available allowing inexpensive brush replacement at a fraction of former cost. Flat brushes can be set at bias to adapt to width needed or be trimmed to suit individual preferences.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer

#### NOTE:

 Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions



NOTE: All dimensions are inches [mm]

RDB300 Series					
Part No.	Capacity	A inches (mm)	B inches (mm)	C Thread UNF	
RDB303	2.50 oz (73.90 mL)	2.00 (50.80)	5.19 (131.83)	1/2-20	
RDB304	5.00 oz (147.90 mL)	2.50 (63.50)	5.75 (146.05)	1/2-20	
RDB306	9.00 oz (266.20 mL)	3.00 (76.20)	7.00 (177.80)	5/8-18	
RDB307	12.00 oz (354.90 mL)	3.00 (76.20)	8.38 (212.85)	5/8-18	
RDB308	1.00 pt (.47 L)	3.50 (88.90)	8.38 (212.85)	5/8-18	
RDB309	1.00 qt (.95 L)	4.25 (107.95)	9.38 (238.25)	5/8-18	
RDB310	.50 gal (1.90 L)	5.50 (139.70)	11.31 (287.27)	5/8-18	
RDB311	1.00 gal (3.80 L)	5.50 (139.70)	16.31 (414.27)	5/8-18	

#### **Standard Features:**

- Central mounting shank facilitates mounting to customer supplied bracket
- Easily disassembled for occasional cleaning

#### **Temperature and Pressure Ratings:**

- Polymer maximum working temperature up to 140° F (60°C)
- Nylon brush maximum working temperature up to 250°F (121°C)
- Stainless steel brush for maximum working temperature over 250°F (121°C)
- Ratings are at atmospheric pressure



#### **ORDERING OPTIONS:**

	ORDERING OF HONS:				
Order Suffix	Option				
	Material				
-N	Nylon bristle				
-S	Stainless steel bristle				
	Size				
-1	.50 in x .38 in (12.70 mm x 9.65 mm) flat brush				
-2	.75 in x .38 in (19.05 mm x 9.65 mm) flat brush				
-3	1.00 in x .38 in (25.40 mm x 9.65 mm) flat brush				
-4	1.50 in x .38 in (38.10 mm x 9.65 mm) flat brush				
-5	2.25 in x .38 in (57.15 mm x 9.65 mm) flat brush				
-6	.62 in (15.75 mm) diameter round brush				
-7	1.00 in (25.40 mm) diameter round brush				
-8	1.50 in (38.10 mm) diameter round brush				
-9	3.00 in (76.20 mm) diameter x 1.00 in (25.40 mm) rotary wheel				

#### **HOW TO ORDER**

**EXAMPLE:** 

RDB308-N-3 — 1.00 x .38 inch (25.40 mm x 9.65 mm) flat brush
Nylon bristle

- Series RDB308, 1 pint (.47 liter) capacity reservoir

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

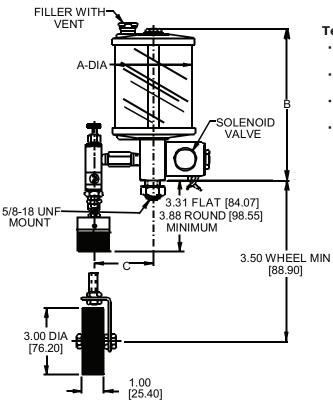
#### **REB SERIES**

The REB Series of electro chain oilers offers a selection of nine long wearing nylon or stainless steel bristle brushes. For automatic operation, wire the normally closed solenoid across machine starting switch; feeding stops when machine is turned off.

There are five sizes of flat brushes available allowing inexpensive brush replacement at a fraction of former cost. Flat brushes can be set at bias to adapt to width needed or be trimmed to suit individual preferences.

#### **Standard Materials:**

- Aluminum top and bottom plates
- Buna N seals
- Break resistant, colorless transparent polymer
- Class "B" molded water resistant coil



NOTE: All dimensions are inches [mm]

REB Series					
Part No.	Capacity	A inches (mm)	B inches (mm)	C inches (mm)	
REB303	2.50 oz	2.00	4.69	1.62	
	(73.90 mL)	(50.80)	(119.13)	(41.15)	
REB304	5.00 oz	2.50	5.19	1.88	
	(147.90 mL)	(63.50)	(131.83)	(47.75)	
REB306	9.00 oz	3.00	6.00	2.44	
	(266.20 mL)	(76.20)	(152.40)	(61.98)	
REB307	12.00 oz	3.00	7.00	2.44	
	(354.90 mL)	(76.20)	(177.80)	(61.98)	
REB308	1.00 pt	3.50	7.00	2.56	
	(.47 L)	(88.90)	(177.80)	(65.02)	
REB309	1.00 qt	4.25	8.44	2.88	
	(.95 L)	(107.95)	(214.38)	(73.15)	
REB310	.50 gal	5.50	10.44	3.62	
	(1.90 L)	(139.70)	(265.18)	(91.95)	
REB311	1.00 gal	5.50	15.44	3.62	
	(3.80 L)	(139.70)	(392.18)	(91.95)	

#### Standard Features:

- Central mounting shank facilitates mounting to customer supplied bracket
- Reservoir provides a quick, visual check of fluid level and condition
- Unit is easily disassembled for occasional cleaning

#### **Temperature and Pressure Ratings:**

- Polymer maximum working temperature up to 140°F (60°C)
- Nylon brush maximum working temperature up to 250°C (121°C)
- Stainless steel brush for maximum working temperature over 250°F (121°C)
- Ratings are at atmospheric pressure



#### **ORDERING OPTIONS:**

Order Suffix	Option		
	Material		
-N	Nylon bristle		
-S	Stainless steel bristle		
	Size		
-1	.50 in x .38 in (12.70 mm x 9.65 mm) flat brush		
-2	.75 in x .38 in (19.05 mm x 9.65 mm) flat brush		
-3	1.00 in x .38 in (25.40 mm x 9.65 mm) flat brush		
-4	1.50 in x .38 in (38.10 mm x 9.65 mm) flat brush		
-5	2.25 in x .38 in (57.15 mm x 9.65 mm) flat brush		
-6	.62 in (15.75 mm) diameter round brush		
-7	1.00 in (25.40 mm) diameter round brush		
-8	1.50 in (38.10 mm) diameter round brush		
-9	3.00 in (76.20 mm) diameter x 1.00 in (25.40 mm) rotary wheel		
	Solenoid Valve		
-26	120V, 60Hz, 1 Ph class B		
-27	240V, 60Hz, 1 Ph class B		
-28	480V, 60Hz, 1 Ph class B		
-43	24V DC		

**HOW TO ORDER** 

**EXAMPLE:** 

REB309-N-4-26 — 120V, 60Hz, 1 Ph class B 1.50 in x .38 in (38.10 mm x 9.65 mm) flat brush

- Nylon bristle - Series REB309, 1 quart (.95 L) capacity reservoir

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **REPLACEMENT BRUSHES**

The LDI Replacement Brushes are direct replacements for shank or valve brushes and manual or electric chain oiler brushes. These three styles meet any lubrication requirement. The round brush is an all-in-one brush and holder unit. The flat brush is available as a flat strip only or complete with brush and holder.

Brushes are interchangeable, but if the style is changed from round to flat for instance, the flat brush with holder should be ordered, since the holder is an integral part of the brush.

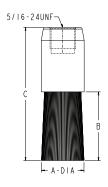
#### **Standard Material:**

Long wearing nylon bristles

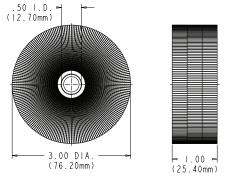
#### **Temperature Ratings:**

- Nylon maximum working temperature up to 250°F (121°C)
- For temperatures over 250°F (121°C), please specify stainless steel

Round Brushes							
A B C Brush inches inches inches Part No. Material (mm) (mm) (mm)							
B102-2	Nylon	.62 (15.75)	1.00 (25.40)	1.94 (49.28)			
B103-2	Nylon	1.00	1.62	2.62			
B103-3	Stainless Steel	(25.40)	(41.15)	(66.55)			







NOTE: All dimensions are inches (mm)

Ph : 920-682-6877 Fx : 920-684-7210

Rotary Brush			
Brush Part No. Material			
B161-2	Nylon		

Flat With Holder	
5/16-24UNF (14.22mm)	Flat
2.00 (50.80mm)	1.50
	1.50 (38.10mm) (29.46mm)

Flat Brushes and with Holder				
Part No. (Flat Brush)	A inches (mm)			
B151-2	_	Nylon	.50 (12.70)	
B153-2	B123-2	Nylon	1.00 (25.40)	
B154-2	B124-2	Nylon	1.50 (38.10)	
B155-2	B125-2	Nylon	2.25	
B155-3	B125-3	Stainless Steel	(57.15)	

NOTE: All dimensions are inches (mm)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

#### **SB SERIES**

The SB Series of shank brushes can be remotely mounted and fed from valves on a central dispenser. Available with either round or flat brush.

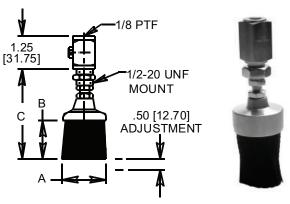
#### **Standard Materials:**

- Aluminum construction
- Pipe threads are dryseal
- Brush material either nylon or stainless steel

#### **Temperature Ratings:**

- Nylon maximum working temperature up to 250°F (121°C)
- For temperatures over 250°F (121°C), please specify stainless steel

SB Series - Round Shank Brush						
Part No.	A B Dia Dia C Brush inches inches inches o. Material (mm) (mm) (mm)					
SB102-2	Nylon	.62 (15.75)	1.00 (25.40)	3.00 (76.20)		
SB103-2	Nylon	1.00 (25.40)	1.62 (41.15)	3.62 (91.95)		
SB104-2	Nylon	1.50 (38.10)	1.62 (41.15)	3.62 (91.95)		



NOTE: All dimensions are inches [mm]

SB Series - Flat Shank Brush				
Part No.	Brush Material	A inches (mm)		
SB301-2	Nylon	.50 (12.70)		
SB303-2	Nylon	1.00 (25.40)		
SB304-2		1.50 (38.10)		
SB305-2	Nylon	2.25 (57.15)		

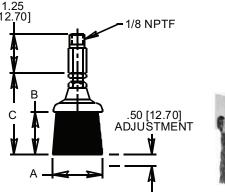
- Four sizes of flat insertable brushes are available
- .50 in (12.70 mm) adjustment for wear is provided

<u> </u>			/8 PTF	=
1.25 [31.75]				<u> </u>
3.00 [76.20]	<u> </u>		MOL	I NI
<u>†</u> [2	1.16 29.46]			<del></del> 11
.50 [12.70] ADJUSTMENT	۱ ۱	< >	-A	<del>≪</del> .44 [11.18]

NOTE: All dimensions are inches [mm]



SB Series - Round & Flat Brush w/Pipe Thread					
Part No.	Brush Material	A inches (mm)	B inches (mm)	C inches (mm)	
SB204-2	Nylon	1.50 Dia round	1.62	3.00	
SB204-3	Stainless Steel	(38.10)	(41.15)	(76.20)	
SB354-2	Nylon	1.50 x .44 Flat	1.16	2.38	
SB354-3	Stainless Steel	(38.10 x 11.18)	(29.46)	(60.45)	
SB355-2	Nylon	2.25 x .44 Flat	1.16	2.38	
SB355-3	Stainless Steel	(57.15 x 11.18)	(29.46)	(60.45)	





NOTE: All dimensions are inches [mm]

NOTE: ALL SHANK BRUSHES SHOWN ON THIS SHEET REQUIRE SEPARATE CONTROL FOR FLUID METERING

# CHAIN OILERS & APPLICATORS

### **SV SERIES**

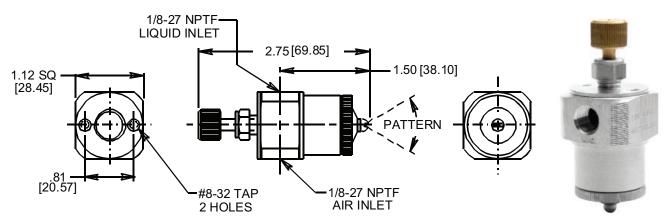
Spray valves when used with series RVP100 pressure reservoirs, will spray lubricant on bearings, rollers or chain. Sheet stock may be lubricated prior to blanking or drawing. Regulators on reservoir provide precise adjustment of fluid pressure and nozzle pressure to allow accurate control of pattern size, preventing excessive oiling and over spray.

#### **Standard Materials:**

#### **CAUTION:**

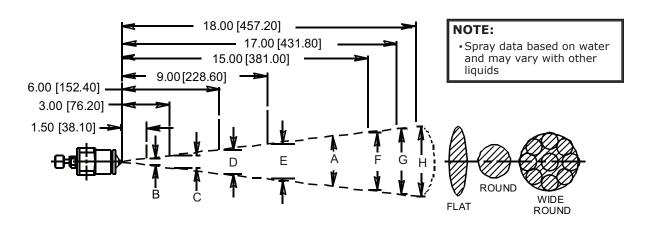
Aluminum bodyBrass nozzle

• Fluids above 750SSU at 69° F (20.6° C) subject to testing



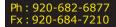
NOTE: All dimensions are inches [mm]

	SV Series											
		А	ir	Liquid	Spray Dia. or width at a given distance from the nozzle Dimensions in inches (mm)							
Part No.	Spray Pattern	PSI (kPa)	SCFH (m³/H)	PSI (kPa)	Angle A	В	С	D	E	F	G	н
SV101	Flat	22 (152)	60 (1.70)	10 (69)	_	3.00 (76.20)	6.00 (152.40)	10.00 (254.00)	13.00 (330.20)	18.00 (457.20)	_	_
CV102	David	12 (83)	45 (1.27)	10 (69)	12°	_	_	1.30 (33.02)	1.90 (48.26)	3.20 (81.28)	3.60 (91.44)	3.80 (96.52)
SV102	Round	20 (138)	50 (1.42)	20 (138)	13°	_	_	1.40 (35.56)	2.10 (53.34)	3.40 (86.36)	3.90 (99.06)	4.10 (104.14)
CV102	Wide	10 (69)	25 (.708)	10 (69)	-	_	_	5.50 (139.70)	7.00 (177.80)	9.00 (228.60)	_	_
SV103	Round	20 (138)	35 (.991)	20 (138)	_	_	_	6.00 (152.40)	7.50 (190.50)	9.50 (241.30)	_	_



NOTE: All dimensions are inches [mm]

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.





# **F50/60 SERIES**

Compact design inline flow sights may be used in either horizontal or vertical pipe runs to indicate flow. May also be used to check clarity of fluid. Machined from solid brass bar stock with large sight windows.

#### **Standard Materials:**

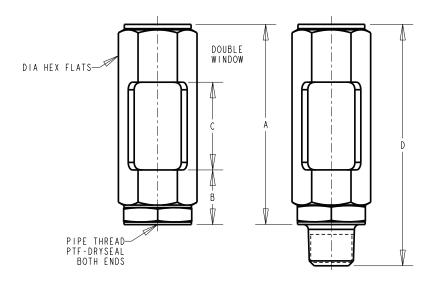
- Brass construction
- Buna N seals
- Borasilicate sight

#### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 200°F (93°C)
- Maximum working pressure up to 50 PSI (345 kPa) at 70°F (21°C)
- No corrosion

#### **Caution:**

Scratched glass significantly reduces pressure rating.





	F50/60 Series									
Part Female X Female	No. Female X Male	Pipe Thread	Hex Flats inches (mm)	A inches (mm)	B inches (mm)	C inches (mm)	D inches (mm)			
F52	F62	1/4-18	.81 (20.57)	2.41 (61.21)	.66 (16.76)	1.06 (26.92)	2.91 (73.91)			
F53	_	3/8-18	1.12 (28.45)	2.38 (60.45)	.69 (17.53)	1.00 (28.45)	2.88 (73.15)			
F56	_	1-11 1/2	2.50 (63.50)	3.50 (88.90)	.88 (22.35)	1.75 (44.45)	4.31 (109.47)			
F57	_	1 1/4-11 1/2	2.50 (63.50)	3.50 (88.90)	.88 (22.35)	1.75 (44.45)	4.34 (110.24)			

sales@ldi-industries.com www.ldi-industries.com

# F150/160 SERIES

Inline flow sights can be used in either vertical or horizontal fluid lines to observe fluid flow, clarity or condition of medium. A ball float can be supplied to aid observation of flow of dark fluids or fluids in dimly lit conditions.

#### **Standard Materials:**

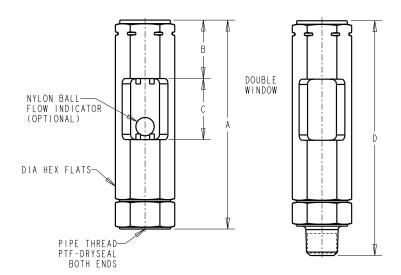
- Brass construction
- Buna N seals
- Borasilicate sight

#### **Temperature Ratings:**

- Maximum working temperature up to 180°F (82°C)
- For applications requiring maximum working temperature over 180°F (82°C), please consult factory

#### **Caution:**

Scratched glass significantly reduces pressure rating.





	F150/160 Series									
Part Female X Female	No. Female X Male	Pipe Thread	Hex Flats inches (mm)	Orifice Dia. w/o Ball inches (mm)	A inches (mm)	B inches (mm)	C inches (mm)	D inches (mm)	Max. Working Pressure @ 150°F (65°C) PSI (kPa)	
F151	_	1/8-27	.88 (22.35)	.234 (5.94)	3.34 (84.84)	.78 (19.81)	1.04 (26.42)	3.66 (92.96)	435 (2999)	
F152	F162	1/4-18	.88 (22.35)	.234 (5.94)	3.56 (90.42)	1.00 (25.40)	1.04 (26.42)	4.00 (101.60)	435 (2999)	
F153	F163	3/8-18	1.06 (26.92)	.312 (7.92)	4.25 (107.95)	1.12 (28.45)	1.12 (28.45)	4.75 (120.65)	425 (2930)	
F154	_	1/2-14	1.25 (31.75)	.375 (9.52)	4.62 (117.35)	1.25 (31.75)	1.30 (33.02)	5.12 (130.05)	380 (2620)	
F155	_	3/4-14	1.38 (35.05)	.500 (12.70)	5.25 (133.35)	1.35 (34.29)	1.36 (34.54)	5.41 (137.41)	345 (2379)	
F156	_	1-11 1/2	1.62 (41.15)	.531 (13.49)	6.31 (160.27)	1.69 (42.93)	1.48 (37.59)	6.31 (160.27)	270 (1862)	

#### **HOW TO ORDER:**

To order F150/160 Series flow sights with a float ball, add -01 after the part number.

Example F151-01



### **F250 SERIES**

Inline double window flow sights can be used to determine flow, clarity of fluid and impurities in either horizontal or vertical pipe runs. Nylon ball flow indicator gives positive flow indication with dark or opaque fluids.

#### **Standard Materials:**

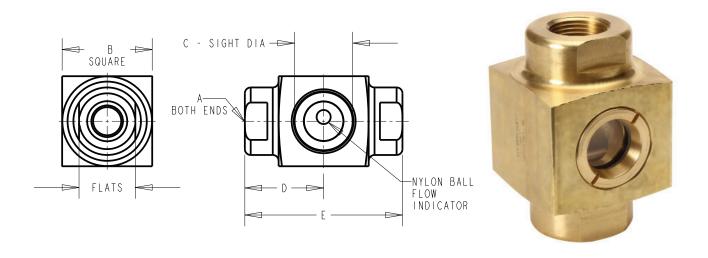
- Brass body
- Tempered borosilicate sight window
- Buna N seals

#### **Temperature Ratings:**

- Maximum working temperature up to 180°F (82°C)
- For applications requiring maximum working temperature over 180°F (82°C), please consult factory

#### **Caution:**

Scratched glass significantly reduces pressure rating.



	F250 Series										
Part No. No Ball Ball		A Female NPTF	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	Max. Working Pressure @ 150°F (65°C) PSI (kPa)				
_	F251-04-01	1/2-14	2.00 (50.80)	.88 (23.35)	1.75 (44.45)	3.50 (88.90)	400 (2758)				
_	F251-05-01	3/4-14	2.25 (57.15)	.88 (23.35)	1.75 (44.45)	3.50 (88.90)	400 (2758)				
_	F251-06-01	1-11 1/2	2.50 (63.50)	1.38 (35.05)	2.31 (58.67)	4.62 (117.35)	160 (1103)				
F251-08	_	1 1/2-11 1/2	3.00 (76.20)	1.88 (47.75)	2.88 (73.15)	5.75 (146.05)	85 (586)				

# MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **F300 SERIES**

Wide view flow sights can be used in either horizontal or vertical pipe runs to observe fluid flow clarity. Large cylindrical sight allows 360° viewing and flow is readily seen from a distance, in elevated or dimly lighted conditions. In vertical pipe run, fluid flow should come in from bottom to note ball action as a flow indicator. The ball stop slightly restricts flow.

#### **Standard Materials:**

- Brass construction
- Borosilicate sight
- Buna N seals
- Nylon ball indicator

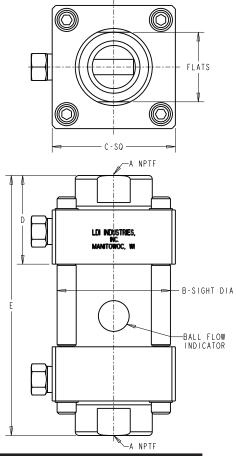
#### **Caution:**

Scratched glass significantly reduces pressure rating.



#### **Temperature and Pressure Ratings:**

• Noted below in chart



	F300 Series								
	Α	Max Working Pressure @ Temperature Shown							
Part No.	Female NPTF	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	PSI (kPa)	°F (°C)		
F301-04-01	1/2-14	1.75 (44.45)	2.00 (50.80)	1.44 (36.58)	4.25 (107.95)	130 (896)	212 (100)		
F301-05-01	3/4-14	1.75 (44.45)	2.00 (50.80)	1.44 (36.58)	4.25 (107.95)	130 (896)	212 (100)		
F301-06-01	1-11 1/2	1.75 (44.45)	2.25 (57.15)	1.75 (44.45)	4.88 (123.95)	130 (896)	212 (100)		
F301-07-01	1 1/4-11 1/2	2.50 (63.50)	3.00 (76.20)	1.75 (44.45)	5.62 (142.75)	100 (690)	185 (85)		
F301-08-01	1 1/2-11 1/2	2.50 (63.50)	3.00 (76.20)	1.88 (47.75)	5.88 (149.35)	100 (690)	185 (85)		
F301-09-01	2-11 1/2	3.50 (88.90)	4.00 (101.60)	1.88 (47.75)	7.50 (190.50)	60 (414)	150 (65)		

# MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **F560 SERIES**

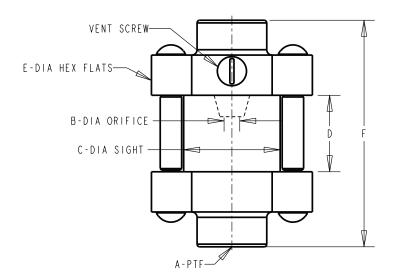
Wide view flow sights with a restrictor orifice and cylindrical sight provide maximum 360° visual observation of fluid flow, color and clarity. Mount on the downstream side of vertical lines on cooling or lubricating systems.

#### **Standard Materials:**

- Aluminum construction
- Clear polymer sight
- Buna N seals

#### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 140°F (60°C)
- Maximum working pressure of orifice up to 125 PSI (862 kPa)





	F560 Series									
Part No.	A Thread	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	F inches (mm)				
F561-02	1/4-18	.19 (4.83)	1.12 (28.45)	.88 (22.35)	1.62 (41.15)	2.62 (66.55)				
F562-01	1/8-27	.16 (4.06)	1.50 (38.10)	1.19 (30.23)	2.00 (50.80)	3.12 (79.25)				
F562-03	3/8-18	.25 (6.35)	1.50 (38.10)	1.19 (30.23)	2.00 (50.80)	3.12 (79.25)				
F563-04	1/2-14	.38 (9.65)	2.00 (50.80)	1.69 (42.93)	2.62 (66.55)	4.25 (107.95)				
F563-05	3/4-14	.50 (12.70)	2.00 (50.80)	1.69 (42.93)	2.62 (66.55)	4.25 (107.95)				
F564-06	1-11 1/2	.62 (15.75)	2.50 (63.50)	2.06 (52.32)	3.00 (76.20)	5.38 (136.65)				

# **INLINE FILTER - LIQUID**

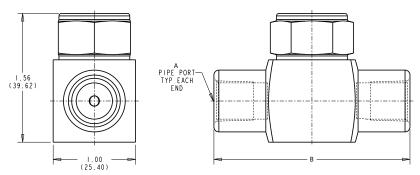
The Liquid Inline Filter can be used in liquid lines where dirt or particles could cause clogging, such as oil going to a spray valve. The inline cap can be taken off to clean the filter without dismantling unit from the line.

#### **Standard Materials:**

- Brass construction
- Buna N seals
- 40 micron filter

### **Temperate and Pressure Ratings:**

- Maximum working pressure up to 150 PSI (1034 kPa)
- Maximum temperature up to 175°F (79°C)





NOTE: All dimensions are inches (mm)

Inline Filter - Liquid						
Part No.	A PTF	B inches (mm)				
LF201-02	1/4-18	2.38 (60.45)				
LF201-03	3/8-18	2.62 (66.55)				

# **GUN-FIL® LUBRICATOR**

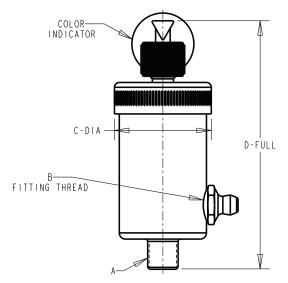
The GUN-fil® Lubricator series can be used to replace grease fittings in new or existing applications. They can be mounted in any position horizontally, vertically, or inclined at any angle. Mating thread can be either standard pipe thread (NPT) or dryseal (NPTF) threads. All GUN-fil® Lubricators feature single point, spring loaded grease applicator which feeds each individual bearing only the amount of lubricant required. Economical to use valve or grease flow reducer which feeds only while bearing is in motion, flow of grease ceases when bearing stops. Quick visual refill check-colored stem indicator lowers to show when refill is needed. Lubricator comes standard with straight grease fitting. Optional fittings are available as listed below.

#### **Standard Material:**

 Rugged steel construction for maximum service life in harshest of conditions.

#### **Standard Valve Speeds (color indicators):**

- Red (slow feed) for high ambient temperatures, close or tight fitting bearings, intermittent operations
- Green (fast feed) for low ambient temperatures, loose fitting bearings, continuous operation



#### Standard Feed Rates (adjustable):

- No.1 for bearings up to 50 sq. in. (1270 sq. mm)
- No.2 for bearings 50 to 100 sq. in. (1270 to 2540 sq. mm)
- No.3 for bearings 100 to 250 sq. in. (2540 to 6350 sq. mm)
- No.4 for bearings 250 to 400 sq. in. (6350 to 10160 sq. mm)

#### **Temperature Ratings:**

- Maximum operating temperatures up to 180°F (82°C)
- For applications requiring maximum operating temperatures of 180°F (82°C) and above, please consult factory



	GUN-fil® Lubricator									
Part No.	Size and Capacity	Valve Color	A Shank	B Thread	C inches (mm)	D inches (mm)				
201452	#1 .50 oz	RED	1/8-27	1/8-27	1.25	4.15				
201453	(14.80 mL)	GREEN	1/0-27	1/0-2/	(31.75)	(105.41)				
201464	#2 1.75 oz	RED	2/0 10	1/4-18	2.50	4.35				
201465	(51.80 mL)	GREEN	3/8-18	1/4-10	(63.50)	(110.49)				
201468	#3 3.50 oz	RED	3/8-18	1/4-18	2.50	6.21				
201469	(103.50 mL)	GREEN	3/0-10	1/4-10	(63.50)	(157.73)				
201472	#4 8.00 oz	RED	3/4-14	1/4-18	3.25	9.74				
201473	(236.60 mL)	GREEN	3/4-14	1/4-10	(82.55)	(247.40)				

OPTIONAL FITTINGS							
PRESSURE RELIEF GREASE FITTING 1/8-27PTF P/N 809310	ADAPTER 1/4-18 MALE BY 1/8-27 FEMALE P/N PF101-4-2						

To prevent over-filling, order grease fitting with integral pressure relief valve (P/N 809310) Fits **GUN-fil® LUBRICATOR** size #1 (1/8 inch female thread). To fit sizes #2, #3 and #4, also order adapter (P/N PF101-4-2).

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **R100 SERIES**

### **GRAVITY FEED W/OUT FLOW CONTROL**

The R100 Series of gravity feed reservoirs without flow control are ideal for use as make-up or replenishing reservoirs. They can be installed in most cases to serve both as an oil cup to maintain oil level and as an oil gage to provide 360° visual check of fluid level and condition. All reservoirs feature self-closing snap lid filler caps, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant colorless transparent polymer
- Borosilicate glass for fluid compatibility and thermal shock

### **Temperature and Pressure Ratings:**

- Polymer maximum working temperature up to 140°F (60°C)
- Glass maximum working temperature up to 250°F (121°C)
- Ratings are at atmospheric pressure.

	FILLER WITH VENT
<b>†</b>	
l B	A-DIA.
V.	— C - NPTF



MODIFICATIONS AVAILABLE MADE TO
ORDER - CONSULT OUR FACTORY
(MINIMUM ORDER MAY BE REQUIRED)

R100 Se	eries Gravity	y Feed Reser	voir with	out Flow C	Control
Part Polymer	: No. Glass	Capacity	A inches (mm)	B inches (mm)	C Thread NPTF
R151-01	_	1.00 oz	1.50	3.00 (76.20)	1/8
R151-02	R151-12	(29.60 mL)	(38.10)	3.19 (81.03)	1/4
R152-01	_	1.38 oz	1.75	2.94 (74.68)	1/8
R152-02	_	(40.70 mL)	(44.45)	2.95 (74.93)	1/4
R153-01	_	1.75 oz	2.00	3.12 (79.25)	1/8
R153-02	_	(51.80 mL)	(50.80)	3.38 (85.85)	1/4
R154-01	R154-11	2.50 oz	2.00	3.50 (88.90)	1/8
R154-02	_	(73.90 mL)	(50.80)	3.75 (95.25)	1/4
R155-01	_	5.00 oz	2.50	4.12 (104.65)	1/8
R155-02	_	(147.90 mL)	(63.50)	4.31 (109.47)	1/4
R107-01	_			5.19 (131.83)	1/8
R107-02	_	8.00 oz (236.60 mL)	2.50 (63.50)	5.38 (136.65)	1/4
R107-03	_			5.38 (136.65)	3/8
R108-01	_	9.00 oz	3.00	5.38 (136.65)	1/8
R108-02	_	(266.20 mL)	(76.20)	5.50 (139.70)	1/4
R109-03	_	12.00 oz	3.00	6.44 (163.58)	3/8
R109-04	_	(354.90 mL)	(76.20)	6.62 (168.15)	1/2
R110-03	_	1.00 pt	3.50	6.56 (166.62)	3/8
R110-04	R110-14	(.47 L)	(88.90)	6.62 (168.15)	1/2
R111-03	_	1.00 qt	4.25	7.94 (201.68)	3/8
R111-04	_	(.95 L)	(107.95)	8.06 (204.72)	1/2
R112-03	_	.50 gal	5.50	9.94 (252.48)	3/8
R112-04	R112-14	(1.90 L)	(139.70)	10.12 (257.05)	1/2
R113-03	_	1.00 gal	5.50	14.94 (379.48)	3/8
R113-04	R113-14	(3.80 L)	(139.70)	15.25 (387.35)	1/2

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### **R100 SERIES**

### **GRAVITY FEED W/FILTER - NO FLOW CONTROL**

The R100 Series of gravity feed reservoirs without flow control are ideal for use as make-up or replenishing reservoirs. They can be installed in most cases to serve both as an oil cup to maintain oil level and as an oil gage to provide 360° visual check of fluid level and condition. All reservoirs feature self-closing snap lid filler caps, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning.

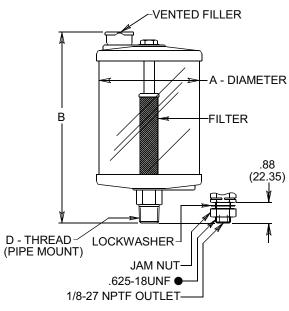
#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant colorless transparent polymer
- 100 Mesh Stainless Steel filter
- Some sizes have a brass shank

### **Temperature and Pressure Ratings:**

- Polymer maximum working temperature up to 140°F (60°C)
- Ratings are at atmospheric pressure.

NOTE: Pipe or bracket mount styles available



NOTE: All dimensions are inches (mm)





R100 Ser	ies Gravity I	Feed w/Fil	lter - No Fl	low Control
Part No.	Capacity	A inches (mm)	B inches (mm)	D Thread
R110-02F			6.38 (162.05)	1/4 NPTF
R110-03F	1.00 pt	3.50	6.44 (163.58)	3/8 NPTF
R110-04F	(.47 L)	(88.90)	6.62 (168.15)	1/2 NPTF
R110-08F			6.69 (169.93)	5/8-18 UNF •
R111-02F			7.78 (197.61)	1/4 NPTF
R111-03F	1.00 qt	4.25	7.84 (199.14)	3/8 NPTF
R111-04F	(.95 L)	(107.95)	8.00 (203.20)	1/2 NPTF
R111-08F			8.06 (204.72)	5/8-18 UNF •
R112-02F			9.91 (251.72)	1/4 NPTF ▼
R112-03F	.50 gal	5.50	9.97 (253.24)	3/8 NPTF
R112-04F	(1.90 L)	(139.70)	10.12 (257.05)	1/2 NPTF
R112-08F			10.19 (258.83)	5/8-18 UNF •
R113-02F			14.91 (378.72)	1/4 NPTF ▼
R113-03F	1.00 gal	5.50	14.97 (380.24)	3/8 NPTF
R113-04F	(3.80 L)	(139.70)	15.12 (384.05)	1/2 NPTF
R113-08F			15.19 (385.83)	5/8-18 UNF •





### **R100 SERIES**

### **GRAVITY FEED W/FILTER & LOW LEVEL SWITCH**

The R100 Series of gravity feed reservoirs without flow control are ideal for use as make-up or replenishing reservoirs. They can be installed in most cases to serve both as an oil cup to maintain oil level and as an oil gage to provide 360° visual check of fluid level and condition. All reservoirs feature self-closing snap lid filler caps, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning. The low level switch provides an electrical interface to activate a low reservoir level alarm or monitor used to determine when to refill the reservoir.

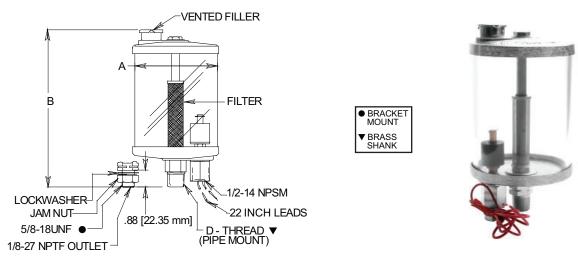
#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant colorless transparent polymer
- 100 mesh stainless steel filter
- 10 VA switch closes on descending level
- Some sizes have a brass shank
- \*DPDT, 10A, 120V, 60Hz relay for switch is available

#### **Temperature and Pressure Ratings:**

- Polymer maximum working temperature up to 140°F (60°C)
- Ratings are at atmospheric pressure.

**NOTE:** Pipe or bracket mount styles available



NOTE: All dimensions are inches [mm]

R100 Se	eries Gravity	y w/Filter	& Low Lev	el Switch
Part No.	Capacity	A inches (mm)	B inches (mm)	D Thread
R111-02FS			7.78 (197.61)	1/4 NPTF
R111-03FS	1.00 qt	4.25	7.84 (199.14)	3/8 NPTF
R111-04FS	(.95 L)	(107.95)	8.00 (203.20)	1/2 NPTF
R111-08FS			8.06 (204.72)	5/8-18 UNF •
R112-02FS			9.91 (251.72)	1/4 NPTF ▼
R112-03FS	.50 gal	5.50	9.97 (253.24)	3/8 NPTF
R112-04FS	(1.90 L)	(139.70)	10.12 (257.05)	1/2 NPTF
R112-08FS			10.19 (258.83)	5/8-18 UNF •
R113-02FS			14.91 (378.72)	1/4 NPTF ▼
R113-03FS	1.00 gal	5.50	14.97 (380.24)	3/8 NPTF
R113-04FS	(3.80 L)	(139.70)	15.12 (384.05)	1/2 NPTF
R113-08FS			15.19 (385.83)	5/8-18 UNF •



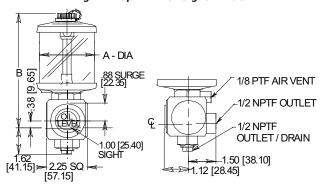
### **RCL SERIES**

The RCL Series of constant level reservoirs feature a large sight window for viewing liquid level and fluid condition. Furnished with "Oil Level" and line for positive level viewing. Reservoirs can be mounted on the side or bottom. They can be vented to atmosphere or back vented to housing.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer
- Borosilicate glass for fluid compatibility and thermal
- Pilot duty switch closes (activates) on descending level (conduit included)

Fig. 1 - Top Fill with Sight Window



**NOTE:** All dimensions are inches [mm]

Ph : 920-682-6877 Fx : 920-684-7210

# .75 [19.05 mm] 1.50 [38.10 mm] SWITCH URGE

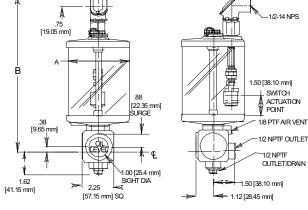
Fig. 2 - Low Level Switch

• For applications requiring maximum working temperatures of 180°F (82°C) and above, please consult factory

**Temperature and Pressure Ratings:** 

• Ratings are at atmospheric pressure

• Polymer up to 140° F (60°C) • Glass up to 180°F (82°C)





NOTE: Low level switch reservoirs available in large capacity units 1 quart (.95 liter), 1/2 gallon (1.89 liter), and 1 gallon (3.79 liter) sizes.

	RCL Series							
Fig	Part Number Polymer Glass		Capacity	A inches (mm)	B inches (mm)			
	_	RCL311	2.50 oz (73.90 mL)	2.00 (50.80)	4.88 (123.95)			
	RCL302	-	5 oz (147.90 mL)	2.50 (63.50)	5.38 (136.65)			
1	RCL303	RCL313	9 oz (266.20 mL)	3.00 (76.20)	6.19 (157.23)			
	_	-	1 pt (.47 L)	3.50 (88.90)	7.19 (182.63)			
	_	RCL315	1 qt (.95 L)	4.25 (107.95)	8.44 (214.38)			
	RCL305LS	_	1 qt (.95 L)	4.25 (107.95)	10.94 (277.88)			
2	RCL306LS	_	.50 gal (1.90 L)	5.50 (139.70)	13.00 (330.20)			
	_	_	1.00 gal (3.80 L)	5.50 (139.70)	18.00 (457.20)			



### RDF SERIES PIPE THREAD NPTF

The RDF Series of drop feed reservoirs feature a vented sight chamber, adjustable metering and toggle shut-off. All reservoirs feature self-closing snap lid filler caps, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning.

#### **Standard Materials:**

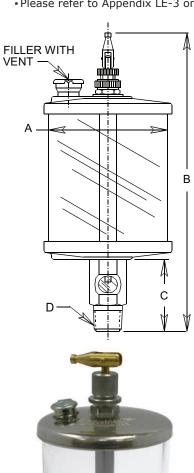
- Aluminum construction
- Buna N seals
- Gage glass sight
- Break resistant, colorless transparent polymer
- Borosilicate glass for fluid compatibility and thermal shock

#### **Operating Conditions**

- Polymer up to 140°F (60°C)
- Glass up to 250°F (121°C)
- Ratings are at atmospheric pressure
- Maximum viscosity 1500 SSU

#### NOTE:

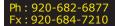
• Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions



	RDF Series Pipe Thread NPTF								
Part Polymer	No.	Capacity	A inches (mm)	B inches (mm)	C inches (mm)	D Thread NPTF			
RDF101-01	RDF101-11	.62 oz. (18.50 mL)	1.50 (38.10)	4.56 (115.82)	1.38 (35.05)	1/8			
RDF102-01	-	1.00 oz.	1.50	5.00 (127.00)	1.38 (35.05)	1/8			
RDF102-02	RDF102-12	(29.60 mL)	mL) (38.10)	5.19 (131.83)	1.56 (39.62)	1/4			
RDF103-02	RDF103-12	1.50 oz. (44.40 mL)	1.75 (44.45)	5.38 (136.65)	1.56 (39.62)	1/4			
RDF104-01	_	2.50 oz.	2.00	5.56 (141.22)	1.38 (35.05)	1/8			
RDF104-03	RDF104-13	(73.90 mL)	(50.80)	5.75 (146.05)	1.56 (39.62)	3/8			
RDF105-02	_	5.00 oz.	2.50	6.38	1.56	1/4			
RDF105-03	RDF105-13	(147.90 mL)	(63.50)	(162.05)	(39.62)	3/8			
RDF106-01	_	8.00 oz. (236.60 mL)	2.50 (63.50)	7.31 (185.67)	1.38 (35.05)	1/8			
RDF107-03	RDF107-13	9.00 oz.	3.00	7.62 (193.55)	1.94 (49.28)	3/8			
RDF107-04	RDF107-14	(266.20 mL)	(76.20)	7.81 (198.37)	2.12 (53.85)	1/2			
RDF108-02	_			8.94 (227.08)	1.94 (49.28)	1/4			
RDF108-03	_	12.00 oz. (354.90 mL)	3.00 (76.20)	8.94 (227.08)	1.94 (49.28)	3/8			
RDF108-04	-			9.12 (231.65)	2.12 (53.85)	1/2			
RDF109-02	_			8.94 (227.08)	1.94 (49.28)	1/4			
RDF109-03	RDF109-13	1.00 pt. (.47 L)	3.50 (88.90)	8.94 (227.08)	1.94 (49.28)	3/8			
RDF109-04	RDF109-14			9.12 (231.65)	2.12 (53.85)	1/2			
RDF110-03	_	1.00 qt.	4.25	9.94 (252.48)	1.94 (49.28)	3/8			
RDF110-04	RDF110-14	(.95 L)	(107.95)	10.12 (257.05)	2.12 (53.85)	1/2			
RDF111-04	RDF111-14	.50 gal. (1.90 L)	5.50 (139.70)	12.06 (306.32)	2.12 (53.85)	1/2			
RDF112-04	_	1.00 gal. (3.80 L)	5.50 (139.70)	17.06 (433.32)	2.12 (53.85)	1/2			

# MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

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# RDF SERIES STRAIGHT THREAD/REMOTE MOUNT

The RDF Series of drop feed reservoirs feature a vented sight chamber, adjustable metering and toggle shut-off. All reservoirs feature self-closing snap lid filler caps, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning.

#### **Standard Materials:**

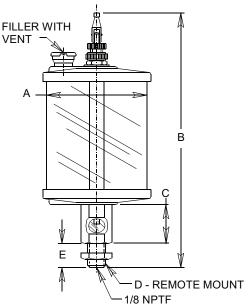
- Aluminum construction
- Buna N seals
- Gage glass sight
- Break resistant, colorless transparent polymer

#### **Operating Conditions:**

- Polymer up to 140°F (60°C)
- Ratings are at atmospheric pressure
- Maximum viscosity 1500 SSU

#### NOTE:

• Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions





	RDF Serie	s Straigh	t Thread/I	Remote M	ount	
Part No.	Capacity	A inches (mm)	B inches (mm)	C inches (mm)	D Thread UNF	E inches (mm)
RDF102-06	1.00 oz (29.60 mL)	1.50 (38.10)	5.30 (134.62)	1.00 (25.40)	9/16-18	.62 (15.75)
RDF103-06	1.50 oz (44.40 mL)	1.75 (44.45)	5.45 (138.43)	1.00 (25.40)	9/16-18	.62 (15.75)
RDF104-06	2.50 oz (73.90 mL)	2.00 (50.80)	5.74 (145.80)	1.00 (25.40)	9/16-18	.62 (15.75)
RDF105-06	5.00 oz (147.90 mL)	2.50 (63.50)	6.37 (161.80)	1.00 (25.40)	9/16-18	.62 (15.75)
RDF107-08	9.00 oz (266.20 mL)	3.00 (76.20)	7.00 (177.80)	1.38 (35.05)	5/8-18	.88 (22.35)
RDF108-08	12.00 oz (354.90 mL)	3.00 (76.20)	8.38 (212.85)	1.38 (35.05)	5/8-18	.88 (22.35)
RDF109-08	1.00 pt (.47 L)	3.50 (88.90)	8.94 (227.08)	1.38 (35.05)	5/8-18	.88 (22.35)
RDF110-08	1.00 qt (.95 L)	4.25 (107.95)	9.38 (238.25)	1.38 (35.05)	5/8-18	.88 (22.35)
RDF111-08	.50 gal (1.90 L)	5.50 (139.70)	12.19 (309.63)	1.38 (35.05)	5/8-18	.88 (22.35)
RDF112-08	1.00 gal (3.80 L)	5.50 (139.70)	16.31 (414.27)	1.38 (35.05)	5/8-18	.88 (22.35)

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### **RDM SERIES**

The RDM Series of multiple feed, large capacity reservoirs with central mounting shank provide for controlled lubrication for up to 30 points from one location. Manually operated toggle lever at the top of reservoir controls on/off full flow of oil to valves. Valve drip feed rate is individually set at each valve. Large reservoir provides 360° viewing at a glance. Vent on the vertical plane so dust and dirt cannot enter the reservoir. Exclusive patented compact manifold design allows for easy removal of any of the valves. Units with odd number of feeds will be furnished with greater number of feeds to the right side unless otherwise specified.

#### **Standard Materials:**

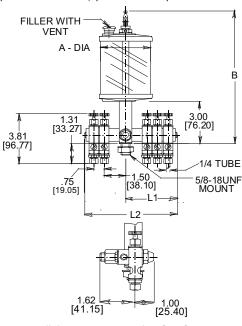
- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer

### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 140°F (60°C)
- Rating is at atmospheric pressure

#### **NOTE:**

- Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions
- For outdoor or damp applications, please specify Anodized.
- For replacement feeds, please order part number 352890



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS:**

Order Suffix	Feeds
-02	Specify 02 through 30 feeds.
-30	(2 feeds are standard)

#### **HOW TO ORDER**

EXAMPLE:

**RDM103-02** — 2 feeds (standard)

Series RDM103 - 1 pint (.47 liter)

capacity reservoir

H		
	6	00

RDM Series						
Part No.	Capacity	A inches (mm)	B inches (mm)			
RDM101	9.00 oz	3.00	8.50			
	(266.20 mL)	(76.20)	(215.90)			
RDM102	12.00 oz	3.00	9.50			
	(354.90 mL)	(76.20)	(241.30)			
RDM103	1.00 pt	3.50	9.50			
	(.47 L)	(88.90)	(241.30)			
RDM104	1.00 qt	4.25	10.69			
	(.95 L)	(107.95)	(271.53)			
RDM105	.50 gal	5.50	12.75			
	(1.90 L)	(139.70)	(323.85)			
RDM106	1.00 gal	5.50	17.75			
	(3.80 L)	(139.70)	(450.85)			

Feeds	-02	-03	-04	-05	-06	-10	-20	-30
	inches							
	(mm)							
L1	2.19	2.94	2.94	3.69	3.69	5.19	8.94	12.69
	(55.62)	(74.68)	(74.68)	(93.73)	(93.73)	(131.83)	(227.08)	(322.33)
L2	4.38	5.12	5.88	6.62	7.38	10.38	17.88	25.38
	(111.25)	(130.05)	(149.35)	(168.15)	(187.45)	(263.65)	(454.15)	(644.65)

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### **REF SERIES**

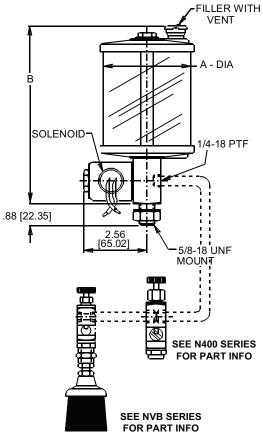
The REF Series of large capacity, full flow reservoirs are mounted at an accessible central location to automatically control fluid flow. Designed for gravity flow, can be connected in a series to any number of metering valves or valve brushes to provide an inexpensive, automatic lubrication system. Large reservoir clearly provides 360° visual check of fluid level and condition. Normally closed solenoid is usually wired across machine starting switch to provide automatic off / on full flow fluid control. Compact center solenoid valve and mounting shank combination provides good weight distribution and facilitates mounting. Other commercial voltages available - Please specify.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer
- Class "B" molded water resistant coil

#### **Standard Features:**

- 5/8 inch UNF stud end
- 1/4 PTF female connection
- Voltages available:
  - 24V, DC
  - ∘120V/60Hz 1Ph
  - -240V/60Hz 1Ph
  - 9480V/60Hz 1Ph



NOTE: All dimensions are inches [mm]



REF Series						
Part No.	Capacity	A inches (mm)	B inches (mm)			
REF151	9 oz	3.00	6.00			
	(266.20 mL)	(76.20)	(152.40)			
REF152	12 oz	3.00	7.00			
	(354.90 mL)	(76.20)	(177.80)			
REF153	1 pt	3.50	7.00			
	(.47 L)	(88.90)	(177.80)			
REF154	1 qt	4.25	8.44			
	(.95 L)	(107.95)	(214.38)			
REF155	.50 gal	5.50	10.44			
	(1.90 L)	(139.70)	(265.18)			
REF156	1.00 gal.	5.50	15.44			
	(3.80 L)	(139.70)	(392.18)			

#### **ORDERING OPTIONS:**

Order Suffix	Solenoid Voltage/Hertz:
-26	120V/60Hz, 1Ph
-27	240V/60Hz, 1Ph
-28	480V/60Hz, 1Ph
-43	24V DC

#### **HOW TO ORDER**

**EXAMPLE:** 

REF153-26 — 120V/60Hz, 1 Ph Solenoid voltage
Series REF153 - 1 pint (.473 liter)
capacity reservoir





### REM SERIES

The REM Series of multiple feed, large capacity electro reservoirs with central mounting shank provide for controlled lubrication for 2 to 30 points from one location. Solenoid valve automatically controls full flow of oil from reservoir to valves. Drip feed rate is determined by your adjustment of each needle valve. Large reservoir provides 360° viewing at a glance. Units with odd number of feeds will be furnished with greater number of feeds to the right side unless otherwise specified.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- · Class 'B' molded water resistant coil
- Break resistant, colorless transparent polymer

#### **Standard Features:**

- Up to 30 feeds can be specified
- Voltages available:
  - 24V, DC
  - ∘120V/60Hz 1Ph
  - 240V/60Hz 1Ph
  - ∘480V/60Hz 1Ph

#### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 140°F (60°C)
- Rating is at atmospheric pressure

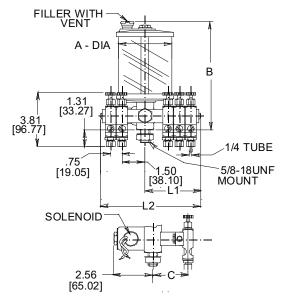
#### NOTE:

- For outdoor or damp applications, please specify Anodized.
- For replacement feeds, please order part number 352890



	REM Series							
Part No.	Capacity	A inches (mm)	B inches (mm)	C inches (mm)				
REM151	9 oz	3.00	6.00	2.00				
	(266.20 mL)	(76.20)	(152.40)	(50.80)				
REM152	12 oz	3.00	7.00	2.00				
	(354.90 mL)	(76.20)	(177.80)	(50.80)				
REM153	1 pt	3.50	7.00	2.25				
	(.47 L)	(88.90)	(177.80)	(57.15)				
REM154	1 qt	4.25	8.44	2.62				
	(.95 L)	(107.95)	(214.38)	(66.55)				
REM155	.50 gal	5.50	10.44	3.25				
	(1.90 L)	(139.70)	(265.18)	(82.55)				
REM156	1.00 gal	5.50	15.44	3.25				
	(3.80 L)	(139.70)	(392.18)	(82.55)				
REM157	2.00 gal	5.50	28.44	3.25				
	(7.60 L)	(139.70)	(722.38)	(82.55)				

920-682-6877



NOTE: All dimensions are inches [mm]

#### **ORDERING OPTIONS:**

Order Suffix	Feeds
-02 -30	Specify 02 through 30 feeds. (2 feeds are standard)

Order Suffix		
-26	120V/60Hz, 1Ph	
-27	240V/60Hz, 1Ph	
-28	480V/60Hz, 1Ph	
-43	24V DC	



-	120V/60Hz, 1 Ph
	2 feeds (standard)
-	Series REM153 - 1 pint (.473 liter)
	canacity reservoir

Feeds	-02	-03	-04	-05	-06	-10	-20	-30
	inches							
	(mm)							
L1	2.19	2.94	2.94	3.69	3.69	5.19	8.94	12.69
	(55.62)	(74.68)	(74.68)	(93.73)	(93.73)	(131.83)	(227.08)	(322.33)
L2	4.38	5.00	5.88	6.62	7.38	10.38	17.88	25.38
	(111.25)	(127.00)	(149.35)	(168.15)	(187.45)	(263.65)	(454.15)	(644.65)

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

Industries

### **REO SERIES**

The REO Series of sturdily constructed automatic solenoid controlled lubricators provides for precise control of lubricant through a needle valve. The normally closed solenoid is usually wired across machine starting switch to provide automatic off / on full flow fluid control. Feeding stops when machine is turned off. Compact center solenoid valve and mounting shank combination provides good weight distribution and facilitates mounting.

#### **Standard Materials:**

- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer
- Class "B" molded water resistant oil

#### **Standard Features:**

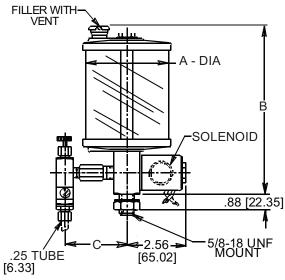
- Voltages available:
  - 24V, DC
  - ∘120V/60Hz 1Ph
  - -240V/60Hz 1Ph
  - -480V/60Hz 1Ph

#### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 140°F (60°C)
- Rating is at atmospheric pressure

#### NOTE:

- For outdoor or damp applications, please specify Anodized.
- For replacement needle valve please order part number N403-04





920-682-6877

	REO Series					
Part No.	Capacity	A inches (mm)	B inches (mm)	C inches (mm)		
REO151	2.50 oz	2.00	4.69	1.58		
	(73.90 mL)	(50.80)	(119.13)	(40.13)		
REO152	5.00 oz	2.50	5.19	2.06		
	(147.90 mL)	(63.50)	(131.83)	(52.32)		
REO153	9.00 oz	3.00	6.00	2.38		
	(266.20 mL)	(76.20)	(152.40)	(60.45)		
REO154	12.00 oz	3.00	7.00	2.38		
	(354.90 mL)	(76.20)	(177.80)	(60.45)		
REO155	1.00 pt	3.50	7.00	2.69		
	(.47 L)	(88.90)	(177.80)	(68.33)		
REO156	1.00 qt	4.25	8.44	2.75		
	(.95 L)	(107.95)	(214.38)	(69.85)		
REO157	.50 gal	5.50	10.44	3.53		
	(1.90 L)	(139.70)	(265.18)	(89.66)		
REO158	1.00 gal	5.50	15.44	3.81		
	(3.80 L)	(139.70)	(392.18)	(96.77)		
REO159	2.00 gal	5.50	28.44	3.50		
	(7.60 L)	(139.70)	(722.38)	(88.90)		



#### **ORDERING OPTIONS:**

Order Suffix	Solenoid Voltage/Hertz:
-26	120V/60Hz, 1Ph (standard)
-27	240V/60Hz, 1Ph (standard)
-28	480V/60Hz, 1Ph
-43	24V DC

**HOW TO ORDER** 

**EXAMPLE:** 

RE0155-26 — 120V/60Hz, 1 Ph Solenoid voltage Series RE0155 - 1 pint (.47 liter)

capacity reservoir



### RFF100 SERIES

The RFF100 Series of full flow dispensers is designed to serve as a central reservoir for lubricating systems. Reservoirs are gravity feed and provide a full flow of oil which can be manually shut off by flipping the toggle at the top of the reservoir to a horizontal position. Electric Solenoid shut off is available. Reservoirs provide a 360° visual check of fluid level and condition. All reservoirs also feature a self-closing snap lid filler cap, vented on the vertical plane to minimize the possibility of dust and dirt from entering the reservoir through the vent. Reservoirs can be disassembled for occasional cleaning.

#### **Standard Materials:**

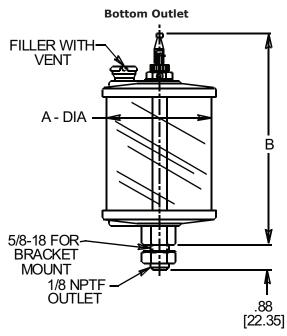
- Aluminum construction
- Buna N seals
- Break resistant, colorless transparent polymer

#### **Temperature and Pressure Ratings:**

- Maximum working temperature up to 140°F (60°C)
- Rating is at atmospheric pressure

#### **NOTE:**

• Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions





NOTE: All dimensions are inches [mm]

RFF100 Series				
Part No.	Capacity	A inches (mm)	B inches (mm)	
RFF101	9.00 oz	3.00	6.00	
	(266.20 mL)	(76.20)	(152.40)	
RFF102	12.00 oz	3.00	7.00	
	(354.90 mL)	(76.20)	(177.80)	
RFF103	1.00 pt	3.50	7.00	
	(.47 L)	(88.90)	(177.80)	
RFF104	1.00 qt	4.25	8.25	
	(.95 L)	(107.95)	(209.55)	
RFF105	.50 gal	5.50	10.25	
	(1.90 L)	(139.70)	(260.35)	
RFF106	1.00 gal	5.50	15.25	
	(3.80 L)	(139.70)	(387.35)	

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

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### **RVP SERIES**

The RVP Series of air operated reservoirs can be used for applying lubricants to chains or rollers or for spraying large sheets using the SV100 series spray valves. By varying the air pressure on fluid and to the spray valve, the valve spray pattern can be accurately adjusted to prevent overspray and drip. The use of solenoid valves on the outlet sides provides a positive shut-off of air and liquid.

#### **Standard Materials:**

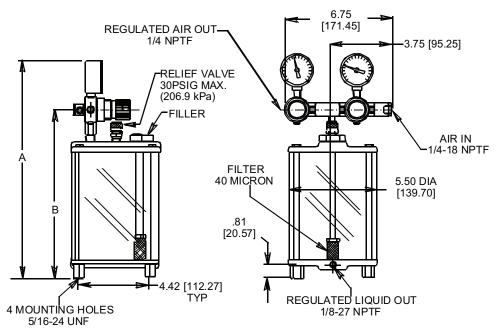
- Aluminum construction
- Buna N seals
- Break resistant, colorless, transparent polymer

#### Standard Feature:

• 40 micron filter

#### **Pressure Ratings:**

- Inlet unregulated air pressure to 125 psig (862 kPa) max
- Regulated air and fluid pressure to 30 psig (207 kPa) max



NOTE: All dimensions are inches [mm]



RVP Series				
Part No.	Capacity	A inches (mm)	B inches (mm)	
RVP101	1 qt	10.75	7.25	
	(.95 L)	(273.05)	(184.15)	
RVP102	.50 gal	14.25	10.75	
	(1.90 L)	(361.95)	(273.05)	
RVP103	1.00 gal	19.25	15.75	
	(3.80 L)	(488.95)	(400.05)	
RVP104	2.00 gal	32.25	28.75	
	(7.60 L)	(819.15)	(730.25)	

### **ESS SERIES**

The exclusive "LUBE-O-MATIC" features an integral solenoid/sight feed package which offers automatic fluid flow. The coil wires (normally closed valve) connect across the drive line or start switch allowing the unit to feed only when the machine is running. The knurled adjustment wheel provides positive, smooth feed rate adjustment from full-flow to shut-off. A large vented sight window is provided for easy viewing of the feed rate.

#### **Standard Features:**

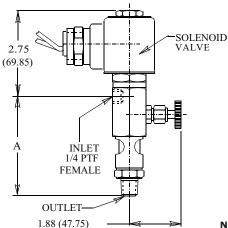
- Available in either angle or straight pattern
- •.09 inch (2.39 mm) minimum orifice

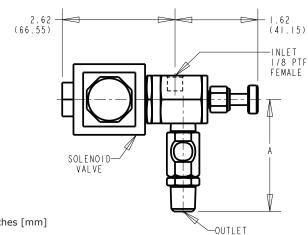
#### **Standard Materials:**

- · Class 'B' molded water resistant coil
- Needle valve is brass construction

### **Operating Conditions:**

- 11.5 watts power consumption for all units
- Gravity flow





NOTE:	ΔΙΙ	dimensions	are	inches	[mm]

ESS Se	ESS Series - Angle Pattern				
Part No.	Outlet	A inches (mm)			
ESS101	1/4 Tube	3.19 (81.03)			
ESS102	1/4 Male NPTF	3.19 (81.03)			
ESS103	1/8 Male NPTF	3.00 (76.20			



ESS Series - Straight Pattern				
Part No.	Outlet	A inches (mm)		
ESS151	1/8 Male NPTF	2.50 (63.50)		
ESS152	1/4 Male NPTF	2.56 (65.02)		
ESS155	1/4 Tube	2.62 (66.55)		

ORDERING OPTIONS:		
Order Suffix	Solenoid Voltage/Hertz:	
-26	120V/60Hz, 1Ph	
-27	240V/60Hz, 1Ph	
-28	480V/60Hz, 1Ph	
-42	12V, DC	
-43	24V, DC	

HOW TO ORDER

EXAMPLE:

ESS102-26 — 120V/60Hz, 1 Ph Solenoid voltage

Series ESS102- (angle pattern)

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### **ESV SERIES**

The ESV Series straight pattern solenoid valve features a compact, rugged design. This normally closed two-way valve has female pipe thread (Dryseal) inlet and outlet which are in a straight line through the body. When the solenoid is energized, the plunger lifts, opening the valve. When the circuit is broken, the spring loaded plunger returns, closing the orifice.

#### **Standard Features:**

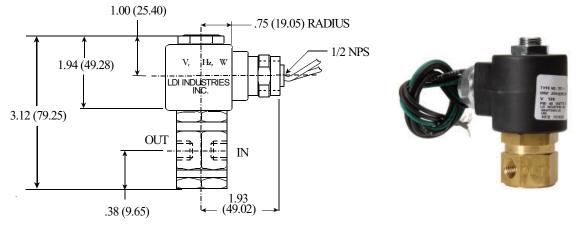
- 1/8 inch PTF female connection
- Straight pattern
- •.09 (2.39mm) minimum orifice
- Voltages available:
  - □12V, DC
  - 24V, DC
  - ∘120V/60Hz, 1Ph
  - 240V/60Hz, 1Ph
  - ∘480V/60Hz, 1Ph

#### **Standard Materials:**

- · Class 'B' molded water resistant coil
- Solenoid valve body is brass construction
- Plunger, tube and case assembly are Stainless Steel construction
- Plunger valve discs are molded and ground synthetic

#### **Pressure Ratings:**

- 11.50 watts power consumption for all units
- Maximum inlet pressure 65 PSI (448 kPa)
- Maximum back pressure 10 PSI (69 kPa)



NOTE: All dimensions are inches (mm)

ESV Series								
Part No.	PTF	Orifice Diameter inches (mm)	Maximum Inlet Pressure PSI (kPa)	Maximum Back Pressure PSI (kPa)				
ESV501	1/8 x 1/8	.20 (5.16)	65 (448)	10 (69)				

ORDERI	ORDERING OPTIONS:								
Order Suffix	Solenoid Voltage/Hertz:								
-26	120V/60Hz, 1Ph								
-27	240V/60Hz, 1Ph								
-28	480V/60Hz, 1Ph								
-42	12V DC								
-43	24V DC								

HOW TO ORDER

EXAMPLE:

ESV501-26 — 120V/60Hz, 1 Ph Solenoid voltage

Series ESV501- (straight pattern)

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

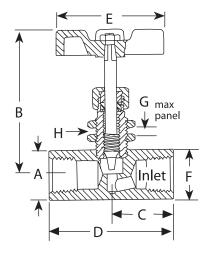


### FFG SERIES - HEAVY DUTY

The FFG Series is ideal for applications which require fine metering and shut-off. Designed for use with air, oil, water, steam, liquid fuels and most chemicals.

#### **Standard Features:**

- Heavy duty brazed construction for added strength and safety
- Precision machined stems and valve bodies provide perfect seat alignment for leak-free shut off
- Carbon steel valves are zinc plated and sealed with black chromate for double corrosion protection
- Stem Taper
  - -10.5° (1/4, 3/8, 1/2 inch sizes)
  - ∘15° (3/4 inch size)
- Stem Pitch
  - ∘16 threads/inch (1/4, 3/8, 1/2 inch sizes)
  - ∘14 threads/inch (3/4 inch size)



#### **Standard Material:**

Carbon steel

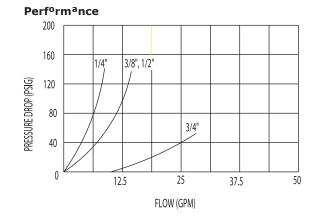
#### **Temperature and Pressure Ratings:**

- Maximum operating pressure 10,000 PSI (68948 kPA) Hydraulic Oil
- Maximum operating pressure 2000 PSI (13790 kPa) Air
- Temperature range -40° F to 500° F (-40° C to 260° C)



	FFG Series										
P <sup>a</sup> rt N <sup>o</sup> .	B <sup>o</sup> dy M <sup>a</sup> teri <sup>a</sup> l	A Fem <sup>a</sup> le NPT	B M <sup>a</sup> x (inches)	C (inches)	D (inches)	E (inches)	F (inches)	G (inches)	H Di <sup>a</sup> (inches)	Orifice Di <sup>a</sup> . (inches)	CV
FFG2002T	Carbon Steel	1/4	3.50	1.03	2.06	2.50	.88	.38	.62	.22	.66
FFG2003T	Carbon Steel	3/8	3.62	1.44	2.75	2.50	1.12	.38	.75	.22	.70
FFG2004T	Carbon Steel	1/2	3.62	1.44	2.75	2.50	1.12	.38	.75	.22	.70
FFG2006TA	Carbon Steel	3/4	5.19	1.81	3.62	4.25	1.50	.88	1.50	.56	3.90

Panel Mountii	ng Kits
Valve Size (inch)	Kit No.
.25	2002S
.38 to .50	2004S
.75	2005S



# **MINI LINE SERIES**

The Mini Line Series is ideal for test bench and control panel applications. Designed for use with air, oil, water, steam, vaccum service and most chemicals.

#### **Standard Features:**

- Compact design provides easy installation
- Fine stem threading and long taper allow precise metering and leak-free shut off
- Internal stop prevents the stem from being accidentally unscrewed from the body
- Valves come equipped for panel mounting
- .182 inch orifice diameter
- 15° stem taper
- 32 threads/inch stem pitch

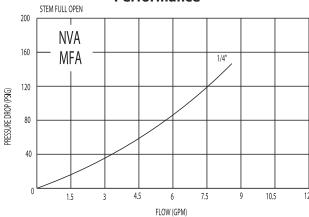
#### **Standard Materials:**

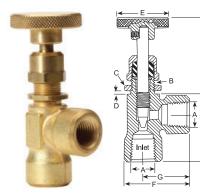
- Body, stem, knob, bonnet nut, panel mount nut Brass
- Set screw Steel
- Stem packing Teflon with brass gland

#### **Temperature and Pressure Ratings:**

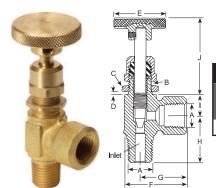
- Maximum operating pressure 5000 PSI (34474 kPa) Hydraulic oil
- Maximum operating pressure 2000 PSI (13790 kPa) Air
- •Temperature range -40°F to 500°F (-40°C to 260°C)







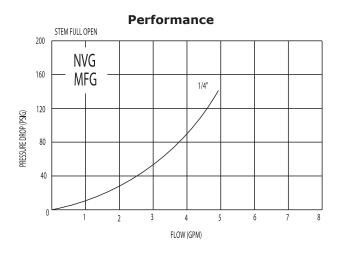
	NVA (dimensions in inches)											
B C A Thread Size Hex D J J Part No. NPT UNS-2B Size Max E F G H I Open Closed CV												
NVA250B	1/4	1/2-27	.69	.22	1.25	1.41	1.00	1.00	.44	2.16	1.59	.70

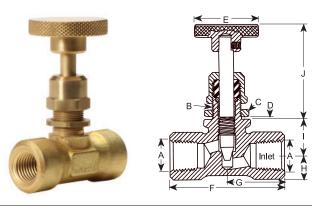


	MFA (dimensions in inches)											
B C A Thread Size Hex D J J Part No. NPT UNS-2B Size Max E F G H I Open Closed CV												
MFA250B	1/4	1/2-27	.69	.22	1.25	1.34	1.00	1.00	.44	2.16	1.59	.70

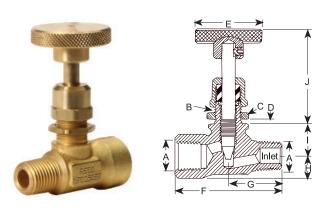
Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

# MINI LINE SERIES (CONT'D)





NVG (dimensions in inches)												
Part No.		B Thread Size UNS-2B			E	F	G	н	I	J Open	J Closed	cv
NVG250B	1/4	1/2-27	.69	.22	1.25	1.34	1.00	1.00	.44	2.16	1.59	.70



	MFG (dimensions in inches)											
Part No.		B Thread Size UNS-2B			E	F	G	н	I	J Open	J Closed	cv
MFG250BF	1/4	1/2-27	.69	.22	1.25	2.00	1.00	.41	.44	2.16	1.78	.50

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

### **N100 SERIES**

The N100 Series straight pattern needle valves with sight are ideally suited for vertical inline installation requiring controlled visible fluid metering. Knurled wheel provides for smooth, accurate adjustments of flow rate. Drip feed rate is adjustable from full orifice flow to complete shut-off. Flow is readily visible through large sight window. Pressure units supplied with non-vented sights. Gravity feed valves are furnished with a vented sight chamber, provided by a split in the gasket above the sight glass.

#### **Standard Features:**

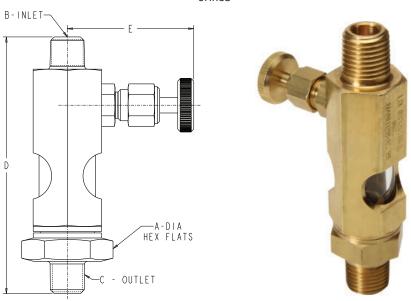
- 1/8, 1/4, 3/8 or 1/2 inch NPTF connections
- · Available in either male or female connections

#### **Standard Materials:**

- Precision machined from brass bar stock.
- Buna N seals.
- Gage glass sight.
- Pipe threads are dryseal

### **Pressure Rating:**

Maximum operating pressure 125 PSI (862 kPa) to orifice



			N100 S	eries			
Part Gravity	: No. Pressure	A Hex Dia. inches (mm)	Orifice inches (mm)	B Inlet	C Outlet	D inches (mm)	E inches (mm)
N102-01	_			1/8 M	1/8 M	3.03 (76.96)	
N102-02	N102-12			1/4 M	1/4 M	3.41 (86.61)	
N102-03	_	.81 (20.57)	.09 (2.39)	1/8 F	1/8 F	2.72 (69.09)	1.50 (38.10)
N102-04	N102-14			1/4 F	1/4 F	2.97 (75.44)	
N102-06	_			1/4 M	1/4 T	3.44 (87.38)	
N103-01	_	.94	.11	3/8 M	3/8 M	3.56 (90.42)	1.75
N103-02	_	(23.88)	(2.77)	3/8 F	3/8 F	3.25 (82.55)	(44.45)
N104-01	_	1.06	.15	1/2 M	1/2 M	3.94 (100.08)	1.75
N104-02	N104-12	(26.92)	(3.86)	1/2 F	1/2 F	4.62 (117.35)	(44.45)

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

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### **N400 SERIES**

The N400 Series Needle Valves allow the flow to be accurately controlled from full orifice opening to shut off. Fluid flow is readily visible through a large sight window. Cross pattern can be used singularly or installed in series. Pressure units supplied with non-vented sights. Gravity feed valves are furnished with a vented sight chamber, provided by a split in the gasket above the sight glass.

#### **Standard Features:**

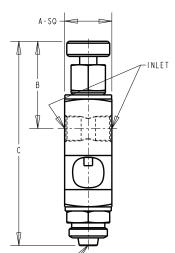
- 1/8 inch PTF female or 1/8 inch NPTF male connection for inlet and outlets
- 1//4 inch tubing outlet also available
- Vacuum application is available (requires modification)

#### **Standard Materials:**

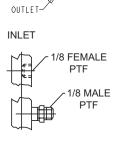
- Precision machined from aluminum bar stock
- Pipe threads are dryseal

#### **Pressure Rating:**

 Maximum working pressure up to 125 PSI (862 kPa) to orifice

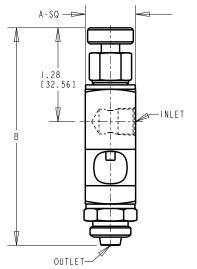


	N400 Series - Cross Pattern									
Part Gravity	No. Pressure	A Hex Dia inches (mm)	Orifice inches (mm)	Inlet	Outlet	B inches (mm)	C inches (mm)			
N401-01	N401-11	.69	.09	1/0 E	1/8 F	1.38	2.94 (74.68)			
N401-04	_	(17.53)	2.39	1/8 F	1/4 T	(35.05)	3.38 (85.85)			





	N400 Series - Angle Pattern								
Part Gravity	No.	A Hex Dia inches (mm)	Orifice inches (mm)	Inlet	Outlet	B inches (mm)			
N403-01	_				1/8 F	2.94 (74.68)			
N403-02	_	.69	.09	1/8 F	1/8 M	3.12 (79.25)			
N403-04		(17.53)	2.39		1/4 T	3.38 (85.85)			
N404-01	N404-11			1/8 M	1/8 F	2.94 (74.68)			



NOTE: All dimensions are inches (mm)

MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

### **N470 SERIES**

The N470 Series toggle type valves are designed for controlled flow applications that require shutting off at times. This style of valve can be shut off and turned on again without affecting the previous preset drip rate. Fine adjustments can be made and easily locked by the knurled friction lock-ring. The drip rate is clearly visible through the large sight. Gravity feed valves are furnished with a vented sight chamber, provided by a split in the gasket above the sight glass. Valves for pressure applications have a solid gasket in both ends of the sight glass. (Non-vented)

#### **Standard Materials:**

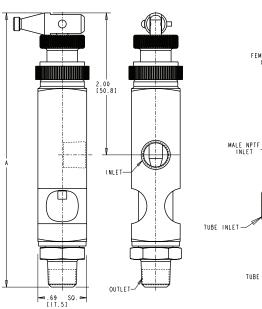
- Brass Construction
- Buna N Seals
- Pipe threads are dryseal

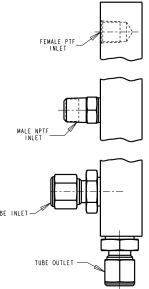
#### **Pressure Ratings:**

- Pressure version is rated for maximum working pressure applications up to 125 PSI (862 kPa)
- •.09 (2.39mm) minimum orifice

#### **NOTE:**

• Please refer to Appendix LE-3 on page LE-A3 for Toggle Valve Adjustment Instructions







NOTE: All dimensions are inches [mm]

N47	N470 Series - Angle Pattern								
Part	t No.		A inches						
Gravity	Pressure	Outlet	(mm)						
	1/8 PTF Fen	nale Inlet							
N471-02	_	1/8 Male	3.81 (96.77)						
N471-03	_	1/4 Tube	4.00 (101.60)						
	1/8 NPTF M	lale Inlet							
N472-03	N472-13	1/4 Tube	4.00 (101.60)						
	1/4 NPTF M	lale Inlet							
N473-03	_	1/4 Tube	4.00 (101.60)						

### **NVM SERIES**

The NVM Series is designed for controlled multiple oiling from central location. Lubricant, (in reservoir of dispenser) individually metered at valve bank, travels to various points servicing hard to get at places, and eliminating individual oil cups. Easily disassembled for cleaning. Individual valves remove without disturbing other components. Gravity feed valves are furnished with a vented sight chamber, provided by a split in the gasket above the sight glass.

#### **Standard Features:**

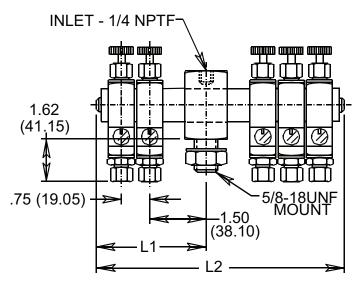
- Pressure units supplied with non-vented sight
- 2 to 8 feeds available

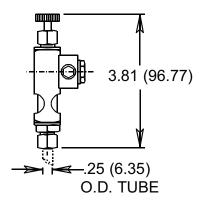
#### **Standard Materials:**

- Aluminum Construction
- Buna N seals
- Gage glass sight

#### **Pressure Rating:**

• Pressure applications up to 125 PSI (862 kPa) non-vented





NOTE: All dimensions are inches (mm)

NVM Series						
Part	: No.					
Gravity Vented Sight	Pressure Non-Vented Sight	Feeds	L1 inches (mm)	L2 inches (mm)		
NVM102-002	NVM102-102	2	2.09 (53.09)	4.19 (106.43)		
NVM102-003	NVM102-103	3	2.09 (53.09)	4.94 (125.48)		
NVM102-004	NVM102-104	4	2.84 (72.14)	5.69 (144.53)		
NVM102-005	NVM102-105	5	2.84 (72.14)	6.44 (163.58)		
NVM102-006	NVM102-106	6	3.59 (91.19)	7.19 (182.63)		
NVM102-008	NVM102-108	8	4.34 (110.24)	8.69 (220.73)		



MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY (MINIMUM ORDER MAY BE REQUIRED)

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



### TMF SERIES

The TMF Series is designed for extremely precise control of hydraulic and pneumatic actuators. Provides metered flow in one direction and free flow in the reverse direction.

#### **Standard Features:**

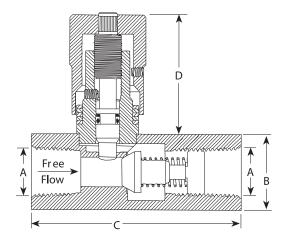
- Easy-to-read color bands and micrometer knobs for exact flow settings
- Re-set repeatability within 1%
- Precision-machined Double-Step stem with fine threading provides accurate control, even at extremely low flows
- Rugged, all metal construction-no plastic parts
- Bleed holes in piston provide a cushion to soften closing impact and extend valve life
- Brazed construction to withstand high pressure
- Set screw provided to secure valve setting
- Steel valves are zinc-plated AND sealed with black chromate for double corrosion protection
- 2° x 45° double-step stem taper
- •40 threads/inch stem pitch

#### **Standard Materials:**

- Body Steel
- Piston seal Metal
- Piston, piston retainer, spring and stem, Stainless Steel
- Knob & color bands Anodized Aluminum
- Set screw Steel
- Stem packing Viton O-Ring with Teflon backup

### **Temperature and Pressure Ratings:**

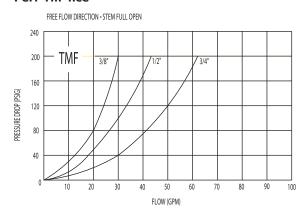
- Maximum operating pressure 5000 PSI (34474 kPa)
- Temperature range: -20°F to +400°F (-28°C to 204 °C)
- Cracking Pressure (Check valve): 2 PSI (14 kPa)

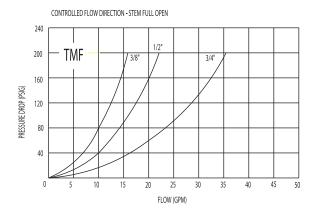




#### Perf<sup>o</sup>rm<sup>a</sup>nce

Ph : 920-682-6877 Fx : 920-684-7210





TMF Series (dimensions in inches)									
Part No.	Body Material	Piston Seal	A NPT Female	B Square (inch)	С	D Max	Orifice Diameter	CV Free-flow Direction	CV Controlled Flow Direction
TMF375S	Steel	Metal	3/8	1.00	2.75	1.72	.22	2.95	.72
TMF500S	Steel	Metal	1/2	1.12	3.44	2.25	.31	4.50	1.07
TMF750S	Steel	Metal	3/4	1.50	3.88	2.47	.38	5.41	1.71



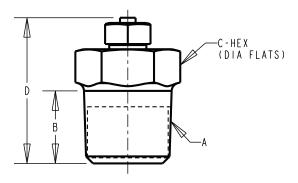
# PRESSURE/VACUUM RELIEF VENTS

### **PRV100 SERIES**

Dual purpose relief or filler vent plugs can be used for gear box housings and bearings where excessive pressures are not desirable. Unit will reseat itself for continuous duty.

#### **Standard Material:**

Plated steel



PRV100 Series						
Part No.	A PTF	B inches (mm)	C inches (mm)	D inches (mm)		
PRV101-(x)	1/8	.31 (7.87)	.44 (11.18)	.59 (14.99)		
PRV102-(x)	1/4	.50 (12.70)	.62 (15.75)	1.12 (28.45)		
PRV103-(x)	3/8	.50 (12.70)	.75 (19.05)	1.19 (30.23)		
PRV104-(x)	1/2	.62 (15.75)	.88 (22.35)	1.38 (35.05)		



When ordering, select catalog number followed by suffix number for the relief pressure - (x).

#### **EXAMPLE:**

PRV104-4 - 15 to 25 PSI (103 to 172 kPa) relief pressure 1/2-14 PTF

Suffix	-1	-2	-3	-4	-5
	PSI	PSI	PSI	PSI	PSI
	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)
Min.	.25	1	7.50	15	45
	(1.7)	(6.9)	(51.7)	(103.4)	(310.3)
Max.	1	5	15	25	80
	(6.9)	(34.5)	(103.4)	(172.4)	(551.6)

### **PRV200 SERIES**

The PRV200 Series relief vents provide protection from excessive pressure buildup and from potential collapse caused by a vacuum condition forming in their installed applications. These valves are designed to exchange air between the interior of the reservoir and the outside atmosphere.

#### **Standard Feature:**

- 3/8 inch PTF stud end

# 2.12 [53.98] HEX FLATS 1.25 DIA (31.75)

-3/8-18 PTF

DIA 🖶

NOTE: All dimensions are inches (mm)

**⇒** 1.38

### **Standard Materials:**

- 20 micron bronze filter
- Steel body
- Aluminum cap
- Buna N seals



PRV200 Series				
Part No.	PSI (kPa)	Vacuum inches Hg (mm Hg)		
PRV201-03	3.0 - 6.0 (20.7 - 41.4)	2.0 - 3.0 (50.8 - 76.2)		
PRV201-13	6.0 - 12.0 (41.4 - 82.7)	28.0 - 30.0 (711.0 - 762.0)		
PRV201-30	0.4 - 0.9 (2.8 - 6.2)	20.0 - 25.0 (508.0 - 635.0)		

NOTE: Modifications are available

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



# SAMPLING VALVE

### **V101 SERIES**

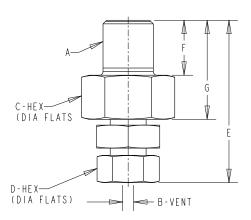
The V101 Series Sampling Valve is used to bleed excessive air pressure out of system or to sample liquid in system to view condition and clarity. A locknut prevents the screw from backing out of base in high vibration situations.

#### **Standard Materials:**

- Brass construction
- Stainless Steel ball seated in brass

#### **Operating Conditions:**

• For pressures up to 6000 PSI (41370 kPa)





V101 Series								
Part No.	A NPTF	B inches (mm)			E inches (mm)	F inches (mm)	G inches (mm)	Features
V101	1/8	.076 (1.93)	.56 (14.22)	.38 (9.65)	1.19 (30.23)	.38 (9.65)	.69 (17.53)	With Locknut

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### **G100 SERIES**

The G100 Series vented brass oil gage has a male elbow base for direct side mounting. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- •.50 inch SQ base for G51-1 and G52-1
- •.69 inch SQ base for G100 gages
- Male tapered pipe thread base connection (1/8, 1/4 or 3/8 inch NPTF)
- .31 inch wide viewing window on G51-1 and G52-1, length of .79 and 1.79 inches respectively
- .39 inch wide viewing window on G100 gages, length varies from .83 to 5.33 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

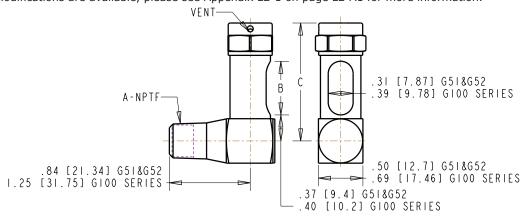
- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

	G100 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)			
G51-1	1/8	.79 (20.07)	1.61 (40.89)			
G52-1	1/8	1.79 (45.47)	2.61 (66.29)			
G101-2	1/4	.83 (21.08)	1.82 (46.23)			
G101-3	3/8	.83 (21.08)	1.82 (46.23)			
G102-1	1/8	1.33 (33.78)	2.32 (58.93)			
G102-2	1/4	1.33 (33.78)	2.32 (58.93)			
G102-3	3/8	1.33 (33.78)	2.32 (58.93)			
G103-1	1/8	1.83 (46.48)	2.82 (71.63)			
G103-2	1/4	1.83 (46.48)	2.82 (71.63)			
G103-3	3/8	1.83 (46.48)	2.82 (71.63)			

	G100 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)			
G104-2	1/4	2.33 (59.18)	3.32 (84.33)			
G104-3	3/8	2.33 (59.18)	3.32 (84.33)			
G105-1	1/8	2.83 (71.88)	3.82 (97.03)			
G105-2	1/4	2.83 (71.88)	3.82 (97.03)			
G105-3	3/8	2.83 (71.88)	3.82 (97.03)			
G106-2	1/4	3.33 (84.58)	4.32 (109.73)			
G106-3	3/8	3.33 (84.58)	4.32 (109.73)			
G107-2	1/4	4.33 (109.98)	5.32 (135.13)			
G107-3	3/8	4.33 (109.98)	5.32 (135.13)			
G108-2	1/4	5.33 (135.38)	6.32 (160.53)			
G108-3	3/8	5.33 (135.38)	6.32 (160.53)			



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

### **GT100 SERIES**

The GT100 Series vented brass oil gage has a male elbow base and integral, wetted dial thermometer providing direct reading of the fluid temperature. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (1/4, 3/8, 1/2 or 3/4 inch NPTF)
- .39 inch wide viewing window, length varies from 1.33 to 7.33 inches depending on gage selected
- 1.38 inch diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### Temperature Rating:

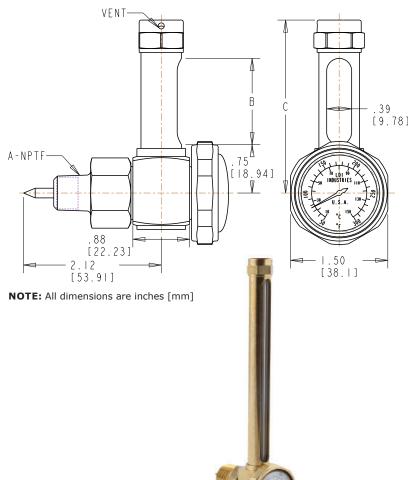
 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

- When installing oil gage in a confined space, disassemble the base subassembly from the rest of the oil gage. The base subassembly consists of the pipe adapter, base and thermometer. Install the base subassembly separately to the reservoir. Once base subassembly is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.

#### Caution:

Reservoir must be drained to remove dial thermometer or loss of fluid will occur.



GT100 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
GT102-2	1/4	1.33 (33.78)	2.66 (67.56)		
GT102-3	3/8	1.33 (33.78)	2.66 (67.56)		
GT103-2	1/4	1.83 (46.48)	3.16 (80.26)		
GT105-2	1/4	2.83 (71.88)	4.16 (105.66)		
GT105-3	3/8	2.83 (71.88)	4.16 (105.66)		
GT105-4	1/2	2.83 (71.88)	4.16 (105.66)		
GT107-4	1/2	4.33 (109.98)	5.66 (143.76)		
GT108-2	1/4	5.33 (135.38)	6.66 (169.16)		
GT108-4	1/2	5.33 (135.38)	6.66 (169.16)		
GT108-5	3/4	5.33 (135.38)	6.66 (169.16)		
GT109-5	3/4	7.33 (186.18)	8.66 (219.96)		

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



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### **GTW100 SERIES**

The GTW100 Series vented brass oil gage has a male elbow base with integral dial thermometer. The viewing window has 360° adjustment during installation for optimal orientation to view fluid during installation. The dry dial thermometer is self-contained within a thermowell for monitoring fluid temperature. This construction allows the thermometer face to be rotated after gage installation for optimal viewing position. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (3/8 or 1/2 inch NPTF)
- .39 inch wide viewing window, length varies from 1.83 to 5.33 inches depending on gage selected
- 360° adjustment of viewing window
- 1.38" diameter dual scale dial thermometer, 50° to 300°F and 10° to 150°C
- Dial thermometer may be rotated or removed from gage without loss of fluid
- Suitable for use with most machine lubricating oils

#### Standard Materials:

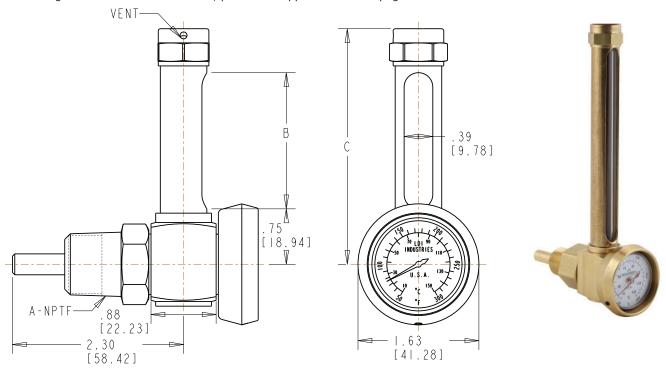
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Notes:

- When installing oil gage in a confined space, disassemble the base subassembly from the rest of the oil gage. The base subassembly consists of the pipe adapter, base and thermometer. Install the base subassembly separately to the reservoir. Once base subassembly is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



**NOTE:** All dimensions are inches [mm]

GTW100 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
GTW103-4	1/2	1.83 (46.48)	3.16 (80.26)		
GTW107-3	3/8	4.33 (109.98)	5.66 (143.76)		
GTW108-4	1/2	5.33 (135.38)	6.66 (169.16)		

### **G150 SERIES**

The G150 Series vented oil gage has a long male elbow base for direct side mounting. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .69 inch SQ base
- Male tapered pipe thread base connection (1/8, 1/4 or 3/8 inch NPTF)
- .39 inch wide viewing window, length varies from 1.33 to 4.33 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

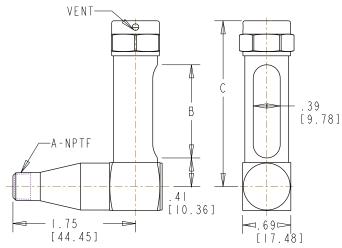
- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings

#### **Notes:**

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]



	G150 Series						
Part No.	A NPTF	B inches (mm)	C inches (mm)				
G152-1	1/8	1.33 (33.78)	2.32 (58.93)				
G152-2	1/4	1.33 (33.78)	2.32 (58.93)				
G152-3	3/8	1.33 (33.78)	2.32 (58.93)				
G153-1	1/8	1.83 (46.48)	2.82 (71.63)				
G153-2	1/4	1.83 (46.48)	2.82 (71.63)				
G153-3	3/8	1.83 (46.48)	2.82 (71.63)				
G154-2	1/4	2.33 (59.18)	3.32 (84.33)				
G155-1	1/8	2.83 (71.88)	3.82 (97.03)				
G155-2	1/4	2.83 (71.88)	3.82 (97.03)				
G155-3	3/8	2.83 (71.88)	3.82 (97.03)				
G156-1	1/8	3.33 (84.58)	4.32 (109.73)				
G156-2	1/4	3.33 (84.58)	4.32 (109.73)				
G156-3	3/8	3.33 (84.58)	4.32 (109.73)				
G157-2	1/4	4.33 (109.98)	5.32 (135.13)				
G157-3	3/8	4.33 (109.98)	5.32 (135.13)				



### **GTW150 SERIES**

The GTW150 Series vented brass oil gage has a male elbow base with integral dial thermometer. The viewing window has 360° adjustment during installation for optimal orientation to view fluid during installation. The dry dial thermometer is self-contained within a thermowell for monitoring fluid temperature. This construction allows the thermometer face to be rotated after gage installation for optimal viewing position. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (1/4, 1/2 or 3/4 inch NPTF)
- .39 inch wide viewing window, length varies from 1.33 to 7.33 inches depending on gage selected
- 360° adjustment of viewing window
- 1.81 inch diameter dual scale dial thermometer, 0° to 300°F and -20° to 150°C
- Dial thermometer may be rotated or removed from gage without loss of fluid
- Suitable for use with most machine lubricating oils

### **Standard Materials:**

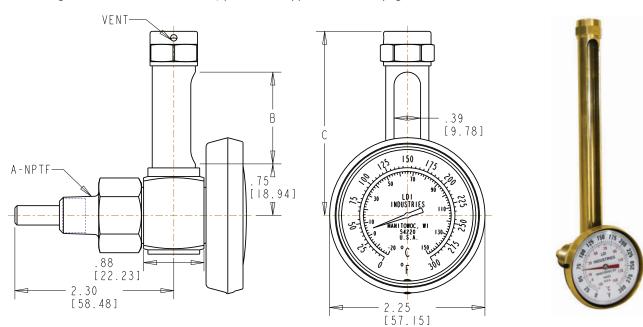
- Brass construction
- Buna N seals
- Borosilicate glass sight

### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

• Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

GTW150 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
GTW152-2	1/4	1.33 (33.78)	2.66 (67.56)		
GTW154-2	1/4	2.33 (59.18)	3.66 (92.96)		
GTW157-4	1/2	4.33 (109.98)	5.66 (143.76)		
GTW158-4	1/2	5.33 (135.38)	6.66 (169.16)		
GTW159-5	3/4	7.33 (186.19)	8.66 (219.96)		



### **G200 SERIES**

The G200 Series vented brass oil gage has a male elbow base for direct side mounting. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (3/8 or 1/2 inch NPTF)
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

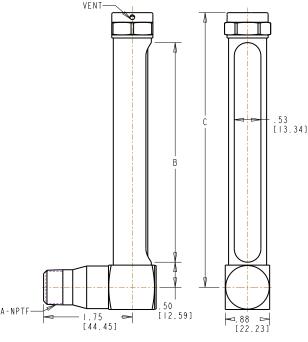
- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.





NOTE: All dimensions are inches [mm]

G200 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
G211-3	3/8	4.33 (109.98)	5.42 (137.67)		
G211-4	1/2	4.33 (109.98)	5.42 (137.67)		
G213-3	3/8	7.58 (192.53)	8.67 (220.22)		
G213-4	1/2	7.58 (192.53)	8.67 (220.22)		
G214-4	1/2	9.58 (243.33)	10.67 (271.02)		
G215-3	3/8	12.58 (319.53)	13.67 (347.22)		
G215-4	1/2	12.58 (319.53)	13.67 (347.22)		

### **G260 SERIES**

The G260 Series vented oil gage has a long male elbow base for direct side mounting. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (3/8 or 1/2 inch NPTF)
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

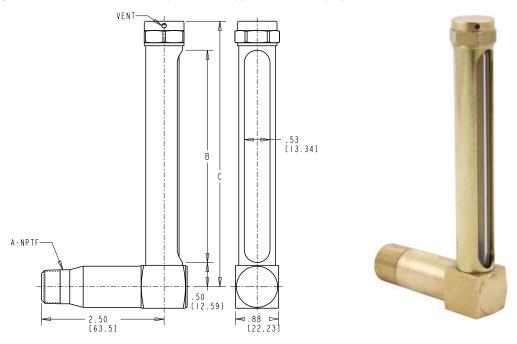
- Brass construction
- Buna N seals
- · Borosilicate glass sight

### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

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G260 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
G261-3	3/8	4.33 (109.98)	5.42 (137.67)		
G261-4	1/2	4.33 (109.98)	5.42 (137.67)		
G262-4	1/2	5.58 (141.73)	6.67 (169.42)		
G263-3	3/8	7.58 (192.53)	8.67 (220.22)		
G263-4	1/2	7.58 (192.53)	8.67 (220.22)		
G265-3	3/8	12.58 (319.53)	13.67 (347.22)		
G265-4	1/2	12.58 (319.53)	13.67 (347.22)		

### **G300 SERIES**

The G300 Series vented brass oil gage has a straight hex base with male pipe thread. A shield with machined viewing window surrounds the tubular glass sight. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- Gage base machined from brass hex bar stock
- Male tapered pipe thread base connection (1/8, 1/4 or 3/8 inch NPTF)
- .39 inch wide viewing window, length varies from 1.79 to 7.33 inches depending on gage selected
- 360° adjustment of viewing window
- · Suitable for use with most machine lubricating oils

#### **Standard Materials:**

- Brass construction
- Buna N seals
- Borosilicate glass sight

#### Temperature Rating:

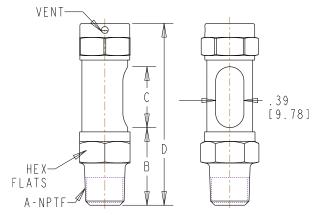
 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

• Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.

	G300 Series						
Part No.	A NPTF	B inches (mm)	C inches (mm)	D inches (mm)	HEX FLATS		
G62-1	1/8	.79 (20.07)	1.79 (45.47)	3.06 (77.72)	.50 (12.70)		
G301-2	1/4	1.06 (26.87)	.83 (21.08)	2.48 (62.99)	.69 (17.53)		
G302-1	1/8	.87 (22.10)	1.33 (33.78)	2.29 (58.17)	.69 (17.53)		
G302-2	1/4	1.06 (26.87)	1.33 (33.78)	2.98 (75.69)	.69 (17.53)		
G302-3	3/8	1.06 (26.87)	1.33 (33.78)	2.98 (75.69)	.69 (17.53)		
G303-1	1/8	.87 (22.10)	1.83 (46.48)	3.29 (83.57)	.69 (17.53)		
G303-2	1/4	1.06 (26.87)	1.83 (46.48)	3.48 (88.39)	.69 (17.53)		
G303-3	3/8	1.06 (26.87)	1.83 (46.48)	3.48 (88.39)	.69 (17.53)		
G304-2	1/4	1.06 (26.87)	2.33 (59.18)	3.98 (101.09)	.69 (17.53)		
G304-3	3/8	1.06 (26.87)	2.33 (59.18)	3.98 (101.09)	.69 (17.53)		





NOTE: All dimensions are inches [mm]

	G300 Series (cont'd)					
Part No.	A NPTF	B inches (mm)	C inches (mm)	D inches (mm)	HEX FLATS	
G305-2	1/4	1.06 (26.87)	2.83 (71.88)	4.48 (113.79)	.69 (17.53)	
G305-3	3/8	1.06 (26.87)	2.83 (71.88)	4.48 (113.79)	.69 (17.53)	
G306-2	1/4	1.06 (26.87)	3.33 (84.58)	4.98 (126.49)	.69 (17.53)	
G306-3	3/8	1.06 (26.87)	3.33 (84.58)	4.98 (126.49)	.69 (17.53)	
G307-1	1/8	.87 (22.10)	4.33 (109.98)	5.79 (147.07)	.69 (17.53)	
G307-2	1/4	1.06 (26.87)	4.33 (109.98)	5.98 (151.89)	.69 (17.53)	
G307-3	3/8	1.06 (26.87)	4.33 (109.98)	5.98 (151.89)	.69 (17.53)	
G308-2	1/4	1.06 (26.87)	5.33 (135.38)	6.98 (177.29)	.69 (17.53)	
G308-3	3/8	1.06 (26.87)	5.33 (135.38)	6.98 (177.29)	.69 (17.53)	
G309-2	1/4	1.06 (26.87)	7.33 (186.18)	8.98 (228.09)	.69 (17.53)	
G309-3	3/8	1.06 (26.87)	7.33 (186.18)	8.98 (228.09)	.69 (17.53)	



### **G320 SERIES**

The G320 Series vented brass oil gage has a large straight hex base with male pipe thread. A shield with machined viewing window surrounds the tubular glass sight. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- Gage base machined from brass hex bar stock
- Male tapered pipe thread base connection (3/8, 1/2 or 3/4 inch NPTF)
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oil

#### **Standard Materials:**

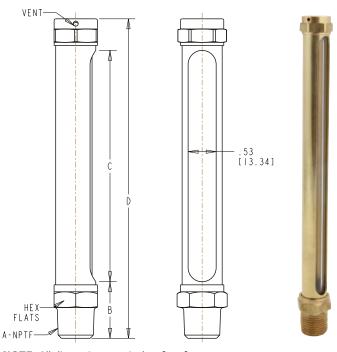
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

• Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

	G320 Series						
Part No.	A NPTF	B inches (mm)	C inches (mm)	D inches (mm)	HEX FLATS		
G321-3	3/8	1.16 (29.46)	4.33 (109.98)	6.00 (152.40)	.81 (20.57)		
G321-4	1/2	1.35 (34.29)	4.33 (109.98)	6.19 (157.23)	.94 (23.88)		
G322-3	3/8	1.16 (29.46)	5.58 (141.73)	7.25 (184.14)	.81 (20.57)		
G322-4	1/2	1.35 (34.29)	5.58 (141.73)	7.44 (188.98)	.94 (23.88)		
G322-5	3/4	1.35 (34.29)	5.58 (141.73)	7.44 (188.98)	1.06 (26.92)		
G323-2	1/4	1.16 (29.46)	7.58 (192.53)	9.25 (234.95)	.81 (20.57)		
G323-4	1/2	1.35 (34.29)	7.58 (192.53)	9.44 (239.78)	.94 (23.88)		
G324-2	1/4	1.16 (29.46)	9.58 (243.33)	11.25 (285.75)	.81 (20.57)		
G324-3	3/8	1.16 (29.46)	9.58 (243.33)	11.25 (285.75)	.81 (20.57)		
G324-4	1/2	1.35 (34.29)	9.58 (243.33)	11.44 (290.58)	.94 (23.88)		
G325-3	3/8	1.16 (29.46)	12.58 (319.53)	14.25 (361.95)	.81 (20.57)		
G325-4	1/2	1.35 (34.29)	12.58 (319.53)	14.44 (366.78)	.94 (23.88)		

### **G400 SERIES**

The G400 Series vented brass oil gage has a female elbow base. A shield with machined viewing window surrounds the tubular glass sight. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- •.88 inch SQ base machined from brass bar stock
- Female tapered pipe thread base connection (1/8, 1/4 or 3/8 inch NPTF)
- .39 inch wide viewing window, length varies from .83 to 5.33 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

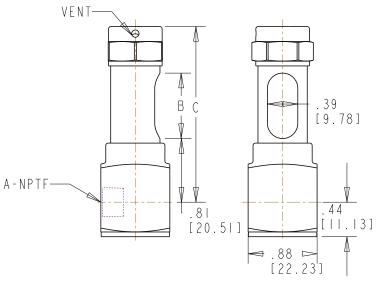
- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]



	G400	Series	
Part No.	A NPTF	B inches (mm)	C inches (mm)
G401-1	1/8	.83 (21.08)	2.23 (56.72)
G402-1	1/8	1.33 (33.78)	2.73 (69.42)
G402-2	1/4	1.33 (33.78)	2.73 (69.42)
G402-3	3/8	1.33 (33.78)	2.73 (69.42)
G403-1	1/8	1.83 (46.48)	3.23 (82.12)
G403-2	1/4	1.83 (46.48)	3.23 (82.12)
G403-3	3/8	1.83 (46.48)	3.23 (82.12)
G404-2	1/4	2.33 (59.18)	3.73 (94.82)
G405-1	1/8	2.83 (71.88)	4.23 (107.52)
G405-2	1/4	2.83 (71.88)	4.23 (107.52)
G405-3	3/8	2.83 (71.88)	4.23 (107.52)
G406-2	1/4	3.33 (84.58)	4.73 (120.22)
G407-2	1/4	4.33 (109.98)	5.73 (145.62)
G408-2	1/4	5.33 (135.38)	6.73 (171.02)



### G420 SERIES

The G420 Series vented brass oil gage has a female elbow base. A shield with machined viewing window surrounds the tubular glass sight. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- •1.00 inch SQ base machined from brass bar stock
- Female tapered pipe thread base connection (3/8 or 1/2 inch NPTF)
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- · Suitable for use with most machine lubricating oils

#### **Standard Materials:**

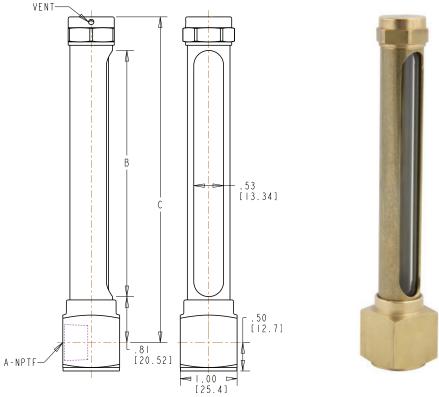
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

- When installing oil gage in a confined space, disassemble base from oil gage to allow the individual base to be installed separately to the reservoir. Once base is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

G420 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
G421-3	3/8	4.33 (109.98)	5.73 (145.62)		
G421-4	1/2	4.33 (109.98)	5.73 (145.62)		
G423-3	3/8	7.58 (192.53)	8.98 (228.17)		
G423-4	1/2	7.58 (192.53)	8.98 (228.17)		
G425-4	1/2	12.58 (319.53)	13.98 (355.09)		



### **G650 SERIES**

The G650 Series vented oil gage utilizes an adapter union fitting to connect the base of the oil gage to the reservoir. This construction offers advantages when installing oil gages in confined spaces by not requiring disassembly of the gage base. The viewing window and shield do not rotate during installation of the oil gage. The viewing window still has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .69 inch SQ base
- Adapter union fitting between reservoir and gage base
- Reservoir thread connections of 1/8, 1/4 or 3/8 inch NPTF
- .39 inch wide viewing window, length varies from 1.33 to 7.33 inches depending on gage selected
- 360° adjustment of viewing window
- Suitable for use with most machine lubricating oils

#### **Standard Materials:**

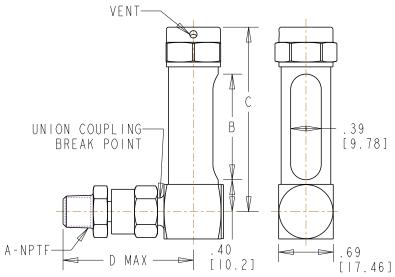
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

• Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.





NOTE: All dimensions are inches [mm]

	G650 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)	D inches (mm)		
G652-1	1/8	1.33 (33.78)	2.32 (58.93)	1.68 (42.67)		
G652-2	1/4	1.33 (33.78)	2.32 (58.93)	2.17 (55.12)		
G652-3	3/8	1.33 (33.78)	2.32 (58.93)	2.25 (57.15)		
G653-1	1/8	1.83 (46.48)	2.82 (71.63)	1.68 (42.67)		
G653-2	1/4	1.83 (46.48)	2.82 (71.63)	2.17 (55.12)		
G653-3	3/8	1.83 (46.48)	2.82 (71.63)	2.25 (57.15)		
G654-1	1/8	2.33 (59.18)	3.32 (84.33)	1.68 (42.67)		
G654-2	1/4	2.33 (59.18)	3.32 (84.33)	2.17 (55.12)		
G654-3	3/8	2.33 (59.18)	3.32 (84.33)	2.25 (57.15)		

	G	650 Seri	es	
Part No.	A NPTF	B inches (mm)	C inches (mm)	D inches (mm)
G655-1	1/8	2.83 (71.88)	3.82 (97.03)	1.68 (42.67)
G655-2	1/4	2.83 (71.88)	3.82 (97.03)	2.17 (55.12)
G655-3	3/8	2.83 (71.88)	3.82 (97.03)	2.25 (57.15)
G656-2	1/4	3.33 (84.58)	4.32 (109.73)	2.17 (55.12)
G656-3	3/8	3.33 (84.58)	4.32 (109.73)	2.25 (57.15)
G657-2	1/4	4.33 (109.98)	5.32 (135.13)	2.17 (55.12)
G658-2	1/4	5.33 (135.38)	6.32 (160.53)	2.17 (55.12)
G658-3	3/8	5.33 (135.38)	6.32 (160.53)	2.25 (57.15)
G659-2	1/4	7.33 (186.18)	8.32 (211.33)	2.17 (55.12)
G659-3	3/8	7.33 (186.18)	8.32 (211.33)	2.25 (57.15)

### **G710 SERIES**

The G710 Series vented oil gage utilizes an adapter union fitting to connect the base of the oil gage to the reservoir. This construction offers advantages when installing oil gages in confined spaces by not requiring disassembly of the gage base. The viewing window and shield do not rotate during installation of the oil gage. The viewing window still has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Adapter union fitting between reservoir and gage base
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- · Suitable for use with most machine lubricating oils

#### **Standard Materials:**

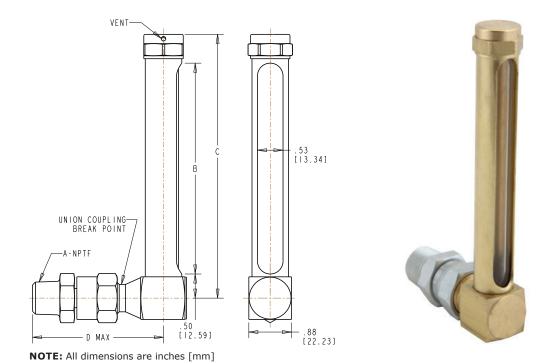
- Brass construction
- Buna N seals
- · Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

• Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



G710 Series						
B C D A inches inches inches Part No. NPTF (mm) (mm) (mm)						
G711-3	3/8	4.33 (109.98)	5.42 (137.67)	2.69 (68.33)		
G711-4	1/2	4.33 (109.98)	5.42 (137.67)	2.79 (70.87)		
G713-3	3/8	7.58 (192.53)	8.67 (220.22)	2.69 (68.33)		
G713-4	1/2	7.58 (192.53)	8.67 (220.22)	2.79 (70.87)		
G715-3	3/8	12.58 (319.53)	13.67 (347.22)	2.69 (68.33)		
G715-4	1/2	12.58 (319.53)	13.67 (347.22)	2.79 (70.87)		

### **G800 SERIES**

The G800 Series vented brass oil gage has a male elbow base with integral drain. Flow through the drain is controlled by a needle valve in the gage base. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- ■.69 inch SQ base
- Male tapered pipe thread base connection (1/8, 1/4 or 3/8 inch NPTF)
- Designed for removal of base to facilitate gage installation in a confined space
- Drain with needle valve control
- .39 inch wide viewing window, length varies from 1.33 to 5.33 inches depending on gage selected
- 360° adjustment of viewing window
- · Suitable for use with most machine lubricating oils

#### **Standard Materials:**

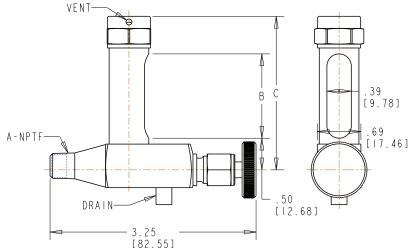
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### Note:

- When installing oil gage in a confined space, disassemble the base needle valve subassembly from the rest of the oil gage. Install the base subassembly separately to the reservoir. Once base subassembly is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



**NOTE:** All dimensions are inches [mm]



G800 Series					
Part No.	A NPTF	B inches (mm)	C inches (mm)		
G802-1	1/8	1.33 (33.78)	2.42 (61.47)		
G802-2	1/4	1.33 (33.78)	2.42 (61.47)		
G802-3	3/8	1.33 (33.78)	2.42 (61.47)		
G803-1	1/8	1.83 (46.48)	2.92 (74.17)		
G803-2	1/4	1.83 (46.48)	2.92 (74.17)		
G804-2	1/4	2.33 (59.18)	3.42 (86.87)		
G805-1	1/8	2.83 (71.88)	3.92 (99.57)		
G805-2	1/4	2.83 (71.88)	3.92 (99.57)		
G805-3	3/8	2.83 (71.88)	3.92 (99.57)		
G806-2	1/4	3.33 (84.58)	4.42 (112.27)		
G806-3	3/8	3.33 (84.58)	4.42 (112.27)		
G807-2	1/4	4.33 (109.98)	5.42 (137.67)		
G807-3	3/8	4.33 (109.98)	5.42 (137.67)		
G808-3	3/8	5.33 (135.38)	6.42 (163.07)		

### **G900 SERIES**

The G900 Series vented brass oil gage with male elbow base with integral drain. Flow through the drain is controlled by a needle valve in the gage base. Thread options include 3/8 or 1/2 NPTF threads. The viewing window has 360° adjustment for optimal orientation to view fluid after installation. The sealing gaskets are contained on both their ID and OD to facilitate trouble-free assembly after on-site repositioning of the viewing window.

#### **Standard Features:**

- .88 inch SQ base
- Male tapered pipe thread base connection (3/8 or 1/2 inch NPTF)
- Designed for removal of base to facilitate gage installation in a confined space
- Drain with needle valve control
- .53 inch wide viewing window, length varies from 4.33 to 12.58 inches depending on gage selected
- 360° adjustment of viewing window
- · Suitable for use with most machine lubricating oils

#### **Standard Materials:**

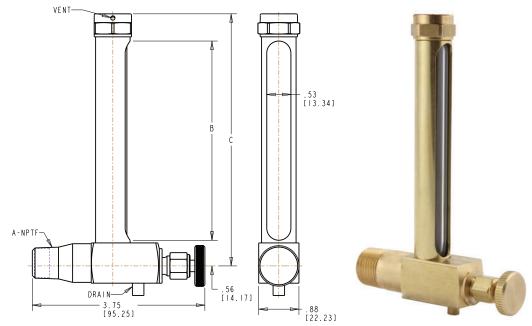
- Brass construction
- Buna N seals
- Borosilicate glass sight

#### **Temperature Rating:**

 Maximum operating temperature of 250°F (121°C) with standard Buna N seals. For applications not compatible with Buna N seal material, consult factory for available options and corresponding temperature ratings.

#### **Notes:**

- When installing oil gage in a confined space, disassemble the base needle valve subassembly from the rest of the oil gage. Install the base subassembly separately to the reservoir. Once base subassembly is in position and secure, reassemble the loose oil gage components to the base.
- Oil Gage Modifications are available, please see Appendix LE-1 on page LE-A1 for more information.



NOTE: All dimensions are inches [mm]

G900 Series									
Part No.	A NPTF	B inches (mm)	C inches (mm)						
G901-3	3/8	4.33 (109.98)	5.48 (139.19)						
G901-4	1/2	4.33 (109.98)	5.48 (139.19)						
G903-3	3/8	7.58 (192.53)	8.73 (221.74)						
G903-4	1/2	7.58 (192.53)	8.73 (221.74)						
G905-3	3/8	12.58 (319.53)	13.73 (348.74)						
G905-4	1/2	12.58 (319.53)	13.73 (348.74)						

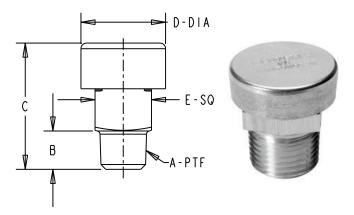
# **VENTS & BREATHERS**

### **AV100 SERIES**

The AV100 Series of protected vents features a labyrinth air path that restricts direct entry of dirt and moisture.

#### **Standard Material:**

Aluminum construction



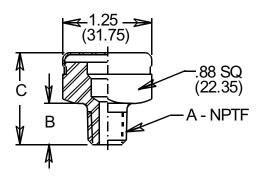
AV100 Series									
Part No.	A PTF	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)				
AV101	1/8	.33 (8.38)	1.12 (28.45)	.75 (19.05)	.50 (12.70)				
AV102	1/4	.50 (12.70)	1.19 (30.23)	.75 (19.05)	.56 (14.22)				
AV103	3/8	.51 (12.95)	1.25 (31.75)	1.00 (25.40)	.69 (17.53)				
AV104	1/2	.66 (16.76)	1.31 (33.27)	1.25 (31.75)	.88 (22.35)				
AV105	3/4	.66 (16.76)	1.50 (38.10)	1.50 (38.10)	1.12 (28.45)				

### **AV200 SERIES**

The AV200 Series of high flow vents features a large flow area with a low profile and tamper proof cap.

#### **Standard Materials:**

- Steel construction
- Zinc plated



NOTE: All dimensions are inches (mm)



AV200 Series										
Part No.	A NPTF	B inches (mm)	C inches (mm)							
AV201	1/8	.38 (9.65)	1.08 (27.43)							
AV202	1/4	.56 (14.22)	1.26 (32.00)							
AV203	3/8	.56 (14.22)	1.26 (32.00)							
AV204	1/2	.75 (19.05)	1.45 (36.83)							

AV200 Series currently made to order. (Minimum order may be required)

#### **ORDERING OPTIONS:**

No suffix = Full Flow.

-B Baffle

-F Felt filter (SAE F10 material)

-S Screen (100 mesh Stainless Steel)

#### **HOW TO ORDER**

**EXAMPLE:** 

AV204-S Optional screen (100 mesh Stainless Steel)
AV204 Series

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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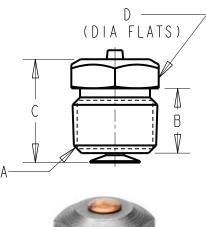
## VENTS & BREATHERS

## **AV50 SERIES**

The AV50 Series of baffle vents are used to vent gear cases, transmission housings and speed reducers.

#### **Standard Materials:**

- Steel body
- Copper baffle





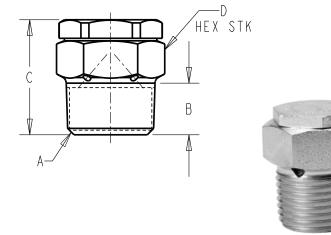
	AV	50 Serie	5	
Part No.	A PTF	B inches (mm)	C inches (mm)	D inches (mm)
AV51	1/8	.31 (7.87)	.75 (19.05)	.44 (11.18)
AV52	1/4	.50 (12.70)	1.25 (31.75)	.62 (15.75)
AV53	3/8	.50 (12.70)	1.00 (25.40)	.69 (17.53)
AV54	1/2	.64 (16.26)	1.16 (29.46)	.88 (22.35)
AV55	3/4	.66 (16.76)	1.50 (38.10)	1.25 (31.75)

### **FV100 SERIES**

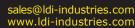
The FV100 Series of filter vents features a 40 micron filter element which is easily removable for cleaning.

#### **Standard Materials:**

- Steel zinc plated construction
- Optional 10 micron filter element is available



FV100 Series									
Part No.	A PTF	B inches (mm)	C inches (mm)	D inches (mm)					
FV101-S	1/8	.31 (7.87)	1.06 (26.92)	.75 (19.05)					
FV102-S	1/4	.50 (12.70)	1.19 (30.23)	.75 (19.05)					
FV103-S	3/8	.50 (12.70)	1.03 (26.16)	.75 (19.05)					
FV104-S	1/2	.62 (15.75)	1.21 (30.73)	.94 (23.88)					
FV105-S	3/4	.62 (15.75)	1.37 (34.80)	1.12 (28.45)					
FV106-S	1	.81 (20.57)	1.56 (39.62)	1.38 (35.05)					



# APPENDIX LE-1

### **OIL GAGE MODIFICATIONS**

Modifications are specified below. Standard shield threads are 5/8-27 or 3/4-27. Minimum order quantity may be required.

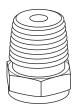
### **TOP CAP with MALE PIPE**

NPTF (dryseal)

-1MP = 1/8 inch

-2MP = 1/4 inch -3MP = 3/8 inch

**-4MP** = 1/2 inch



### **TOP CAP, NON VENTED**

-1NV

Up to 100 PSI



# TOP CAP with FEMALE PIPE NPTF (dryseal)

-1FP = 1/8 inch

**-2FP** = 1/4 inch

-3FP = 3/8 inch



# 40 MICRON FILTER VENT -FV

Available for both diameter sizes



# TOP CAP with COMPRESSION FITTING STRAIGHT TUBE

O.D. TUBE

-1T = 1/8 inch

-3T = 1/4 inch



# ADJUSTABLE BRASS RING(S) FLUID LEVEL INDICATORS

**TOP CAP with REPLACEABLE** 

-1RNG = One ring

-2RNG = Two rings

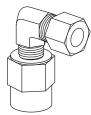


# TOP CAP with COMPRESSION FITTING 90° TUBE

O.D. TUBE

**-3TA** = 1/4 inch

-4TA = 5/16 inch



# SEAL MATERIALS OTHER THAN BUNA N (STANDARD)

**-2BU** = Butyl

**-4EP** = Ethylene Propylene

-3VI = Viton A®

-5SI = Silicone

# TOP CAP with SNAP LID FILLER

-1FC



# TOP CAP with THREADED FILLER

-2FC



# SIGHT MATERIALS OTHER THAN GAGE GLASS (STANDARD)

Minimum order quantity may be required

**-1PC** = Polycarbonate

### METAL GAGE PARTS OTHER THAN BRASS (STANDARD)

Minimum order quantity may be required

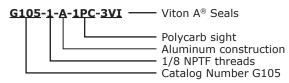
**-A** = Aluminum

#### **HOW TO ORDER LDI INDUSTRIES OIL GAGES WITH MODIFICATIONS**

Specify the catalog number and pipe thread of the gage required. Then simply choose the modifications you need using the order code shown above, separating each with a dash.

If you need a modification not included above ask us about it! We will be happy to quote from your sketch or specifications.

EXAMPLE:



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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# APPENDIX LE-2

# **INSTALLATION INSTRUCTIONS - PMP100-() AIR OPERATED**

- 1. Prior to mounting the **PMP100**:, install the 1/8-27 NPT(F) outlet fittings (S) at the bottom of each metering pump while holding the 1/2" HEX outlet adapters(S) with a wrench.
- 2. To greatly shorten the "self priming" time of the PMP100, pre-fill the liquid inlet (SEE DIAGRAM) and supply lines prior to operation. Connect an LDI "R" SERIES VENTED RESERVOIR from 1 oz. to 1 gal., sized to hold enough fluid to meet your servicing schedule. DO NOT DISASSEMBLE THE PMP100 AS DAMAGE TO THE PUMP COULD RESULT.
- 3. Mounting the PMP100(S) and connecting the fluid supply: the clear window at the top of each metering pump is offered as a means to visually verify that the lube cycles are taking place. The PMP100 will operate in any position and can be located above or below the reservoir.

**NOTE:** If the reservoir is to be remotely mounted from the PMP100, it is recommended to use a minimum of 1/4" I.D. tube as a supply line. Location should provide protection from spilled liquids, dirt, physical damage, vibration and temperatures below or 32°F above 110°F.

# DO NOT USE ANY PRESSURIZED RESERVOIRS, REGARDLESS OF FLUID OR GREASE.

4. Connecting the air circuits and electrical to the PMP100(S): a filtered and regulated air supply (15 TO 125 PSI) is to be connected to the inlet of the 3-Way Air Solenoid Valve (LDI P/N 823160, 120V/60Hz) and it's outlet connected to the air inlet of the PMP100(S). The solenoid leads are to be connected to either an existing P.L.C. or the basic adjustable repeat cycle timer

**NOTE:** Some "grease" applications may require an optional timer (LDI P/N 833380, 120V/60Hz). The timer lead should be connected to a fused & grounded electrical supply (usually to the control voltage of the machinery to be lubricated). The cycle timer will begin to cycle upon start up.

- 5. Adjusting the lube cycle interval and individual volume control output(s):
  Begin by setting the "off" time between cycles at an interval that seems to be reasonable to suit the overall application. Adjust each PMP100 outlet(s) to meet the proper individual application requirement as needed. The adjustment of cycle times and the individual output volumes will offer a wide range of flexibility to meet most application requirement.
  - Each outlet will dispense up to .012 cu .in. per cycle at full setting and is adjustable downward to zero (0) volume output.
  - **-DO NOT PLUG OFF ANY OUTLET LINES**. Simply adjust any unused outlets by turning the knurled adjusting ring clockwise to the zero (0) output setting, or remove the unused pump(s).

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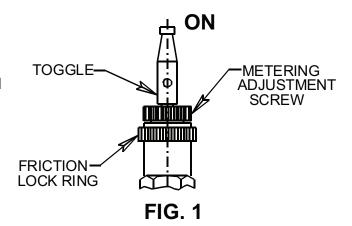


# **APPENDIX LE-3**

### **TOGGLE VALVE ADJUSTMENT INSTRUCTIONS**

#### **MINIMUM LIFT CONDITION - FIG. 1**

- 1. Loosen friction lock-ring
- 2. Raise toggle to "on" position and turn metering adjustment screw in until toggle and screw just clear each other.
- 3. The toggle is now in a no lift condition. Fluid will not flow since the port will not be open.
- 4. Gradually start turning metering adjustment screw out with the toggle in the "on" positions, and at the same time observe drip rate at the nozzle.
- 5. When proper drip rate is established, hold metering adjustment screw in place and turn down friction lock-ring to lock setting.
- 6. To stop flow, flip toggle to "off" position.
- 7. To start flow, raise toggle to "on" position. Drip rate, as previously set is retained.



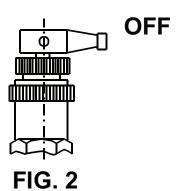
Set until light can be seen between mating surfaces or until a slight free wiggle of toggle can be felt.

### **MAXIMUM LIFT CONDITION - FIG. 2**

1. Loosen friction lock-ring.

Ph : 920-682-6877 Fx : 920-684-7210

- 2. Flip toggle to "off" position and turn metering adjustment screw out until toggle and metering adjustment screw just clear each other.
- 3. Do not turn metering adjustment screw beyond this point. Doing so will lift valve stem off of the seat, allowing uncontrolled flow of fluid and no shut-ff.
- 4. Raise toggle to "on" position and observe drip rate at the nozzle.
- 5. If flow is too great, turn metering adjustment screw in until desired drip rate is reached, hold metering adjustment screw in place and turn down friction lock-ring to lock setting.
- 6. To stop flow, flip toggle to "off" position.
- 7. To start flow, raise toggle to "on" position. Drip rate, as previously set is retained.



Toggle valves are normally shipped with toggle in "off" position but with some lift when raised to "on" position. This setting may not be required. Please check and adjust the setting to your specific needs.

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# SPECIALTY FITTINGS

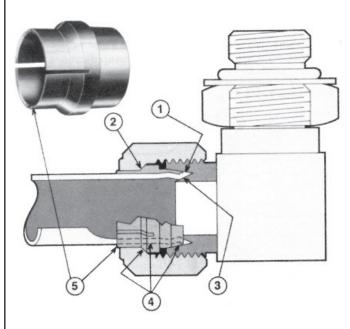
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## FOR USE W/TUBING FROM 1/8 INCH TO 2 INCH O.D.

- Eliminates Oil Leakage
- Gives 4 Points of Seal
- Supports the Tube Inside & Outside
- Reduces Work Hardening from Vibration & Surge
- Cuts Assembly Time & Costs
- Increases the Strength of the Joint
- Allows Repeated Reassembly
- Allows Close Radius Bends
- Standard Hand Tools Usually Do the Job



# WHEN PROPERLY TIGHTENED, YOU HAVE PREPARED... ...A LEAK-TIGHT TUBING JOINT:

#### 1

When the Self Flare fitting nut is properly tightened, the end of the tubing is seated firmly against the inner wall of the fitting body and is captured between the hardened Self Flare wedge and the hardened sleeve.

#### 2

The internal bevel, which is machined into the Self Flare nut, mates with the shoulder of the Self Flare sleeve. This allows an equalization of forces and permits the hardened sleeve to be pushed forward with a minimum of resistance.

#### 3

The hardened alloy steel Self Flare wedge is machined with a 25° angle, over which the tubing is pushed and thereby the Self Flare joint is made. Because the Self Flare wedge is inside the fitting body, human error is virtually eliminated because the angle of the flare, the length of the flare and the concentricity of the flare are always correct

#### 4

When in a properly tightened position, the tempered Self Flare sleeve tends to act like a spring and pushes against both the tubing and the fitting nut. This action keeps the nut under tension and minimizes the tendency of the nut to "walk" loose because of shaking, pulsation or vibration. The tubing is supported externally throughout the entire fitting joint by the Self Flare sleeve which absorbs vibration and chatter and adds strength to the entire connection.

#### 5

The Self Flare sleeve protrudes through the nut. Slots in the Self Flare sleeve create gripping fingers which help prevent tube damage by dampening mechanical movement or vibration of the tubing run.

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### WHY YOU SHOULD SPECIFY SELF FLARE **TUBE FITTINGS**

### (1) SUPERIOR TUBING JOINTS:

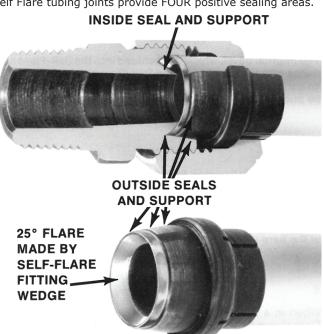
The service you get from tubing systems is only as good as the joints which make up the system.

The photographs below show how Self Flare fittings can provide you with the superior performance you require in your tubing systems.

The need for flaring tools is eliminated. Properly made up joints are achieved in virtually the same manner as an ordinary compression fitting. However, the results are vastly different.

Ordinary flare tube joints provide ONE positive sealing area. Compression or bite-type tube joints provide TWO positive sealing areas.

Self Flare tubing joints provide FOUR positive sealing areas.



### (2) OTHER ADVANTAGES OF USING **SELF FLARE TUBE FITTINGS:**

- a. Stronger Joints: Tubing flared only 25° (as with the Self Flare wedge) is stronger than tubing flared 37°. Also, the tubing is reinforced by being captured between the Self Flare wedge and the hardened sleeve.
- **b. Eliminate Tube Damage:** Incurred by pulsation, shock, vibration or surge which causes the tube to chatter in many ordinary compression fittings. Tube damage of this type often is eliminated by the spring-like action of the slotted Self Flare sleeve. When vibration or surge is involved, no other tube fitting performs as well as LDI Industries' Self Flare fittings.
- c. Close Radius Bends: The design of the Self Flare fitting allows clearance between the tube and nut for easy movement over close radius bends in the tubing.
- d. Self Flare fitting joints have been used successfully on vacuum applications. The Self Flare fittings routinely contain positive pressure to the bursting point of the tubing used. The tubing will burst before the joint will break or leak.

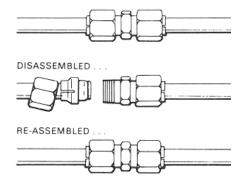
e. Self Flare fittings are being successfully used with tubing with a hardness of 90 Rockwell "B".

### (3) REPEATED ASSEMBLY

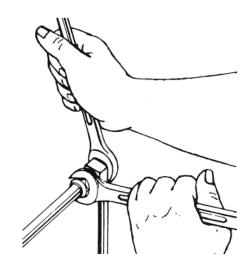
The first time the Self Flare joint is made, a compact 25° angle flare is created on the tube end. The tempered Self Flare sleeve is permanently affixed or "set" on the tube. After the Self Flare joint has been properly made, it may be disassembled and re-assembled with any Self Flare body of the correct size. This procedure may be followed repeatedly.

### (4) ONLY ORDINARY TOOLS REQUIRED

With ordinary hand tools you get the best metal-to-metal seal for a leak-tight joint. (For high production applications,

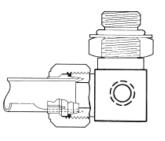


large tubes, or other considerations, bench assembly may be preferred. Vise held and semi-automatic equipment is available. See pages TF2 & TF3



### (5) MACHINED FROM BAR STOCK AND **EASY TO TAP**

Parting lines found on forgings are nonexistent. The bar stock provides flat pads for easy wrenching. Should you desire an auxiliary port, drilling and tapping are easily done on the flat surfaces of the Self Flare fitting bodies.







### **ASSEMBLY INSTRUCTIONS**

#### A TUBING SELECTION

Select the fully annealed and cleaned tubing you consider best for your particular application. Because the Self Flare fittings provide high performance service against tube damage caused by shock, pulsation, vibration or surge, in many applications the need for heavy-walled tubing is eliminated. In most applications tubing with an approximate hardness of 65 Rockwell "B" is used, but alloy tubing with an approximate hardness of 90 Rockwell "B" is also successfully being used.

#### **B PROPER FITTING**

Matching of the correct Self Flare with the tubing you selected is mandatory. Information necessary to match the tube to the fitting is explained completely in Chart II on the next page. We recommend using a good grade of fully annealed hydraulic tubing.

#### **C TUBING PREPARATION**

Caution: Improper use of tube cutter, excessive feed, will collapse the tube end and prevent it from fitting over the wedge. Also, the tube end will work hardened.

Saw Cut tubing, square within .02 inches will yield excellent joints.

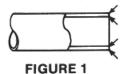
Insertion Lengths for available sizes are shown in Chart 1.

	Chart 1			
Straight Tube Length For Proper Inserti Self Flare® Fitt	Size	A* Body Entry	B Fitting Entry	
		2	.12	.69
		3	.12	.69
← Bent Tube /		4	.12	.75
Beilt Tube		5	.19	.81
		6	.19	.88
		8	.19	.91
	dutin	10	.22	.94
		12	.22	1.09
	A	14	.25	1.12
		16	.25	1.16
	D	20	.25	1.31
		24	.28	1.53
		32	.28	1.62

#### **D DEBURRING**

The outer diameter of the tubing must be deburred in

order to pass through the Self Flare sleeve. Use of the Self Flare fitting absolutely requires that the tube inner diameter must also be deburred. Figure 1 shows properly cut and deburred tube. Caution: Excessive deburring will weaken the tubing wall. Therefore, while



deburring is vital, chamfering, cutting, shaving or otherwise affecting the tube's wall thickness must be avoided.

#### **E ASSEMBLY**

With the slotted end of the sleeve protruding through the nut, assemble the nut, sleeve and body of the fitting into finger-tight position, as shown in Figure 2. Insert the fully deburred tubing into the fitting until it is firmly seated.



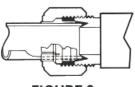


FIGURE 2

#### **F TIGHTENING**

Be sure the tubing remains firmly seated while tightening. Wrench tighten 1.50 to 2 turns until a solid feel is obtained. Flare of tube should be .010/.015 greater than original tube O.D. and bite on tube from sleeve should be .070/.100 from tube end.

#### **G REPEATED ASSEMBLY**

To remake disassembled Self Flare joints, simply reposition the tubing and retighten the nut until it stops. This procedure may be repeated as required.

The preset machine (page TF2) is required for larger BAX and all BAXX applications.

Pressure ratings and life expectancy of the assembly are reduced by improper application/installation, mechanical/vibrational damage, corrosion, hydraulic shock, etc. and are the responsibility of the user.

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### **TECHNICAL INFORMATION**

# MATCH THE SELECTED TUBING WITH THE CORRECT SELF FLARE FITTING

The geometry of the Self Flare tube fitting requires the tubing to be pushed over the Self Flare wedge inside the fitting body. The dimensions of the wedge must be compatible with the tubing in order to make a satisfactory Self Flare joint.

Illustrated below (Fig 1) is the standard tubing, representative of the type used in most conventional applications. This tube and wedge (BA) combination is correct and will allow the tube to be pushed over the wedge and make a satisfactory Self Flare tube joint.

The next illustration (Fig 2) is an incorrect matching of tubing and Self Flare wedge. Obviously the tube, as illustrated, cannot be pushed over the wedge. It is an incorrect application.

The third illustration (Fig 3) shows the same "heavy walled" tubing being used with a Self Flare wedge that has the correct dimensions and will allow the tube to be pushed over the wedge (BAX) and make a satisfactory Self Flare tube joint.







Fia 3

Fig 2 (incorrect)

THE CORRECT SELF FLARE WEDGE FOR YOUR TUBING
Part numbers shown for Self Flare fittings throughout

Part numbers shown for Self Flare fittings throughout this catalog all have a "BA" prefix. These "BA" fittings are supplied with a "Standard Wedge". The chart below states the tubing wall thickness range which will correctly mate with the "BA" wedge of each fitting size.

Also shown in the chart below is the BAX or "**Heavy Wedge**". The range of tubing wall thickness which will correctly mate with the "BAX" wedge of each fitting size is listed. To order Self Flare fittings with the heavy wedge, simply use the prefix "BAX".

"BAXX" wedges may be supplied on applications involving tubing with a wall thickness greater than that listed as maximum for the "Heavy Wedge". For such applications, wall thicknesses of tubing must be specified when ordering.

#### **GENERAL:**

**Sizes**: Self Flare fittings are manufactured for use with tubing ranging in size from 1/8 inch O.D. (size 2) through 2 inch O.D. (size 32)

Material Specifications										
	Stainle Steel Steel									
Self Flare	ASTM	Туре	ASTM	Type						
Barstock Bodies	A108	12L14	A276	316						
Cold Formed Tube Nuts	A576	C1110	A276	316						
Barstock Tube Nuts	A108	12L14	A276	316						
Tube Sleeves		41L40		17-4-PH						

	Chart II - Tube Wall Thickness Ranges for Use with Self Flare (inches)														
	sses not shown, LDI Industries	Size (Tube OD)	-2 (1/8)	-3 (3/16)	-4 (1/4)	-5 (5/16)	-6 (3/8)	-8 (1/2)	-10 (5/8)	-12 (3/4)	-14 (7/8)	-16 (1)	-20 (1 1/4)	-24 (1 1/2)	-32 (2)
STANDARD WEDGE	M.L.	Min.	.010	.010	.010	.020	.020	.020	.028	.028	.035	.028	.065	.065	.065
Use prefix BA	- thin-	Max.	.020	.028	.035	.035	.035	.049	.058	.065	.083	.095	.095	.095	.095
HEAVY WEDGE	much	Min.	.016	.022	.022	.028	.035	.042	.049	.058	.065	.083	.083	.095	.095
Use prefix BAX	- the same	Max.	.028	.042	.049	.049	.065	.083	.083	.095	.095	.095	.120	.120	.120

# ORDERING BY LDI PART NUMBER Basic Instructions:

LDI part numbers listed in this section designate completely assembled fittings, including all components such as nuts, sleeves, lock nuts, o-rings and so forth.

The standard material, unless otherwise designated, in which these fittings are supplied is CARBON STEEL.

STAINLESS STEEL (Type 316), Self Flare fittings are ordered by the addition of the suffix SS to listed part numbers. Example: BA1000-6-SS. Current published price lists designate carbon steel products normally carried in factory stock.

OTHER MATERIALS: quoted on request depending on quantity required.

**NOTE:** Much care has been taken to provide completely accurate information in this catalog. LDI, however, is unable to take responsibility for printing mistakes or omissions. Dimensions shown are for reference only and are subject to modifications without notice. On applications where dimensions are critical, consult the factory before proceeding.

#### MADE TO ORDER:

For fittings manufactured to your specifications in sizes, configurations or materials not shown in a LDI catalog, send print, drawing, sketch or description including quantity required. Price and delivery information will be quoted upon receipt of your request.

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **ABA1000 SERIES**

The ABA1000 Series self flare straight adapter consists of a Self Flare tube connection and a male JIC (37°) tube connection on the opposite end. The OD and wall thickness of the tube making the Self Flare connection will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

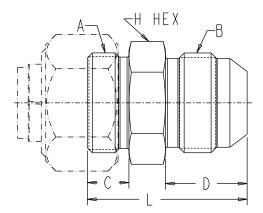
- •Tube sizes from -4 (.25 inch) to -32 (2.00 inch)
- ABAX1000 adapters available for applications with heavy wall tubing
- Includes Self Flare swivel tube nut and sleeve

### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and Self Flare tube sleeve
- Zinc plated, steel Self Flare swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.



	ABA1000 Series (inches)										
Part No.	Tube OD	A	В	С	D	L	н				
ABA1000-4	1/4	1/2-20	7/16-20	0.38	0.55	1.16	1/2				
ABA1000-5	5/16	9/16-18	1/2-20	0.41	0.55	1.19	9/16				
ABA1000-6	3/8	5/8-18	9/16-18	0.41	0.56	1.23	5/8				
ABA1000-8	1/2	3/4-16	3/4-16	0.44	0.66	1.36	13/16				
ABA1000-10	5/8	7/8-16	7/8-14	0.44	0.77	1.53	15/16				
ABA1000-12	3/4	1 1/16-16	1 1/16-12	0.44	0.86	1.69	1 1/8				
ABA1000-14	7/8	1 3/16-16	1 3/16-12	0.44	0.89	1.72	1 1/4				
ABA1000-16	1	1 5/16-16	1 5/16-12	0.50	0.91	1.80	1 3/8				
ABA1000-20	1 1/4	1 5/8-16	1 5/8-12	0.69	0.95	2.13	1 3/4				
ABA1000-24	1 1/2	1 15/16-16	1 7/8-12	0.69	1.08	2.31	2				
ABA1000-32	2	2 1/2-12	2 1/2-12	0.69	1.33	2.72	2 5/8				



### **BA1000 SERIES**

The BA1000 Series self flare straight adapter is made up of a tube connection on one end and a male pipe thread connection on the opposite end. For the tube connection, the OD and wall thickness of the tube to be joined to the self flare fitting will determine the dash size and whether a BA or BAX version of the self flare fitting is required for the application.

#### **Standard Features:**

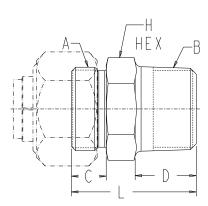
- Numerous jump sizes are available
- BAX1000 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and self flare sleeve

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA1000 Series (inches)											
Part No.		be D	A	B (NPTF)	С	D	L	н			
BA1000-2	1	/8	5/16-24	1/8-27	0.32	0.38	0.92	7/16			
BA1000-2-4	1	/8	5/16-24	1/4-18	0.32	0.56	1.14	9/16			
BA1000-3	3,	/16	3/8-24	1/8-27	0.35	0.38	0.95	7/16			
BA1000-3-4	3,	/16	3/8-24	1/4-18	0.35	0.56	1.17	9/16			
BA1000-4	1	./4	1/2-20	1/8-27	0.38	0.38	0.98	1/2			
BA1000-4-4	1	./4	1/2-20	1/4-18	0.38	0.56	1.20	9/16			
BA1000-5	5,	/16	9/16-18	1/8-27	0.41	0.38	1.05	9/16			
BA1000-5-4	5,	/16	9/16-18	1/4-18	0.41	0.56	1.26	9/16			
BA1000-6	3	8/8	5/8-18	1/4-18	0.41	0.56	1.23	5/8			
BA1000-6-2	3	8/8	5/8-18	1/8-27	0.41	0.38	1.06	5/8			
BA1000-6-6	3	8/8	5/8-18	3/8-18	0.41	0.56	1.23	3/4			
BA1000-6-8	3	8/8	5/8-18	1/2-14	0.41	0.75	1.48	7/8			
BA1000-8	1	./2	3/4-16	3/8-18	0.44	0.56	1.27	3/4			
BA1000-8-4	1	./2	3/4-16	1/4-18	0.44	0.56	1.27	3/4			
BA1000-8-8	1	./2	3/4-16	1/2-14	0.44	0.75	1.52	7/8			
BA1000-8-12	1	./2	3/4-16	3/4-14	0.44	0.75	1.58	1 1/8			
BA1000-10		/8	7/8-16	1/2-14	0.44	0.75	1.52	7/8			
BA1000-10-6	5	6/8	7/8-16	3/8-18	0.44	0.56	1.33	7/8			
BA1000-10-12		/8	7/8-16	3/4-14	0.44	0.75	1.58	1 1/8			
BA1000-12	3	3/4	1 1/16-16	3/4-14	0.44	0.75	1.58	1 1/8			
BA1000-12-6	3	3/4	1 1/16-16	3/8-18	0.44	0.56	1.39	1 1/8			
BA1000-12-8	3	3/4	1 1/16-16	1/2-14	0.44	0.75	1.58	1 1/8			
BA1000-12-16		3/4	1 1/16-16	1-11 1/2	0.44	0.94	1.77	1 3/8			
BA1000-14		7/8	1 3/16-16	3/4-14	0.44	0.75	1.58	1 1/4			
BA1000-14-8		//8	1 3/16-16	1/2-14	0.44	0.75	1.58	1 1/4			
BA1000-14-16		7/8	1 3/16-16	1-11 1/2	0.44	0.94	1.77	1 3/8			
BA1000-16		1	1 5/16-16	1-11 1/2	0.51	0.94	1.83	1 3/8			
BA1000-16-12		1	1 5/16-16	3/4-14	0.51	0.75	1.63	1 3/8			
BA1000-16-20		1	1 5/16-16	1 1/4-11 1/2	0.51	0.97	1.95	1 3/4			
BA1000-20		1/4	1 5/8-16	1 1/4-11 1/2	0.69	0.97	2.14	1 3/4			
BA1000-20-16		1/4	1 5/8-16	1-11 1/2	0.69	0.94	2.11	1 3/4			
BA1000-20-24	1	1/4	1 5/8-16	1 1/2-11 1/2	0.69	1.00	2.23	2			
BA1000-24		1/2	1 15/16-16	1 1/2-11 1/2	0.69	1.00	2.19	2			
BA1000-24-20		1/2	1 15/16-16	1 1/4-11 1/2	0.69	0.97	2.17	2			
BA1000-24-32		1/2	1 15/16-16	2-11 1/2	0.69	1.03	2.42	2 5/8			
BA1000-32		2	2 1/2-12	2-11 1/2	0.69	1.03	2.42	2 5/8			
BA1000-32-20		2	2 1/2-12	1 1/4-11 1/2	0.69	0.97	2.38	2 5/8			
BA1000-32-24	2	2	2 1/2-12	1 1/2-11 1/2	0.69	1.00	2.39	2 5/8			





### **BA1100 SERIES**

The BA1100 Series self flare straight adapter is made up of a tube connection on one end and a female pipe thread connection on the opposite end. For the tube connection, the OD and wall thickness of the tube to be joined to the self flare fitting will determine the dash size and whether a BA or BAX version of the self flare fitting is required for the application.

#### **Standard Features:**

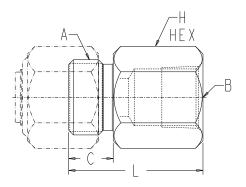
- Numerous jump sizes are available
- BAX1100 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and self flare sleeve

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





	BA	\1100 Seri	es (inches)			
Part No.	Tube OD	A	B (NPTF)	С	L	н
BA1100-2	1/8	5/16-24	1/8-27	0.32	0.97	9/16
BA1100-3	3/16	3/8-24	1/8-27	0.35	0.99	9/16
BA1100-4	1/4	1/2-20	1/8-27	0.38	1.00	9/16
BA1100-4-4	1/4	1/2-20	1/4-18	0.38	1.20	3/4
BA1100-5	5/16	9/16-18	1/8-27	0.41	1.07	9/16
BA1100-5-4	5/16	9/16-18	1/4-18	0.41	1.24	3/4
BA1100-6	3/8	5/8-18	1/4-18	0.41	1.24	3/4
BA1100-6-6	3/8	5/8-18	3/8-18	0.41	1.25	7/8
BA1100-6-8	3/8	5/8-18	1/2-14	0.41	1.50	1 1/8
BA1100-8	1/2	3/4-16	3/8-18	0.44	1.33	7/8
BA1100-8-4	1/2	3/4-16	1/4-18	0.44	1.27	3/4
BA1100-8-8	1/2	3/4-16	1/2-14	0.44	1.53	1 1/8
BA1100-10	5/8	7/8-16	1/2-14	0.44	1.55	1 1/8
BA1100-10-6	5/8	7/8-16	3/8-18	0.44	1.33	7/8
BA1100-10-12	5/8	7/8-16	3/4-14	0.44	1.63	1 3/8
BA1100-12	3/4	1 1/16-16	3/4-14	0.44	1.63	1 3/8
BA1100-12-8	3/4	1 1/16-16	1/2-14	0.44	1.53	1 1/8
BA1100-14	7/8	1 3/16-16	3/4-14	0.44	1.59	1 3/8
BA1100-16	1	1 5/16-16	1-11 1/2	0.51	1.94	1 5/8
BA1100-20	1 1/4	1 5/8-16	1 1/4-11 1/2	0.69	2.22	2
BA1100-24	1 1/2	1 15/16-16	1 1/2-11 1/2	0.69	2.22	2 3/8
BA1100-32	2	2 1/2-12	2-11 1/2	0.69	2.31	2 3/8

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### **BA1200 SERIES**

The BA1200 Series self flare straight adapter forms a tube to tube connection. The OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

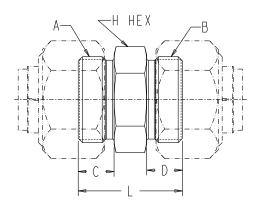
- Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Numerous jump sizes are available
- BAX1200 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA1200 Series (inches)								
Part No.	Tube OD	Tube OD	A	В	С	D	L	н
BA1200-2	1/8	1/8	5/16-24	5/16-24	0.32	0.32	0.86	7/16
BA1200-3	3/16	3/16	3/8-24	3/8-24	0.35	0.35	0.92	7/16
BA1200-4	1/4	1/4	1/2-20	1/2-20	0.38	0.38	1.02	1/2
BA1200-4-2	1/4	1/8	1/2-20	5/16-24	0.38	0.32	0.92	1/2
BA1200-4-3	1/4	3/16	1/2-20	3/8-24	0.38	0.35	0.95	1/2
BA1200-5	5/16	5/16	9/16-18	9/16-18	0.41	0.41	1.11	9/16
BA1200-6	3/8	3/8	5/8-18	5/8-18	0.41	0.41	1.08	5/8
BA1200-6-4	3/8	1/4	5/8-18	1/2-20	0.41	0.38	1.04	5/8
BA1200-8	1/2	1/2	3/4-16	3/4-16	0.44	0.44	1.14	3/4
BA1200-8-4	1/2	1/4	3/4-16	1/2-20	0.44	0.38	1.08	3/4
BA1200-8-6	1/2	3/8	3/4-16	5/8-18	0.44	0.41	1.11	3/4
BA1200-10	5/8	5/8	7/8-16	7/8-16	0.44	0.44	1.21	7/8
BA1200-10-6	5/8	3/8	7/8-16	5/8-18	0.44	0.41	1.17	7/8
BA1200-10-8	5/8	1/2	7/8-16	3/4-16	0.44	0.44	1.21	7/8
BA1200-12	3/4	3/4	1 1/16-16	1 1/16-16	0.44	0.44	1.28	1 1/8
BA1200-12-6	3/4	3/8	1 1/16-16	5/8-18	0.44	0.41	1.23	1 1/8
BA1200-12-8	3/4	1/2	1 1/16-16	3/4-16	0.44	0.44	1.27	1 1/8
BA1200-12-10	3/4	5/8	1 1/16-16	7/8-16	0.44	0.44	1.27	1 1/8
BA1200-14	7/8	7/8	1 3/16-16	1 3/16-16	0.44	0.44	1.27	1 1/4
BA1200-16	1	1	1 5/16-16	1 5/16-16	0.50	0.50	1.39	1 3/8
BA1200-16-12	1	3/4	1 5/16-16	1 1/16-16	0.50	0.44	1.33	1 3/8
BA1200-20	1 1/4	1 1/4	1 5/8-16	1 5/8-16	0.69	0.69	1.86	1 3/4
BA1200-20-12	1 1/4	3/4	1 5/8-16	1 1/16-16	0.69	0.44	1.61	1 3/4
BA1200-20-16	1 1/4	1	1 5/8-16	1 5/16-16	0.69	0.50	1.67	1 3/4
BA1200-24	1 1/2	1 1/2	1 15/16-16	1 15/16-16	0.69	0.69	1.88	2
BA1200-32	2	2	2 1/2-12	2 1/2-12	0.69	0.69	2.08	2 5/8

### **BA18 SERIES**

BA18 Series swivel tube nut for use with BA Self Flare fittings.

#### **Standard Features:**

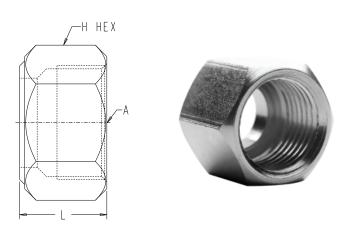
- Mate with tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from steel bar stock

#### Standard Materials:

- Steel construction
- Zinc plated

#### NOTE

• The BA Series swivel tube nuts are specified by nominal tube size and are not dependent on the wall thickness of the tubing being used.



BA18 Series (inches)						
Part No.	Tube OD	A	L	н		
BA18-2	1/8	5/16-24	0.48	7/16		
BA18-3	3/16	3/8-24	0.50	1/2		
BA18-4	1/4	1/2-20	0.63	5/8		
BA18-5	5/16	9/16-18	0.66	11/16		
BA18-6	3/8	5/8-18	0.69	3/4		
BA18-8	1/2	3/4-16	0.75	7/8		
BA18-10	5/8	7/8-16	0.75	1		
BA18-12	3/4	1 1/16-16	0.81	1 1/4		
BA18-14	7/8	1 3/16-16	0.84	1 3/8		
BA18-16	1	1 5/16-16	0.91	1 1/2		
BA18-20	1 1/4	1 5/8-16	1.19	2		
BA18-24	1 1/2	1 15/16-16	1.31	2 1/4		
BA18-32	2	2 1/2-12	1.34	2 7/8		

### **BA19 SERIES**

BA19 Series tube sleeve for use with BA Self Flare fittings.

#### **Standard Features:**

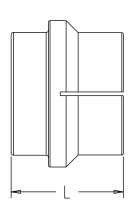
- Mate with tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from alloy steel bar stock and hardened for optimal flaring of the tube

#### **Standard Materials:**

- Steel construction
- Black oxide finish

### NOTE

• The BA Series tube sleeves are specified by tube size and are not dependent on the wall thickness of the tubing being used.





BA19 Series	(inch	es)
Part No.	Tube OD	L
BA19-2	1/8	0.47
BA19-3	3/16	0.47
BA19-4	1/4	0.56
BA19-5	5/16	0.55
BA19-6	3/8	0.59
BA19-8	1/2	0.63
BA19-10	5/8	0.63
BA19-12	3/4	0.75
BA19-14	7/8	0.73
BA19-16	1	0.77
BA19-20	1 1/4	0.86
BA19-24	1 1/2	1.05
BA19-32	2	1.14

NOTE: Size 2, 3, 4 & 5 sleeves are not slotted

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.



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### **BA2000 SERIES**

The BA2000 Series self flare 90° elbow adapter is made up of a tube connection on one end and a male pipe thread connection on the other end. For the tube connection, the OD and wall thickness of the tube to be joined to the self flare fitting will determine the dash size and whether a BA or BAX version of the self flare fitting is required for the application.

#### **Standard Features:**

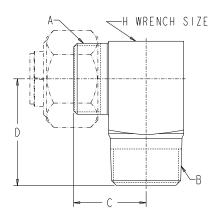
- •Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from steel bar stock
- Jump sizes are available
- BAX2000 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and self flare sleeve

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA2000 Series (inches)								
Part No.	Tube OD	Α	B (NPTF)	С	D	н		
BA2000-2	1/8	5/16-24	1/8-27	0.63	0.72	7/16		
BA2000-2	3/16	3/8-24	1/8-27	0.63	0.72	7/16		
BA2000-4		-	•					
	1/4	1/2-20	1/8-27	0.69	0.78	1/2		
BA2000-4-4	1/4	1/2-20	1/4-18	0.75	1.09	9/16		
BA2000-5	5/16	9/16-18	1/8-27	0.78	0.78	9/16		
BA2000-5-4	5/16	9/16-18	1/4-18	0.82	1.09	9/16		
BA2000-6	3/8	5/8-18	1/4-18	0.78	1.09	5/8		
BA2000-6-2	3/8	5/8-18	1/8-27	0.78	0.92	5/8		
BA2000-6-6	3/8	5/8-18	3/8-18	0.84	1.22	3/4		
BA2000-6-8	3/8	5/8-18	1/2-14	0.94	1.47	7/8		
BA2000-8	1/2	3/4-16	3/8-18	0.88	1.22	3/4		
BA2000-8-4	1/2	3/4-16	1/4-18	0.88	1.16	3/4		
BA2000-8-8	1/2	3/4-16	1/2-14	0.97	1.47	7/8		
BA2000-8-12	1/2	3/4-16	3/4-14	1.06	1.59	1 1/8		
BA2000-10	5/8	7/8-16	1/2-14	0.97	1.47	7/8		
BA2000-10-6	5/8	7/8-16	3/8-18	0.97	1.28	7/8		
BA2000-10-12	5/8	7/8-16	3/4-14	1.06	1.59	1 1/8		
BA2000-12	3/4	1 1/16-16	3/4-14	1.08	1.59	1 1/8		
BA2000-12-8	3/4	1 1/16-16	1/2-14	1.08	1.56	1 1/8		
BA2000-14	7/8	1 3/16-16	3/4-14	1.13	1.69	1 1/4		
BA2000-16	1	1 5/16-16	1-11 1/2	1.27	1.97	1 3/8		
BA2000-16-12	1	1 5/16-16	3/4-14	1.27	1.72	1 3/8		
BA2000-20	1 1/4	1 5/8-16	1 1/4-11 1/2	1.63	2.38	1 3/4		
BA2000-24	1 1/2	1 15/16-16	1 1/2-11 1/2	1.75	2.63	2		
BA2000-32	2	2 1/2-12	2-11 1/2	2.00	3.00	2 1/2		

### **BA2100 SERIES**

The BA2100 Series self flare 90° elbow adapter is made up of a tube connection on one end and a female pipe thread connection on the other end. For the tube connection, the OD and wall thickness of the tube to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

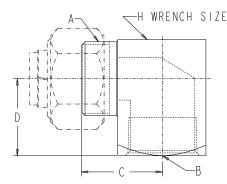
- •Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from solid steel bar stock free from brazing, welding and soldering
- Numerous jump sizes are available
- BAX2100 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and Self Flare sleeve

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA2100 Series (inches)								
Doub No.	Tube		B					
Part No.	OD	A	(NPTF)	С	D	Н		
BA2100-2	1/8	5/16-24	1/8-27	0.67	0.56	9/16		
BA2100-3	3/16	3/8-24	1/8-27	0.67	0.56	9/16		
BA2100-4	1/4	1/2-20	1/8-27	0.73	0.56	9/16		
BA2100-4-4	1/4	1/2-20	1/4-18	0.83	0.72	3/4		
BA2100-5	5/16	9/16-18	1/8-27	0.80	0.56	9/16		
BA2100-5-4	5/16	9/16-18	1/4-18	0.89	0.72	3/4		
BA2100-6	3/8	5/8-18	1/4-18	0.89	0.72	3/4		
BA2100-6-2	3/8	5/8-18	1/8-27	0.80	0.59	5/8		
BA2100-6-6	3/8	5/8-18	3/8-18	0.92	0.84	7/8		
BA2100-8	1/2	3/4-16	3/8-18	0.95	0.84	7/8		
BA2100-8-4	1/2	3/4-16	1/4-27	0.89	0.81	3/4		
BA2100-8-8	1/2	3/4-16	1/2-14	1.08	1.03	1 1/8		
BA2100-10	5/8	7/8-16	1/2-14	1.08	1.03	1 1/8		
BA2100-12	3/4	1 1/16-16	3/4-14	1.16	1.10	1 1/4		
BA2100-12-8	3/4	1 1/16-16	1/2-14	1.10	1.10	1 1/8		
BA2100-14	7/8	1 3/16-16	3/4-14	1.13	1.13	1 1/4		
BA2100-16	1	1 5/16-16	1-11 1/2	1.44	1.38	1 3/4		
BA2100-20	1 1/4	1 5/8-16	1 1/4-11 1/2	1.75	1.69	2		
BA2100-20-16	1 1/4	1 5/8-16	1-11 1/2	1.63	1.38	1 3/4		
BA2100-24	1 1/2	1 15/16-16	1 1/2-11 1/2	2.00	2.06	2 1/2		
BA2100-32	2	2 1/2-12	2-11 1/2	2.25	2.38	3		

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### **BA2200 SERIES**

The BA2200 Series self flare 90° elbow adapter forms a tube to tube connection. The OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

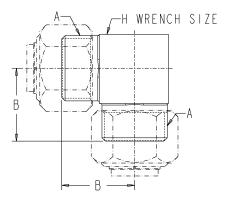
- Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from solid steel bar stock free from brazing, welding and soldering
- BAX2200 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA2200 Series (inches)								
	Tube							
Part No.	OD	Α	В	Н				
BA2200-2	1/8	5/16-24	0.63	7/16				
BA2200-3	3/16	3/8-24	0.63	7/16				
BA2200-4	1/4	1/2-20	0.72	1/2				
BA2200-5	5/16	9/16-18	0.82	9/16				
BA2200-6	3/8	5/8-18	0.80	5/8				
BA2200-8	1/2	3/4-16	0.91	3/4				
BA2200-10	5/8	7/8-16	0.97	7/8				
BA2200-12	3/4	1 1/16-16	1.08	1 1/8				
BA2200-14	7/8	1 3/16-16	1.13	1 1/4				
BA2200-16	1	1 5/16-16	1.27	1 3/8				
BA2200-20	1 1/4	1 5/8-16	1.63	1 3/4				
BA2200-24	1 1/2	1 15/16-16	1.75	2				
BA2200-32	2	2 1/2-12	2.06	2 1/2				

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### **BA3000 SERIES**

The BA3000 Series self flare tee shaped adapter is made up of two opposing tube connections and a male pipe thread tee connection. For the tube connections, the OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size(s) and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

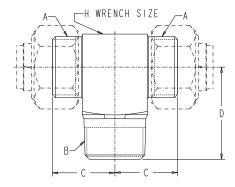
- Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from steel bar stock
- Dash 4, 6 and 8 jump sizes are available
- BAX3000 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA3000 Series (inches)								
Part No.	Tube OD	A	B (NPTF)	С	D	н		
BA3000-2	1/8	5/16-24	1/8-27	0.63	0.72	7/16		
BA3000-3	3/16	3/8-24	1/8-27	0.63	0.72	7/16		
BA3000-4	1/4	1/2-20	1/8-27	0.69	0.78	1/2		
BA3000-4-4-4	1/4	1/2-20	1/4-18	0.75	1.09	9/16		
BA3000-5	5/16	9/16-18	1/8-27	0.78	0.78	9/16		
BA3000-6	3/8	5/8-18	1/4-18	0.78	1.09	5/8		
BA3000-6-6-6	3/8	5/8-18	3/8-18	0.84	1.22	3/4		
BA3000-8	1/2	3/4-16	3/8-18	0.88	1.22	3/4		
BA3000-8-8-8	1/2	3/4-16	1/2-14	0.97	1.47	7/8		
BA3000-10	5/8	7/8-16	1/2-14	0.97	1.47	7/8		
BA3000-12	3/4	1 1/16-16	3/4-14	1.08	1.59	1 1/8		
BA3000-14	7/8	1 3/16-16	3/4-14	1.13	1.69	1 1/4		
BA3000-16	1	1 5/16-16	1-11 1/2	1.27	1.97	1 3/8		
BA3000-20	1 1/4	1 5/8-16	1 1/4-11 1/2	1.63	2.38	1 3/4		
BA3000-24	1 1/2	1 15/16-16	1 1/4-11 1/2	1.75	2.63	2		
BA3000-32	2	2 1/2-12	2-11 1/2	2.00	3.00	2 1/2		

### **BA3100 SERIES**

The BA3100 Series self flare tee shaped adapter is made up of two opposing tube connections and a female pipe thread tee connection. For the tube connections, the OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size(s) and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

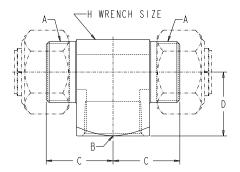
- Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from solid steel bar stock free from brazing, welding and soldering
- BAX3100 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA3100 Series (inches)								
Part No.	Tube OD	A	B (NPTF)	С	D	н		
BA3100-2	1/8	5/16-24	1/8-27	0.67	0.56	9/16		
BA3100-3	3/16	3/8-24	1/8-27	0.67	0.56	9/16		
BA3100-4	1/4	1/2-20	1/8-27	0.73	0.56	9/16		
BA3100-5	5/16	9/16-18	1/8-27	0.80	0.56	9/16		
BA3100-6	3/8	5/8-18	1/4-18	0.86	0.72	3/4		
BA3100-8	1/2	3/4-16	3/8-18	0.95	0.84	7/8		
BA3100-10	5/8	7/8-16	1/2-14	1.08	1.03	1 1/8		
BA3100-12	3/4	1 1/16-16	3/4-14	1.15	1.09	1 1/4		
BA3100-14	7/8	1 3/16-16	3/4-14	1.13	1.13	1 1/4		
BA3100-16	1	1 5/16-16	1-11 1/2	1.44	1.38	1 3/4		
BA3100-20	1 1/4	1 5/8-16	1 1/4-11 1/2	1.75	1.69	2		
BA3100-24	1 1/2	1 15/16-16	1 1/2-11 1/2	2.00	2.06	2 1/2		
BA3100-32	2	2 1/2-12	2-11 1/2	2.25	2.38	3		

### **BA3200 SERIES**

The BA3200 Series self flare tee shaped adapter has three tube connections. The OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

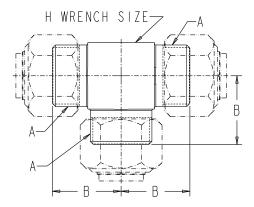
- Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from solid steel bar stock free from brazing, welding and soldering
- BAX3200 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA3200 Series (inches)								
Part No.	Tube OD	A	В	H				
BA3200-2	1/8	5/16-24	0.63	7/16				
BA3200-3	3/16	3/8-24	0.63	7/16				
BA3200-4	1/4	1/2-20	0.72	1/2				
BA3200-5	5/16	9/16-18	0.82	9/16				
BA3200-6	3/8	5/8-18	0.80	5/8				
BA3200-8	1/2	3/4-16	0.91	3/4				
BA3200-10	5/8	7/8-16	0.97	7/8				
BA3200-12	3/4	1 1/16-16	1.08	1 1/8				
BA3200-14	7/8	1 3/16-16	1.13	1 1/4				
BA3200-16	1	1 5/16-16	1.27	1 3/8				
BA3200-20	1 1/4	1 5/8-16	1.63	1 3/4				
BA3200-24	1 1/2	1 15/16-16	1.75	2				
BA3200-32	2	2 1/2-12	2.06	2 1/2				

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### **BA3400 SERIES**

The BA3400 Series self flare tee shaped adapter is made up of a tube connection opposed by a female pipe thread and another tube connection forming the tee shape. For the tube connections, the OD and wall thickness of the tubes to be joined to the Self Flare fitting will determine the dash size(s) and whether a BA or BAX version of the Self Flare fitting is required for the application.

#### **Standard Features:**

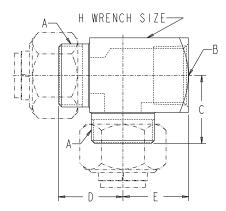
- •Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Machined from solid steel bar stock free from brazing, welding and soldering
- BAX3400 adapters available for applications with heavy wall tubing
- Includes swivel tube nuts and Self Flare sleeves

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeves
- Zinc plated, steel swivel tube nuts

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA3400 Series (inches)									
Part No.	Tube OD	A	B (NPTF)	С	D	E	н		
BA3400-2	1/8	5/16-24	1/8-27	0.67	0.63	0.56	9/16		
BA3400-3	3/16	3/8-24	1/8-27	0.67	0.63	0.56	9/16		
BA3400-4	1/4	1/2-20	1/8-27	0.73	0.72	0.56	9/16		
BA3400-5	5/16	9/16-18	1/8-27	0.77	0.82	0.56	9/16		
BA3400-6	3/8	5/8-18	1/4-18	0.86	0.80	0.72	3/4		
BA3400-8	1/2	3/4-16	3/8-18	0.95	0.91	0.84	7/8		
BA3400-10	5/8	7/8-16	1/2-14	1.08	0.97	1.03	1 1/8		
BA3400-12	3/4	1 1/16-16	3/4-14	1.14	1.08	1.09	1 1/4		
BA3400-14	7/8	1 3/16-16	3/4-14	1.13	1.13	1.13	1 1/4		
BA3400-16	1	1 5/16-16	1-11 1/2	1.44	1.27	1.38	1 3/4		
BA3400-20	1 1/4	1 5/8-16	1 1/4-11 1/2	1.75	1.63	1.69	2		
BA3400-24	1 1/2	1 15/16-16	1 1/2-11 1/2	2.00	1.75	2.06	2 1/2		
BA3400-32	2	2 1/2-12	2-11 1/2	2.25	2.06	2.38	3		

### **BA55 SERIES**

The BA55 Series reducer is a straight adapter consisting of a standpipe ready to be flared and a smaller BA Self Flare connection on the opposite end. The OD and wall thickness of the tube to be joined to each end of this adapter will determine the dash size and whether a BA or BAX version of this reducing adapter is required for the application.

#### **Standard Features:**

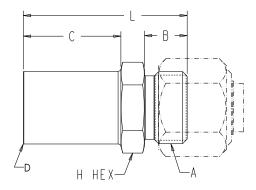
- •Tube reductions beginning from -6 (.375 inch) to -32 (2.00 inch) diameter tube
- BAX55 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and Self Flare sleeve

#### **Standard Materials:**

- Steel construction
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA55 Series (inches)								
Part No.	Tube (D) OD	Tube (A) OD	A	В	С	L	н	
BA55-6-4	3/8	1/4	1/2-20	0.38	0.88	1.50	1/2	
BA55-8-4	1/2	1/4	1/2-20	0.38	0.88	1.50	9/16	
BA55-8-6	1/2	3/8	5/8-18	0.41	0.88	1.53	5/8	
BA55-10-6	5/8	3/8	5/8-18	0.41	1.00	1.66	11/16	
BA55-10-8	5/8	1/2	3/4-16	0.44	1.00	1.69	3/4	
BA55-12-4	3/4	1/4	1/2-20	0.38	1.00	1.63	13/16	
BA55-12-6	3/4	3/8	5/8-18	0.41	1.00	1.66	13/16	
BA55-12-8	3/4	1/2	3/4-16	0.44	1.00	1.69	13/16	
BA55-12-10	3/4	5/8	7/8-16	0.44	1.00	1.69	7/8	
BA55-14-8	7/8	1/2	3/4-16	0.44	1.00	1.69	15/16	
BA55-14-10	7/8	5/8	7/8-16	0.44	1.00	1.69	15/16	
BA55-16-8	1	1/2	3/4-16	0.44	1.13	1.88	1 1/8	
BA55-16-10	1	5/8	7/8-16	0.44	1.13	1.88	1 1/8	
BA55-16-12	1	3/4	1 1/16-16	0.44	1.13	1.88	1 1/8	
BA55-20-12	1 1/4	3/4	1 1/16-16	0.44	1.13	1.91	1 3/8	
BA55-24-12	1 1/2	3/4	1 1/16-16	0.44	1.31	2.13	1 5/8	
BA55-24-16	1 1/2	1	1 5/16-16	0.50	1.31	2.19	1 5/8	
BA55-24-20	1 1/2	1 1/4	1 5/8-16	0.69	1.31	2.38	1 5/8	
BA55-32-14	2	7/8	1 3/16-16	0.44	1.50	2.44	2 1/8	
BA55-32-16	2	1	1 5/16-16	0.50	1.50	2.50	2 1/8	
BA55-32-20	2	1 1/4	1 5/8-16	0.69	1.50	2.69	2 1/8	
BA55-32-24	2	1 1/2	1 15/16-16	0.69	1.50	2.69	2 1/8	

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## **BA66 SERIES**

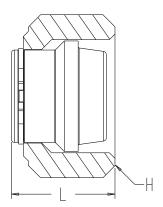
The BA66 Series self flare cap is used on fittings to close off BA Series Self Flare tube connections and is independent of the wall thickness of the tubing that makes the connection.

#### **Standard Features:**

- •On BA Self Flare fittings, closes off connection sizes from -2 (.125 inch) to -32 (2.00 inch)
- Includes swivel nut and solid stem



- Black oxide finish on stem and retainer
- Zinc plated, steel swivel tube nut





BA66 Series (inches)								
Part No.	Tube OD	L	н					
BA66-2	1/8	0.48	7/16					
BA66-3	3/16	0.50	1/2					
BA66-4	1/4	0.63	5/8					
BA66-5	5/16	0.66	11/16					
BA66-6	3/8	0.69	3/4					
BA66-8	1/2	0.75	7/8					
BA66-10	5/8	0.75	1					
BA66-12	3/4	0.81	1 1/4					
BA66-14	7/8	0.84	1 3/8					
BA66-16	1	0.91	1 1/2					
BA66-20	1 1/4	1.19	2					
BA66-24	1 1/2	1.31	2 1/4					
BA66-32	2	1.34	2 7/8					

### **BA77 SERIES**

The BA77 Series plugs are designed to plug BA style tube assemblies. For the tube assembly, the OD and wall thickness of the tube to be joined to the Self Flare plug will determine the dash size and whether a BA or BAX version of the Self Flare plug is required for the application. The tube assembly must be assembled with the tube sleeve (BA19 Series) and swivel tube nut (BA18 Series).

### **Standard Features:**

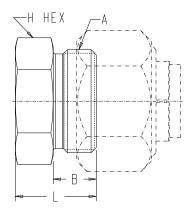
- •Tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- BAX77 plugs available for applications with heavy wall tubing

#### **Standard Materials:**

- Steel construction
- Black oxide finish on plug body

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





BA77 Series (inches)									
Part No.	Tube OD	A	В	L	н				
BA77-2	1/8	5/16-24	0.31	0.53	7/16				
BA77-3	3/16	3/8-24	0.34	0.56	7/16				
BA77-4	1/4	1/2-20	0.38	0.59	1/2				
BA77-5	5/16	9/16-18	0.41	0.63	9/16				
BA77-6	3/8	5/8-18	0.41	0.67	5/8				
BA77-8	1/2	3/4-16	0.44	0.70	3/4				
BA77-10	5/8	7/8-16	0.44	0.77	7/8				
BA77-12	3/4	1 1/16-16	0.44	0.83	1 1/8				
BA77-14	7/8	1 3/16-16	0.44	0.83	1 1/4				
BA77-16	1	1 5/16-16	0.50	0.89	1 3/8				
BA77-20	1 1/4	1 5/8-16	0.69	1.16	1 3/4				
BA77-24	1 1/2	1 15/16-16	0.69	1.19	2				
BA77-32	2	2 1/2-12	0.69	1.39	2 5/8				

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### **COLLARS & RAM DIES**

Collars and Ram Dies are accessories to the Hydraulic Preset Tool and are required to successfully flare tube ends using this tool. Collars are selected based on only the OD of the tube to be flared and are specified by dash size corresponding to that OD. Ram Dies are selected based on both the OD and wall thickness of the tube to be flared. To define a Ram Die, specify the dash size corresponding to the tube OD and either a BA or BAX version of the die dictated by the wall thickness of the tube.

#### **Standard Features:**

- Ram dies and collars available for tube sizes from
   -2 (.125 inch) to -32 (2.00 inch)
- Collars
  - Each collar is designed specific to the tube OD and is independent of the wall thickness of the tube being flared
- Ram Dies
  - Each ram die is specific to the tube OD and a range of tube wall thickness
  - BAXRD ram dies are available for applications with heavy wall tubing

#### **Standard Materials:**

- Steel construction
- · Black oxide finish

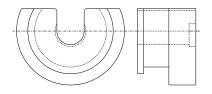
#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.

#### **NOTE**

Hydraulic Preset Tool sold separately

# **COLLARS (SAME COLLARS FOR BA & BAX)**

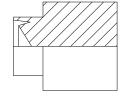




Collars (inches)							
Part No.	Tube OD						
P10MC-4	1/4						
P10MC-6	3/8						
P10MC-8	1/2						
P10MC-10	5/8						
P10MC-12	3/4						
P10MC-14	7/8						
P10MC-16	1						
P10MC-20	1 1/4						
P10MC-24	1 1/2						

# STANDARD WEDGE (USE PREFIX BA)

Standard Wedge (inches)								
Part No. for BA Tubing	Size	Tube OD	Min.	Max.				
BARD-4	4	1/4	.010	.035				
BARD-5	5	5/16	.020	.035				
BARD-6	6	3/8	.020	.035				
BARD-8	8	1/2	.020	.049				
BARD-10	10	5/8	.028	.058				
BARD-12	12	3/4	.028	.065				
BARD-14	14	7/8	.035	.083				
BARD-16	16	1	.028	.083				
BARD-20	20	1 1/4	.065	.083				
BARD-24	24	1 1/2	.065	.095				
BARD-32	32	2	.065	.095				





# HEAVY WEDGE (USE PREFIX BAX)

Heavy Wedge (inches)								
Part No. for BAX Tubing	Size	Tube OD	Min.	Max.				
BAXRD-4	4	1/4	.022	.049				
BAXRD-5	5	5/16	.028	.049				
BAXRD-6	6	3/8	.035	.065				
BAXRD-8	8	1/2	.042	.083				
BAXRD-10	10	5/8	.049	.083				
BAXRD-12	12	3/4	.058	.095				
BAXRD-14	14	7/8	.065	.095				
BAXRD-16	16	1	.083	.095				
BAXRD-20	20	1 1/4	.083	.120				
BAXRD-24	24	1 1/2	.095	.120				
BAXRD-32	32	2	.095	.120				

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **HYDRAULIC PRESET TOOL**

The Hydraulic Preset Tool is used to flare the tube ends of tube assemblies with BA style flare geometry. The advantage of using this preset tool is the tube ends can be flared on the work bench versus during final assembly of the tubes to the fittings. Confined spaces at final assembly, the need for large diameter or heavy wall tubing and sheer volume of tube assemblies being installed are primary considerations for selecting to flare tube ends prior to installation and selecting the Hydraulic Preset Tool over the Vise Held Preset Tool. The OD of the tube being flared determines the dash size of the collar and ram die to use. The wall thickness of the tube determines whether a BARD or BAXRD version of the ram die is required.

#### **Standard Features:**

- Base Hydraulic Preset Tool consists of:
  - $^{\circ}$ Electric powered hydraulic pump (110/115V 50/60 Hz Single Phase)
  - Single acting hydraulic cylinder
  - Steel framed Ram die and collar cradle
- Ram dies and collars available for tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Each ram die is specific to the tube OD and a range of tube wall thickness
- Each collar is designed specific to the tube OD
- BAXRD ram dies are available for applications with heavy wall tubing

#### **Standard Materials:**

- Steel construction
- Black oxide finish

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.

#### **NOTE**

• Ram dies and collars are sold separately



**Hydraulic Preset Tool** 

Part No.

PM10E

Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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### **RBA1000 SERIES**

The RBA1000 Series self flare straight adapter is made up of a tube connection on one end and a SAE o-ring boss on the opposite end. For the tube connection, the OD and wall thickness of the tube to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application. The RBA1000 series adapters connect tubes to straight threaded ports designed to SAE Standard, J1926/1.

#### **Standard Features:**

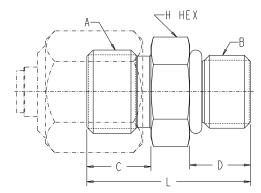
- •Tube sizes from -4 (.25 inch) to -32 (2.00 inch)
- •O-ring boss sizes from -4 (7/16-20) to -32 (21/2-12)
- Several jump sizes are available
- RBAX1000 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and Self Flare sleeve for tube connection
- Includes o-ring for port connection

#### **Standard Materials:**

- Steel construction
- Buna N seal
- Black oxide finish on fitting body and tube sleeve
- Zinc plated, steel swivel tube nut

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





RBA1000 Series (inches)									
Part No.	Tube OD	A	B (NPTF)	С	D	L	H		
RBA1000-4	1/4	1/2-20	7/16-20	0.38	0.36	0.97	9/16		
RBA1000-4-5	1/4	1/2-20	1/2-20	0.38	0.36	0.97	5/8		
RBA1000-5	5/16	9/16-18	1/2-20	0.41	0.36	1.00	5/8		
RBA1000-6	3/8	5/8-18	9/16-18	0.41	0.39	1.06	11/16		
RBA1000-6-8	3/8	5/8-18	3/4-16	0.41	0.44	1.11	7/8		
RBA1000-8	1/2	3/4-16	3/4-16	0.44	0.44	1.14	7/8		
RBA1000-8-10	1/2	3/4-16	7/8-14	0.44	0.50	1.27	1		
RBA1000-10	5/8	7/8-16	7/8-14	0.44	0.50	1.27	1		
RBA1000-12	3/4	1 1/16-16	1 1/16-12	0.44	0.59	1.42	1 1/4		
RBA1000-12-16	3/4	1 1/16-16	1 5/16-12	0.44	0.59	1.42	1 1/2		
RBA1000-14	7/8	1 3/16-16	1 3/16-12	0.44	0.59	1.42	1 3/8		
RBA1000-16	1	1 5/16-16	1 5/16-12	0.50	0.59	1.48	1 1/2		
RBA1000-20	1 1/4	1 5/8-16	1 5/8-12	0.69	0.59	1.77	1 7/8		
RBA1000-24	1 1/2	1 15/16-16	1 7/8-12	0.69	0.59	1.78	2 1/8		
RBA1000-32	2	2 1/2-12	2 1/2-12	0.69	0.59	1.98	2 3/4		



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### **RBA2000 SERIES**

The RBA2000 Series self flare 90° elbow adapter is made up of a tube connection on one end and an adjustable SAE o-ring boss on the other end. For the tube connection, the OD and wall thickness of the tube to be joined to the Self Flare fitting will determine the dash size and whether a BA or BAX version of the Self Flare fitting is required for the application. The RBA2000 series adapters connect tubes to straight threaded ports designed to SAE Standard, J1926/1 and allows full 360° rotation of the adapter to connect to a tube from any direction in the same plane.

#### **Standard Features:**

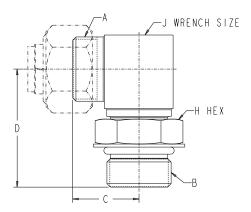
- •Tube sizes from -4 (.25 inch) to -32 (2.00 inch)
- Adjustable o-ring boss sizes from -4 (7/16-20) to -32 (2 1/2-12)
- Several jump sizes are available
- RBAX2000 adapters available for applications with heavy wall tubing
- Includes swivel tube nut and Self Flare sleeve for tube connection
- Includes nut, washer and o-ring for adjustable o-ring boss connection

#### **Standard Materials:**

- Steel construction
- Buna N seal
- Black oxide finish on fitting body and tube sleeve
- Zinc plated steel nuts and washer

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.





RBA2000 Series (inches)									
Part No.	Tube OD	Α	B (NPTF)	С	D	J	н		
RBA2000-4	1/4	1/2-20	7/16-20	0.72	1.02	1/2	9/16		
RBA2000-5	5/16	9/16-18	1/2-20	0.78	1.08	9/16	5/8		
RBA2000-6	3/8	5/8-18	9/16-18	0.80	1.24	5/8	11/16		
RBA2000-8	1/2	3/4-16	3/4-16	0.91	1.44	3/4	7/8		
RBA2000-8-10	1/2	3/4-16	7/8-14	0.97	1.69	7/8	1		
RBA2000-10	5/8	7/8-16	7/8-14	0.97	1.69	7/8	1		
RBA2000-10-12	5/8	7/8-16	1 1/16-12	1.09	1.94	1 1/8	1 1/4		
RBA2000-12	3/4	1 1/16-16	1 1/16-12	1.09	1.94	1 1/8	1 1/4		
RBA2000-12-10	3/4	1 1/16-16	7/8-14	1.09	1.81	1 1/8	1 1/8		
RBA2000-14	7/8	1 3/16-16	1 3/16-12	1.13	1.98	1 1/4	1 3/8		
RBA2000-16	1	1 5/16-16	1 5/16-12	1.28	2.03	1 3/8	1 1/2		
RBA2000-16-12	1	1 5/16-16	1 1/16-12	1.28	2.03	1 3/8	1 1/4		
RBA2000-20	1 1/4	1 5/8-16	1 5/8-12	1.63	2.23	1 3/4	1 7/8		
RBA2000-24	1 1/2	1 15/16-16	1 7/8-12	1.75	2.38	2	2 1/8		
RBA2000-32	2	2 1/2-12	2 1/2-12	2.06	2.88	2 1/2	2 3/4		

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### **VISE HELD PRESET TOOL**

The Vise Held Preset Tool is used to flare the tube ends of tube assemblies with BA style flare geometry. The advantage of using the preset tool is the tube ends can be flared on the work bench versus during final assembly of the tubes to the fittings. Confined spaces at final assembly and the need to use large diameter tubing are primary considerations for selecting to flare tube ends prior to installation. The OD and wall thickness of the tube to be flared determine the dash size and whether a VHPTBAX version of the tool is required.

#### **Standard Features:**

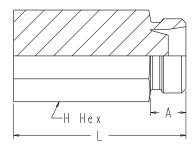
- Preset tools offered for tube sizes from -2 (.125 inch) to -32 (2.00 inch)
- Each tool is designed specific to the tube OD and a defined range of tube wall thickness
- VHPTBAX preset tools are available for applications with heavy wall tubing

#### **Standard Materials:**

- Steel construction
- Black oxide finish

#### **CAUTION**

- System operating conditions and maximum pressures dictate tubing requirements. LDI Self Flare fittings require matching the tube connection on the adapter to the tube wall thickness selected for the application.
- Fully annealed and cleaned tubing is preferred. Consult factory for applications that require alloy tubing or tube wall thicknesses that exceed published limits for BA and BAX tube connections.



Vise Held Preset Tool (inches)								
Part No.	A	L	н					
VHPTBA 2	0.31	2.31	9/16					
<b>VHPTBA 3</b>	0.34	2.34	9/16					
VHPTBA 4	0.38	2.38	9/16					
VHPTBA 5	0.41	2.41	7/8					
<b>VHPTBA</b> 6	0.41	2.41	7/8					
VHPTBA 8	0.44	2.44	7/8					
VHPTBA 10	0.44	2.44	1 1/8					
VHPTBA 12	0.44	2.44	1 1/8					
VHPTBA 14	0.44	2.44	1 3/8					
VHPTBA 16	0.50	2.50	1 3/8					
VHPTBA 20	0.69	2.69	2					
VHPTBA 24	0.69	2.69	2					
VHPTBA 32	0.69	2.69	2 5/8					



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# LDI PORT FITTINGS



Dimensions and specifications are subject to change without notice. Not all items are Made-To-Stock, contact us for availability.

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# **PORT CONNECTIONS**

### STANDARD INFORMATION

### **BAR STOCK DESIGN**

Flat wrench pads for easier installation. Neat appearance for modern looking equipment.

Ease of tapping for connecting auxiliary lines without welding.

### **MATERIAL - STEEL**

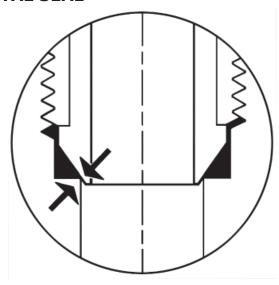
LDI fittings are machined from high quality steel bar stock. (Other materials will be quoted on request)

\*All items in the MK Section are non-stock; quoted upon request.

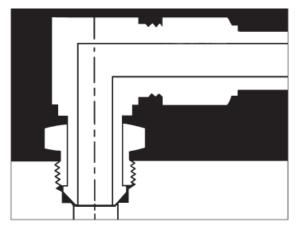
### **SIZES**

(1/4 inch O.D. to 2 inch O.D.)

# 1 CONNECTION WITH THE COINED METAL SEAL



# 2 SWIVEL NUT FOR NO-SWING ASSEMBLY





A hardened self-seating stem on the fitting.





A Flodar Port opening with a shoulder ... different, yet easy to prepare.

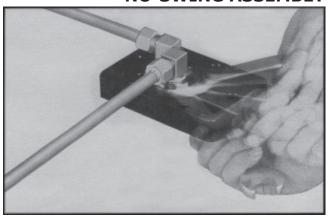


The hardened self-seating stem coins the shoulder to create a perfect metalto-metal seal.



... and it only takes, at most, ¼ turn beyond hand-tight to make the seal!

### **NO-SWING ASSEMBLY**



When assembling into a LDI Port, the fitting remains stationary. Only the swivel nut turns

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# LDI PORT FITTINGS

## **MAC2000 SERIES**

The MAC2000 Series adapter is a 90° elbow consisting of a male 37° JIC tube connection per SAE J514 on one leg with a male LDI Port stem swivel connection on the other leg of the adapter. The swivel connection allows the orientation of the male 37° connection to be fixed while the swivel nut on the LDI Port stem is tightened.

#### **Standard Features:**

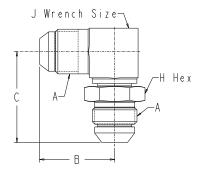
- •Tube sizes from -4 (.25 inch) to -32 (2.00 inch)
- Copper brazed construction
- Hardened port stem

#### **Standard Materials:**

- Steel construction
- Black oxide finish

### **CAUTION**

• System operating conditions and maximum pressures dictate tubing requirements





MAC2000 Series (inches)								
Part No.	Tube OD	Α	В	С	J	H		
MAC2000-4	1/4	7/16-20	0.89	1.16	7/16	9/16		
MAC2000-6	3/8	9/16-18	1.06	1.36	9/16	11/16		
MAC2000-8	1/2	3/4-16	1.25	1.52	3/4	7/8		
MAC2000-10	5/8	7/8-14	1.45	1.64	7/8	1		
MAC2000-12	3/4	1 1/16-12	1.66	1.91	1 1/8	1 1/4		
MAC2000-14	7/8	1 3/16-12	1.72	2.00	1 1/4	1 3/8		
MAC2000-16	1	1 5/16-12	1.81	2.16	1 3/8	1 1/2		
MAC2000-20	1 1/4	1 5/8-12	2.06	2.50	1 3/4	1 3/4		
MAC2000-24	1 1/2	1 7/8-12	2.33	2.73	2	2		
MAC2000-32	2	2 1/2-12	3.06	3.33	2 1/2	2 3/4		

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# LDI PORT FITTINGS

## **MAC3000 SERIES**

The MAC3000 Series tee shaped adapter is made up of two opposing male 37°JIC tube connections per SAE J514 and a male LDI Port stem swivel connection forming the leg. The swivel connection allows the orientation of the male 37° connections to be fixed while the swivel nut on the LDI Port stem is tightened.

#### **Standard Features:**

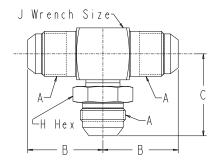
- \*Tube sizes from -4 (.25 inch) to -32 (2.00 inch)
- Copper brazed construction
- Hardened port stem

#### **Standard Materials:**

- Steel construction
- Black oxide finish

### **CAUTION**

• System operating conditions and maximum pressures dictate tubing requirements





MAC3000 Series (inches)								
Part No.	Tube OD	A	В	С	J	н		
MAC3000-4	1/4	7/16-20	0.89	1.16	7/16	9/16		
MAC3000-6	3/8	9/16-18	1.06	1.36	9/16	11/16		
MAC3000-8	1/2	3/4-16	1.25	1.52	3/4	7/8		
MAC3000-10	5/8	7/8-14	1.45	1.64	7/8	1		
MAC3000-12	3/4	1 1/16-12	1.66	1.91	1 1/8	1 1/4		
MAC3000-14	7/8	1 3/16-12	1.72	2.00	1 1/4	1 3/8		
MAC3000-16	1	1 5/16-12	1.81	2.16	1 3/8	1 1/2		
MAC3000-20	1 1/4	1 5/8-12	2.06	2.50	1 3/4	1 3/4		
MAC3000-24	1 1/2	1 7/8-12	2.33	2.73	2	2		
MAC3000-32	2	2 1/2-12	3.06	3.33	2 1/2	2 3/4		