

SECTION 5

MAGNALOY RESERVOIR ACCESSORIES



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NOTE: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.
Check with the factory or our Web Site at www.magnaloy.com for the latest information.

Filler Breather Adapters



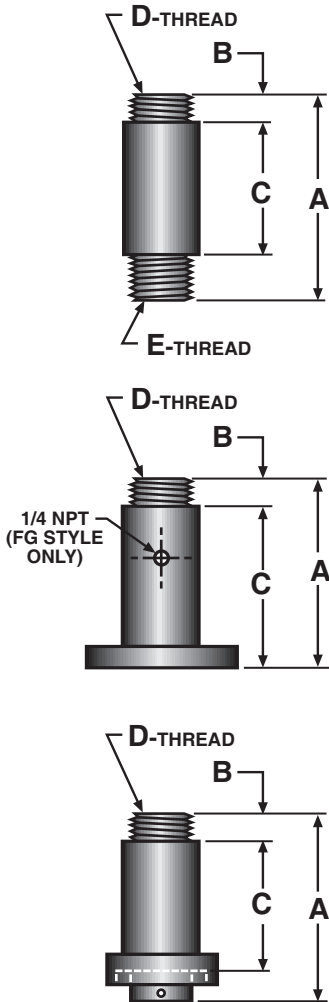
High Capacity Spin-On Adapters

Converts standard breather installation to accept a high efficiency spin-on air breather



Features:

- **Material** - Anodized 6061 Aluminum
- **Flange Adapter** - Accepts 1 1/2-16 UN Threaded Spin-On Filters and uses the same mounting bolt circle as our Filler Breather Screens and comes complete with mounting hardware and gaskets.
- **Bayonet Adapters** - Accept either 1 1/2-16 UN, 1 1/8-16 UN or 1-12 UN threaded Spin-On Filters, fits all popular filler breather bayonet flanges and utilizes a Buna-N gasket to insure proper sealing.



NPT Style Spin-On

Part Number	A	B	C	D	E
FBS-10012-012P	2.80	.435	1.572	1-12 UN	3/4 -NPT
FBS-10216-012P	2.80	.435	1.572	1 1/8-16 UN	3/4 -NPT
FBS-10816-104P	3.25	.435	1.945	1 1/2-16 UN	1 1/4 -NPT

Flange Style Spin-On

Part Number	A	B	C	D
FBS-10816-F	3.051	.435	2.295	1 1/2-16 UN
FBS-10816-FG	4.756	.435	4.321	1 1/2-16 UN

Bayonet Style Spin-On

Part Number	A	B	C	D
FBS-10012-B	2.135	.435	1.05	1-12 UN
FBS-10216-B	2.135	.435	1.05	1 1/8-16 UN
FBS-10816-B	2.135	.435	1.05	1 1/2-16 UN

Allows Filtered Air to Easily Flow in and out of the Hydraulic Reservoir while Preventing Airborne Contaminants from Entering the System.



Filler Breather Caps

Types & Features:

A Cap - 20 GPM, 10 Micron Filter, Stainless Steel

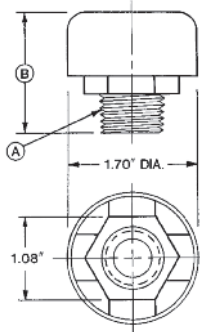
D Cap - 30 GPM, 10 Micron Filter, Stainless Steel

H Cap - 120 GPM, 10 Micron Filter, Stainless Steel

K Cap - Pressure Cap, 20 PSI-no relief, 10 Micron Filter, Chrome Plated

MB Cap - 10 GPM, 10 Micron Filter, Shatter Resistant Plastic (Temp Rating 225°F)

MB Type - Mini Breather



Type	Part Number	Mounting Type	Overall Height	Outside Diameter
A	FB-C-A	Bayonet	1.33	2.55
D	FB-C-D	Bayonet	1.30	2.55
H	FB-C-H	Bayonet	1.33	2.55
K	FB-C-K	Bayonet	.94	2.88
MB	FB-C-MB-P004	1/4 NPT	1.80	1.70
MB	FB-C-MB-P006	3/8 NPT	1.50	1.70
MB	FB-C-MB-P008	1/2 NPT	1.60	1.70
MB	FB-C-MB-P012	3/4 NPT	1.60	1.70

Mounting Flanges

Features:

Blue Zinc Plated

Available in Three Lengths



Part Number	Height	Description	Code
FB-F-008	.500	008 Mounting Flange	008
FB-F-108	1.50	108 Mounting Flange	108
FB-F-600	6.00	600 Mounting Flange	600

Filler Breather Screens

Materials & Features:



Part Number	Code	Mesh	Material	Length
FB-S-N *	N	200 Mesh	Brass	6.00
FB-S-P	P	30 Mesh	Nylon	4.00
FB-S-R *	R	30 Mesh	Brass	4.00
FB-S-V *	V	30 Mesh	Brass	9.25
FB-S-W	W	30 Mesh	Stainless	3.25
FB-S-X	X	30 Mesh	Stainless	6.25
FB-S-Y	Y	30 Mesh	Stainless	8.25
FB-S-Z	Z	30 Mesh	Stainless	10.25

* Check with factory for availability

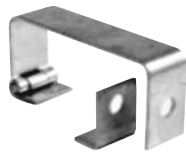
Filler Breathers



Filler Breather Options:



PL - Pad Lock



L - Locking Cap



SM - Side Mounting Kit



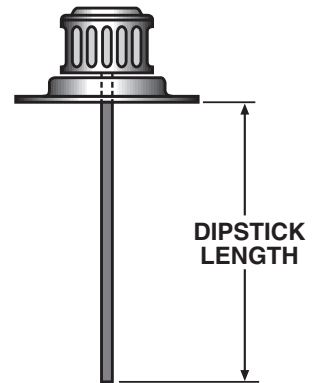
D - Dipstick

Part Number	Code	Description
FB-O-PL	PL	Pad Lock - not included with locking cap option
FB-O-L	L	Cap Lock Kit
FB-O-SM	SM	Side Mounting Kit
FB-O-D	D	Dipstick - specify length, measured from bottom of mounting flange to end of dipstick

How to Order:

Standard Assemblies:

Code	Description
FB-A008W	Stainless Steel, Weatherproof, 10 micron, 20 GPM Cap; 1/2" Mounting Flange; 30 mesh, 3 1/4", Stainless Steel Screen
FB-A008P	Stainless Steel, Weatherproof, 10 micron, 20 GPM Cap; 1/2" Mounting Flange; 30 mesh, 4", Nylon Screen
FB-K008W	Pressurized, Chrome Plated, 20 PSI Cap; 1/2" Mounting Flange; 30 mesh, 3 1/4", stainless steel Screen



Custom Assemblies:

Select the components that best meet your particular hydraulic system requirements and custom build the part number as follows:



FB - A 008 Y - D8

Code	Cap Type
A	A Cap
D	D Cap
H	H Cap
K	K Cap

Code	Mounting Flange
008	1/2" Height
108	1 1/2" Height
600	6" Height

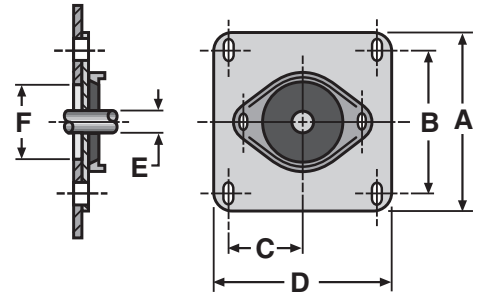
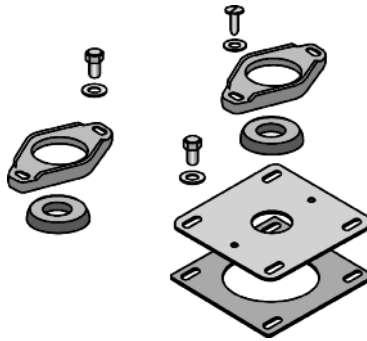
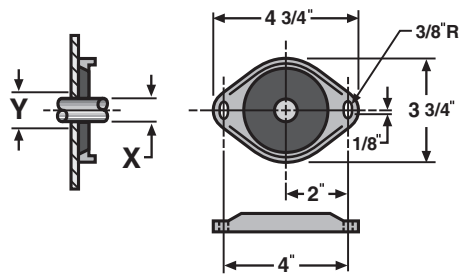
Code	Option
Blank	No Options
PL	Pad Lock
L	Locking Cap
SM	Side Mount
D	Dipstick

Code	Screen Material
N	6" Brass
P	4" Nylon
R	4" Brass
S	14 1/2" Zinc Plated
V	9 1/4" Brass
W	3 1/4" Stainless
X	6 1/4" Stainless
Y	8 1/2" Stainless
Z	10 1/4" Stainless

Premium Line Suction and Return Line Flanges - heavy duty, positive sealing Suction and Return Line Flanges

Features:

- Positive Urethane Seal - protects against particulate and liquid contamination.
- Mounting Hardware - required screws, bolts, washers and gaskets are included.
- Available in Many Popular Tube and Pipe Sizes - 1/2" thru 2" Pipe and Tube.
- Large Suction Line Flange Plate - allows easy access for suction line strainer installation and maintenance.
- Rigid/Heavy Duty Zinc Plated Die Cast Flange - will not deflect or distort, provides sealing forces to urethane seal.



Pipe Sizes: from 1/2" to 2" Return Line Flange:

Part Number	Nominal Pipe Size	Pipe OD X	Clearance Hole Dia. Y
RLF-008P	1/2"	0.84	1.00
RLF-012P	3/4"	1.05	1.19
RLF-100P	1"	1.32	1.44
RLF-104P	1 1/4"	1.66	1.81
RLF-108P	1 1/2"	1.90	2.06
RLF-200P	2"	2.38	2.50

Suction Line Flange:

Part Number	Nominal Pipe Size	A	B	C	D	Pipe OD E	Clearance Hole Dia. F
SLF-008P	1/2"	5.50	4.25	2.12	5.25	0.84	4.25
SLF-012P	3/4"	5.50	4.25	2.12	5.25	1.05	4.25
SLF-100P	1"	5.50	4.25	2.12	5.25	1.32	4.25
SLF-104P	1 1/4"	5.50	4.25	2.12	5.25	1.66	4.25
SLF-108P	1 1/2"	7.50	6.25	3.12	7.25	1.90	6.25
SLF-200P	2"	7.50	6.25	3.12	7.25	2.38	6.25

Tube Sizes: from 1/2" to 2" Return Line Flange:

Part Number	Nominal Tube Size	Tube OD X	Clearance Hole Dia. Y
RLF-008T	1/2"	0.50	.75
RLF-012T	3/4"	.75	1.00
RLF-100T	1"	1.00	1.25
RLF-104T	1 1/4"	1.25	1.50
RLF-108T	1 1/2"	1.50	1.75
RLF-200T	2"	2.0	2.25

Suction Line Flange:

Part Number	Nominal Tube Size	A	B	C	D	Tube OD E	Clearance Hole Dia. F
SLF-008T	1/2"	5.50	4.25	2.12	5.25	0.50	4.25
SLF-012T	3/4"	5.50	4.25	2.12	5.25	.75	4.25
SLF-100T	1"	5.50	4.25	2.12	5.25	1.00	4.25
SLF-104T	1 1/4"	5.50	4.25	2.12	5.25	1.25	4.25
SLF-108T	1 1/2"	7.50	6.25	3.12	7.25	1.50	6.25
SLF-200T	2"	7.50	6.25	3.12	7.25	2.00	6.25

Reservoir Flanges

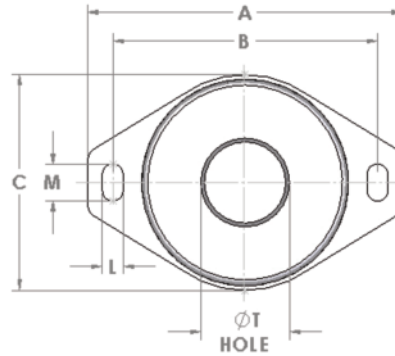
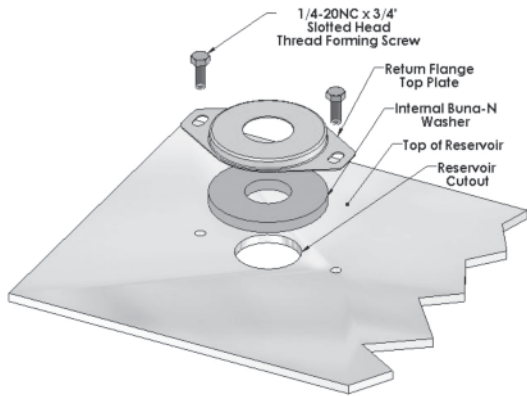


Economy Line Suction and Return Line Flanges - an alternative to the Magnaloy Premium Line of Suction and Return Line Flanges.

Features:

- Tight Fitting Buna-N Washer to provide positive sealing against contaminants.
- Required Mounting Hardware included.
- Available in Many Popular Tube and Pipe Sizes.
- 2 Large Flange Plate Sizes offered in Suction Line Flanges provide easy access to Suction Line Strainer.

Economy Return Line Flanges:



Mounting Hole Dimensions:

L	M
5/16	9/16

Pipe Sizes:

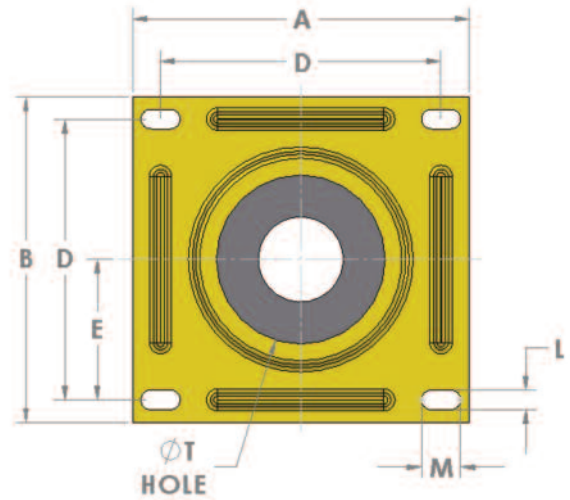
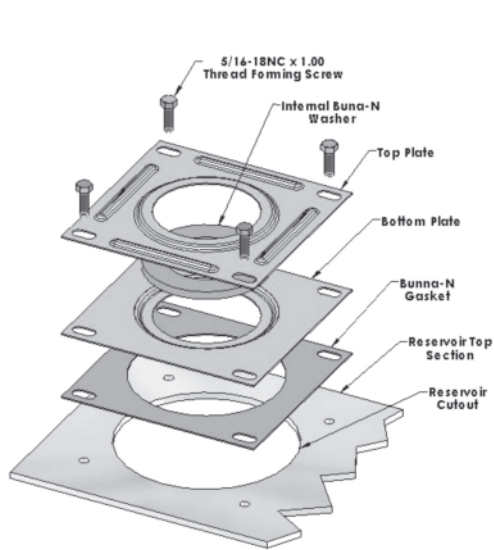
Part Number	Nominal Pipe Size	A	B	C	T ²	Reservoir Cutout
RLFE-000P ¹	N/A	4 3/4	4	3 1/8	1 3/16	N/A
RLFE-008P	1/2"	4 3/4	4	3 1/8	1 3/16	1 3/16
RLFE-012P	3/4"	4 3/4	4	3 1/8	1 3/4	1 3/4
RLFE-100P	1"	4 3/4	4	3 1/8	1 3/4	1 3/4
RLFE-104P	1 1/4"	4 3/4	4	3 1/8	2 1/2	2 1/2
RLFE-108P	1 1/2"	4 3/4	4	3 1/8	2 1/2	2 1/2
RLFE-200P	2"	4 3/4	4	3 1/8	2 1/2	2 1/2

Tube Sizes:

Part Number	Nominal Tube Size	A	B	C	T ²	Reservoir Cutout
RLFE-006T	3/8"	4 3/4	4	3 1/8	1 3/16	1 3/16
RLFE-008T	1/2"	4 3/4	4	3 1/8	1 3/16	1 3/16
RLFE-012T	3/4"	4 3/4	4	3 1/8	1 3/16	1 3/16
RLFE-100T	1"	4 3/4	4	3 1/8	1 3/4	1 3/4
RLFE-104T	1 1/4"	4 3/4	4	3 1/8	2 1/2	2 1/2
RLFE-108T	1 1/2"	4 3/4	4	3 1/8	2 1/2	2 1/2
RLFE-200T	2"	4 3/4	4	3 1/8	2 1/2	2 1/2

¹ Use this Blank Flange for covering unused openings or for custom Pipe or Tube Sizes.
² Opening in metal flange - required clearance to Pipe or Tube OD.

Economy Suction Line Flanges:



Mounting Hole Dimensions:

L	M
7/16	7/8

Pipe Sizes:

Part Number	Nominal Pipe Size	A	B	D	E	T ²	Reservoir Cutout
SLFE-500-000P ¹	N/A	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-008P	1/2"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-012P	3/4"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-100P	1"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2
SLFE-500-104P	1 1/4"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2
SLFE-500-108P	1 1/2"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2
SLFE-500-200P	2"	5 1/2	5 1/4	4 1/4	2 1/8	2 1/2	4 1/2
SLFE-700-108P	1 1/2"	7 1/2	7 1/4	6 1/4	3 1/8	3 1/8	6 1/2
SLFE-700-200P	2"	7 1/2	7 1/4	6 1/4	3 1/8	3 1/8	6 1/2
SLFE-700-208P	2 1/2"	7 1/2	7 1/4	6 1/4	3 1/8	3 3/4	6 1/2
SLFE-700-300P	3"	7 1/2	7 1/4	6 1/4	3 1/8	3 3/4	6 1/2

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Tube Sizes:

Part Number	Nominal Tube Size	A	B	D	E	T ²	Reservoir Cutout
SLFE-500-006T	3/8"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-008T	1/2"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-012T	3/4"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/16	4 1/2
SLFE-500-100T	1"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2
SLFE-500-104T	1 1/4"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2
SLFE-500-108T	1 1/2"	5 1/2	5 1/4	4 1/4	2 1/8	1 3/4	4 1/2

1 Use this Blank Flange for covering unused openings or for custom Pipe or Tube Sizes.
 2 Opening in metal flange - required clearance to Pipe or Tube OD.

Channel Mounted Cushion Clamps



Magnaloy offers a complete line of channel-mounted cushion clamps for a great looking, vibration free tube/pipe mounting solution.



Features:

- Fast and simple installation - one person/one tool required.
- Cushion material is a thermoplastic elastomer resistant to most fuels, oils, gases, greases, solvents, mineral acids and other materials.
- Temperature range -65°F (-54°C) to +275°F (+135°C).
- Modular design allows adding or changing piping without disturbing adjacent piping.
- Piping sizes can be mixed to suit installation requirements.
- Metal components are Tri-Valent (non-hex) plated.
- Also available in 304 and 316 stainless steel.



Materials:

Standard Cushion Clamp Materials:

- Cushion material is TPE plastic
- Clamps are 1008-1010 carbon steel
- Studs are welded carbon steel
- Locknut is nylon insert type
- All metal components have Tri-Valent plating

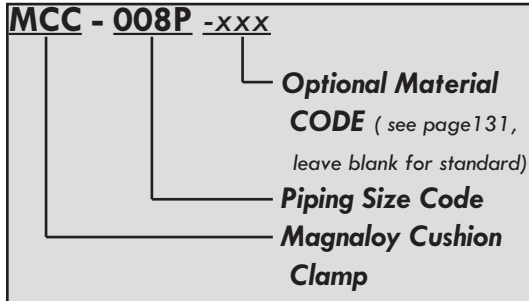
Optional Cushion Clamp Materials:

Code	Description
-444	304 Stainless Steel Clamps
	304 Stainless Steel Stud (welded)
	304 Stainless Steel Locknut
-464	304 Stainless Steel Clamps
	316 Stainless Steel Hex Head Bolt (loose packed)
	304 Stainless Steel Locknut
-644	316 Stainless Steel Clamps
	304 Stainless Steel Stud (welded)
	304 Stainless Steel Locknut
-666	316 Stainless Steel Clamps
	316 Stainless Steel Hex Head Bolt (loose packed)
	316 Stainless Steel Locknut

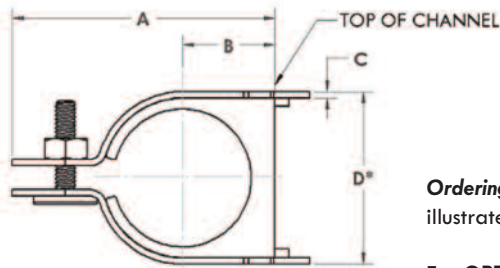


Clamp Assembly Part Numbers, Availability and Dimensional Data

Clamp Assembly Part Number Breakdown:



See Reference Section, page 183, for Manufacturers Cross References



PIPE Sizes:

PIPE Nominal Size	1/4	3/8	1/2	3/4	1	1 1/4
Pipe Outside Diameter	.54	.675	.84	1.05	1.315	1.665
Pipe Size CODE	008P	012P	016P	024P	100P	108P
Quantity per Box ¹	25	25	25	20	20	20
Carbon Steel 5S, 10S, 40, 80	o	o	o	o	o	o
Stainless 5S, 10S, 40, 80	o	o	o	o	o	o
Red & Yellow Brass & Copper	o	o	o	o	o	o
Aluminum 5S, 10S, 40, 80	o	o	o	o	o	o
PVC 48, 80, 120	o	o	o	o	o	o
CPVC 40, 80	o	o	o	o	o	o
PE 40, 80	o	o	o	o	o	o
PP 40, 80	o	o	o	o	o	o
PVDF 80		o	o	o	o	o
PB 40		o	o	o	o	o
ABS 40, 80		o	o	o	o	o
Fibergalss			o	o	o	o
A	1.41	1.59	1.91	2.16	2.75	3.03
B	.63	.45	.59	.72	.91	1.03
C	.075	.075	.075	.105	.119	.119
D*	.91	1.07	1.45	1.79	2.22	2.47

* Minimum Required Installation Dimension

Ordering Information: To order the standard Cushion Clamp, use **MCC-** followed by the Piping Size CODEs as illustrated in the tables on pages 132 & 133 depending Pipe or Tube sizes.

For **OPTIONAL MATERIALS** consult page 131 and select the material combination best suited for your requirements. Use the part number as above, followed by the material **CODE** from page 131.

TUBE Sizes:

TUBE Outside Diameter	.250	.312	.375	.470	.500	.625	.750	.875	1.000	1.125	1.190	1.250
Tube Size CODE	008T	010T	012T	015T	016T	020T	024T	028T	100T	104T	106T	108T
Quantity per Box ¹	25	25	25	25	25	25	25	25	25	20	20	20
ACR Tube			o	o	o	o	o	o		o	o	o
Refrigeration Service	o	o	o	o	o	o	o	o		o	o	o
Type "K" Copper			o	o	o	o	o	o		o	o	o
Type "L" Copper			o	o	o	o	o	o		o	o	o
Type "M" Copper			o	o	o	o	o	o		o	o	o
Steel	o	o	o	o	o	o	o	o	o	o	o	o
Stainless Steel	o	o	o	o	o	o	o	o	o	o	o	o
Aluminum			o	o	o	o	o	o	o	o	o	o
PB			o	o	o	o	o	o		o	o	o
PVC			o	o	o	o	o	o		o	o	o
CPVC			o	o	o	o	o	o		o	o	o
PE			o	o	o	o	o	o		o	o	o
A	1.11	1.24	1.24	1.36	1.36	1.50	1.78	1.91	2.03	2.16	2.30	2.30
B	.22	.28	.28	.34	.34	.41	.53	.58	.66	.72	.72	.78
C	.075	.075	.075	.075	.075	.075	.075	.075	.105	.105	.105	.105
D*	.62	.75	.75	.87	.87	1.00	1.33	1.45	1.66	1.79	1.92	1.92

Note 1: Clamps are sold in single quantities, box quantity indicated for ordering convenience.

For Hoses - measure hose outside diameter and select the nearest O.D. size above.

Note: Anchor Channel is ordered separately. See page 134 for part numbers.

Channel Mounted Cushion Clamps



PIPE Sizes (continued):

1 1/2	2	2 1/2	3	3 1/2	4	5	6
1.90	2.375	2.875	3.5	4.0	4.5	5.563	6.625
116P	200P	216P	300P	316P	400P	500P	600P
12	Each	Each	Each	Each	Each	Each	Each
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
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o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
3.28	3.78	4.27	4.91	5.53	6.03	7.03	8.03
1.16	1.41	1.66	1.97	2.28	2.53	3.03	3.53
.119	.119	.119	.119	.119	.119	.135	.135
2.47	3.22	3.72	4.36	4.97	5.47	6.47	7.47



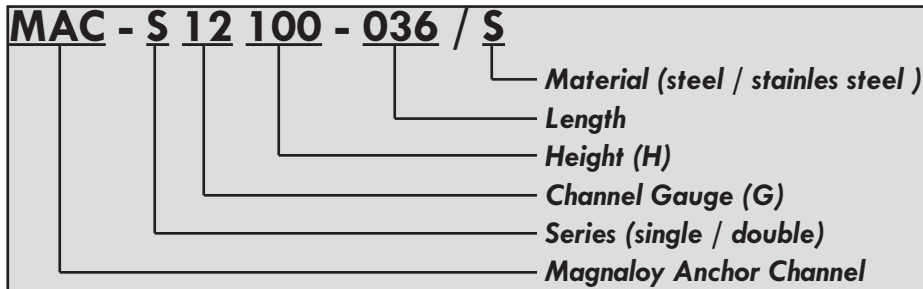
Ordering Examples: To order the standard 2 1/2" Tube Cushion Clamp - order part number MCC-216T
 To order the standard 1 1/4" Pipe Cushion Clamp - order part number MCC-108P
 To order the 2 1/2" Tube Cushion Clamp with 304 Stainless Steel Clamps, stud, and locknut - order MCC-216T-444
 To order the 1 1/4" Pipe Cushion Clamp with galvanized powder coated clamps, 316 stainless steel stud, and 304 stainless steel locknut - order part number MCC-108P-G64

Note: Anchor Channel is ordered separately. See page 134 for more information and part numbers.

TUBE Sizes (continued):

1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	2.625	2.875	3.000	3.125	3.625	4.125
112T	116T	120T	124T	128T	200T	204T	208T	212T	216T	220T	224T	300T	304T	320T	404T
12	12	12	12	12	12	Each	Each	Each	Each	Each	Each	Each	Each	Each	Each
o		o				o		o		o			o	o	o
o		o													
o		o				o				o			o	o	o
o		o				o				o			o	o	o
o		o				o				o			o	o	o
o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
	o				o	o			o	o			o	o	o
o		o			o	o			o	o			o	o	o
o		o			o	o			o	o			o	o	o
o		o			o	o			o	o			o	o	o
2.75	2.75	3.03	3.03	3.28	3.28	3.53	3.78	3.78	4.03	4.03	4.27	4.52	4.52	5.03	5.66
.91	.91	1.03	1.03	1.16	1.16	1.28	1.41	1.41	1.53	1.53	1.66	1.78	1.78	2.03	2.34
.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119	.119
2.22	2.22	2.47	2.47	2.47	2.72	2.97	3.22	3.22	3.47	3.47	3.72	3.97	3.97	4.47	5.09

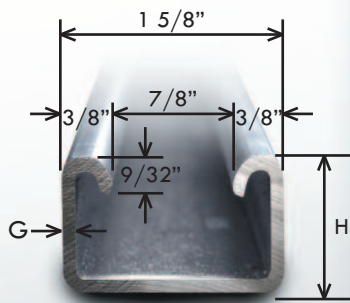
Clamp Anchor Channel Part Number Breakdown:



Channel Notes:

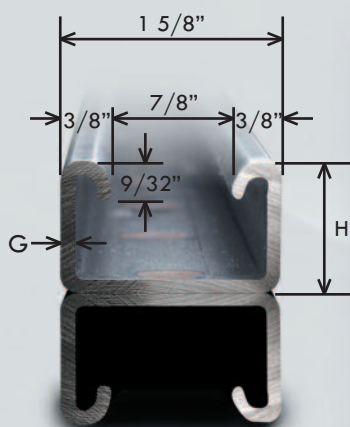
- All Channel widths 1 5/8"
- Steel Channel shipped with plain finish (hot rolled p.o.)
- Special cut tolerances +/- 1/8"

SINGLE CHANNEL



Part Number	Height (H)	Gauge (G)	Material	Length
MAC-S12100-036/S	1"	12	Steel	36"
MAC-S12100-048/S	1"	12	Steel	48"
MAC-S12100-120/S	1"	12	Steel	120"
MAC-S12028-036/S	7/8"	12	Steel	36"
MAC-S12028-048/S	7/8"	12	Steel	48"
MAC-S12028-120/S	7/8"	12	Steel	120"
MAC-S14026-048/S	13/16"	14	Steel	48"
MAC-S14026-120/S	13/16"	14	Steel	120"
MAC-S14026-048/SS4	13/16"	14	304 SS	48"
MAC-S14026-120/SS4	13/16"	14	304 SS	120"
MAC-S14026-048/SS6	13/16"	14	316 SS	48"
MAC-S14026-120/SS6	13/16"	14	316 SS	120"

DOUBLE CHANNEL



Part Number	Height (H)	Gauge (G)	Material	Length
MAC-D12200-048/S	2"	12	Steel	48"
MAC-D12200-120/S	2"	12	Steel	120"
MAC-D12124-048/S	1 3/4"	12	Steel	48"
MAC-D12124-120/S	1 3/4"	12	Steel	120"
MAC-D14120-048/S	1 5/8"	14	Steel	48"
MAC-D14120-120/S	1 5/8"	14	Steel	120"
MAC-D14120-048/SS4	1 5/8"	14	304 SS	48"
MAC-D14120-120/SS4	1 5/8"	14	304 SS	120"
MAC-D14120-048/SS6	1 5/8"	14	316 SS	48"
MAC-D14120-120/SS6	1 5/8"	14	316 SS	120"

Magnaloy offers modular cushion clamps in a stackable design - allowing a wide variety of configurations.

Mounting Features:

- Assemblies can be mounted using weld plates, by bolting directly into place, using channel, or suspended using threaded rod.
- Formed weld bases have integral weld nuts secured from the underside so weld failure will not cause clamp failure.
- Heavy Duty weld plates, including weld nuts, are available for heavy duty applications.

Stacking and Tiering Features:

- Center distance of mounting holes (bolt holes)(A) and height of assembly (G+I+J) are equal.
- Like sized assemblies (same series) have equal width for clean appearance when stacked.
- Double retainer plates are used for heavier-duty applications (also, required when stacking or tiering).

Clamp Features:

- Reduced noise, shock and vibration caused by surges in fluid conductors.
- Eliminates metal to metal contact between fluid conductors and clamps preventing galvanic reaction.
- Cushion material is thermoplastic elastomer resistant to most fuels, oils, gases, greases, solvents, mineral acids and other materials.
- Temperature range -20°F (-29°C) to 212°F (100°C).
- Fast and simple installation.
- Large selection of components for assemblies to satisfy your application requirements.
- Assemblies available in single or double line installations.



Modular Cushion Clamp Part Number Breakdown:

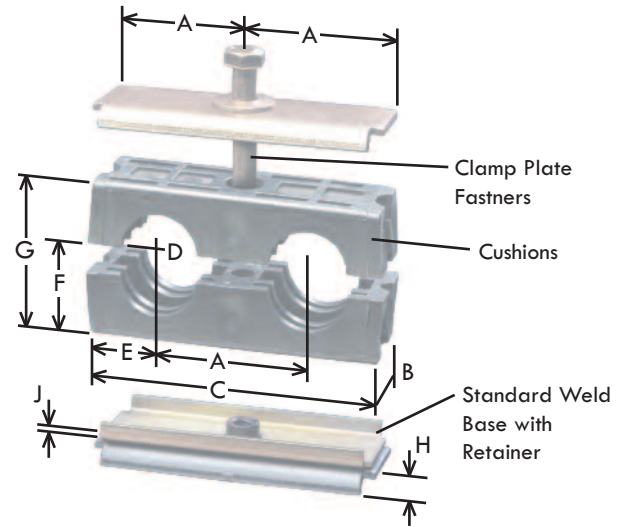
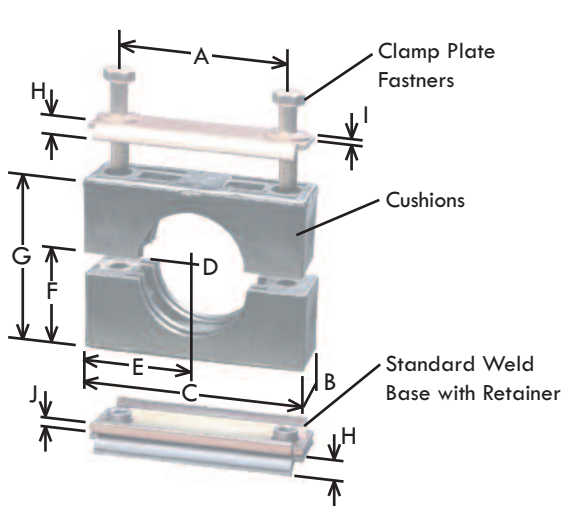
MMC - 511 100T - 0111

Tier Arrangement (see pages 139 & 140)
 Cushion I.D. Size Code (see page 138)
 Cushion Series and Type (see page 137)
 Magnaloy Modular Cushion Clamp

Formulation of the Part Number:

1. See page 137 to determine the Cushion Series and Type. See below for dimension data.
2. See page 138 for Cushion I.D. Size Code depending on the Tube or Pipe size(s) being used.
3. See pages 139 & 140 for Tier Arrangement. Shown on page 140 are the most popular single and double tiering arrangements for the Modular Cushion Clamp assemblies.

Note: See Reference Section, page 184, for Manufacturers Cross References



5

Clamp Series & Type	A	B	C	D	E	F	G	H	I	J
511		1.16	1.45	Cushion I.D. (see page 138)			.85			
521	1	1.16	1.90		.95	.425	.85	.30	.075	.075
522	1	1.16	1.94		.45	.425	.85	.30	.075	.075
524	1	1.16	3.88		.45	.425	.85	.30	.075	.075
531	1 1/2	1.16	2.40		1.20	.675	1.35	.30	.105	.075
532	1 1/2	1.16	2.94		.72	.675	1.35	.30	.105	.075
541	2	1.16	2.90		1.45	.925	1.85	.30	.105	.075
542	2	1.16	3.94		1.87	.925	1.85	.30	.105	.075
561	2	1.16	3.90		1.95	1.395	2.79	.30	.105	.105

Cushion Series and Type:

See page 136 for dimensions



511



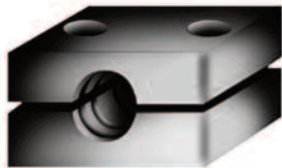
521



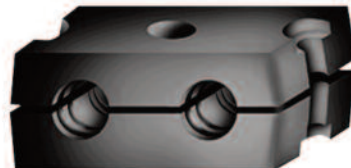
522



524



531



532



541



542



561

Cushion I.D. Size Code, Availability and Tube/Pipe Dimensions:

“D” (see page 136)

Modular Cushion Series										Cushion I.D. Size CODE	Tube O.D.	Nominal Pipe I.D.	Nominal ACR Tube I.D.	Bulkhead	
511	521	522	524	531	532	541	542	561	Hex					Tube	
o	o	o	o							008T	.250				
o	o	o	o							010T	.312				
o	o	o	o	o	o					012T	.375		.250	.500	1/4
o	o	o	o	o	o					016T	.500		.375	.531	5/16
				o	o					008P		1/4			
				o	o					020T	.625		.500	.687	3/8
				o	o		o			012P		3/8			
				o	o		o			024T	.750		.625	.812	1/2
				o	o		o			016P		1/2			
				o	o		o			028T	.875		.750	.937	5/8
						o	o			100T	1.000			1.125	3/4
						o	o			024P		3/4			
						o	o			100A			1.000	1.250	7/8
						o	o			108T	1.250			1.370	1
						o	o			100P		1			
						o	o			108A			1.250		
								o		116T	1.500			1.680	1 1/4
								o		116A			1.500		
								o		108P		1 1/4			
								o		124T	1.750				
								o		116P		1 1/2		2.000	1 1/2
								o		200T	2.000				
								o		200A			2.000		
								o		208T	2.250				
								o		200P		2			

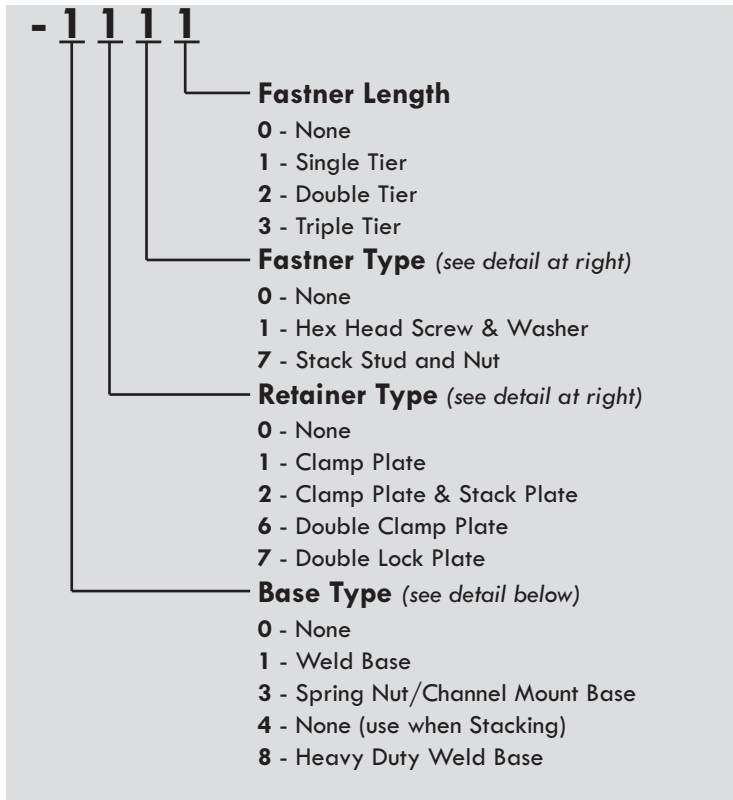
5

Simplified Ordering: There are many combinations of single and multiple clamp arrangements available and to simplify the selection process, the most common Single Tier and Double Tier arrangements are shown on page 141. Also illustrated, on page 139, is a breakdown of the TIER CODE used for ordering and details of the most popular items in this breakdown. There are other Base Types, Retainer Types and Fastener Types available in addition to those illustrated, consult the factory for more information.

For Multi-Tier ordering, the top cushion part number will specify the ‘Base Type’, ‘Retainer Type’, ‘Fastener Type’ and ‘Fastner Length’. The bottom cushion part number will specify any additional retainers required. In the case of an assembly using the ‘Stack Stud and Nut’ fastner type, the top cushion and bottom cushion are basically stand alone assemblies. The top cushion part number ‘Base Type’ is “4” (none) as this is the stacking verison, and the ‘Fastener Length’ is “1” (single) since it is mated with the ‘Stack Nut’. The bottom cushion part number ‘Retainer Type’ is “7” (double lock plate) which is used with the ‘Stack Nut’ and the ‘Fastener Length’ is “1” (single) as it only goes through a single cushion.

In selecting the ‘Base Type’, the Weld Base includes a Clamp Plate and Weld Plate. The ‘Spring Nut Mount’ requires a Clamp Plate and Stack Plate and when using the Heavy Duty Weld Plate a retainer plate is not required above the Base Plate

TIER CODE Part Number Breakdown:



Fastner Type Detail:	
Hex Head Screw & Washer - Fastener Type - 1 (3rd digit of TIER CODE)	
Stack Stud & Nut - Fastner Type - 7 (3rd digit of TIER CODE)	

Retainer Type Detail:	
Clamp Plate - Retainer Type - 1 (2nd digit of TIER CODE) (Clamp Plate has .33" round holes)	
Clamp Plate/Stack Plate - Retainer Type - 2 (2nd digit of TIER CODE) (Stack Plate has .33" square holes) (Clamp Plate has .33" round holes)	
Double Stack Plate - Retainer Type - 6 (2nd digit of TIER CODE) (Stack Plate has .33" square holes)	
Double Lock Plate - Retainer Type - 7 (2nd digit of TIER CODE) (Lock Plate has .44" 12 point holes)	

Base Type Detail:	
Weld Base - Base Type - 1 (1st digit of TIER CODE)	
Spring Nut Base - Base Type - 3 (1st digit of TIER CODE) (for use with anchor Channel Mounting)	
Heavy Duty Weld Base - Base Type - 8 (1st digit of TIER CODE)	

5

Single Tier Arrangements: *(Most Common Arrangements)*
Drill and Tap Mounting



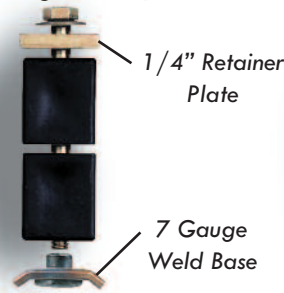
TIER CODE: 0111

Standard Weld Base Mounting



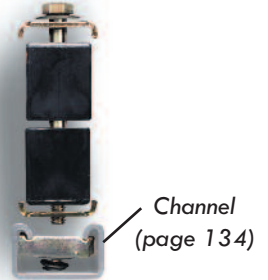
TIER CODE: 1111

Heavy Duty Weld Base Mounting (New Style)



TIER CODE: 8111

Spring Nut Mounting (channel not included)



TIER CODE: 3211



Old Style Weld Base - available as special order (3/8" steel weld)

TIER CODE: 6111

Multi Tier Arrangements: *(Most Common Arrangements)*

The most common method of stacking the **521, 524, 531** and the **532** Series assemblies is shown at the right. The part number for each cushion assembly is required. **IE.** to order a Series 521 Double Tiered assembly for .25" tube and .37" tube with retainer plates between tiers, the part numbers would be:

MMC-521012T-1112 - for the .375" Tube mounted on the top.

MMC-521008T-0600 - for the .250" Tube mounted on the bottom with a standard weld base.

Without the retainer plates (as shown at far right), the part number for the bottom would be:

MMC-521008T-0000

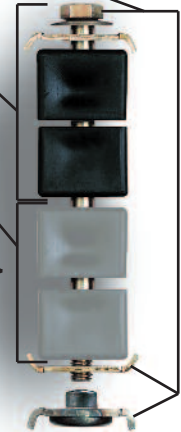
Tier CODE 0600 can be substituted for the 0000 Tier CODE as it is recommended to have retainer plates between Tiers when stacking.

TIER CODE: 0000



TIER CODE: 0600

TIER CODE: 1112



TIER CODE: 4111



TIER CODE: 1771



Suction Strainers

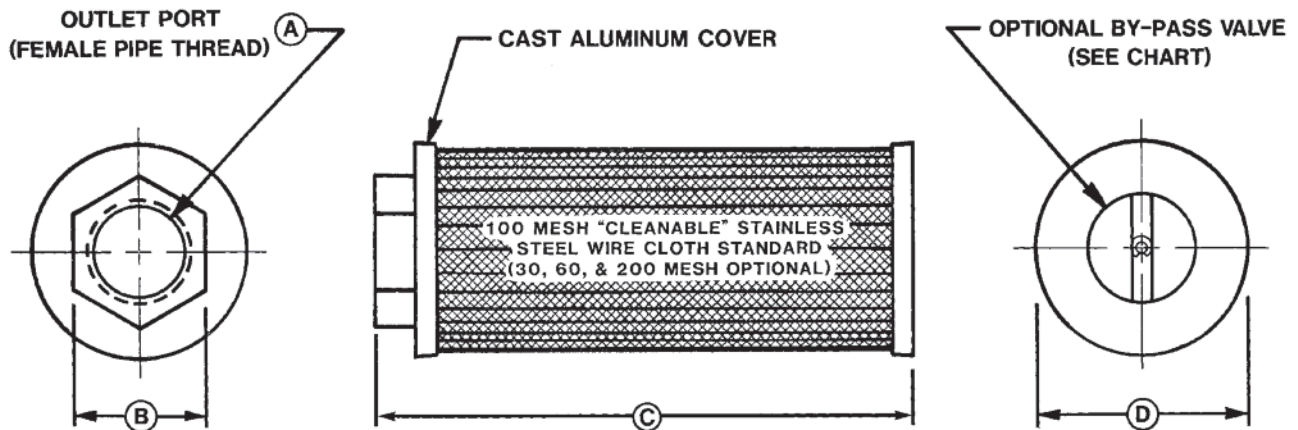


Internally Mounted Tank Filters - your front-line defense against particle contamination



Features:

- Die cast aluminum end covers.
- By-Pass valve available on most models(see tables).
- End caps are designed to provide a positive interlock with epoxy bond to prevent leakage.
- Rated flow capacity at 5 ft/sec.
- Suitable with all petroleum base oils and fire retardant hydraulic fluids, coolants and lubricants.



Part Number	A Outlet Port	B Wrench Flat	C Overall Length	D Outside Diameter	Rated Flow @ 5 ft/sec
SS-003P006-1-0 ¹	3/8" NPT	1.20"	3.00"	2.75"	3 GPM
SS-005P008-1-X ¹	1/2" NPT	1.20"	3.25"	2.75"	5 GPM
SS-008P012-1-X ¹	3/4" NPT	1.50"	3.25"	2.75"	8 GPM
SS-010P100-1-X ¹	1" NPT	1.75"	5.50"	2.75"	10 GPM
SS-023P104-X-X	1 1/4" NPT	2.25"	6.60"	3.20"	23 GPM
SS-032P108-X-X	1 1/2" NPT	2.35"	8.60"	3.20"	32 GPM
SS-053P200-X-X	2" NPT	3.00"	7.20"	4.20"	53 GPM
SS-075P208-X-X	2 1/2" NPT	3.50"	9.30"	4.20"	75 GPM

1 - Standard 100 Mesh, contact factory for other Mesh sizes.

How to Order:

SS-003P006-1-0

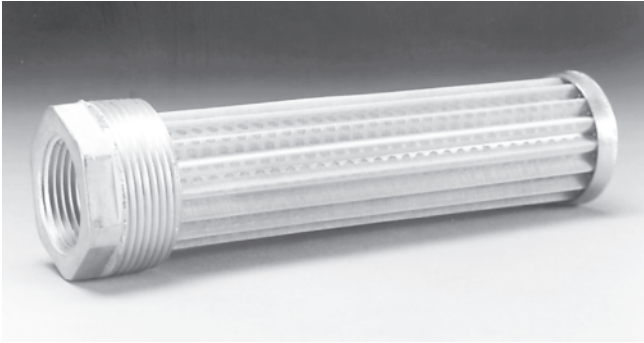
Model Code
003P006
005P008
008P012
014P100
023P104
032P108
053P200
075P208

Code	By-Pass Valve Setting
0	No By-Pass Valve
3	3 PSI
5	5 PSI

Code	Wire Cloth Mesh
1	100 Mesh (Std)
2	200 Mesh
3	30 Mesh
6	60 Mesh

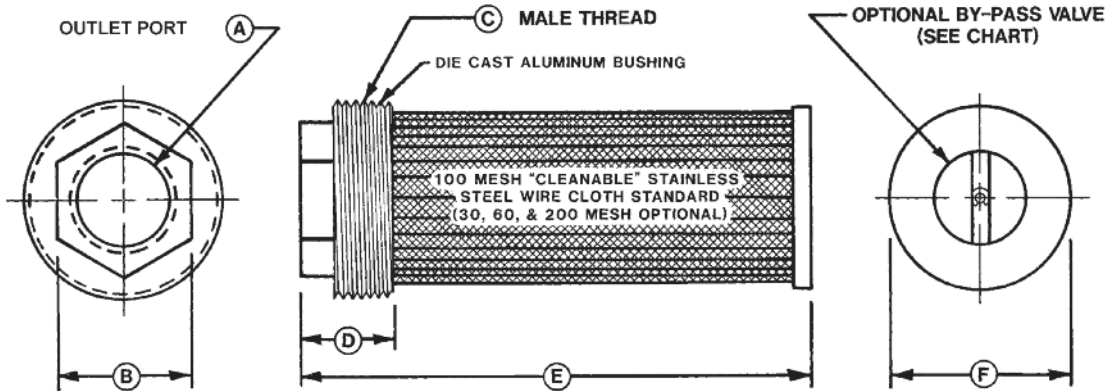
5

Externally Mounted Tank Filters - your front-line defense against particle contamination



Features:

- Die cast aluminum end covers.
- By-Pass valve available on most models(see tables).
- End caps are designed to provide a positive interlock with epoxy bond to prevent leakage.
- Rated flow capacity at 5 ft/sec.
- Suitable with all petroleum base oils and fire retardant hydraulic fluids, coolants and lubricants.



Part Number	A Outlet Port	B Hex Size	C Male Thread	D Fitting Length	E Overall Length	F Cover Diameter	Rated Flow @ 5 ft/sec
SS-008P012/P104-X-X	3/4" NPT	1.50"	1 1/4" NPT	1.10"	6.90"	1.50"	8 GPM
SS-014P100/P108-X-X	1" NPT	1.75"	1 1/2" NPT	1.10"	6.90"	1.70"	14 GPM
SS-014P100/P300-X-X	1" NPT	2.50"	3" NPT	1.50"	4.70"	3.20"	14 GPM
SS-014S020/P300-X-X	#20 SAE	2.50"	3" NPT	1.50"	8.70"	3.20"	14 GPM
SS-021S024/P300-X-X	#24 SAE	2.50"	3" NPT	1.50"	8.70"	3.20"	21 GPM
SS-023P104/P200-X-X	1 1/4" NPT	2.10"	2" NPT	1.20"	9.10"	2.20"	23 GPM
SS-023P104/P300-X-X	1 1/4" NPT	2.50"	3" NPT	1.50"	6.70"	3.20"	23 GPM
SS-032P108/P300-X-X	1 1/2" NPT	2.50"	3" NPT	1.50"	8.70"	3.20"	32 GPM
SS-053P200/P300-X-X	2" NPT	3.06"	3" NPT	1.60"	8.80"	3.20"	53 GPM
SS-053P200/P400-X-X	2" NPT	4.13"	4" NPT	1.80"	7.70"	4.20"	53 GPM
SS-075P208/P400-X-X	2 1/2" NPT	4.13"	4" NPT	2.10"	9.70"	4.20"	75 GPM

5

How to Order:

SS-008P012/P104-1-0

Model Code
008P012/P104
014P100/P108
014P100/P300
014S020/P300
021S024/P300
023P104/P200
023P104/P300
032P108/P300
053P200/P300
053P200/P400
075P208/P400

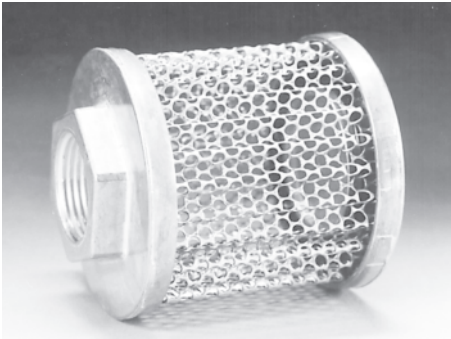
Code	By-Pass Valve Setting
0	No By-Pass Valve
3	3 PSI
5	5 PSI

Code	Wire Cloth Mesh
1	100 Mesh (Std)
2	200 Mesh
3	30 Mesh
6	60 Mesh

Tank Diffusers

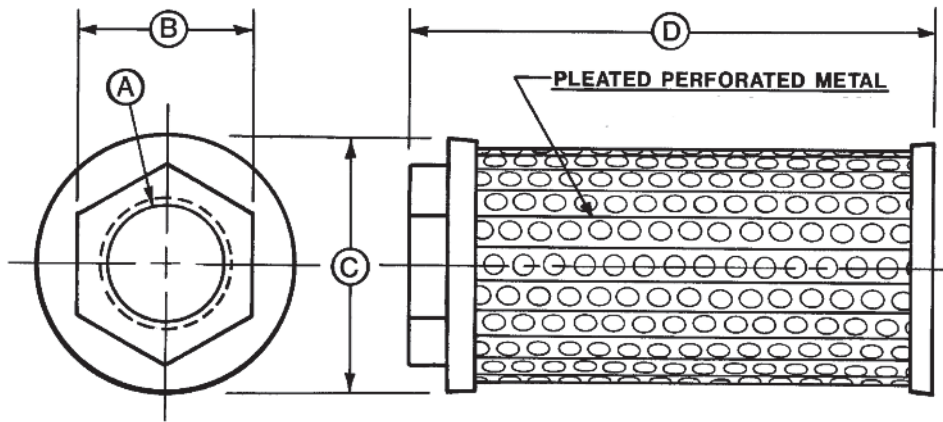


Internally Mounted Tank Diffusers - evenly disperses return line fluid for heat dissipation and prevents fluid aeration.



Features:

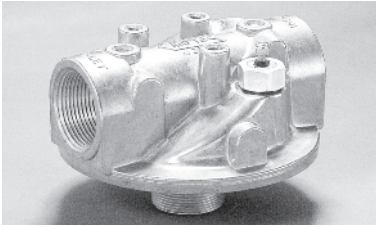
- Die cast aluminum end covers.
- End caps are designed to provide a positive interlock with epoxy bond to prevent leakage.
- Rated flow capacity at 15 ft/sec.
- Suitable with all petroleum base oils and fire retardant hydraulic fluids, coolants and lubricants.



Part Number	A Outlet Port	B Wrench Flat	C Outside Diameter	D Overall Length	Rated Flow @ 15ft/sec	Area Ratio *
TD-014P008-D1	1/2" NPT	1.20"	1.30"	3.00"	14 GPM	16:1
TD-014P008-D2	1/2" NPT	1.13"	3.20"	2.30"	14 GPM	35:1
TD-025P012-D1	3/4" NPT	1.50"	1.70"	3.90"	25 GPM	18:1
TD-025P012-D2	3/4" NPT	1.75"	3.20"	2.20"	25 GPM	20:1
TD-040P100-D1	1" NPT	1.75"	1.90"	4.90"	40 GPM	19:1
TD-040P100-D2	1" NPT	1.75"	3.20"	3.60"	40 GPM	27:1
TD-070P104-D1	1 1/4" NPT	2.25"	3.20"	4.60"	70 GPM	22:1
TD-095P108-D1	1 1/2" NPT	2.25"	3.20"	5.60"	95 GPM	21:1
TD-157P200-D1	2" NPT	3.00"	4.20"	6.20"	157 GPM	17:1
TD-224P208-D1	2 1/2" NPT	3.50"	4.20"	10.30"	224 GPM	22:1

* Ratio Area is the Ratio of the Perforated Metal Open Area to the Pipe Internal Area.

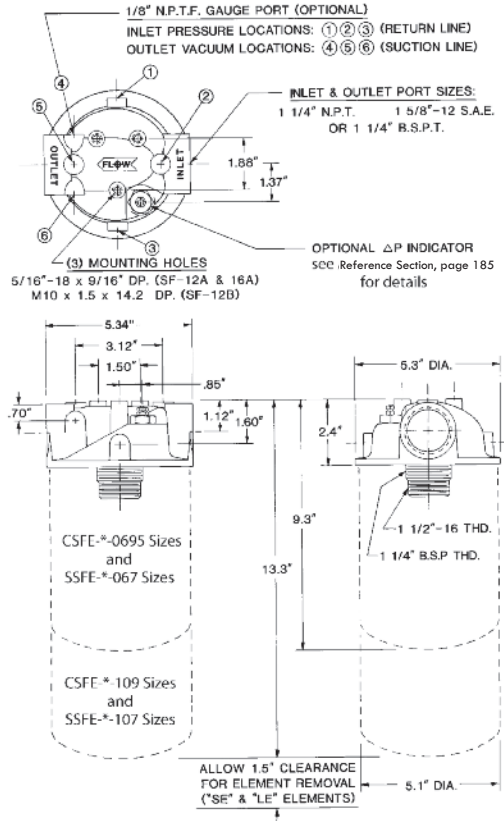
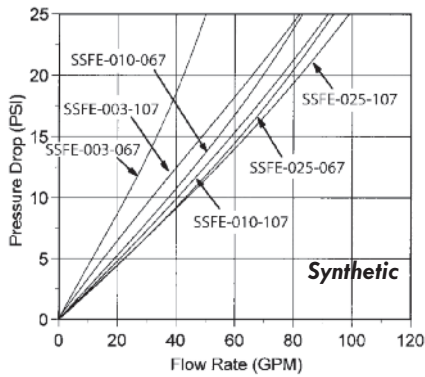
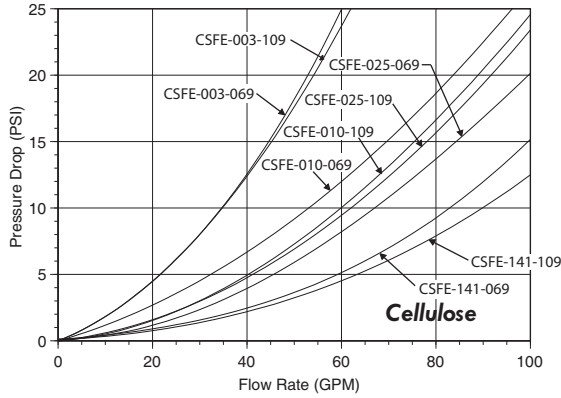
Spin-On Filter Head with ΔP Indicator Option:



Features:

- Flow Rates up to 70 GPM on Return (25 GPM Suction).
- Port Sizes 1 1/4" NPT, #20 SAE, or 1 1/4" BSPT.
- Maximum Operating Pressure of 200 PSI (**Warning: 80 PSI ΔP maximum without by-pass valve**).
- Maximum Operating Temperature of 250°F.
- Suitable for Petroleum based fluids only (consult factory for synthetic fluids).

Average Pressure Drop Through Clean Filter Assembly with 150 SUS Oil at 105° F.



5

How to Order:

SFH-P104/00-0-0-00

Code	Port Size & Type	
	Inlet Port	Outlet Port
P104	1 1/4" NPT	1 1/4" NPT
S020	#20 SAE	#20 SAE
B104	1 1/4" BSPT	1 1/4" BSPT

Code	By-Pass Valve Setting
00	No By-Pass
03	3 PSI
05	5 PSI
15	15 PSI
25	25 PSI
50	50 PSI

Code	Gauge Port Location (see above)
0	No Gauge Port
1,2,3	Inlet Pressure (Return Line)
4,5,6	Outlet Vacuum (Suction Line)

Code	ΔP Indicator Setting
00	No Indicator
04	4 PSID
13	13 PSID
22	22 PSID
44	44 PSID

Code	Indicator Option	Indicator Series
O	No Indicator	None
V	Visual Indicator	DP03 Series
E	DC Electric Single Wire	DP06 Series
B	Vis/Elec w/DIN Conn.	DP05 Series



Application Data:

- Maximum Operating Pressure: 200 PSI All Models (**Warning: 80 PSI ΔP maximum without by-pass valve in Filter Head.**)
- Operating Temperature: -65° F to 250° F.
- Fluid Compatability: Suitable for Petroleum based fluids only (consult factory for synthetic fluids).
- Gasket: Buna N Gasket Standard, fluorocarbon Gasket optional, consult factory.
- Filter Element Interchange: Consult factory or local distributor for information.
- Internal Combustion Engines: **CAUTION! Do Not Use SFE or SSFE Series filter elements on IC Engines.**
- Reference: 2/20/75 Beta_x Rating - see Reference Section, page 186 for more information

Beta_x Rating of 2 = 50% Efficiency (Nominal Rating)

Beta_x Rating of 20 = 95% Efficiency

Beta_x Rating of 75 = 98.7% Efficiency (Absolute Rating)

Spin-On Filter Elements

Cellulose Media Series: For use with Magnaloy SHF Series Spin-On Filter Head

Part Number	Outside Diameter	Mounting Thread	Micron Rating	Beta Rating (see below)	Filter Media Area	Color Can/Imprint	Water Holding Capacity	Overall Length
CSFE-003-069	5.1"	1 1/2-16 UN	3 Micron	3/10/22	850 in ²	White/Green		6.9"
CSFE-010-069	5.1"	1 1/2-16 UN	10 Micron	9/22/24	950 in ²	White/Red		6.9"
CSFE-025-069	5.1"	1 1/2-16 UN	25 Micron	29/46/54	950 in ²	White/Black		6.9"
CSFE-141-069	5.1"	1 1/2-16 UN	141 Micron		200 in ²	White/Blue		6.9"
CSFE-003-109	5.1"	1 1/2-16 UN	3 Micron	3/10/22	1170 in ²	White/Green		10.9"
CSFE-003-109/WA	5.1"	1 1/2-16 UN	3 Micron	5/21/23	648 in ²	White/Orange	15 oz.	10.9"
CSFE-010-109	5.1"	1 1/2-16 UN	10 Micron	10/22/33	1710 in ²	White/Red		10.9"
CSFE-010-109/WA	5.1"	1 1/2-16 UN	10 Micron	8/25/30	648 in ²	White/Orange	15 oz.	10.9"
CSFE-025-109	5.1"	1 1/2-16 UN	25 Micron	29/46/54	1710 in ²	White/Black		10.9"
CSFE-141-109	5.1"	1 1/2-16 UN	141 Micron		380 in ²	White/Blue		10.9"

5

Synthetic Media Series: (Z-Glass Media) For use with Magnaloy SHF Series Spin-On Filter Head

Part Number	Outside Diameter	Mounting Thread	Micron Rating	Beta Rating (see below)	Filter Media Area	Color Can/Imprint	Water Holding Capacity	Overall Length
SSFE-003-067	5.1"	1 1/2-16 UN	3 Micron	2/3/4	680 in ²	White/Green		6.7"
SSFE-010-067	5.1"	1 1/2-16 UN	10 Micron	4/10/12	561 in ²	White/Red		6.7"
SSFE-025-067	5.1"	1 1/2-16 UN	25 Micron	8/25/30	673 in ²	White/Black		6.7"
SSFE-003-107	5.1"	1 1/2-16 UN	3 Micron	2/3/4	1260 in ²	White/Green		10.7"
SSFE-010-107	5.1"	1 1/2-16 UN	10 Micron	4/10/12	1041 in ²	White/Red		10.7"
SSFE-025-107	5.1"	1 1/2-16 UN	25 Micron	8/25/30	1246 in ²	White/Black		10.7"

Integral Tank Breather Series

Features:

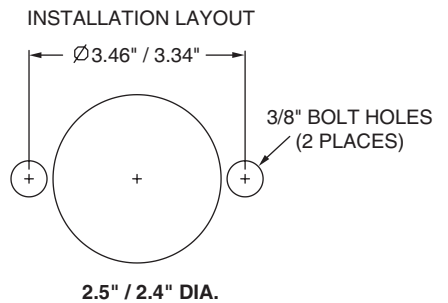
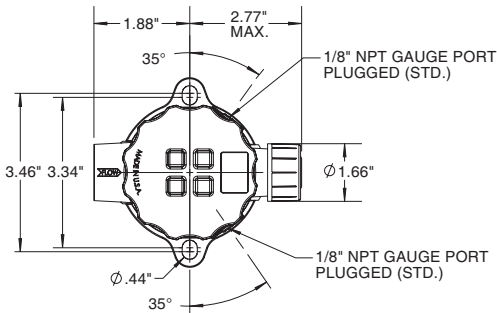
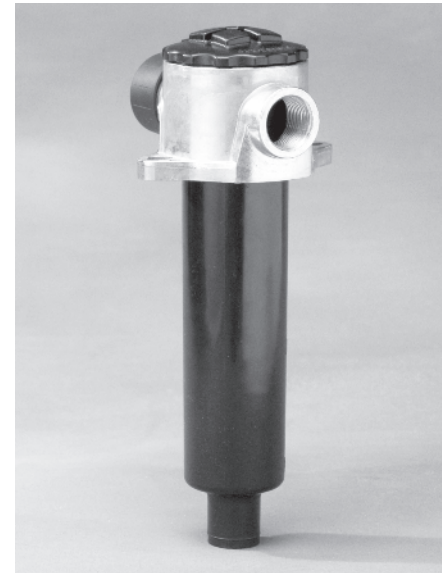
- Flow Rates up to 25 GPM (Return)
- Port Sizes: 1/2" NPT, 3/4" NPT
#8 SAE, #12 SAE
1/2" BSPT, 3/4" BSPT
- Maximum Operating Pressure of 100 PSI (300 PSI Burst pressure) 25 PSI By-Pass included.
- Operating Temperature Range: -15° F of 230° F.
- Head Material: Die Cast Aluminum Alloy
- Bowl/Cover Material: Nylon
- Breather: 10 Micron Foam (Standard)
- Suitable for Petroleum based fluids only (consult factory for synthetic fluids).

How to Order:

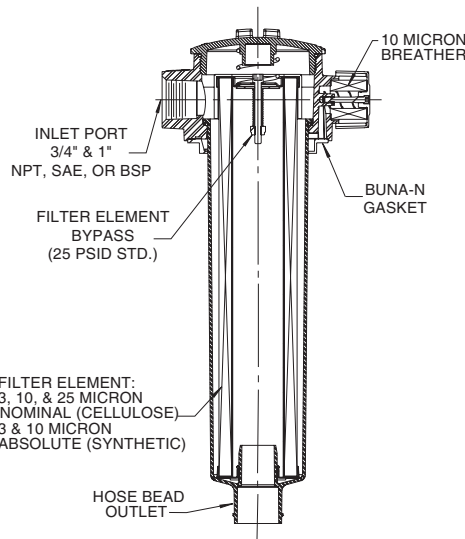
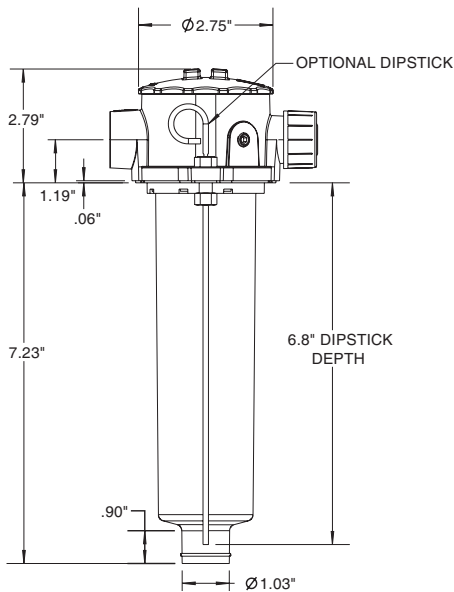
TTF-ITB-P008-0

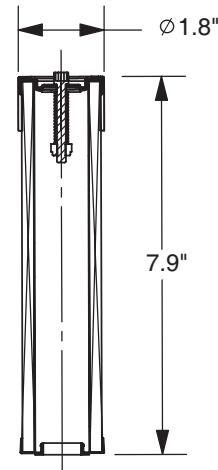
Series: Integral Tank Breather			
Code	Port Size	Code	Port Size
P008	1/2" NPT	S012	#12 SAE
P012	3/4" NPT	B008	1/2" BSP
S008	#8 SAE	B012	3/4" BSP

Code	Dipstick Option
0	No Dipstick
D	w/Dipstick (9.84"length)

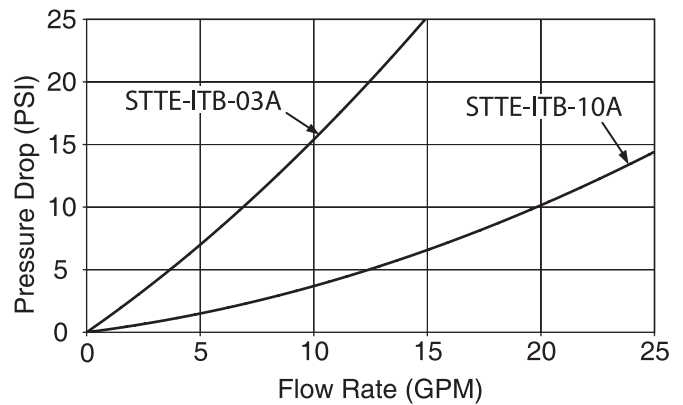
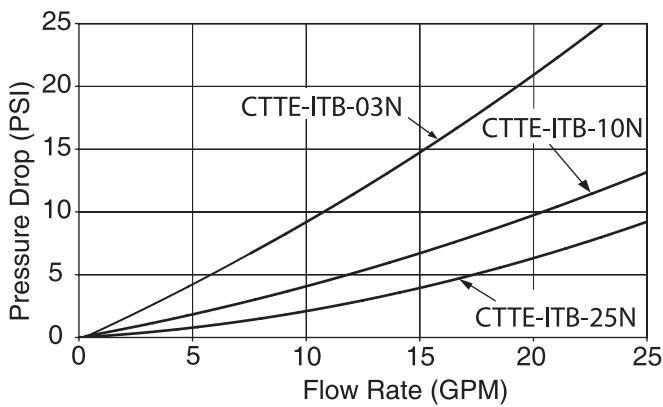


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Average Pressure Drop through clean assembly with 150 SUS Oil at 105° F



5

Tank Top Filter Elements

Cellulose Media Series: for use with Magnaloy Series TTF-ITB Tank Top Filter Head

Part Number	Micron Rating	Media Type	Filtration Rating
CTTE-ITB-03N	3 Nominal	Cellulose	Beta ₃ = 5.3
CTTE-ITB-10N	10 Nominal	Cellulose	Beta ₁₀ = 5.3
CTTE-ITB-25N	25 Nominal	Cellulose	Beta ₂₅ = 2.9

Synthetic Media Series: (Z-Glass Media) for use with Magnaloy Series TTF-ITB Tank Top Filter Head

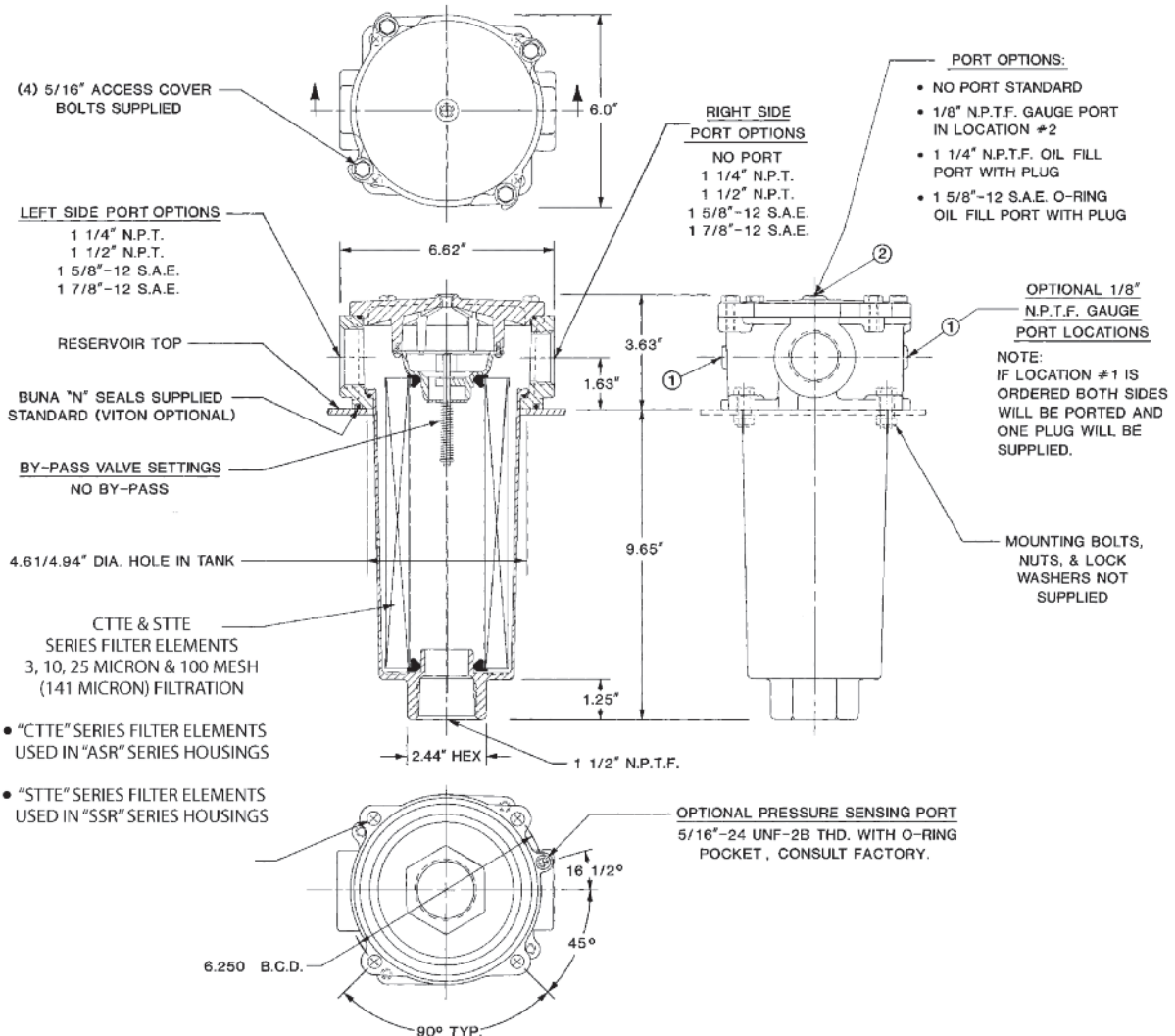
Part Number	Micron Rating	Media Type	Filtration Rating
STTE-ITB-03A	3 Absolute	Z Glass Synthetic	Beta ₃ = 200
STTE-ITB-10A	10 Absolute	Z Glass Synthetic	Beta ₁₀ = 200

Suction/Return Line Series



Features:

- Flow Rates: Aluminum Housing; 96 GPM (Return), 32 GPM (Suction)
Steel Housing; 71 GPM (Return), 24 GPM (Suction)
- Port Sizes: 1 1/4" NPT, 1 1/2" NPT
#20 SAE, #24 SAE
1 1/4" BSPT
- Maximum Operating Pressure: 100 PSI (**Warning: 80 PSI ΔP maximum without by-pass valve in Filter Head**).
- Operating Temperature: up to 250° F.
- Material: Die Cast Aluminum Alloy or Steel
- Unitized cover and By-Pass Valve assembly - no parts to loose.
- Drop-in Element Bowl design for easy installation
- Patented element bowl hold down for suction applications.
- Radial seal design used in CTTE and STTE series filter elements
- O-Ring seal between filter housing and tank top
- Suitable for Petroleum based fluids only (consult factory for synthetic fluids).



Tank Top Filters



How to Order:

TTF-ASR-P104/P104-03-10-0

Code	Material/Series
ASR	Aluminum Suction/Return
SSR	Steel Suction/Return

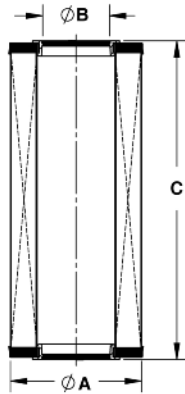
Code	Check Valve Option
0	No Check Valve
V	with Check Valve

Code	Port Size & Type	
	Left Side Port	Right Side Port
P104/000	1 1/4" NPT	None
B104/000	1 1/4" BSPT	None
P104/P104	1 1/4" NPT	1 1/4" NPT
B104/B104	1 1/4" BSPT	1 1/4" BSPT
P108/000	1 1/2" NPT	None
P108/P104	1 1/2" NPT	1 1/4" NPT
P108/P108	1 1/2" NPT	1 1/2" NPT
S020/000	#20 SAE	None
S020/S020	#20 SAE	#20 SAE
S024/000	#24 SAE	None
S024/S024	#24 SAE	#24 SAE

Code	Gauge & Oil Fill Port Location
10	Gauge Port in Location 1, No Oil Fill Port
12	Gauge Port in Location 1&2, No Oil Fill Port
1P	Gauge Port in Location 1, 1 1/4" NPT Fill Port with Plug
1S	Gauge Port in Location 1, #12 SAE Fill Port with Plug

Code	By-Pass Valve Option
00	No By-Pass
03	3 PSI By-Pass (Suction)
05	5 PSI By-Pass (Suction)
15	15 PSI By-Pass (Return)
25	25 PSI By-Pass (Return)
50	50 PSI By-Pass (Return)

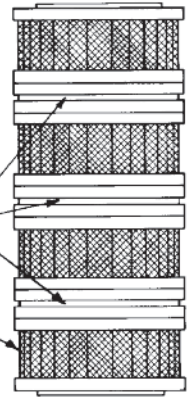
Magnetic Elements



Part Numbers
 CTTE-ASR-100-092-OI/M
 CTTE-ASR-100-092-IO/M

Three - 4" diameter x 5/8"
 thick ceramic magnets

Four - 100 mesh
 wire cloth filter sections



Cellulose Media Series: for use with Magnaloy Series TTF-ASR Tank Top Filter

Part Number	Filtration Rating	Filtration Rating	Filter Media Area	A OD	B ID	C Length	Flow Direction Thru Element
CTTE-ASR-003-092-BD	Beta ₃ = 5.3	Beta ₁₀ = 75	1120 in ²	3.91"	1.96"	9.19"	Bi-Directional
CTTE-ASR-003-092-OI/WA**	Beta ₃ = 5.3	Beta ₁₀ = 75	461 in ²	3.91"	1.96"	9.19"	Outside to Inside
CTTE-ASR-010-092-BD	Beta ₁₀ = 5.3	Beta ₂₂ = 75	1120 in ²	3.91"	1.96"	9.19"	Bi-Directional
CTTE-ASR-025-092-BD	Beta ₂₅ = 2.9	Beta ₄₇ = 20	1120 in ²	3.91"	1.96"	9.19"	Bi-Directional
CTTE-ASR-010-182-BD	Beta ₁₀ = 5.3	Beta ₂₂ = 75	2240 in ²	3.91"	1.96"	18.19"	Bi-Directional
CTTE-ASR-025-182-BD	Beta ₂₅ = 2.9	Beta ₄₇ = 20	2240 in ²	3.91"	1.96"	18.19"	Bi-Directional
CTTE-ASR-100-092-OI*	141 Micron		151 in ²	3.91"	1.96"	9.19"	Outside to Inside
CTTE-ASR-100-092-IO*	141 Micron		151 in ²	3.91"	1.96"	9.19"	Inside to Outside
CTTE-ASR-100-092-OI/M*	141 Micron		109 in ²	3.91"	1.96"	9.19"	Outside to Inside
CTTE-ASR-100-092-IO/M*	141 Micron		109 in ²	3.91"	1.96"	9.19"	Inside to Outside
CTTE-ASR-100-182-OI*	141 Micron		2240 in ²	3.91"	1.96"	18.19"	Outside to Inside

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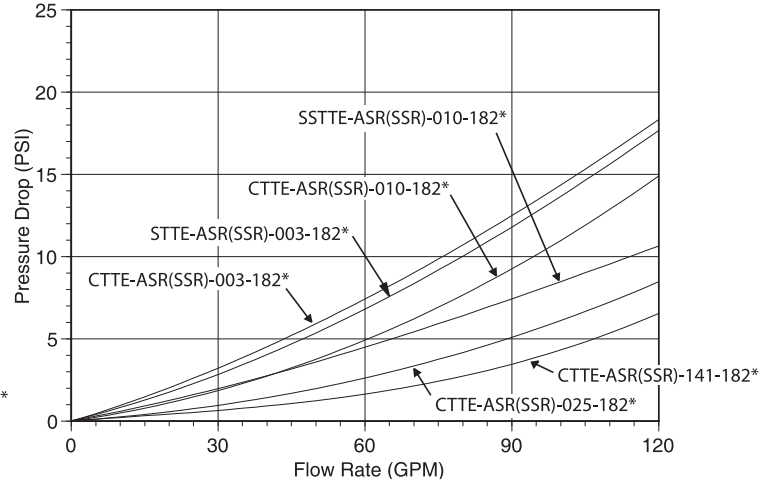
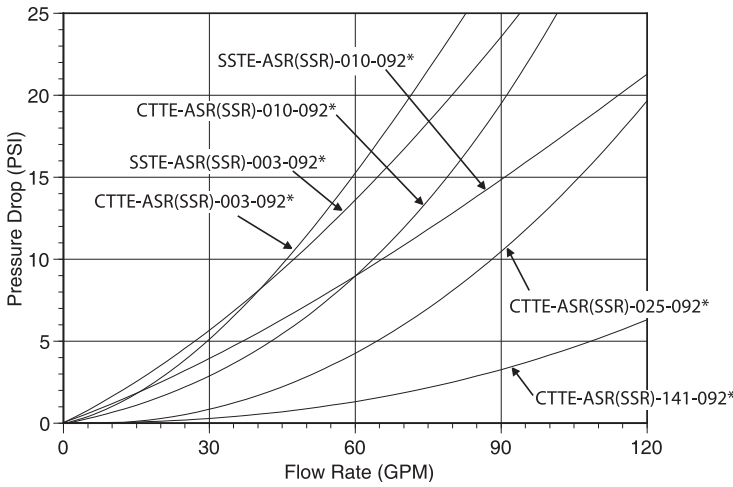
Synthetic Media Series: for use with Magnaloy Series TTF-ASR Tank Top Filter

Part Number	Filtration Rating	Filtration Rating	Filter Media Area	A OD	B ID	C Length	Flow Direction Thru Element
STTE-ASR-003-092-OI	Beta ₃ > 200		825 in ²	3.91"	1.96"	9.19"	Outside to Inside
STTE-ASR-010-092-OI	Beta ₁₀ > 200		825 in ²	3.91"	1.96"	9.19"	Outside to Inside
STTE-ASR-003-182-OI	Beta ₃ > 200		1650 in ²	3.91"	1.96"	18.19"	Outside to Inside
STTE-ASR-010-182-OI	Beta ₁₀ > 200		1650 in ²	3.91"	1.96"	18.19"	Outside to Inside

Note:

- * 100 Mesh Stainless Steel Wire Cloth is standard for 141 Micron Elements, 30, 60 & 200 optional - consult factory
- ** Filter Elements CTTE-ASR-409-03-IO/WA & CTTE-ASR-409-10-OI/WA contain Aqua-Zorb (water absorbing) filter media. ASR Elements come standard with a Buna-N radial seal, Fluorocarbon optional -consult factory

Average Pressure Drop through clean filter with 150 SUS Oil at 105° F



Cellulose Media Series: for use with Magnaloy Series TTF-SSR Tank Top Filter

Part Number	Filtration Rating	Filtration Rating	Filter Media Area	A OD	B ID	C Length	Flow Direction Thru Element
CTTE-SSR-003-092-BD	Beta ₃ = 5.3	Beta ₁₀ = 75	1120 in ²	3.91"	1.61"	9.19"	Bi-Directional
CTTE-SSR-010-092-BD	Beta ₁₀ = 5.3	Beta ₂₂ = 75	1220 in ²	3.91"	1.61"	9.19"	Bi-Directional
CTTE-SSR-010-092-OI/WA**	Beta ₁₀ = 5.3	Beta ₂₂ = 75	461 in ²	3.91"	1.61"	9.19"	Outside to Inside
CTTE-SSR-025-092-BD	Beta ₂₅ = 2.9	Beta ₄₇ = 20	1120 in ²	3.91"	1.61"	9.19"	Bi-Directional
CTTE-SSR-010-182-BD	Beta ₁₀ = 5.3	Beta ₂₂ = 75	461 in ²	3.91"	1.61"	18.19"	Bi-Directional
CTTE-SSR-025-182-BD	Beta ₂₅ = 2.9	Beta ₄₇ = 20	2240 in ²	3.91"	1.61"	18.19"	Bi-Directional
CTTE-SSR-100-092-OI*	141 Micron		151 in ²	3.91"	1.61"	9.19"	Outside to Inside
CTTE-SSR-100-092-IO*	141 Micron		151 in ²	3.91"	1.61"	9.19"	Inside to Outside
CTTE-SSR-100-092-OI/M*	141 Micron		109 in ²	3.91"	1.61"	9.19"	Outside to Inside
CTTE-SSR-100-092-IO/M*	141 Micron		109 in ²	3.91"	1.61"	9.19"	Inside to Outside

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Synthetic Media Series: for use with Magnaloy Series TTF-SSR Tank Top Filter

Part Number	Filtration Rating	Filtration Rating	Filter Media Area	A OD	B ID	C Length	Flow Direction Thru Element
STTE-SSR-003-092-OI	Beta ₃ > 200		825 in ²	3.91"	1.61"	9.19"	Outside to Inside
STTE-SSR-010-092-OI	Beta ₁₀ > 200		825 in ²	3.91"	1.61"	9.19"	Outside to Inside
STTE-SSR-003-182-OI	Beta ₃ > 200		1650 in ²	3.91"	1.61"	18.19"	Outside to Inside
STTE-SSR-010-182-OI	Beta ₁₀ > 200		1650 in ²	3.91"	1.61"	18.19"	Outside to Inside

Note:

* 100 Mesh Stainless Steel Wire Cloth is standard for 141 Micron Elements, 30, 60 & 200 optional - consult factory

** Filter Elements CTTE-SSR-409-03-IO/WA & CTTE-SSR-409-10-OI/WA contain Aqua-Zorb (water absorbing) filter media.

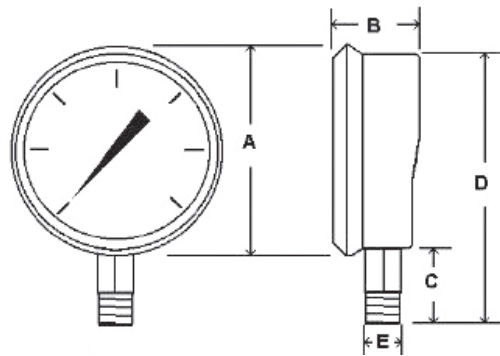
SSR Elements come standard with a Buna-N radial seal, Fluorocarbon optional -consult factory

Liquid Filled Pressure Gauges - high quality construction, dampened movement, accurate readings

Bottom Stem Series

Features:

- Glycerine Filled (available Dry - consult factory)
- Built-in snubber dampens the effects of pressure pulsations
- Phosphor Bronze Bourdon Tube
- Plastic Lens Standard (Glass Available)
- Stainless Steel Case and Bezel (Brass Connection and Internal Parts)
- Accuracy: 2 1/2" Dial = ANSI GRADE A, 4" Dial = ANSI GRADE 1A
- Temperature Range: 30° F to 160° F Filled (-30° F to 180° F Dry)
- Dual Scale Readings in PSI and Bar (x100 = kPa)



Code	Dial Range*	Major Increments*	Minor Increments*
03C	30/0/30 "Hg/PSI Compound	10 "Hg/PSI	1 "Hg/PSI
003	0/30 PSI	5 PSI	0.5 PSI
006	0/60 PSI	10 PSI	1 PSI
010	0/100 PSI	20 PSI	2 PSI
016	0/160 PSI	20 PSI	2 PSI
030	0/300 PSI	50 PSI	5 PSI
050	0/500 PSI	100 PSI	10 PSI
060	0/600 PSI	100 PSI	10 PSI
100	0/1000 PSI	200 PSI	20 PSI
150	0/1500 PSI	200 PSI	20 PSI
200	0/2000 PSI	400 PSI	50 PSI
300	0/3000 PSI	500 PSI	50 PSI
400	0/4000 PSI	500 PSI	50 PSI
500	0/5000 PSI	1000 PSI	100 PSI
600	0/6000 PSI	2000 PSI	200 PSI
10K	0/10,000 PSI	2000 PSI	200 PSI

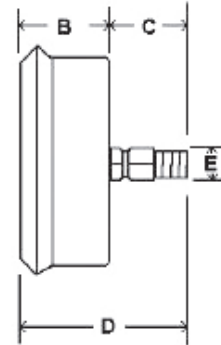
Size	2 1/2" Dial		4" Dial	
Units	Inch	mm	Inch	mm
A	2.80	71	4.32	110
B	1.28	33	1.63	42
C	1.07	27	1.25	32
D	3.55	90	5.57	141
E	1/4" NPT		1/4" NPT	
			1/2" NPT	

* Compound Range reads 30 "Hg Vacuum to 30 PSI Pressure with the Major Dial Increments reading 10 "Hg or 10 PSI and the Minor Dial Increments reading 1 "Hg or 1 PSI. All other Gauges read in PSI only.

Rear Stem Series

Features:

- See Bottom Stem Series - same with exception below
- Accuracy: 2 1/2" Dial = 1.5% of Full Scale, 4" Dial = 1% of Full Scale



Code	Dial Range*	Major Increments*	Minor Increments*
03C	30/0/30 "Hg/PSI Compound	10 "Hg/PSI	1 "Hg/PSI
003	0/30 PSI	5 PSI	0.5 PSI
006	0/60 PSI	10 PSI	1 PSI
010	0/100 PSI	20 PSI	2 PSI
016	0/160 PSI	20 PSI	2 PSI
030	0/300 PSI	50 PSI	5 PSI
060	0/600 PSI	100 PSI	10 PSI
100	0/1000 PSI	200 PSI	20 PSI
150	0/1500 PSI	200 PSI	20 PSI
200	0/2000 PSI	400 PSI	50 PSI
300	0/3000 PSI	500 PSI	50 PSI
500	0/5000 PSI	1000 PSI	100 PSI
10K	0/10,000 PSI	1000 PSI	100 PSI

Size	2 1/2" Dial		4" Dial	
	Inch	mm	Inch	mm
A	2.80	71	4.32	110
B	1.28	33	1.63	42
C	1.18	30	1.14	29
D	2.46	63	2.77	71
E	1/4" NPTF		1/4" NPT	

* Compound Range reads 30 "Hg Vacuum to 30 PSI Pressure with the Major Dial Increments reading 10 "Hg or 10 PSI and the Minor Dial Increments reading 1 "Hg or 1 PSI. All other Gauges read in PSI only.

How to Order:

LFPG-400-003 04N/BS

Code	Dial Face Diameter
208	2 1/2 inch
400	4 inch

Code	Dial Range
	See Tables Above

Code	Mounting Type
BS	Bottom Stem
RS	Rear Stem

Code	Fitting Thread
04N	1/4" NPT
08N	1/2" NPT *

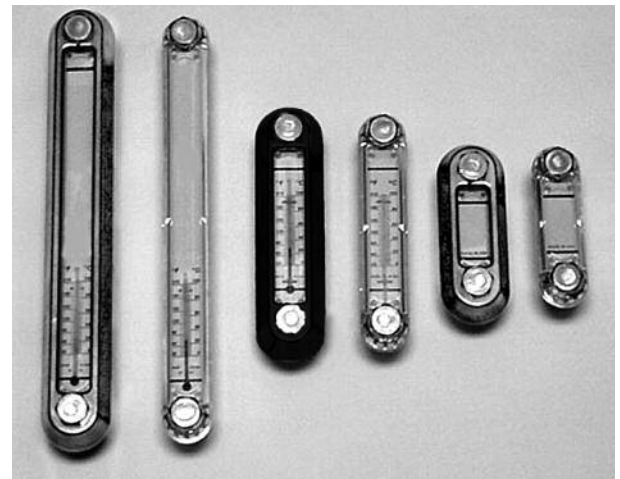
* Available in Bottom Stem Series Only with 4" Dial

For Continuous reading of Fluid Level and Temperature

Standard Line - Liquid Column Series

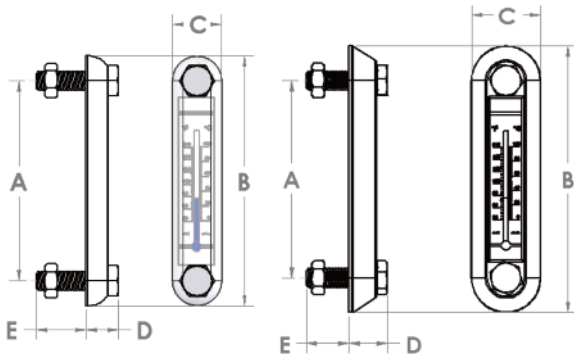
Features:

- UV Resistant Transparent Dupont Grilamid Case
- All-Around Visibility of the Fluid Level
- Buna-N O-ring Seals
- Zinc Plated Bolts
- Available with Optional Cast Aluminum Cover to Provide additional breakage protection
- Includes Thermometer with Blue Fluid for easy readings
- 212° F Maximum Temperature Rating
- For use with Petroleum and Water Base Hydraulic Fluids, consult factory for other fluids



W/Out Cover

With Cover



Part Number	Description	A	B	C	D	E
SLLG-03T	Std 3" w/temp	3.00"	4.22"	1.22"	0.81"	1.16"
SLLG-03T-C	Std 3" w/temp & Cover	3.00"	4.75"	1.75"	0.93"	0.82"
SLLG-05T	Std 5" w/temp	5.00"	6.22"	1.22"	0.81"	1.16"
SLLG-05T-C	Std 5" w/temp & Cover	5.00"	6.75"	1.75"	0.93"	0.82"
SLLG-10T	Std 10" w/temp	10.00"	11.22"	1.22"	0.81"	1.16"
SLLG-10T-C	Std 10" w/temp & Cover	10.00"	11.75"	1.75"	0.93"	0.82"

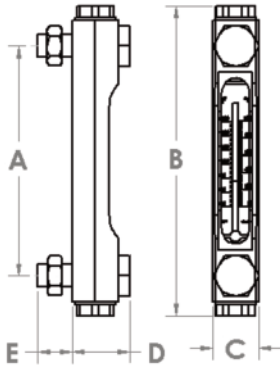
5 Premium Line - Liquid Column Series

Features:

- Borosilicate sight glass compatible with all hydraulic fluids and will not discolor
- 20 PSI maximum working pressure at 250° F
- May be front mounted by threaded tank holes or rear mounted with provided nuts
- Mounting bolts provide 1/16" alignment adjustment to facilitate installation
- Low profile body offers wide sight opening for visibility
- Machined from solid Aluminum bar stock
- Includes internal thermometer - external thermometer available - consult factory



Premium Line (continued)



Part Number	Description	A	B	C	D	E
PLLG-03T	Premium 3" w/temp	3.00"	4.63"	1.00"	1.23"	0.75"
PLLG-05T	Premium 5" w/temp	5.00"	6.63"	1.00"	1.23"	0.75"
PLLG-10T	Premium 10" w/temp	10.00"	11.63"	1.00"	1.23"	0.75"

How to Order:

SLLG-03T-C-2

Code	Series
SLLG	Standard Liquid Level Gauge
PLLG	Premium Liquid Level Gauge

Code	Bolt Center Distance
03	3"
05	5"
10	10"

Code	Mounting Bolt Option
Blank	1/2-13 UNC (1)
2	M12 x 1.75 Metric (2)
3	M10 x 1.50 Metric (2)

Code	Cover (Guard) Option
Blank	No Cover
C	with Cover (3)

Notes:

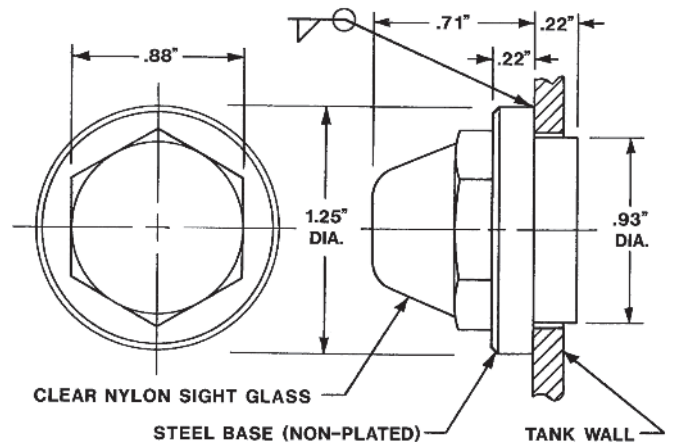
- 1 - 1/2-20 UNF with Premium Line
- 2 - Not Available with Premium Line
- 3 - Premium Line design incorporates integral gauge guard

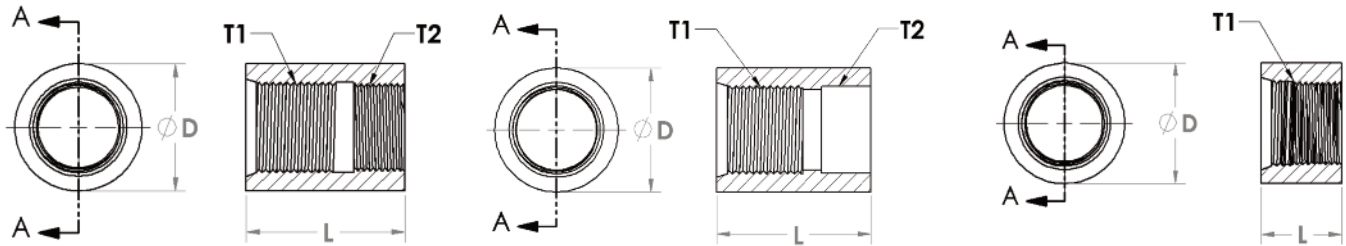
Sight Glass Series

Features:

- Clear Nylon Fluid Level sight glass with Steel Collar for weld attachment to reservoir
- 400 PSI maximum working pressure
- Temperature Range: -65° F to 150° F for pressure applications
- For use with Petroleum Base and Water Base Hydraulic Fluids

Order Part Number: SLSG-100





Full Couplings

Socket Weld Full Couplings

Half Couplings

SAE to NPT Full Couplings:

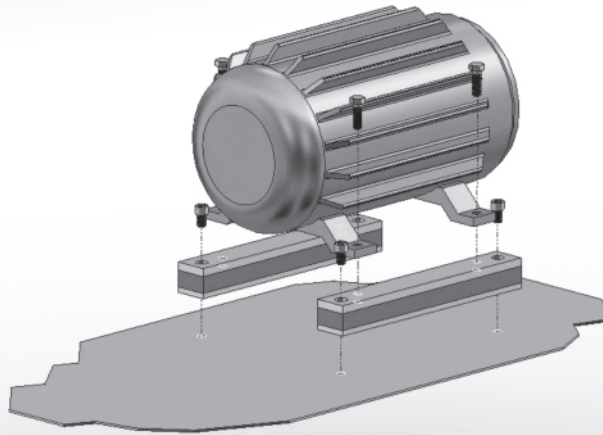
Part Number	D Diameter	L Length	T1 SAE Size	T1 Thread	T2 Thread
4S-4N	0.75	1.375	#4	7/16-20 UNF	1/4" NPT
6S-6N	1.00	1.50	#6	9/16-18 UNF	3/8" NPT
8S-8N	1.25	1.50	#8	3/4-16 UNF	1/2" NPT
10S-8N	1.25	1.50	#10	7/8-14 UNF	1/2" NPT
12S-12N	1.50	1.875	#12	1-1/16-12 UN	3/4" NPT
16S-16N	1.75	2.00	#16	1-5/16-12 UN	1" NPT

SAE to Socket Weld Full Couplings:

Part Number	D Diameter	L Length	T1 SAE Size	T1 Thread	T2 Socket
8S-8W	1.25	1.50	#8	3/4-16 UNF	1/2" Pipe
10S-8W	1.25	1.50	#10	7/8-14 UNF	1/2" Pipe
12S-12W	1.50	1.875	#12	1-1/16-12 UN	3/4" Pipe
16S-16W	1.75	2.00	#16	1-5/16-12 UN	1" Pipe
20S-20W	2.00	2.25	#20	1-5/8-12 UN	1-1/4" Pipe
24S-24W	2.50	2.375	#24	1-7/8-12 UN	1-1/2" Pipe

SAE Half Couplings:

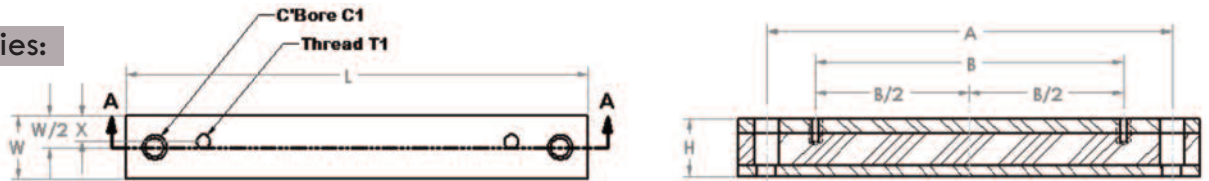
Part Number	D Diameter	L Length	T1 SAE Size	T1 Thread	T2 Thread
4S	0.75	0.75	#4	7/16-20 UNF	N/A
6S	1.00	0.75	#6	9/16-18 UNF	N/A
8S	1.25	0.75	#8	3/4-16 UNF	N/A
10S	1.25	0.875	#10	7/8-14 UNF	N/A
12S	1.50	1.00	#12	1-1/16-12 UN	N/A
16S	1.75	1.25	#16	1-5/16-12 UN	N/A
20S	2.00	1.25	#20	1-5/8-12 UN	N/A
24S	2.50	1.25	#24	1-7/8-12 UN	N/A



Features:

- Reduces noise and vibrations
- Available to accommodate NEMA frame sizes 056C thru 405TC (Metric sizes available - consult factory)
- Strong vulcanized rubber-to-metal bond results in no metal-to-metal contact
- Bolt down or weld in place for easy installation directly to tank top
- Weld pads are available for simple safe mounting option
- Supplied in sets of two (2) bars for each motor

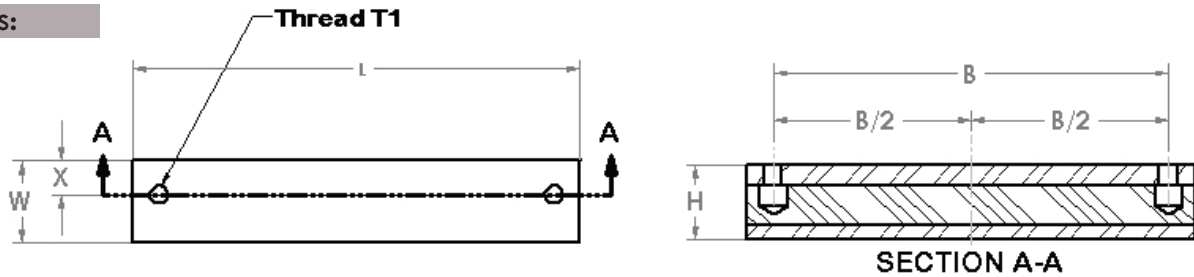
Bolt Down Series:



Part Number	Motor Frame	Dampening Bar Dimensions (inches)							
		L	W	H	A	B	X	C1 for	T1
MDB056-B	056C	7.25	1.97	1.57	5.75	3.0	.875	1/2-13	5/16-18
MDB143-B	143TC	7.75	1.97	1.57	6.25	4.0	.812	1/2-13	5/16-18
MDB145-B	145TC	8.75	1.97	1.57	7.25	5.0	.812	1/2-13	5/16-18
MDB182-B	182TC	8.75	1.97	1.57	7.25	4.5	.938	1/2-13	3/8-16
MDB184-B	184TC	9.75	1.97	1.57	8.25	5.5	.938	1/2-13	3/8-16
MDB213-B	213TC	10.0	1.97	1.57	8.50	5.5	.938	1/2-13	3/8-16
MDB215-B	215TC	11.5	1.97	1.57	10.0	7.0	.938	1/2-13	3/8-16
MDB254-B	254TC	13.0	1.97	1.77	11.5	8.25	.938	1/2-13	1/2-13
MDB256-B	256TC	14.75	1.97	1.77	13.25	10.0	.938	1/2-13	1/2-13
MDB284-B	284TC/TSC	14.5	2.76	2.36	12.75	9.5	1.125	5/8-11	1/2-13
MDB286-B	286TC/TSC	16.0	2.76	2.36	14.25	11.0	1.125	5/8-11	1/2-13
MDB324-B	324TC/TSC	16.0	3.00	2.36	14.0	10.5	1.562	3/4-10	5/8-11
MDB326-B	326TC/TSC	17.5	3.00	2.36	15.5	12.0	1.562	3/4-10	5/8-11
MDB364-B	364TC/TSC	17.0	3.00	2.36	15.0	11.25	1.562	3/4-10	5/8-11
MDB365-B	365TC/TSC	18.0	3.00	2.36	16.0	12.25	1.562	3/4-10	5/8-11
MDB404-B	404TC/TSC	19.5	3.94	2.36	17.25	12.25	2.0	1-8	3/4-10
MDB405-B	405TC/TSC	21.0	3.94	2.36	18.75	13.75	2.0	1-8	3/4-10
MDB444-B	444TC/TSC	23.0	4.72	2.36	20.75	14.5	2.375	1-8	3/4-10
MDB445-B	445TC/TSC	26.0	4.72	2.36	23.75	16.5	2.375	1-8	3/4-10

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Weld Series:



Part Number	Motor Frame	Dampening Bar Dimensions (inches)					
		L	W	H	B	X	T1
MDB056-W	056C	4.75	1.97	1.57	3.0	.875	5/16-18
MDB143-W	143TC	5.50	1.97	1.57	4.0	.812	5/16-18
MDB145-W	145TC	6.50	1.97	1.57	5.0	.812	5/16-18
MDB182-W	182TC	6.0	1.97	1.57	4.5	.938	3/8-16
MDB184-W	184TC	7.0	1.97	1.57	5.5	.938	3/8-16
MDB213-W	213TC	7.75	1.97	1.57	5.5	.938	3/8-16
MDB215-W	215TC	9.0	1.97	1.57	7.0	.938	3/8-16
MDB254-W	254TC	10.5	1.97	1.77	8.25	.938	1/2-13
MDB256-W	256TC	12.25	1.97	1.77	10.0	.938	1/2-13
MDB284W	284TC/TSC	12.0	2.76	2.36	9.5	1.125	1/2-13
MDB286-W	286TC/TSC	13.25	2.76	2.36	11.0	1.125	1/2-13
MDB324-W	324TC/TSC	12.5	3.00	2.36	10.5	1.562	5/8-11
MDB326-W	326TC/TSC	14	3.00	2.36	12.0	1.562	5/8-11
MDB364-W	364TC/TSC	13.5	3.00	2.36	11.25	1.562	5/8-11
MDB365-W	365TC/TSC	14.5	3.00	2.36	12.25	1.562	5/8-11
MDB404-W	404TC/TSC	15.5	3.94	2.36	12.25	2.0	3/4-10
MDB405-W	405TC/TSC	17.0	3.94	2.36	13.75	2.0	3/4-10
MDB444-W	444TC/TSC	19.5	4.72	2.36	14.5	2.375	3/4-10
MDB445-W	445TC/TSC	21.0	4.72	2.36	16.5	2.375	3/4-10

CAUTION !

Welding Directly to the Magnaloy Motor Dampening Bar can cause damage to the metal-to-rubber bond resulting in premature failure. Welding should be limited to the ends only (across the "W" dimension) to prevent damage to the rubber vulcanization by the heat generated during the welding process. Extreme care should be exercised whenever welding to assemblies containing vulcanized rubber. Bond Separation will occur if the metal/rubber surface interface reaches a temperature above 500 °F.

Magnaloy offers a solution to this situation - the **Magnaloy Weld Pad Kit**.

See next page for details.

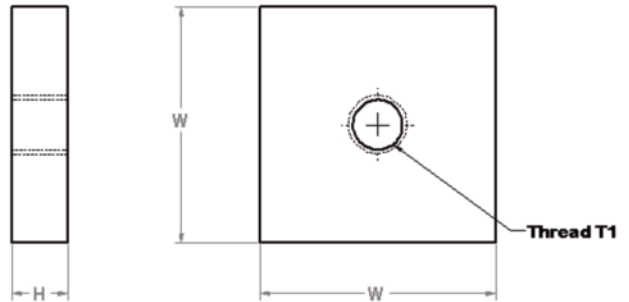
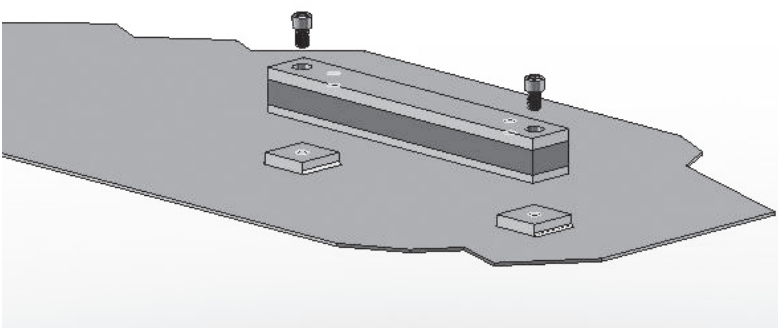
Motor Dampening Bars



Weld Pad Kit:

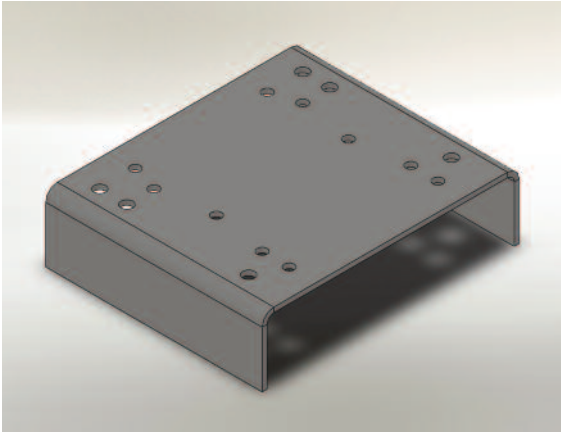
Features:

- Allows simple bolt down installation and design flexibility with drilling and tapping the reservoir surface.
- Eliminates the possibility of heat damage to rubber vulcanization caused by welding directly on the dampening bar.
- Available in sizes to accommodate all Magnaloy Motor Dampening Bars.
- Provides additional motor height to give added design flexibility and plumbing options.
- Supplied in sets of four (4) pads per kit (one set for each motor).



Part Number	Fits Motor Frames	Weld Pad Dimensions (inches)		
		W	H	T1
MWP056-256	056C thru 256TC	2.0	.50	1/2-13 UNC
MWP284-286	284TC/TSC thru 286TC/TSC	2.75	.50	5/8-11 UNC
MWP324-365	324TC/TSC thru 365TC/TSC	2.75	.75	3/4-10 UNC
MWP404-405	404TC/TSC thru 405TC/TSC	4.0	.75	3/4-10 UNC
MWP444-445	444TC/TSC thru 445TC/TSC	4.75	.75	1-8 UNC

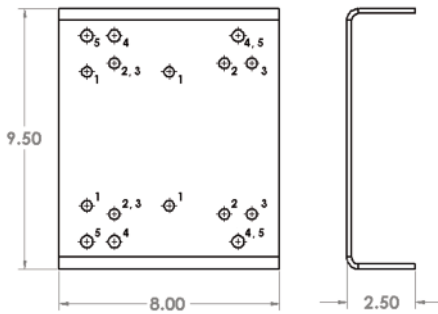
Motor Base Plate:



Features:

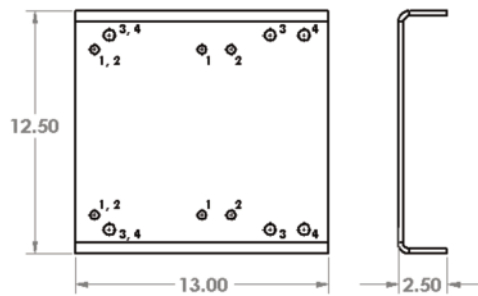
- Simplifies motor mounting to Reservoir top by eliminates drilling and threading on Reservoir.
- Base Plate welds directly on the Reservoir top or Porch on "L" Tanks
- Available in sizes to accommodate NEMA 056C through 326TC/TSC frame sizes.
- Provides additional motor height to give added design flexibility and plumbing options.
- Each size accomodates several NEMA frame sizes.
- Made from heavy gauge (7ga on 056 size and 1/4" on 213 thru 326 sizes) sheet steel to provide strength and rigidity.

MBP-056/184 - Fits NEMA frame motors 056C thru 184TC



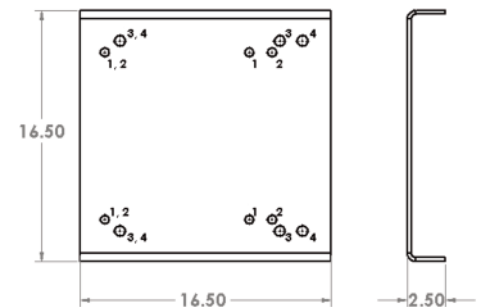
Feature Number	Motor Frame	Hole Diameter	Number of Holes
1	056C	0.375	4
2	143TC	0.375	4
3	145TC	0.375	4
4	182TC	0.437	4
5	184TC	0.437	4

MBP-213/256 - Fits NEMA frame motors 213TC thru 256TC



Feature Number	Motor Frame	Hole Diameter	Number of Holes
1	213TC	0.437	4
2	215TC	0.437	4
3	254TC	0.562	4
4	256TC	0.562	4

MBP-284/326 - Fits NEMA frame motors 284TC/TSC thru 326TC/TSC



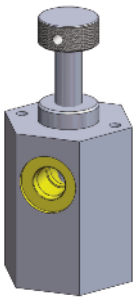
Feature Number	Motor Frame	Hole Diameter	Number of Holes
1	284TC/TSC	0.437	4
2	286TC/TSC	0.437	4
3	324TC/TSC	0.562	4
4	326TC/TSC	0.562	4

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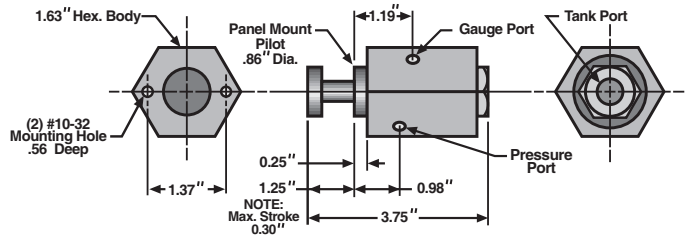
A High Quality, Push-to-Read Device that Isolates and Protects your Gauge. You can Read up to Six Port Signals from a Single Gauge.

Magnaloy Gauge Isolators are manufactured from high quality steel hexagonal bar stock and machined to exact tolerances. Pressure is supplied to the gauge only when requested, by pushing the knob. This prevents gauge failure caused by continuous exposure of the gauge to damaging pressure surges and helps extend the life of the gauge and maintain its accuracy. This design provides simple mounting options and an attractive, compact package.

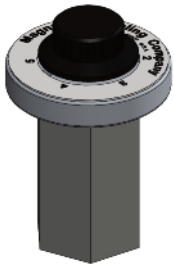
Single Position Gauge Isolator Specifications:



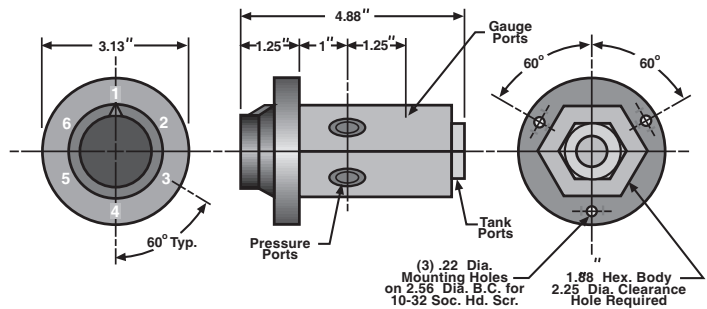
- Push to read.
- Operating Temperature -30° F to 240° F.
- 5,000 PSI working pressure.
- Viton Seals.
- 1/4" NPT or #4 SAE O-Ring ports.
- Panel or in-line mounting (maximum panel thickness - 5/16")



Six Position Gauge Isolator Specifications:

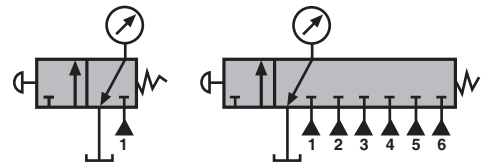


- Turn to select position, push to read.
- Operating Temperature -30° F to 240° F.
- 5,000 PSI working pressure.
- Viton Seals.
- #4 SAE O-Ring ports.
- Panel mounting.
- Read up to 6 pressure signals from a single gauge.

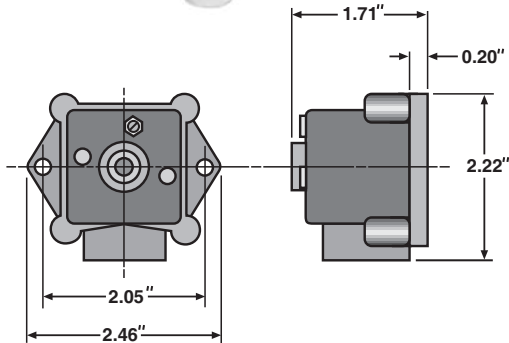


Ordering Specifications:

Part Number	Positions	Port Type
GI-01-SAE	Single	#4 SAE O-Ring
GI-01-NPT	Single	1/4" NPT
GI-06-SAE	Six	#4 SAE O-Ring



A Dependable Pressure-Sensing Device that Converts a set Hydraulic Pressure to an electrical Signal - up to THREE Signals in a Single Switch.



Technical Specifications

Operating Characteristics:

- Adjustable Range: 300 PSI to 2,600 PSI
- Pressure Reset: 125 PSI to 300 PSI, nominal
- Rated Pressure 4,000 PSI
- Burst Pressure: 12,000 PSI
- Temperature Rating: -20° F to 160° F
- Repeatability: 2% of set pressure

Electrical Characteristics:

- U.L. Listed Switching Elements
- Rating: 4 amps, 250 VAC / 3 amps, 12 VDC

Options:

- Second and Third Independently adjustable switches
- Factory pre-set to specified pressures
- 200 PSI to 1,250 PSI range (L) (125 PSI to 200 PSI reset)
- 500 PSI to 4,000 PSI range (H), High cycle unit (300 PSI to 450 PSI reset)

Pressure Switch Wiring Instructions:

	Switch #1	Switch #2	Switch #3
Normally Open	Red	Red w/1 Yellow Stripe	Red w/2 Yellow Stripes
Common	White	White w/1 Yellow Stripe	White w/2 Yellow Stripes
Normally Closed	Black	Black w/1 Yellow Stripe	Black w/2 Yellow Stripes

Pressure Switch is tested but NOT pre-set.

NOTE: factory will pre-set pressure for a nominal charge
Important! Lock nut torque range: 6 - 8 in lbs.

How to order:

- PS-400-115 Single Switch Assembly
NEMA 12 Enclosure, Viton Seals,
300 - 2,600 PSI Range.
- PS-400-215 Double Switch Assembly
NEMA 12 Enclosure, Viton Seals,
300 - 2,600 PSI Range.
- PS-400-315 Triple Switch Assembly
NEMA 12 Enclosure, Viton Seals,
300 - 2,600 PSI Range.

To specify pre-set pressure(s), note setting(s) after part number.

For optional operating ranges specify (L) or (H) after part number.

5

- 1. Triple Versatility.** As many as three switching elements can be independently adjusted over the full PS-400 pressure range.
- 2. Fluid Compatibility.** Viton seal with Teflon back-up ring compatible with most hydraulic fluids.
- 3. Easy Pressure Adjustment.** External adjustment nut is easily accessible for quick pressure reset.
- 4. Save Plumbing Cost.** Single pressure tap (1/8" NPT female) serves all three piston mounted microswitches.
- 5. Oil Tight Case (NEMA 12)**
- 6. Standard Conduit Connection.** 1/2" NPT female.
- 7. Easy Installation.** Two mounting holes provided for No. 10 screws.
- 8. Positive Locking.** Pressure Adjusting Screw.



A Cost Saving, Easy to Identify, Inventory of Commonly used Buna-N or Viton O-Rings. Sized for Vickers Industrial Valves.

How to Order:

ORK-12000 Buna-N O-Ring Kit

ORK-12001 Vitron O-Ring Kit

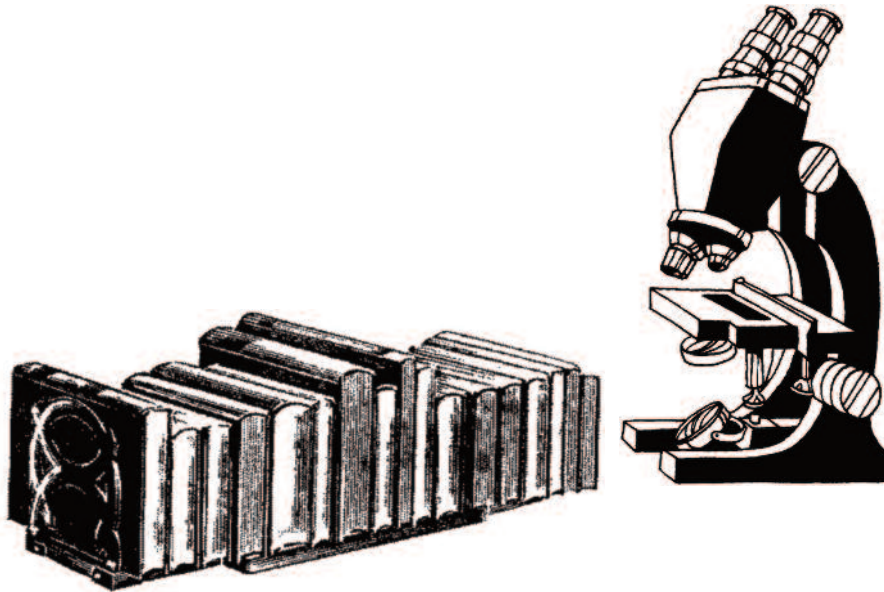
Each kit contains the following size and quantities of either Buna-N or Viton O-Rings:

Plug Number	Quantity	Buna-N Vicker's Part No.	Viton Vicker's Part No.
1	34	154000	262326
2	34	154001	262327
3	34	154002	262328
4	32	154004	262330
5	32	154005	262331
6	32	154006	262332
7	18	154139	262333
8	36	199811	262334
9	18	173792	262335
10	18	153950	262336
11	18	154942	262337
12	18	157515	262338
13	18	154142	262339
14	18	166360	262340
15	18	174619	262341
16	18	153999	262920
17	18	187000	262344
18	17	154137	262348
19	13	154012	262354
20	13	154130	262498

Plug Number	Quantity	Buna-N Vicker's Part No.	Viton Vicker's Part No.
21	13	199812	262356
22	12	199813	262361
23	12	157143	261818
24	12	199817	262369
25	9	154014	262389
26	9	154015	262390
27	9	154016	262391
28	9	154017	262392
29	9	154018	262393
30	18	154019	262394
31	9	154020	262395
32	9	154023	262398
33	9	154024	262399
34	9	154026	262401
35	16	154077	262402
36	8	154078	262403
37	8	154079	262404
38	8	154084	262409
39	17	154128	262496
40	15	154129	262497

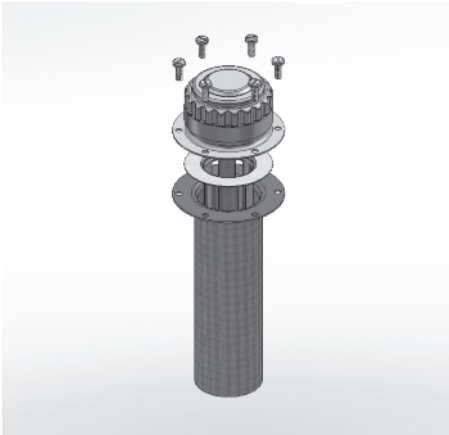
SECTION R

REFERENCE SECTION



NOTE: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.
Check with the factory or our Web Site at www.magnaloy.com for the latest information.

What you should know about Filler Breathers!



Sizing is based on the reservoir air exchange requirements, NOT the pump output. Magnaloy Filler Breather Assemblies are sized for a maximum pressure drop of .45 inches Hg.

Hydraulic users rarely change the breather filter, which can contribute to pump cavitation. A routine of regularly changing or cleaning the air filter should be developed. A vacuum indicator can be very helpful in determining the cleanliness of the air filter.

The Filler Breather filtration rating should be equal to or better than the system filtration rating.

On systems with constant fluid level in the reservoir, a pressurized Filler Breather Cap increases pump inlet pressure. Generally, the more pressure a pump has at its inlet, the quieter it will run.

The NPFA standard call for TWO filler openings, each of which should pass a minimum of 5 GPM. They should be located on opposite sides or ends of the reservoir.

The maximum air filtration allowed is 40 micron. All of Magnaloy's Filler Breather Caps are 10 Micron nominal.

The filler screen should be at least 30 mesh and should have an internal metal guard to prevent the fill spout from puncturing the screen. All Magnaloy's Screen are 30 mesh and we offer a Screen Guard Option.

Filter Selection and Life!



Filter life is difficult to determine. It is affected by many factors, including the operation systems condition, flow rate, viscosity of the fluid, duty cycle, environment, initial differential pressure, and cleanliness practices.

Loading is the process of plugging the pore of the media with contaminants. As the pores continue to plug, the pressure increases to maintain the fluid flow. This pressure is known as the differential pressure. At the beginning of the filter life cycle this pressure is relatively low, but pressure across the element increases as the pores in the media become plugged. The size, shape, and pore arrangement of a filter determines why some filter elements last longer than other types. Cellulose media (paper) will load more quickly than the same given area of fiberglass media (synthetic) due to the reduced number of pores per unit area.

Filter element selection is based on many factors, including operating environment, safety concerns from system failure, and criticality of system operation. Always consult your equipment manufacturer's recommendation for fluid cleanliness level.

Manufacturer's Cross Reference
For Channel Mounted Cushion Clamps



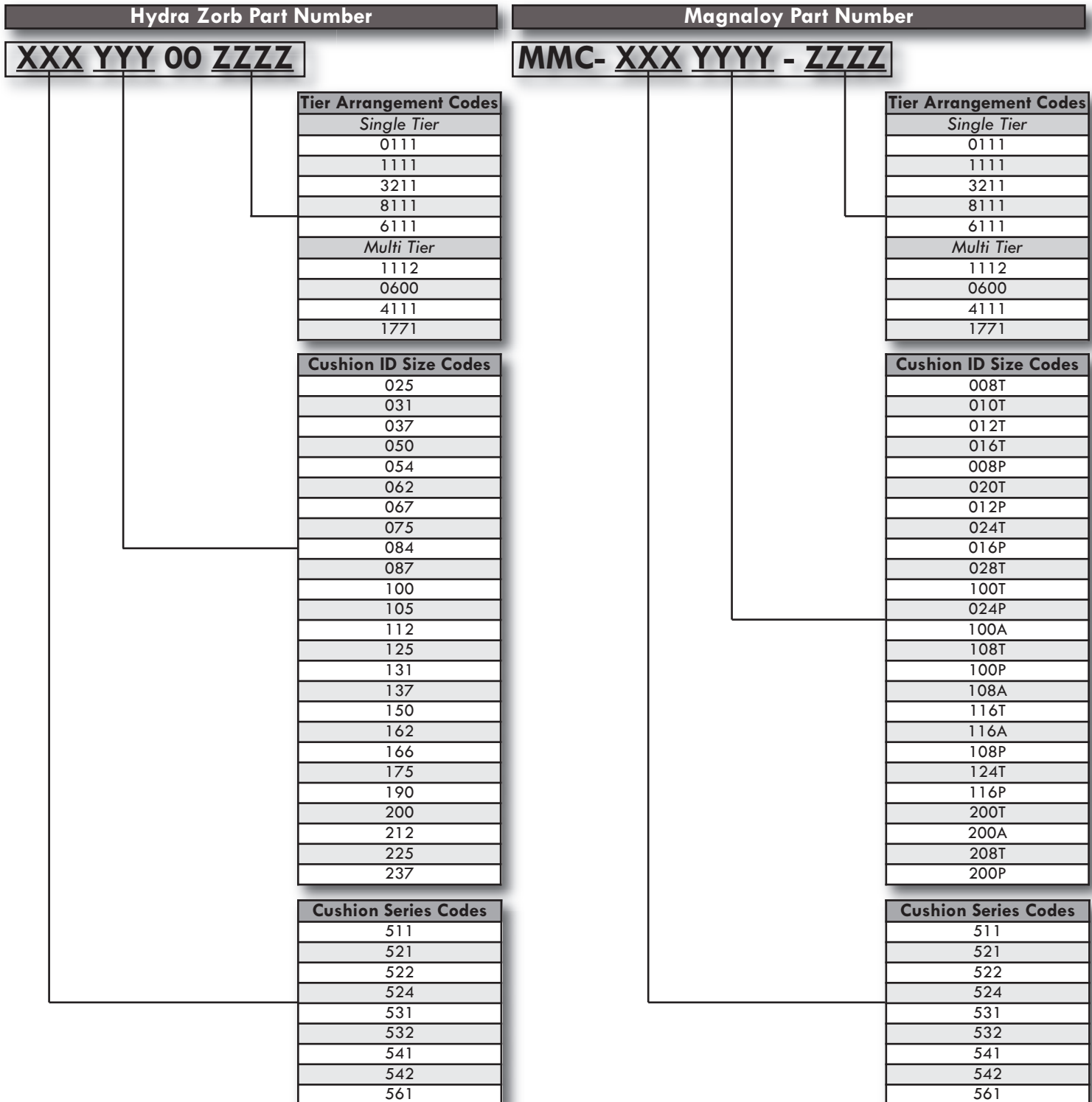
Unistrut Part No.	Hycon Part No.	Hydro-carft Part No.	Hydra-Zorb Part No.	Magnaloy Part No.
- TUBE SIZES -				
004T008	H004T008	WS-04	100025	MCC-008T
006T010	H006T010	WS-06	100037	MCC-012T
008T012	H008T012	WS-08	100050	MCC-016T
010T014	H010T014	WS-10	100062	MCC-020T
012T016	H012T016	WS-12	100075	MCC-024T
014T018	H014T018	WS-14	100087	MCC-028T
016T020	H016T020	WS-16	100100	MCC-100T
018T022	H018T022	WS-18	100112	MCC-104T
			100119	MCC-106T
020T024	H020T024	WS-20	100125	MCC-108T
022T026	H022T026	WS-22	100137	MCC-112T
024N028	H024N028	WS-24	100150	MCC-116T
026N030	H026N030	WS-26	100162	MCC-120T
028N032	H028N032	WS-28	100175	MCC-124T
030N034	H030N034	WS-30	100187	MCC-128T
032N036	H032N036	WS-32	100200	MCC-200T
034N040	H034N040	WS-34	100212	MCC-204T
		WS-36	100225	MCC-208T
038N044	H038N044	WS-38	100237	MCC-212T
040N046	H040N046	WS-40	100251	MCC-216T
042N048	H042N048	WS-42	100262	MCC-220T
046N052	H046N052	WS-46	100287	MCC-224T
		WS-48	100300	MCC-300T
050N056	H050N056	WS-50	100312	MCC-304T
058N064	H058N064	WS-58	100362	MCC-320T
066N074	H066N074	WS-66	100412	MCC-404T
- PIPE SIZES -				
009N012	H009N012	WS-04P	200025	MCC-008P
011N014	H011N014	WS-06P	200037	MCC-012P
014N018	H014N018	WS-08P	200050	MCC-016P
017N022	H017N022	WS-12P	200075	MCC-024P
021N026	H021N026	WS-16P	200100	MCC-100P
027N032	H027N032	WS-20P	200125	MCC-108P
030N034	H030N034	WS-24P	200150	MCC-116P
038N044	H038N044	WS-32P	200200	MCC-200P
046N052	H046N052	WS-40P	200250	MCC-216P
056N062	H056N062	WS-48P	200300	MCC-300P
064N072	H064N072	WS-56P	200350	MCC-316P
072N080	H072N080	WS-64P	200400	MCC-400P
089N096	H089N096	WS-80P	200500	MCC-500P
106N114	H106N114	WS-96P	200600	MCC-600P

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Manufacturer's Cross Reference For Modular Cushion Clamps

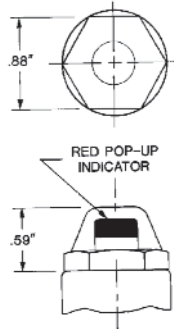
To Cross Reference a Hydra-Zorb part number to the equivalent Magnaloy part number, follow the flow chart below and substitute the Magnaloy Code for the corresponding Hydra-Zorb Code. This Cross-Reference is for the most common Hyra-Zorb clamps, for other Tier arrangements or Cushion Series, contact the factory for assistance and availability.



Differential Pressure ΔP Indicators

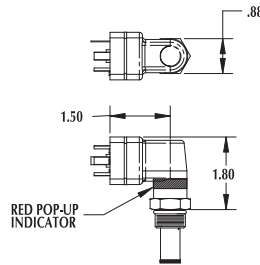
For use with Magnaloy SFH series Spin-On Filter Head

DP03 Series

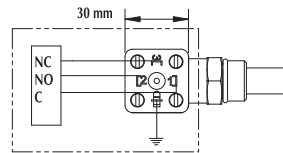


Low Pressure Visual Indicator
 200 PSI max Operating Pressure
 Temperature range up to 150° F
 Automatic Resetting
 Factory Installed, Available as kit for field replacement
 For use with SFH Series Head Only

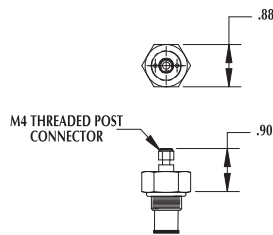
DP05 Series



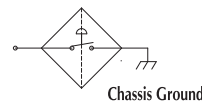
Cartridge Style Visual/Electrical Indicator
 Hirschman (DIN 43650 Type AM Receptacle 11mm)
 1NO, 1NC, & Common SPDT Switch (3 pole & ground)
 5A; 125/250 VAC, 24 VDC (Resistive)
 6000 psi max Operating Pressure
 Temperatures up to 200F
 Automatic Resetting
 Factory Installed. Available as kit for field replacement.



DP06 Series



Cartridge Style Single Wire DC Indicator
 200mA @ 36VDC
 Momentary - Normally Open Circuit
 6000 psi max Operating Pressure
 Temperatures up to 200F
 Automatic Resetting
 Factory Installed. Available as kit for field replacement.
 Ground Through Filter Head to Chassis. (In Oil)



Filter Efficiency Standard

ISO 4572: 1981
 ISO 16889: 1999

BETA Ratio Information

1. Beta Ratio means counting particles less than 40 Micron in size using a test dust as the test contaminant

2. Beta Ratio equals:
$$\frac{\text{Particle count* in oil up stream of filter}}{\text{Particle count* in oil down stream of filter}}$$

* The number of particles of a given size or greater per unit volume

3. Example:
$$\frac{2,000 \text{ Particles } 10\mu\text{m or greater in oil sample before filter}}{500 \text{ Particles } 10 \mu\text{m or greater in oil sample after filter}} = 4.0$$

-OR-

$$\frac{2,000}{500} = 4.0 \text{ (Filter removed 75\% of particles } 10 \mu\text{m OR GREATER)}$$

4. Terminology: $B_{10} = 4.0$ (Beta 10 Ratio equals 4.0)

5. Ratio Numbers and Equivalent Efficiencies:

- Beta_x = 2.0 Represents 50% Efficiency (Nominal Rating)
- Beta_x = 20.0 Represents 95% Efficiency
- Beta_x = 75.0 Represents 98.67% Efficiency (Absolute Rating)
- Beta_x = 200.0 Represents 99.5% Efficiency

Note: Any Beta greater than 100 adds less than 1% to overall efficiency, and greatly increases pressure drop through the filter.

Typical Stainless Steel Wire Cloth Media

Mesh Size	Degrees of Filtration
30	560 Micron
60	280 Micron
100	141 Micron
200	75 Micron
200 x 600	20 Micron
200 x 1400	10 Micron
325 x 1900	3 Micron

Filter Selection Data

Fluid Viscosity & Flow Capacity

The single most critical variable in determining the flow capacity of a filter is the viscosity of the fluid passing through it. Pressure drop (ΔP) produced by flow through a filter assembly is directly proportional to the viscosity of the fluid being filtered. At any given flow rate, a lower viscosity fluid will produce less pressure drop (and greater flow capacity) than that of a higher viscosity fluid.

Fluid Viscosity & Temperature

A fluid's viscosity is governed by its temperature. As a fluid's temperature increases, its viscosity decreases. Use a temperature versus viscosity chart to determine the viscosity of the fluid used in your system at its normal operating temperature.

Estimating Pressure Drop (ΔP)

All pressure drop data found in this catalog is based on 150 SUS oil. If the fluid to be filtered in your application has a viscosity of 150 SUS at the system's normal operating temperature, pressure drop values can be taken directly off the graphs. If the fluid's viscosity is not 150 SUS, use the formula below to estimate the pressure drop.

$$\text{Estimated Pressure Drop (} \Delta P \text{) through filter assembly} = \text{Pressure Drop Value taken from graph} \times \frac{\text{Viscosity of Fluid at System Operating Temperature}}{150}$$

Filtration Application Guidelines

Suction Strainers:

Maximum pressure drop : 1" Hg
Maximum line velocity: 5 feet per second

Suction Line Filters:

Maximum pressure drop: No more than 50% of the Maximum allowable vacuum recommended by the pump manufacturer (at normal operating temperature with a clean filter element).
Maximum line velocity: 5 feet per second

Return Line Filters:

Maximum pressure drop: No more than 50% of the filter by-pass valve setting at normal operating temperature with a clean filter element.
Maximum line velocity: 15 feet per second
A By-Pass Valve should ALWAYS be included on a Return Filter

Pressure Filters:

Maximum pressure drop: No more than 50% of the filter by-pass valve setting at normal operating temperature with a clean filter element.
Maximum line velocity: 25 feet per second

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Flexible Drive Couplings

Top-of-the-line magnesium couplings are lighter, yet stronger than either cast iron or aluminum. They also offer better corrosion resistance and easier handling.



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Accessories

Filler Breather Adaptors, Filler Breathers, Reservoir Flanges, Suction Strainers, Gauge Isolators, Liquid Level Gauges, Modular O-Ring Kits.



Pump/Motor Mounts

Precision machined aluminum & custom steel pump/motor mounts directly connect the motor and pump while ensuring accurate shaft alignment and enclosing the coupling. Vertical and horizontal models readily available from stock.



Rod End Couplers

Two models of accurately machined high tensile cylinder rod end alignment couplers offer 7° or 10° spherical and 1/8" parallel misalignment capabilities.

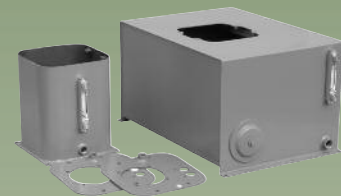


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PM 90 Couplings

Economical PM-90 Iron Powder Couplings have long lasting nitrile, hytel or urethane inserts. Double set screws give excellent gripping power.



Magnaloy Reservoirs & Reservoir Accessories

Magnaloy offers a complete line of standard reservoirs and reservoir accessories. In addition, we offer custom reservoir fabrication to meet our customer specific needs. Reservoirs accessories such as Clean Out Covers and SAE Couplings are available for the "do-it-yourself" reservoir manufacturer



Magnaloy Pressure Switch

Pressure Sensing switch capable of sensing up to three (3) separate pressures. Each sensor is externally independently adjustable from 200 to 4000 psi. Viton seals provide wide fluid compatibility range.

B

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