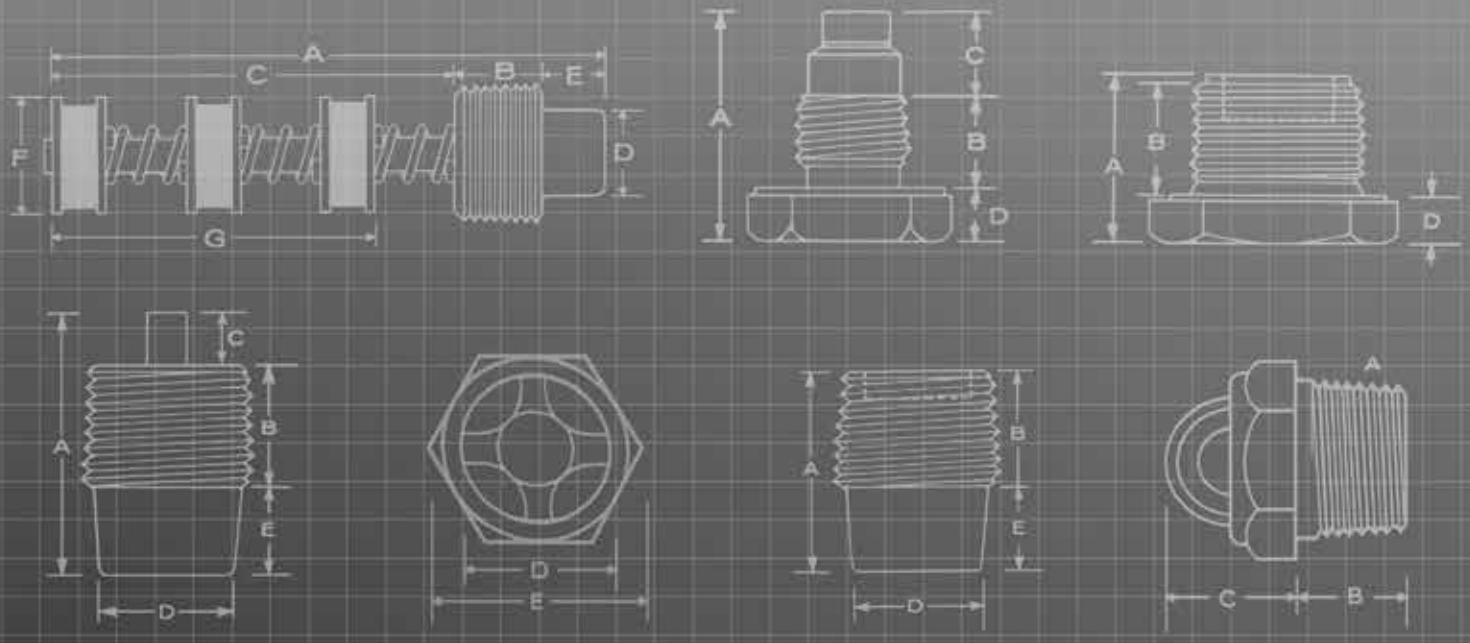
Lisle Corporation
O.E.M. Products Division

BASIC MANUFACTURER OF SPECIALITY PRODUCTS FOR INDUSTRY



ISO 9001:2008 Certified

O.E.M. Division

Lisle Corporation, located in southwest Iowa, “Where the Work Ethic Still Works”, has been dedicated to manufacturing quality products since 1903.

Today, we are recognized as a leading manufacturer of specialty automotive tools, mechanics’ creepers, work holding products and a broad range of OEM products for industry. Our expanded OEM Division is an ISO 9001:2008 certified basic manufacturer for heavy equipment, refrigeration, hydraulic systems, the trucking industry, the automotive industry and many others.

This catalog represents only part of the Lisle OEM Division product line. The pages that follow present those items that are either stock or standard parts. In addition, much of what we manufacture is unique to a specific customer. If you do not find a part cataloged that meets your requirements, please give us a call. Our OEM Division Sales and Engineering Departments will work with you to provide the quality parts you need.

Lisle Corporation has the engineering and manufacturing capabilities to design and produce a wide range of precision parts. We are not limited to magnetic devices or components. Our manufacturing experience covers a broad spectrum and those capabilities are available to you for even modest sized jobs.

Magnetic Drain Plugs were pioneered by Lisle Corporation in the 1930's. Lisle magnetic plugs are similar to standard pipe or straight thread drain plugs with one important difference — a permanent magnet is fastened to the plug body. This magnet attracts and holds abrasive, ferrous metal particles preventing their circulation through the lubrication or hydraulic system.

These abrasive, ferrous metal particles appear in lubricating or hydraulic systems as a result of the following conditions:

- The constant flaking effect of normal wear of moving parts.
- Particles not removed by flushing operations after boring or machining.
- Chipping due to sub-surface casting flaws.
- Minute component breakdown caused by stress usage.

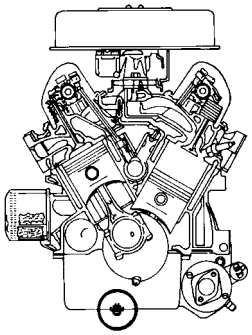
Usually a combination of factors accounts for the presence of these particles that cause excessive wear to vital components unless they are removed. By holding these particles, Lisle magnetic drain plugs prevent excessive wear to the system's components.

Lisle manufactures magnetic plugs in a wide variety and range of sizes, magnet types, and body styles. Lisle magnetic plugs are used by numerous manufacturers of gear boxes, transmissions, engines, and hydraulic systems for the automotive, agricultural and machinery industries. Typical applications include:

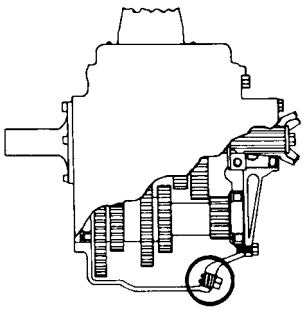
- Air Conditioning and Refrigeration Compressors
- All Terrain Vehicles
- Balers
- Combines
- Crawler Tractors
- Diesel Engines
- Drilling Equipment
- Earthmoving Equipment
- Farm Tractors
- Garden Tractor Engines
- Heavy-Duty Transmissions
- Hoists and Cranes
- Hydraulic Systems
- Lawnmower Engines
- Lift Trucks
- Military Vehicles
- Mining Equipment
- Motorcycle Transmissions and Engine
- Oil Well Equipment
- Outboard Engines
- Printing Presses
- Pumps
- Recreational Vehicles
- Snowmobiles
- Speed Reducers and Gear Boxes
- Tiller Engines
- Trans-Axles
- Truck Axles
- Turbine Engine

Before

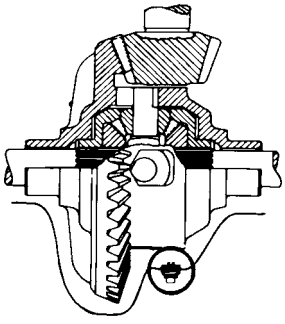
After



Engines



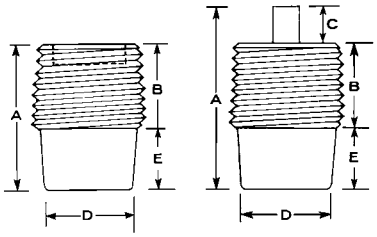
Transmissions



Gear Boxes

Lisle®

O.E.M. DIVISION



Disc Style Magnet Bar Style Magnet

SQUARE HEAD

Nominal Pipe Size	Part Number	Magnet Style & Material	A Length in. / mm	B Overall Body Length in. / mm	C Magnet Projection in. / mm	D Size in. / mm	E Depth in. / mm	Body Material
• 1/8"-27 NPTF	4016011	Neodymium	.82 / 20.8	.34 / 8.6	.23 / 5.7	.28 / 7.1	.25 / 6.4	Steel
• 1/4"-18 NPTF	4026011	Neodymium	1.02 / 25.9	.50 / 11.7	.23 / 5.7	.37 / 9.5	.29 / 7.4	Steel
1/4"-18 NPTF	4024031	Bar Ceramic V	.95 / 24.1	.51 / 13.0	.15 / 3.8	.37 / 9.5	.29 / 7.1	Steel / Zinc Plate Yellow Chromate
• 3/8"-18 NPTF	4036011	Neodymium	1.05 / 26.7	.51 / 13.0	.22 / 5.5	.43 / 11.0	.32 / 8.2	Steel
• 3/8"-18 NPTF	4034031	Disc Ceramic I	.83 / 21.1	.51 / 13.0	--- / ---	.43 / 11.0	.32 / 8.2	Steel
• 1/2"-14 NPTF	4044041	Disc Ceramic I	.97 / 24.6	.58 / 14.7	--- / ---	.56 / 14.2	.39 / 9.9	Steel
• 3/4"-14 PTF	4054121	Disc Ceramic I	1.08 / 27.4	.62 / 15.7	--- / ---	.62 / 15.7	.46 / 11.6	Steel
3/4"-14 PTF	4054221	Bar Ceramic V	1.30 / 33.0	.62 / 15.7	.23 / 5.8	.62 / 15.7	.45 / 11.4	Steel
• 1"-11 1/2 NPTF	4064021	Disc Ceramic I	1.29 / 32.8	.77 / 19.6	--- / ---	.81 / 20.6	.52 / 13.2	Steel
1"-11 1/2 NPTF	4064031	Bar Ceramic V	1.59 / 40.4	.77 / 19.6	.30 / 7.6	.81 / 20.6	.52 / 13.2	Ductile Iron
• 1 1/4"-11 1/2 NPTF	4074041	Disc Ceramic I	1.37 / 34.8	.81 / 20.6	--- / ---	.93 / 23.6	.56 / 14.2	Cast Iron
• 1 1/2"-11 1/2 NPTF	4084011	Bar Ceramic V	1.7 / 43.2	.83 / 21.1	.25 / 6.4	1.12 / 28.4	.62 / 15.7	Cast Iron
• 2"-11 1/2 NPTF	4094051	Bar Ceramic V	1.81 / 45.9	.88 / 22.3	.25 / 6.4	1.37 / 34.7	.68 / 17.2	Cast Iron

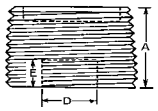
• Standard parts supplied from stock or with minimum lead-time.

MAGNET COMPARISON

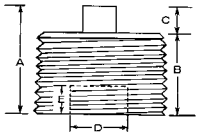
	ENERGY[1] PRODUCT	TEMPERATURE STABILITY	RESISTANCE TO DEMAG	COST
Ceramic I	1.0	Good	Excellent	Low
Ceramic V	3.5	Good	Excellent	Medium
Alnico V	5.5	Excellent	Good	Medium - High
Neodymium	30.0	Good[2]	Excellent	High[2]

[1] Energy Product gives an indication of magnetic energy available in a given volume of magnetic material.
[2] Temperature stability and price vary with the grade of material.



Disc Style Magnet



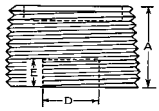
Bar Style Magnet

SQUARE RECESSED

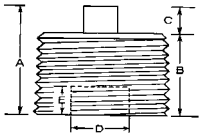
Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in. / mm	B Body Length in. / mm	C Magnet Projection in. / mm	D Head Size in. / mm	E Head Depth in. / mm	Body Material
• 1/2"-14 NPTF	5044051	Disc Ceramic I	.61 / 15.5	.61 / 15.5	--- / ---	.38 / 9.7	.27 / 6.7	Steel
• 3/4"-14 NPTF	5054051	Disc Ceramic I	.62 / 15.7	.62 / 15.7	--- / ---	.51 / 13.0	.31 / 7.9	Steel
• 3/4"-14 NPTF	5054181	Bar Ceramic I	.90 / 22.9	.62 / 15.7	.28 / 7.1	.51 / 13.0	.31 / 7.9	Steel
• 1"-11 1/2 NPTF	5064071	Disc Ceramic I	.77 / 19.6	.77 / 19.6	--- / ---	.51 / 13.0	.40 / 10.2	Steel
1 1/4"-11 1/2 NPTF	5074061	Bar Ceramic V	1.33 / 33.8	1.08 / 27.4	0.25 / 6.4	.52 / 13.2	.38 / 9.7	Ductile Iron Zinc Plate
1 1/2"-11 1/2 NPTF	5084021	Bar Ceramic VIII	1.20 / 30.5	.83 / 21.0	.37 / 9.3	.81 / 20.6	.57 / 14.4	Grey Iron Zinc Plate

• Standard parts supplied from stock or with minimum lead-time.



Disc Style Magnet

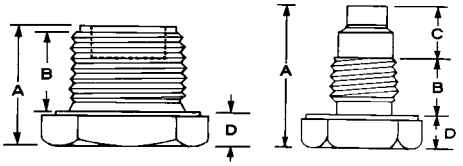


Bar Style Magnet

HEX RECESSED

Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in. / mm	B Body Length in. / mm	C Magnet Projection in. / mm	D Head Size in. / mm	E Head Depth in. / mm	Body Material
• 1/8"-27 NPTF	5016031	Neodymium	.62 / 15.7	.37 / 9.4	.25 / 6.4	.19 / 4.8	.18 min. / 4.6	Steel
• 1/4"-18 NPTF	5026021	Neodymium	.69 / 17.6	.46 / 11.7	.23 / 5.8	.25 / 6.4	.19 min. / 4.8	Steel
• 3/8"-18 NPTF	5036011	Neodymium	.66 / 16.8	.46 / 11.7	.20 / 5.1	.31 / 7.9	.20 / 5.1	Steel
• 3/8"-18 NPTF	5034011	Disc Ceramic I	0.52 / 13.2	.46 / 11.7	.06 / 1.5	.31 / 7.9	.19 / 4.8	Steel
• 1/2"-14 NPTF	5046021	Neodymium	.85 / 21.5	.61 / 15.5	0.21 / 5.3	.38 / 9.7	.25 / 6.4	Steel
• 1/2"-14 NPTF	5044121	Disc Ceramic I	.61 / 15.5	.61 / 15.5	--- / ---	.38 / 9.7	.25 / 6.4	Steel
• 3/4"-14 NPTF	5056031	Neodymium	.76 / 19.3	.62 / 15.7	.14 / 3.6	.57 / 14.4	.31 / 7.9	Steel
• 3/4"-14 NPTF	5054121	Disc Ceramic I	.62 / 15.7	.62 / 15.7	--- / ---	.57 / 14.4	.31 / 7.9	Steel
• 1"-11 1/2 NPTF	5066021	Neodymium	.91 / 23.1	.77 / 19.6	.14 / 3.6	.63 / 16.0	.38 / 9.7	Steel
• 1"-11 1/2 NPTF	5064041	Disc Ceramic I	.77 / 19.6	.77 / 19.6	--- / ---	.63 / 16.0	.38 / 9.7	Steel

• Standard parts supplied from stock or with minimum lead-time.

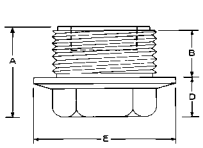


Disc Style Magnet Bar Style Magnet

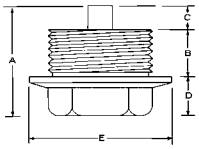
CAP SCREW TYPE

Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in. / mm	B Thread Length in. / mm	C Magnet Projection in. / mm	D Hex Across Flats in. / mm	E Head Thickness in. / mm	Body Material
3/8"-24 UNF2A	7246011	Neodymium	.81 / 20.6	.31 / 7.9	.31 / 7.9	.62 / 15.7	.19 / 4.8	Steel Zinc Plate
• 1/2"- 20 UNF3A	7306021	Neodymium	.68 / 17.4	.34 / 8.6	.125 / 3.2	.75 / 19.1	.22 / 5.6	Steel Zinc Plate
5/8"- 18 UNF2A	7366011	Neodymium	.78 / 19.8	.38 / 9.7	.19 / 4.8	.87 / 22.1	.21 / 5.3	Steel
3/4"- 16 UNF2A	7402431	Bar Alnico V	.89 / 22.6	.37 / 9.4	0.31 / 7.9	.93 / 23.6	.21 / 5.3	Steel
• 3/4"- 16 UNF2A	7404011.09	Disc Ceramic I	.75 / 19.1	.41 / 10.4		1.00 / 25.4	.25 / 6.4	Steel
• 3/4"- 16 UNF2A	7406011	Neodymium	.87 / 22.1	.46 / 11.7	.07 / 1.78	.88 / 22.4	.34 / 8.6	Steel
7/8"- 14 UNF2A	7454071	Disc Ceramic I	.77 / 19.6	.41 / 10.4		1.12 / 28.4	.25 / 6.4	Steel Zinc Plate
7/8"- 18 NS2	7474041	Disc Ceramic I	.78 / 19.8	.40 / 10.2		1.12 / 28.4	.21 / 5.3	Steel
1"- 14 NS3	7524011	Bar Ceramic V	1.06 / 26.9	.50 / 12.7	0.25 / 6.4	1.37 / 33.3	.31 / 7.9	Steel
• 1"- 18 NS2A	7544021	Disc Ceramic I	.89 / 22.6	.40 / 10.2		1.25 / 31.8	.31 / 7.9	Steel
• 1 1/16"- 12 UN-2A	7574051	Bar Ceramic V	1.29 / 32.8	.49 / 12.5	.20 / 5.1	1.25 / 31.8	.47 / 11.9	Steel
1 1/8"- 12 UNF2A	7604011	Disc Ceramic I	1.15 / 29.2	.53 / 13.5		1.50 / 38.1	.37 / 9.4	Steel Zinc Plate
1 1/8"- 16 UN2A	7614021	Disc Ceramic I	.92 / 23.4	.54 / 13.7		1.37 / 34.8	.38 / 9.7	Steel
1 1/4"- 12 UNF3A	7634011	Bar Ceramic V	1.16 / 29.5	.62 / 15.7	0.23 / 5.7	1.62 / 41.1	.31 / 7.9	Steel Zinc Plate

• Standard parts supplied from stock or with minimum lead-time.



Disc Style Magnet

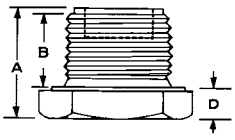


Bar Style Magnet

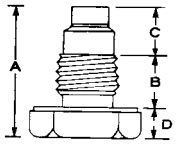
FLANGE TYPE

Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in.	A mm	B Thread Length in.	B mm	C Magnet Projection in.	C mm	D Hex Across Flats in.	D mm	E Head Thickness in.	E mm	F Flange Diameter in.	F mm	Body Material
1"- 16 N-2	6534011	Disc Ceramic I	.83	21.1	.63	16.0					.20	5.2	1.25	31.8	Steel
1 1/2"- 12 UNF-2A	6714031	Disc Ceramic I	1.31	33.3	.56	14.2			1.00	25.4	.50	12.7	2.00	50.8	Ductile Iron
1 5/8"- 12 UN-2A	6754011	Disc Ceramic I	1.00	25.4	.58	14.7					.32	8.1	1.88	47.7	Steel

These are standard parts but not stock.... Allow lead time for delivery.



Disc Style Magnet



Bar Style Magnet

METRIC THREAD

Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in.	A mm	B Thread Length in.	B mm	C Magnet Projection in.	C mm	D Hex Across Flats in.	D mm	E Head Thickness in.	E mm	F Flange Diameter in.	F mm	Flange Body Style	Body Material
M6 x 1.0	6016011	Neodymium	.65	16.5	.32	8.1	.96	24.4	.31	7.9	.27	6.8	.53	13.5	Flange Type	Steel Coated
M12 x 1.25	6786011	Neodymium	1.05	26.7	.49	12.5	.19	4.8	.55	14	.31	7.9	.83	21.1	Flange Type	Steel Zinc
M12 x 1.75	6996011	Neodymium	1.64	41.7	.50	12.7	.21	5.33	.59	15	.39	9.9	.89	22.6	Flange Type	Steel
M14 x 1.25	7894011	Disc Ceramic I	.75	19.1	.53	13.5			.75	19.1	.22	5.6			Cap Screw	Steel Phosphate
M14 x 1.25	7894021	Disc Ceramic I	.75	19.1	.53	13.5			.75	19.1	.22	5.6			Cap Screw	Steel Zinc
M14 x 1.25	6896021	Neodymium	.45	11.4	.27	6.8					.72	18.3	.75	19.1	Flange Type	Steel Zinc
M18 x 1.5	6384021	Disc Ceramic V	1.06	26.9	.50	12.7			.74	18.8	.55	14	1.12	28.5	Flange Type	Steel Zinc

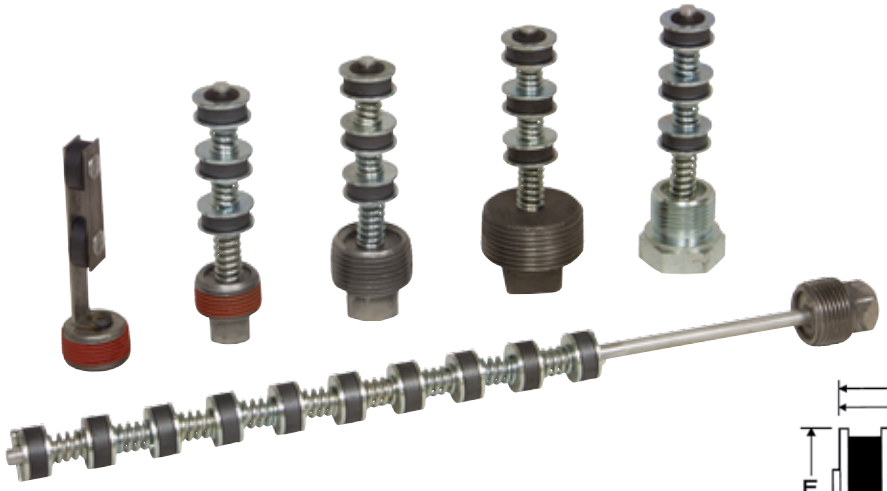
These are standard parts but not stock.... Allow lead time for delivery.

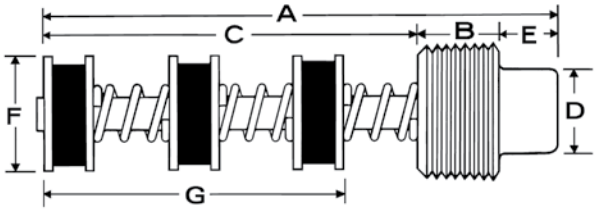
Lisle Deep-Reach Assemblies are designed to provide magnetic protection for large capacity lube or hydraulic systems. Greater magnetic capability is accomplished by stacking several magnets on a post or inside a thin stainless steel or brass tube. This type of construction projects the chip collection area farther into the system and closer to the areas of chip generation.

When ferrite magnets are stacked on a post, the steel washers that form the magnetic "sandwich" not only protect the magnets, they concentrate the magnetic field for more efficient chip collection and retention. The springs used as spacers serve as shock absorbers. This type of construction has proven to be both rugged and economical.

In instances where it is impractical to install conventional magnetic plugs or deep-reach plugs, Lisle engineers can design special magnetic assemblies to provide large areas of magnetic protection.

Post length, number of magnets, and thread size can be altered to make a part ideal for your application. A sketch indicating the size of the reservoir and areas of greatest contamination will provide Lisle engineers with the information necessary to design a part to meet your specific requirements.





Deep-Reach Style

DEEP - REACH TYPE

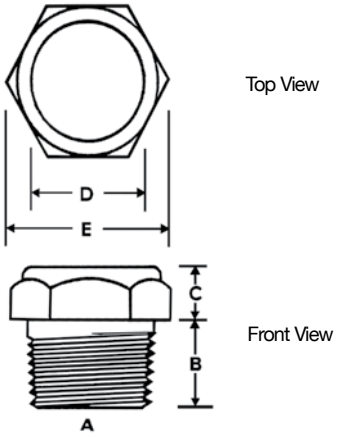
Nominal Pipe Size	Part Number	Magnet Style & Material	A Overall Nominal Length in.	A mm	B Thread Length in.	B mm	C Magnet Projection in.	C mm	D Head Size in.	D mm	E Head Height in.	E mm	F Magnet Assembly Diameter in.	F mm	G Magnet Working Length in.	G mm	Body Material
• 3/4"-14 PTF	4057031	3 - Disc Ceramic I	4.07	103.4	.62	15.7	3.2	81.3	.62	15.8	.45	11.6	.87	22.1	2.12	53.8	Steel
• 1"-11 1/2 NPTF	4067171	3 - Disc Ceramic I	4.10	104.1	.77	19.6	2.9	73.7	.83	20.9	.52	13.2	.87	22.1	2.25	57.2	Steel
1"-11 1/2 NPTF	8064071	6 - Disc Ceramic I	8.09	205.5	.77	19.6	6.81	173.0	.824	20.9	.52	13.2	.87	22.1	4.87	123.7	Steel
• 1 1/4"-11 1/2 NPTF	4077061	3 - Disc Ceramic I	4.36	110.9	.80	20.4	3	76.2	.93	23.6	.56	14.2	.87	22.1	2.25	57.2	Cast Iron

• Standard parts supplied from stock or with minimum lead-times.

PORTHOLE VIEW GAUGES

These view gauges are designed for multiple uses and are made for insertion, into els, tees, or other N.P.T. fittings and are easily installed and removed with a wrench. These rugged units are turned from solid hexagon material and come with a clear glass window firmly held between two gaskets.

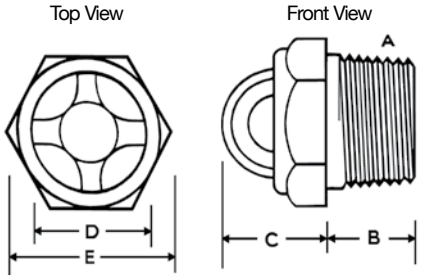
Recommended maximum pressures, listed below, allow safe margins for variations in application and installation.



Clear Window View Gauge

CLEAR WINDOW WITH OPEN BACK

Nominal Pipe Size	Part Number	A Stem Length	B Body Length	C Slight Diameter	D Assembly Clearance	Recommended Maximum PSI
Steel with Zinc Plating						
3/8"- 18	9037011	0.50	0.31	0.47	1.00	75
1/2"-14	9047011	0.53	0.35	0.58	1.25	75
3/4"- 14	9057011	0.53	0.36	0.75	1.50	50
1"- 11 1/2	9067011	0.68	0.46	1.00	1.81	25
1 1/4"- 11 1/2	9077011	0.68	0.44	1.17	2.25	10
1 1/2"- 11 1/2	9087011	0.68	0.42	1.61	2.50	10



Domed View Gauge

CLEAR WINDOW WITH REFLECTOR BACK

Nominal Pipe Size	Part Number	A Stem Length	B Body Length	C Slight Diameter	D Assembly Clearance	Recommended Maximum PSI
Steel with Zinc Plating						
1/2"-14	9047021	0.53	0.35	0.58	1.25	75
3/4"- 14	9057021	0.53	0.38	0.75	1.50	50
1"- 11 1/2	9067021	0.68	0.44	1.00	1.80	25
1 1/4"- 11 1/2	9077021	0.68	0.45	1.16	2.25	10
1 1/2"- 11 1/2	9087021	0.68	0.45	1.56	2.50	10

⚠ WARNING:

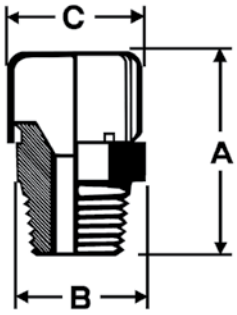
Do not exceed listed PSI and/or 250° F. Not for air service.

DOMED VIEW GAUGE

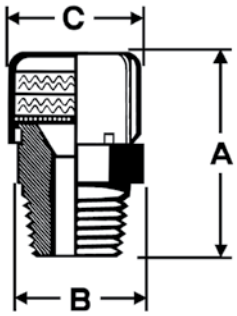
Nominal Pipe Size	Part Number	A Stem Length	B Body Length	C Slight Diameter	D Assembly Clearance
Steel with Zinc Plating					
3/4"- 14	9057031	0.53	0.75	0.93	1.50
1"- 11 1/2	9067031	0.68	0.82	0.93	1.81
1 1/4"- 11 1/2	9077031	0.68	1.00	1.25	2.25

⚠ WARNING:

Do not exceed 10 PSI up to 100° F or 2 PSI up to 160° F. Not for air service.



Non-Filtered Breather Vent



Filtered Breather Vent

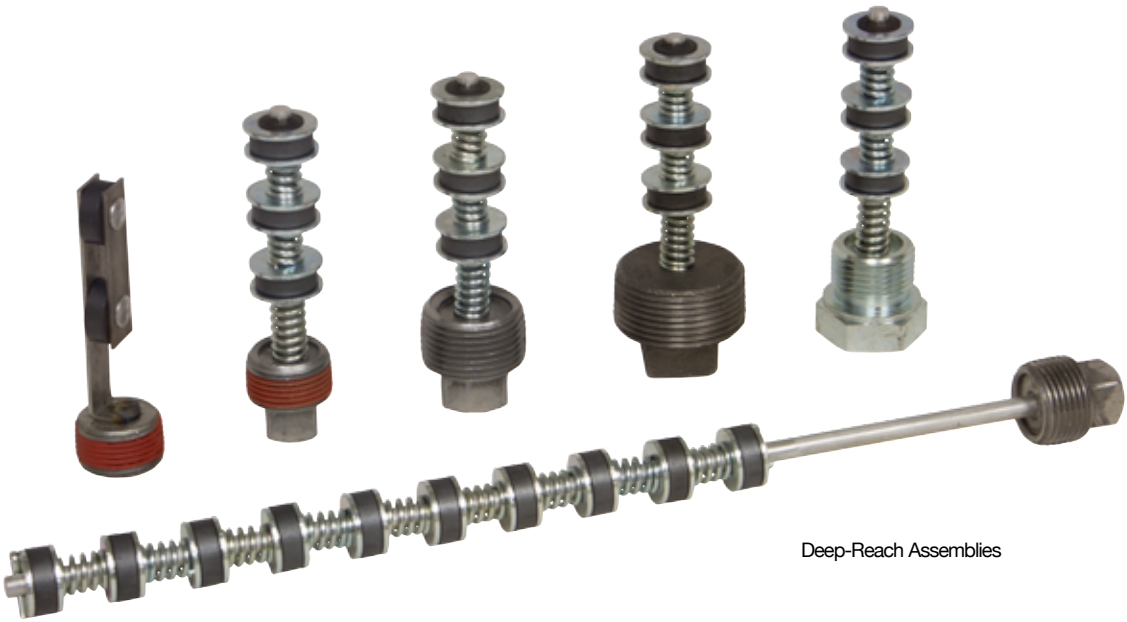
These breathers are designed for rugged industrial applications. They are designed to maintain safe, equalized pressure in a unit even when it is being filled or under sudden changes in ambient temperature. You have a choice of non-filtered which permits straight through flow of air or filtered which has a screen and two layers of Nylon for filtration.

NON - FILTERED				
Nominal Pipe Size	Part Number	A Overall Length	B Hex Size	C Cover Diameter
Steel with Zinc Plating				
1/8"- 27 NPT	8017011	1.25	0.50	0.61
1/4"-18 NPT	8027031	1.34	0.75	0.84
3/8"- 18 NPT	8037021	1.34	0.75	0.84
1/2"- 14 NPT	8047031	1.46	0.87	0.97

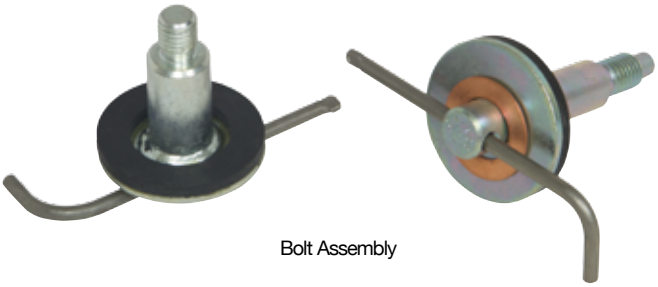
FILTERED				
Nominal Pipe Size	Part Number	A Overall Length	B Hex Size	C Cover Diameter
Steel with Zinc Plating				
1/8"- 27 NPT	8017021	1.25	0.50	0.61
1/4"-18 NPT	8027041	1.34	0.75	0.84
3/8"- 18 NPT	8037031	1.34	0.75	0.84
1/2"- 14 NPT	8047041	1.46	0.87	0.97

Standard Breathers

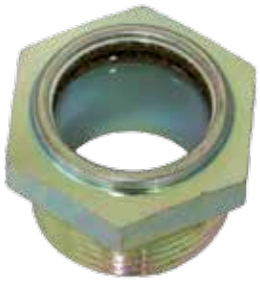
Customized Breathers



Deep-Reach Assemblies



Bolt Assembly



View Gauges

NACCO Materials Handling

CATERPILLAR®

Mack® TRUCKS

Komatsu Dresser Company

STEMCO®

Magnetic Plugs

Lisle®
O.E.M. DIVISION

EATON®

CLARK® Material Handling Company

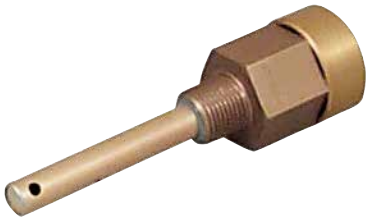
Allison® Transmission

Magnetic Plugs

Magnetic Plug Screen Assemblies

Dipsticks

Screen Assembly



Special Breather

POLARIS®

Carrier®

TUTHILL CORPORATION®

Magnetic Plugs

Chip Collectors

Chip Detectors

Special Units

Special Magnetic Units

Magnetic Plugs

Special Magnetic Units

TECUMSEH®

FREIGHTLINER®
FREIGHTLINER CORPORATION

Copeland

Magnetic Plug with Screen Assembly

DO YOU HAVE COST, QUALITY OR DELIVERY PROBLEMS WITH ASSEMBLIES?

The preceding pages have cataloged our Magnetic Plugs and Specialty Items. Through the years, as our product lines have grown and evolved, so have our manufacturing and engineering capabilities. These varied capabilities allow us to be competitive over a broad range of manufacturing and assembly procedures. In particular we specialize in jobs requiring multiple secondary operations and assembly.

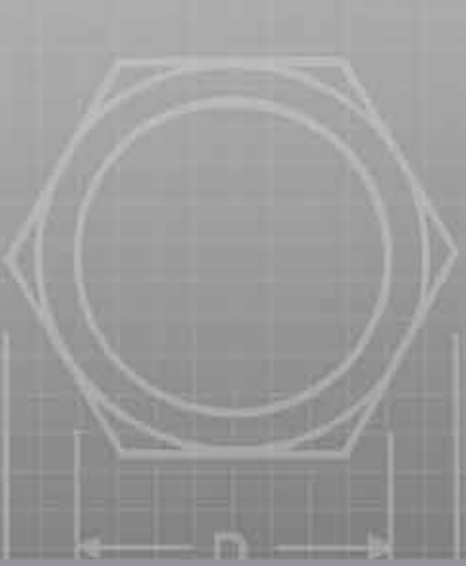
LET US TAKE A LOOK AT YOUR "PROBLEM" ASSEMBLIES

If you are experiencing cost, quality or delivery problems, we invite you to submit your "problems" to us for quotation. Chances are good we'll be able to provide a solution.

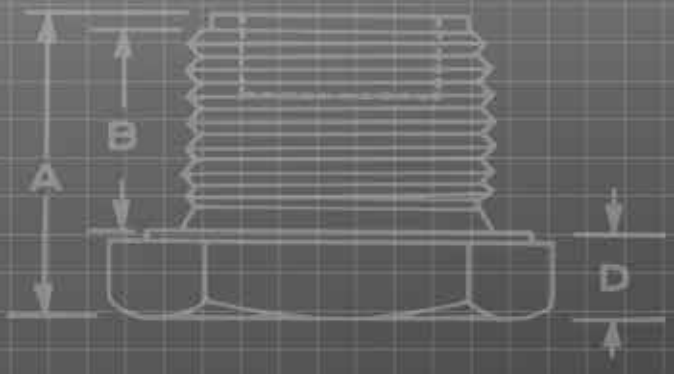
WHAT DOES ALL THIS MEAN TO YOU?

Lisle Corporation, its people, plant and equipment plus its years of experience are ready to work for you…solving your manufacturing problems.

Let's get together and see how we can be of service. Just send us a print or sample and we'll promptly respond.



Lisle Corporation
OEM Products Division
807 E. Main Street • P.O. Box 89
Clarinda, IA 51632-0089
(712) 542-5101 • Fax (712) 542-4902
www.lislecorp.com/oem



Printed in USA

Catalog P-16 1.5M