

magnaloy

Complete Product Catalog

Connecting Fluid Power for over 60 Years

1 Flexible Drive Couplings

2 Pump / Motor Mounts

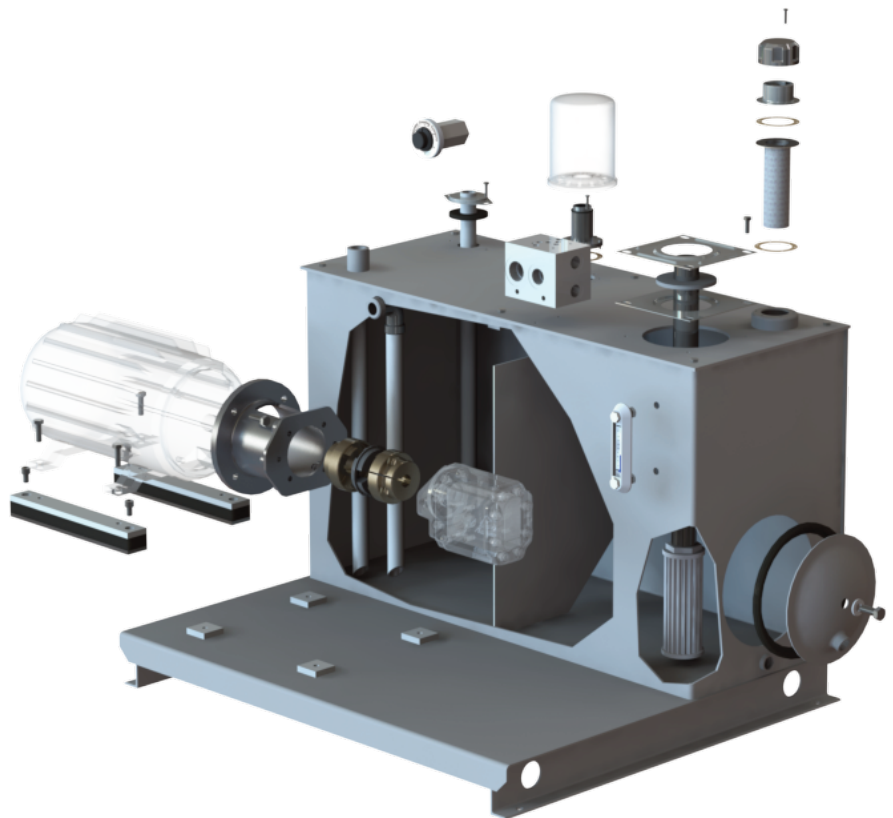
3 Bar Manifolds

4 Reservoirs

5 Accessories

6 Rod Alignment Couplers

R Reference Section



Magnaloy

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• 989 356-2186

www.magnaloy.com

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Check out our **Product Configurator Program**
<https://configurator.magnaloy.com>

SECTION 1

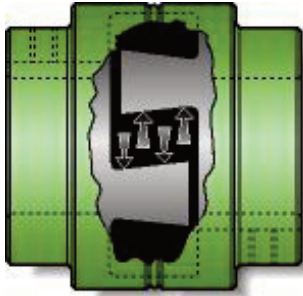
MAGNALOY FLEXIBLE DRIVE COUPLINGS



* Insert color shown is Neoprene (Black)

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.

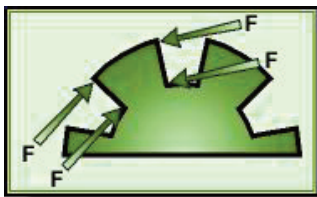
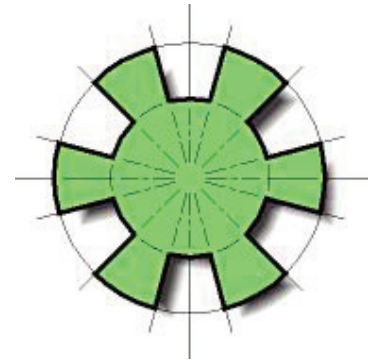


Load-Lock Design...

is simple and effective. The drive lug configuration is tapered from top to base, as are the mating lugs of the opposing coupling hub. Under load, the insert conforms to the tapers, inter-locking the two hubs. This load-lock design protects bearings and equipment by eliminating end thrust in both directions.... and it requires only one set-screw in each hub.

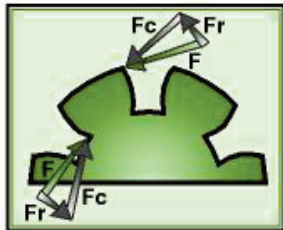
Radial Lug Design...

is logical and efficient. The most common failure of an elastomeric insert type drive coupling is hysteresis failure of the elastomeric element - breakdown of the elastomer due to cyclical overworking and the associated heat generation. Magnaloy Coupling's drive lugs are in a true radial orientation. Applied forces are evenly distributed in the compressive direction only, eliminating the heat generating radial component. True compressive loading reduces internal heat generation and improves elastomer life.



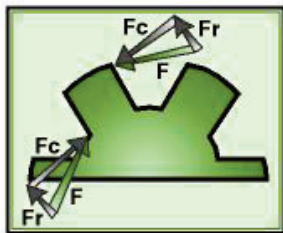
Magnaloy Coupling Design...

Under loaded conditions, the resultant forces applied on the element segments are evenly distributed in the compressive direction only. This results in no radial forces to multiply the internal heat generation.



Conventional Design A...

Under loaded conditions this jaw design results in the applied forces exerting components in the compressive and radial directions. These forces change direction and magnitude along the jaw arc which greatly increase the internal movement of the element which causes heat generation.



Conventional Design B...

This more conventional straight sided jaw design also exerts component forces in the compressive and radial directions when under load. The radial component is outward (acting to extrude the element) and changes in magnitude only, as does the compressive component, along the jaw surface. The component forces resulting from this design also causes increased internal movement in the element.

A note about Set-Screws ...

The Premium Line of Magnaloy Couplings comes standard with a single set-screw over the keyway. Optional **Double Set-Screws** are available at either 45° or 90° to the keyway. Double set-screws help improve shaft gripping forces by increasing the hoop-stresses generated from tightening a single set-screw. Double set-screws at 45° will produce greater forces than double set-screws at 90°. Either are available upon request by specifying 'DSS45' or 'DSS90' following the hub part number. M30011210DSS45

Magnaloy's Clamp feature is also available with bored and keyed hubs, specify 'C' following the hub part number. M30011210C



Magnaloy is the original lightweight, heavy-duty flexible drive coupling. Light weight magnesium construction makes Magnaloy couplings 76% lighter than cast iron and 36% lighter than aluminum units... and they're stronger than either!

The benefits are many... Reduced loads on bearings, shafts and pumps, for longer component life. Easier handling and installation. Rust proof and corrosion resistant.

Magnaloy's close machining tolerances (TIR of .002") assures vibration-free operation and easy, accurate alignment without need for special tools. Solid magnesium alloy permanent mold castings are heat treated and offer the highest strength-to-weight ratio available.

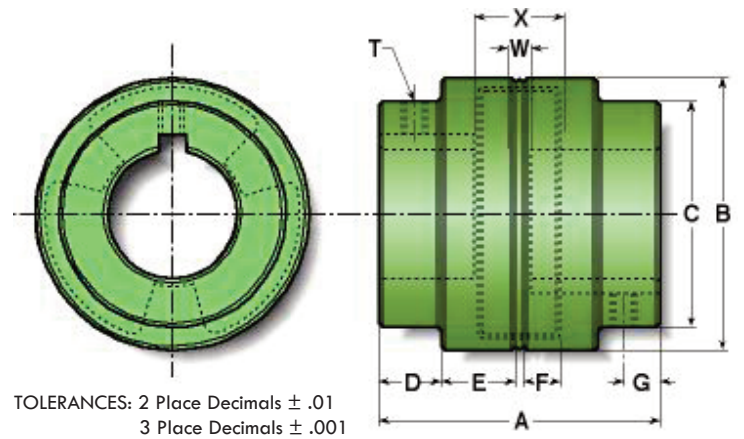
Coupling Performance Specifications

| Coupling Model | Maximum Bore | Wr ² lb-ft ² | Insert Number | Rated Torque lb-in | Torsional Rigidity lb-in/Deg | Horse Power Rating @ | | |
|----------------|--------------|------------------------------------|---------------|--------------------|------------------------------|----------------------|----------|----------|
| | | | | | | 100 rpm | 1200 rpm | 1800 rpm |
| 100 | 1 1/8 | 0.0046 | 170N | 340.7 | 42 | 0.55 | 6.5 | 9.8 |
| | | | 170U | 511.0 | 53 | 0.82 | 9.8 | 14.7 |
| | | | 170H | 1,022.1 | 182 | 1.65 | 19.8 | 29.7 |
| 200 | 1 3/8 | 0.0068 | 270N | 398.3 | 55 | 0.64 | 7.6 | 11.5 |
| | | | 270U | 597.4 | 68 | 0.96 | 11.5 | 17.2 |
| | | | 270H | 1,194.9 | 234 | 1.92 | 23.0 | 34.5 |
| 300 | 1 5/8 | 0.022 | 370N | 701.4 | 81 | 1.12 | 13.5 | 20.2 |
| | | | 370U | 1,052.1 | 148 | 1.68 | 20.2 | 30.3 |
| | | | 370H | 2,104.2 | 336 | 3.36 | 40.4 | 60.6 |
| 400 | 1 7/8 | 0.031 | 470N | 1,056.3 | 138 | 1.69 | 20.3 | 30.4 |
| | | | 470U | 1,584.5 | 310 | 2.50 | 30.4 | 45.6 |
| | | | 470H | 3,168.9 | 488 | 5.10 | 60.8 | 91.3 |
| 500 | 2 3/8 | 0.071 | 570N | 2,194.8 | 314 | 3.50 | 42.1 | 63.2 |
| | | | 570U | 3,292.2 | 695 | 5.30 | 63.2 | 94.8 |
| | | | 570H | 6,584.4 | 1,571 | 10.50 | 146.4 | 189.6 |
| 600 | 2 5/8 | 0.16 | 670N | 4,946.7 | 676 | 7.90 | 94.9 | 142.5 |
| | | | 670U | 7,420.1 | 1,510 | 11.90 | 142.5 | 213.7 |
| | | | 670H | 14,840.1 | 2,960 | 23.70 | 284.9 | 427.4 |
| 700 | 2 7/8 | 0.34 | 770N | 11,639.8 | 1,805 | 18.60 | 223.5 | 335.2 |
| | | | 770U | 17,459.7 | 2,104 | 27.90 | 335.2 | 502.8 |
| | | | 770H | 29,099.5 | 5,960 | 46.50 | 558.8 | 838.0 |
| 800 | 3 7/8 | 0.95 | 870N | 21,889.4 | 3,680 | 35.00 | 420.3 | 630.4 |
| | | | 870U | 32,834.1 | - | 52.50 | 630.4 | 945.6 |
| | | | 870H | 47,062.2 | 11,950 | 75.20 | 903.0 | 1,354.5 |
| 900 | 4 3/4 | 4.20 | 970N | 47,842.3 | 8,428 | 76.50 | 918.6 | 1,377.9 |
| | | | 970U | 71,763.5 | - | 114.80 | 1,377.9 | 2,066.8 |

Magnaloy Coupling Dimensional Specifications

Models 100, 200, 300, 400

| | 100 | 200 | 300 | 400 |
|----------|--------|---------|---------|--------|
| A | 2.54 | 3.10 | 3.58 | 4.24 |
| B | 2.600 | 2.900 | 3.450 | 3.980 |
| C | 2.00 | 2.25 | 2.90 | 3.05 |
| D | 0.56 | 0.68 | 0.78 | 1.00 |
| E | 0.68 | 0.84 | 0.96 | 1.06 |
| F | 0.42 | 0.42 | 0.44 | 0.54 |
| G | 0.31 | 0.43 | 0.56 | 0.73 |
| W | 1/16 | 1/16 | 1/16 | 1/16 |
| X | 0.90 | 0.90 | 0.98 | 1.20 |
| T | 1/4-20 | 5/16-18 | 5/16-18 | 3/8-16 |



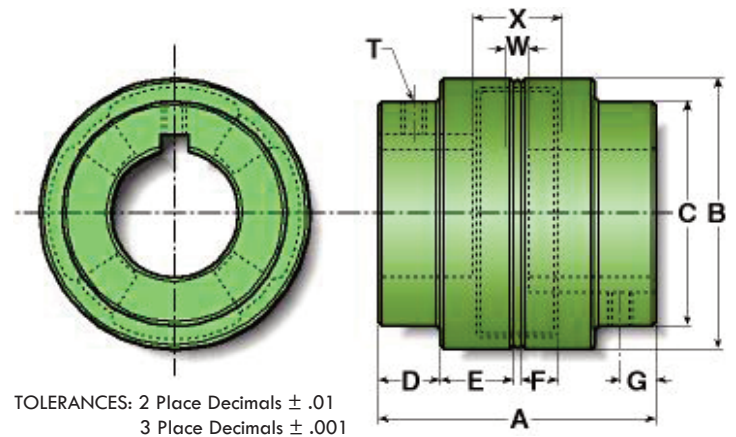
Model 500

| | 500 |
|----------|--------|
| A | 4.67 |
| B | 4.800 |
| C | 4.00 |
| D | 1.04 |
| E | 1.23 |
| F | 0.64 |
| G | 0.70 |
| W | 1/16 |
| X | 1.41 |
| T | 3/8-16 |

X*: Maximum Space between shaft ends to allow full shaft engagement in Hub Bore.

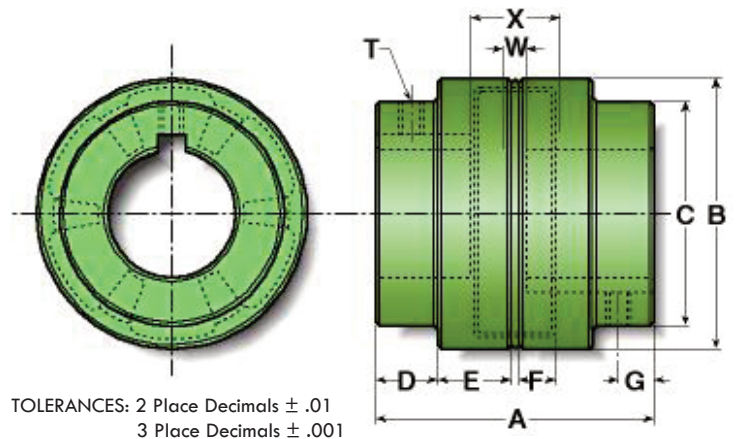
W*: Minimum Space between shaft ends.

* Given for reference only.



Models 600, 700, 800, 900

| | 600 | 700 | 800 | 900 |
|----------|--------|--------|--------|--------|
| A | 5.98 | 6.99 | 7.99 | 10.15 |
| B | 5.975 | 6.900 | 8.600 | 11.400 |
| C | 4.50 | 5.19 | 7.00 | 8.30 |
| D | 1.60 | 2.08 | 2.25 | 2.75 |
| E | 1.33 | 1.32 | 1.62 | 2.20 |
| F | 0.62 | 0.89 | 1.00 | 1.32 |
| G | 1.13 | 1.13 | 1.58 | 1.88 |
| W | 1/16 | 1/16 | 1/16 | 1/16 |
| X | 1.36 | 1.97 | 2.25 | 2.89 |
| T | 3/8-16 | 1/2-13 | 1/2-13 | 3/4-10 |



Standard Bore and Keyway Combinations

| Magnaloy "Standard" Bore Key Combinations | | | | | | | | | | | | |
|---|---------------|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Model Code | Bore/Key Code | Model | | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
| | | Bore | Key | | | | | | | | | |
| M | 01203 | 3/8 | x 3/32 | * | * | | | | | | | |
| M | 01403 | 7/16 | x 3/32 | * | * | | | | | | | |
| M | 01404 | 7/16 | x 1/8 | * | * | | | | | | | |
| M | 01604 | 1/2 | x 1/8 | * | * | * | | | | | | |
| M | 01804 | 9/16 | x 1/8 | * | * | * | | | | | | |
| M | 02005 | 5/8 | x 5/32 | * | * | * | | | | | | |
| M | 02006 | 5/8 | x 3/16 | * | * | * | * | | | | | |
| M | 02206 | 11/16 | x 3/16 | * | * | * | * | | | | | |
| M | 02404 | 3/4 | x 1/8 | * | * | * | | | | | | |
| M | 02406 | 3/4 | x 3/16 | * | * | * | * | * | | | | |
| M | 02806 | 7/8 | x 3/16 | * | * | * | * | * | * | | | |
| M | 02808 | 7/8 | x 1/4 | * | * | * | * | * | * | | | |
| M | 03008 | 15/16 | x 1/4 | * | * | * | | | | | | |
| M | 10006 | 1 | x 3/16 | * | * | * | * | * | * | | | |
| M | 10008 | 1 | x 1/4 | * | * | * | * | * | * | | | |
| M | 10408 | 1 1/8 | x 1/4 | * | * | * | * | * | * | | | |
| M | 10608 | 1 3/16 | x 1/4 | | | * | * | * | * | | | |
| M | 10808 | 1 1/4 | x 1/4 | | | * | * | * | * | | | |
| M | 10810 | 1 1/4 | x 5/16 | | | * | * | * | * | * | * | |
| M | 11210 | 1 3/8 | x 5/16 | | | * | * | * | * | * | * | |
| M | 11212 | 1 3/8 | x 3/8 | | | * | | | | | | |
| M | 11412 | 1 7/16 | x 3/8 | | | * | * | * | | | | |
| M | 11610 | 1 1/2 | x 5/16 | | | | * | * | * | | | |
| M | 11612 | 1 1/2 | x 3/8 | | | * | * | * | * | * | | |
| M | 12012 | 1 5/8 | x 3/8 | | | * | * | * | * | * | * | |
| M | 12412 | 1 3/4 | x 3/8 | | | * | * | * | * | * | * | |

| Magnaloy "Standard" Bore Key Combinations | | | | | | | | | | | | |
|---|---------------|---------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Model Code | Bore/Key Code | Model | | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
| | | Bore | Key | | | | | | | | | |
| M | 12414 | 1 3/4 | x 7/16 | | | | * | * | * | * | * | * |
| M | 12816 | 1 7/8 | x 1/2 | | | | * | * | * | * | * | * |
| M | 13016 | 1 15/16 | x 1/2 | | | | * | * | * | * | * | * |
| M | 20016 | 2 | x 1/2 | | | | * | * | * | * | * | * |
| M | 20416 | 2 1/8 | x 1/2 | | | | * | * | * | * | * | * |
| M | 20816 | 2 1/4 | x 1/2 | | | | * | * | * | * | * | * |
| M | 21220 | 2 3/8 | x 5/8 | | | | * | * | * | * | * | * |
| M | 21620 | 2 1/2 | x 5/8 | | | | * | * | * | * | * | * |
| M | 22020 | 2 5/8 | x 5/8 | | | | * | * | * | * | * | * |
| M | 22420 | 2 3/4 | x 5/8 | | | | * | * | * | * | * | * |
| M | 22824 | 2 7/8 | x 3/4 | | | | * | * | * | * | * | * |
| M | 30024 | 3 | x 3/4 | | | | * | * | * | * | * | * |
| M | 30824 | 3 1/4 | x 3/4 | | | | * | * | * | * | * | * |
| M | 31228 | 3 3/8 | x 7/8 | | | | * | * | * | * | * | * |
| M | 31628 | 3 1/2 | x 7/8 | | | | * | * | * | * | * | * |
| M | 32028 | 3 5/8 | x 7/8 | | | | * | * | * | * | * | * |
| M | 32428 | 3 3/4 | x 7/8 | | | | * | * | * | * | * | * |
| M | 32832 | 3 7/8 | x 1 | | | | * | * | * | * | * | * |
| M | 40032 | 4 | x 1 | | | | * | * | * | * | * | * |
| M | 40432 | 4 1/8 | x 1 | | | | * | * | * | * | * | * |
| M | 40832 | 4 1/4 | x 1 | | | | * | * | * | * | * | * |
| M | 41232 | 4 3/8 | x 1 | | | | * | * | * | * | * | * |
| M | 41632 | 4 1/2 | x 1 | | | | * | * | * | * | * | * |
| M | 41640 | 4 1/2 | x 1 1/4 | | | | * | * | * | * | * | * |
| M | 42040 | 4 5/8 | x 1 1/4 | | | | * | * | * | * | * | * |
| M | 42440 | 4 3/4 | x 1 1/4 | | | | * | * | * | * | * | * |

Shaded Area: AGMA semi-standard bore key combinations.

Part Number Usage: Magnaloy Coupling Hub part numbers may be specified using the following format: Start with letter "M" designating Magnaloy, followed by 3 digit Model Code (100, 200, etc.), then the specific 5 digit Bore/Key Code.

Example: Model 500 Hub with a 1 3/8 bore and 5/16 keyway would be specified as: M50011210 - No bore hubs are designated as "R" code, ie. M500R.

Bore Tolerances

| Over | Include | Tolerance |
|------|---------|---------------|
| -- | 1 | +0.008/+0.003 |
| 1 | 2 | +0.013/+0.005 |
| 2 | 3 | +0.018/+0.008 |
| 3 | 4 | +0.020/+0.010 |
| 4 | 5 | +0.023/+0.010 |

Additional Coupling Specifications

| Model Number | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Bore | 1 1/8 | 1 3/8 | 1 5/8 | 1 7/8 | 2 3/8 | 2 5/8 | 2 7/8 | 3 7/8 | 4 3/4 |
| Complete Coupling Approx. Weight (Solid Hub) | 3/4 | 1 | 2 | 3 | 4 | 7 | 12 | 18 | 38 |
| Number of Drive Lugs | 3 | 3 | 3 | 3 | 4 | 6 | 6 | 6 | 6 |
| Hub Movement for Insert Removal | .74 | .74 | .75 | .98 | 1.12 | 1.02 | 1.50 | 1.63 | 2.27 |
| Basic Insert Number | 170 | 270 | 370 | 470 | 570 | 670 | 770 | 870 | 970 |

Standard Metric Bore and Keyway Combinations

| Magnaloy "Standard" Bore Key Combinations | | | | | | | | | | |
|---|---------------|-------|------|-----|-----|-----|-----|-----|-----|-----|
| Model Code | Bore/Key Code | Model | | 100 | 200 | 300 | 400 | 500 | 700 | 900 |
| | | Bore | Key | | | | | | | |
| M_ _ _ | M0602 | 6 | x 2 | * | * | | | | | |
| M_ _ _ | M1003 | 10 | x 3 | * | * | * | | | | |
| M_ _ _ | M1204 | 12 | x 4 | * | * | * | | | | |
| M_ _ _ | M1405 | 14 | x 5 | * | * | * | * | | | |
| M_ _ _ | M1505 | 15 | x 5 | * | * | * | * | | | |
| M_ _ _ | M1605 | 16 | x 5 | * | * | * | * | * | | |
| M_ _ _ | M1806 | 18 | x 6 | * | * | * | * | * | | |
| M_ _ _ | M1906 | 19 | x 6 | * | * | * | * | * | * | |
| M_ _ _ | M2006 | 20 | x 6 | * | * | * | * | * | * | * |
| M_ _ _ | M2408 | 24 | x 8 | * | * | * | * | * | * | * |
| M_ _ _ | M2508 | 25 | x 8 | * | * | * | * | * | * | * |
| M_ _ _ | M2808 | 28 | x 8 | * | * | * | * | * | * | * |
| M_ _ _ | M3210 | 32 | x 10 | * | * | * | * | * | * | * |
| M_ _ _ | M3510 | 35 | x 10 | * | * | * | * | * | * | * |

| Magnaloy "Standard" Bore Key Combinations | | | | | | | | | | |
|---|---------------|-------|------|-----|-----|-----|-----|-----|-----|-----|
| Model Code | Bore/Key Code | Model | | 100 | 200 | 300 | 400 | 500 | 700 | 900 |
| | | Bore | Key | | | | | | | |
| M_ _ _ | M3810 | 38 | x 10 | | | * | * | * | * | * |
| M_ _ _ | M4012 | 40 | x 12 | | | * | * | * | * | * |
| M_ _ _ | M4212 | 42 | x 12 | | | * | * | * | * | * |
| M_ _ _ | M4814 | 48 | x 14 | | | * | * | * | * | * |
| M_ _ _ | M5014 | 50 | x 14 | | | * | * | * | * | * |
| M_ _ _ | M5516 | 55 | x 16 | | | * | * | * | * | * |
| M_ _ _ | M6018 | 60 | x 18 | | | * | * | * | * | * |
| M_ _ _ | M6518 | 65 | x 18 | | | * | * | * | * | * |
| M_ _ _ | M7020 | 70 | x 20 | | | * | * | * | * | * |
| M_ _ _ | M7520 | 75 | x 20 | | | * | * | * | * | * |
| M_ _ _ | M8022 | 80 | x 22 | | | * | * | * | * | * |
| M_ _ _ | M9025 | 90 | x 25 | | | * | * | * | * | * |
| M_ _ _ | M9525 | 95 | x 25 | | | * | * | * | * | * |
| M_ _ _ | M10028 | 100 | x 28 | | | * | * | * | * | * |

Note: Custom combinations are also available. Contact Factory.

Part Number Usage: Magnaloy Coupling Hub part numbers may be specified using the following format: Start with letter "M" designating Magnaloy, followed by 3 digit Model Code (100, 200, etc.), "M" for metric, then the specific 4-5 digit Bore/Key Code.

Example: Model 500 Hub with a 40mm bore and 12mm keyway would be specified as: M500M4012.

Bore Tolerances

| Over | Include | Tolerance |
|------|---------|---------------|
| -- | 1 | +0.008/+0.003 |
| 1 | 2 | +0.013/+0.005 |
| 2 | 3 | +0.018/+0.008 |
| 3 | 4 | +0.020/+0.010 |
| 4 | 5 | +0.023/+0.010 |



Magnaloy Couplings are available with a variety of special features which include splined bores. The “Splined Coupling Specifications” chart on page 8 shows several “In-house” splines available for quick delivery. Many additional splined bores are available by contacting the factory, including straight sided “PTO” type splines and metric splines.

1



The Clamp-Type Coupling utilized the basic Magnaloy coupling with the addition of the clamp feature. Developed to compensate for variations in spline formation methods and tolerances. Assures centering of the coupling and positive retention on the shaft. The clamp feature is suggested for all splined couplings, but is also available in smooth bored and keyed models.



Magnaloy’s Steel Bushed Splined Bore* Coupling combines all the design and lightweight features of the Magnaloy Coupling with the added spline tooth strength and wear resistance of steel. Under normal conditions the standard “Splined Bore” coupling will perform satisfactorily and the addition of the “Clamp Feature” compensates for various fit conditions. When heavy cyclic loads, reverse loading and high torque loads exist in combination with fit variations, spline tooth failures and fretting can be corrected by utilizing Magnaloy’s steel bushed coupling. Of course, to achieve optimum benefits, Magnaloy’s clamp feature is recommended - assuring accurate centering and positive retention of the coupling on the shaft.

** Although the steel bushing feature was designed primarily for spline bores, it is also available in smooth bored and keyed sizes.*

Splined & Clamp Specifications

Spline Coupling Specifications

| Spline Size | | | Pressure Angle (Degrees) | SAE Designation | Major Diameter (Inches) | Std Coupling Available Model Sizes | Steel Bushed Coupling | |
|-----------------|-------------|-------------|--------------------------|-----------------|-------------------------|------------------------------------|-----------------------|-----------------------|
| Number of Teeth | Pitch Ratio | Spline Code | | | | | Bushing Diameter | Available Model Sizes |
| 9 | 16/32 | 0916 | 30° | A | 0.625 | 100 - 900 | 1.250 | 200 - 600 |
| 13 | 8/16 | 1308 | 30° | D, E | 1.750 | 400 - 900 | 2.625 | 600 - 900 |
| 13 | 16/32 | 1316 | 30° | B | 0.875 | 100 - 900 | 1.500 | 300 - 800 |
| 14 | 12/24 | 1412 | 30° | C | 1.250 | 200 - 900 | 2.250 | 500 - 900 |
| 15 | 8/16 | 1508 | 30° | F | 2.000 | 500 - 900 | 3.500 | 800 - 900 |
| 15 | 16/32 | 1516 | 30° | BB | 1.000 | 100 - 900 | 1.750 | 400 - 800 |
| 17 | 12/24 | 1712 | 30° | CC | 1.500 | 300 - 900 | 2.250 | 500 - 900 |
| 21 | 16/32 | 2116 | 30° | | 1.375 | 300 - 900 | 2.250 | 500 - 900 |
| 23 | 16/32 | 2316 | 30° | | 1.500 | 300 - 900 | 2.250 ¹ | 500 - 900 |
| 27 | 16/32 | 2716 | 30° | | 1.750 | 400 - 900 | 2.625 ² | 600 - 900 |
| 40 | 16/32 | 4016 | 30° | | 2.562 | 600 - 900 | 3.875 | 800 - 900 |

Note:

- 1 - With Model 600 - 900, Bushing O.D. is 2.625.
- 2 - With Model 700 & 800, Bushing O.D. is 2.875.

Spline Type Identifier Code: A = Spline, B = Steel Bushing
Clamp Type Code: C = Clamp Type.

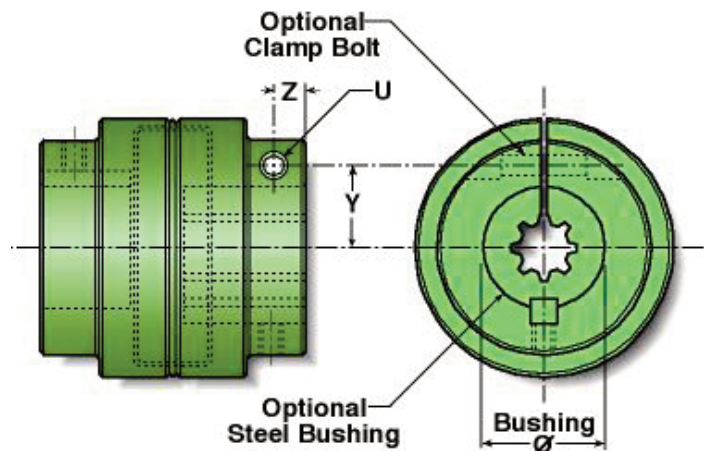
Part Number Usage: Magnaloy Splined Coupling part numbers may be specified using the following format: Start with letter “M” designating Magnaloy, follow with 3 digit Model Code (100, 200, etc.), next use a single letter Spline Type Identifier Code (“A” for regular spline or “B” for steel bushing), then the specific 4 digit Spline Code. If a clamp type coupling is desired, use the letter code “C” after the Spline Code.

Examples: Model 300 hub with 13 tooth 16/32 splined bore: M300A1316. Same item with steel bushing: M300B1316. Same item with steel bushing and clamp: M300B1316C.

Clamp Type Coupling Specifications

| Coupling Model | Bolt Location | | U | |
|----------------|---------------|-------|-----------|----------------|
| | Z | Y | Bolt Size | Torque Spec. |
| 100 | 0.31 | 0.68 | 1/4 - 20 | 130-140 in lbs |
| 200 | 0.43 | 0.75 | 1/4 - 20 | 130-140 in lbs |
| 300 | 0.47 | 0.95 | 5/16 - 18 | 210-220 in lbs |
| 400 | 0.69 | 0.106 | 5/16 - 18 | 210-220 in lbs |
| 500 | 0.72 | 1.25 | 3/8 - 16 | 300-310 in lbs |
| 600 | 1.13 | 1.50 | 7/16 - 14 | 35-36 ft lbs |
| 700 | 1.13 | 1.75 | 7/16 - 14 | 35-36 ft lbs |
| 800 | 1.30 | 2.56 | 1/2 - 13 | 49-50 ft lbs |
| 900* | 0.75 & 2.19 | 3.00 | 3/4 - 10 | 100-110 ft lbs |

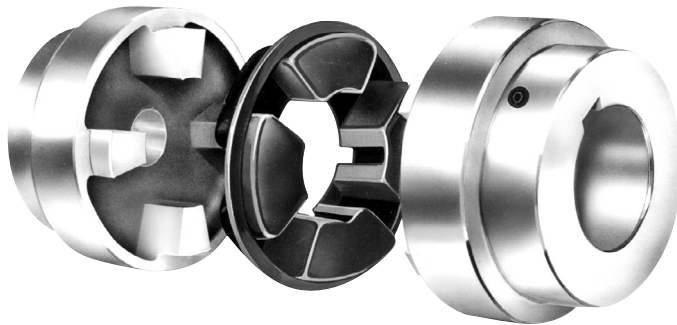
* Model 900 utilizes two bolt clamp design.



Magnaloy Coupling's full range of flexible inserts permit custom design performance for a wide range of applications. All insert materials offer complete electrical insulation, as Magnaloy's design eliminates all metal-to-metal contact.



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Part Number Usage: Magnaloy Coupling Insert part numbers may be specified using the following format: Start with the letter "M" for Magnaloy, followed by the 3 digit Basic Insert Number Code (170, 270, etc.), then the specific single letter Insert Material Code. If an optional durometer is being specified, after the Material Code supply the durometer number divided by 10.

Examples: Urethane insert for Model 300: M370U. 80 Durometer Neoprene for Model 200: M270N8.

Neoprene (Code N) - Black material - Standard material with Magnaloy Coupling. Good general purpose material offering good resiliency and load capabilities. Temp range -30°F to +250°F (-34°C to +121°C). Optional 80A durometer (painted Gold) and 90A durometer (painted Silver) are available for slight increased load capability and less resiliency.

Nitrile (Buna N)(Code B) - Painted Blue. Excellent material with petroleum products. Excellent compression set and abrasion resistance characteristics. Temp range -60°F to +250°F (-51°C to +121°C).

Urethane (Code U) - Yellow material. Excellent mechanical and physical properties. Offers good medium duty durability and resiliency. Urethane tends to soften at higher temperatures and humid conditions. Temp range -30°F to +150°F (-34°C to +66°C).

Viton (Fluorocarbon)(Code V) - Red material. Excellent fluid compatibility and high temperature characteristics. Good compression set and resiliency. Temp range -20°F to +350°F (-29°C to +177°C).

Hytrel (Code H) - Blue material. Superior physical and mechanical properties and excellent fluid compatibility and high temperature characteristics. Hardness (50D) approaches that of plastic and offers little resiliency. Excellent performance under heavy duty conditions. Temp range -65°F to +300°F (-54°C to +149°C).

Other materials are available for special applications. Consult factory for recommendations and availability.

Service Factors - Load Characteristics

| Load Classification | Type of Prime Mover | | | |
|---------------------|---------------------------|-------------------|----------------------------|------------------------------|
| | Standard Motor or Turbine | High Torque Motor | I.C. Engine 6 or more cyl. | I.C. Engine less than 6 cyl. |
| Uniform (U) | 1.0 | 1.5 | 1.5 | 2.0* |
| Moderate (M) | 1.5 | 2.0 | 2.0 | 2.5* |
| Heavy (H) | 2.0* | 2.5* | 2.5* | 3.0* |

Uniform Load: Steady loading, non-reversing, torque does not exceed rating.

Moderate Load: Uneven loading with moderate shock, frequent starts, infrequent reversals, peak torque may exceed average rating of prime mover by up to 125%.

Heavy Load: Uneven loading with heavy shock, frequent reversals, peak torque may exceed average rating of prime mover by up to 150%.

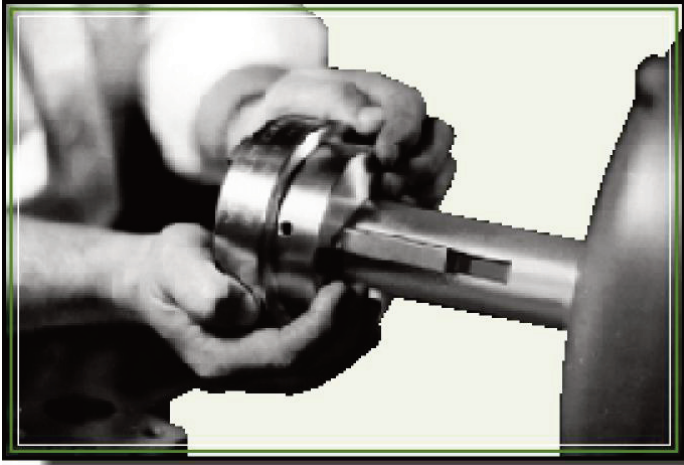
* **Recommend use of Hytrel Insert.**

| Drive Unit | Load Sym. |
|-------------------------------|-----------|
| Agitators | U |
| Blowers | U |
| Compressors - Centrifugal | U |
| - Rotary | M |
| - Reciprocating | H* |
| Conveyors - | U |
| - Reciprocating | M |
| - Screw | M |
| - Shaker | H |
| Cranes & Hoists | M |
| Crushers | H* |
| Elevators | M |
| - Freight & Pass. | H* |
| Fans - Centrifugal | U |
| - Propeller | M |
| - Cooling Tower | H |
| Generators | U |
| - Welding | H |
| Mills | H* |
| Machine Tools | M |
| Mixers | M |
| Paper Mill Machinery | M |
| Pumps - Centrifugal | U |
| - Rotary | M |
| - Reciprocating | H* |
| - On Injection Molding Equip. | H* |
| Screens - Air & Water Washing | U |
| - Freight & Pass. | H |
| Stokers | U |
| Textile Machinery | M |
| Woodworking Machinery | M |
| Winches | H* |

| Selection Method |
|--|
| <p>1. Several specifics must be considered to make the best choice of couplings:</p> <ul style="list-style-type: none"> A. Type of prime mover and load characteristics (see table above) B. Shaft diameter and key size or spline configuration (No. of teeth, pitch ratio, pressure angle) C. Horsepower rating of loads to be transmitted. D. Maximum operating speed (rpm) E. Maximum operating misalignment F. Clearance limitations <p>2. Calculate effective hp/100 rpm by use of table above and select the minimum size coupling recommended</p> <p>3. VERIFY YOUR SELECTION:</p> <ul style="list-style-type: none"> A. Check for maximum bore size B. Check dimensions for adequate clearance C. Indicate any special insert specification and/or coupling coating for environmental protection, if required <p>Equation: Effective HP per 100 RPM = rated HP x Service Factor x 100 / RPM</p> <p>Example: 150 HP, 4 cyl. Diesel Engine Driving a Reciprocating Irrigation Pump operating at 3250 RPM Service Factor - 3.0 (Hytrel Insert Recommended) Eff. HP per 100 RPM = 150 HP x 3.0 x 100 / 3250 RPM = 13.85 HP/100 RPM. Model 600 rating with Hytrel Insert is 23.7 HP/100 RPM.</p> |

Note: Above service factors are intended for use as a general guide only.

*Recommend use of Steel Bushing and Clamp with Splined Bores.



Shaft spacing should be within range given by dimensions 'W' and 'X' as shown in charts on page 4.

Position each hub on proper size shaft - Magnaloy couplings are bored to standard "push fit" tolerances, if a tight fit exists, check shaft for burrs.

Maximum benefits are obtained with hubs positioned to allow complete shaft engagement within bore. However, some equipment designs do not permit this condition - maximum shaft engagement should be utilized in any case.

Alignment - Place a straight edge (scale) at top and side of coupling. Use a .005 inch feeler gauge under scale for final inspection. This will indicate accurate parallel and angular alignment.

Magnaloy's precision machined outside surfaces permit this simple, but accurate alignment method.



Secure equipment mounts and recheck alignment for movement.

Install the insert in the coupling positioning hubs in contact with lip around outside of insert.

Before tightening set screws, run the coupling and check for separation of hubs or "creep". Recheck alignment and tighten set screws.

With the Steel Bushed/Clamp type couplings, to facilitate installation on the shaft, it may be necessary to slightly loosen the set-screw over the keystone. When securing the coupling on the shaft, first tighten the clamp bolt, then tighten the set-screw against the keystone.

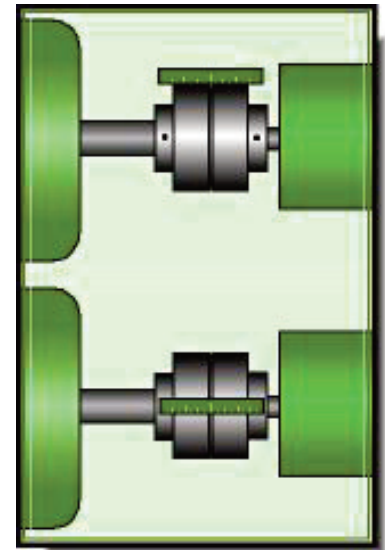
Mis-Alignment Capabilities

Magnaloy Couplings offer four-way flexibility (parallel, angular, axial and torsional) and require no lubrication. They are easily installed and properly aligned without use of special tools or equipment - a straight edge and hex wrench are the only tools required. Magnaloy's insert reduces noise and vibration and permits needed flexibility for proper operation within alignment capabilities.

Recommended Torques for Fasteners

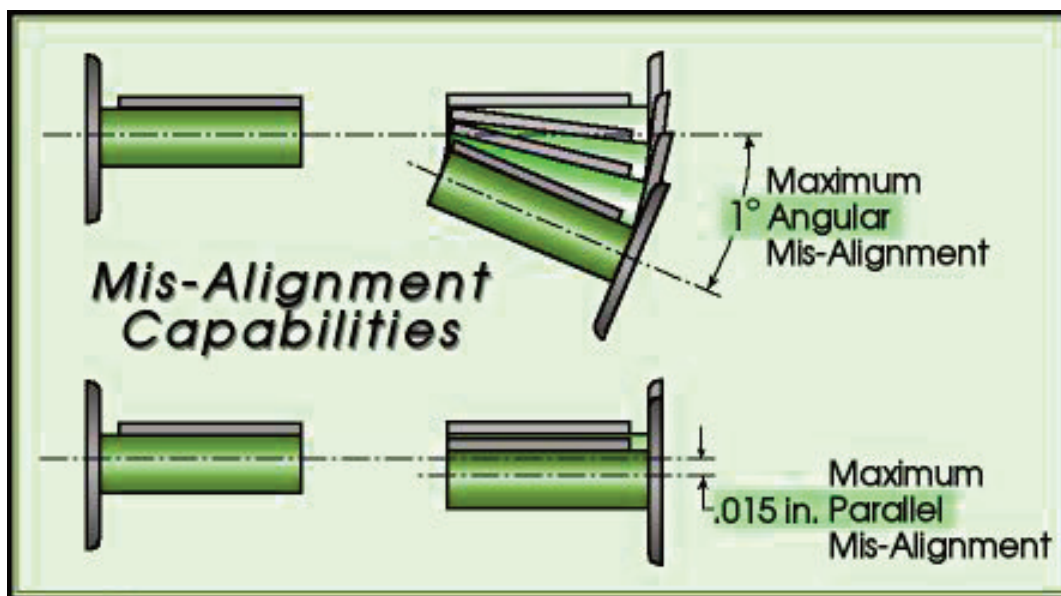
| Model | Set Screw | Clamp Screw |
|-------|------------------|------------------|
| 100 | 60 - 70 in lbs | 130 - 140 in lbs |
| 200 | 75 - 85 in lbs | 130 - 140 in lbs |
| 300 | 75 - 85 in lbs | 210 - 220 in lbs |
| 400 | 190 - 200 in lbs | 210 - 220 in lbs |
| 500 | 190 - 200 in lbs | 300 - 310 in lbs |
| 600 | 190 - 200 in lbs | 35 - 36 ft lbs |
| 700 | 300 - 310 in lbs | 35 - 36 ft lbs |
| 800 | 300 - 310 in lbs | 49 - 50 ft lbs |
| 900 | 100 - 110 ft lbs | 100 - 110 ft lbs |

Intended as a general guide for fastener torques with Magnaloy Couplings.



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Perfect alignment of equipment shafts, in most cases, is impractical to obtain or maintain, and misaligned equipment produces, excess stress on bearings and the coupling. Magnaloy's insert design will accept misalignment strain and, when excessive, will cause insert wear as a visual and audible indication of misalignment problems. However, Magnaloy's inserts are inexpensive and easily replaces; under normal conditions the insert seldom requires replacement.



Keystock Interference with Drive Lug

Since the Magnaloy Coupling keyway, in a bored and keyed hub, is broached between the drive lugs, there is a potential for interference with the keystock of the drive hub and the drive lugs of the opposing hub. This interference will result when ALL the following conditions exist:

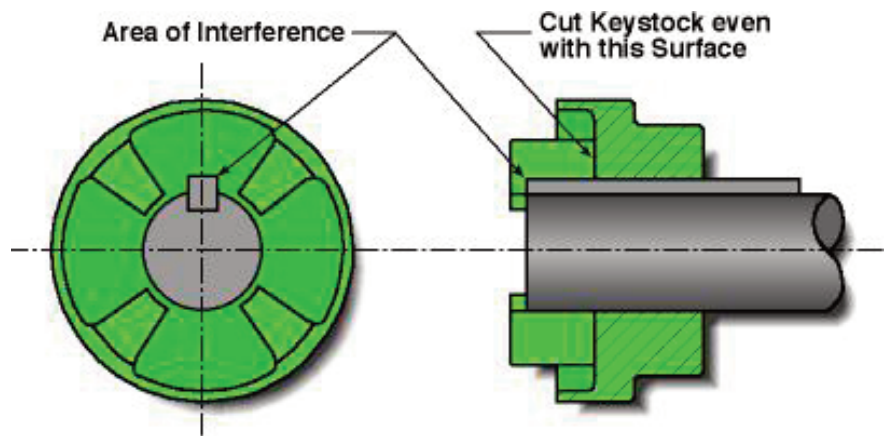
- A) The shaft diameter is Greater than listed below
- B) This shaft extends into the hub insert core area
- C) The keystock on this shaft extends with the shaft into the insert core area

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The interference condition can be corrected by shortening the keystock so it does not extend into the insert core area. The keystock length should be limited to the length of the coupling hub bore.

Interference Potential exists when shaft diameters are greater than shown in this chart.

| Model Size | Shaft Diameter | Key Size |
|------------|----------------|----------|
| 100 | 7/8 | 1/4 |
| 200 | 1 3/16 | 1/4 |
| 300 | 1 5/16 | 5/16 |
| 400 | 1 1/2 | 3/8 |
| 500 | 1 15/16 | 1/2 |
| 600 | 2 1/2 | 5/8 |
| 700 | 2 3/4 | 5/8 |
| 800 | 3 1/2 | 7/8 |
| 900 | 4 1/2 | 1 1/4 |



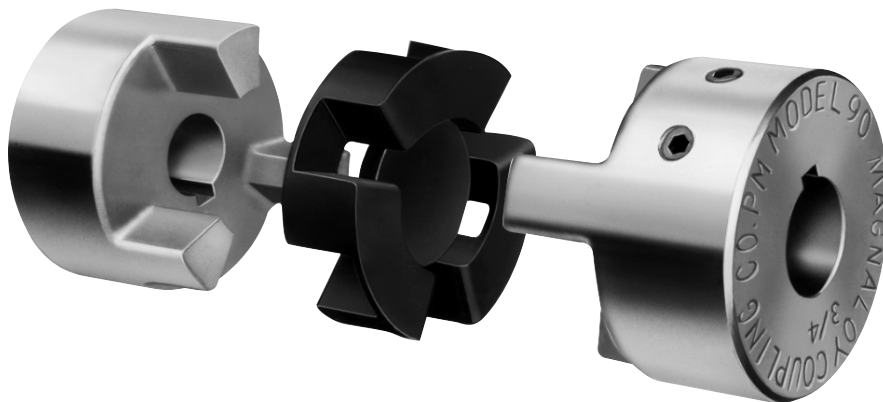
Failure to correct this condition will result in assembly difficulty and could cause damage to the drive or driven equipment. Check our web site at www.magnaloy.com for other bulletins.

Powdered Metal PM90 Coupling

The Strong, High Quality, Low Cost Powdered Metal Coupling from Magnaloy

When your priorities for a coupling are economy and strength... specify the all-new Magnaloy Type PM90.

The PM90 is made from high-density powdered metal and is available in standard bores up to 1 1/8 inch maximum. Double set screws are standard in all bores 1/2 inch and over. The set screws are placed over the keyway and at a 45° angle to the keyway to allow greater hoop-stress generation and maximum shaft gripping. The increased drive lug surface area on the PM90 provides low unit loads on the insert drive segments while insuring more rapid heat dissipation. Magnaloy's exclusive insert design allows easy installation and replacement without hub removal. The drive lug design provides even compressive loading with no radial loading of insert drive elements.



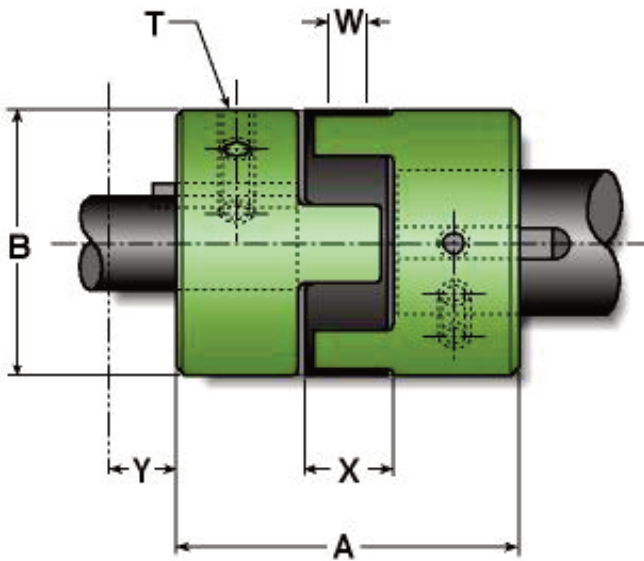
It is a well established fact that the major cause of failure in an elastomeric insert type drive coupling is hysteresis failure which results from overworking the insert by application of cyclic loads and the associated heat generation. These cyclic loads can be internal in origin as a result of coupling design (see page 2) and when coupled with externally applied loads can greatly reduce elastomer life. Specifying Magnaloy's Type PM Coupling with radial designed drive lugs results in true compressive loads and improved insert life.

Model PM90 Performance Specifications

| Maximum Bore | Minimum Bore | Insert Number | Torque Rating (in lb) | HP Rating per 100 RPM | Torsional Rigidity (in lb/deg) | Complete Coupling Approx Weight (lb) | | Wr ² (lb ft ²) (solid) |
|--------------|--------------|---------------|-----------------------|-----------------------|--------------------------------|--------------------------------------|----------|---|
| | | | | | | Solid | Max Bore | |
| 1 1/8 | 7/16 | P097N7 | 224 | 0.36 | 38.3 | 1.8 | 1.3 | 0.946 |
| | | P097U9 | 336 | 0.54 | 69.9 | | | |
| | | P097H5 | 672 | 1.08 | 158.7 | | | |

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Model PM90 Dimensional Specifications



| | |
|----------|---|
| A | - Over all length (Assembled) - 2.78 |
| B | - Outside Diameter - 2.125 |
| T | - Set Screw Size - 1/4-20 UNC, 2 places |
| W | - Distance between shaft ends - 3/16 min |
| X | - Distance between shaft ends - 3/4 max |
| Y | - Hub movement required for insert removal - 1.20 total |

PM90 Specifications

Model PM90 - Standard Bore / Keyway Sizes (per AGMA Class 1, Clearance Fit)

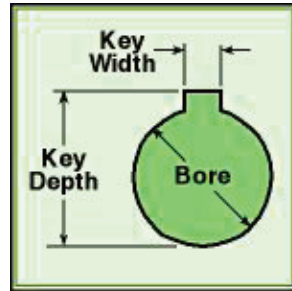
| Part Number | Bore & Keyway Combinations | Bore Size** | Key Width | Key Depth | Set Screw | |
|-------------|----------------------------|-----------------|-----------------|---------------|------------|----------|
| | | | | | Size | Quantity |
| P090014N | 7/16 x No Key | 0.4375 / 0.4385 | - | - | 1/4-20 UNC | 1 |
| P09001403 | 7/16 x 3/32 | 0.4375 / 0.4385 | 0.0938 / 0.0958 | 0.484 / 0.495 | 1/4-20 UNC | 1 |
| P09001404 | 7/16 x 1/8 | 0.4375 / 0.4385 | 0.125 / 0.127 | 0.496 / 0.507 | 1/4-20 UNC | 2 |
| P09001604 | 1/2 x 1/8 | 0.500 / 0.501 | 0.125 / 0.127 | 0.560 / 0.571 | 1/4-20 UNC | 2 |
| P09001804 | 9/16 x 1/8 | 0.5625 / 0.5635 | 0.125 / 0.127 | 0.623 / 0.634 | 1/4-20 UNC | 2 |
| P09002005 | 5/8 x 5/32 | 0.625 / 0.626 | 0.1562 / 0.1582 | 0.698 / 0.709 | 1/4-20 UNC | 2 |
| P09002006 | 5/8 x 3/16 | 0.625 / 0.626 | 0.1875 / 0.1895 | 0.709 / 0.720 | 1/4-20 UNC | 2 |
| P09002206 | 11/16 x 3/16 | 0.6875 / 0.6885 | 0.1875 / 0.1895 | 0.773 / 0.784 | 1/4-20 UNC | 2 |
| P09002404 | 3/4 x 1/8 | 0.750 / 0.751 | 0.125 / 0.127 | 0.812 / 0.823 | 1/4-20 UNC | 2 |
| P09002406 | 3/4 x 3/16 | 0.750 / 0.751 | 0.1875 / 0.1895 | 0.837 / 0.848 | 1/4-20 UNC | 2 |
| P09002806 | 7/8 x 3/16 | 0.875 / 0.876 | 0.1875 / 0.1895 | 0.964 / 0.975 | 1/4-20 UNC | 2 |
| P09002808 | 7/8 x 1/4 | 0.875 / 0.876 | 0.250 / 0.252 | 0.982 / 0.993 | 1/4-20 UNC | 2 |
| P09010006 | 1 x 3/16 | 1.000 / 1.001 | 0.1875 / 0.1895 | 1.090 / 1.101 | 1/4-20 UNC | 2 |
| P09010008 | 1 x 1/4 | 1.000 / 1.001 | 0.250 / 0.252 | 1.114 / 1.125 | 1/4-20 UNC | 2 |
| P09010408 | 1 1/8 x 1/4 | 1.125 / 1.126 | 0.205 / 0.252 | 1.241 / 1.252 | 1/4-20 UNC | 2 |

* Shaded combinations are Semi-special - see price sheet

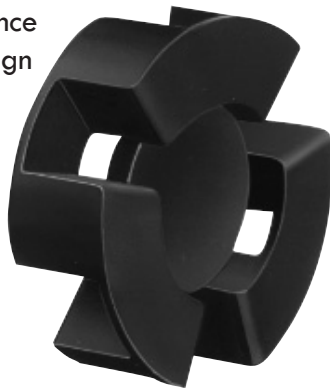
** Other Bore/Keyway combinations are available. Consult factory for quotation.

Model PM90 Bore Tolerances

| Feature | Tolerance |
|-----------|---------------|
| Bore | -.000 / +.001 |
| Key Width | -.000 / +.002 |
| Key Depth | +.005 / +.016 |



As with Magnaloy's standard line of couplings, insert elastomer selection allows variable performance characteristics. Insert design eliminates metal-to-metal contact and assures electrical isolation of shafts.



Nitrile, 70A Durometer....

Standard elastomer material offering excellent resistance to petroleum products and superior compression set characteristics.

Urethane, 90A Durometer....

Excellent mechanical and physical properties. *Note:* Urethane material tends to soften when exposed to elevated temperatures or humid conditions.

Hytrel, 50D Durometer....

Superior mechanical and physical properties and offers excellent fluid compatibility and high temperature characteristics.

Additional insert materials available upon request from factory.

See page 9 for additional information on insert selection.



SECTION 2

MAGNALOY PUMP/MOTOR MOUNTS



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.

Motor Mount Covers

Magnaloy Pump/Motor Mounts are provided with one Service Window Cover, designed to protect personnel in case of a coupling failure. If additional Service Window Covers are required, order by part number shown in table below.

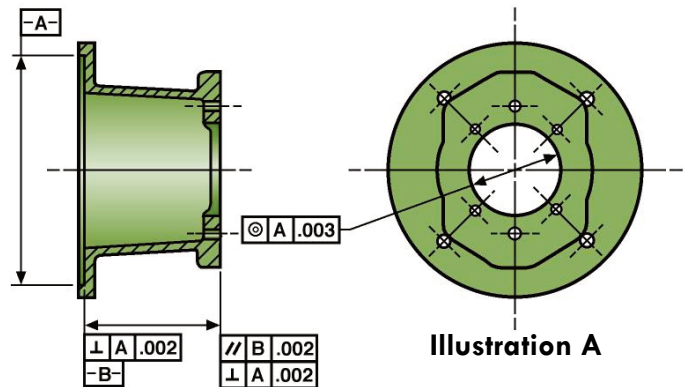
| Part Number | Fits Mount Number |
|-------------|--|
| M056-2 | M056__ Horizontal & Vertical |
| M182-1 | M18250__ & M18252__ Horizontal & Vertical & E64455__ & E70055__ Engine |
| M182-2 | M18258__ & M18260__ Horizontal & Vertical & E64460__ & E70060__ Engine |
| M182-3 | M18268__ & M18270__ Horizontal & Vertical & E64470__ & E64472__ & E70070__ & E70071__ Engine |
| M182-4 | M18247__ Horizontal & E64450__ & E70050__ Engine |
| M284-1 | M28468__ Horizontal & E78768__ Engine |
| M284-2 | M28475__ Horizontal & E78775__ Engine |
| M284-3 | M28486__ Horizontal & E78786__ Engine |
| M324-1 | M32476__ Horizontal & S324_____ 7.57 to 8.70 length |
| M324-2 | M32487__ Horizontal & S324_____ 8.70 to 10.20 length |
| M324-3 | S324_____ 8.70 to 10.20 length (wide window) |
| M324-4 | S324_____ 10.20 to 12.20 length |
| M324-5 | S324_____ 12.20 and greater length |
| M444-1 | S444_____ 8.95 to 10.45 length |
| M444-2 | S444_____ 10.45 to 12.45 length |
| M444-3 | S444_____ 12.45 and greater length |

NOTE: The standard Service Window Cover is Orange in color, Yellow Covers are also available as an option. See page 10 of our [Price List](#) for pricing and ordering information.

Magnaloy Pump/Motor Mounts

Power Unit design is greatly simplified by use of the Magnaloy Pump/Motor Mount. Direct mounting of flange mount pumps to NEMA C'Face motors or Pilot mount engines via a Magnaloy Mount assures accurate shaft alignment and eliminates the need for a coupling guard, foot brackets, shims, risers and mounting plate. The result is the easiest to install, most accurate and cost effective method available to mount a pump to a drive unit. **For over 30 years** Magnaloy has produced the highest quality flexible drive couplings in the industry. Magnaloy's long tradition of high quality and immediate delivery has become an industry goal for other manufacturers to attain. Every mount Magnaloy manufactures is guaranteed to be within .003 inch concentric from the motor pilot to the pump pilot. Further, the mounting faces are parallel to each other and perpendicular to the pilot centerline within .002 inch. These exacting tolerances mean accurate shaft alignment which helps prolong bearing, seal and coupling life in addition to reducing noise and vibration. Other mount manufacturers talk about quality, but Magnaloy puts it in writing with measurable standards (see Illustration A).

Magnaloy is the most complete, single source for Horizontal, Vertical and Engine requirements. A large selection of SAE and Metric pump mounting flanges to NEMA motors and I.C. Engines in a variety of lengths are available from stock for immediated shipment. OR special requirements can be met from our complete offering of Welded Steel Mounts. Whatever your mounting needs, you need look no further than Magnaloy.



Check out our **Product Configurator Program**
<https://configurator.magnaloy.com>

Magnaloy Cast Aluminum Mounts

MAGNALOY CAST ALUMINUM MOUNTS are permanent mold cast of lightweight, high strength aluminum alloy and incorporate many unique design features. Custom molded OSHA orange coupling access covers are included for mounts larger than motor group size 056. These covers are quickly and securely retained via a lip-tab on one end and a single self-tapping screw on the other. Magnaloy's horizontal mounts are supplied with a pre-cast drain hole for residual fluids. This unique feature assists in quick detection of leaky seals and other trouble areas.

Using Magnaloy's Pump/Motor Mounts ensure a lightweight, high strength, precision mount for efficient assembly, quiet operation, accurate shaft alignment and complete coupling concealment.

Magnaloy Horizontal Pump/Motor Mounts

MAGNALOY'S HORIZONTAL PUMP/MOTOR MOUNTS are available for mounting NEMA C'Face motors in frame sizes 56C through 405TSC to most SAE and Metric 2 and 4 bolt pump flanges.

A MOUNT KIT is included which contains all the bolts and washers required to attach the pump and motor to the mount.

Horizontal Mount Selection Method

1. Check Pump Flange Tables in Reference Section, page 194, to determine pump flange size.
2. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the motor shaft length shown in NEMA Table on page 195 (or IEC Metric Motor Flange Tables starting on page 196) of Reference Section. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
3. Refer to the appropriate TABLE (7 thru 11) according to the NEMA motor frame size and locate the applicable pump flange selection form STEP 1, above.
4. Select the mount length option (dimension 'XM' or 'M' in tables) based on the minimum length determined in STEP 2, above.
5. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables).
Dimensional data for Magnaloy Couplings is shown in Tables on page 4 for reference. For the latest product information, Visit us at www.magnaloy.com.

Check out our **Product Configurator Program**

<https://configurator.magnaloy.com>

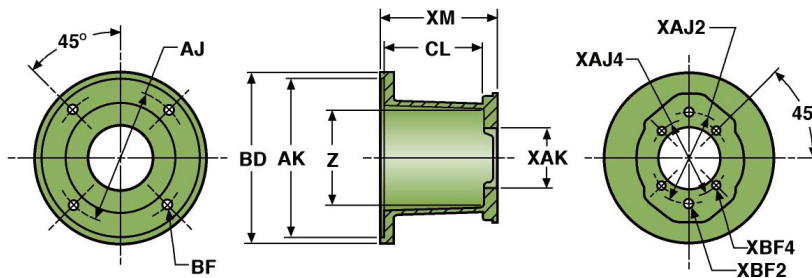


TABLE 7 - NEMA Frames 56C, 143TC/145TC, 182UC/184UC

Horizontal Mounting (or Vertical Mounting - Option A)

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 4.15

| PUMP FLANGE | PUMP END DATA | | | | | | 3.50 LENGTH | | | 4.25 LENGTH | | | 4.50 LENGTH | | | | | |
|-------------|---------------|---------|-------|---------|-------|---------|-------------|------|---------|-------------|------|------|-------------|------|------|------------|------|------|
| | AJ | BF | BD | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
| USA4F17 | 4 Bolt | 1.782 | | | | | | 2.84 | 5/16-18 | M056354F | 2.81 | 3.50 | M056424F | 3.56 | 4.25 | M056454F | 3.81 | 4.50 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | | M056352AA | 2.81 | 3.50 | M056422AA | 3.56 | 4.25 | M056452AA | 3.81 | 4.50 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | | M056352A | 2.81 | 3.50 | M056422A | 3.56 | 4.25 | M056452A | 3.81 | 4.50 |
| 63 2A/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | | M0563563M | 2.81 | 3.50 | M0564263M | 3.56 | 4.25 | M0564563M | 3.81 | 4.50 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | | M0563563MS | 2.81 | 3.50 | M0564263MS | 3.56 | 4.25 | M0564563MS | 3.81 | 4.50 |
| 80 2A/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | | M0563580M | 2.81 | 3.50 | M0564280M | 3.56 | 4.25 | M0564580M | 3.81 | 4.50 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | | M0563580MS | 2.81 | 3.50 | M0564280MS | 3.56 | 4.25 | M0564580MS | 3.81 | 4.50 |

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 4.15

¹ RADIAL CLEARANCE "Z" = 4.10

| PUMP FLANGE | PUMP END DATA | | | | | | 5.00 LENGTH | | | 5.25 LENGTH | | | | | |
|-------------|---------------|----------|-------|---------|-------|---------|-------------|------|---------|-------------------------|------|------|-------------------------|------|------|
| | AJ | BF | BD | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
| USA4F17 | 4 Bolt | 1.782 | | | | | | 2.84 | 5/16-18 | M056504F | 4.31 | 5.00 | M056524F | 4.56 | 5.25 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | | M056502AA | 4.31 | 5.00 | M056522AA | 4.56 | 5.25 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | | M056502A | 4.31 | 5.00 | M056522A | 4.56 | 5.25 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | | M056502B ¹ | 3.93 | 5.00 | M056522B ¹ | 4.18 | 5.25 |
| 63 2A/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | | M0565063M | 4.31 | 5.00 | M0565263M | 4.56 | 5.25 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | | M0565063MS | 4.31 | 5.00 | M0565263MS | 4.56 | 5.25 |
| 80 2A/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | | M0565080M | 4.31 | 5.00 | M0565280M | 4.56 | 5.25 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | | M0565080MS | 4.31 | 5.00 | M0565280MS | 4.56 | 5.25 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | | M05650100M ¹ | 3.93 | 5.00 | M05652100M ¹ | 4.18 | 5.25 |

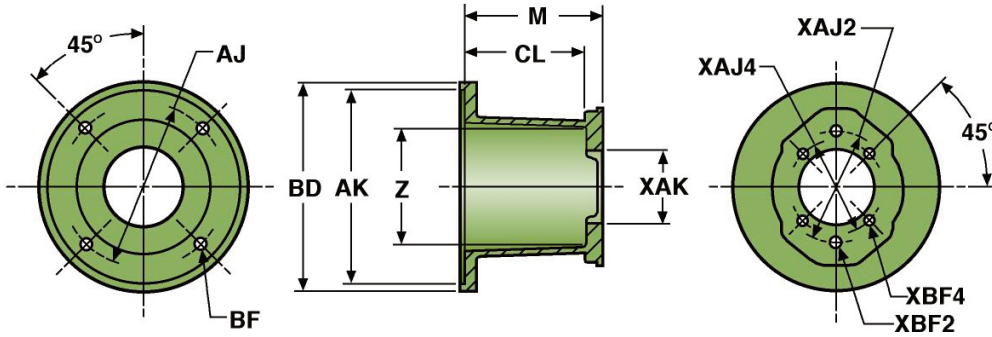


TABLE 8A - NEMA Frames 182TC - 256TC, 213UC - 256UC
Horizontal Mounting (or Vertical Mounting - Option A)



2

MOTOR END DATA
 AJ BF BD AK
 7.25 17/32 9.00 8.501

RADIAL CLEARANCE "Z" = 5.00

182-A Casting

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|----------|-----------|---------|-------|---------|-------|---------|------------|------|------|------------|------|------|------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M182474F | 4.00 | 4.75 | M182504F | 4.31 | 5.00 | M182524F | 4.31 | 5.25 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M182472AA | 4.00 | 4.75 | M182502AA | 4.31 | 5.00 | M182522AA | 4.31 | 5.25 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M182472A | 4.00 | 4.75 | M182502A | 4.31 | 5.00 | M182522A | 4.31 | 5.25 |
| 63 2A/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M1824763M | 4.00 | 4.75 | M1825063M | 4.31 | 5.00 | M1825263M | 4.31 | 5.25 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M1824763MS | 4.00 | 4.75 | M1825063MS | 4.31 | 5.00 | M1825263MS | 4.31 | 5.25 |
| 80 2A/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M1824780M | 4.00 | 4.75 | M1825080M | 4.31 | 5.00 | M1825280M | 4.31 | 5.25 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M1824780MS | 4.00 | 4.75 | M1825080MS | 4.31 | 5.00 | M1825280MS | 4.31 | 5.25 |

PUMP FLANGE PUMP END DATA 4.75 LENGTH 5.0 LENGTH 5.25 LENGTH

MOTOR END DATA
 AJ BF BD AK
 7.25 17/32 9.00 8.501

RADIAL CLEARANCE "Z" = 5.00

182-B Casting

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|----------|-----------|---------|-------|---------|-------|---------|------------|------|------|------------|------|------|-----------|----|---|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M182584F | 5.06 | 5.81 | M182684F | 6.06 | 6.81 | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M182582AA | 5.06 | 5.81 | M182682AA | 6.06 | 6.81 | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M182582A | 5.06 | 5.81 | M182682A | 6.06 | 6.81 | | | |
| 63 2A/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-16 | 85mm | 5/16-18 | M1825863M | 5.06 | 5.81 | M1826863M | 6.06 | 6.81 | | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M1825863MS | 5.06 | 5.81 | M1826863MS | 6.06 | 6.81 | | | |
| 80 2A/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M1825880M | 5.06 | 5.81 | M1826880M | 6.06 | 6.81 | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M1825880MS | 5.06 | 5.81 | M1826880MS | 6.06 | 6.81 | | | |

PUMP FLANGE PUMP END DATA 5.81 LENGTH 6.81 LENGTH

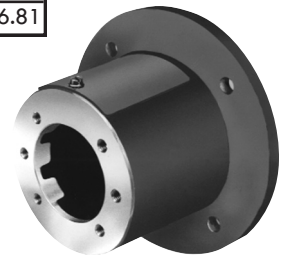


TABLE 8B - NEMA Frames 182TC - 256TC, 213UC - 256UC
Horizontal Mounting

MOTOR END DATA
 AJ BF BD AK
 7.25 17/32 9.00 8.501

RADIAL CLEARANCE "Z" = 5.00

182-B Casting

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|--------|-------|--------|------------|------|------|------------|------|------|------------|------|------|
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M182522B | 4.50 | 5.25 | M182582B | 5.06 | 5.81 | M182602B | 5.25 | 6.00 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M182522C | 4.50 | 5.25 | M182582C | 5.06 | 5.81 | M182602C | 5.25 | 6.00 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M18252100M | 4.50 | 5.25 | M18258100M | 5.06 | 5.81 | M18260100M | 5.25 | 6.00 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M18252125M | 4.50 | 5.25 | M18258125M | 5.06 | 5.81 | M18260125M | 5.25 | 6.00 |

PUMP FLANGE PUMP END DATA 5.25 LENGTH 5.81 LENGTH 6.00 LENGTH

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 5.00

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|--------|-------|--------|------------|------|------|------------|------|------|
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M182682B | 6.06 | 6.81 | M182702B | 6.25 | 7.00 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M182682C | 6.06 | 6.81 | M182702C | 6.25 | 7.00 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M18268100M | 6.06 | 6.81 | M18270100M | 6.25 | 7.00 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M18268125M | 6.06 | 6.81 | M18270125M | 6.25 | 7.00 |

PUMP FLANGE PUMP END DATA 6.81 LENGTH 7.00 LENGTH

2

TABLE 9 - NEMA Frames 284TC/TSC - 286TC/TSC, 284UC/286UC

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 6.40

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|--------|-------|---------|------------|------|------|------------|------|------|------------|------|------|
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M284682A | 6.00 | 6.88 | M284752A | 6.62 | 7.50 | M284862A | 7.81 | 8.69 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M284682B | 6.00 | 6.88 | M284752B | 6.62 | 7.50 | M284862B | 7.81 | 8.69 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M284682C | 6.00 | 6.88 | M284752C | 6.62 | 7.50 | M284862C | 7.81 | 8.69 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M2846880M | 6.00 | 6.88 | M2847580M | 6.62 | 7.50 | M2848680M | 7.81 | 8.69 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M2846880MS | 6.00 | 6.88 | M2847580MS | 6.62 | 7.50 | M2848680MS | 7.81 | 8.69 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M28468100M | 6.00 | 6.88 | M28475100M | 6.62 | 7.50 | M28486100M | 7.81 | 8.69 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M28468125M | 6.00 | 6.88 | M28475125M | 6.62 | 7.50 | M28486125M | 7.81 | 8.69 |

PUMP FLANGE PUMP END DATA 6.88 LENGTH 7.50 LENGTH 8.69 LENGTH



TABLE 10 - NEMA Frames 324TC/TSC - 405TC/TSC, 324UC/USC - 405UC/USC

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 7.74

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|--------|-------|--------|------------|------|------|------------|------|------|
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M324762B | 6.75 | 7.62 | M324872B | 7.88 | 8.75 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M324762C | 6.75 | 7.62 | M324872C | 7.88 | 8.75 |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | M324762D | 6.75 | 7.62 | M324872D | 7.88 | 8.75 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M32476100M | 6.75 | 7.62 | M32487100M | 7.88 | 8.75 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M32476125M | 6.75 | 7.62 | M32487125M | 7.88 | 8.75 |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | M32476160M | 6.75 | 7.62 | M32487160M | 7.88 | 8.75 |
| 180 B4 | 4 Bolt | 180.01mm | | | 224mm | 5/8-11 | M32476180M | 6.75 | 7.62 | M32487180M | 7.88 | 8.75 |

PUMP FLANGE PUMP END DATA 7.62 LENGTH 8.75 LENGTH



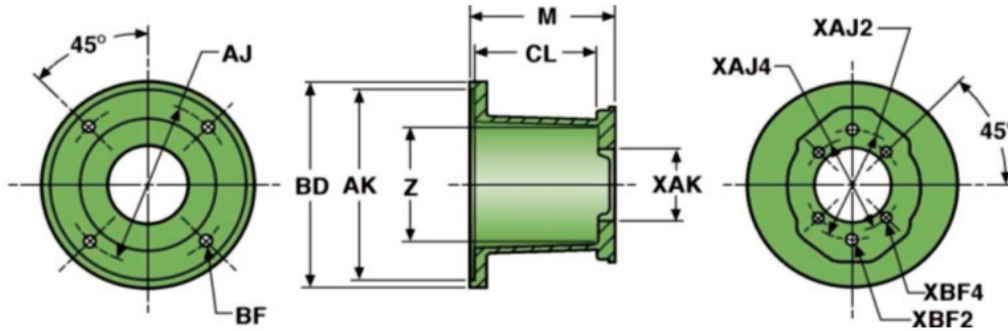
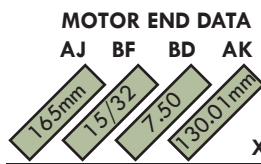


TABLE 12 - IEC Metric Motor Frame BF5 80M, BF5 90L - Form 30, BF5 132S, 132M - Form 36 & BF14 100L B, 112M B, 132S/M A - Form 36



Refer to Reference Section, pages 196 - 200 for IEC Motor Frame Dimensions and Flange Sizes.

RADIAL CLEARANCE "Z" = 4.15
RADIAL CLEARANCE "Z" = 4.10

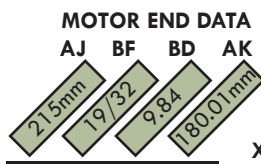
| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|--------------------|-----------|----------|----------------------|---------|-------|---------|---------------------------------|------|------|---------------------------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M130ML504F | 4.31 | 5.00 | M130ML524F | 4.56 | 5.25 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M130ML502AA | 4.31 | 5.00 | M130ML522AA | 4.56 | 5.25 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M130ML502A | 4.31 | 5.00 | M130ML522A | 4.56 | 5.25 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M130ML502B¹ | 3.93 | 5.00 | M130ML522B¹ | 4.18 | 5.25 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M130ML5063M | 4.31 | 5.00 | M130ML5263M | 4.56 | 5.25 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M130ML5063MS | 4.31 | 5.00 | M130ML5263MS | 4.56 | 5.25 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M130ML5080M | 4.31 | 5.00 | M130ML5280M | 4.56 | 5.25 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M130ML5080MS | 4.31 | 5.00 | M130ML5280MS | 4.56 | 5.25 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M130ML50100M¹ | 3.93 | 5.00 | M130ML52100M¹ | 4.18 | 5.25 |
| PUMP FLANGE | | | PUMP END DATA | | | | 5.00 LENGTH | | | 5.25 LENGTH | | |

TABLE 13 - IEC Metric Motor Frame BF5 100L, 112M - Form 30 & BF14 160M/L - Form 36



Refer to Reference Section, pages 196 - 200 for IEC Motor Frame Dimensions and Flange Sizes.

RADIAL CLEARANCE "Z" = 5.00



| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|--------------------|-----------|---------|----------------------|---------|-------|---------|---------------------|------|------|---------------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M180ML504F | 4.31 | 5.00 | M180ML524F | 4.56 | 5.25 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M180ML502AA | 4.31 | 5.00 | M180ML522AA | 4.56 | 5.25 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M180ML502A | 4.31 | 5.00 | M180ML522A | 4.56 | 5.25 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M180ML5063M | 4.31 | 5.00 | M180ML5263M | 4.56 | 5.25 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M180ML5063MS | 4.31 | 5.00 | M180ML5263MS | 4.56 | 5.25 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M180ML5080M | 4.31 | 5.00 | M180ML5280M | 4.56 | 5.25 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M180ML5080MS | 4.31 | 5.00 | M180ML5280MS | 4.56 | 5.25 |
| PUMP FLANGE | | | PUMP END DATA | | | | 5.00 LENGTH | | | 5.25 LENGTH | | |

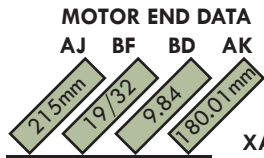
TABLE 14 - IEC Metric Motor Frame BF5 100L, 112M - Form 30 & BF14 160M/L - Form 36 (continued)

Refer to Reference Section, pages 196 - 200 for IEC Motor Frame Dimensions and Flange Sizes.



RADIAL CLEARANCE "Z" = 5.00

2



| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|---------|-------|---------|--------------|------|------|--------------|------|------|--------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | | | | M180ML604F | 5.06 | 6.00 | M180ML704F | 6.06 | 7.00 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | | M180ML602AA | 5.06 | 6.00 | M180ML702AA | 6.06 | 7.00 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | | M180ML602A | 5.06 | 6.00 | M180ML702A | 6.06 | 7.00 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M180ML552B | 4.50 | 5.50 | M180ML602B | 5.06 | 6.00 | M180ML702B | 6.06 | 7.00 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M180ML552C | 4.50 | 5.50 | M180ML602C | 5.06 | 6.00 | M180ML702C | 6.06 | 7.00 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | | M180ML6063M | 5.06 | 6.00 | M180ML7063M | 6.06 | 7.00 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | | M180ML6063MS | 5.06 | 6.00 | M18ML7063MS | 6.06 | 7.00 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | | M180ML6080M | 5.06 | 6.00 | M180ML7080M | 6.06 | 7.00 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | | M180ML6080MS | 5.06 | 6.00 | M180ML7080MS | 6.06 | 7.00 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M180ML55100M | 4.50 | 5.50 | M180ML60100M | 5.06 | 6.00 | M180ML70100M | 6.06 | 7.00 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M180ML55125M | 4.50 | 5.50 | M180ML60125M | 5.06 | 6.00 | M180ML70125M | 6.06 | 7.00 |

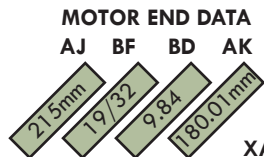
PUMP FLANGE

PUMP END DATA

5.50 LENGTH

6.00 LENGTH

7.00 LENGTH



RADIAL CLEARANCE "Z" = 5.00

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|--------|-------|--------|--------------|------|------|
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M180ML722B | 6.25 | 7.25 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M180ML722C | 6.25 | 7.25 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M180ML72100M | 6.25 | 7.25 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M180ML72125M | 6.25 | 7.25 |

PUMP FLANGE

PUMP END DATA

7.25 LENGTH



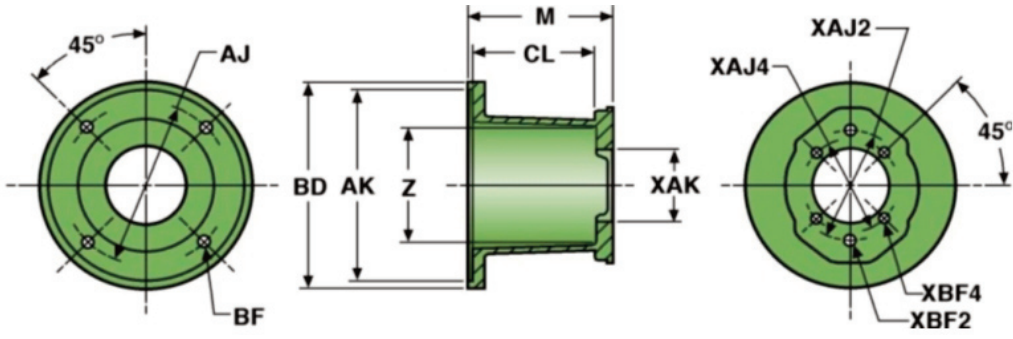
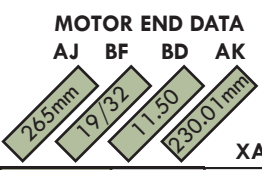


TABLE 15 - IEC Metric Motor Frame BF5 132S, 132M - Form 30
 Refer to Reference Section, pages 196 - 200 for IEC Motor Frame Dimensions and Flange Sizes.

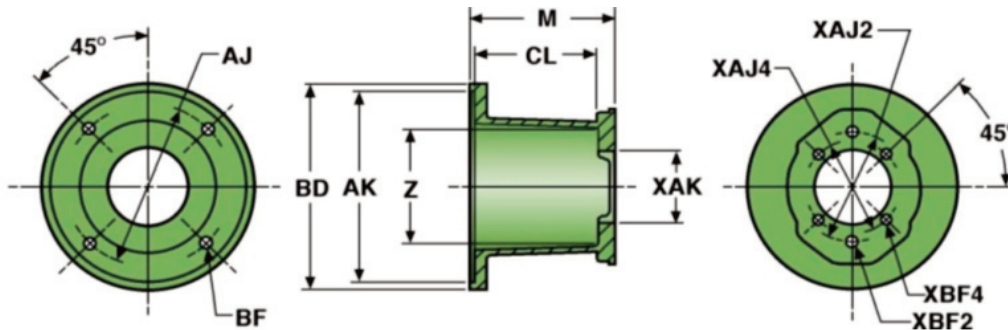


RADIAL CLEARANCE "Z" = 5.00



| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|-----------|-----------|----------|-------|---------|-------|---------|--------------|------|------|--------------|------|------|--------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M230ML524F | 4.31 | 5.25 | M230ML554F | 4.31 | 5.50 | M230ML604F | 5.06 | 6.00 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M230ML522AA | 4.31 | 5.25 | M230ML552AA | 4.31 | 5.50 | M230ML602AA | 5.06 | 6.00 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M230ML522A | 4.31 | 5.25 | M230ML552A | 4.31 | 5.50 | M230ML602A | 5.06 | 6.00 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M230ML522B | 4.50 | 5.25 | M230ML552B | 4.50 | 5.50 | M230ML602B | 5.06 | 6.00 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M230ML522C | 4.50 | 5.25 | M230ML552C | 4.50 | 5.50 | M230ML602C | 5.06 | 6.00 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M230ML5263M | 4.31 | 5.25 | M230ML5563M | 4.31 | 5.50 | M230ML6063M | 5.06 | 6.00 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M230ML5263MS | 4.31 | 5.25 | M230ML5563MS | 4.31 | 5.50 | M230ML6063MS | 5.06 | 6.00 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M230ML5280M | 4.31 | 5.25 | M230ML5580M | 4.31 | 5.50 | M230ML6080M | 5.06 | 6.00 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M230ML5280MS | 4.31 | 5.25 | M230ML5580MS | 4.31 | 5.50 | M230ML6080MS | 5.06 | 6.00 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M230ML52100M | 4.50 | 5.25 | M230ML55100M | 4.50 | 5.50 | M230ML60100M | 5.06 | 6.00 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M230ML52125M | 4.50 | 5.25 | M230ML55125M | 4.50 | 5.50 | M230ML60125M | 5.06 | 6.00 |

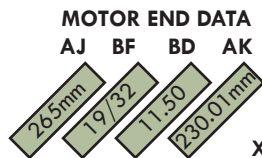
PUMP FLANGE **PUMP END DATA** **5.25 LENGTH** **5.50 LENGTH** **6.00 LENGTH**



2

TABLE 16 - IEC Metric Motor Frame BF5 132S, 132M - Form 30 (continued)

Refer to Reference Section, pages 196 - 200 for IEC Motor
Frame Dimensions and Flange Sizes.



RADIAL CLEARANCE "Z" = 5.00

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|------------------|-----------|----------|-------|---------|-------|---------|---------------------|------|------|---------------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | M230ML704F | 6.06 | 7.00 | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | M230ML702AA | 6.06 | 7.00 | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M230ML702A | 6.06 | 7.00 | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M230ML702B | 6.06 | 7.00 | M230ML722B | 6.25 | 7.25 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M230ML702C | 6.06 | 7.00 | M230ML722C | 6.25 | 7.25 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M230ML7063M | 6.06 | 7.00 | | | |
| 62 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M230ML7063MS | 6.06 | 7.00 | | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M230ML7080M | 6.06 | 7.00 | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M230ML7080MS | 6.06 | 7.00 | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M230ML70100M | 6.06 | 7.00 | M230ML72100M | 6.25 | 7.25 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M230ML70125M | 6.06 | 7.00 | M230ML72125M | 6.25 | 7.25 |

PUMP FLANGE

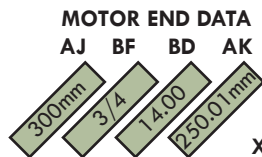
PUMP END DATA

7.00 LENGTH

7.25 LENGTH

TABLE 17 - IEC Metric Motor Frame BF5 160M, 160L, 180M, 180L - Form 30

Refer to Reference Section, pages 196 - 200 for IEC Motor
Frame Dimensions and Flange Sizes.



RADIAL CLEARANCE "Z" = 7.74



| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
|------------------|-----------|----------|-------|--------|-------|--------|---------------------|------|------|---------------------|------|------|
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M250ML782B | 6.75 | 7.81 | M250ML892B | 7.88 | 8.94 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M250ML782C | 6.75 | 7.81 | M250ML892C | 7.88 | 8.94 |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | M250ML782D | 6.75 | 7.81 | M250ML892D | 7.88 | 8.94 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M250ML78100M | 6.75 | 7.81 | M250ML89100M | 7.88 | 8.94 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M250ML78125M | 6.75 | 7.81 | M250ML89125M | 7.88 | 8.94 |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | M250ML78160M | 6.75 | 7.81 | M250ML89160M | 7.88 | 8.94 |
| 180 B4 | 4 Bolt | 180.01mm | | | 224mm | 5/8-11 | M250ML78180M | 6.75 | 7.81 | M250ML89180M | 7.88 | 8.94 |

PUMP FLANGE

PUMP END DATA

7.80 LENGTH

8.90 LENGTH

MAGNALOY VERTICAL PUMP/MOTOR MOUNTS

are designed to allow direct mounting through the reservoir top. The pump and mount assembly is enclosed inside the reservoir resulting in a safer, quieter, more compact installation. Vertical mounts are available in NEMA C'face motor frame sizes 56C through 256TC to most SAE and Metric 2 and 4 bolt pump flanges. Two mounting options are available to give added flexibility in vertical power unit design.

A MOUNT KIT is included which contains all bolts and washers required to attach the pump and motor to the mount. The kit **DOES NOT** contain hardware for attaching the mount to the reservoir.



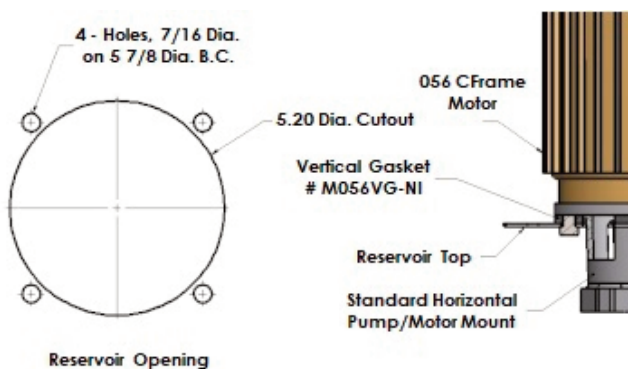
Vertical Mount Selection Method

1. Check Pump Flange Tables in Reference Section, page 194, to determine pump flange size.
2. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the motor shaft length shown in NEMA Table on page 195 (or IEC Metric Motor Flange Tables starting on page 196) of Reference Section. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
3. Determine mounting option desired as shown in the following illustrations depending on the NEMA frame size.
4. Refer to the appropriate TABLE (7, 8A, 18 or 19) according to the NEMA motor frame size and locate the applicable pump flange selection from STEP 1, above. NOTE: Option A for vertical mounting NEMA 182TC through 256TC is applicable ONLY to SAE-A and smaller pump flanges.
5. Select the mount length option (dimension 'XM' or 'M' in tables) based on the minimum length determined in STEP 2, above.
6. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables). Dimensional data for Magnaloy Couplings is shown in Tables on page 4 for reference. For the latest product information, visit us at www.magnaloy.com.

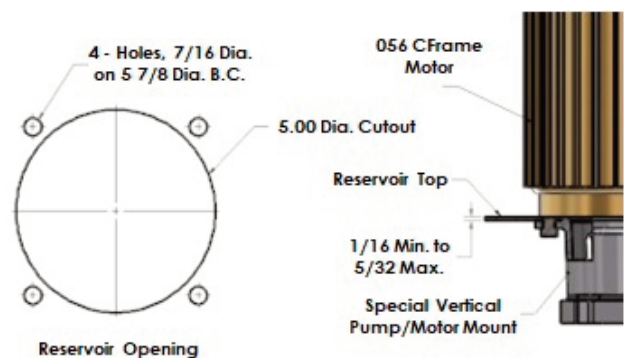
Check out our **Product Configurator Program**
<https://configurator.magnaloy.com>

NEMA Frame 56C thru 145TC Vertical Mounting

OPTION A



OPTION B



This economical vertical mounting option allows Tank Top Drop-thru mounting for ease of assembly and utilizes the standard horizontal mount and a sealing gasket.

To order OPTION A, specify the Horizontal Pump/Motor Mount number from TABLE 7 and Vertical Gasket number M056VG-NI.

Note: Due to casting surface irregularities, this is a new design gasket, made from a thick nitrile (70 D) to give proper sealing between the mount and reservoir top.

This mounting option requires inside tank access to position the mount/pump sub-assembly through the tank top opening.

To order OPTION B, specify the Vertical Pump/Motor Mount number from TABLE 12 followed with the letter 'V' as shown in TABLE 12. No gasket is required with this mounting option.

TABLE 18 - NEMA Frame 56C, 143TC/145TC, 182UC/184UC



| MOTOR END DATA | | PUMP FLANGE | | PUMP END DATA | | 3.50 LENGTH | | 4.25 LENGTH | | 4.50 LENGTH | | | | | | | |
|----------------|------|-------------|-------|---------------|-----------|-------------|-------|-------------|-------------|-------------|------|-------------|------|------|-------------|------|------|
| AJ | BF | BD | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
| 5.88 | 7.16 | 6.81 | 4.501 | | | | | | M056354FV | 2.81 | 3.50 | M056424FV | 3.56 | 4.25 | M056454FV | 3.81 | 4.50 |
| | | | | USA4F17 | 4 Bolt | 1.782 | 2.84 | 5/16-18 | | | | | | | | | |
| | | | | SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | M056352AAV | 2.81 | 3.50 | M056422AAV | 3.56 | 4.25 | M056452AAV | 3.81 | 4.50 |
| | | | | SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | M056352AV | 2.81 | 3.50 | M056422AV | 3.56 | 4.25 | M056452AV | 3.81 | 4.50 |
| | | | | 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | M0563563MV | 2.81 | 3.50 | M0564263MV | 3.56 | 4.25 | M0564563MV | 3.81 | 4.50 |
| | | | | 63 S4 | 4 Bolt | 63.01mm | | 80mm | M0563563MSV | 2.81 | 3.50 | M0564263MSV | 3.56 | 4.25 | M0564563MSV | 3.81 | 4.50 |
| | | | | 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | M0563580MV | 2.81 | 3.50 | M0564280MV | 3.56 | 4.25 | M0564580MV | 3.81 | 4.50 |
| | | | | 80 S4 | 4 Bolt | 80.01mm | | 100mm | M0563580MSV | 2.81 | 3.50 | M0564280MSV | 3.56 | 4.25 | M0564580MSV | 3.81 | 4.50 |

RADIAL CLEARANCE "Z" = 4.15

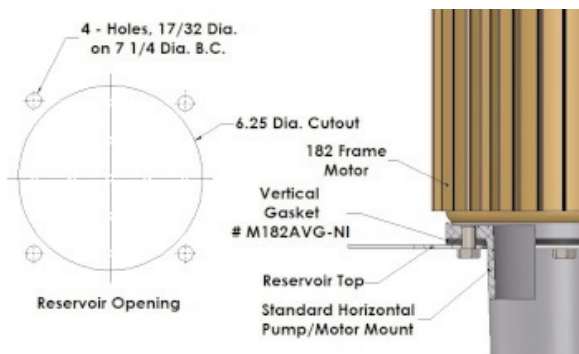
NOTE:
See drawing on top of page 30 for dimensional references

| MOTOR END DATA | | PUMP FLANGE | | PUMP END DATA | | 5.00 LENGTH | | 5.25 LENGTH | | | | | | |
|----------------|------|-------------|-------|---------------|-----------|-------------|-------|-------------|--------------|------|------|--------------|------|------|
| AJ | BF | BD | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
| 5.88 | 7.16 | 6.81 | 4.501 | | | | | | M056504FV | 4.31 | 5.00 | M056524FV | 4.56 | 5.25 |
| | | | | USA4F17 | 4 Bolt | 1.782 | 2.84 | 5/16-18 | | | | | | |
| | | | | SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | M056502AAV | 4.31 | 5.00 | M056522AAV | 4.56 | 5.25 |
| | | | | SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | M056502AV | 4.31 | 5.00 | M056522AV | 4.56 | 5.25 |
| | | | | SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | M056502BV* | 3.93 | 5.00 | M056522BV | 4.18 | 5.25 |
| | | | | 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | M0565063MV | 4.31 | 5.00 | M0565263MV | 4.56 | 5.25 |
| | | | | 63 S4 | 4 Bolt | 63.01mm | | 80mm | M0565063MSV | 4.31 | 5.00 | M0565263MSV | 4.56 | 5.25 |
| | | | | 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | M0565080MV | 4.31 | 5.00 | M0565280MV | 4.56 | 5.25 |
| | | | | 80 S4 | 4 Bolt | 80.01mm | | 100mm | M0565080MSV | 4.31 | 5.00 | M0565280MSV | 4.56 | 5.25 |
| | | | | 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | M05650100MV* | 3.93 | 5.00 | M05652100MV* | 4.18 | 5.25 |

RADIAL CLEARANCE "Z" = 4.15
*RADIAL CLEARANCE "Z" = 4.10

NEMA Frame 182TC thru 256TC Vertical Mounting

OPTION A



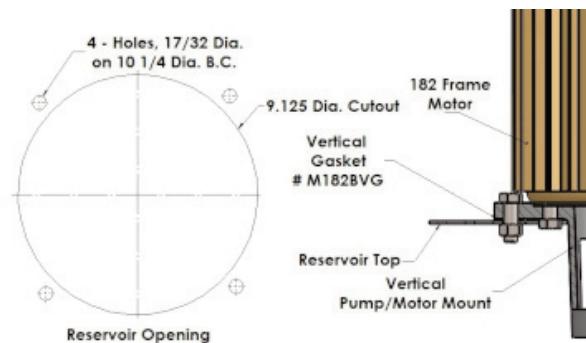
This mounting option offers an economical alternative to OPTION B, but is available with SAE-A pump flanges and smaller only. OPTION A utilizes the standard horizontal mount and a sealing gasket.

To order OPTION A, specify the Horizontal Pump/Motor Mount number from TABLE 8 and Vertical Gasket number M182AVG-N.

See our Technical Bulletin on our Web Site for more information concerning this Gasket.

Note: Due to casting surface irregularities, this is a new design gasket, made from a thick neoprene to give proper sealing between the mount and reservoir top.

OPTION B



This option utilizes an oversize mounting flange on the motor end of the mount and requires a larger diameter tank top opening giving additional working clearances for assembly to reservoir. Mounting OPTION B is available in the pump/motor length combinations shown in TABLE 13.

To order OPTION B, specify the Vertical Pump/Motor Mount number from TABLE 13 followed with the letter 'V' as shown in TABLE 13. The required Vertical Gasket, number M182BVG is included.

Vertical Pump/Motor Mounts - NEMA Frame Motors

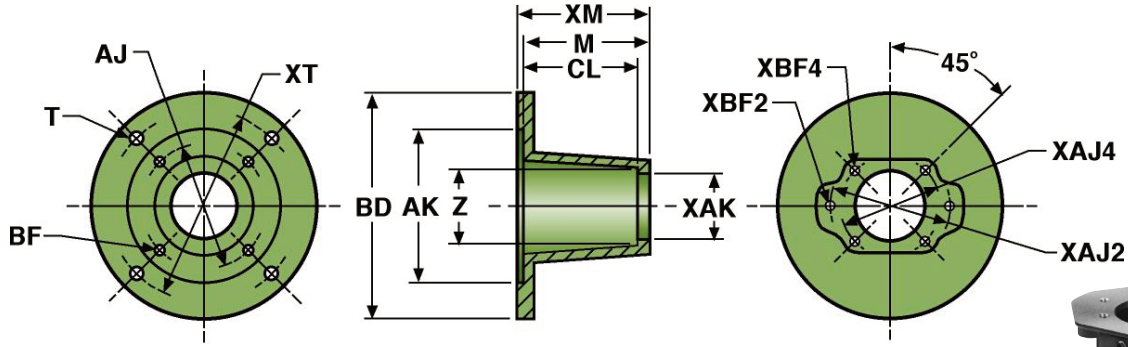
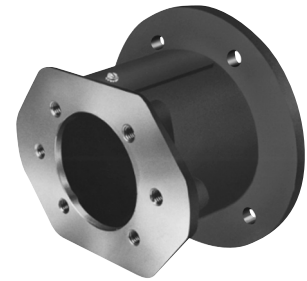


TABLE 19 - NEMA Frames 182TC - 256TC, 213UC/256UC

| MOTOR END DATA | | RADIAL CLEARANCE "Z" = 5.00 | | | | | | | | | | | | | | | |
|--|-----------|-----------------------------|-------|---|---------|-------------|-------------|------|-------------|-------------|------|-------------|-------------|------|-----------|----|---|
| AJ | BF | BD | AK | MOUNTING BOLT HOLE DIAMETER "T" = 17/32 | | | | | | | | | | | | | |
| MOUNTING HOLE BOLT CIRCLE "XT" = 10.25 | | | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | MOUNT NO. | CL | M |
| USA4F17 | 4 Bolt | 1.782 | | 2.84 | 5/16-18 | M182504FV | 4.31 | 5.00 | M182524FV | 4.31 | 5.25 | M182584FV | 5.06 | 5.81 | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | M182502AAV | 4.31 | 5.00 | M182522AAV | 4.31 | 5.25 | M182582AAV | 5.06 | 5.81 | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M182502AV | 4.31 | 5.00 | M182522AV | 4.31 | 5.25 | M182582AV | 5.06 | 5.81 | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | M182522BV | 4.50 | 5.25 | M182582BV | 5.06 | 5.81 | | | |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | | | M182522CV | 4.50 | 5.25 | M182582CV | 5.06 | 5.81 | | | |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M1825063MV | 4.31 | 5.00 | M1825263MV | 4.31 | 5.25 | M1825863MV | 5.06 | 5.81 | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M1825063MSV | 4.31 | 5.00 | M1825263MSV | 4.31 | 5.25 | M1825863MSV | 5.06 | 5.81 | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M1825080MV | 4.31 | 5.00 | M1825280MV | 4.31 | 5.25 | M1825880MV | 5.06 | 5.81 | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M1825080MSV | 4.31 | 5.00 | M1825280MSV | 4.31 | 5.25 | M1825880MSV | 5.06 | 5.81 | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | M18252100MV | 4.50 | 5.25 | M18258100MV | 5.06 | 5.81 | | | |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | | | M18252125MV | 4.50 | 5.25 | M18258125MV | 5.06 | 5.81 | | | |
| PUMP FLANGE | | PUMP END DATA | | | | 5.00 LENGTH | | | 5.25 LENGTH | | | 5.81 LENGTH | | | | | |

| MOTOR END DATA | | RADIAL CLEARANCE "Z" = 5.00 | | | | | | | | | | | | | | | |
|--|-----------|-----------------------------|-------|---|---------|-------------|-------------|------|-------------|-------------|------|-----------|----|---|--|--|--|
| AJ | BF | BD | AK | MOUNTING BOLT HOLE DIAMETER "T" = 17/32 | | | | | | | | | | | | | |
| MOUNTING HOLE BOLT CIRCLE "XT" = 10.25 | | | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | M | MOUNT NO. | CL | M | | | |
| USA4F17 | 4 Bolt | 1.782 | | 2.84 | 5/16-18 | M182684FV | 6.06 | 6.81 | | | | | | | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | M182682AAV | 6.06 | 6.81 | | | | | | | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | M182682AV | 6.06 | 6.81 | | | | | | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | M182682BV | 6.06 | 6.81 | M182702BV | 6.25 | 7.00 | | | | | |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | M182682CV | 6.06 | 6.81 | M182702CV | 6.25 | 7.00 | | | | | |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | M1826863MV | 6.06 | 6.81 | | | | | | | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | M1826863MSV | 6.06 | 6.81 | | | | | | | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | M1826880MV | 6.06 | 6.81 | | | | | | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | M1826880MSV | 6.06 | 6.81 | | | | | | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | M18268100MV | 6.06 | 6.81 | M18270100MV | 6.25 | 7.00 | | | | | |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | M18268125MV | 6.06 | 6.81 | M18270125MV | 6.25 | 7.00 | | | | | |
| PUMP FLANGE | | PUMP END DATA | | | | 6.81 LENGTH | | | 7.00 LENGTH | | | | | | | | |

MAGNALOY'S PUMP/ENGINE MOUNTS are available for mounting SAE flange-mount pumps to gasoline and diesel engines with pilot mounting capabilities. Four basic engine pilot mounting configurations are available from inventory determined by the pilot diameter. Optional sizes are available upon request.



Engine Mount Selection Method

1. Check Pump Flange Tables in Reference Section, page 194 or section "R", to determine pump flange size.
2. Determine the Engine Pilot Group from TABLE 20 below (other sizes available, consult factory).
3. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the engine shaft length measured from the shaft end to pilot face. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
4. Refer to the appropriate TABLE (21 thru 24) according to the Engine Pilot Group determined in STEP 2, above and locate the applicable pump flange selection from STEP 1, above.
5. Select the mount length option (dimension 'XM' in tables) based on the minimum length determined in STEP 3, above.
6. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables).
Dimensional data for Magnaloy Couplings is shown in Tables on page 4 for reference. For the latest product information, Visit us at www.magnaloy.com.

Check out our **Product Configurator Program**
<https://configurator.magnaloy.com>

TABLE 20 - Engine Pilot Groups

| Size | K | J |
|------------------|------------|------------------|
| E575 | 5.75 | 6.50 |
| E644 | 6.437 | 7.75 |
| E700 | 7.00 | 7.75 |
| E787 | 7.875 | 9.25 |
| Pilot Group Size | Pilot Dia. | Bolt Circle Dia. |

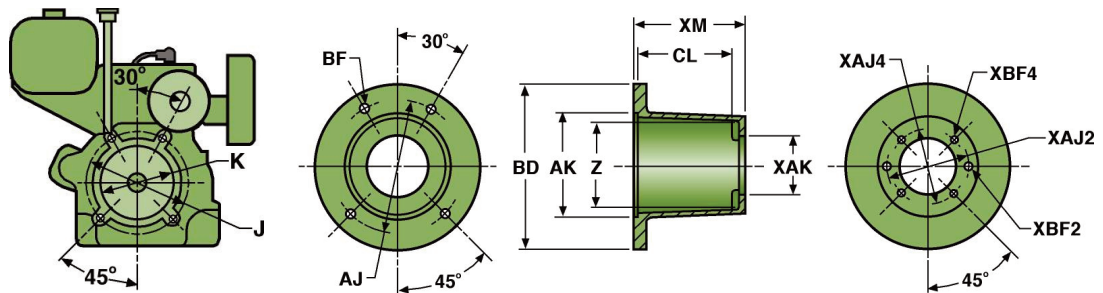


TABLE 21 - E575 Pilot Gasoline and Diesel Engines

| ENGINE END DATA | | RADIAL CLEARANCE "Z" = 4.15 | | | "Z" = 4.15 | | | "Z" = 5.00 | | | | | | | | | |
|-----------------|-----------|-----------------------------|-------|------------------------------|-------------|---------|--------------|-------------|-------------|------------|----------------|-------------|------|------|------------|------|------|
| AJ | BF | BD | AK | *RADIAL CLEARANCE "Z" = 4.10 | | | * "Z" = 4.10 | | | "Z" = 5.00 | | | | | | | |
| 6.50 | 13/32 | 7.50 | 5752 | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
| USA4F17 | 4 Bolt | 1.782 | | | | | 2.84 | 5/16-18 | E575504F | 4.31 | 5.00 | E575524F | 4.56 | 5.25 | E575604F | 5.14 | 6.06 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | E575502AA | 4.31 | 5.00 | E575522AA | 4.56 | 5.25 | E575602AA | 5.14 | 6.06 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | E575502A | 4.31 | 5.00 | E575522A | 4.56 | 5.25 | E575602A | 5.14 | 6.06 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | E575502B* | 3.93 | 5.00 | E575522B* | 4.18 | 5.25 | E575602B | 5.14 | 6.06 |
| 63A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | E5755063M | 4.31 | 5.00 | E5755263M | 4.56 | 5.25 | E5756063M | 5.14 | 6.06 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | E5755063MS | 4.31 | 5.00 | E5755263MS | 4.56 | 5.25 | E5756063MS | 5.14 | 6.06 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | E5755080M | 4.31 | 5.00 | E5755280M | 4.56 | 5.25 | E5756080M | 5.14 | 6.06 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | E5755080MS | 4.31 | 5.00 | E5755280MS | 4.56 | 5.25 | E5756080MS | 5.14 | 6.06 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | E57550100M* | 3.93 | 5.00 | E57552100M* | 4.18 | 5.25 | E57560100M | 5.14 | 6.06 |
| PUMP FLANGE | | PUMP END DATA | | | 5.00 LENGTH | | | 5.25 LENGTH | | | 6.06 LENGTH ** | | | | | | |

** SOCKET HEAD CAP SCREWS REQUIRED ON ENGINE END, THIS LENGTH ONLY. RADIAL CLEARANCE "Z" = 5.00, THIS LENGTH ONLY.

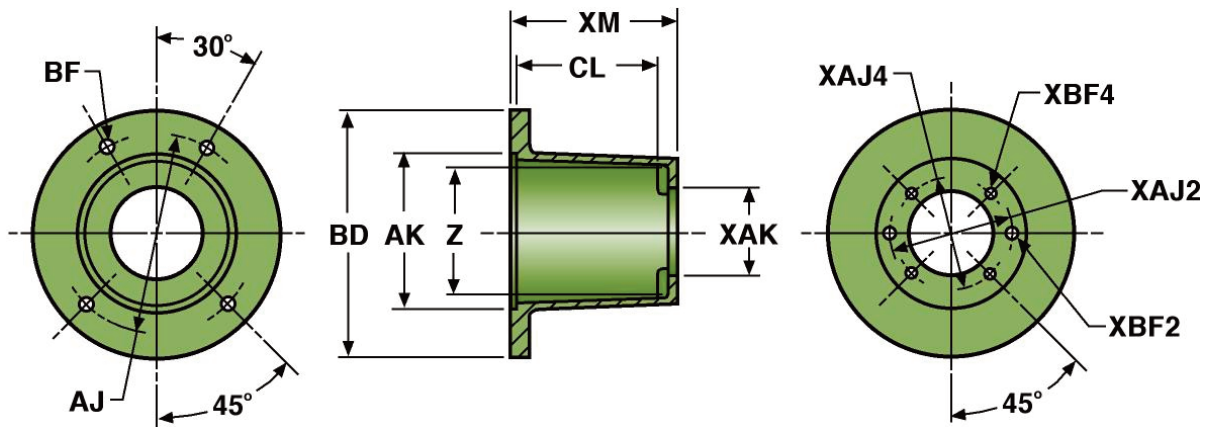
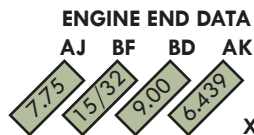
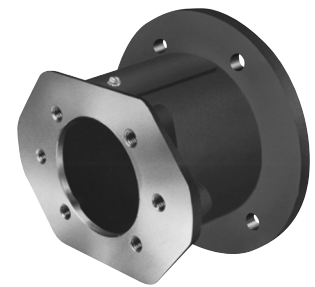


TABLE 22 - E644 Pilot Gasoline and Diesel Engines



RADIAL CLEARANCE "Z" = 5.00

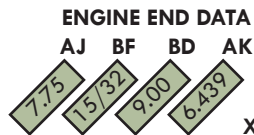
| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
|-----------|-----------|----------|-------|---------|-------|---------|------------|------|------|------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | E644504F | 4.05 | 5.00 | E644554F | 4.36 | 5.50 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | E644502AA | 4.05 | 5.00 | E644552AA | 4.36 | 5.50 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | E644502A | 4.05 | 5.00 | E644552A | 4.36 | 5.50 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | | E644552B | 4.36 | 5.50 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | E6445063M | 4.05 | 5.00 | E6445563M | 4.36 | 5.50 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | E6445063MS | 4.05 | 5.00 | E6445563MS | 4.36 | 5.50 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | E6445080M | 4.05 | 5.00 | E6445580M | 4.36 | 5.50 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | E6445080MS | 4.05 | 5.00 | E6445580MS | 4.36 | 5.50 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | | E64455100M | 4.36 | 5.50 |

PUMP FLANGE

PUMP END DATA

5.00 LENGTH

5.50 LENGTH



RADIAL CLEARANCE "Z" = 5.00

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
|-----------|-----------|----------|-------|---------|-------|---------|------------|------|------|------------|------|------|------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | E644604F | 5.11 | 6.00 | E644704F | 6.11 | 7.00 | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | E644602AA | 5.11 | 6.00 | E644702AA | 6.11 | 7.00 | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | E644602A | 5.11 | 6.00 | E644702A | 6.11 | 7.00 | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | E644602B | 5.11 | 6.00 | E644702B | 6.11 | 7.00 | E644722B | 6.31 | 7.25 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | E644602C | 5.11 | 6.00 | E644702C | 6.11 | 7.00 | E644722C | 6.31 | 7.25 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | E6446063M | 5.11 | 6.00 | E6447063M | 6.11 | 7.00 | | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | E6446063MS | 5.11 | 6.00 | E6447063MS | 6.11 | 7.00 | | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | E6446080M | 5.11 | 6.00 | E6447080M | 6.11 | 7.00 | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | E6446080MS | 5.11 | 6.00 | E6447080MS | 6.11 | 7.00 | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | E64460100M | 5.11 | 6.00 | E64470100M | 6.11 | 7.00 | E64472100M | 6.31 | 7.25 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | E64460125M | 5.11 | 6.00 | E64470125M | 6.11 | 7.00 | E64472125M | 6.31 | 7.25 |

PUMP FLANGE

PUMP END DATA

6.00 LENGTH


7.00 LENGTH

7.25 LENGTH

TABLE 23 - E700 Pilot Gasoline and Diesel Engines

ENGINE END DATA
AJ BF BD AK
7.75 1.5/32 9.00 7.002

RADIAL CLEARANCE "Z" = 5.00



| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
|-----------|-----------|----------|-------|---------|-------|---------|------------|------|------|------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | E700504F | 4.05 | 5.00 | E700554F | 4.36 | 5.50 |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | E700502AA | 4.05 | 5.00 | E700552AA | 4.36 | 5.50 |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | E700502A | 4.05 | 5.00 | E700552A | 4.36 | 5.50 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | | E700552B | 4.36 | 5.50 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | E7005063M | 4.05 | 5.00 | E7005563M | 4.36 | 5.50 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | E7005063MS | 4.05 | 5.00 | E7005563MS | 4.36 | 5.50 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | E7005080M | 4.05 | 5.00 | E7005580M | 4.36 | 5.50 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | E7005080MS | 4.05 | 5.00 | E7005580MS | 4.36 | 5.50 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | | E70055100M | 4.36 | 5.50 |

PUMP FLANGE PUMP END DATA 5.00 LENGTH 5.50 LENGTH

ENGINE END DATA
AJ BF BD AK
7.75 1.5/32 9.00 7.002

RADIAL CLEARANCE "Z" = 5.00

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
|-----------|-----------|----------|-------|---------|-------|---------|------------|------|------|------------|------|------|------------|------|------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | E700604F | 5.11 | 6.00 | E700704F | 6.11 | 7.00 | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | E700602AA | 5.11 | 6.00 | E700702AA | 6.11 | 7.00 | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | E700602A | 5.11 | 6.00 | E700702A | 6.11 | 7.00 | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | E700602B | 5.11 | 6.00 | E700702B | 6.11 | 7.00 | E700722B | 6.31 | 7.25 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | E700602C | 5.11 | 6.00 | E700702C | 6.11 | 7.00 | E700722C | 6.31 | 7.25 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | E7006063M | 5.11 | 6.00 | E7007063M | 6.11 | 7.00 | | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | E7006063MS | 5.11 | 6.00 | E7007063MS | 6.11 | 7.00 | | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | E7006080M | 5.11 | 6.00 | E7007080M | 6.11 | 7.00 | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | E7006080MS | 5.11 | 6.00 | E7007080MS | 6.11 | 7.00 | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | E70060100M | 5.11 | 6.00 | E70070100M | 6.11 | 7.00 | E70072100M | 6.31 | 7.25 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | E70060125M | 5.11 | 6.00 | E70070125M | 6.11 | 7.00 | E70072125M | 6.31 | 7.25 |

PUMP FLANGE PUMP END DATA 6.00 LENGTH 7.00 LENGTH 7.25 LENGTH

TABLE 24 - E787 Pilot Gasoline and Diesel Engines

ENGINE END DATA
AJ BF BD AK
9.25 21/32 11.00 7.877

RADIAL CLEARANCE "Z" = 6.40

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM | MOUNT NO. | CL | XM |
|-----------|-----------|----------|-------|---------|-------|---------|------------|------|------|------------|------|------|------------|------|------|
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | E787682A | 5.80 | 6.88 | E787752A | 6.42 | 7.50 | E787862A | 7.61 | 8.69 |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | E787682B | 5.80 | 6.88 | E787752B | 6.42 | 7.50 | E787862B | 7.61 | 8.69 |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | E787682C | 5.80 | 6.88 | E787752C | 6.42 | 7.50 | E787862C | 7.61 | 8.69 |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | E7876863M | 5.80 | 6.88 | E7877563M | 6.42 | 7.50 | E7878663M | 7.61 | 8.69 |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | E7876863MS | 5.80 | 6.88 | E7877563MS | 6.42 | 7.50 | E7878663MS | 7.61 | 8.69 |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | E7876880M | 5.80 | 6.88 | E7877580M | 6.42 | 7.50 | E7878680M | 7.61 | 8.69 |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | E7876880MS | 5.80 | 6.88 | E7877580MS | 6.42 | 7.50 | E7878680MS | 7.61 | 8.69 |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | E78768100M | 5.80 | 6.88 | E78775100M | 6.42 | 7.50 | E78786100M | 7.61 | 8.69 |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | E78768125M | 5.80 | 6.88 | E78775125M | 6.42 | 7.50 | E78786125M | 7.61 | 8.69 |

PUMP FLANGE PUMP END DATA 6.88 LENGTH 7.50 LENGTH 8.69 LENGTH

TABLE 26 - NEMA 182TC - 256TC, 254UC/256UC

MOTOR END DATA
AJ BF BD AK

RADIAL CLEARANCE "Z" = 5.04

(METRIC MOTORS ALSO AVAILABLE)

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | MOUNT NO. |
|-----------|-----------|----------|-------|---------|-------|---------|-------|-------------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | 6.00 | S182 -- 4F |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | 6.00 | S182 -- 2AA |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 6.00 | S182 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 7.00 | S182 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 8.25 | S182 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 10.50 | S182 -- 2D |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | 6.00 | S182--63M |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | 6.00 | S182--63MS |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | 6.00 | S182--80M |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | 6.00 | S182--80MS |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 7.00 | S182--100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 8.25 | S182--125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 10.50 | S182--160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | S182--180M |

PUMP FLANGE

PUMP END DATA

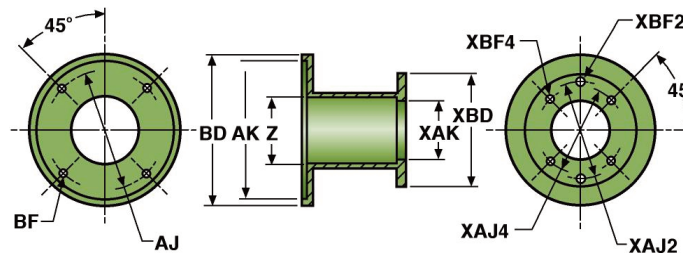


TABLE 27 - NEMA 284TC/TSC - 286TC/TSC, 284UC/286UC

MOTOR END DATA
AJ BF BD AK

RADIAL CLEARANCE "Z" = 6.06

(METRIC MOTORS ALSO AVAILABLE)

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | MOUNT NO. |
|-----------|-----------|----------|-------|--------|-------|--------|-------|--------------|
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 7.00 | S284 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 7.00 | S284 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 8.25 | S284 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 10.50 | S284 -- 2D |
| SAE E | 2(4) Bolt | 6.501 | 12.50 | 1-8 | 12.50 | 3/4-10 | 15.00 | S284 -- 2E |
| SAE F | 2(4) Bolt | 7.001 | 13.78 | 1-8 | 13.78 | 1-8 | 16.00 | S284 -- 2F |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 7.00 | S284 -- 100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 8.25 | S284 -- 125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 10.50 | S284 -- 160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | S284 -- 180M |
| 200 A2/B4 | 2(4) Bolt | 200.01mm | 280mm | 1-8 | 250mm | 3/4-10 | 13.50 | S284 -- 200M |
| 250 B4 | 4 Bolt | 250.01mm | | | 315mm | 1-8 | 15.00 | S284 -- 250M |

PUMP FLANGE

PUMP END DATA

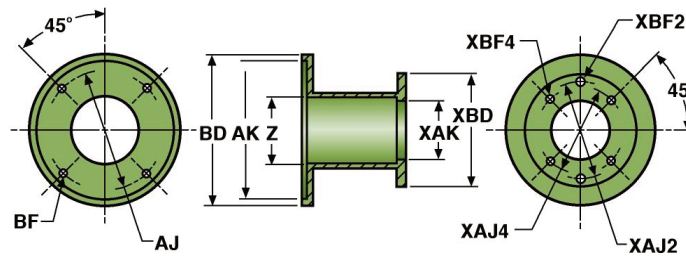


TABLE 28 - NEMA 324TC/TSC - 405TC/TSC, 324UC/USC - 405UC/USC

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 7.98

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | MOUNT NO. |
|-----------|-----------|----------|-------|--------|-------|--------|-------|--------------|
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 9.25 | S324 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 9.25 | S324 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 9.25 | S324 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 10.50 | S324 -- 2D |
| SAE E | 2(4) Bolt | 6.501 | 12.50 | 1-8 | 12.50 | 3/4-10 | 15.00 | S324 -- 2E |
| SAE F | 2(4) Bolt | 7.001 | 13.78 | 1-8 | 13.78 | 1-8 | 16.00 | S324 -- 2F |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 9.25 | S324 -- 100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 9.25 | S324 -- 125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 10.50 | S324 -- 160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | S324 -- 180M |
| 200 A2/B4 | 2(4) Bolt | 200.01mm | 280mm | 1-8 | 250mm | 3/4-10 | 13.50 | S324 -- 200M |
| 250 B4 | 4 Bolt | 250.01mm | | | 315mm | 1-8 | 15.00 | S324 -- 250M |

(METRIC MOTORS ALSO AVAILABLE)

PUMP FLANGE

PUMP END DATA

TABLE 29 - NEMA 444TC/TSC - 449TC/TSC, 444UC/USC - 445UC/USC

MOTOR END DATA

AJ BF BD AK



RADIAL CLEARANCE "Z" = 10.02

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | MOUNT NO. |
|-----------|-----------|----------|-------|--------|-------|--------|-------|--------------|
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 11.25 | S444 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 11.25 | S444 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 11.25 | S444 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 11.25 | S444 -- 2D |
| SAE E | 2(4) Bolt | 6.501 | 12.50 | 1-8 | 12.50 | 3/4-10 | 15.00 | S444 -- 2E |
| SAE F | 2(4) Bolt | 7.001 | 13.78 | 1-8 | 13.78 | 1-8 | 16.00 | S444 -- 2F |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 11.25 | S444 -- 100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 11.25 | S444 -- 125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 11.25 | S444 -- 160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | S444 -- 180M |
| 200 A2/B4 | 2(4) Bolt | 200.01mm | 280mm | 1-8 | 250mm | 3/4-10 | 13.50 | S444 -- 200M |
| 250 B4 | 4 Bolt | 250.01mm | | | 315mm | 1-8 | 15.00 | S444 -- 250M |

(METRIC MOTORS ALSO AVAILABLE)

PUMP FLANGE

PUMP END DATA

MAGNALOY'S VERTICAL WELDED STEEL MOUNTS utilize an Oversize Motor Flange-Tank Top Mounting design. Tank top openings (TD) and mounting hole dimensions (XT & T) are shown on the following drawing and tables. The Vertical Welded Steel Pump/Motor Mounts are also available for metric size motors and pumps, consult factory for special requirements. To select a welded steel vertical mount follow the selection method detailed on page 28 or use our online Product Configurator. The length determined will be the minimum length recommended, additional length can be added depending upon coupling selection, consult factory for further assistance.

2

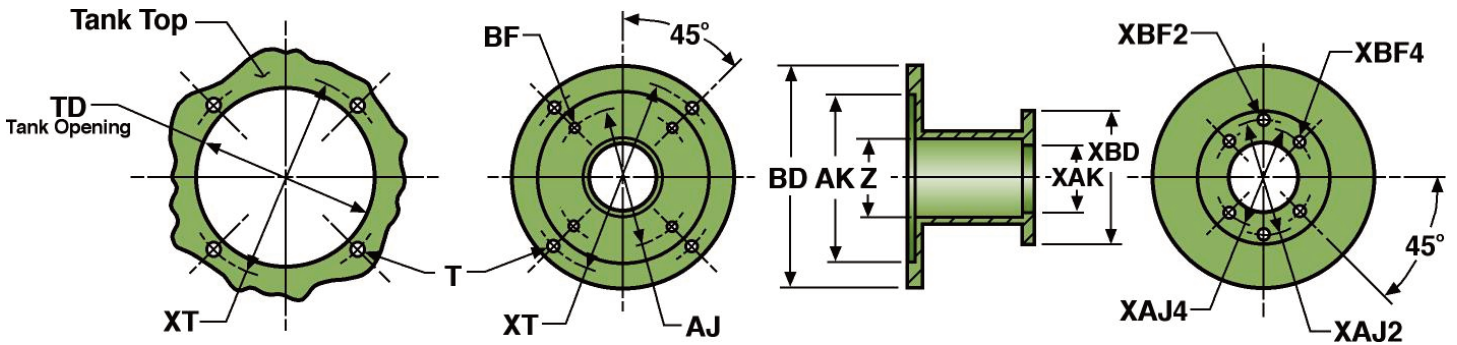


TABLE 30 - NEMA 56C, 143TC/145TC, 182UC/184UC

| | MOTOR END DATA | | | RADIAL CLEARANCE "Z" = 4.03 MOUNTING HOLE DIA. "T" = 17/32 | | | | | | | MOUNT NO. (METRIC MOTORS ALSO AVAILABLE) | | |
|-----------|----------------|----------|-------|---|-------|---------|------|---------|------|-------|--|-------|---------------|
| | AJ | BF | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | BD | | XT | TD |
| USA4F17 | 4 Bolt | 1.782 | | | | | 2.84 | 5/16-18 | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 4FV |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 2AAV |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 2AV |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | 7.00 | 11.38 | 10.25 | 9.125 | S056 -- 2BV |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | | | 8.25 | 11.38 | 10.25 | 9.125 | S056 -- 2CV |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 63MV |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 63MSV |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 80MV |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | 6.00 | 11.38 | 10.25 | 9.125 | S056 -- 80MSV |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | 7.00 | 11.38 | 10.25 | 9.125 | S056 -- 100MV |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | | | 8.25 | 11.38 | 10.25 | 9.125 | S056 -- 125MV |

PUMP FLANGE

PUMP END DATA

MOTOR END DATA

TABLE 31 - NEMA 182TC - 256TC, 254UC/256UC

| MOTOR END DATA | | RADIAL CLEARANCE "Z" = 5.04 MOUNTING HOLE DIA. "T" = 17/32 | | | | | | | | | | MOUNT NO. (METRIC MOTORS ALSO AVAILABLE) | | | | |
|----------------|-----------|---|-------|--------|-------|---------|---------|-------|-------|-------|-------|--|--|--|--|--|
| AJ | BF | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | BD | XT | TD | | | | | |
| 7.25 | 17/32 | 8.501 | | | | | | | | | | | | | | |
| USA4F17 | 4 Bolt | 1.782 | | | | 2.84 | 5/16-18 | 6.00 | 11.50 | 10.25 | 9.125 | S182 -- 4FV | | | | |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | 6.00 | 11.50 | 10.25 | 9.125 | S182 -- 2AAV | | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 6.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 2AV | | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 7.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 2BV | | | | |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 8.25 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 2CV | | | | |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 10.50 | 13.50 | 11.81 | 11.00 | 11.00 | S182 -- 2DV | | | | |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 3/8-16 | 85mm | 5/16-18 | 6.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 63MV | | | | |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | 6.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 63MSV | | | | |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | 6.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 80MV | | | | |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | 6.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 80MSV | | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 7.00 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 100MV | | | | |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 8.25 | 11.50 | 10.25 | 9.125 | 9.125 | S182 -- 125MV | | | | |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 10.50 | 13.50 | 12.25 | 11.00 | 11.00 | S182 -- 160MV | | | | |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | 15.00 | 13.00 | 11.75 | 11.75 | S182 -- 180MV | | | | |

TABLE 32 - NEMA 284TC/TSC - 286TC/TSC, 284UC/286UC

| MOTOR END DATA | | RADIAL CLEARANCE "Z" = 6.06 MOUNTING HOLE DIA. "T" = 17/32 | | | | | | | | | | MOUNT NO. (METRIC MOTORS ALSO AVAILABLE) | | | | |
|----------------|-----------|---|-------|--------|-------|--------|-------|-------|-------|-------|-------|--|--|--|--|--|
| AJ | BF | AK | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | BD | XT | TD | | | | | |
| 9.00 | 17/32 | 10.501 | | | | | | | | | | | | | | |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 7.00 | 13.50 | 12.25 | 10.75 | 10.75 | S284 -- 2AV | | | | |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 7.00 | 13.50 | 12.25 | 10.75 | 10.75 | S284 -- 2BV | | | | |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | 8.25 | 13.50 | 12.25 | 10.75 | 10.75 | S284 -- 2CV | | | | |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | 10.50 | 13.50 | 12.25 | 11.00 | 11.00 | S284 -- 2DV | | | | |
| SAE E | 2(4) Bolt | 6.501 | 12.50 | 1-8 | 12.50 | 3/4-10 | 15.00 | 18.00 | 16.75 | 15.50 | 15.50 | S284 -- 2EV | | | | |
| SAE F | 2(4) Bolt | 7.001 | 13.78 | 1-8 | 13.78 | 1-8 | 16.00 | 19.50 | 18.00 | 16.50 | 16.50 | S284 -- 2FV | | | | |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 7.00 | 13.50 | 12.25 | 10.75 | 10.75 | S284 -- 100MV | | | | |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | 8.25 | 13.50 | 12.25 | 10.75 | 10.75 | S284 -- 125MV | | | | |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | 10.50 | 13.50 | 12.25 | 11.00 | 11.00 | S284 -- 160MV | | | | |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | 11.25 | 18.00 | 16.50 | 15.50 | 15.50 | S284 -- 180MV | | | | |
| 200 A2/B4 | 2(4) Bolt | 200.01mm | 280mm | 1-8 | 250mm | 3/4-10 | 13.50 | 19.50 | 18.00 | 16.50 | 16.50 | S284 -- 200MV | | | | |
| 250 B4 | 4 Bolt | 250.01mm | | | 315mm | 1-8 | 15.00 | 19.50 | 18.00 | 16.50 | 16.50 | S284 -- 250MV | | | | |

MAGNALOY'S WELDED STEEL ENGINE MOUNTS are available for all engine pilot size configurations in addition to the 4 basic sizes listed. Metric pump flanges are also available, consult factory for special requirements. To select a welded steel pump/engine mount, follow the selection method detailed on page 31 or use our online Product Configurator. The length determined will be the minimum length recommended, additional length can be added depending upon coupling selection, consult factory for further assistance.



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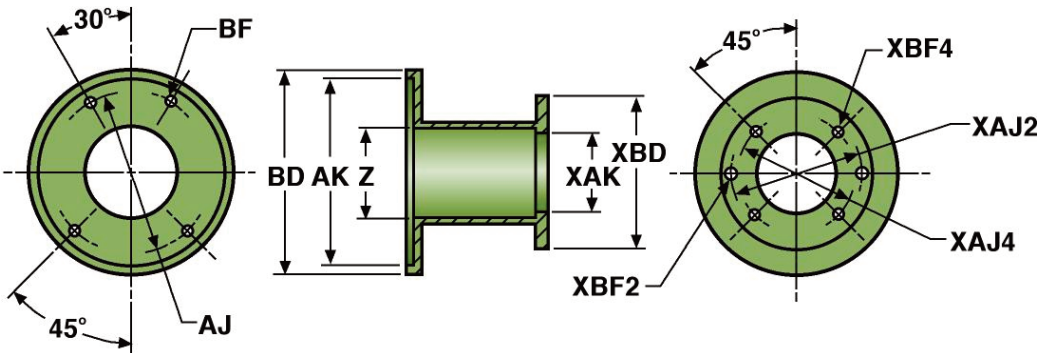


TABLE 35 - E575 Pilot Gasoline and Diesel Engines

ENGINE END DATA
AJ BF BD AK

RADIAL CLEARANCE "Z" = 4.03

| | | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | MOUNT NO. |
|-----------|-----------|----------|-------|---------|-------|---------|------|---------------|
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | 6.00 | SE575 -- 4F |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | 6.00 | SE575 -- 2AA |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | 6.00 | SE575 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | 7.00 | SE575 -- 2B |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | 6.00 | SE575 -- 63M |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | 6.00 | SE575 -- 63MS |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | 6.00 | SE575 -- 80M |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | 6.00 | SE575 -- 80MS |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | 7.00 | SE575 -- 100M |

PUMP FLANGE PUMP END DATA

TABLE 36 - E644 Pilot Gasoline and Diesel Engines

ENGINE END DATA RADIAL CLEARANCE "Z" = 5.04

| | AJ | BF | BD | AK | | | | | | | | |
|-----------|-----------|----------|-------|---------|-------|---------|------|------|------|-------|--|---------------|
| | 7.75 | 1.5/32 | 9.00 | 6.439 | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | | MOUNT NO. |
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | | | | 6.00 | | SE644 -- 4F |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | | 6.00 | | SE644 -- 2AA |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | | 6.00 | | SE644 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | | 7.00 | | SE644 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | | | | 8.25 | | SE644 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | | | | 10.50 | | SE644 -- 2D |
| 63 A2/B4 | 2(4) Bolt | 63.01mm | 100mm | 5/16-18 | 85mm | 5/16-18 | | | | 6.00 | | SE644 -- 63M |
| 63 S4 | 4 Bolt | 63.01mm | | | 80mm | 11/32 | | | | 6.00 | | SE644 -- 63MS |
| 80 A2/B4 | 2(4) Bolt | 80.01mm | 109mm | 3/8-16 | 103mm | 5/16-18 | | | | 6.00 | | SE644 -- 80M |
| 80 S4 | 4 Bolt | 80.01mm | | | 100mm | 5/16-18 | | | | 6.00 | | SE644 -- 80MS |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | | 7.00 | | SE644 -- 100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | | | | 8.25 | | SE644 -- 125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | | | | 10.50 | | SE644 -- 160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | | | | 11.25 | | SE644 -- 180M |

PUMP FLANGE PUMP END DATA

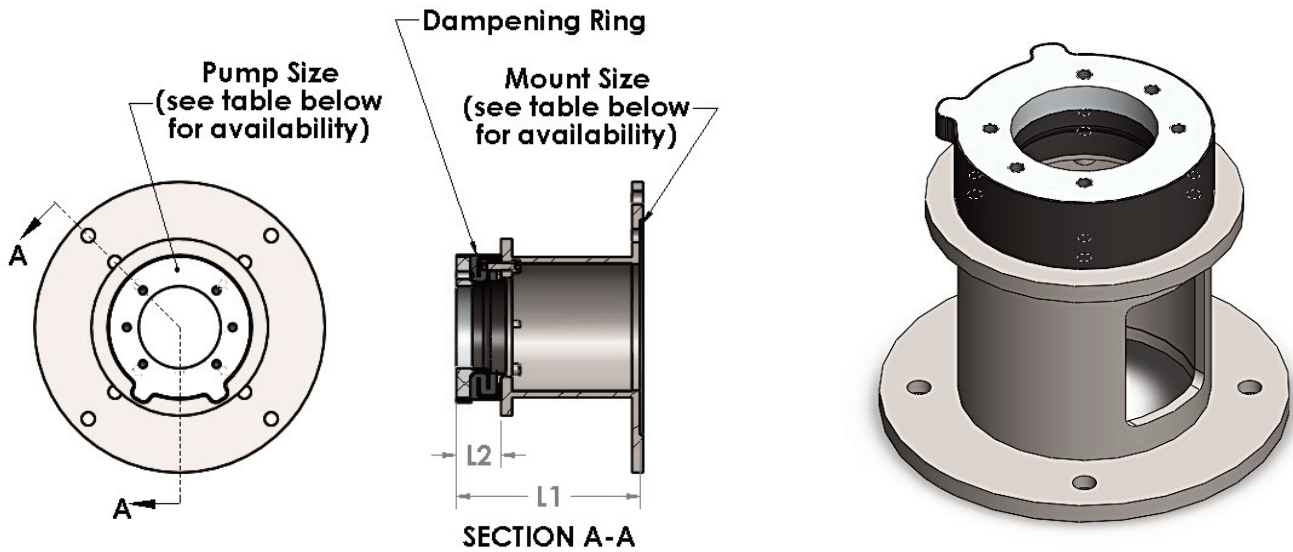
TABLE 37 - E700 Pilot Gasoline and Diesel Engines

ENGINE END DATA RADIAL CLEARANCE "Z" = 5.04

| | AJ | BF | BD | AK | | | | | | | | |
|-----------|-----------|----------|-------|--------|-------|---------|------|------|------|-------|--|---------------|
| | 7.75 | 1.5/32 | 9.00 | 7.002 | XAK | XAJ2 | XBF2 | XAJ4 | XBF4 | XBD | | MOUNT NO. |
| USA4F17 | 4 Bolt | 1.782 | | | 2.84 | 5/16-18 | | | | 6.00 | | SE700 -- 4F |
| SAE AA | 2 Bolt | 2.001 | 3.25 | 3/8-16 | | | | | | 6.00 | | SE700 -- 2AA |
| SAE A | 2(4) Bolt | 3.251 | 4.19 | 3/8-16 | 4.12 | 3/8-16 | | | | 6.00 | | SE700 -- 2A |
| SAE B | 2(4) Bolt | 4.001 | 5.75 | 1/2-13 | 5.00 | 1/2-13 | | | | 7.00 | | SE700 -- 2B |
| SAE C | 2(4) Bolt | 5.001 | 7.12 | 5/8-11 | 6.38 | 1/2-13 | | | | 8.25 | | SE700 -- 2C |
| SAE D | 2(4) Bolt | 6.001 | 9.00 | 3/4-10 | 9.00 | 3/4-10 | | | | 10.50 | | SE700 -- 2D |
| 100 A2/B4 | 2(4) Bolt | 100.01mm | 140mm | 1/2-13 | 125mm | 3/8-16 | | | | 7.00 | | SE700 -- 100M |
| 125 A2/B4 | 2(4) Bolt | 125.01mm | 180mm | 5/8-11 | 160mm | 1/2-13 | | | | 8.25 | | SE700 -- 125M |
| 160 A2/B4 | 2(4) Bolt | 160.01mm | 224mm | 3/4-10 | 200mm | 5/8-11 | | | | 10.50 | | SE700 -- 160M |
| 180 A2/B4 | 2(4) Bolt | 180.01mm | 250mm | 3/4-10 | 224mm | 5/8-11 | | | | 11.25 | | SE700 -- 180M |

PUMP FLANGE PUMP END DATA

2

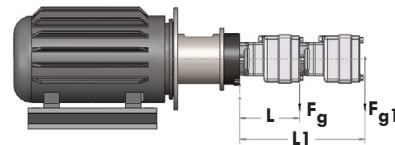


Magnaloy offers a line of Vibration/Noise Dampening Rings for use in conjunction with their Pump/Motor Mounts to provide reduced noise and vibration in these assemblies. These Pump/Motor Mount assemblies can be used in combination with Magnaloy's Motor Dampening Bars (page 179) to provide additional noise dampening capabilities. All Magnaloy Dampening Rings offer the features listed below and are available in Welded Steel Pump/Motor Mounts only.

Selection Method: See page 21 (Horizontal application) or page 28 (Vertical application) for determining the length of the pump/motor mount required based upon the motor and pump being used. OR use Magnaloy's Product Configuration Program and select "Steel Mount" to obtain the length range for the pump/motor mount. From this length, subtract the length of the required Dampening Ring (dimension L2) shown in the table below. This will provide the length of the Pump/Motor Mount required for the application. Consult factory for assistance.

Features

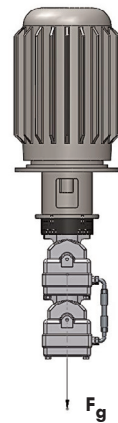
- Design offers failsafe interlocking metal components with no direct contact and vulcanized for superior noise dampening.
- Design offers high load bearing capabilities for use with multiple pump arrangements.
- Excellent noise dampening characteristics.
- Excellent hydraulic fluid compatibility.



Horizontal Mounting

The Pump Weight (F_g), cannot exceed the Maximum Load (F_{max}) from table below.

NOTE: For Horizontal Mounting with C of G locations greater than L (shown in table below), use conversion formula.



Vertical Mounting

| Ring Size | D150 | D190 | D230 | D260 | D330 |
|---|----------|----------|-----------|-----------|-----------|
| Characteristic | | | | | |
| Distance from face of Ring to C of G for load L | 4 inch | 4 inch | 4 inch | 8 inch | 8 inch |
| Maximum Load F_{max} | 2,900 lb | 8,000 lb | 13,300 lb | 10,200 lb | 18,200 lb |

Conversion Formula

$$F_{g1} = F_{max} * L / L1$$

Note: if $L1 < L$, $F_{g1} = F_{max}$

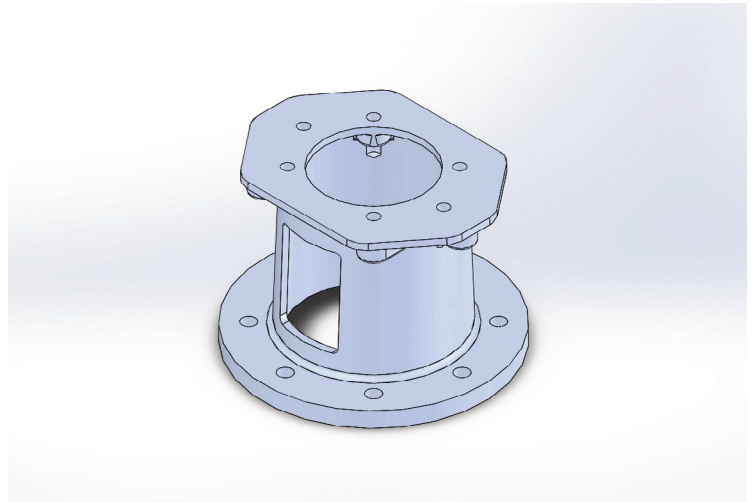
Dampening Ring Availability

| Damping Ring Size | Motor Mount Avail Sizes | Motor End Data | Pump Flange Avail Sizes | Pump End Data | Dampening Ring Length (L2) | Mount Face-to-Face Length (L1) |
|-------------------|-------------------------|--|--|---|----------------------------|--|
| D150 | NEMA 056 NEMA 182 | See Reference Section Page 195 for NEMA Motor Frame Dimensional data | SAE 4F17 thru SAE A 2/4 Bolt ISO 32 A2 thru ISO 80 A2/B4 | See Reference Section Page 194 for Pump Flange Dimensional data | 1.772 | Determined by Motor and Pump Dimensional Data, consult factory |
| D190 | NEMA 182 NEMA 284 | See Reference Section Page 195 for NEMA Motor Frame Dimensional data | SAE 4F17 thru SAE B 2/4 Bolt ISO 32 A2 thru ISO 112 A2/B4 | See Reference Section Page 194 for Pump Flange Dimensional data | 1.772 | Determined by Motor and Pump Dimensional Data, consult factory |
| D230 | NEMA 284 NEMA 324 | See Reference Section Page 195 for NEMA Motor Frame Dimensional data | SAE B 2/4 Bolt thru SAE C 2/4 Bolt ISO 100 A2/B4 thru ISO 140 A2/B4 | See Reference Section Page 194 for Pump Flange Dimensional data | 2.283 | Determined by Motor and Pump Dimensional Data, consult factory |
| D260 | NEMA 324 NEMA 444 | See Reference Section Page 195 for NEMA Motor Frame Dimensional data | SAE B 2/4 Bolt thru SAE C 2/4 Bolt ISO 100 A2/B4 thru ISO 160 A2/B4 | See Reference Section Page 194 for Pump Flange Dimensional data | 2.283 | Determined by Motor and Pump Dimensional Data, consult factory |
| D330 | NEMA 324 NEMA 444 | See Reference Section Page 195 for NEMA Motor Frame Dimensional data | SAE C 2/4 Bolt thru SAE D 2/4 Bolt ISO 125 A2/B4 thru ISO 200 A2/B4 | See Reference Section Page 194 for Pump Flange Dimensional data | 3.268 | Determined by Motor and Pump Dimensional Data, consult factory |

2

“M8” Mounting Pattern - special mounting configuration to allow rotation of the Pump/Motor Mount +/- 45° for pump plumbing connections when pump flange is rotated 45°. Four (4) additional holes are located on the motor end of the mount. This feature is ordered by specifying the **M8** suffix at the end of the mount part number.

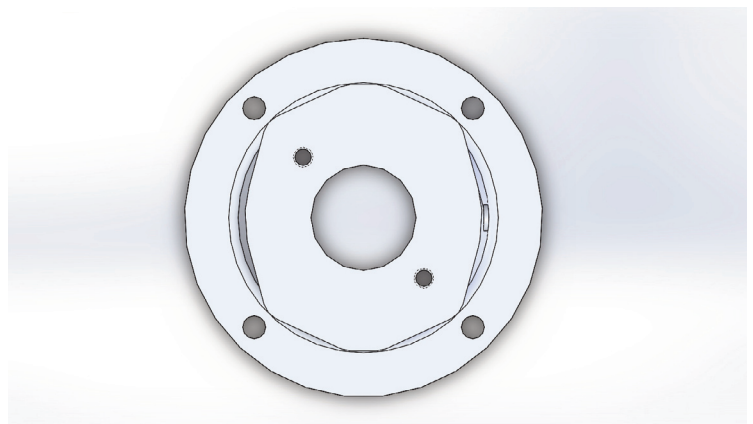
Example 182522BM8.



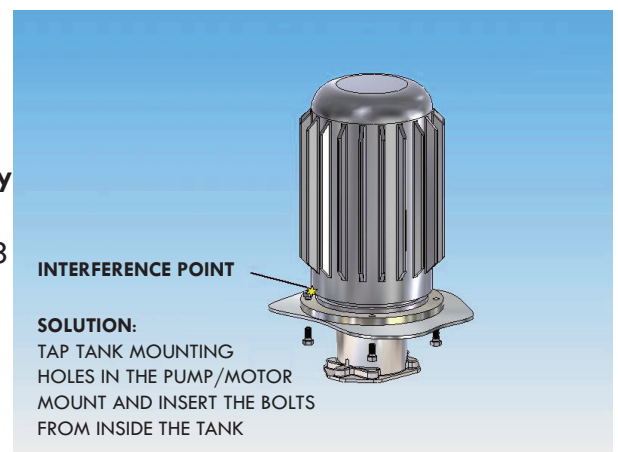
“45” Mounting Pattern - special mounting configuration to allow rotation of the Pump 45° on the Pump/Motor

Mount for pump plumbing connections when pump flange is rotated 45°. This feature is accomplished by rotating the pump bolt pattern 45° from vertical. This feature is available on all Welded Steel Mounts and 056-USA4F17, SAE AA, SAE A, and ISO 63 & 80 mounts AND 182-USA4F17, SAE AA, SAE A, and ISO 63 & 80 mounts ONLY and is ordered by specifying the **45** suffix at the end of the mount part number.

Example M056352AA45.



“W” - World Wide Corporation Electric Motor Mounting note: when using Worldwide Corp Electric Motors in the 182 NEMA Frame size with a Pump/Motor Mount in a vertical application, there is interference between the tank mounting bolts and the case of the motor. **This interference is NOT unique to Magnaloy Pump/Motor Mounts**, but Magnaloy has a solution. The tank mounting holes on the Pump/Motor Mount are tapped for 1/2-13 UNC bolts in place of the standard clearance hole. The tank mounting bolts are then inserted from inside the tank through the tank mounting holes in the Pump/Motor Mount. To order this optional mounting configuration, simply specify the Worldwide Motor option designator (**W**) as a suffix to the standard mount part number. Example M182582BVW or S182652BVW.



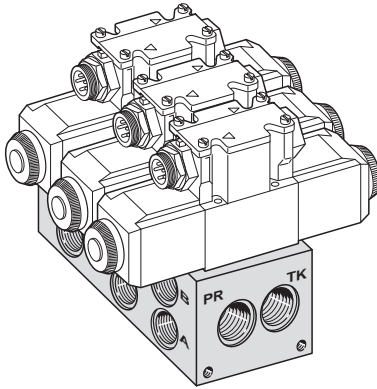
SECTION 3

MAGNALOY HYDRAULIC BAR MANIFOLDS AND MANIFOLDING ACCESSORIES

3



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.



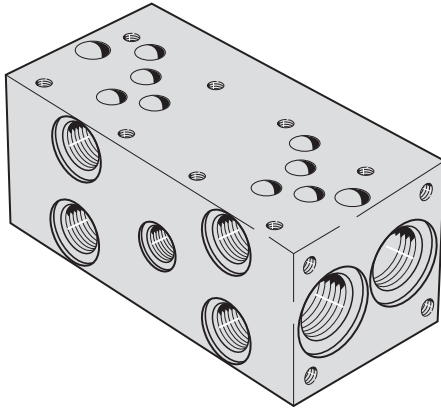
General Information:

Standard Bar Manifold - includes specified NFPA valve pattern mounting on top of the manifold, A & B ports per specified thread type on the face of the manifold and pressure and tank ports per the specified thread type on each end of the manifold. Mounting provisions are included and defined on following manifold pages.

3

Options:

- Z - No Options** - indicates no options are provided (standard manifold)
- B - Bottom PR -TK ports** - additional pressure and tank ports per specified thread type located on the bottom of the manifold.
- C - Relief Valve Common Cavity** configurations added to the back surface of the manifold.
- G - Gauge Port** - addition of gauge port per specified thread type (see port size chart) to the face of the manifold to allow monitoring of the pressure "PR" passage.
- G4** - With Retro Design Manifolds Only - **#4 SAE Gauge Port** (with "S" thread code). Standard Gauge Port is #6 SAE (with "S" thread code) or 1/4 NPT (with "P" thread code).
- G6** - With Standard Design Manifolds - **#6 SAE Gauge Port** (with "S" thread code). Standard Gauge Port is #4 SAE (with "S" thread code) or 1/4 NPT (with "P" thread code).
- S - Relief Valve Sun Cavity** configuration added to the back surface of the manifold.
- H - Hard Metric Thread** - When British or Metric Thread type is specified, the valve and manifold mounting holes are also Metric Threaded.
- M - Soft Metric Thread** - indicates mixed metric threading. When NPT or SAE thread type is specified, valve mounting holes are metric threaded. No code "M" indicates the valve and manifold mounting holes are English threaded.
- I - Isolation** - stations in the pressure or tank passages may be have the pressure signal isolation for valve operation. The location of the isolation is specified by indicating which station is to be isolated. With the manifold positioned with the A & B ports facing forward, the valve mounting surfaces up and numbering from left to right, location A is between stations 1 & 2, location B is between stations 2 & 3, location C is between stations 3 & 4, etc. Isolation can be specified for the pressure or tank passages or both. (See Note 1, next page)
- L - L Port** - addition of a drain port to the valve pattern on top of the manifold with a connecting port outlet on the back surface on the manifold. One port per station.
- O - Oversized A & B Ports** - (D05 High Flow and D05H-Alt.B only) - provides A & B ports machined oversized from the standard port size for additional flow capacity - see port size charts.
- P - Pilot Pressure** (D08 only) - addition of a pilot pressure signal port to the back surface of the manifold. One port per station.



INDEX:

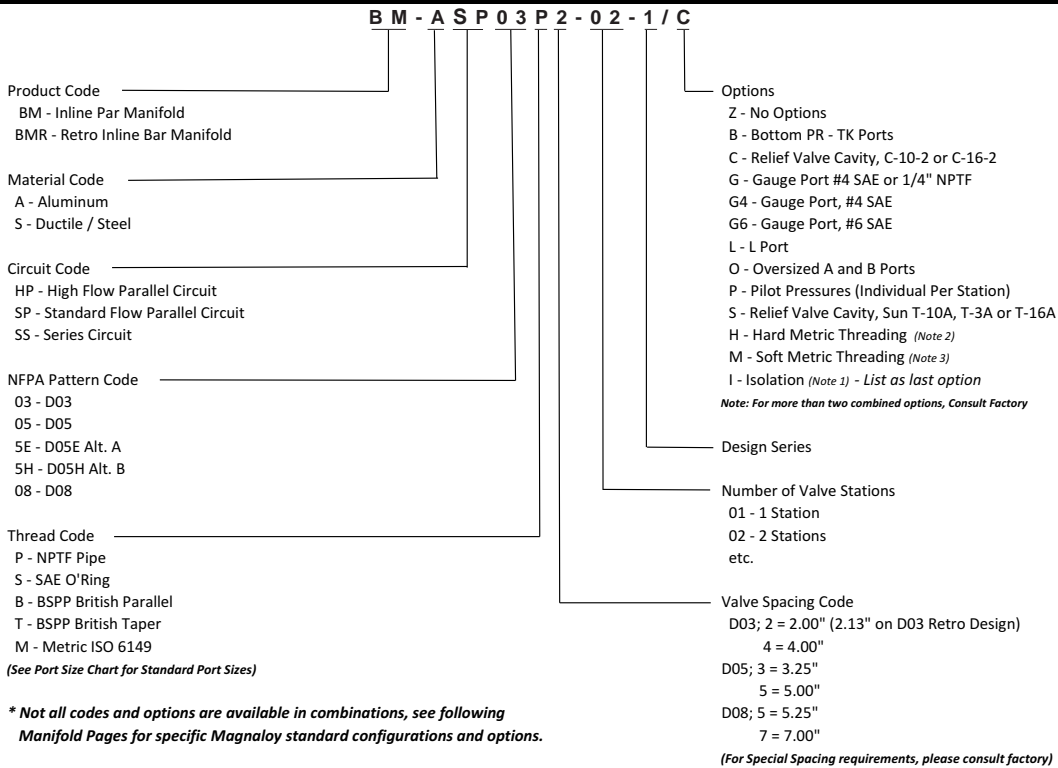
Page Standard Bar Manifolds

| | |
|----|---|
| 49 | NFPA D03 Directional Valves in Parallel Circuits |
| 51 | NFPA D03 Directional Valves in Series Circuits |
| 53 | NFPA D03 Retro Design Directional Valves in Parallel Circuits |
| 55 | NFPA D03 High Flow Retro Design Directional Valves in Parallel Circuits |
| 57 | NFPA D05 Directional Valves in Parallel Circuits |
| 59 | NFPA D05 Directional Valves in Series Circuits |
| 61 | NFPA D05 High Flow Directional Valves in Parallel Circuits |
| 63 | NFPA D05E Alt.A Directional Valves in Parallel Circuits |
| 65 | NFPA D05H Alt.B Directional Valves in Parallel Circuits |
| 67 | NFPA D08 Directional Valves in Parallel Circuits |
| 69 | NFPA D08 High Flow Retro Design Directional Valves in Parallel Circuits |
| 71 | NFPA D08 Directional Valve in Series Circuits |

Bar Manifold Hardware

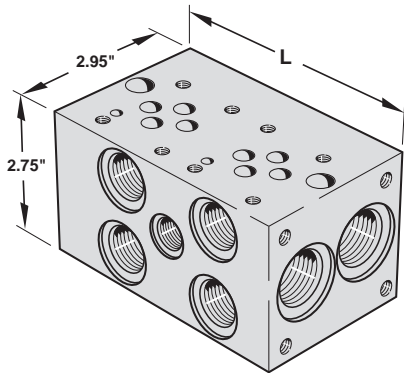
| | |
|----|-----------------------|
| 67 | Mounting Bracket Kits |
|----|-----------------------|

MAGNALOY BAR MANIFOLD PART NUMBER BREAKDOWN

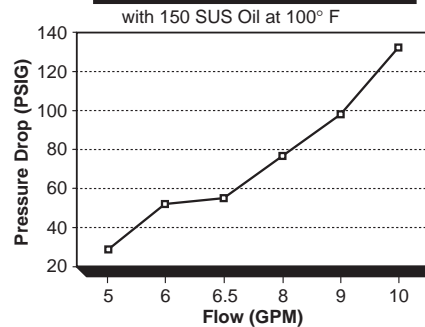


* Not all codes and options are available in combinations, see following Manifold Pages for specific Magnaloy standard configurations and options.

| | | |
|---|----------------------------|--|
| Notes: | | |
| 1 - Isolation Location is specified by using the following codes after the "I" option designation: | | |
| Port | Location | |
| P - Pressure Port | A - Between Stations 1 & 2 | Option Code for PRESSURE Isolation between stations 3 & 4 = IPC |
| T - Tank Port | B - Between Stations 2 & 3 | Option Code for TANK Isolation between stations 1 & 2 = ITA |
| | C - Between Stations 3 & 4 | Option Code for PRESSURE Isolation between stations 1 & 2 and |
| | D - Between Stations 4 & 5 | TANK Isolation between stations 2 & 3 = IPATB |
| | etc. | * Location is determined with A & B ports facing forward, valves up and numbering from left to right |
| 2 - Hard Metric Threading - Used with British and Metric Thread Type to indicate Valve Mounting is also Metric Threaded | | |
| 3 - Soft Metric Threading - Used with NPT or SAE Thread Type to indicate Valve Mounting is Metric Threaded | | |
| <i>(No Code Designation Indicates Valve Mounting is English Threaded)</i> | | |



Flow from P to A/B Port



3

DIMENSIONS (4.00" VALVE SPACING)

| No of Stations | L | E | F | D |
|----------------|--------|--------|--------|--------|
| 2 | 6.75" | 6.00" | - | |
| 3 | 10.75" | 10.00" | - | |
| 4 | 14.75" | 14.00" | 7.00" | |
| 5 | 18.75" | 18.00" | 7.00" | |
| 6 | 22.75" | 22.00" | 11.00" | |
| 7 | 26.75" | 26.00" | 7.00" | 12.00" |
| 8 | 30.75" | 30.00" | 11.00" | 12.00" |
| 9 | 34.75" | 34.00" | 11.00" | 12.00" |
| 10 | 38.75" | 38.00" | 11.00" | 12.00" |

Features & Advantages

- * The efficient design provides excellent flow rates with minimal pressure drop.
- * Standard end mount and through holes make mounting easy and flexible. Also, (when requested) mounting bracket kit BK-A03 (no charge) or flange mount kit FK-03 (additional cost) is available with the manifold as alternative mounting styles.
- * Available with SAE, NPTF, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- * Options include relief valve cavity, bottom PR & TK ports, and gauge port to fit specific circuit requirements.

DIMENSIONS (2.00" VALVE SPACING)

| No of Stations | L | E | F |
|----------------|---------|--------|-----------------|
| 1 | 2.75" * | 2.00" | - |
| 2 | 4.75" | 4.00" | - |
| 3 | 6.75" | 6.00" | - |
| 4 | 8.75" | 8.00" | - |
| 5 | 10.75" | 10.00" | - |
| 6 | 12.75" | 12.00" | - |
| 7 | 14.75" | 14.00" | 8.00" |
| 8 | 16.75" | 16.00" | 8.00" |
| 9 | 18.75" | 18.00" | 8.00" |
| 10 | 20.75" | 20.00" | 10.00" |
| 11 | 22.75" | 22.00" | 8.00" & 16.00" |
| 12 | 24.75" | 24.00" | 8.00" & 16.00" |
| 13 | 26.75" | 26.00" | 8.00" & 16.00" |
| 14 | 28.75" | 28.00" | 10.00" & 20.00" |

Shaded area - Please consult factory for delivery.

* For Single Station with B, C, S, G, or G6 Options, "L" = 3.75"

MAGNALOY D03 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M - A S P 0 3 P 2 - 0 2 - 1 / C

Product Code
BM-Inline Bar Manifold

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
SP - Standard Flow Parallel Circuit

NFPA Pattern Code
03 - D03

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric - ISO 6149

(See Port Size Chart for Standard Port Sizes)

Options

- Z - No Option
- B - Bottom PR-TK Ports
- C - Relief Valve Cavity C-10-2
- G - Gauge Port #4 SAE or 1/4" NPTF
- G6 - Gauge Port #6 SAE
- S - Relief Valve Cavity Sun T-10A
- H - Hard Metric Threading (See Note 2, page 48)
- M - Soft Metric Threading (See Note 3, page 48)
- I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)

Note: For more than two combined options, please consult factory.

Design Series

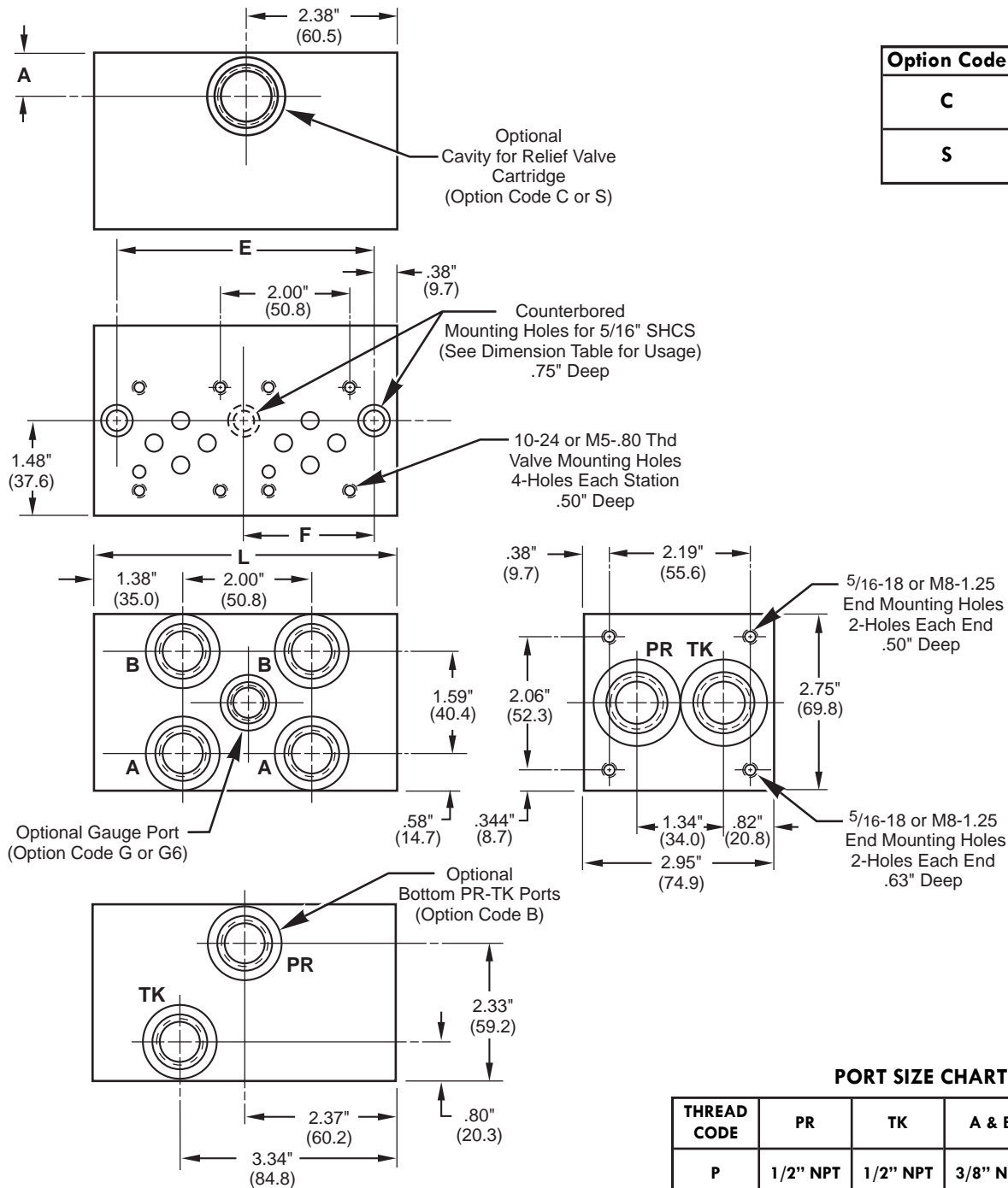
- Number of Valve Stations
- 01 - 1 stations
- 02 - 2 stations
- etc.

Valve Spacing Code
2 - 2.000
4 - 4.000

(For Special Spacing requirements, please consult factory.)

Inline Bar Manifold

D03 Standard Flow Bar Manifold - Parallel



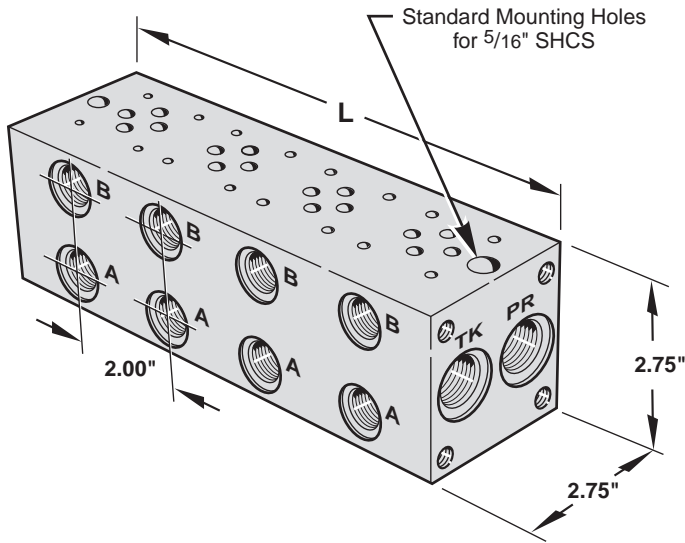
| Option Code | A |
|-------------|----------------|
| C | .69" (17.5) |
| S | .81" (20.6) |

3

NOTE: For End Mounting Bracket Kit (BK-A03) and Mounting Flange Kit (FK-A03) dimensions, see Reference Section, page 202.

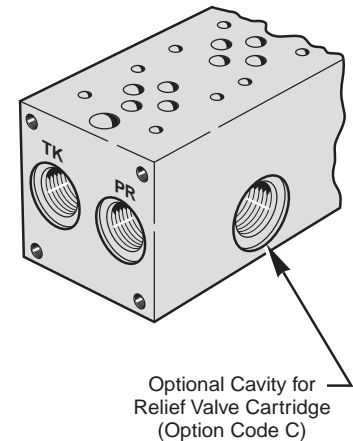
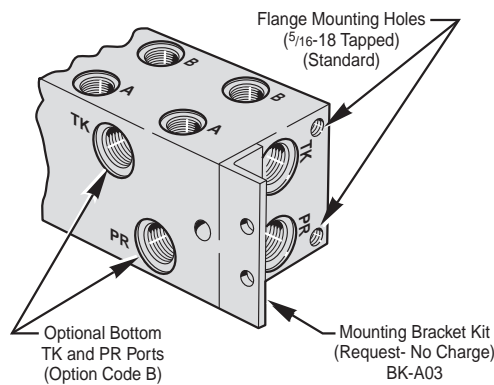
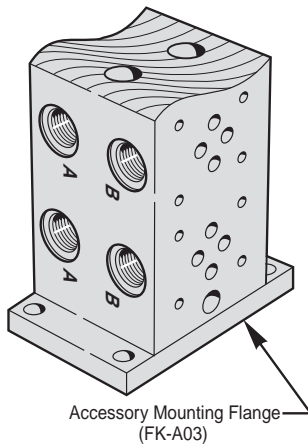
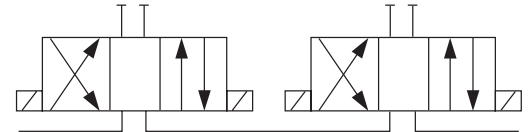
PORT SIZE CHART

| THREAD CODE | PR | TK | A & B | OPTIONAL GAUGE PORTS |
|-------------|-----------|-----------|-----------|-----------------------|
| P | 1/2" NPT | 1/2" NPT | 3/8" NPT | 1/4" NPT |
| S | #10 SAE | #10 SAE | #8 SAE | #4 SAE G6 - #6 SAE |
| B | 1/2" BSPP | 1/2" BSPP | 3/8" BSPP | - |
| T | 1/2" BSPT | 1/2" BSPT | 3/8" BSPT | - |
| M | M22 | M22 | M18 | - |



FEATURES AND ADVANTAGES

- * Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- * Adequate clearance for 5/8" tube fittings.
- * Mounting bolt spacing allows standardized mounting pads.
- * Tank and pressure lines may be connected at either end.



MAGNALOY D03 SERIES BAR MANIFOLD PART NUMBER BREAKDOWN

B M - A S S 0 3 S 2 - 0 1 - 0 / B

Product Code
BM-Inline Bar Manifold

Material Code
A - Aluminum
S - Steel

Circuit Code
SS - Series Circuit

NFPA Pattern Code
03 - D03

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149

(See Port Size Chart for Standard Port Sizes)

Options

- Z - No Option
- B - Bottom PR-TK Ports
- C - Relief Valve Cavity C-10-2
- G - Gauge Port #4 SAE or 1/4" NPTF
- G6 - Gauge Port #6 SAE
- H - Hard Metric Threading (See Note 2, page 48)
- M - Soft Metric Threading (See Note 3, page 48)

Design Series

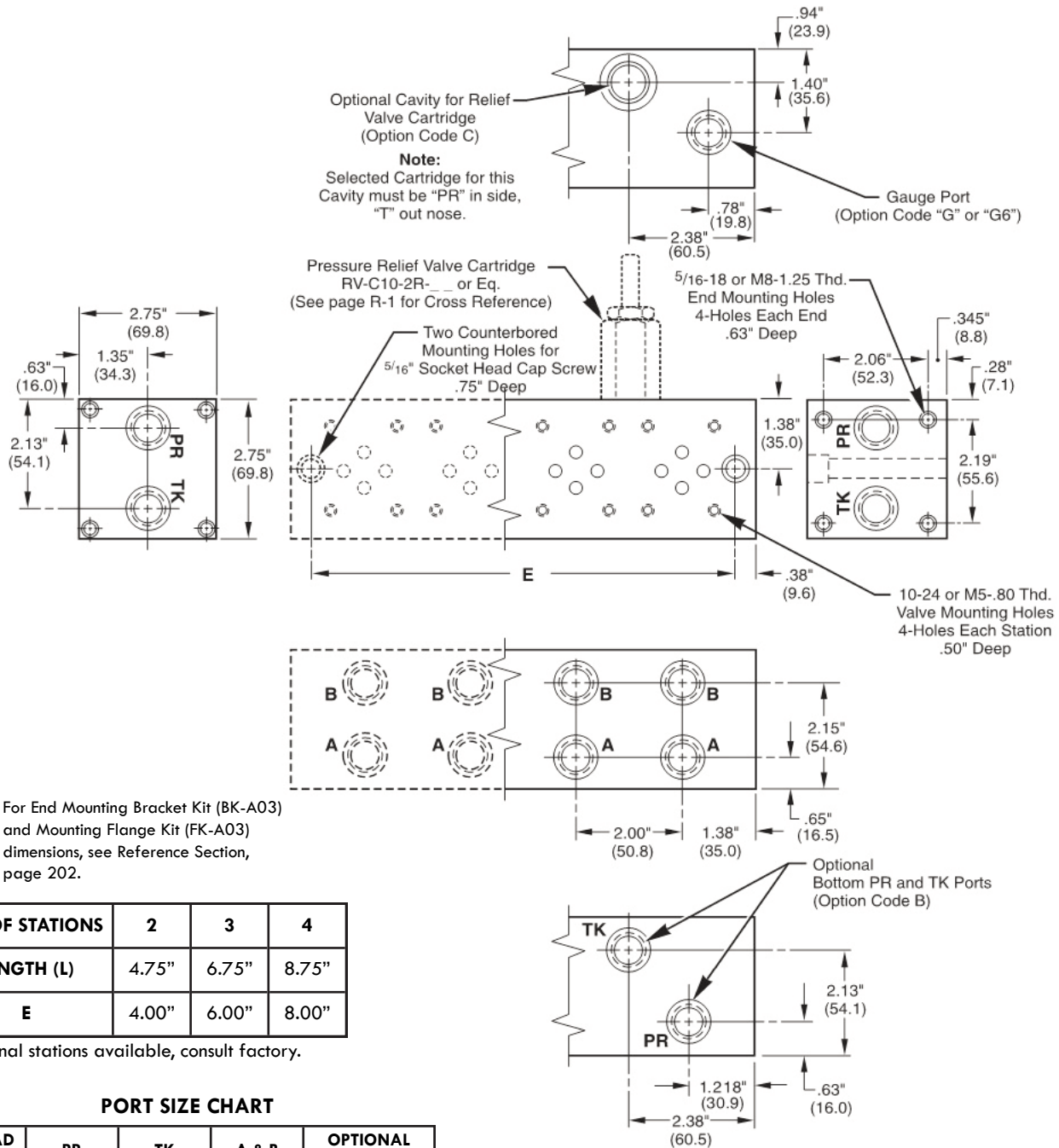
Number of Valve Stations
02 - 2 stations
03 - 3 stations
etc.

Valve Spacing Code
2 - 2.000

Inline Bar Manifold D03 Bar Manifold - Series



3



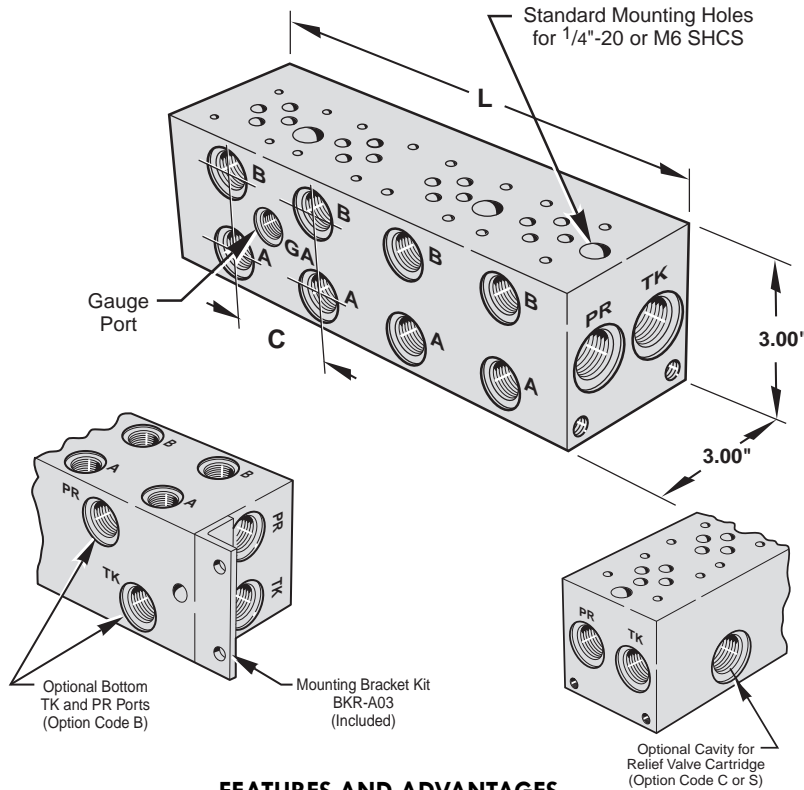
NOTE: For End Mounting Bracket Kit (BK-A03) and Mounting Flange Kit (FK-A03) dimensions, see Reference Section, page 202.

| NO. OF STATIONS | 2 | 3 | 4 |
|-----------------|-------|-------|-------|
| LENGTH (L) | 4.75" | 6.75" | 8.75" |
| E | 4.00" | 6.00" | 8.00" |

Additional stations available, consult factory.

PORT SIZE CHART

| THREAD CODE | PR | TK | A & B | OPTIONAL GAUGE PORTS |
|-------------|-----------|-----------|-----------|-----------------------|
| P | 1/2" NPT | 1/2" NPT | 3/8" NPT | 1/4" NPT |
| S | #8 SAE | #8 SAE | #8 SAE | #4 SAE G6 - #6 SAE |
| B | 1/2" BSPP | 1/2" BSPP | 3/8" BSPP | - |
| T | 1/2" BSPT | 1/2" BSPT | 3/8" BSPT | - |
| M | M18 | M18 | M18 | - |



FEATURES AND ADVANTAGES

- * Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- * 2 1/8" or 4" valve center options allow the manifold to be sized for specific D03 valve types.
- * Adequate clearance for 5/8" tube fittings.
- * Mounting bolt spacing allows standardized mounting pads.
- * Tank and pressure lines may be connected at either end.
- * Standard Gauge Port is 1/4" NPT with "P" Code and #6 SAE with "S" Code (#4 SEA available with G4 Option.)

DIMENSIONS (2.13" VALVE SPACING)

| NO. OF STATIONS | C | L | E | F |
|-----------------|-------|--------|--------|----------|
| 1 ¹ | -- | 2.13" | N.A. | -- |
| 1 ² | -- | 3.00" | N.A. | -- |
| 2 | 2.13" | 4.25" | 2.13" | -- |
| 3 | 2.13" | 6.38" | 4.25" | -- |
| 4 | 2.13" | 8.50" | 6.38" | -- |
| 5 | 2.13" | 10.63" | 8.50" | 4.25" |
| 6 | 2.13" | 12.75" | 10.63" | 4.25" |
| 7 | 2.13" | 14.88" | 12.75" | 4.25"X 2 |
| 8 | 2.13" | 17.00" | 14.88" | 4.25"X 2 |
| 9 | 2.13" | 19.13" | 17.00" | 6.38"X 2 |
| 10 | 2.13" | 21.25" | 19.38" | 6.38"X 2 |
| 11 | 2.13" | 23.38" | 21.25" | 6.38"X 2 |
| 12 | 2.13" | 25.50" | 23.38" | 6.38"X 3 |
| 13 | 2.13" | 27.63" | 25.50" | 6.38"X 2 |
| 14 | 2.13" | 29.75" | 27.63" | 6.38"X 3 |

- NOTE:** 1 - Single Station - No Gauge Port
2 - Single Station with C or S Option, includes Gauge Port

DIMENSIONS (4.00" VALVE SPACING)

| NO. OF STATIONS | C | L | E | F |
|-----------------|-------|--------|--------|-----------|
| 2 | 4.00" | 6.13" | 4.00" | |
| 3 | 4.00" | 10.13" | 8.00" | |
| 4 | 4.00" | 14.13" | 12.00" | 8.00" |
| 5 | 4.00" | 18.13" | 16.00" | 8.00" |
| 6 | 4.00" | 22.13" | 20.00" | 8.00" X 2 |
| 7 | 4.00" | 26.13" | 24.00" | 8.00" X 2 |

MAGNALOY D03 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M R - A S P 0 3 S 2 - 0 1 - 1 / B

Product Code
BMR-Inline Bar Manifold Retro Design

Material Code
A - Aluminum
S - Steel

Circuit Code
SP - Standard Flow Parallel Circuit

NFPA Pattern Code
03 - D03

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149
(See Port Size Chart for Standard Port Sizes)

Options
Z - No Option
B - Bottom PR-TK Ports
C - Relief Valve Cavity C-10-2
G4 - Gauge Port #4 SAE
S - Relief Valve Cavity Sun T-10A
M - Soft Metric Threading (See Note 3, page 48)
I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)

Note: For more than two combined options, please consult factory.

Design Series

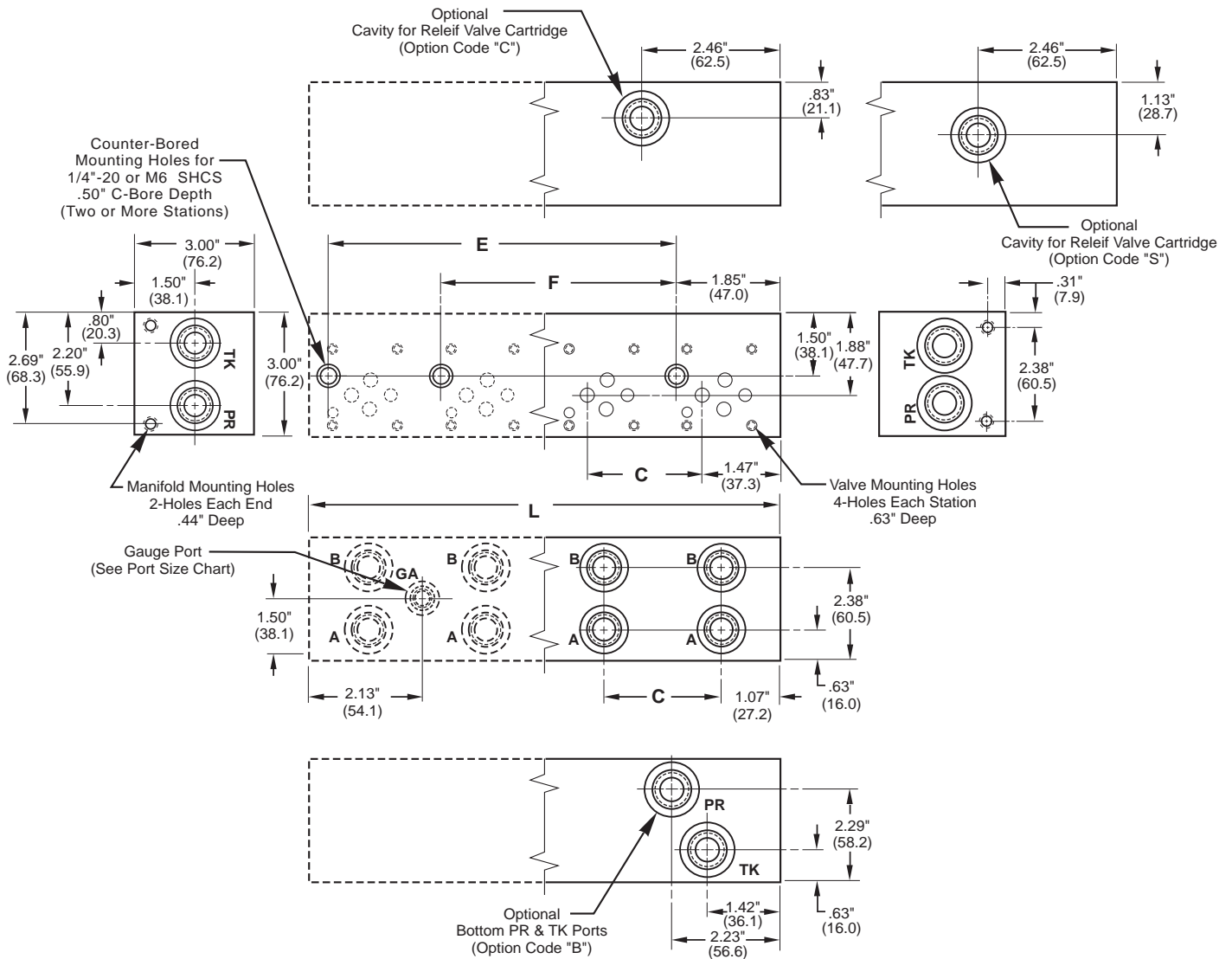
Number of Valve Stations
02 - 2 stations
03 - 3 stations
etc.

Valve Spacing Code
2 - 2.130
4 - 4.000

Inline Bar Manifold D03 Retro Design Bar Manifold - Parallel



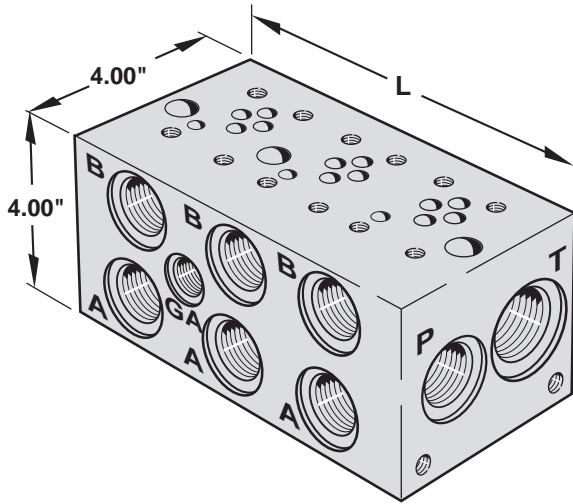
3



PORT SIZE CHART

| THREAD CODE | PR | TK | A & B | GAUGE PORTS | MOUNTING HOLES | |
|-------------|-----------|-----------|-----------|-----------------------|----------------|---------------|
| | | | | | VALVE | MANIFOLD |
| P | 1/2" NPT | 1/2" NPT | 3/8" NPT | 1/4" NPT | 10 - 24 UNC | 5/16 - 18 UNC |
| S | #10 SAE | #10 SAE | #8 SAE | G4 - #4 SAE #6 SAE | 10 - 24 UNC | 5/16 - 18 UNC |
| B | 1/2" BSPP | 1/2" BSPP | 3/8" BSPP | - | M5 - .8 | M8 - 1.25 |
| T | 1/2" BSPT | 1/2" BSPT | 3/8" BSPT | - | M5 - .8 | M8 - 1.25 |
| M | M22 | M22 | M18 | - | M5 - .8 | M8 - 1.25 |

NOTE: For End Mounting Bracket Kit (BKR-A03) dimensions, see Reference Section, page 202.



Features & Advantages

- + The higher flow design provides maximum flow rates with minimal pressure drops.
- + 2 1/8" or 4" valve center options allow the manifold to be sized for specific D03 valve types.
- + Standard end mount and through holes make mounting easy and flexible. Also, a mounting bracket kit BKR-AH03 is supplied with the manifold as an alternative mounting style.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and gauge ports to fit specific circuit requirements.

Dimensions (2.13" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|----------------|
| 1 ¹ | -- | 3.13" | 2.38" | - |
| 1 ² | -- | 4.00" | 3.25" | - |
| 2 | 2.13" | 5.25" | 4.50" | - |
| 3 | 2.13" | 7.38" | 6.63" | - |
| 4 | 2.13" | 9.50" | 8.75" | - |
| 5 | 2.13" | 11.63" | 10.88" | 6.50" |
| 6 | 2.13" | 13.75" | 13.00" | 6.50" |
| 7 | 2.13" | 15.88" | 15.13" | 6.50" |
| 8 | 2.13" | 18.00" | 17.25" | 8.63" |
| 9 | 2.13" | 20.13" | 19.38" | 8.63" |
| 10 | 2.13" | 22.25" | 21.50" | 10.75" |
| 11 | 2.13" | 24.38" | 23.63" | 8.63" & 17.13" |
| 12 | 2.13" | 26.50" | 25.75" | 8.63" & 17.13" |

Note: 1 - Single Station - No Gauge Port

2 - Single Station with C or S Option, includes Gauge Port.

Dimensions (4.00" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|-----------------|
| 2 | 4.00" | 7.13" | 6.38" | - |
| 3 | 4.00" | 11.13" | 10.38" | - |
| 4 | 4.00" | 15.13" | 14.38" | 7.18" |
| 5 | 4.00" | 19.13" | 18.38" | 7.18" |
| 6 | 4.00" | 23.13" | 22.38" | 11.18" |
| 7 | 4.00" | 27.13" | 26.38" | 11.18" |
| 8 | 4.00" | 31.13" | 30.38" | 11.18" & 23.18" |

MAGNALOY D03 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M R - S H P 0 3 S 2 - 0 2 - 1 / B

Product Code
BMR-Inline Bar Manifold
Retro Design

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
HP- High Flow Parallel Circuit

NFPA Pattern Code
03 - D03

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149

(See Port Chart for Standard Port Sizes)

Options

- Z - No Option
- B - Bottom PR-TK Ports (2 or more Stations)
- C - Relief Valve Cavity C-16-2
- G4 - Gauge Port #4 SAE
- S - Relief Valve Cavity Sun T-3A
- M - Soft Metric Threading (See Note 3, page 48)
- I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)

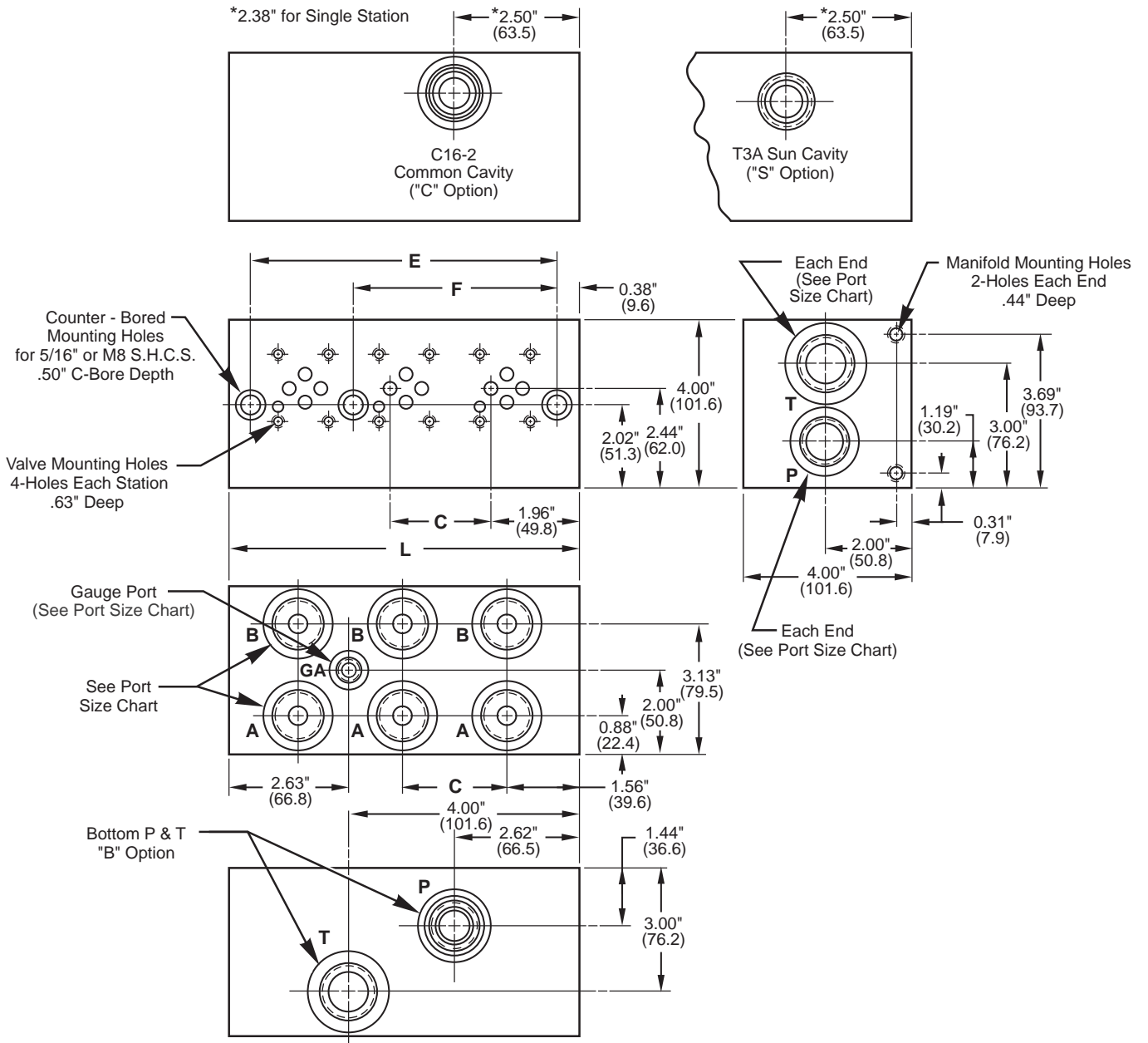
Note: For more than two combined options, please consult factory.

Design Series

- Number of Valve Stations
- 01 - 1 station
- 02 - 2 stations
- etc.

- Valve Spacing Code
- 2 - 2.13Q
- 4 - 4.00Q

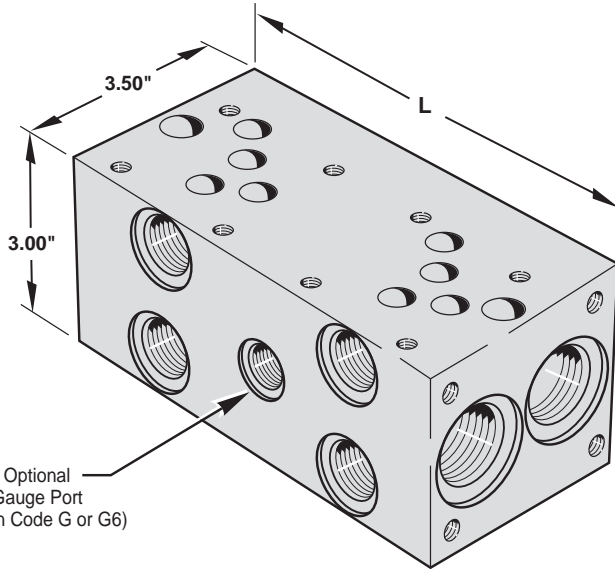
Inline Bar Manifold D03 High Flow Retro Design Bar Manifold - Parallel



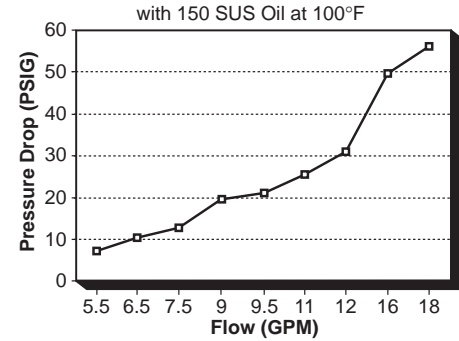
Port Size Chart

| Thread Code | PR | TK | A & B | Gauge Ports | Mounting Holes | |
|-------------|-----------|---------|-----------|-----------------------|----------------|-------------|
| | | | | | Valve | Manifold |
| P | 3/4" NPT | 1" NPT | 3/4" NPT | 1/4" NPT | 10-24 UNC | 5/16-18 UNC |
| S | #12 SAE | #16 SAE | #12 SAE | G4 - #4 SAE #6 SAE | 10-24 UNC | 5/16-18 UNC |
| B | 3/4" BSPP | 1" BSPP | 3/4" BSPP | - | M5x.8 | M8x1.25 |
| T | 3/4" BSPT | 1" BSPT | 3/4" BSPT | - | M5x.8 | M8x1.25 |
| M | M27x2 | M33x2 | M27x2 | - | M5x.8 | M8x1.25 |

Note: For **Mounting Bracket Kit (BKR-AH03)** dimensions, see Reference Section, page 202.



Flow from P to A/B Port



3

Features & Advantages

- + The efficient design provides flow rates with minimal pressure drops.
- + 3 1/4" or 5" valve center options allow the manifold to be sized for specific D05 valve types.
- + Standard end mount and through holes make mounting easy and flexible. Also, (when requested) mounting bracket kit BK-A05 (no charge) or flange mounting kit FK-A05 (additional cost) are available as alternative mounting styles.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and gauge ports to fit specific circuit requirements.

Dimensions (3.25" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|-------|
| 1 | -- | 3.25" | 2.25" | - |
| 2 | 3.25" | 6.50" | 5.50" | - |
| 3 | 3.25" | 9.75" | 8.75" | - |
| 4 | 3.25" | 13.00" | 12.00" | - |
| 5 | 3.25" | 16.25" | 15.25" | 8.50" |
| 6 | 3.25" | 19.50" | 18.50" | 8.50" |
| 7 | 3.25" | 22.75" | 21.75" | 8.50" |
| 8 | 3.25" | 26.00" | 25.00" | 8.50" |

Note: For Single Station with C, S, G, G6 or B Option, "L" = 4.25"

Dimensions (5.00" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|--------|
| 2 | 5.00" | 8.25" | 7.25" | - |
| 3 | 5.00" | 13.25" | 12.25" | - |
| 4 | 5.00" | 18.25" | 17.25" | 8.50" |
| 5 | 5.00" | 23.25" | 22.25" | 8.50" |
| 6 | 5.00" | 28.25" | 27.25" | 13.50" |
| 7 | 5.00" | 33.25" | 32.25" | 13.50" |

MAGNALOY D05 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M - S S P 0 5 P 3 - 0 1 - 1 / G

Product Code
BM - Inline Bar Manifold

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
SP - Standard Flow Parallel Circuit

NFPA Pattern Code
05 - D05

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric - ISO 6149
(See Port Size Chart for Standard Port Sizes.)

Options

- Z - No Option
- B - Bottom PR-TK Ports
- C - Relief Valve Cavity C-10-2
- G - Gauge Port #4 SAE or 1/40 NPTF
- G6 - Gauge Port #6 SAE
- S - Relief Valve Cavity Sun T-3A
- H - Hard Metric Threading (See Note 2, page 48)
- M - Soft Metric Threading (See Note 3, page 48)
- I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)

Note: For more than two combined options, please consult factory.

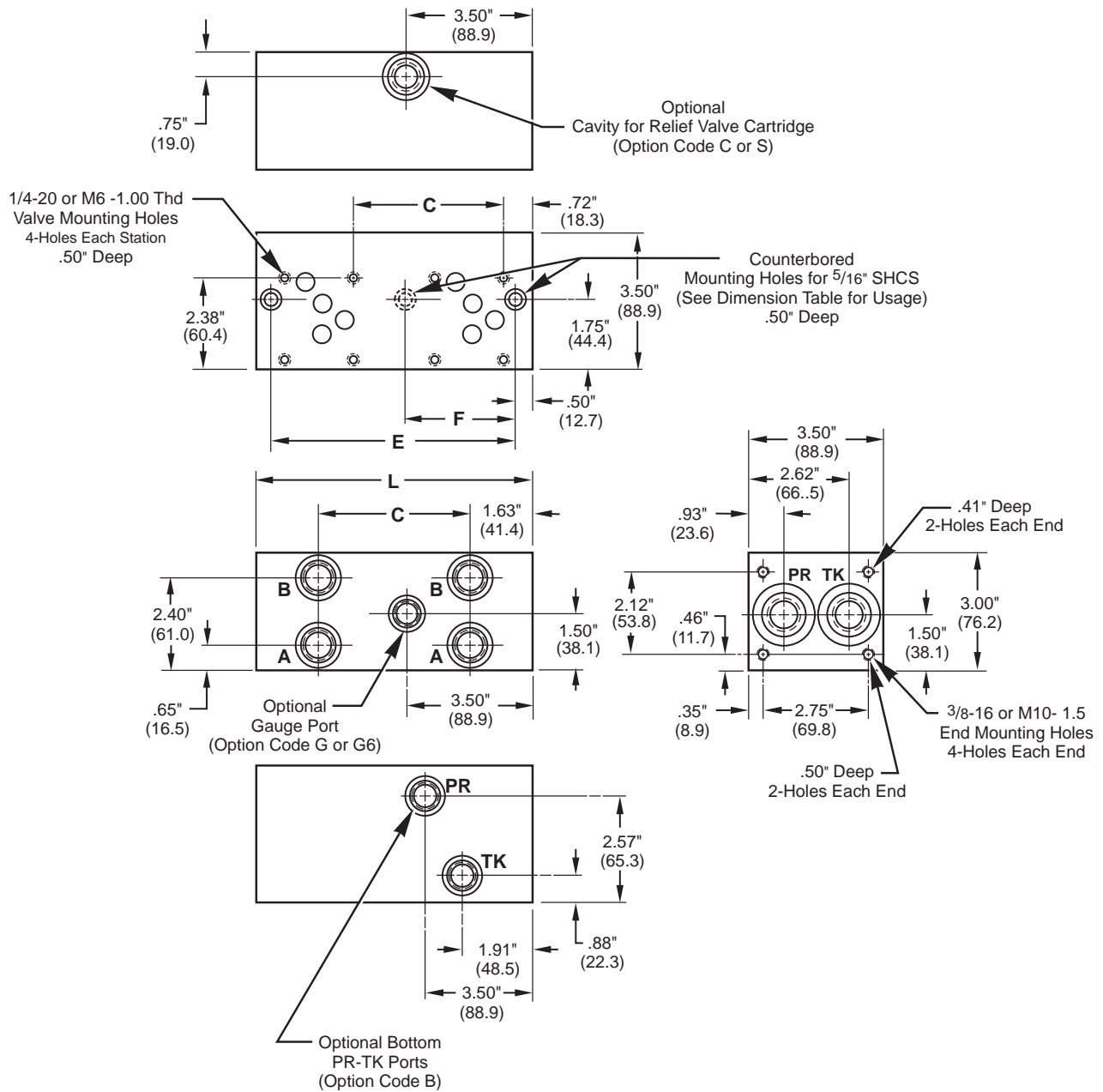
Design Series

- Number of Valve Stations
- 01 - 1 station
- 02 - 2 stations
- etc.

Valve Spacing Code
3 - 3.25Q
5 - 5.00Q

Inline Bar Manifold

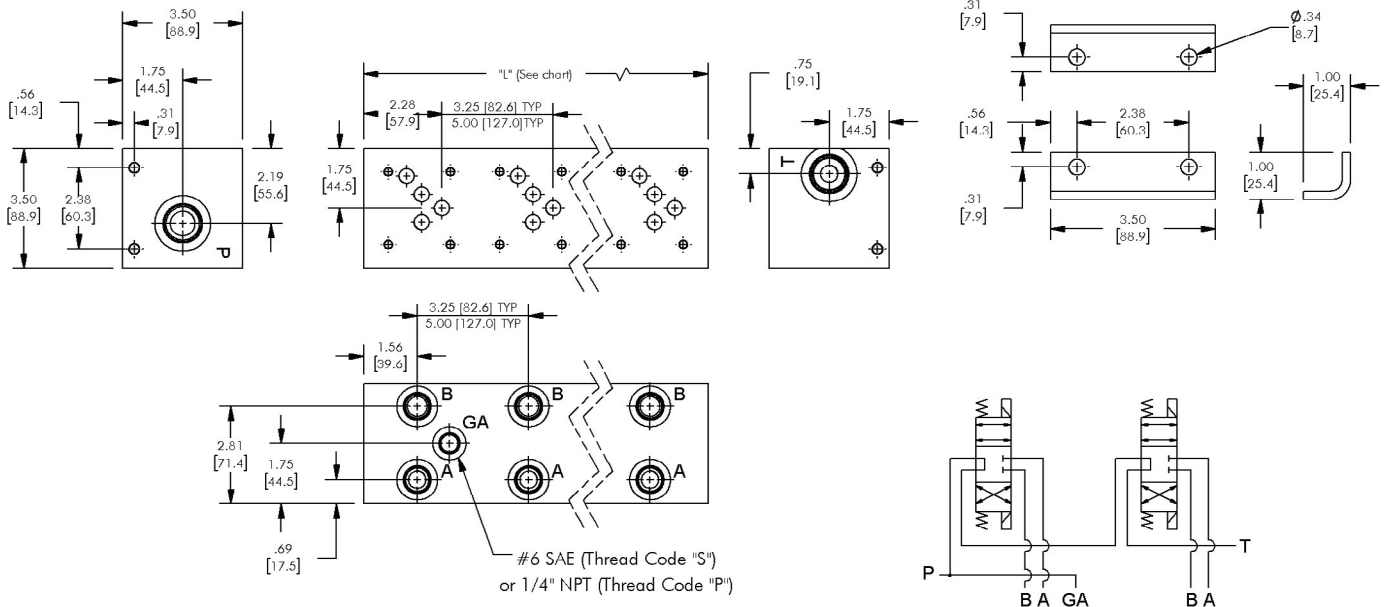
D05 Standard Bar Manifold - Parallel



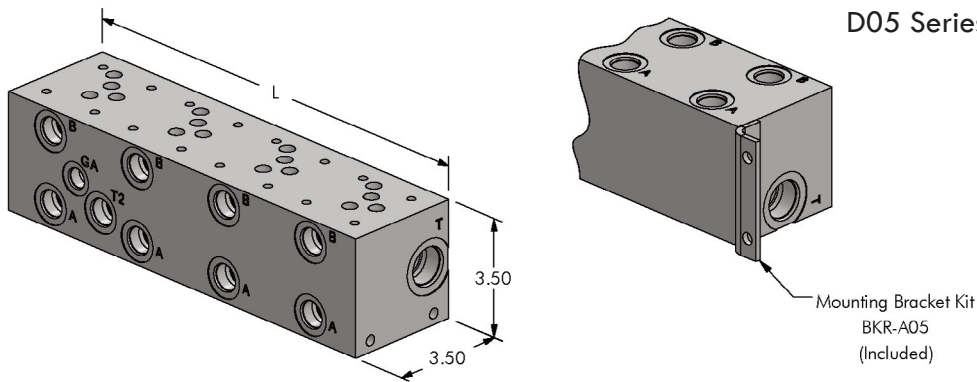
Port Size Chart

| Thread Code | PR | TK | A & B | Gauge Ports |
|-------------|-----------|-----------|-----------|-----------------------|
| P | 3/4" NPT | 3/4" NPT | 1/2" NPT | 1/4" NPT |
| S | #12 SAE | #12 SAE | #8 SAE | G4 - #4 SAE #6 SAE |
| B | 3/4" BSPP | 3/4" BSPP | 1/2" BSPP | - |
| T | 3/4" BSPT | 3/4" BSPT | 1/2" BSPT | - |
| M | M27 | M27 | M18 | - |

Note: For Mounting Bracket Kit (BK-A05) and Mounting Flange Kit (FK-A05) dimensions, see Reference Section, page 202.



D05 Series circuit



MAGNALOY D05 SERIES BAR MANIFOLD PART NUMBER BREAKDOWN

B M R - A S S 0 5 P 3 - 0 2 - 1 / Z

Product Code
BMR - Inline Bar Manifold
Retro Design

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
SS - Series Circuit

NFPA Pattern Code
05 - D05

Thread Code
P - NPTF Pipe
S - SAE O'Ring
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149

(See Port Size Chart for Standard Port Sizes.)

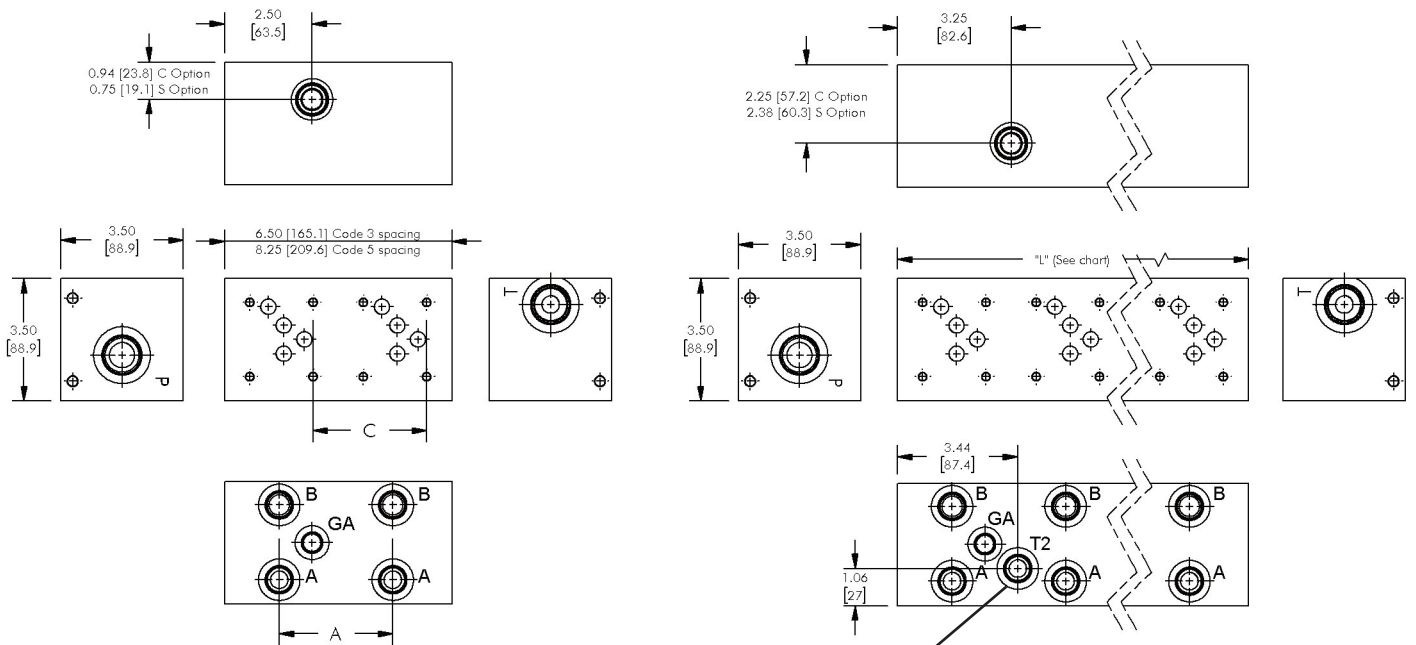
Options
Z - No Option
C - Relief Valve Cavity C-10-2
G4 - Gauge Port - #4 SAE
S - Relief Valve Cavity Sun T3A

Design Series

Number of Valve Stations
02 - 2 stations
03 - 3 stations
04 - 4 stations

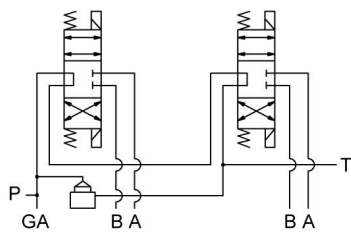
Valve Spacing Code
3 - 3.25"
5 - 5.00"

Inline Bar Manifold D05 Bar Manifold - Series

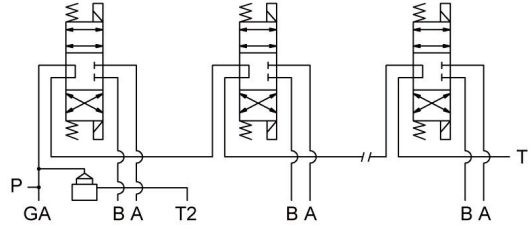


3

T2 port for 3 & 4 station manifolds with "C" or "S" option



D05 Series, 2 station circuit with cavity option (pressure in nose, tank out the side).



D05 Series 3 & 4 station circuit with cavity option (pressure in nose, tank out the side).

3 & 4 station manifold may not have adequate clearance for solenoids.

Mounting Thread Chart

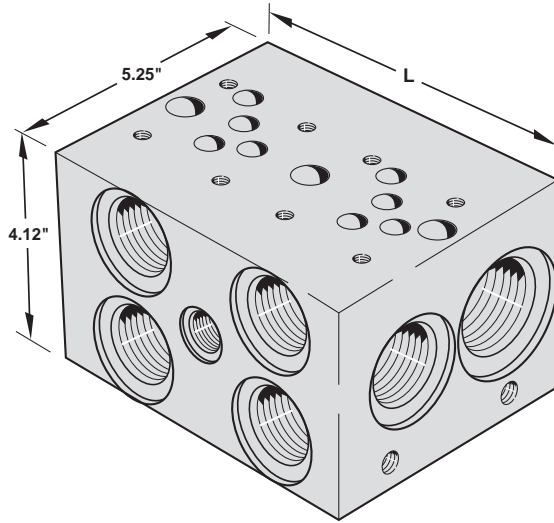
| Port Code | Valve Mtg. Threads | Manifold Mtg. Threads |
|-----------|---------------------|-----------------------|
| P, S | 1/4-20 UNC x 3/4 DP | 5/16-18 UNC x 7/16 DP |
| B, T, M | M6 x 3/4 DP | M8 x 7/16 DP |

Port Size Chart

| Number of Stations | A/C | | L | |
|--------------------|---------------|-------|---------------|--------|
| | Valve Spacing | | Valve Spacing | |
| | 3.25" | 5.00" | 3.25" | 5.00" |
| 2 | 3.25" | 5.00" | 6.50" | 8.25" |
| 3 | 3.25" | 5.00" | 9.75" | 13.25" |
| 4 | 3.25" | 5.00" | 13.00" | 18.25" |

| Thread Code | PR | TK | A & B | Gauge Ports | Optional Gauge Ports |
|-------------|-----------|-----------|-----------|-------------|----------------------|
| P | 3/4" NPT | 3/4" NPT | 1/2" NPT | 1/4" NPT | - |
| S | #12 SAE | #12 SAE | #8 SAE | G6 - #6 SAE | G4 - #4 SAE |
| B | 3/4" BSPP | 3/4" BSPP | 1/2" BSPP | - | - |
| T | 3/4" BSPT | 3/4" BSPT | 1/2" BSPT | - | - |
| M | M27 | M27 | M18 | - | - |

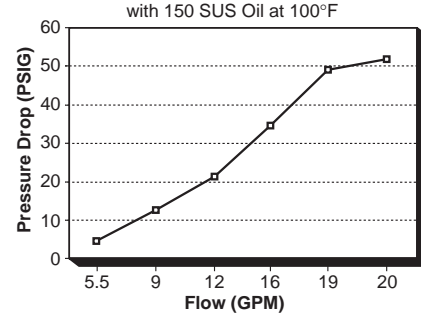
Additional stations available, consult factory.



Features & Advantages

- + The high flow design provides flow rates with minimal pressure drops.
- + 3 1/4" or 5" valve center options allow the manifold to be sized for specific D05 valve types.
- + Standard end mount and through holes make mounting easy and flexible. Also, (when requested) mounting bracket kit BK-A05 (no charge) is supplied as alternative end mounting style.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and gauge port to fit specific circuit requirements.

Flow from P to A/B Port



Dimensions (3.25" Valve Spacing)

| No. of Stations | C | L* | E | F |
|-----------------|-------|--------|--------|----------------|
| 1 | - - | 3.75" | 2.95" | - |
| 2 | 3.25" | 6.50" | 5.70" | - |
| 3 | 3.25" | 9.75" | 8.95" | - |
| 4 | 3.25" | 13.00" | 12.20" | 6.50" |
| 5 | 3.25" | 16.25" | 15.45" | 6.50" |
| 6 | 3.25" | 19.50" | 18.70" | 6.50" & 13.00" |
| 7 | 3.25" | 22.75" | 21.95" | 6.50" & 13.00" |

* Note: For Single Station with C, S, G, G6 or B Option, "L" = 4.75"

Dimensions (5.00" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|-----------------|
| 2 | 5.00" | 8.25" | 7.45" | - |
| 3 | 5.00" | 13.25" | 12.45" | - |
| 4 | 5.00" | 18.25" | 17.45" | 10.00" |
| 5 | 5.00" | 23.25" | 22.45" | 10.00" |
| 6 | 5.00" | 28.25" | 27.45" | 10.00" & 20.00" |
| 7 | 5.00" | 33.25" | 32.45" | 10.00" & 20.00" |

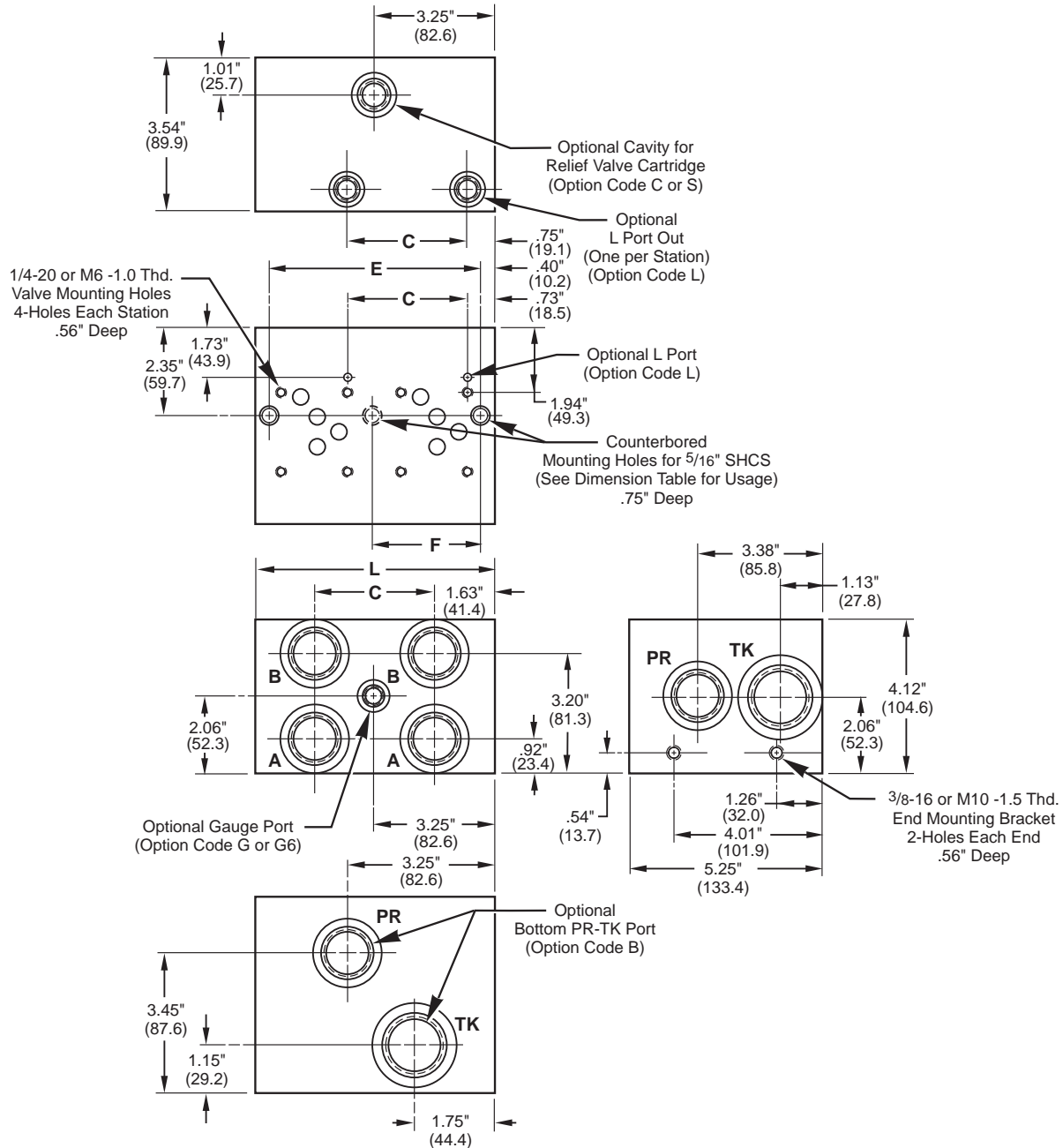
MAGNALOY D05 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M - S H P 0 5 P 3 - 0 1 - 1 / G

| | |
|--|--|
| <p>Product Code BM - Inline Bar Manifold</p> <p>Material Code A - Aluminum S - Ductile/Steel</p> <p>Circuit Code HP - High Flow Parallel Circuit</p> <p>NFPA Pattern Code 05 - D05</p> <p>Thread Code P - NPTF Pipe S - SAE OORing B - BSPP British Parallel T - BSPT British Taper M - Metric ISO 6149 <i>(See Port Size Chart for Standard Port Sizes)</i></p> | <p>Options Z - No Option B - Bottom PR-TK Ports C - Relief Valve Cavity C-10-2 G - Gauge Port #4 SAE or 1/4" NPTF G6 - Gauge Port #6 SAE L - L Port O - Oversized A and B Ports S - Relief Valve Cavity Sun T-3A H - Hard Metric Threading (See Note 2, page 48) M - Soft Metric Threading (See Note 3, page 48) I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)</p> <p>Note: For more than two combined options, please consult factory.</p> <p>Design Series</p> <p>Number of Valve Stations 01 - 1 station 02 - 2 stations etc.</p> <p>Valve Spacing Code 3 - 3.250 5 - 5.000</p> |
|--|--|

Inline Bar Manifold

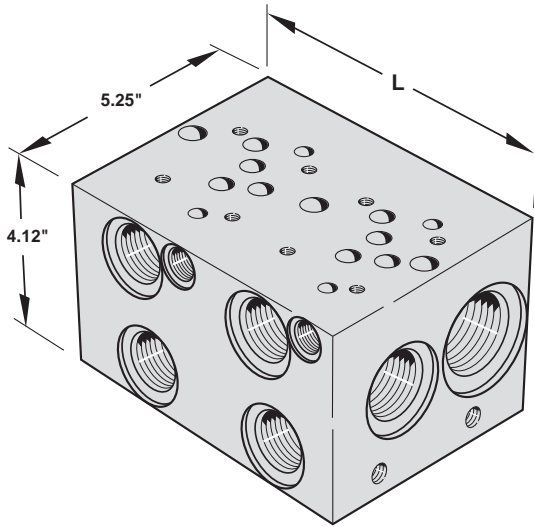
D05 High Flow Bar Manifold - Parallel



Port Size Chart

| Thread Code | PR | TK | A & B | A & B (Oversize Option) | L Port | Optional Gauge Ports |
|-------------|---------|-------------|-----------|-------------------------|-----------|-----------------------|
| P | 1" NPT | 1 1/4" NPT | 3/4" NPT | 1" NPT | 1/4" NPT | 1/4" NPT |
| S | #16 SAE | #20 SAE | #12 SAE | #16 SAE | #4 SAE | #4 SAE G6 - #6 SAE |
| B | 1" BSPP | 1 1/4" BSPP | 3/4" BSPP | 1" BSPP | 1/4" BSPP | - |
| T | 1" BSPT | 1 1/4" BSPT | 3/4" BSPT | 1" BSPT | 1/4" BSPT | - |
| M | M33 | M42 | M27 | M33 | M12 | - |

Note: For **Mounting Bracket Kit (BK-A05)** dimensions, see Reference Section, page 202.



Features & Advantages

- + The high flow design provides flow rates with minimal pressure drops.
- + 3 1/4" or 5" valve center options allow the manifold to be sized for specific D05 valve types.
- + Standard end mount and through holes make mounting easy and flexible. Also, (when requested) mounting bracket kit BK-A05 (no charge) is supplied as alternative end mounting style.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and gauge port to fit specific circuit requirements.

Dimensions (3.25" Valve Spacing)

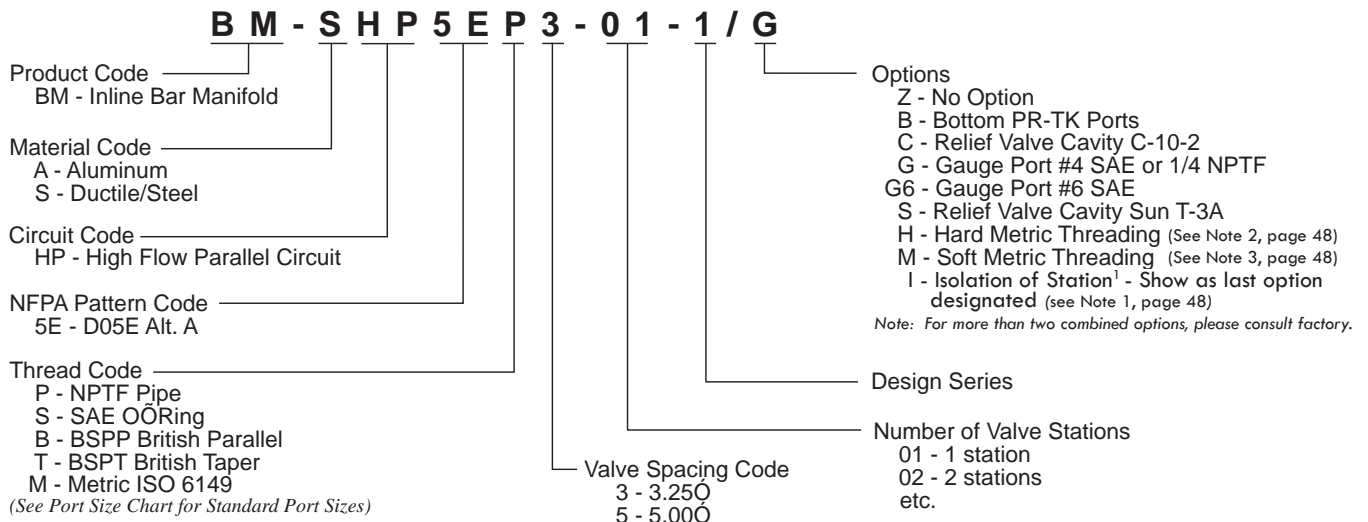
| No. of Stations | C | L* | E | F |
|-----------------|-------|--------|--------|----------------|
| 1 | - - | 3.75" | 2.95" | - |
| 2 | 3.25" | 6.50" | 5.70" | - |
| 3 | 3.25" | 9.75" | 8.95" | - |
| 4 | 3.25" | 13.00" | 12.20" | 6.50" |
| 5 | 3.25" | 16.25" | 15.45" | 6.50" |
| 6 | 3.25" | 19.50" | 18.70" | 6.50" & 13.00" |
| 7 | 3.25" | 22.75" | 21.95" | 6.50" & 13.00" |

* Note: For Single Station with C, S, G, G6 or B Option, "L" = 4.75"

Dimensions (5.00" Valve Spacing)

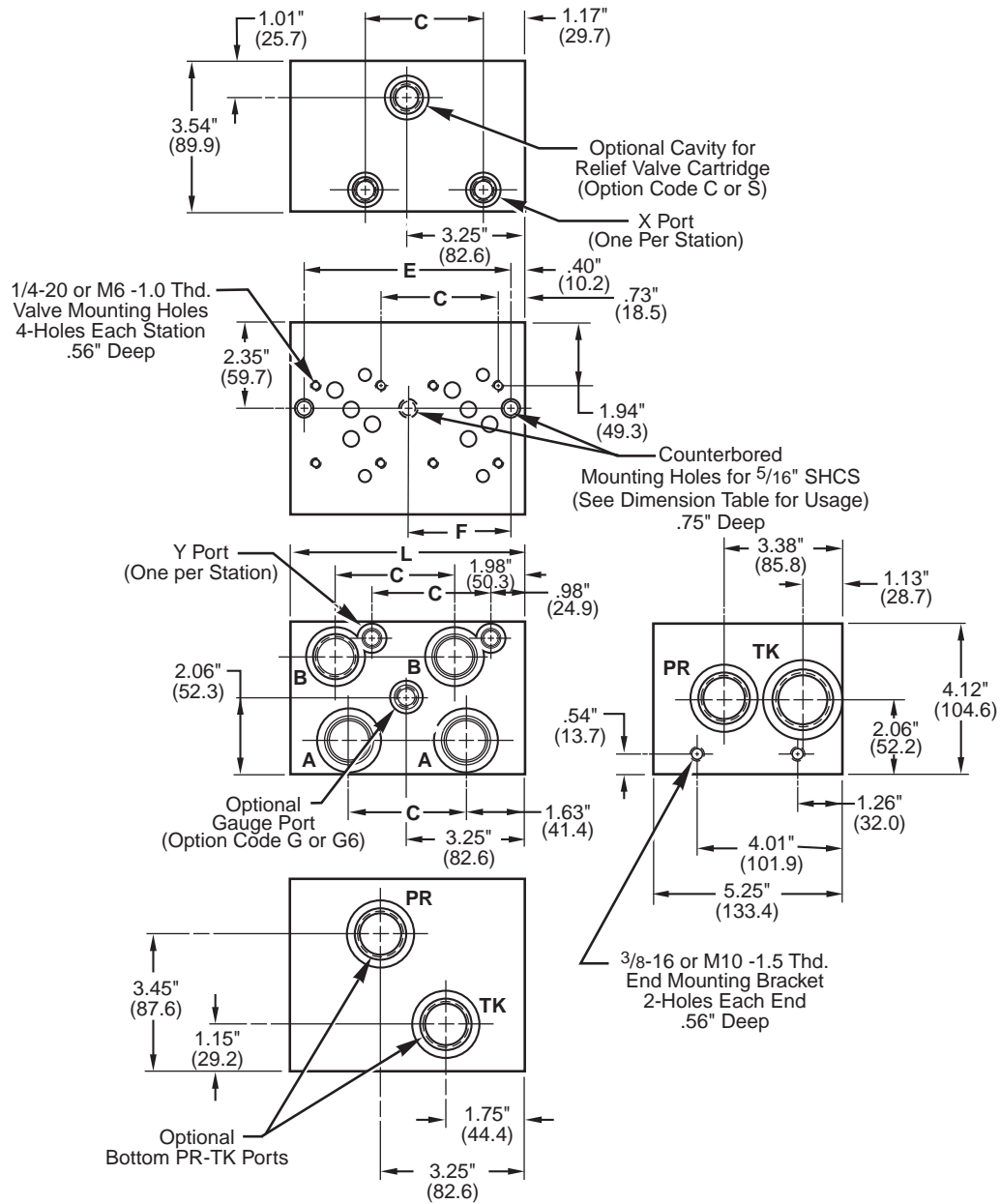
| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|-----------------|
| 2 | 5.00" | 8.25" | 7.45" | - |
| 3 | 5.00" | 13.25" | 12.45" | - |
| 4 | 5.00" | 18.25" | 17.45" | 10.00" |
| 5 | 5.00" | 23.25" | 22.45" | 10.00" |
| 6 | 5.00" | 28.25" | 27.45" | 10.00" & 20.00" |
| 7 | 5.00" | 33.25" | 32.45" | 10.00" & 20.00" |

MAGNALOY D05E ALT. A PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN



Inline Bar Manifold

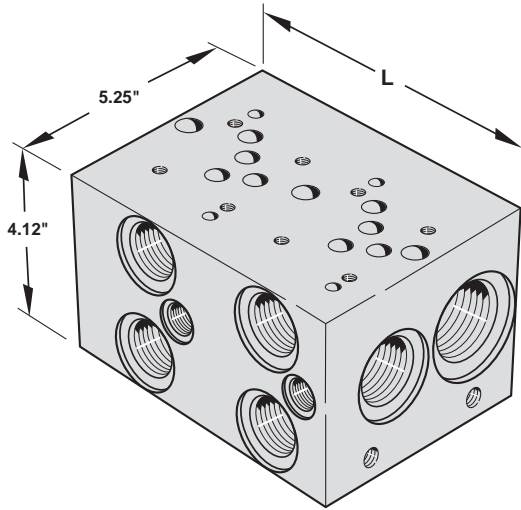
D05 E Alt. A Bar Manifold - Parallel



Note: For **Mounting Bracket Kit (BK-A05)**
dimensions, see Reference Section, page 202

Port Size Chart

| Thread Code | PR | TK | A & B | Optional Gauge Ports | X & Y |
|-------------|---------|-------------|-----------|-----------------------|-----------|
| P | 1" NPT | 1 1/4" NPT | 3/4" NPT | 1/4" NPT | 1/4" NPT |
| S | #16 SAE | #20 SAE | #12 SAE | #4 SAE G6 - #6 SAE | #4 SAE |
| B | 1" BSPP | 1 1/4" BSPP | 3/4" BSPP | - | 1/4" BSPP |
| T | 1" BSPT | 1 1/4" BSPT | 3/4" BSPT | - | 1/4" BSPT |
| M | M33 | M42 | M27 | - | M12 |



Features & Advantages

- + The high flow design provides flow rates with minimal pressure drops.
- + 3 1/4" or 5" valve center options allow the manifold to be sized for specific D05 valve types.
- + Standard end mount and through holes make mounting easy and flexible. Also, (when requested) mounting bracket kit BK-A05 (no charge) is supplied as alternative end mounting style.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and gauge port to fit specific circuit requirements.

Dimensions (3.25" Valve Spacing)

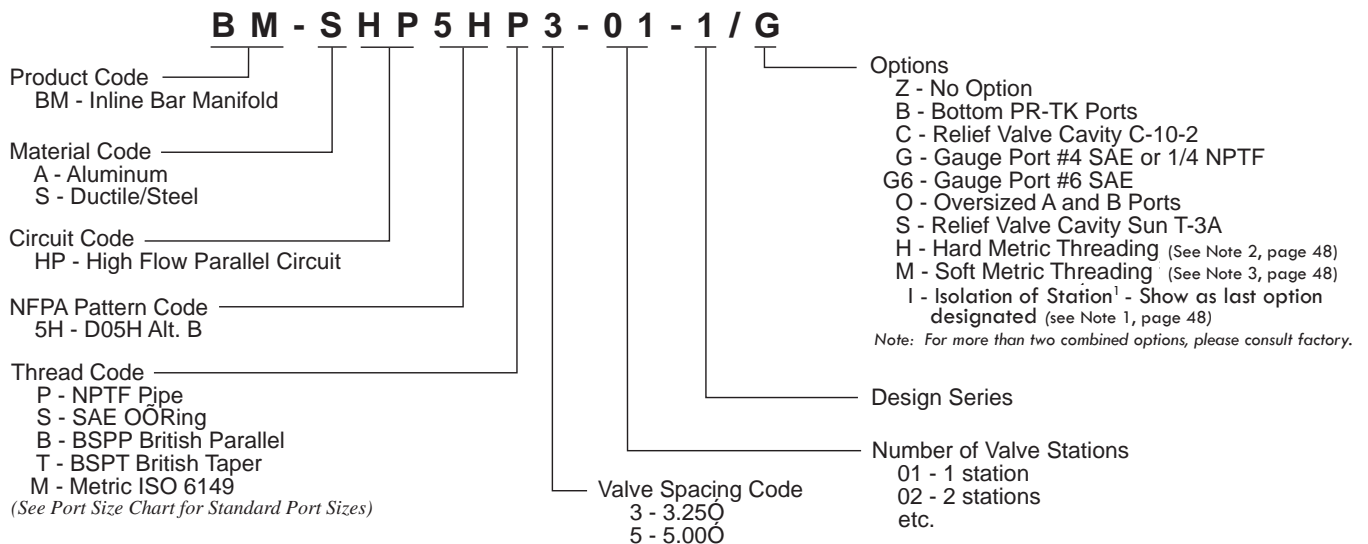
| No. of Stations | C | L* | E | F |
|-----------------|-------|--------|--------|----------------|
| 1 | - - | 3.75" | 2.95" | - |
| 2 | 3.25" | 6.50" | 5.70" | - |
| 3 | 3.25" | 9.75" | 8.95" | - |
| 4 | 3.25" | 13.00" | 12.20" | 6.50" |
| 5 | 3.25" | 16.25" | 15.45" | 6.50" |
| 6 | 3.25" | 19.50" | 18.70" | 6.50" & 13.00" |
| 7 | 3.25" | 22.75" | 21.95" | 6.50" & 13.00" |

* Note: For Single Station with C, S, G, G6 or B Option, "L" = 4.75"

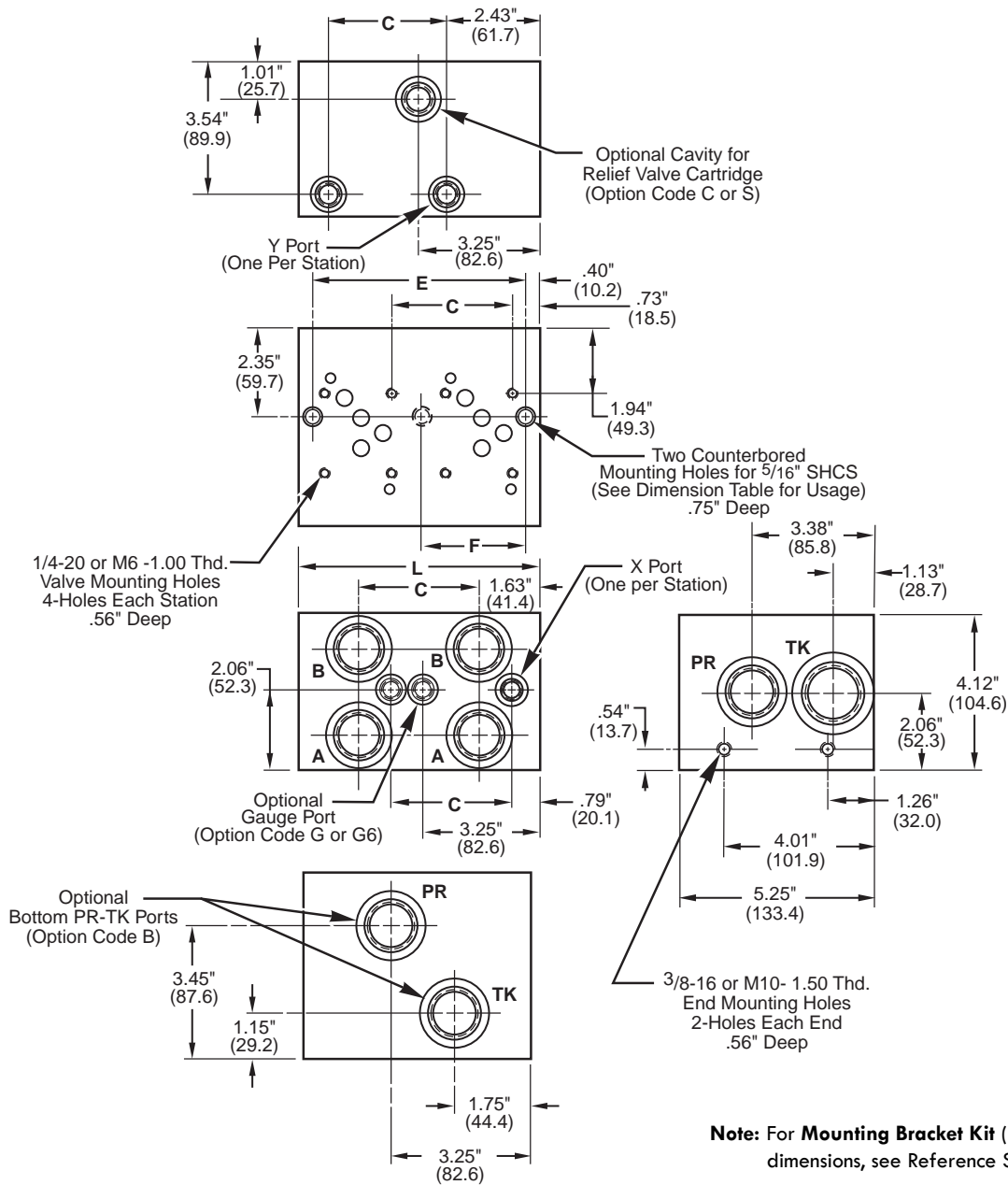
Dimensions (5.00" Valve Spacing)

| No. of Stations | C | L | E | F |
|-----------------|-------|--------|--------|-----------------|
| 2 | 5.00" | 8.25" | 7.45" | - |
| 3 | 5.00" | 13.25" | 12.45" | - |
| 4 | 5.00" | 18.25" | 17.45" | 10.00" |
| 5 | 5.00" | 23.25" | 22.45" | 10.00" |
| 6 | 5.00" | 28.25" | 27.45" | 10.00" & 20.00" |
| 7 | 5.00" | 33.25" | 32.45" | 10.00" & 20.00" |

MAGNALOY D05H ALT. B PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN



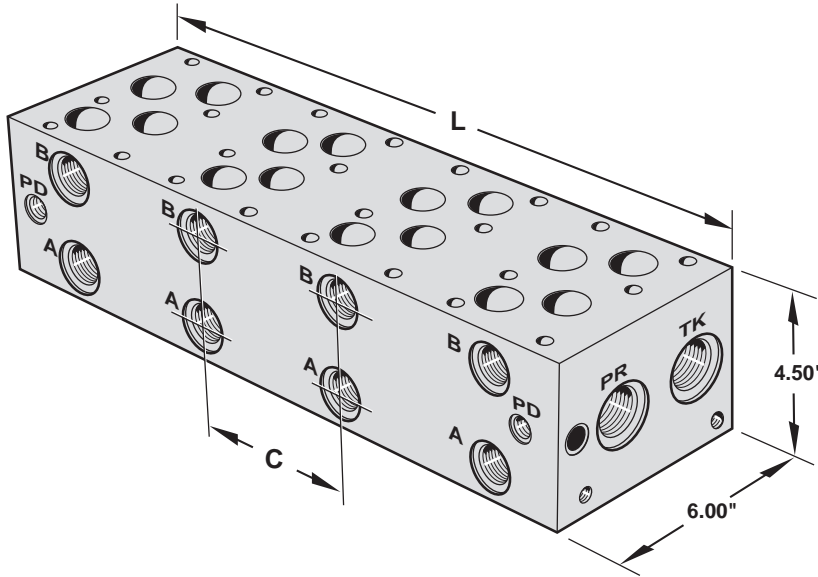
Inline Bar Manifold D05 H Alt. B Bar Manifold - Parallel



Note: For Mounting Bracket Kit (BK-A05) dimensions, see Reference Section, page 202

Port Size Chart

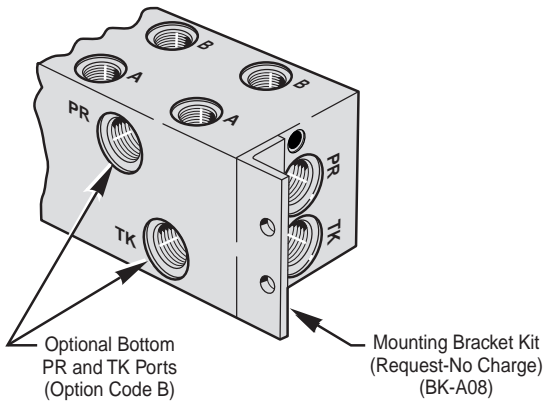
| Thread Code | PR | TK | A & B | A & B (Oversize Option) | Optional Gauge Ports | X & Y |
|-------------|---------|-------------|-----------|-------------------------|-----------------------|-----------|
| P | 1" NPT | 1 1/4" NPT | 3/4" NPT | 1" NPT | 1/4" NPT | 1/4" NPT |
| S | #16 SAE | #20 SAE | #12 SAE | #16 SAE | #4 SAE G6 - #6 SAE | #4 SAE |
| B | 1" BSPP | 1 1/4" BSPP | 3/4" BSPP | 1" BSPP | - | 1/4" BSPP |
| T | 1" BSPT | 1 1/4" BSPT | 3/4" BSPT | 1" BSPT | - | 1/4" BSPT |
| M | M33 | M42 | M27 | M33 | - | M12 |



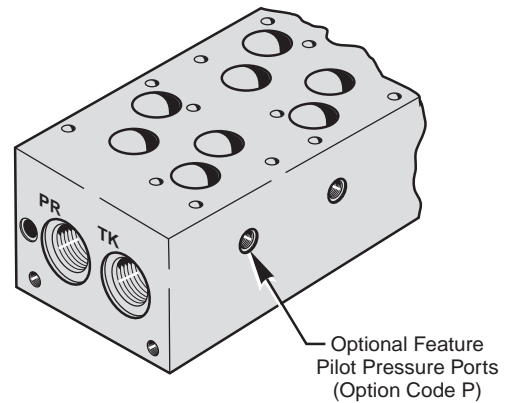
Features & Advantages

- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Large pressure and tank passage for maximum flow capacity.
- + Common pilot drain connection.
- + Standard end mount and through holes. Mounting Bracket kit BK-A08 is supplied (no charge) as an alternate end mounting style.
- + Options include relief valve cavities, bottom PR & TK ports, and gauge port and PR & TK isolation.

Standard Mounting Bracket Kit



Optional Pilot Pressure Ports



MAGNALOY D08 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M - A S P 0 8 P 5 - 0 2 - 0 / B

Product Code
BM-Inline Bar Manifold

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
SP - Standard Flow Parallel Circuit

NFPA Pattern Code
08 - D08

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149

(See Port Chart for Standard Port Sizes)

Options

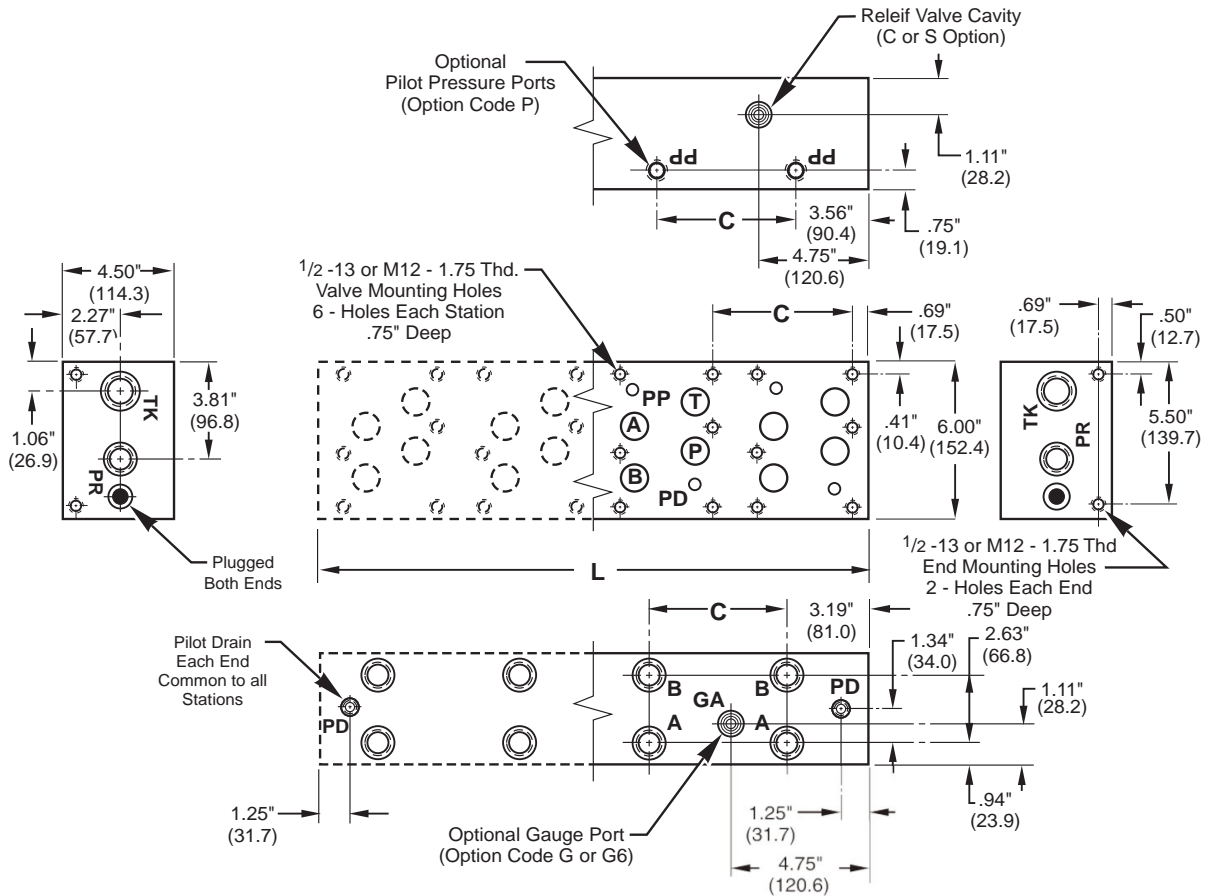
- Z - No Option
- B - Bottom PR-TK Ports
- C - Relief Valve Cavity C-10-2
- G - Gauge Port #4 SAE or 1/4 NPTF
- G6 - Gauge Port #6 SAE
- P - Pilot Pressures (Individual Per Station)
- S - Relief Valve Cavity Sun T-3A
- H - Hard Metric Threading (See Note 2, page 48)
- M - Soft Metric Threading (See Note 3, page 48)
- I - Isolation of Station¹ - Show as last option designated (see Note 1, page 48)

Design Series

Number of Valve Stations
01 - 1 station
02 - 2 stations
etc.

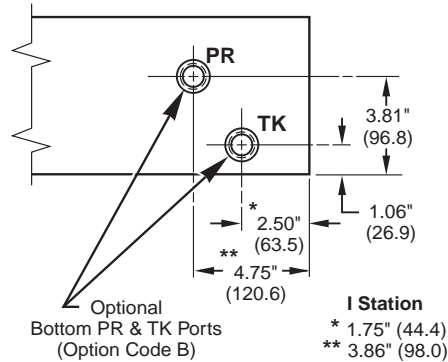
Valve Spacing Code
5 - 5.250
7 - 7.000

Inline Bar Manifold D08 Bar Manifold - Parallel



| No. of Stations | C | | L | |
|-----------------|---------------|-------|---------------|--------|
| | Valve Spacing | | Valve Spacing | |
| | 5.25" | 7.00" | 5.25" | 7.00" |
| 1 | -- | -- | 5.56" | -- |
| 2 | 5.25" | 7.00" | 10.81" | 12.56" |
| 3 | 5.25" | 7.00" | 16.06" | 19.56" |
| 4 | 5.25" | 7.00" | 21.31" | 26.56" |
| 5 | 5.25" | 7.00" | 26.56" | -- |
| 6 | 5.25" | 7.00" | 31.81" | -- |

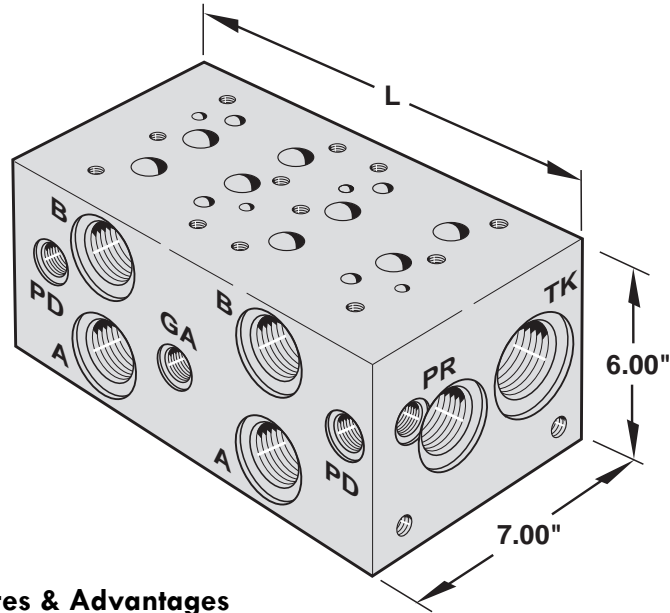
Additional stations available, consult factory.



Port Size Chart

| Thread Code | PR | TK | A & B | PD & Pilot Pressure Ports | Optional Gauge Port |
|-------------|---------|-------------|---------|---------------------------|-----------------------|
| P | 1" NPT | 1 1/4" NPT | 1" NPT | 3/8" NPT | 1/4" NPT |
| S | #16 SAE | #20 SAE | #16 SAE | #6 SAE | #4 SAE G6 - #6 SAE |
| B | 1" BSPP | 1 1/4" BSPP | 1" BSPP | 3/8" BSPP | - |
| T | 1" BSPT | 1 1/4" BSPT | 1" BSPT | 3/8" BSPT | - |
| M | M33 | M42 | M33 | M14 | - |

NOTE: For Mounting Bracket Kit (BK-A08) dimensions, see Reference Section, page 202



Features & Advantages

- + The high flow design provides maximum flow rates with minimum pressure drops.
- + 5 1/4" or 7" valve center option allow the manifold to be sized for specific D08 valve types.
- + Standard end mounting holes make mounting easy and flexible. Also, a mounting bracket kit (BKR-AH08) is supplied with the manifold.
- + Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- + Options include relief valve cavity, bottom PR & TK ports, and 'PR' isolation to fit specific circuit requirements.
- + Standard Gauge Port is 1/4" NPT with "P" code and #6 SAE with "S" Code (#4 SAE available with G4 option).

Dimensions (5.25" Valve Spacing)

| No. of Stations | C | L |
|-----------------|-------|--------|
| 1 | -- | 6.25" |
| 2 | 5.25" | 11.50" |
| 3 | 5.25" | 16.75" |
| 4 | 5.25" | 22.00" |
| 5 | 5.25" | 27.25" |
| 6 | 5.25" | 32.50" |

Dimensions (7.00" Valve Spacing)

| No. of Stations | C | L |
|-----------------|-------|--------|
| 2 | 7.00" | 13.25" |
| 3 | 7.00" | 20.25" |
| 4 | 7.00" | 27.25" |
| 5 | 7.00" | 34.25" |

MAGNALOY D08 PARALLEL BAR MANIFOLD PART NUMBER BREAKDOWN

B M R - A H P 0 8 P 7 - 0 2 - 1 / B

Product Code
BMR-Inline Bar Manifold
Retro Design

Material Code
A - Aluminum
S - Ductile/Steel

Circuit Code
HP- High Flow Parallel Circuit

NFPA Pattern Code
08 - D08

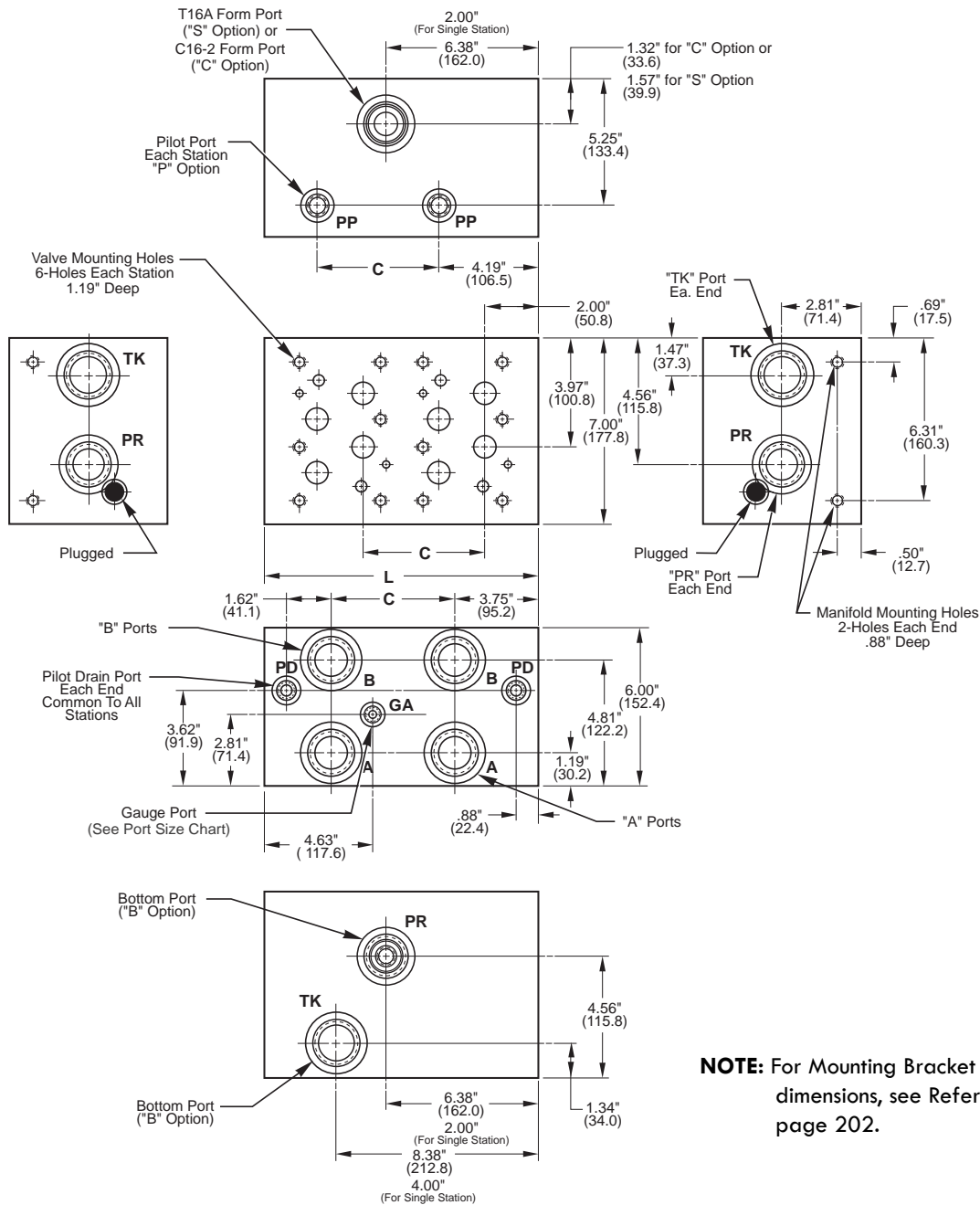
Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149
(See Port Chart for Standard Port Sizes)

Options
Z - No Option
B - Bottom PR-TK Ports
C - Relief Valve Cavity C-16-2
G4 - Gauge Port #4 SAE
P - Pilot Pressures (Individual Per Valve)
S - Relief Valve Cavity Sun T-16A
M - Soft Metric Threading (See Note 3, page 48)
I - Isolation of Station¹ - Consult Factory for Port Isolation Option Availability.
(see Note 1, page 48)

Design Series
Number of Valve Stations
01 - 1 station
02 - 2 stations
etc.

Valve Spacing Code
5 - 5.250
7 - 7.000

Inline Bar Manifold D08 High Flow Retro Design Bar Manifold - Parallel

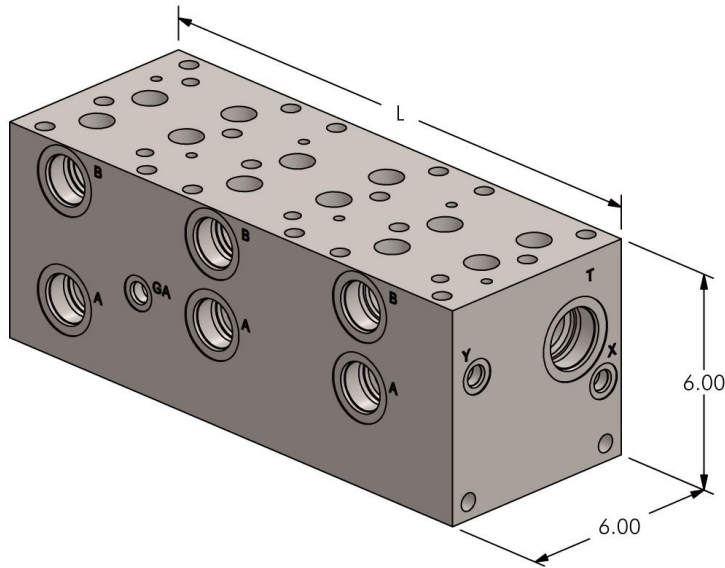


NOTE: For Mounting Bracket Kit (BKR-AH08) dimensions, see Reference Section, page 202.

Port Size Chart

| Thread Code | PR | TK | A & B | Pilots | | Gauge Port | Mounting Holes | |
|-------------|-------------|-------------|-------------|-----------|-----------|-----------------------|----------------|------------|
| | | | | PD (y) | PP (x) | | Valve | Manifold |
| P | 1 1/4" NPT | 1 1/2" NPT | 1 1/4" NPT | 1/2" NPT | 1/4" NPT | 1/4" NPT | 1/2-13 UNC | 1/2-13 UNC |
| S | #20 SAE | #24 SAE | #20 SAE | #8 SAE | #4 SAE | G4 - #4 SAE #6 SAE | 1/2-13 UNC | 1/2-13 UNC |
| B | 1 1/4" BSPP | 1 1/2" BSPP | 1 1/4" BSPP | 1/2" BSPP | 1/4" BSPP | - | M12-1.75 | M12-1.75 |
| T | 1 1/4" BSPT | 1 1/2" BSPT | 1 1/4" BSPT | 1/2" BSPT | 1/4" BSPT | - | M12-1.75 | M12-1.75 |
| M | M42 x 2 | M48 x 2 | M42 x 2 | M16 x 1.5 | M10 x 1.0 | - | M12-1.75 | M12-1.75 |

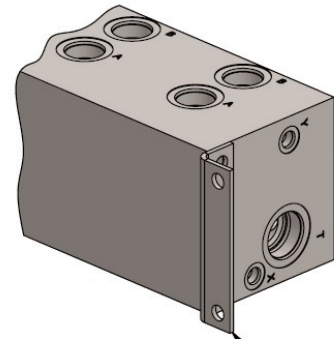
3



Features & Advantages

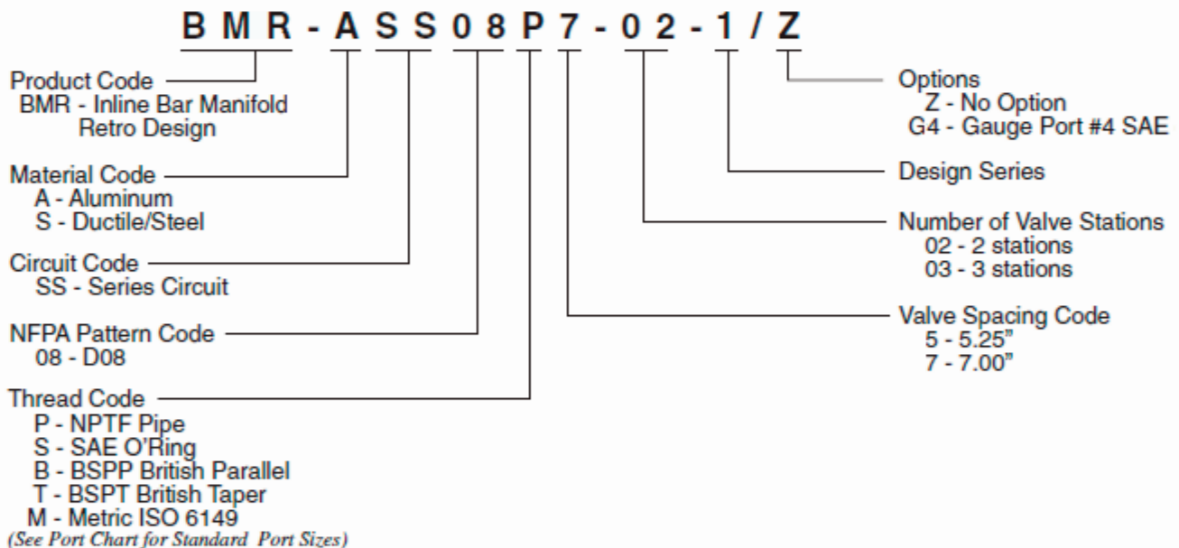
- * Available with SAE, NPT, BSPP, BSPT or Metric Threads to cover a wide range of applications.
- * Large pressure and tank passages for maximum flow capacity.
- * Common pilot pressure and drain connections.
- * Standard end mounting holes make mounting easy and flexible. Includes mounting bracket kit (BKR-SS08).

Standard Mounting Bracket Kit



Mounting Bracket Kit
BKR-SS08
(Included)

MAGNALOY D08 SERIES BAR MANIFOLD PART NUMBER BREAKDOWN



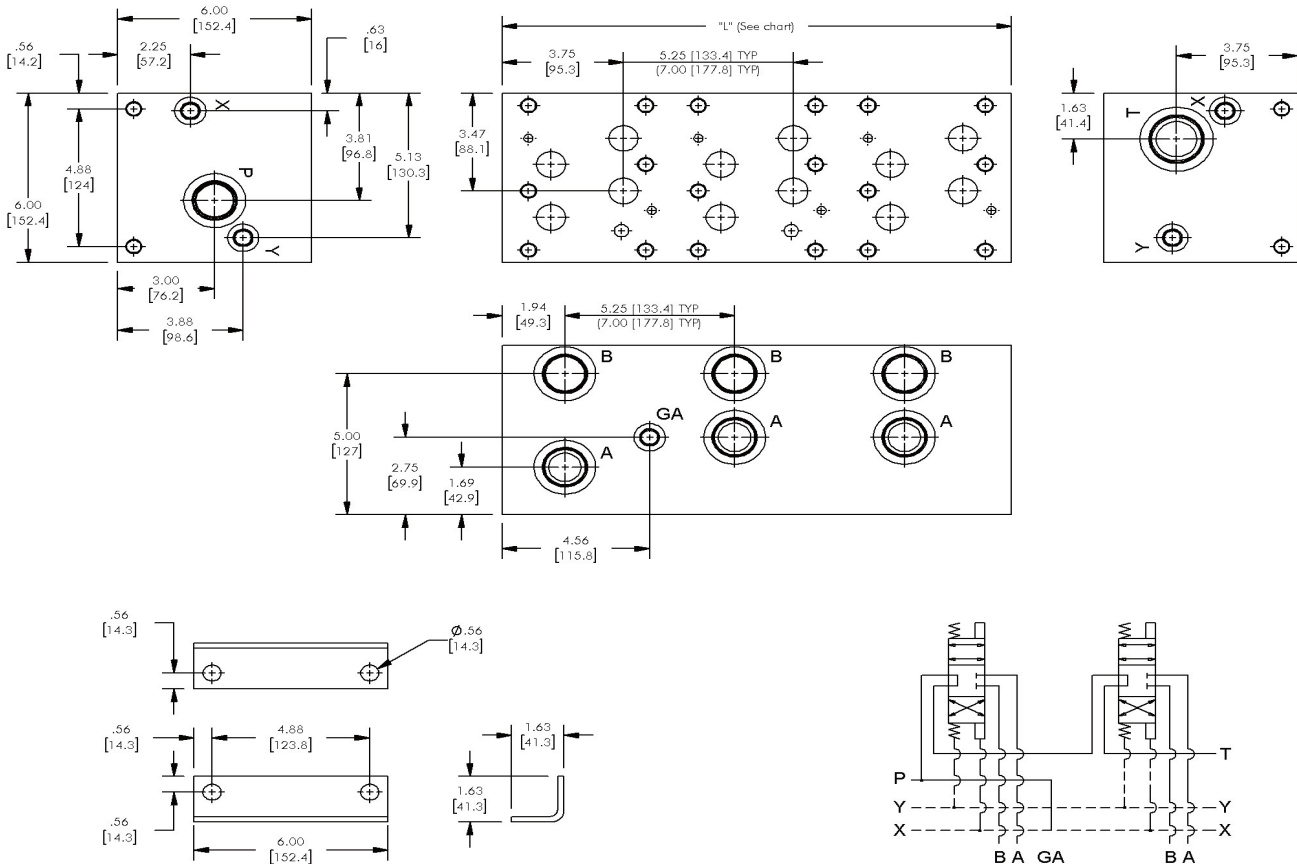
Inline Bar Manifold D08 Bar Manifold - Series



| "L" Part Length by Spacing & Stations | | |
|---------------------------------------|--------|--------|
| No. of Stations | 2 | 3 |
| 5.25" Spacing | 10.5" | 15.75" |
| 7" Spacing | 12.25" | 19.25" |

Note: No additional options available for D08 Series Bar Manifold.

Additional stations available, consult factory.



3

Port Size Chart

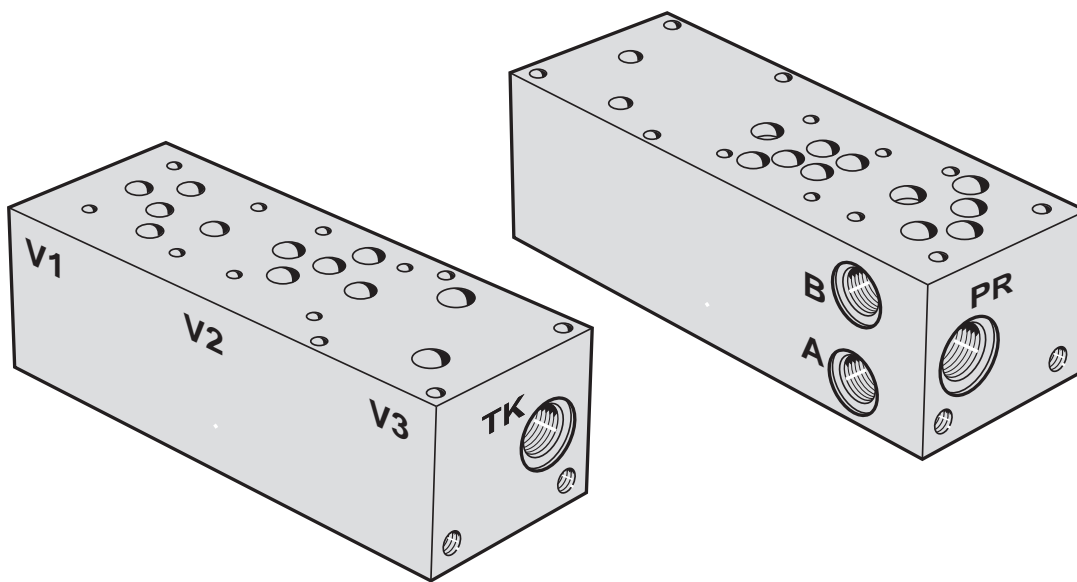
| Thread Code | PR | TK | A & B | X, Y | GA | Optional Gauge |
|-------------|---------|-------------|---------|-----------|----------|----------------|
| P | 1" NPT | 1 1/4" NPT | 1" NPT | 3/8" NPT | 1/4" NPT | - |
| S | #16 SAE | #20 SAE | #16 SAE | #6 SAE | #6 SAE | G4 - #4 SAE |
| B | 1" BSPP | 1 1/4" BSPP | 1" BSPP | 3/8" BSPP | - | - |
| T | 1" BSPT | 1 1/4" BSPT | 1" BSPT | 3/8" BSPT | - | - |
| M | M33 | M42 | M33 | M14 | - | - |

NOTE: For Mounting Bracket Kit (BKR-SS08) dimensions, see Reference Section, page 202.

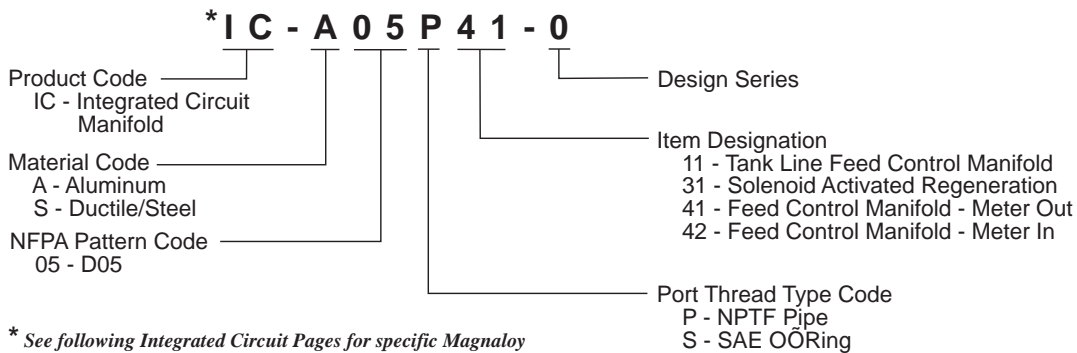
INDEX:

Page **Integrated Circuit Manifolds**

- 74 D05 Tank Line Feed Control Manifold
- 75 D05 Feed Control Manifold - Cylinder Port Meter Out and Meter In
- 76 D05 Solenoid Activated Regeneration Module



MAGNALOY IC MANIFOLD PART NUMBER BREAKDOWN



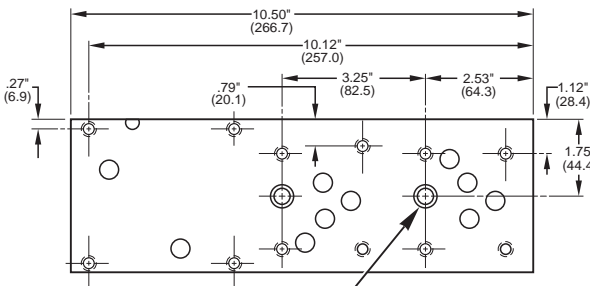
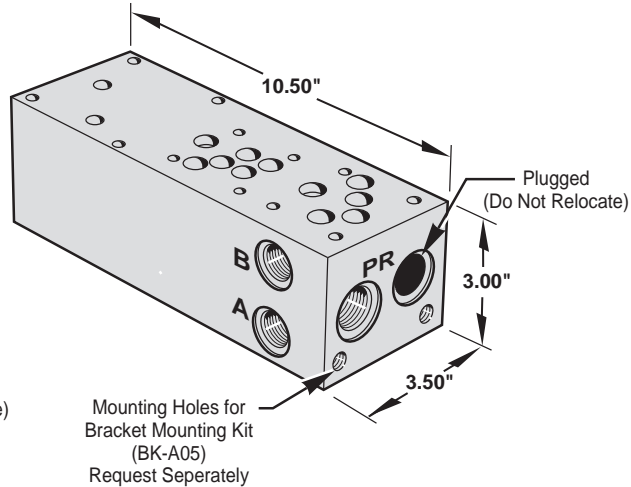
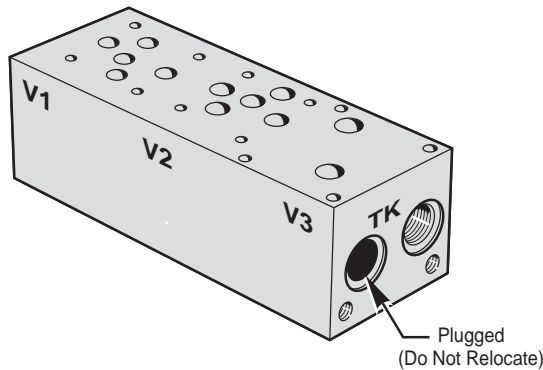
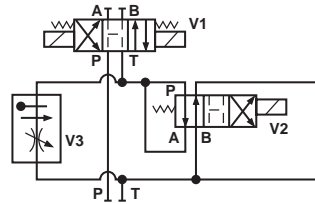
Integrated Circuit Manifold

D05 Tank Line Feed Control Manifold

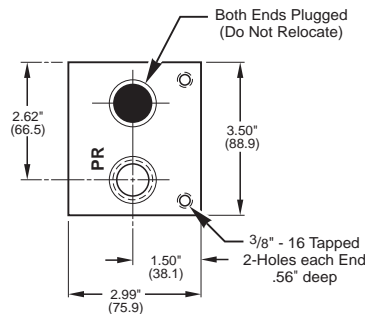
The integrated circuit manifold, Number IC-A05x11-0 and IC-S05x11-0, provides a "Meter Out" pressure compensated flow control circuit. The flow control is placed in the tank line to allow control in either/both direction(s) of travel. Selector valve (V2) allows electrical switching from rapid travel (nominal flow of 10 GPM) to feed (from fractional to 6.5 GPM). Note: Single rod end cylinders will not have the same speed in both directions.

Valves Required

- V1 — Directional Control Valve (NFPA D05)
- V2 — Directional Control Valve, Spring Off-Set (NFPA D05)
- V3 — Pressure Compensated Flow Control (NFPA 2F02)



Two Counterbored Mounting Holes for 5/16" Socket Head Cap Screws .50" Deep

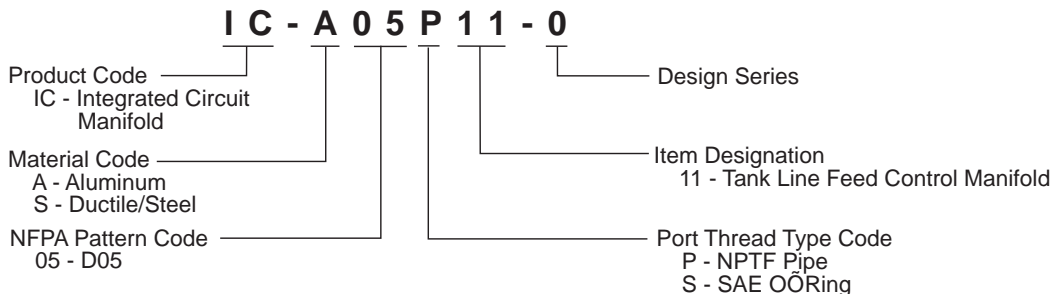


| Port Designation | IC-_05P11-0 | IC-_05S11-0 |
|------------------|-------------|-------------|
| A & B | 1/2" NPTF | #8 SAE |
| PR | 3/4" NPTF | #12 SAE |
| TK | 3/4" NPTF | #12 SAE |

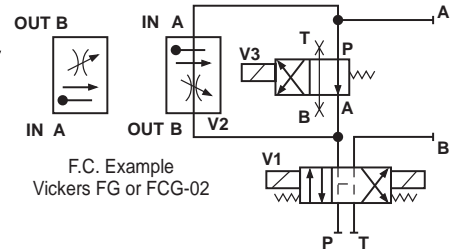
| Part Number | |
|-------------|---|
| SAE | IC-A05S11-0 Aluminum IC-S05S11-0 Ductile/Steel |
| NPT | IC-A05P11-0 Aluminum IC-S05P11-0 Ductile/Steel |

NOTE: For Mounting Bracket Kit (BK-A05) dimensions, see Reference Section, page 202.

MAGNALOY IC MANIFOLD PART NUMBER BREAKDOWN

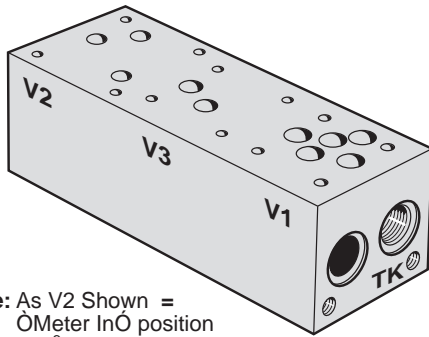


The integrated circuit manifold, Number IC-_05x41-0, provides a "Meter Out" and IC-_05x42 provides a "Meter In" pressure compensated flow control circuit. The flow control is placed in the port line in parallel with a selector valve which allows electrical switching to rapid transverse (nominal flow of 10 GPM) or controlled speed (from fractional to 6.5 GPM).

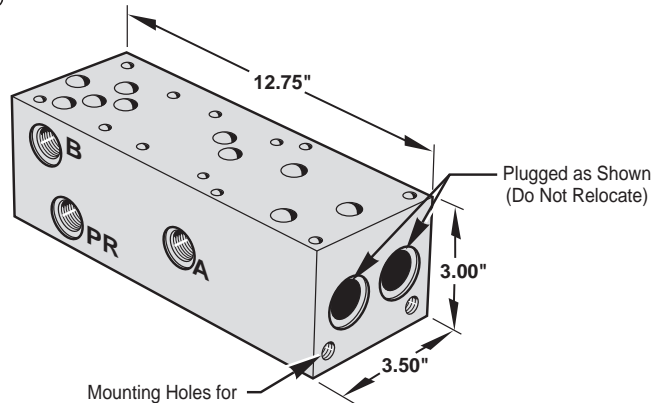


Valves Required

- V1 — Directional Control Valve (NFPA D05)
- V2 — Pressure Compensated Flow Control Valve (NFPA 2F02)
- V3 — Directional Control Valve, Spring Offset, Open Center Spool Recommended (NFPA D05)

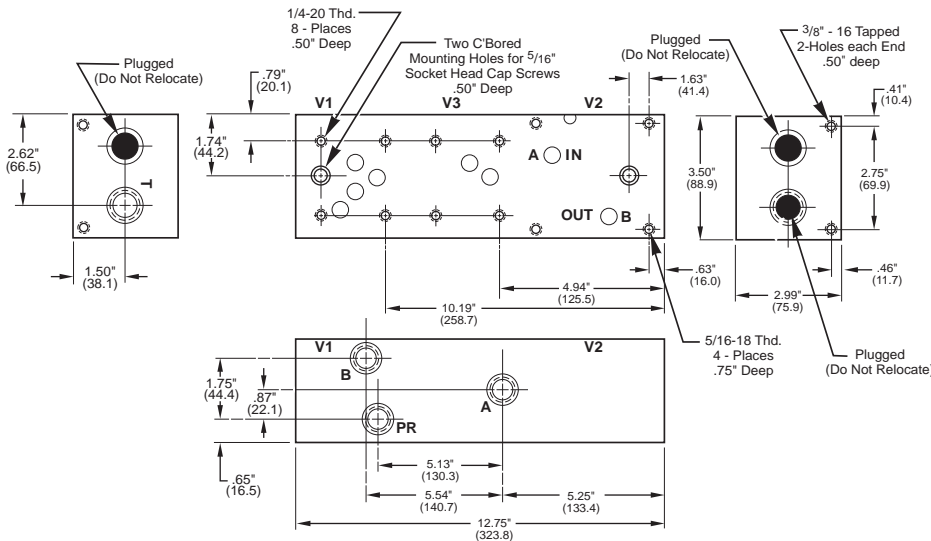


Note: As V2 Shown =
O Meter In O position
180° Rotation =
O Meter Out O position



Mounting Holes for
Bracket Mounting Kit
(BK-A05)
Request Separately

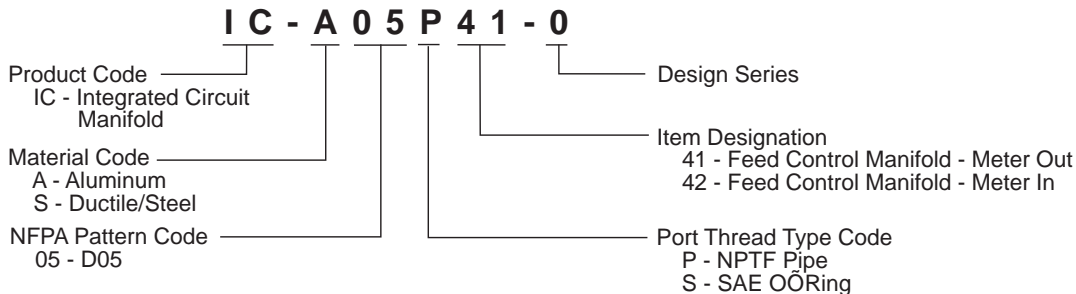
NOTE: For Mounting Bracket Kit (BK-A05) dimensions, see Reference Section, page 202



| Port Designation | IC-_05P4_-0 | IC-_05S4_-0 |
|------------------|-------------|-------------|
| A, B & P | 1/2" NPT | #8 SAE |
| TK | 3/4" NPT | #12 SAE |

| Part Number | |
|-------------|---------------------------|
| SAE | IC-A05S4_-0 Aluminum |
| | IC-S05S4_-0 Ductile/Steel |
| NPT | IC-A05P4_-0 Aluminum |
| | IC-S05P4_-0 Ductile/Steel |

MAGNALOY IC MANIFOLD PART NUMBER BREAKDOWN



Integrated Circuit Manifold D05 Solenoid Activated Regeneration Module

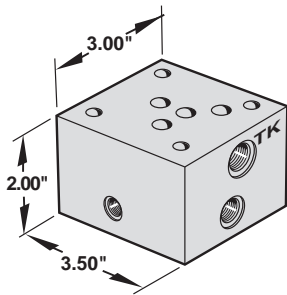


The integrated circuit modules, Number IC-A05x31-0 and IC-S05x31-0, provide a regeneration circuit where the oil is discharged from the rod end of a differential area, (2:1) cylinder is combined with the pump flow for rapid, regenerative, forward travel. The module must be mounted on a 2 station, D05, parallel bar manifold (see page 57) to complete the circuit assembly.

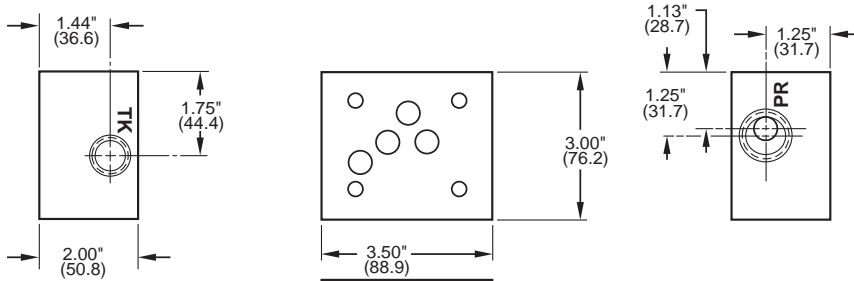
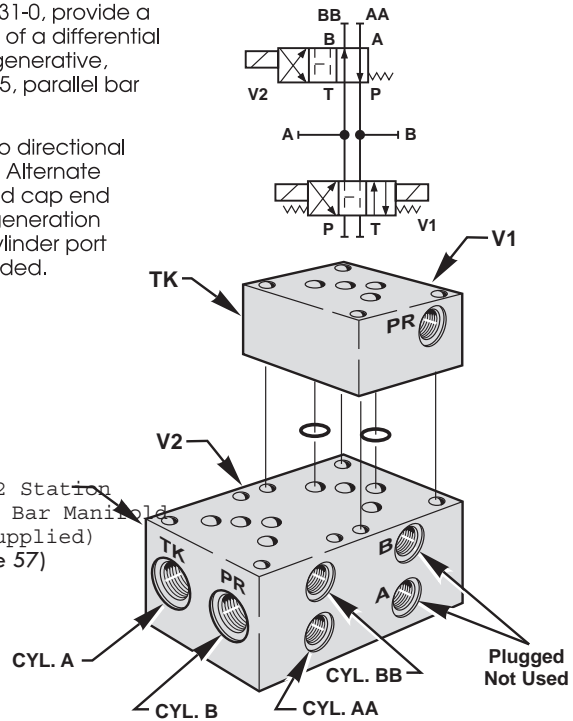
When the machine cycle requires full force, an electrical signal to directional control valve V2 redirects rod end flow to tank through valve V1. Alternate ports are provided for both the rod end connection (AA) (BB) and cap end connection (A) (B). This allows the designer to select whether regeneration occurs when V2 is energized or de-energized and a choice of cylinder port combinations. Ports not used should be plugged with plugs provided.

Valves Required

- V1 — Directional Control Valve (NFPA D05)
- V2 — Directional Control Valve, Spring Offset, Open Center Spoon Recommended (NFPA D05)



D05 - 2 Station Parallel Bar Manifold (Not Supplied) (see page 57)

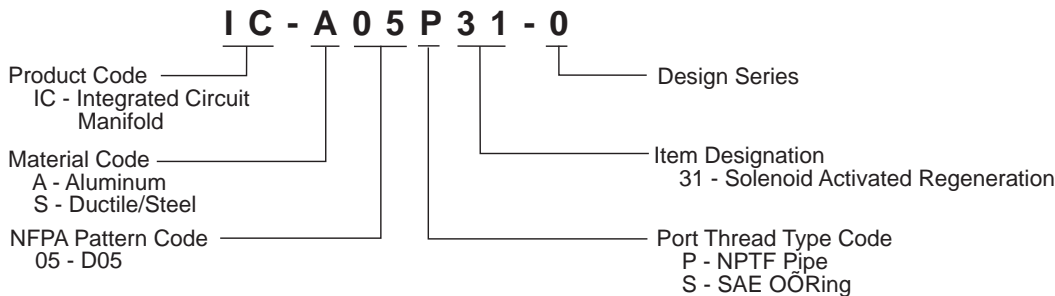


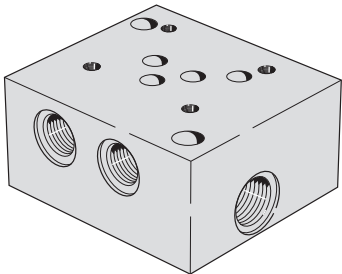
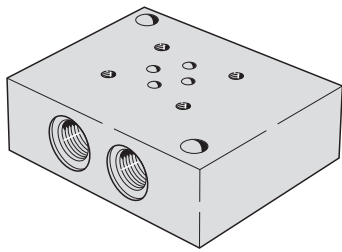
| Port Designation | IC-05P31-0 | IC-05S31-0 |
|------------------|------------|------------|
| Pressure Conn | 1/2" NPTF | #8 SAE |
| Tank Conn | 1/2" NPTF | #8 SAE |
| Cyl AA & BB | 1/2" NPTF | #8 SAE |
| Cyl A & B | 3/4" NPTF | #12 SAE |

| Part Number | |
|-------------|---|
| SAE | IC-A05S31-0 Aluminum IC-S05S31-0 Ductile/Steel |
| NPT | IC-A05P31-0 Aluminum IC-S05P31-0 Ductile/Steel |

Supplied Hardware
O-Rings Ñ Viton (2) 5/8" OD x 1/2" ID x 1/16" CS
OORing Pocket for 5/8" O.D. OORing 2 - Places

MAGNALOY IC MANIFOLD PART NUMBER BREAKDOWN





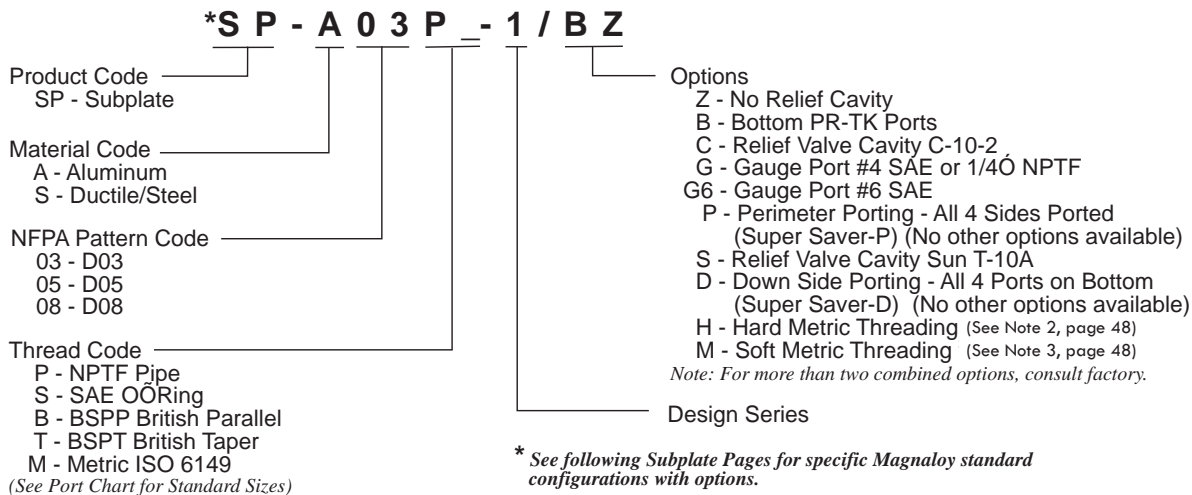
| INDEX | | Part Number | |
|-------|---|--------------|---------------|
| Page | Super Saver Subplates | Aluminum | Ductile/Steel |
| 78 | NFPA D03 Valves - Perimeter Ported | SP-A03_-1/PZ | SP-S03_-1/PZ |
| 79 | NFPA D03 Valves - Down Side Ported | SP-A03_-1/DZ | SP-S03_-1/DZ |
| 80 | NFPA D05 Valves - Perimeter Ported | SP-A05_-1/PZ | SP-S05_-1/PZ |
| 81 | NFPA D05 Valves - Down Side Ported | SP-A05_-1/DZ | SP-S05_-1/DZ |
| Page | Side Ported Subplates | Aluminum | Ductile/Steel |
| 82 | NFPA D03 Valves - Side Ported | SP-A03_-1/_ | SP-S03_-1/_ |
| 83 | NFPA D05 Valves - Side Ported | SP-A05_-1/_ | SP-S05_-1/_ |
| 84 | NFPA D05 Valves - High Flow Side Ported | SP-AH05_-1/_ | SP-SH05_-1/_ |
| 85 | NFPA D08 Valves - Side Ported | SP-A08_-1/_ | SP-S08_-1/_ |

Standard Subplate - includes specified NFPA valve pattern mounting on the top surface of the subplate, A & B ports per the specified thread type on the sides of the subplate and pressure and tank ports per the specified thread type on the bottom and side surfaces of the subplate. Mounting provisions include two (2) counter bored through holes on the top surface of the subplate.

Options:

- Z** - No Relief Valve Cavity - specifies that no relief valve cavity is provided (standard subplate).
- B** - Bottom PR & TK ports - additional pressure and tank ports per specified thread type located on the bottom of the subplate. (Not available with P or D options).
- C** - Relief Valve Cavity - common cavity configuration added to a back surface of the subplate.
- D** - Down Side Porting - (Super Saver - DZ) - all 4 ports (A, B, PR & TK) are located on the bottom surface of the subplate. No other porting or options are provided.
- P** - Perimeter Porting - (Super Saver - PZ) - locates the A, B, PR & TK ports on a separate side surface of the subplate. No other porting or options are provided.
- S** - Relief Valve Cavity - Sun cavity configuration added to a back surface of the subplate.
- G** - #4 SAE Gauge Port with "S", "B", or "M" thread code OR 1/4" NPT with "P" or "T" thread code.
- G6** - #6 SAE Gauge Port with "S", "B" or "M" thread code.
- H** - Hard Metric Threading - when British or Metric thread type is specified, the valve mounting holes are also metric threaded.
- S** - Soft Metric Threading - indicates mixed metric threading. When NPT or SAE thread type is specified, valve mounting holes are metric threaded. No Code (M) indicates the valve mounting holes are English threaded.

MAGNALOY SUBPLATE PART NUMBER BREAKDOWN



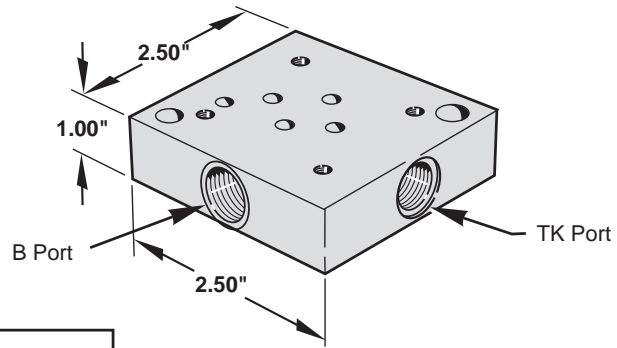
Super Saver Subplates D03 - Perimeter Ported



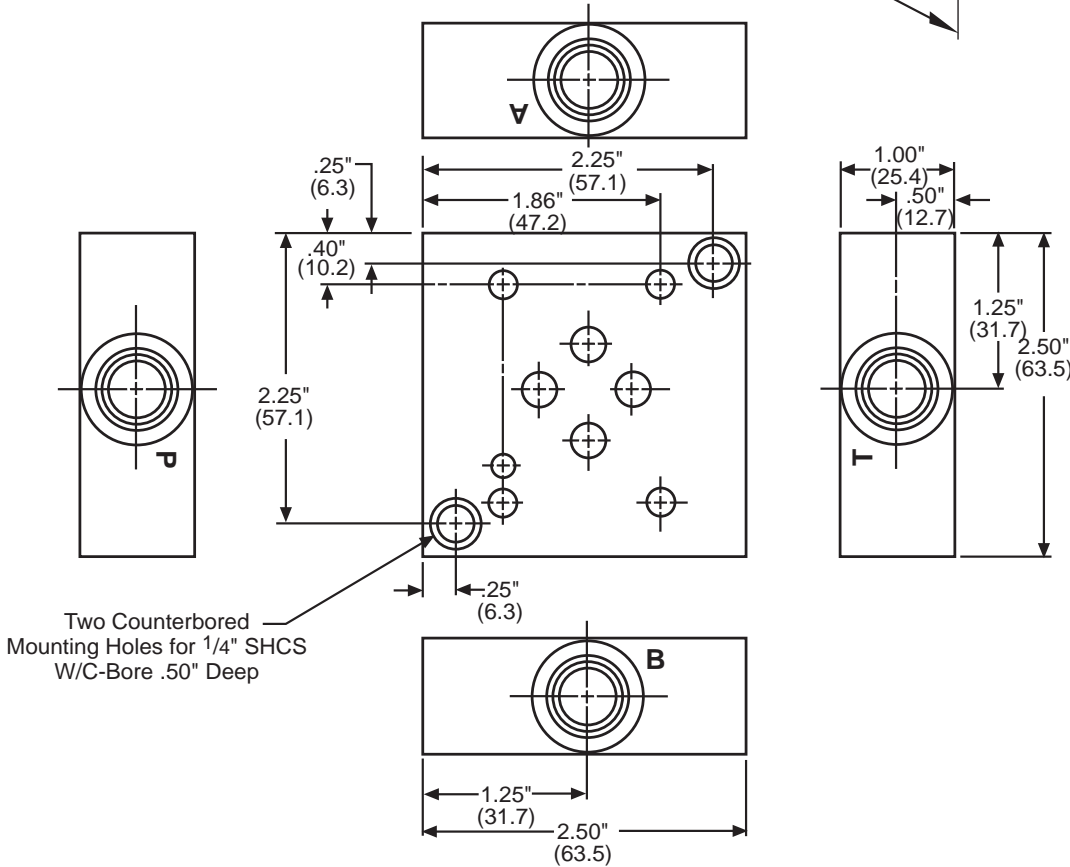
Application:

Subplate used for mounting directional valve with NFPA D03 Interface.

A, B, PR & TK ports on 4 separate sides.

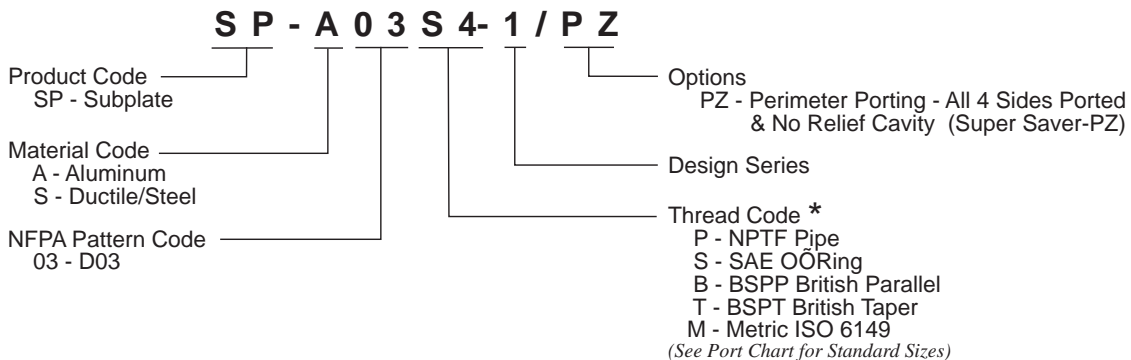


3



| Thread Code | PR, TK, A & B |
|-------------|---------------|
| P4 | 1/4" NPT |
| S4 | #4 SAE |
| B4 | 1/4" BSPP |
| T4 | 1/4" BSPT |
| M4 | M10 x 1.0 |
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |

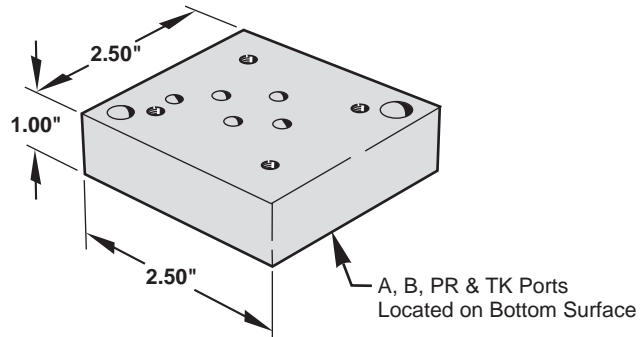
MAGNALOY D03 SUPER SAVER SUBPLATE PART NUMBER BREAKDOWN



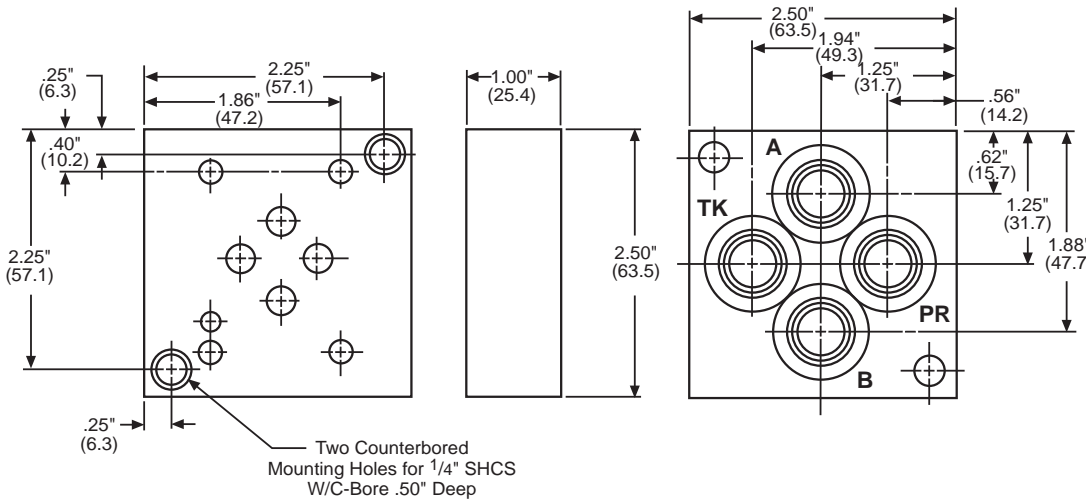
Application:

Subplate used for mounting directional valve with NFPA D03 Interface.

A, B, PR & TK ports on bottom surface.

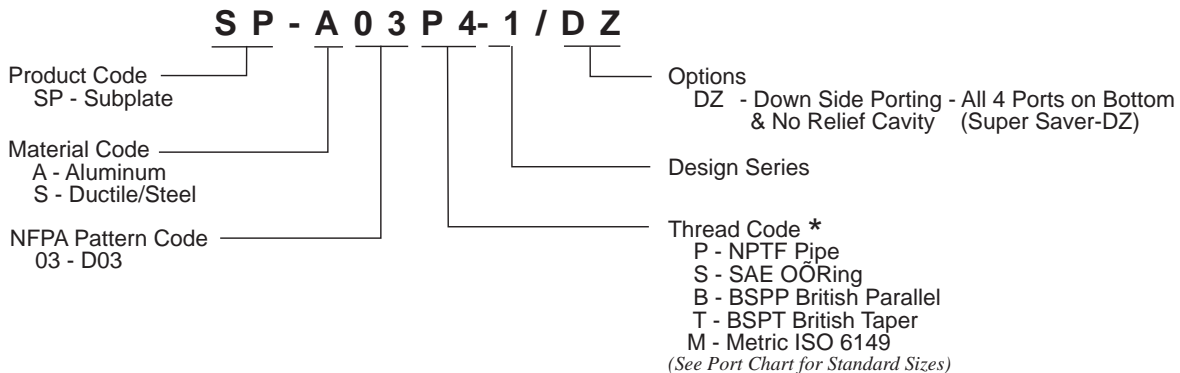


3



| Thread Code | PR, TK, A & B |
|-------------|---------------|
| P4 | 1/4" NPT |
| S4 | #4 SAE |
| B4 | 1/4" BSPP |
| T4 | 1/4" BSPT |
| M4 | M10 x 1.0 |
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |

MAGNALOY D03 SUPER SAVER SUBPLATE PART NUMBER BREAKDOWN



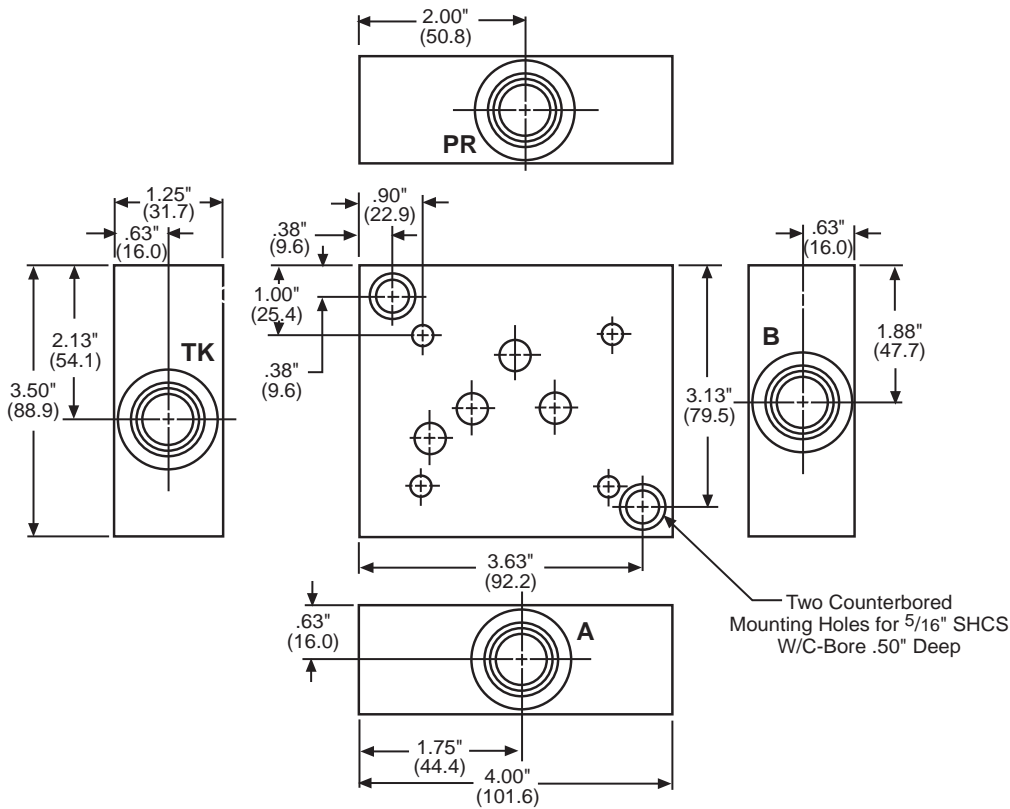
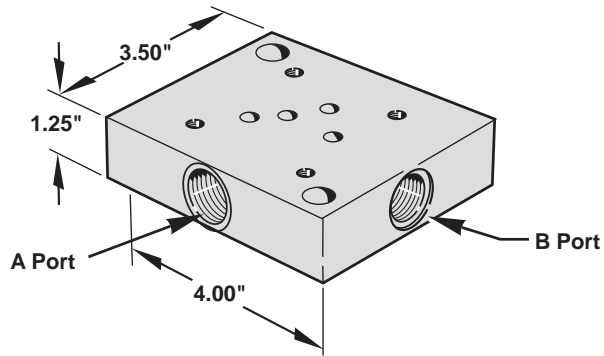
Super Saver Subplates D05 - Perimeter Ported



Application:

Subplate used for mounting directional valve with NFPA D05 Interface.

A, B, PR & TK ports on 4 separate sides.



| * | |
|-------------|---------------|
| Thread Code | PR, TK, A & B |
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |
| P8 | 1/2" NPT |
| S8 | #8 SAE |
| B8 | 1/2" BSPP |
| T8 | 1/2" BSPT |
| M8 | M18 x 1.5 |

MAGNALOY D05 SUPER SAVER SUBPLATE PART NUMBER BREAKDOWN

S P - A 0 5 S 6 - 1 / P Z

Product Code
SP - Subplate

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
05 - D05

Options

PZ - Perimeter Porting - All 4 Sides Ported & No Relief Cavity (Super Saver-PZ)

Design Series

Thread Code *

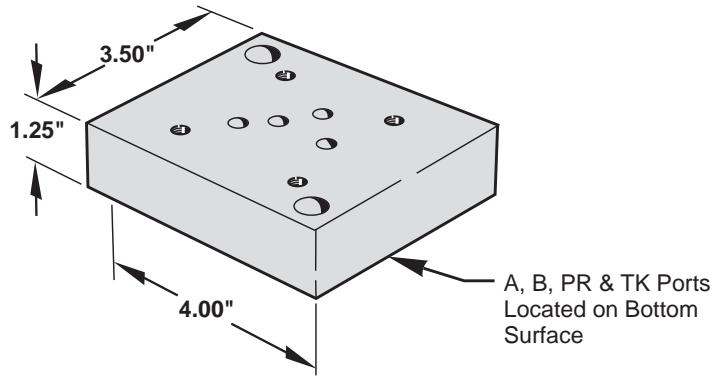
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149

(See Port Chart for Standard Sizes)

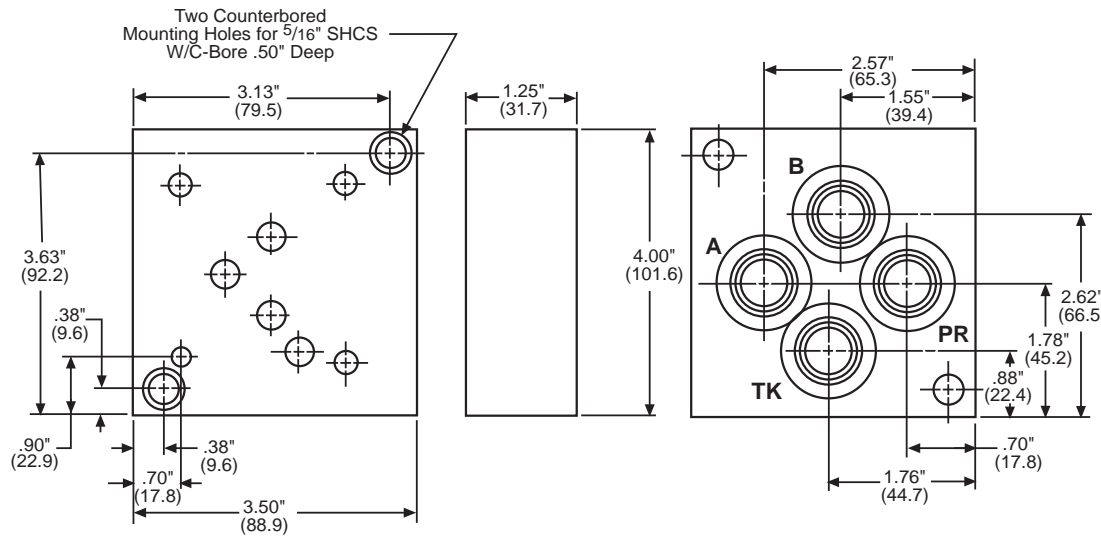
Application:

Subplate used for mounting directional valve with NFPA D05 Interface.

A, B, PR & TK ports on bottom surface.

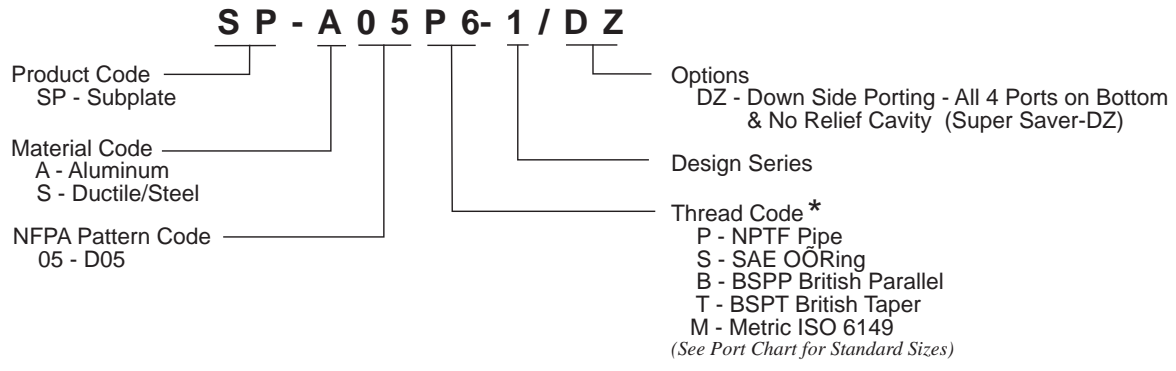


3



| Thread Code | PR, TK, A & B |
|-------------|---------------|
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |
| P8 | 1/2" NPT |
| S8 | #8 SAE |
| B8 | 1/2" BSPP |
| T8 | 1/2" BSPT |
| M8 | M18 x 1.5 |

MAGNALOY D05 SUPER SAVER SUBPLATE PART NUMBER BREAKDOWN



Side Ported Subplates D03 - Side Ported

Application:

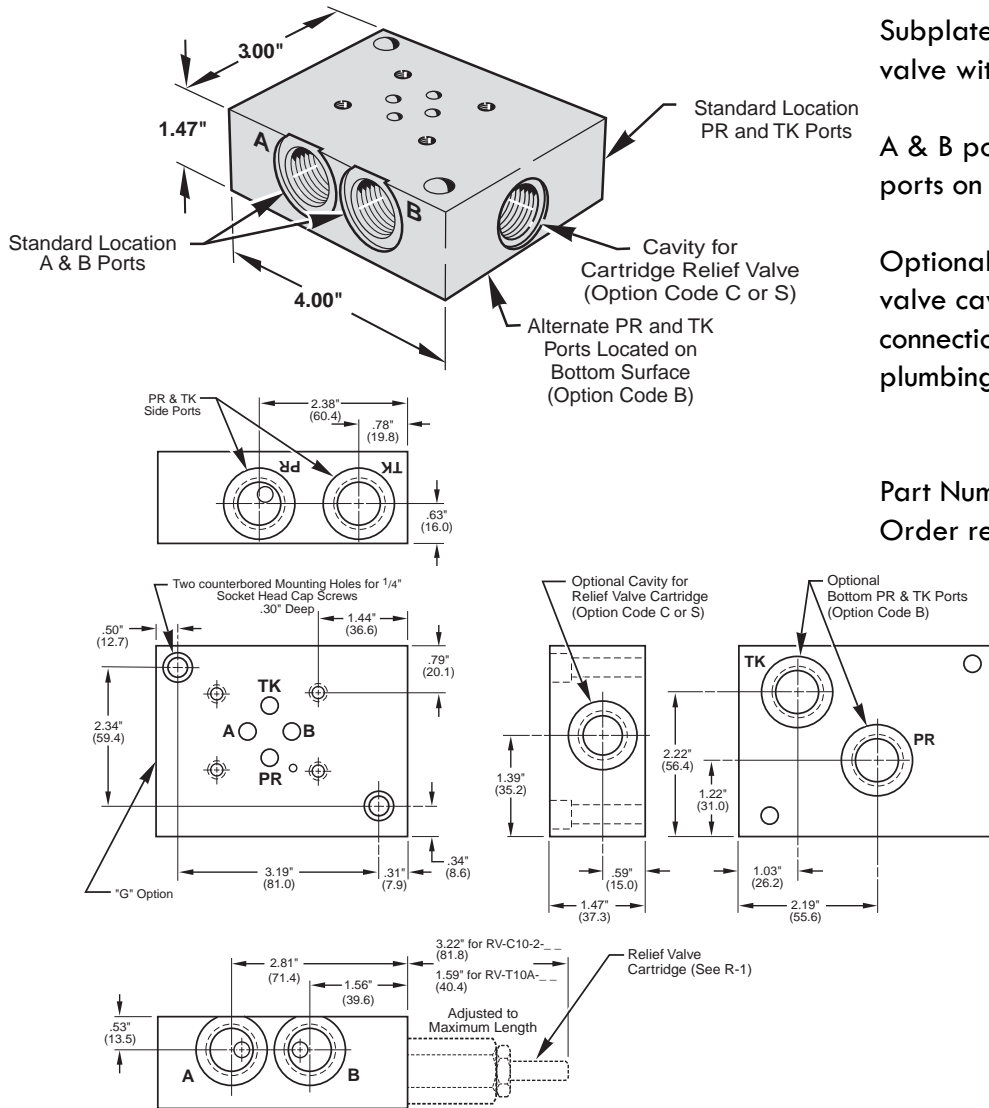
Subplate used for mounting directional valve with NFPA D03 Interface.

A & B ports on a common side, PR & TK ports on opposite side.

Optional features include cartridge relief valve cavity with the tank and pressure connections on the bottom surface to allow plumbing directly through the reservoir top.

Note:

Part Number includes the subplate only.
Order relief valve cartridge separately.



| * Thread Code | PR, TK, A & B |
|---------------|---------------|
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |
| P8 | 1/2" NPT |
| S8 | #8 SAE |
| B8 | 1/2" BSPP |
| T8 | 1/2" BSPT |
| M8 | M18 x 1.5 |

MAGNALOY D03 SUBPLATE PART NUMBER BREAKDOWN

S P - A 0 3 P 6 - 1 / B Z

Product Code
SP - Subplate

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
03 - D03

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149
(See Port Chart for Standard Sizes)

Options

Z - No Relief Cavity
B - Bottom PR-TK Ports (W/Side PR & TK)
C - Relief Valve Cavity C-10-2
G - Gauge Port #4 SAE or 1/4 NPTF
S - Relief Valve Cavity Sun T-10A
H - Hard Metric Threading (See Note 2, page 48)
M - Soft Metric Threading (See Note 3, page 48)
Note: For more than two combined options, consult factory.

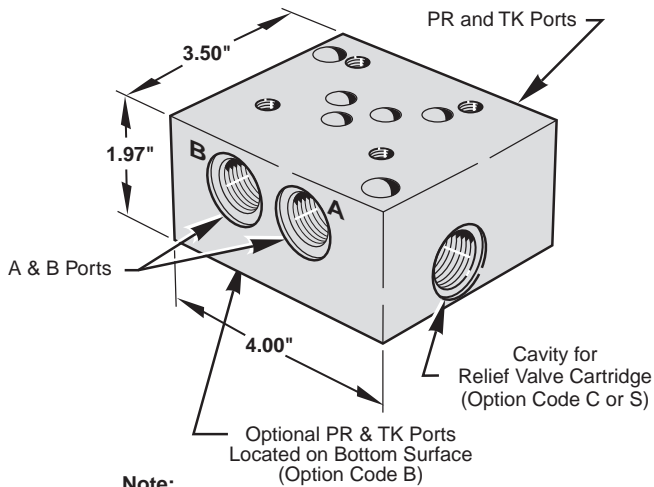
Design Series

Application:

Subplate used for mounting directional valve with NFPA D05 Interface.

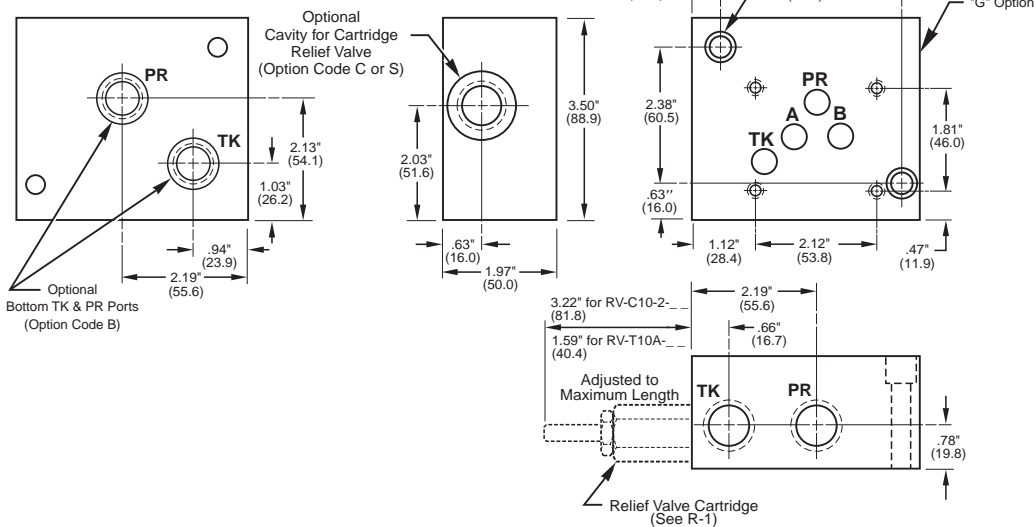
A & B ports on a common side, PR & TK ports on opposite side.

Optional features include cartridge relief valve cavity with the tank and pressure connections on the bottom surface to allow plumbing directly through the reservoir top.



Note:

Part no. includes the subplate only. Order relief valve cartridge separately.



| Thread Code | PR, TK, A & B |
|-------------|---------------|
| P6 | 3/8" NPT |
| S6 | #6 SAE |
| B6 | 3/8" BSPP |
| T6 | 3/8" BSPT |
| M6 | M14 x 1.5 |
| P8 | 1/2" NPT |
| S8 | #8 SAE |
| B8 | 1/2" BSPP |
| T8 | 1/2" BSPT |
| M8 | M18 x 1.5 |

MAGNALOY D05 SUBPLATE PART NUMBER BREAKDOWN

S P - A 0 5 P 6 - 1 / B Z

Product Code
SP - Subplate

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
05 - D05

Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149
(See Port Chart for Standard Sizes)

Options

Z - No Relief Cavity
B - Bottom PR-TK Ports (W/Side PR & TK)
C - Relief Valve Cavity C-10-2
G - Gauge Port #4 SAE or 1/4 NPTF
S - Relief Valve Cavity Sun T-10A
H - Hard Metric Threading (See Note 2, page 48)
M - Soft Metric Threading (See Note 3, page 48)
Note: For more than two combined options, consult factory.

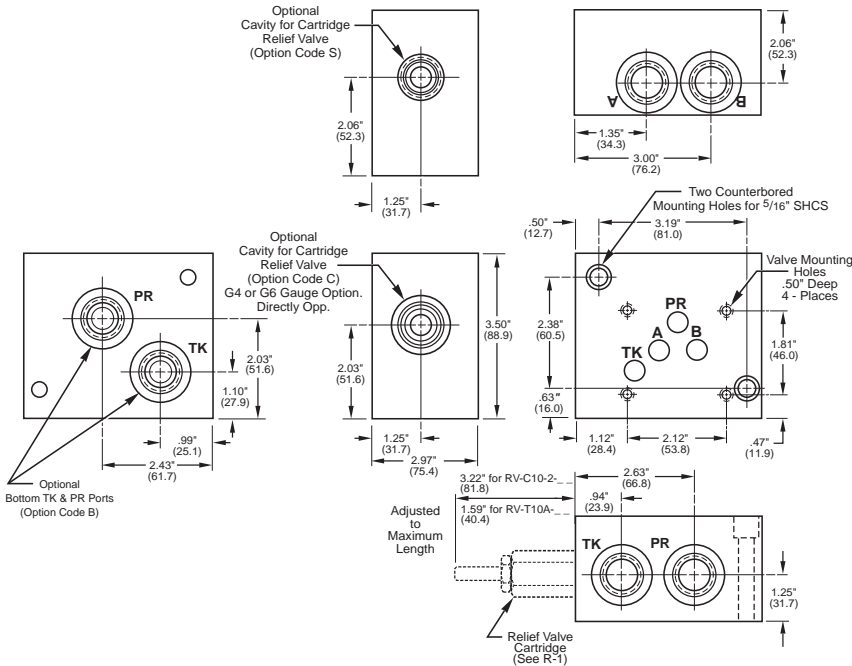
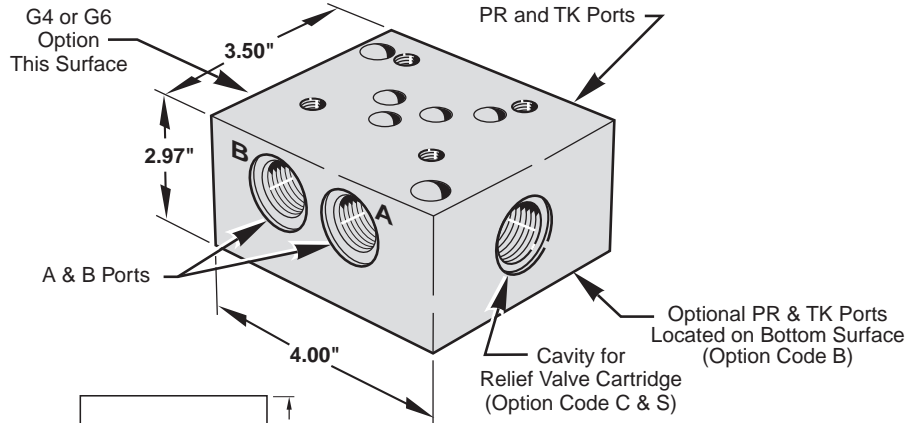
Design Series

Side Ported Subplates D05 - High Flow Side Ported

Application:
Subplate used for mounting directional valve with NFPA D05 Interface.

A & B ports on a common side, PR & TK on opposite side.

Optional features include cartridge relief valve cavity, gauge port and tank and pressure connections on the bottom surface to allow plumbing directly through a reservoir top.



| Thread Code | PR, TK, A & B | Valve Mounting |
|-------------|---------------|----------------|
| P12 | 3/4" NPT | 1/4-20 UNC |
| S12 | #12 SAE | 1/4-20 UNC |
| B12 | 3/4" BSPP | M6 - 1.0 |
| T12 | 3/4" BSPT | M6 - 1.0 |
| M12 | M27 x 2.0 | M6 - 1.0 |

Note:
Part no. includes the subplate only. Order relief valve cartridge separately.

MAGNALOY D05 SUBPLATE PART NUMBER BREAKDOWN

S P - A H 0 5 P 1 2 - 1 / B Z

Product Code
SP - Subplate

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
H05 - High Flow D05

Thread Code
P12 - NPTF Pipe
S12 - SAE OORing
B12 - BSPP British Parallel
T12 - BSPT British Taper
M12 - Metric ISO 6149
(See Port Chart for Standard Sizes)

Options
Z - No Relief Cavity
B - Bottom PR-TK Ports (W/Side PR & TK Ports)
C - Relief Valve Cavity C-10-2
G4 - Gauge Port #4 SAE or 1/4 NPTF
G6 - Gauge Port #6 SAE
S - Relief Valve Cavity Sun T-10A
M - Soft Metric Threading (See Note 3, page 48)

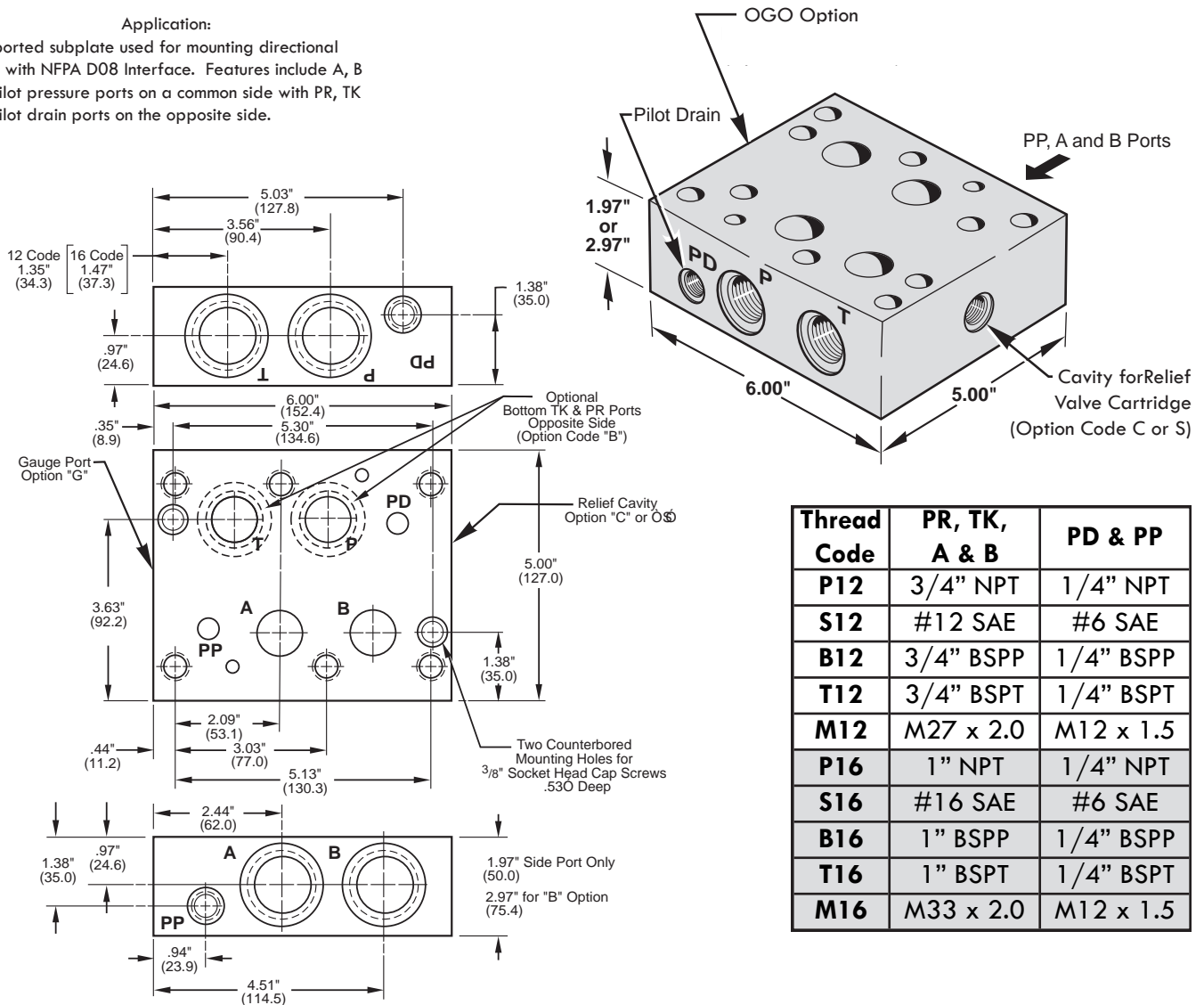
Note: For more than two combined options, consult factory.

Design Series

Also available in Extra High Flow Design and D05E Alt A or D05H Alt B pattern - Consult Factory

Application:

Side ported subplate used for mounting directional valves with NFPA D08 Interface. Features include A, B and pilot pressure ports on a common side with PR, TK and pilot drain ports on the opposite side.



| Thread Code | PR, TK, A & B | PD & PP |
|-------------|---------------|-----------|
| P12 | 3/4" NPT | 1/4" NPT |
| S12 | #12 SAE | #6 SAE |
| B12 | 3/4" BSPP | 1/4" BSPP |
| T12 | 3/4" BSPT | 1/4" BSPT |
| M12 | M27 x 2.0 | M12 x 1.5 |
| P16 | 1" NPT | 1/4" NPT |
| S16 | #16 SAE | #6 SAE |
| B16 | 1" BSPP | 1/4" BSPP |
| T16 | 1" BSPT | 1/4" BSPT |
| M16 | M33 x 2.0 | M12 x 1.5 |

MAGNALOY D08 SUBPLATE PART NUMBER BREAKDOWN

S P - A 0 8 P 1 2 - 1 / B Z

Product Code
SP - Subplate

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
08 - D08

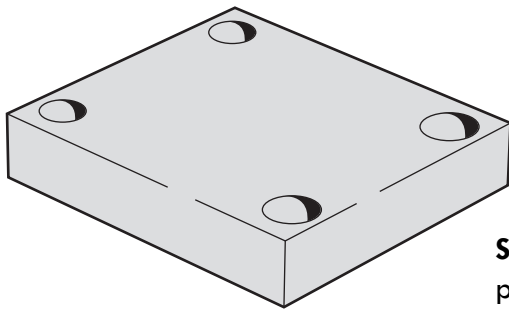
Thread Code
P - NPTF Pipe
S - SAE OORing
B - BSPP British Parallel
T - BSPT British Taper
M - Metric ISO 6149
(See Port Chart for Standard Sizes)

Options
Z - No Relief Cavity
B - Bottom PR-TK Ports (W/Side PR & TK Ports)
C - Relief Valve Cavity C-10-2
G - Gauge Port #4 SAE or 1/4 NPTF
G6 - Gauge Port #6 SAE
S - Relief Valve Cavity Sun T-3A
H - Hard Metric Threading (See Note 2, page 48)
M - Soft Metric Threading (See Note 3, page 48)
Note: For more than two combined options, consult factory.

Design Series

| INDEX | | Part Number | |
|-------|--|---------------|---------------|
| page | For NFPA D03 Valve Stations | Aluminum | Ductile/Steel |
| 87 | All Ports Blocked | CP-ASP03_-1/Z | CP-SSP03_-1/Z |
| 87 | All Ports Blocked, Gauge Ports Provided | CP-ASP03_-1/G | CP-SSP03_-1/G |
| 88 | PR & TK Ports Connected for Series Circuit | CP-ASS03_-1/Z | CP-SSS03_-1/Z |
| page | For NFPA D05 Valve Stations | Aluminum | Ductile/Steel |
| 89 | All Ports Blocked | CP-ASP05_-1/Z | CP-SSP05_-1/Z |
| 89 | All Ports Blocked, Gauge Ports Provided | CP-ASP05_-1/G | CP-SSP05_-1/G |
| 90 | PR & TK Ports Connected for Series Circuit | CP-ASS05_-1/Z | CP-SSS05_-1/Z |
| page | For NFPA D08 Valve Stations | Aluminum | Ductile/Steel |
| 91 | All Ports Blocked | CP-ASP08_-1/Z | CP-SSP08_-1/Z |
| 91 | All Ports Blocked, Gauge Ports Provided | CP-ASP08_-1/G | CP-SSP08_-1/G |
| 92 | PR & TK Ports Connected for Series Circuit | CP-ASS08_-1/Z | CP-SSS08_-1/Z |

3

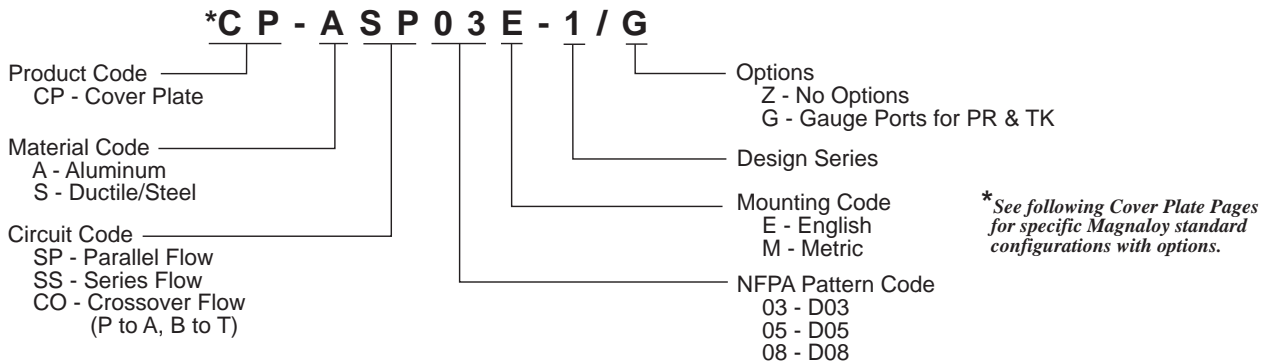


Standard Cover Plate - includes o’ring pockets on the bottom surface to provide o’ring sealing of the NFPA valve pattern. Mounting provisions include four (4) holes (6 on D08 cover plate) on the top surface of the cover plate. Mounting hardware, locating pins (w/D03 and D08 only) and viton o’ring are provided.

Options:

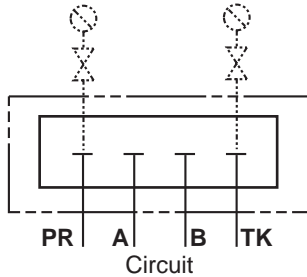
G - Gauge Ports - addition of two (2) gauge ports to the top surface of the cover plate to provide monitoring of the pressure and tank ports.

MAGNALOY COVER PLATE PART NUMBER BREAKDOWN



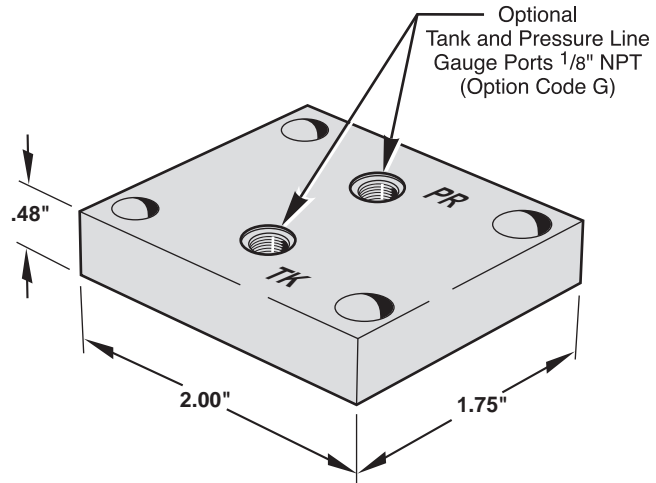
Application:

Seals and isolates all valve ports when used as substitute for directional valve. Gauge Port option provides pressure and tank line signal ports.



Note: (With Gauge Option)

Level seal pipe plugs are furnished to plug unused gauge ports.

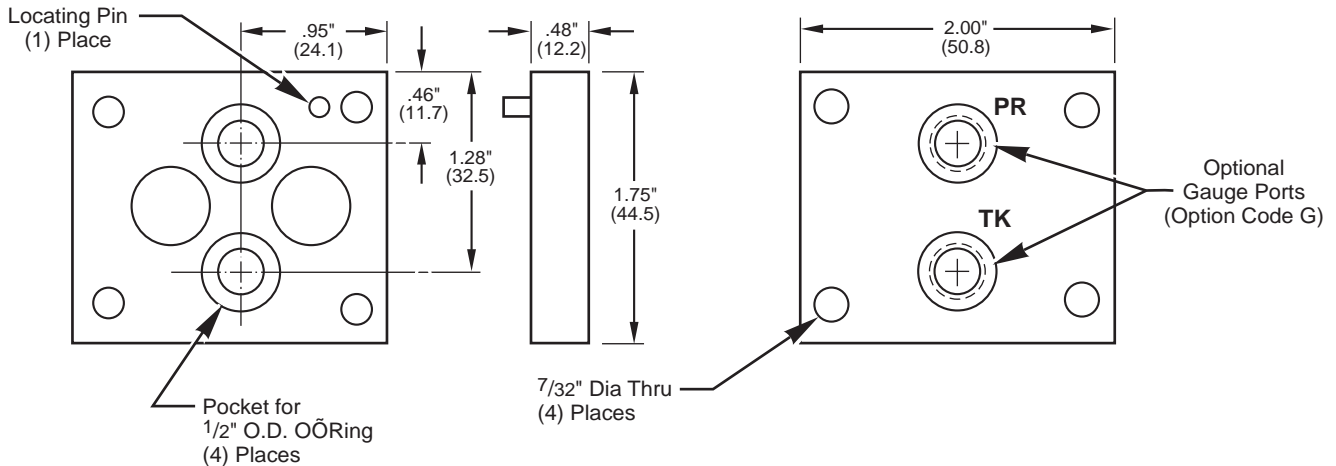


Supplied Hardware

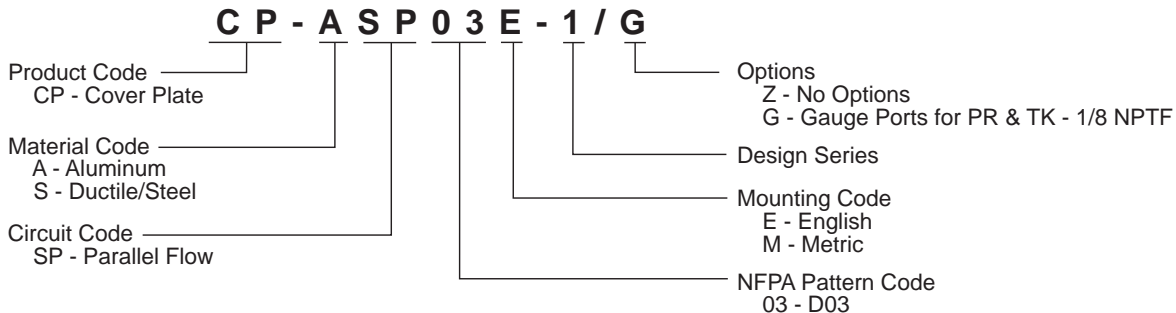
- Mounting Bolts Ñ (4) M5-.80 x 22mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 10-24 x 7/8" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (4) 1/2" OD x 3/8" ID x 1/16" CS
- Pipe Plugs Ñ (2) 1/8" NPT Level Seal (See note above)
- Locating Pin Ñ (1) 1/8" x 3/8" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|---------------|---------------|
| CP-ASP03_-1/Z | CP-SSP03_-1/Z |
| CP-ASP03_-1/G | CP-SSP03_-1/G |



MAGNALOY D03 COVER PLATE PART NUMBER BREAKDOWN

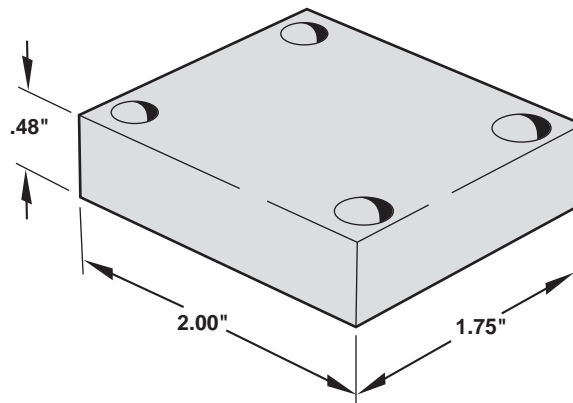
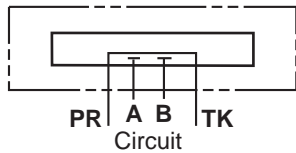


Cover Plates

D03 Cover Plate, Series Blank Off

Application:

Seals all valve ports and provides the pressure port common to tank port when used as a flush out plate or as a substitute for directional valve in a series circuit.

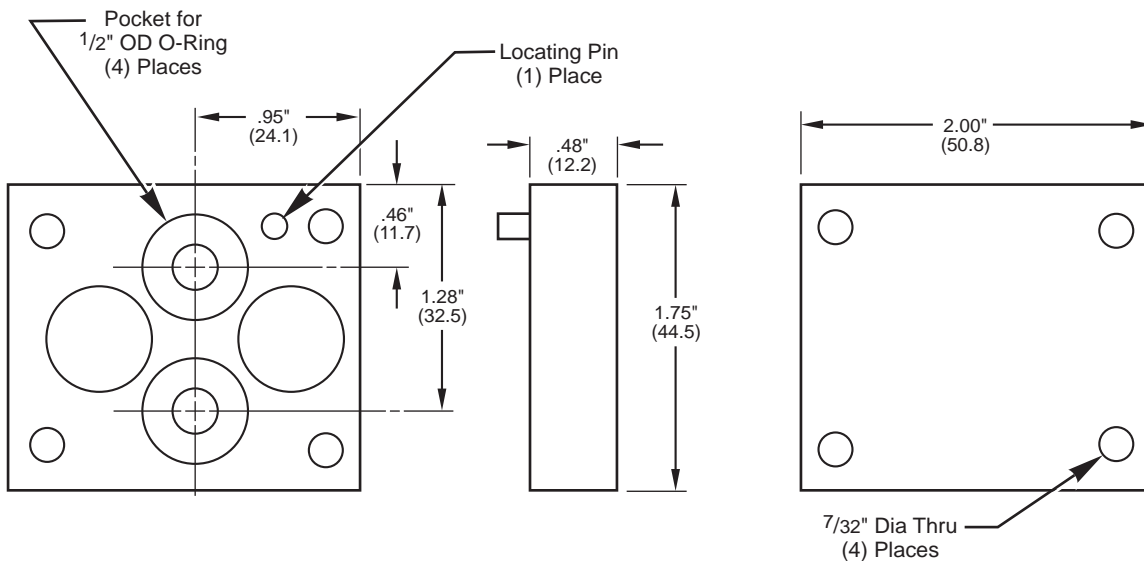


Supplied Hardware

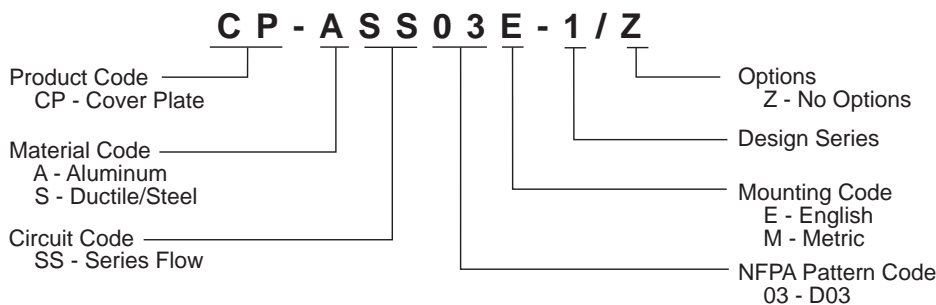
- Mounting Bolts Ñ (4) M5-.80 x 22mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 10-24 x 7/8" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (4) 1/2" OD x 3/8" ID x 1/16" CS
- Locating Pin Ñ (1) 1/8" Dia x 3/8" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|---------------|---------------|
| CP-ASS03_-1/Z | CP-SSS03_-1/Z |

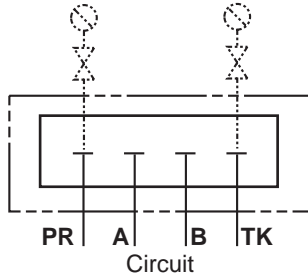


MAGNALOY D03 COVER PLATE PART NUMBER BREAKDOWN

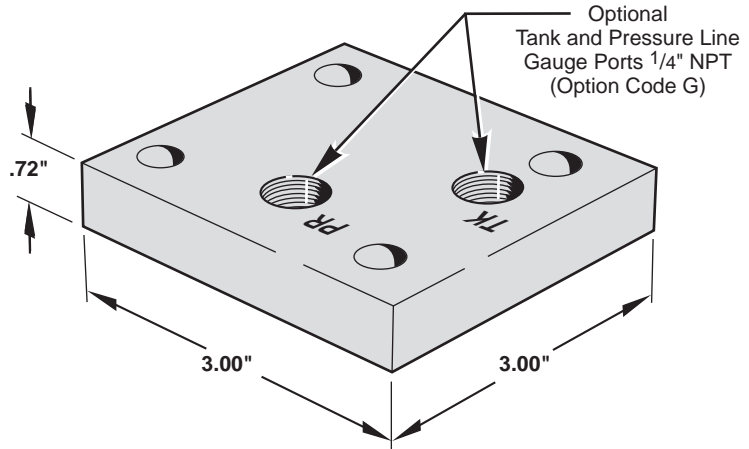


Application:

Seals and isolates all valve ports when used as substitute for directional valve. Gauge Port option provides pressure and tank line signal ports.



Note: (With Gauge Option)
Level seal pipe plugs are furnished to plug unused gauge ports.

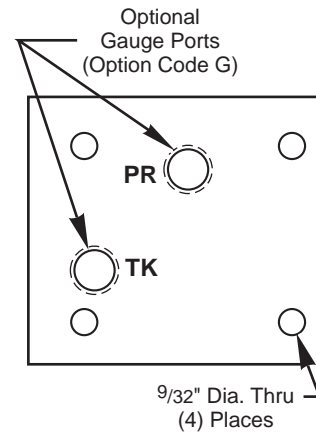
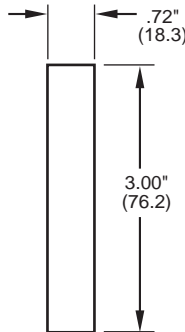
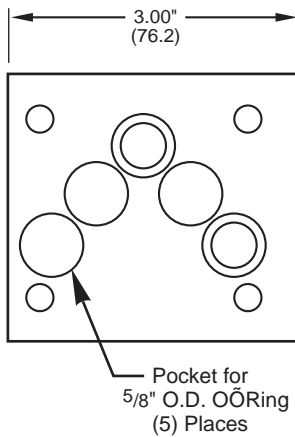


3

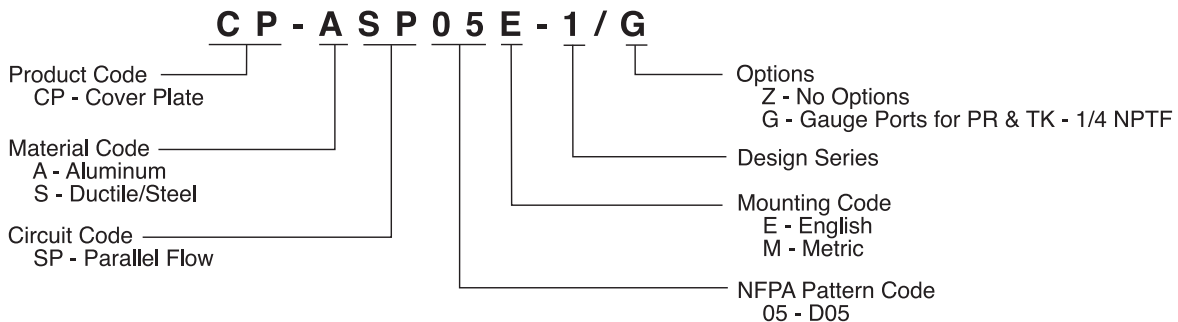
Supplied Hardware

- Mounting Bolts Ñ (4) M6-1.0 x 32mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 1/4-20 x 1 1/4" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS
- Pipe Plugs Ñ (2) 1/4" NPT Level Seal (See note above)

| Part Numbers: | |
|---------------|---------------|
| Aluminum | Ductile/Steel |
| CP-ASP05_-1/Z | CP-SSP05_-1/Z |
| CP-ASP05_-1/G | CP-SSP05_-1/G |



MAGNALOY D05 COVER PLATE PART NUMBER BREAKDOWN

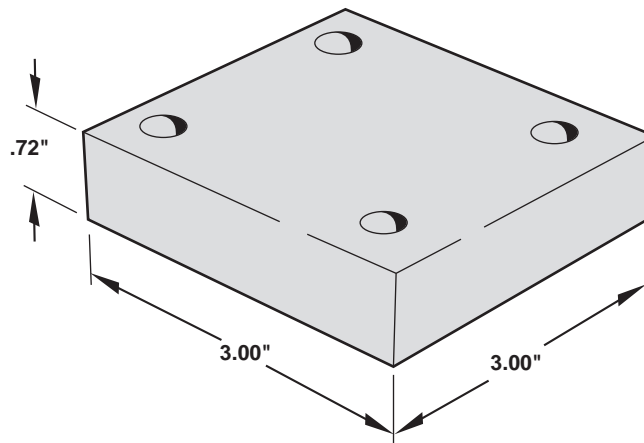
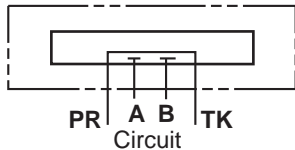


Cover Plates

D05 Cover Plate, Series Blank Off

Application:

Seals all valve ports and provides the pressure port common to tank port when used as a flush out plate or as a substitute for directional valve in a series circuit.

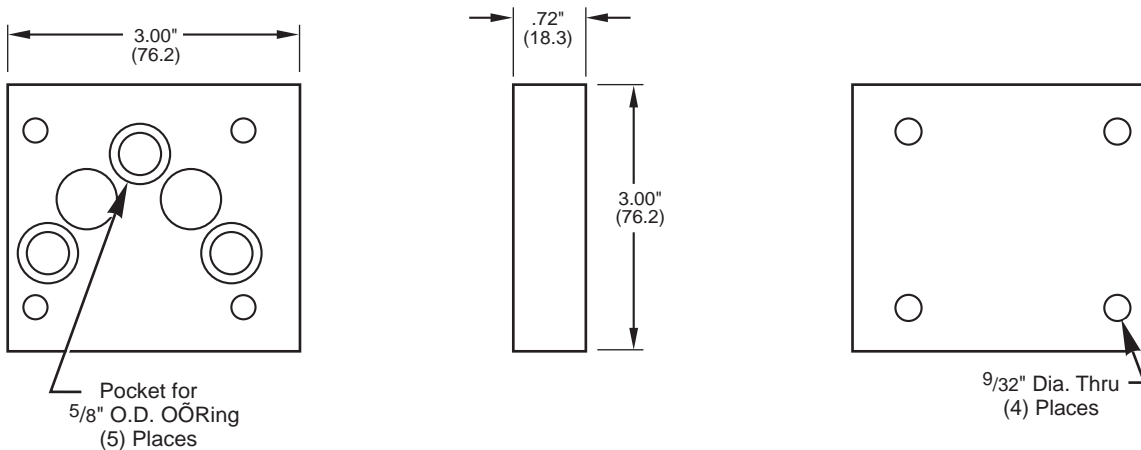


3

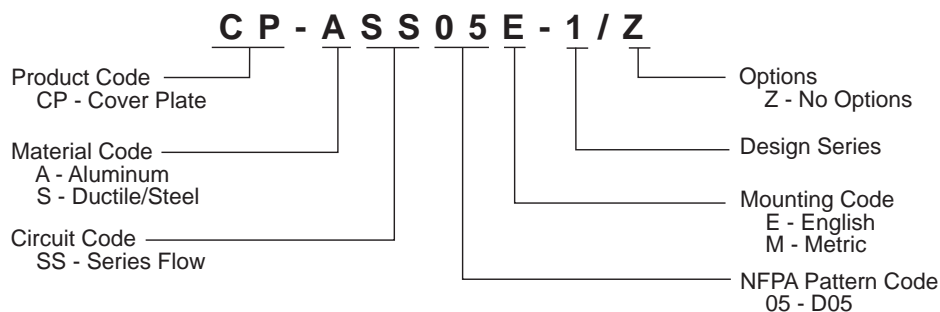
Supplied Hardware

- Mounting Bolts Ñ (4) M6-1.0 x 32mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 1/4-20 x 1 1/4" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS

| Part Numbers: | |
|---------------|---------------|
| Aluminum | Ductile/Steel |
| CP-ASS05_-1/Z | CP-SSS05_-1/Z |

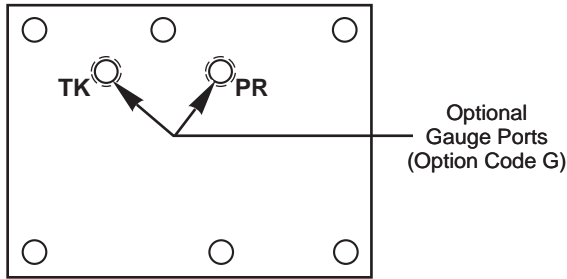
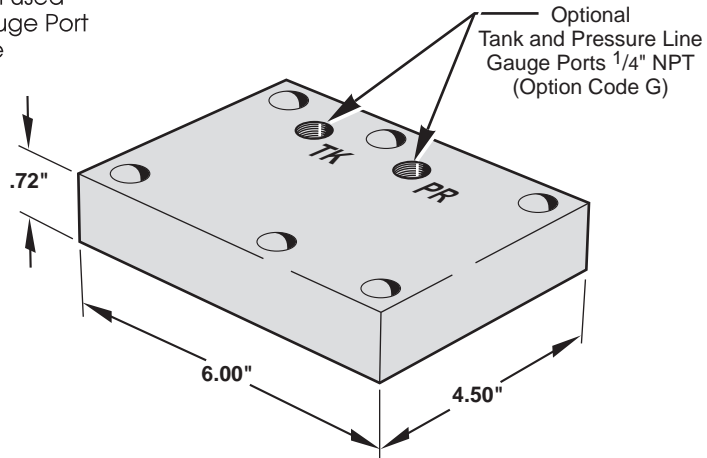
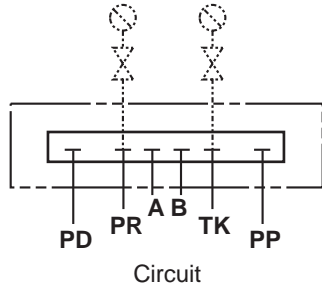


MAGNALOY D05 COVER PLATE PART NUMBER BREAKDOWN



Application:

Seals and isolates all valve ports when used as substitute for directional valve. Gauge Port option provides pressure and tank line signal ports.

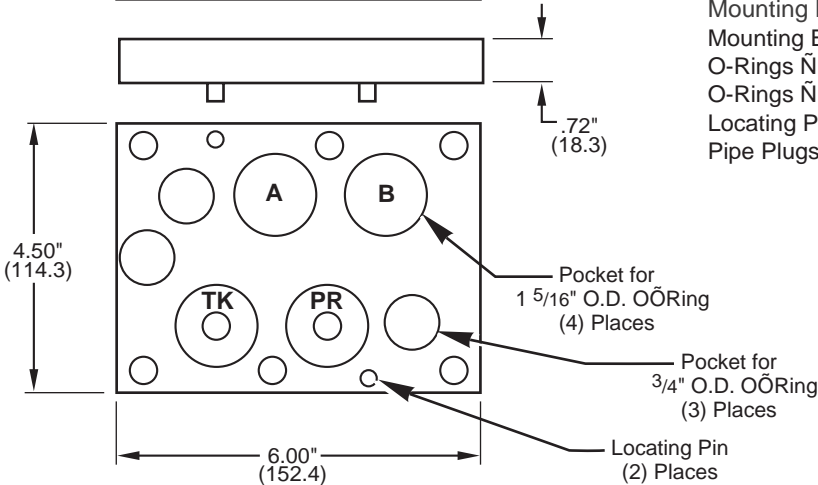


| Part Numbers: | |
|---------------|---------------|
| Aluminum | Ductile/Steel |
| CP-ASP08_-1/Z | CP-SSP08_-1/Z |
| CP-ASP08_-1/G | CP-SSP08_-1/G |

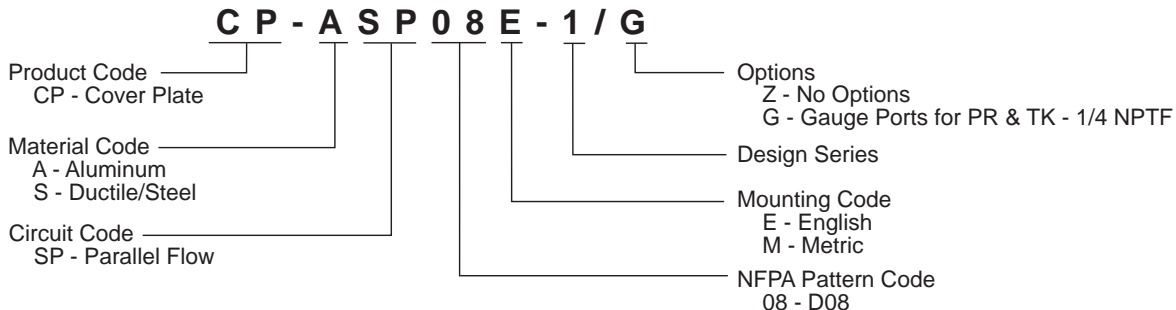
Supplied Hardware

- Mounting Bolts Ñ (6) M12-1.75 x 38mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (6) 1/2-13 x 1 1/2" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (3) 3/4" OD x 1/2" ID x 1/8" CS
- O-Rings Ñ Viton (4) 1 5/16" OD x 1 1/16" ID x 1/8" CS
- Locating Pin Ñ (2) 1/4" Dia. x 1/2" Roll Pin
- Pipe Plugs Ñ (2) 1/4" NPT Level Seal

Note: (With Gauge Option)
Level Seal Pipe Plugs are furnished to plug unused gauge ports.

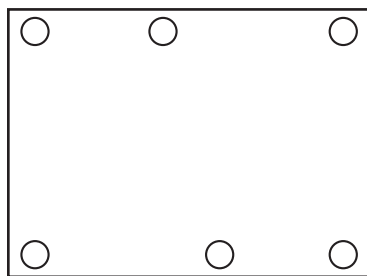
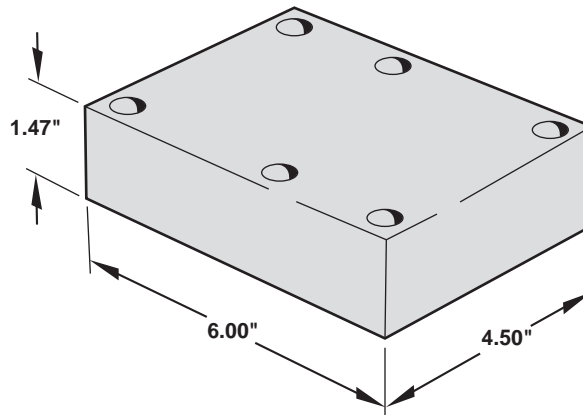
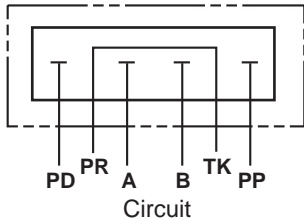


MAGNALOY D08 COVER PLATE PART NUMBER BREAKDOWN

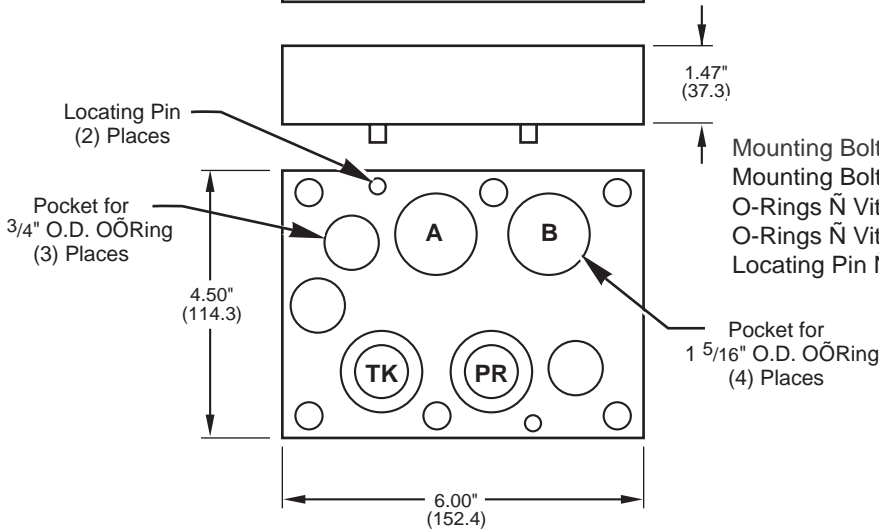


Application:

Seals all valve ports and provides the pressure port common to tank port when used as a flush out plate or as a substitute for directional valve in a series circuit.



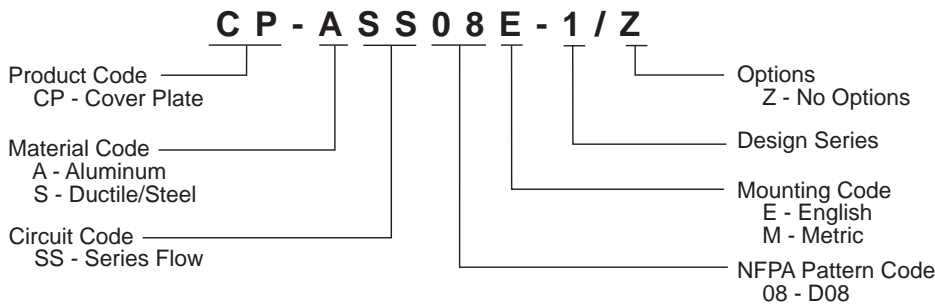
| Part Numbers: | |
|---------------|---------------|
| Aluminum | Ductile/Steel |
| CP-ASS08_-1/Z | CP-SSS08_-1/Z |



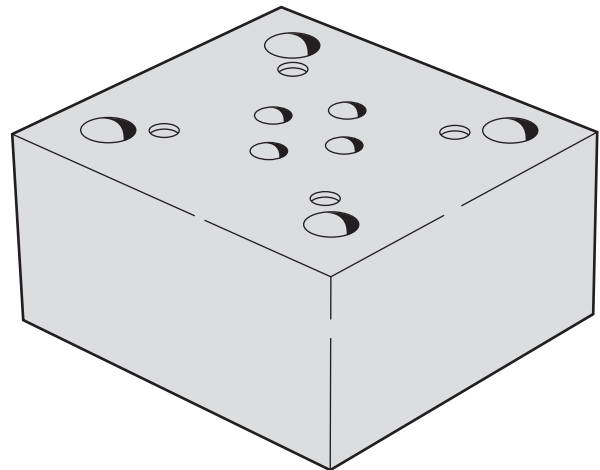
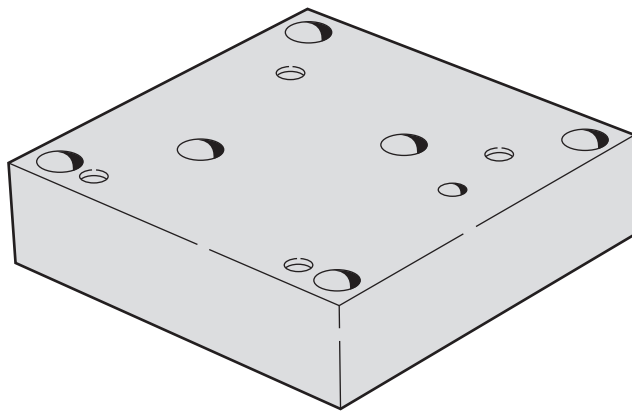
Supplied Hardware

- Mounting Bolts Ñ (6) M12-1.75 x 57mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (6) 1/2-13 x 2 1/4" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (3) 3/4" OD x 1/2" ID x 1/8" CS
- O-Rings Ñ Viton (4) 1 5/16" OD x 1 1/16" ID x 1/8" CS
- Locating Pin Ñ (2) 1/4" Dia. x 1/2" Roll Pin

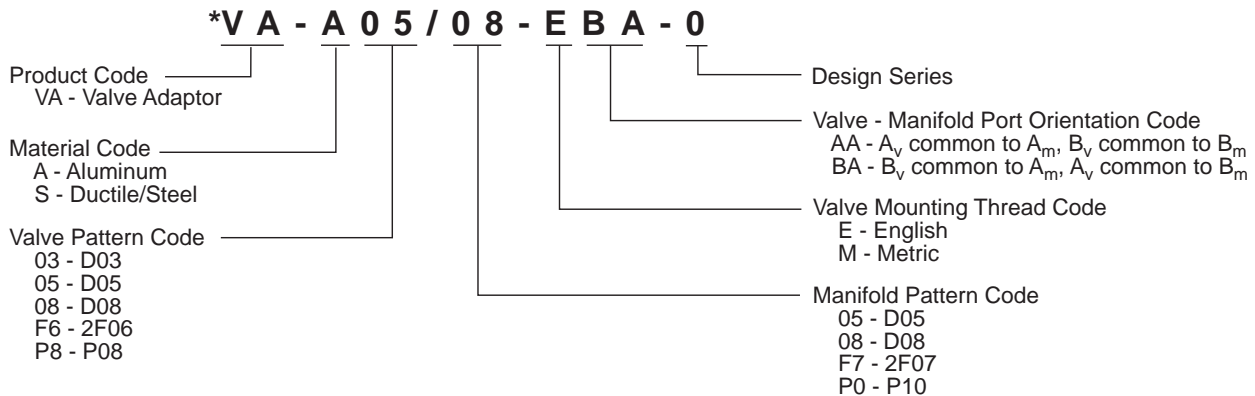
MAGNALOY D08 COVER PLATE PART NUMBER BREAKDOWN



| INDEX | | Part Number | |
|--|--------------------------------------|-----------------|-----------------|
| Adaptors For Mounting Smaller Valve on Larger Valve Station | | Aluminum | Ductile/Steel |
| 94 | NFPA D03 Valve on NFPA D05 Station | VA-A03/05-_BA-0 | VA-S03/05-_BA-0 |
| 95 | NFPA D05 Valve on NFPA D08 Station | VA-A05/08-_BA-0 | VA-S05/08-_BA-0 |
| 96 | NFPA 2F06 Valve on NFPA 2F07 Station | VA-AF6/F7-_AA-0 | VA-SF6/F7-_AA-0 |
| 97 | NFPA P-08 Valve on NFPA P-10 Station | VA-AP8/P0-_AA-0 | VA-SP8/P0-_AA-0 |



MAGNALOY VALVE ADAPTOR PART NUMBER BREAKDOWN



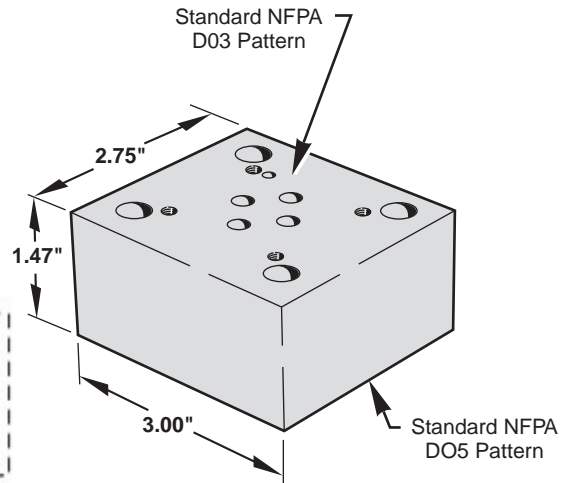
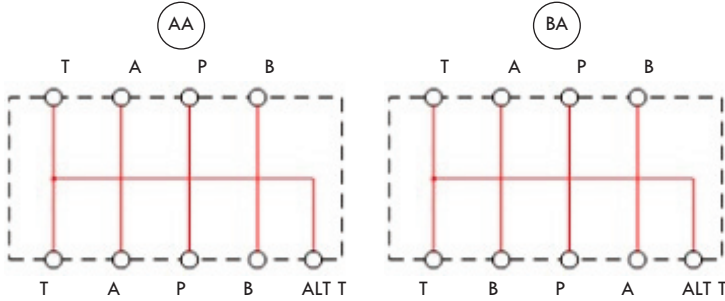
* See following Valve Adaptor Pages for specific Magnaloy standard configurations with options.

Directional Valve Pattern Valve Adaptor - D03 to D05



Application:

Adapts valve with NFPA D03 pattern to NFPA D05 pattern with either all ports common (AA) or the D03 "A" & "B" ports reversed to connect to the D05 "A" & "B" ports (BA)

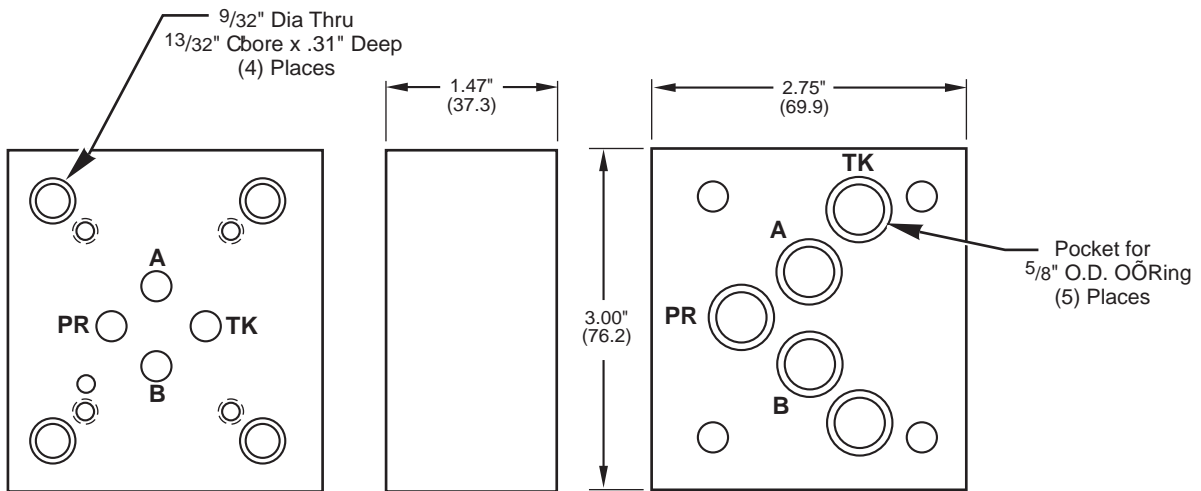


Supplied Hardware

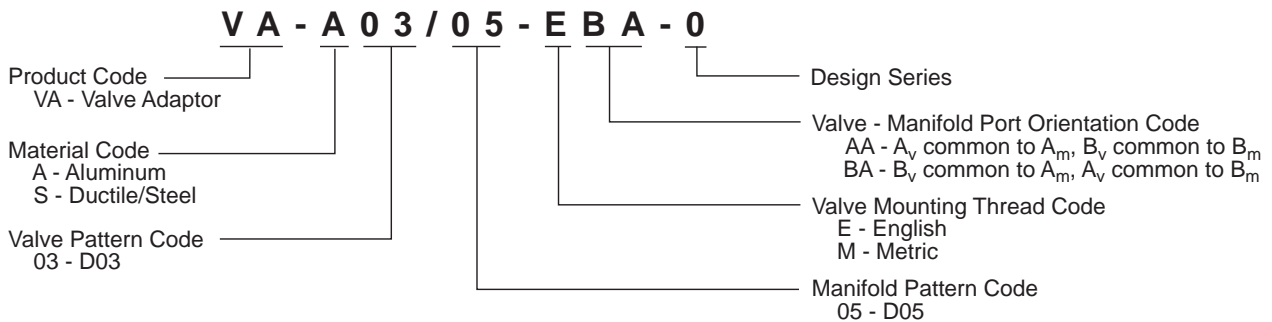
- Mounting Bolts Ñ (4) M6-1.0 x 38mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 1/4-20 x 1 1/2" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS

Part Numbers:

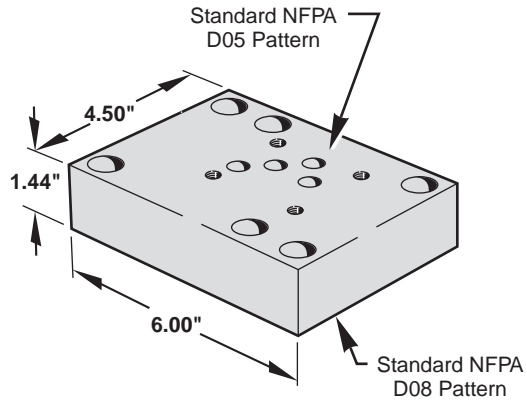
| Aluminum | Ductile/Steel |
|----------------|----------------|
| VA-A03/05-BA-0 | VA-S03/05-BA-0 |
| VA-A03/05-AA-0 | VA-S03/05-AA-0 |



MAGNALOY VALVE ADAPTOR PART NUMBER BREAKDOWN



Application:
Adapts valve with NFPA D05 pattern to NFPA D08 pattern.



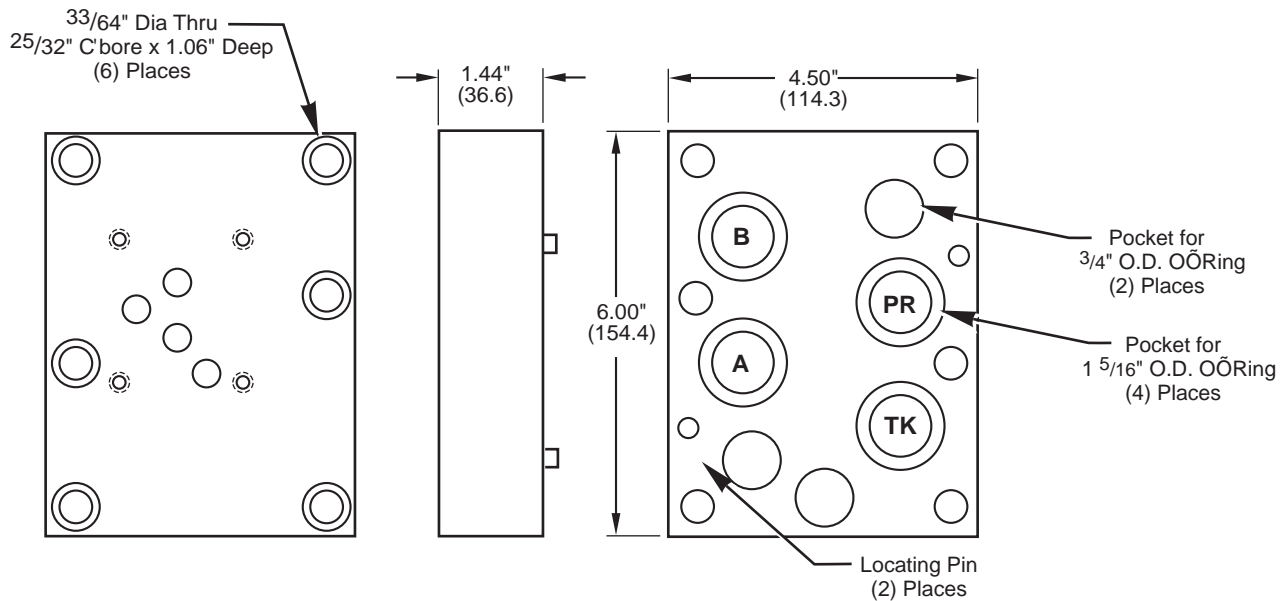
3

Supplied Hardware

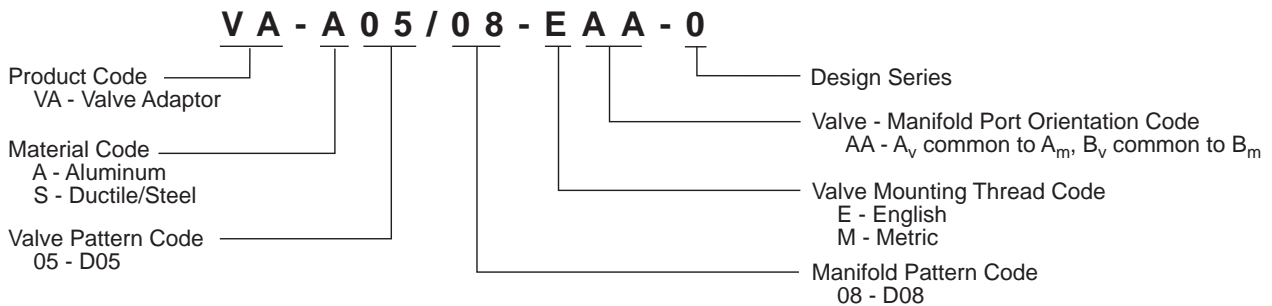
- Mounting Bolts Ñ (6) M12-1.75 x 38mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (6) 1/2-13 x 1 1/2" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (3) 3/4" OD x 1/2" ID
- O-Rings Ñ Viton (4) 1 5/16" OD x 1 1/16" ID
- Locating Pin Ñ (2) 1/4" x 1/2" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|----------------|----------------|
| VA-A05/08-AA-0 | VA-S05/08-AA-0 |

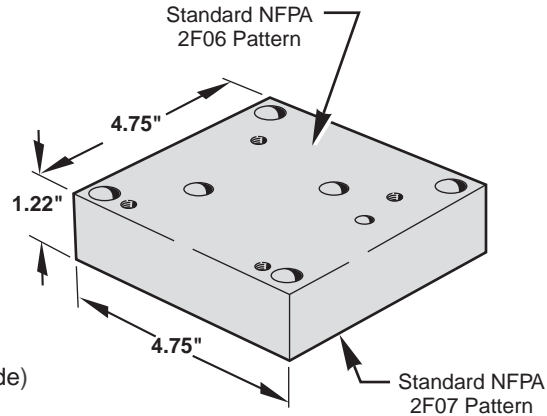


MAGNALOY VALVE ADAPTOR PART NUMBER BREAKDOWN



Directional Valve Pattern Valve Adaptor - 2F06 to 2F07

Application:
Adapts valve with NFPA 2F06 pattern to NFPA 2F07 pattern.

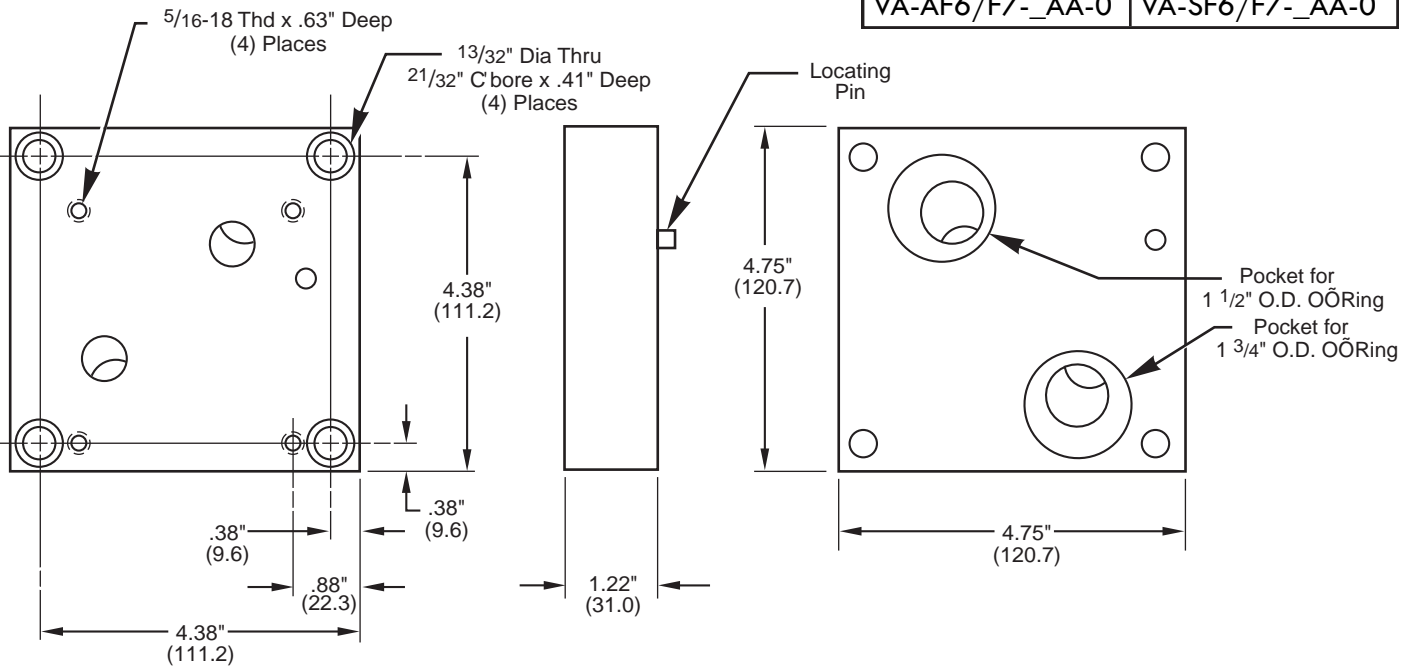


Supplied Hardware

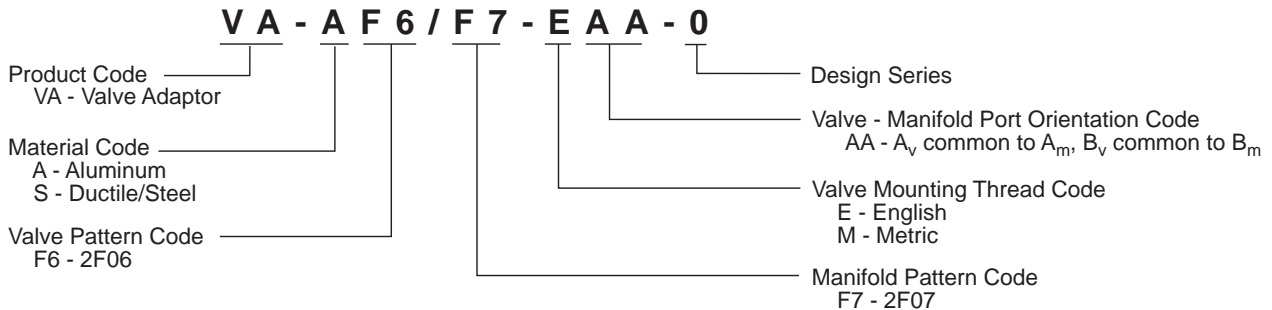
- Mounting Bolts Ñ (4) M10-1.5 x 32mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 3/8-16 x 1 1/4" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (1) 1 1/2" OD x 1 1/4" ID x 1/8" CS
- O-Rings Ñ Viton (1) 1 3/4" OD x 1 1/2" ID x 1/8" CS
- Locating Pin Ñ (1) 1/4" Dia. x 1/2" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|-------------------------|-------------------------|
| VA-AF6/F7- <u>AA</u> -0 | VA-SF6/F7- <u>AA</u> -0 |



MAGNALOY VALVE ADAPTOR PART NUMBER BREAKDOWN

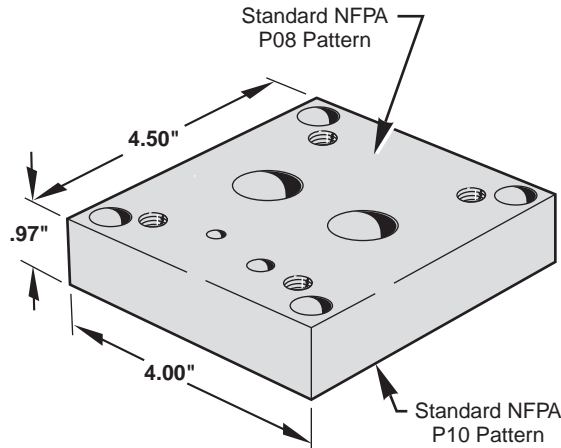


Application:

Adapts a 3/4" pressure control valve (NFFPA P08) to a 1 1/4" pressure control valve pattern (P10).

Note:

This adaptor is for use with internally drained valves. A passage is provided for external pilot pressure.

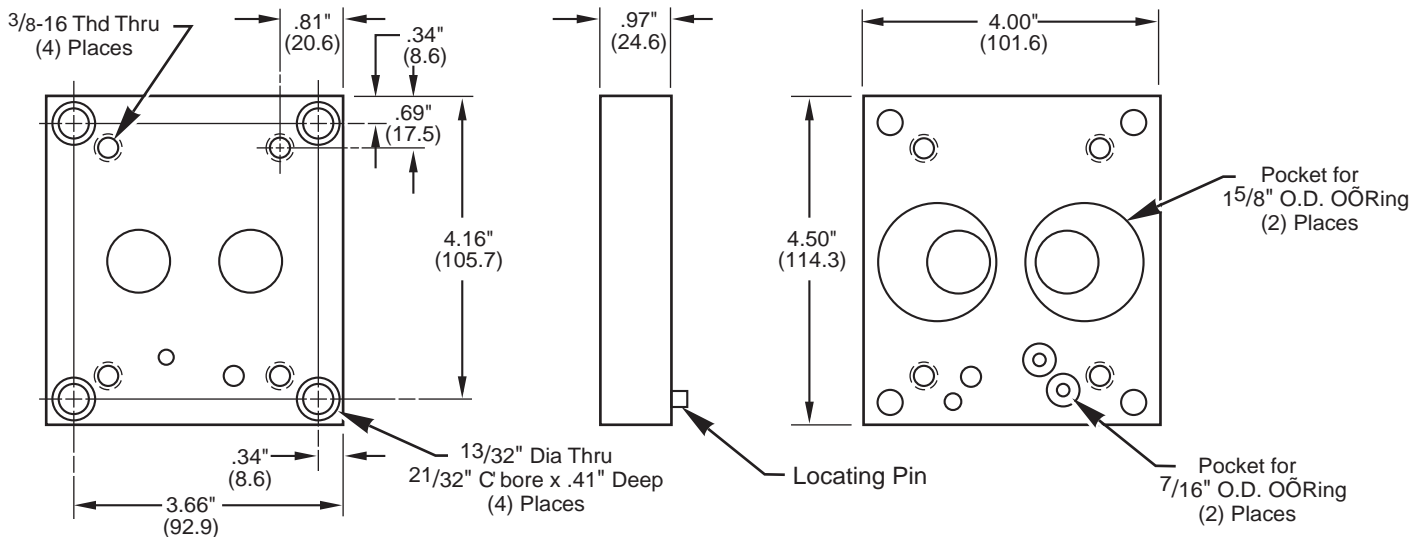


Supplied Hardware

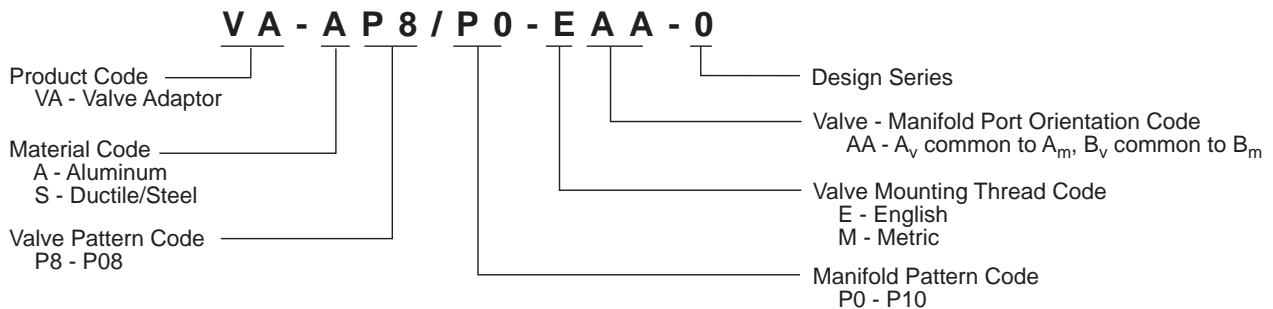
- Mounting Bolts Ñ (4) M10-1.5 x 32mm S.H.C.S. (M - Mtg.Code)
- Mounting Bolts Ñ (4) 3/8-16 x 1 1/4" S.H.C.S. (E - Mtg.Code)
- O-Rings Ñ Viton (2) 7/16" OD x 5/16" ID x 1/16" CS
- O-Rings Ñ Viton (2) 1 5/8" OD x 13/8" ID x 1/8" CS
- Locating Pin Ñ 1/4" Dia. x 1/2" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|----------------|----------------|
| VA-AP8/P0-AA-0 | VA-SP8/P0-AA-0 |

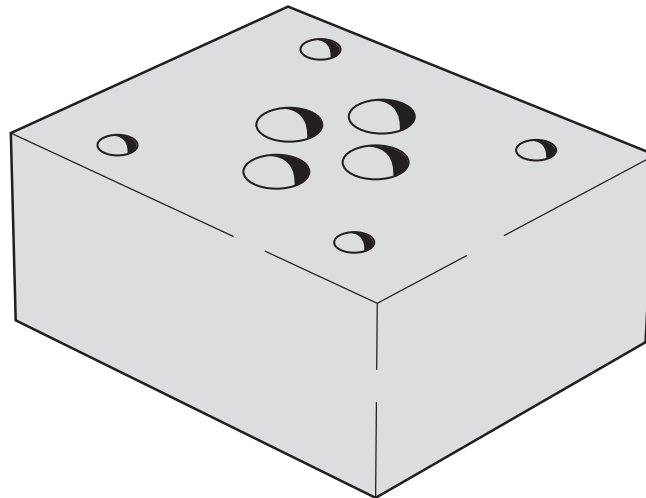


MAGNALOY VALVE ADAPTOR PART NUMBER BREAKDOWN

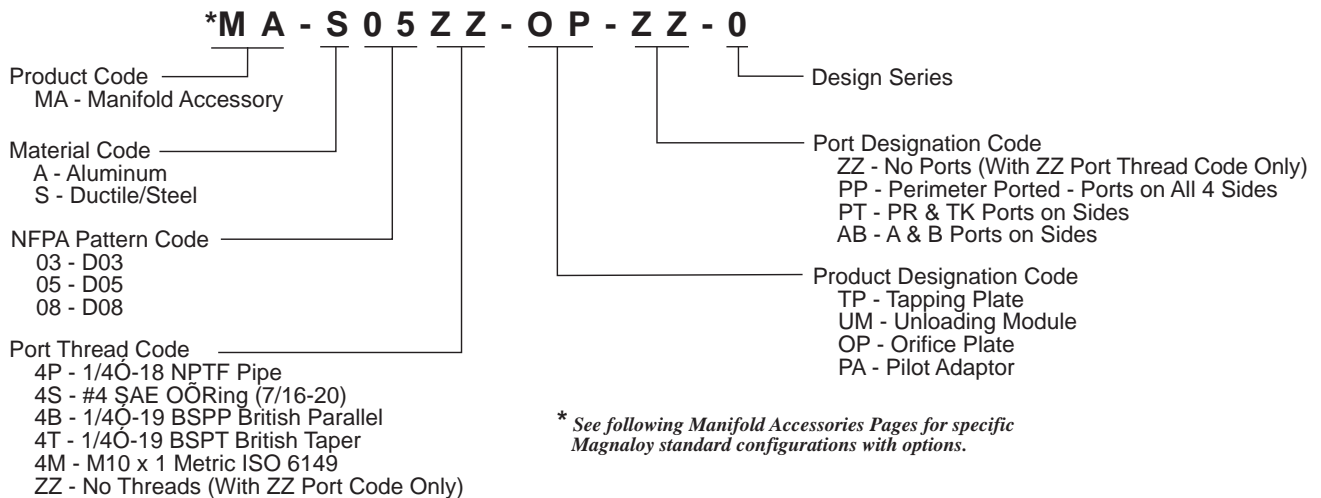


| INDEX | | Part Number | |
|-------|-----------------------------------|------------------|----------------------|
| Page | Pilot Adaptors | Aluminum | Ductile/Steel |
| 99 | For Use with NFPA D05 Valves | MA-A05ZZ-PA-ZZ-0 | MA-A05ZZ-PA-ZZ-0 |
| | Unloading (Venting) Module | Aluminum | Ductile/Steel |
| 100 | For Use with NFPA D05 Valves | MA-A05ZZ-UM-ZZ-0 | MA-S05ZZ-UM-ZZ-0 |
| | Orifice Plates | Aluminum | Ductile/Steel |
| 101 | For Use with NFPA D03 Valves | MA-A03ZZ-OP-ZZ-0 | MA-S03ZZ-OP-ZZ-0 |
| 102 | For Use with NFPA D05 Valves | MA-A05ZZ-OP-ZZ-0 | MA-S05ZZ-OP-ZZ-0 |
| | Tapping Plates | Aluminum | Ductile/Steel |
| 103 | For Use with NFPA D03 Valves | MA-A03__-TP-__-1 | MA-S03__-TP-__-1 |
| 104 | For Use with NFPA D05 Valves | MA-A05__-TP-__-1 | MA-S05__-TP-__-1 |
| 105 | For Use with NFPA D08 Valves | MA-A08__-TP-__-1 | MA-S08__-TP-__-1 |

3



MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN

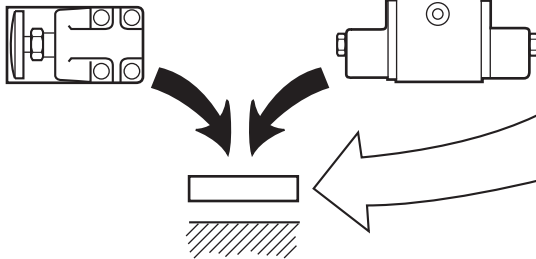
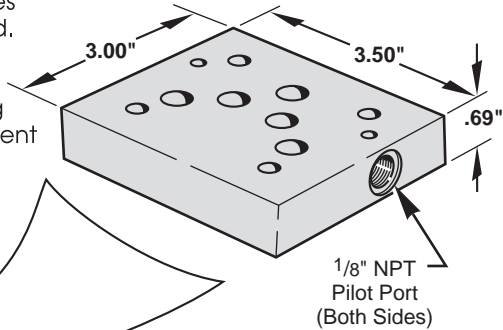


Application:

Allows mounting a Vickers Model DG18 4-01XX-50 air piloted directional control valve on standard subplates and manifolds. 1/8" NPT pilot connections are provided.

or

Allows for plumbing of the external drain line of a Vickers Model DGX-01-XX sandwich pressure reducing valve module, thus permitting removal and replacement of the DGX-01-XX without disturbing that connection.

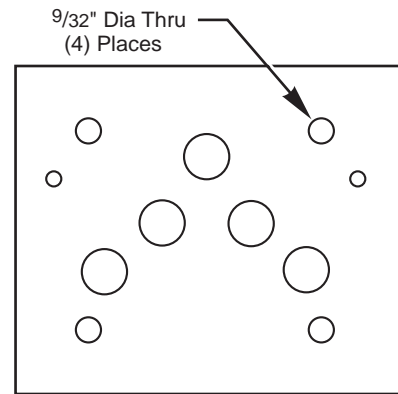
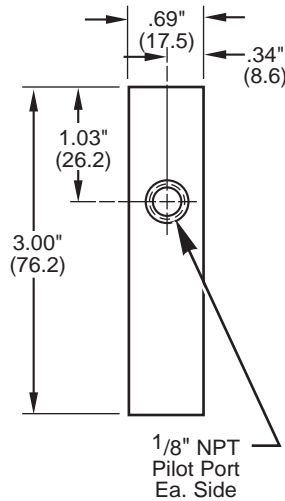
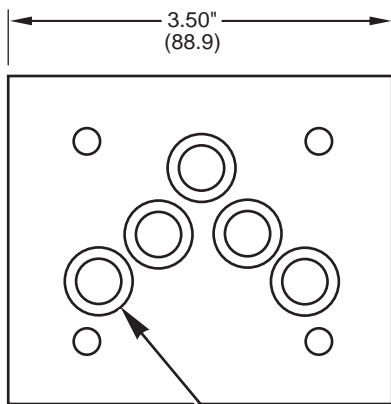


3

| Part Numbers: | |
|------------------|------------------|
| Aluminum | Ductile/Steel |
| MA-A05ZZ-PA-ZZ-0 | MA-S05ZZ-PA-ZZ-0 |

Supplied

O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS



Pocket for 5/8" O.D. OORing (5) Places

MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN

M A - A 0 5 Z Z - P A - Z Z - 0

Product Code
MA - Manifold Accessory

Material Code
A - Aluminum
S - Ductile/Steel

Valve Pattern Code
05 - D05

Port Thread Code
ZZ - No Threads

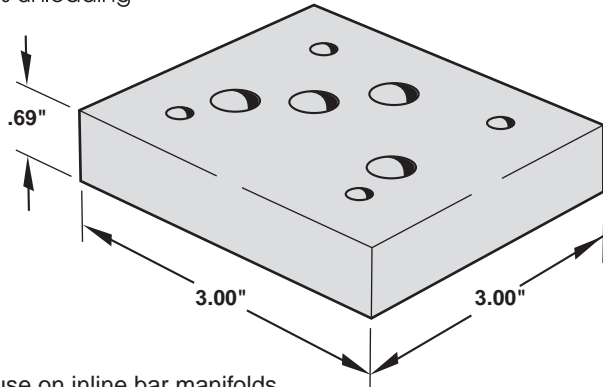
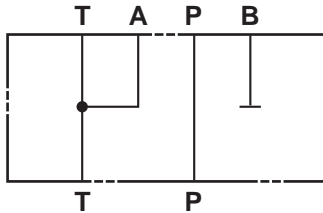
Design Series

Port Designation Code
ZZ - No Ports

Product Designation Code
PA - Pilot Adaptor

Application:

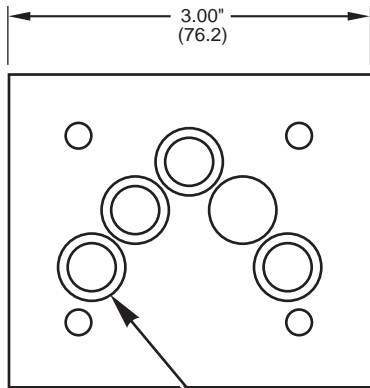
This module allows unloading or venting pump pressure during idle machine cycles. It is mounted between a single solenoid, spring offset directional control valve (NFPA D05 size) and the manifold. When the valve is in the P to A position, this module directs the pump flow back to tank, thus unloading the pump. When the directional control valve is in the P to B position, the B port is blocked and pump flow is directed to other system control valves.



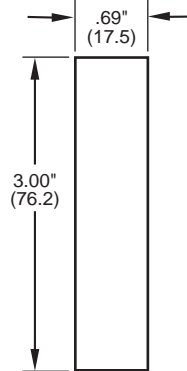
Ideal for use on inline bar manifolds with cartridge relief valve.

Supplied Hardware

O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS

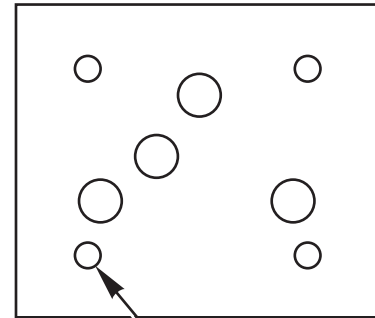


Pocket for 5/8" O.D. OORing (5) Places



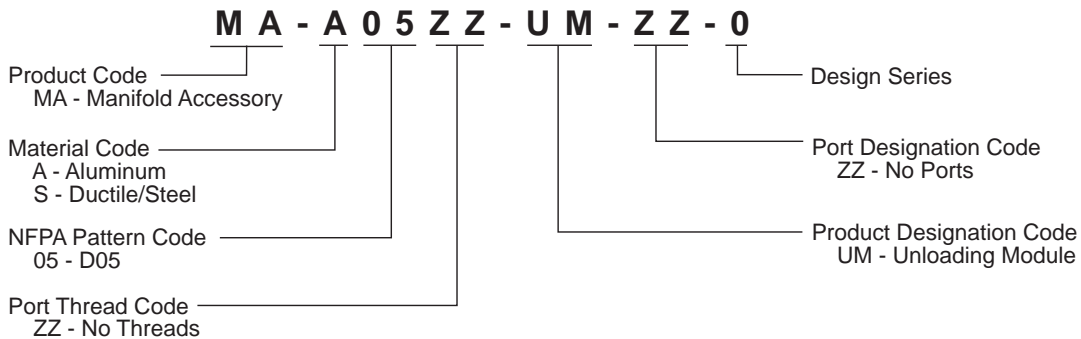
Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A05ZZ-UM-ZZ-0 | MA-S05ZZ-UM-ZZ-0 |



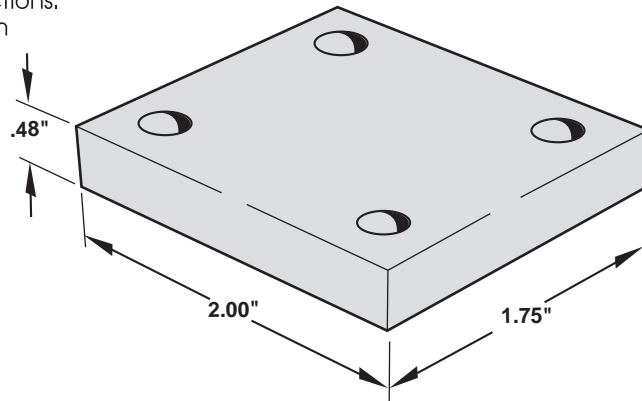
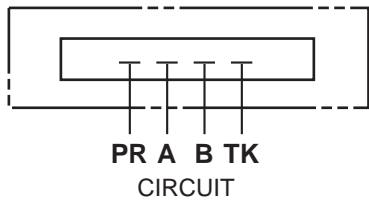
9/32" Dia Thru (4) Places

MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN



Applications:

- To mount between a D03 4-way valve and a mounting surface.
- To provide for customer drilling of holes for orifices in any of the 4 port connections. Any port may be drilled to a maximum of .25" dia or may be left blocked.



Supplied Hardware

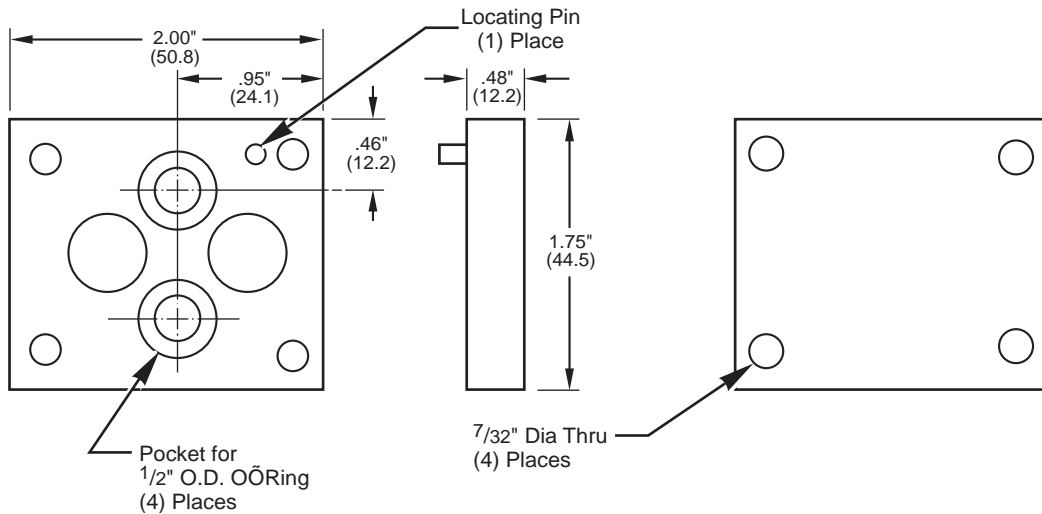
O-Rings Ñ Viton (5) 1/2" OD x 3/8" ID x 1/16" CS
Locating Pin Ñ (1) 1/8" x 3/8" Roll Pin

Note:

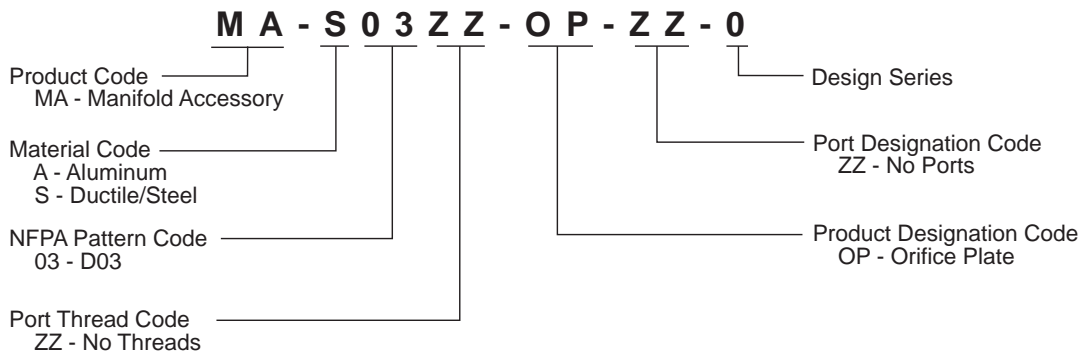
Maximum allowable drill is .25" dia.

Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A03ZZ-OP-ZZ-0 | MA-S03ZZ-OP-ZZ-0 |

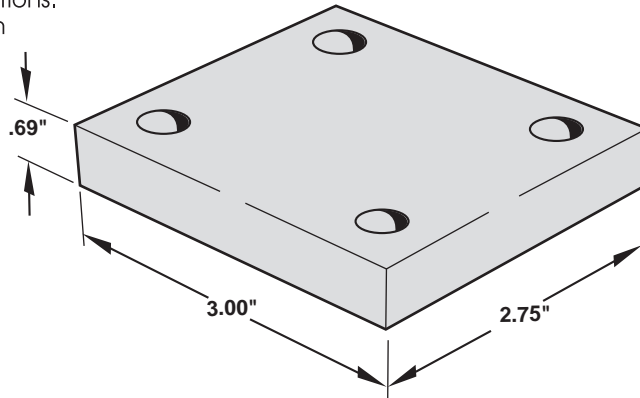
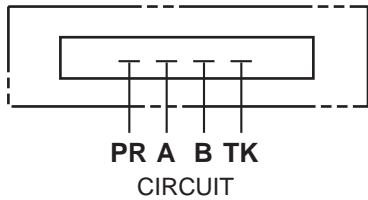


MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN



Applications:

- To mount between a DO5 4-way valve and a mounting surface.
- To provide for customer drilling of holes for orifices in any of the 5 port connections. Any port may be drilled to a maximum of .438" dia or may be left blocked.



Supplied Hardware

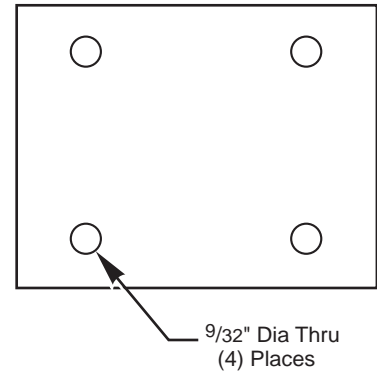
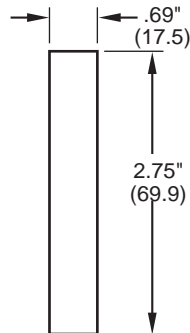
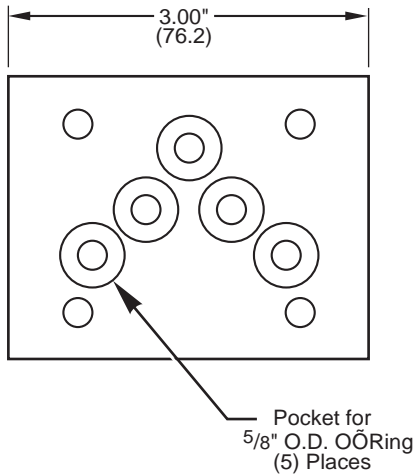
O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS

Note:

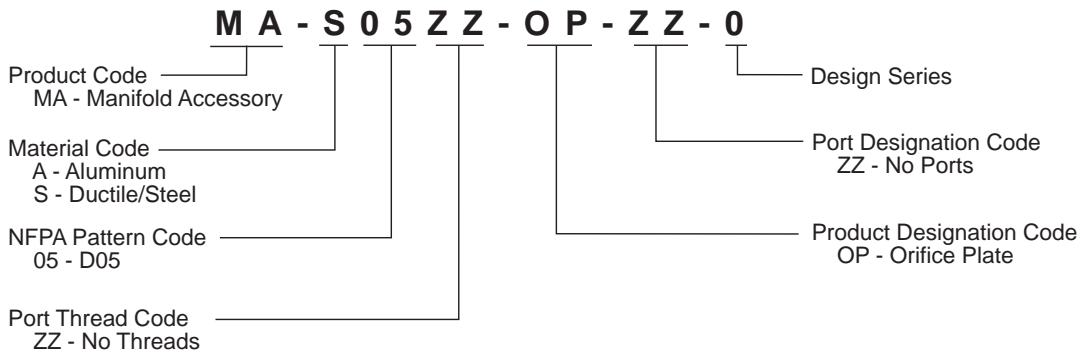
Maximum allowable drill is .438" dia.

Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A05ZZ-OP-ZZ-0 | MA-S05ZZ-OP-ZZ-0 |



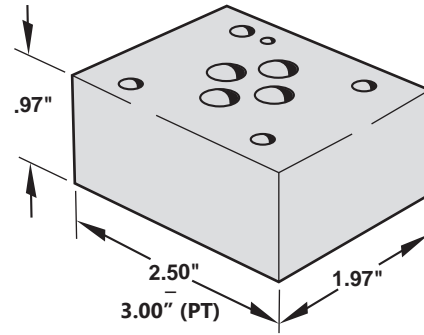
MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN



Application:

Module with NFPA D03 pattern for use between the valve and a mounting surface, providing additional ports where needed for external pilot connections, gauges, etc. Eliminates added plumbing.

Supplied from stock with drilled and tapped ports in ordered locations.

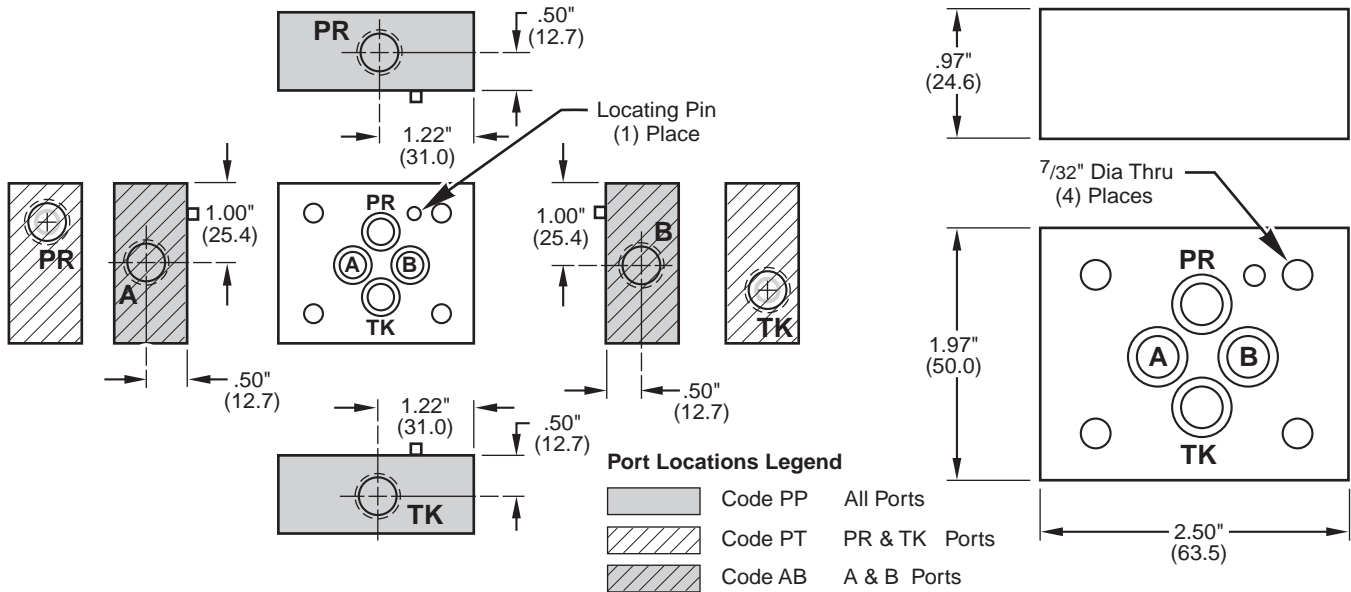


Supplied Hardware

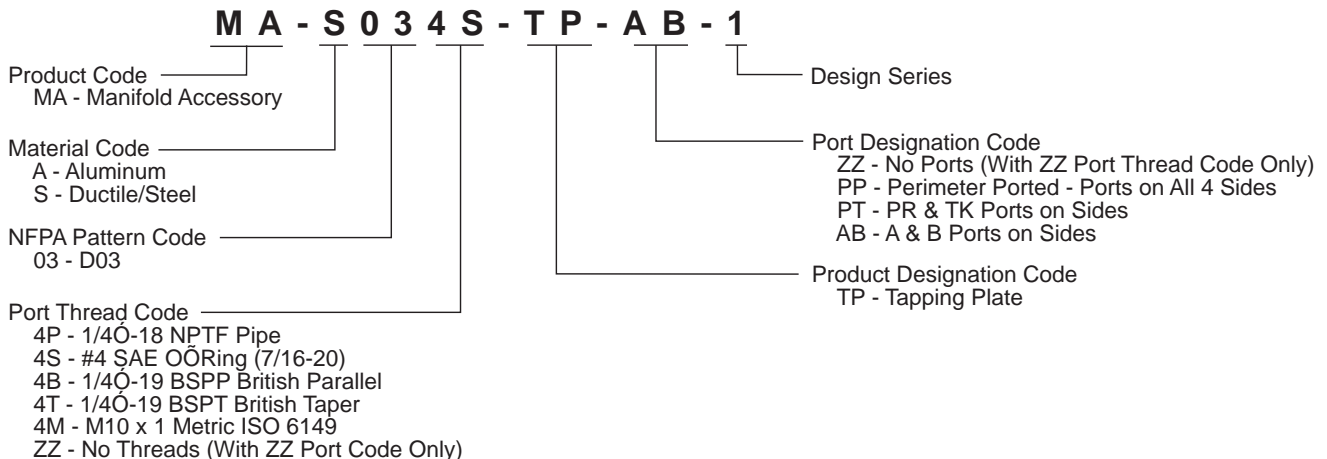
O-Rings Ñ Viton (4) 1/2" OD x 3/8" ID x 1/16" CS
Locating Pin Ñ (1) 1/8" x 3/8" Roll Pin

Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A03__-TP-__-1 | MA-S03__-TP-__-1 |



MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN

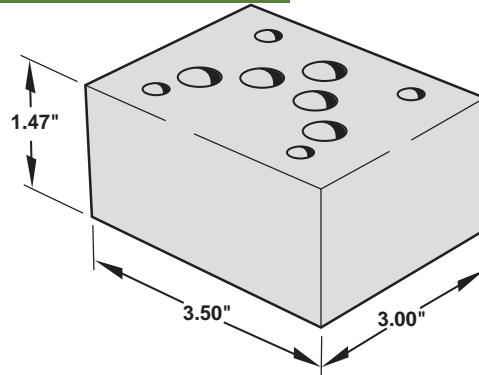


Manifold Accessories D05 Tapping Plate



Application:

Module with NFPA D05 pattern for use between the valve and a mounting surface, providing additional ports where needed for external pilot connections, gauges, etc. Eliminates added plumbing.



Supplied Hardware

O-Rings Ñ Viton (5) 5/8" OD x 1/2" ID x 1/16" CS

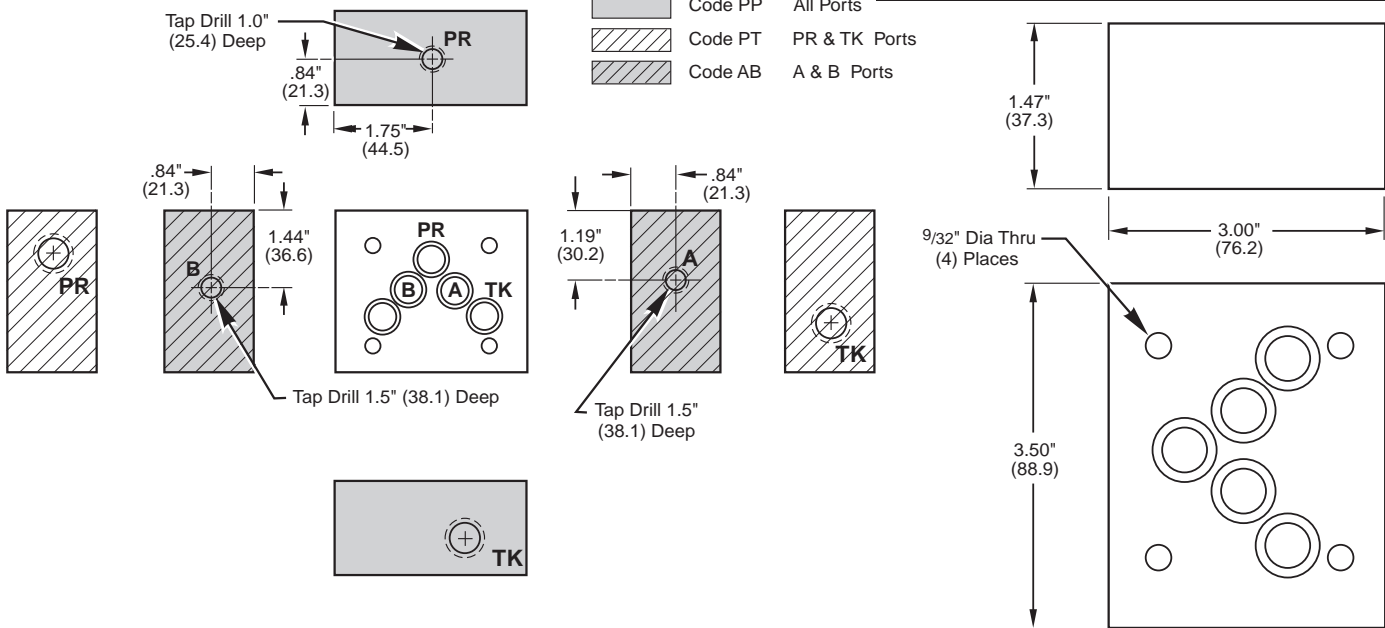
Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A05__-TP-__-1 | MA-S05__-TP-__-1 |

SUGGESTED PORT LOCATIONS

Port Locations Legend

- Code PP All Ports
- Code PT PR & TK Ports
- Code AB A & B Ports



MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN

MA - A 0 5 4 P - T P - P T - 1

Product Code
MA - Manifold Accessory

Material Code
A - Aluminum
S - Ductile/Steel

NFPA Pattern Code
05 - D05

Port Thread Code
4P - 1/40-18 NPTF Pipe
4S - #4 SAE OORing (7/16-20)
4B - 1/40-19 BSPP British Parallel
4T - 1/40-19 BSPT British Taper
4M - M10 x 1 Metric ISO 6149
ZZ - No Threads (With ZZ Port Code Only)

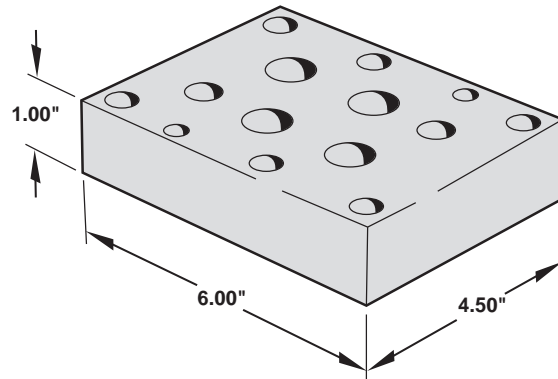
Design Series

Port Designation Code
ZZ - No Ports (With ZZ Port Thread Code Only)
PP - Perimeter Ported - Ports on All 4 Sides
PT - PR & TK Ports on Sides
AB - A & B Ports on Sides

Product Designation Code
TP - Tapping Plate

Application:

Module with NFPA D08 pattern for use between the valve and a mounting surface, providing additional ports where needed for external pilot connections, gauges, etc. Eliminates added plumbing.



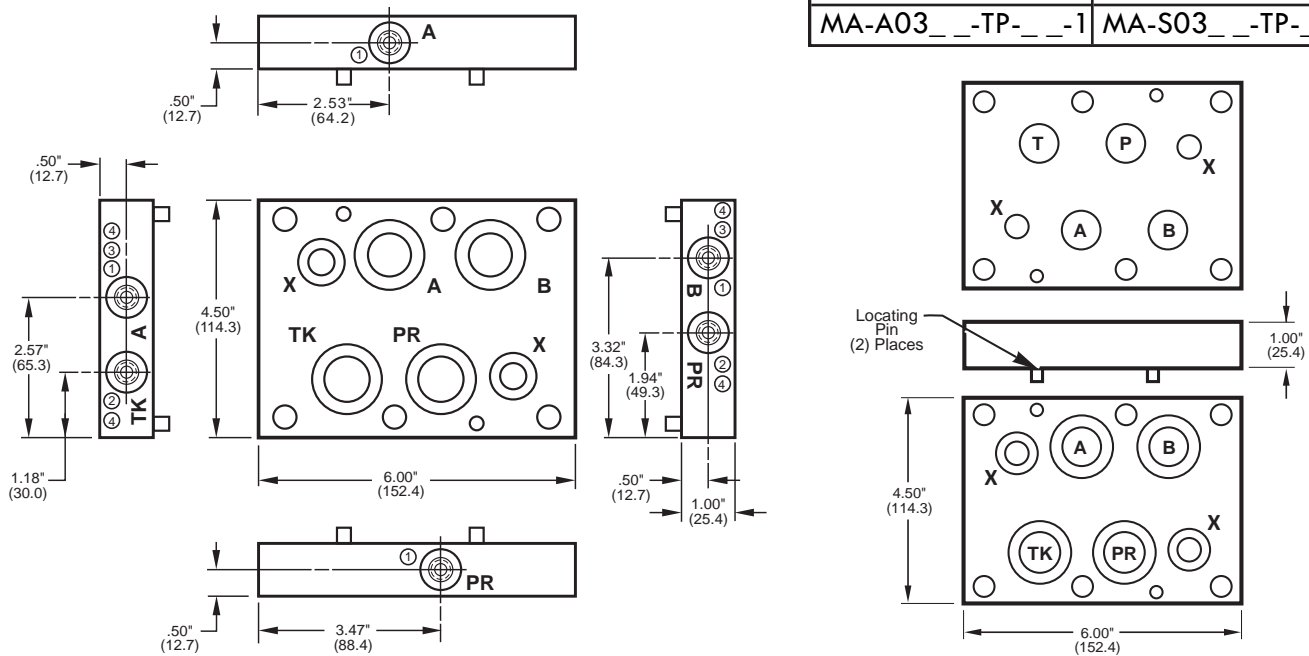
Supplied Hardware

- Loc. Pins (2) 1/4" Dia. x 1/2" LG
- O-Rings Ñ Viton (2) 3/4" OD x 1/2" ID
- O-Rings Ñ Viton (4) 1.312" OD x 1.06" ID

Part Numbers:

| Aluminum | Ductile/Steel |
|------------------|------------------|
| MA-A03__-TP-__-1 | MA-S03__-TP-__-1 |

CODED PORT LOCATIONS



MAGNALOY MANIFOLD ACCESSORY PART NUMBER BREAKDOWN

MA - A 0 8 4 P - TP - PT - 1

Product Code
MA - Manifold Accessory

Material Code
A - Aluminum
S - Ductile/Steel

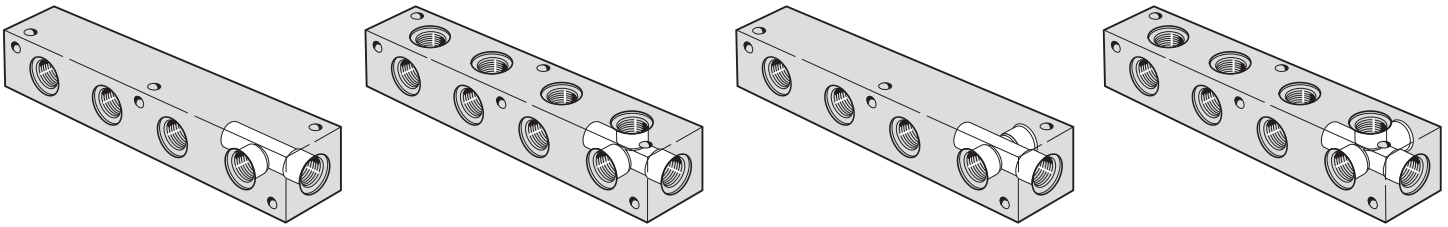
NFPA Pattern Code
08 - D08

Port Thread Code
4P - 1/4O-18 NPTF Pipe
4S - #4 SAE OORing (7/16-20)
4B - 1/4O-19 BSPP British Parallel
4T - 1/4O-19 BSPT British Taper
4M - M10 x 1 Metric ISO 6149
ZZ - No Threads (With ZZ Port Code Only)

Design Series

Port Designation Code
ZZ - No Ports (With ZZ Thread Code Only)
① PP - Perimeter Ported - Ports on All 4 Sides
② PT - PR & TK Ports on Short Sides
③ AB - A & B Ports on Short Sides
④ PS - All Ports - Short Sides

Product Designation Code
TP - Tapping Plate

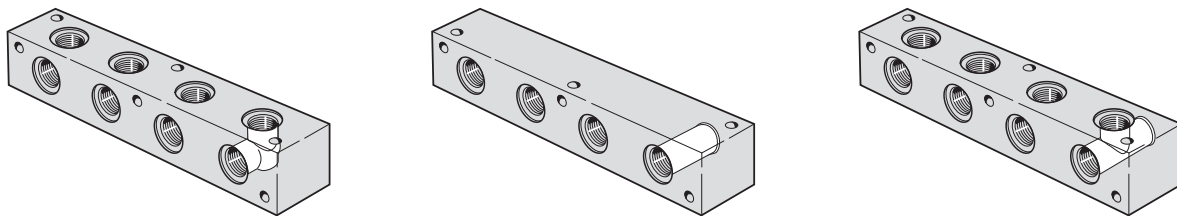


Header Bar Manifolds: Magnaloy's Header Manifolds are designed with the outlet ports connected to a common inlet port thru the center of the manifold. Header Manifolds are ordered by specifying the End Port (Inlet) Thread size and Side Port (Outlet) Thread size and the Port angle which specifies the orientation of the outlet ports. Metric End and Side Port Threads are also available (consult Factory).

3

HEADER MANIFOLD HARDWARE

| PART NO. | MOUNTING BOLTS |
|-------------------|---|
| H - 02P/ - - -1/Z | (2) or (3) 1/4-20 UNC x 2.00 Long S.H.C.S. |
| H - 04 / - - -1/Z | (2) or (3) 1/4-20 UNC x 2.00 Long S.H.C.S. |
| H - 06 / - - -1/Z | (2) or (3) 1/4-20 UNC x 2.25 Long S.H.C.S. |
| H - 08 / - - -1/Z | (2) or (3) 1/4-20 UNC x 2.25 Long S.H.C.S. |
| H - 12 / - - -1/Z | (2) or (3) 1/4-20 UNC x 2.50 Long S.H.C.S. |
| H - 16 / - - -1/Z | (2) or (3) 5/16-18 UNC x 3.00 Long S.H.C.S. |
| H - 20 / - - -1/Z | (2) or (3) 3/8-16 UNC x 3.50 Long S.H.C.S. |
| H - 24 / - - -1/Z | (2) or (3) 1/2-13 UNC x 4.50 Long S.H.C.S. |
| H - 32 / - - -1/Z | (2) or (3) 1/2-13 UNC x 5.00 Long S.H.C.S. |

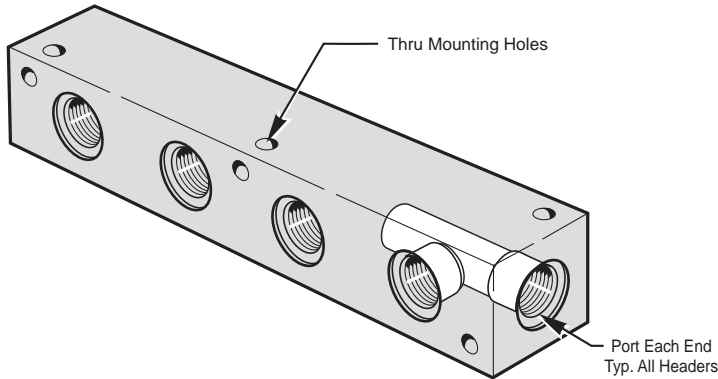


Junction Bar Manifolds: Magnaloy's Junction Manifolds are designed with varying size Inlet (End) and Outlet (Side) ports to accommodate altering piping sizes and/or directions. Junction Manifolds are ordered by specifying the Inlet Port Thread size and the Outlet Port Thread size and the Port Angle which specifies the orientation of the outlet ports. Metric Inlet and Outlet Port Threads are also available (consult Factory).

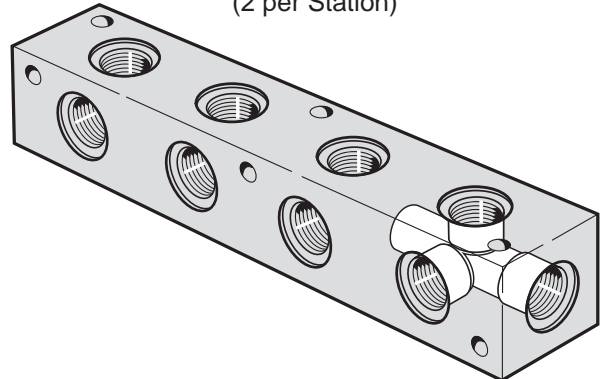
JUNCTION MANIFOLD HARDWARE

| PART NO. | MOUNTING BOLTS |
|-------------------|---|
| J - 000/01P- -1/Z | (2) or (3) 1/4-20 UNC x 2.00 Long S.H.C.S. |
| J - 000/02P- -1/Z | (2) or (3) 1/4-20 UNC x 2.00 Long S.H.C.S. |
| J - 000/04 - -1/Z | (2) or (3) 1/4-20 UNC x 2.25 Long S.H.C.S. |
| J - 000/06 - -1/Z | (2) or (3) 1/4-20 UNC x 2.25 Long S.H.C.S. |
| J - 000/08 - -1/Z | (2) or (3) 1/4-20 UNC x 2.50 Long S.H.C.S. |
| J - 000/12 - -1/Z | (2) or (3) 5/16-18 UNC x 3.00 Long S.H.C.S. |
| J - 000/16 - -1/Z | (2) or (3) 3/8-16 UNC x 3.50 Long S.H.C.S. |
| J - 000/20 - -1/Z | (2) or (3) 1/2-13 UNC x 4.50 Long S.H.C.S. |
| J - 000/24 - -1/Z | (2) or (3) 1/2-13 UNC x 5.00 Long S.H.C.S. |

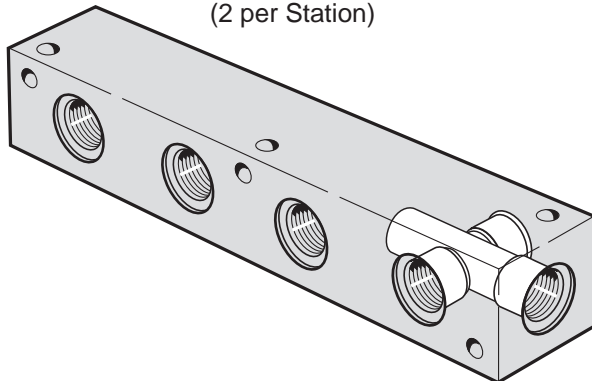
HEADER MANIFOLD - 0°
Connections Out One Side Only
(1 per Station)



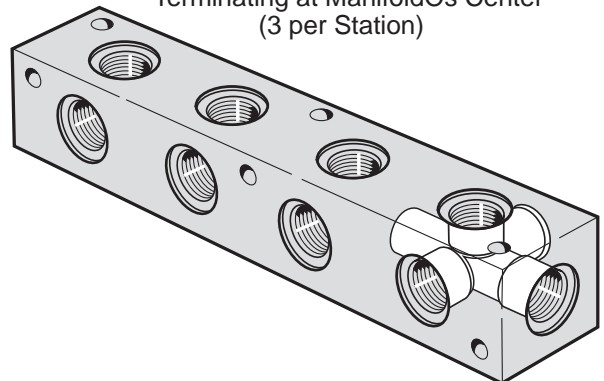
HEADER MANIFOLD - 90°
Side Connections at 90°
(2 per Station)



HEADER MANIFOLD - 180°
Side Connection Thru
(2 per Station)



HEADER MANIFOLD - 270°
3 Side Connections
Terminating at Manifold's Center
(3 per Station)



MAGNALOY HEADER MANIFOLD - PART NUMBER BREAKDOWN

H A - 0 0 0 8 S / 0 8 S - 0 4 - 1 / Z

Product Code
H - Header Manifold

Material Code
A - Aluminum
S - Ductile/Steel

Port Angles
00 - 0°
09 - 90°
18 - 180°
27 - 270°

End Ports * (Inlet)
##S - SAE
##P - Pipe

* See size charts for standard sizes and porting. See Page 106 for Mounting Hardware.

| | |
|-----------------|---------------|
| 01P - 1/16 NPT | 04S - #4 SAE |
| 02P - 1/8 NPT | 06S - #6 SAE |
| 04P - 1/4 NPT | 08S - #8 SAE |
| 06P - 3/8NPT | 12S - #12 SAE |
| 08P - 1/2 NPT | 16S - #16 SAE |
| 12P - 3/4 NPT | 20S - #20 SAE |
| 16P - 1 0 NPT | 24S - #24 SAE |
| 20P - 1 1/4 NPT | 32S - #32 SAE |
| 24P - 1 1/2 NPT | |
| 32P - 2 0 NPT | |

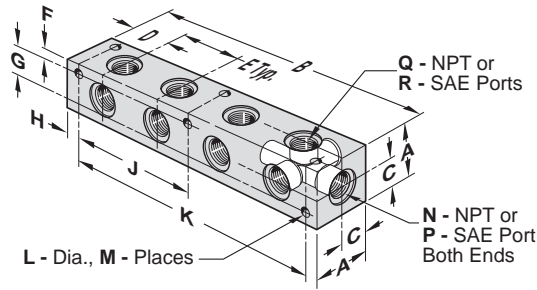
Options
Z - No Options

Design Series

Number of Stations

Side Ports * (Outlet)
##S - SAE
##P - NPTF

Connection Manifold Header Bar Manifolds



01P SIDE PORT

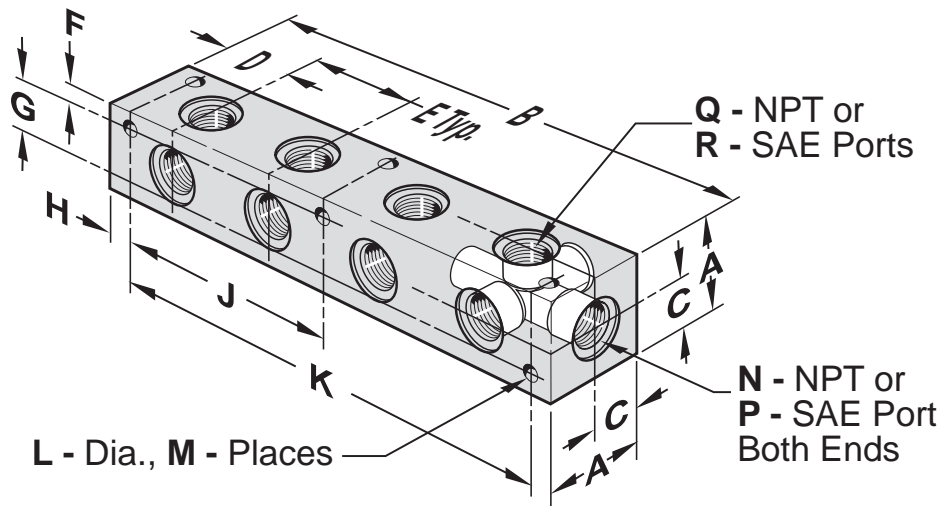
| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|------|----|
| H_-_02P/01P-02-1/Z | 1.500 | 3.250 | 0.750 | 1.000 | 1.250 | 0.250 | 1.000 | 0.313 | -- | 2.625 | 0.281 | 4 | 1/8 | -- | 1/16 | -- |
| H_-_02P/01P-03-1/Z | | 4.500 | | | | | | | -- | 3.875 | | 4 | | | | |
| H_-_02P/01P-04-1/Z | | 5.750 | | | | | | | -- | 5.125 | | 4 | | | | |
| H_-_02P/01P-05-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | | | |
| H_-_02P/01P-06-1/Z | | 8.250 | | | | | | | 3.813 | 7.625 | | 6 | | | | |
| H_-_02P/01P-07-1/Z | | 9.500 | | | | | | | 3.813 | 8.875 | | 6 | | | | |
| H_-_02P/01P-08-1/Z | | 10.750 | | | | | | | 5.063 | 10.125 | | 6 | | | | |
| H_-_02P/01P-09-1/Z | | 12.000 | | | | | | | 5.063 | 11.375 | | 6 | | | | |
| H_-_02P/01P-10-1/Z | | 13.250 | | | | | | | 6.313 | 12.625 | | 6 | | | | |

02P SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H_-_02P/02P-02-1/Z | 1.500 | 3.625 | 0.750 | 1.125 | 1.375 | 0.250 | 1.000 | 0.313 | -- | 3.000 | 0.281 | 4 | 1/8 | -- | 1/8 | -- |
| H_-_02P/02P-03-1/Z | | 5.000 | | | | | | | -- | 4.375 | | 4 | | | | |
| H_-_02P/02P-04-1/Z | | 6.375 | | | | | | | -- | 5.750 | | 4 | | | | |
| H_-_02P/02P-05-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | | | |
| H_-_02P/02P-06-1/Z | | 9.125 | | | | | | | 4.250 | 8.500 | | 6 | | | | |
| H_-_02P/02P-07-1/Z | | 10.500 | | | | | | | 4.250 | 9.875 | | 6 | | | | |
| H_-_02P/02P-08-1/Z | | 11.875 | | | | | | | 5.625 | 11.250 | | 6 | | | | |
| H_-_02P/02P-09-1/Z | | 13.250 | | | | | | | 5.625 | 12.625 | | 6 | | | | |
| H_-_02P/02P-10-1/Z | | 14.625 | | | | | | | 7.000 | 14.000 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H_-_04_/02P-02-1/Z | 1.500 | 3.625 | 0.750 | 1.125 | 1.375 | 0.250 | 1.000 | 0.313 | -- | 3.000 | 0.281 | 4 | 1/4 | -4 | 1/8 | -- |
| H_-_04_/02P-03-1/Z | | 5.000 | | | | | | | -- | 4.375 | | 4 | | | | |
| H_-_04_/02P-04-1/Z | | 6.375 | | | | | | | -- | 5.750 | | 4 | | | | |
| H_-_04_/02P-05-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | | | |
| H_-_04_/02P-06-1/Z | | 9.125 | | | | | | | 4.250 | 8.500 | | 6 | | | | |
| H_-_04_/02P-07-1/Z | | 10.500 | | | | | | | 4.250 | 9.875 | | 6 | | | | |
| H_-_04_/02P-08-1/Z | | 11.875 | | | | | | | 5.625 | 11.250 | | 6 | | | | |
| H_-_04_/02P-09-1/Z | | 13.250 | | | | | | | 5.625 | 12.625 | | 6 | | | | |
| H_-_04_/02P-10-1/Z | | 14.625 | | | | | | | 7.000 | 14.000 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H_-_06_/02P-02-1/Z | 1.750 | 3.625 | 0.875 | 1.125 | 1.375 | 0.250 | 1.250 | 0.313 | -- | 3.000 | 0.281 | 4 | 3/8 | -6 | 1/8 | -- |
| H_-_06_/02P-03-1/Z | | 5.000 | | | | | | | -- | 4.375 | | 4 | | | | |
| H_-_06_/02P-04-1/Z | | 6.375 | | | | | | | -- | 5.750 | | 4 | | | | |
| H_-_06_/02P-05-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | | | |
| H_-_06_/02P-06-1/Z | | 9.125 | | | | | | | 4.250 | 8.500 | | 6 | | | | |
| H_-_06_/02P-07-1/Z | | 10.500 | | | | | | | 4.250 | 9.875 | | 6 | | | | |
| H_-_06_/02P-08-1/Z | | 11.875 | | | | | | | 5.625 | 11.250 | | 6 | | | | |
| H_-_06_/02P-09-1/Z | | 13.250 | | | | | | | 5.625 | 12.625 | | 6 | | | | |
| H_-_06_/02P-10-1/Z | | 14.625 | | | | | | | 7.000 | 14.000 | | 6 | | | | |

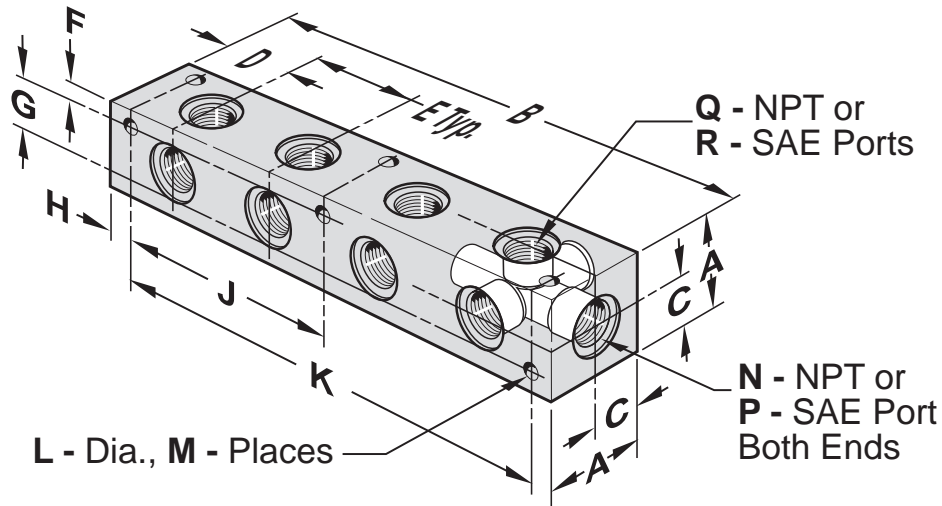


04_SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H - 04 /04 -02-1/Z | 1.500 | 3.875 | 0.750 | 1.063 | 1.750 | 0.250 | 1.000 | 0.313 | -- | 3.250 | 0.281 | 4 | 1/4 | -4 | 1/4 | -4 |
| H - 04 /04 -03-1/Z | | 5.625 | | | | | | | -- | 5.000 | | 4 | | | | |
| H - 04 /04 -04-1/Z | | 7.375 | | | | | | | -- | 6.750 | | 4 | | | | |
| H - 04 /04 -05-1/Z | | 9.125 | | | | | | | -- | 8.500 | | 4 | | | | |
| H - 04 /04 -06-1/Z | | 10.875 | | | | | | | 5.125 | 10.250 | | 6 | | | | |
| H - 04 /04 -07-1/Z | | 12.625 | | | | | | | 5.125 | 12.000 | | 6 | | | | |
| H - 04 /04 -08-1/Z | | 14.375 | | | | | | | 6.875 | 13.750 | | 6 | | | | |
| H - 04 /04 -09-1/Z | | 16.125 | | | | | | | 6.875 | 15.500 | | 6 | | | | |
| H - 04 /04 -10-1/Z | 17.875 | 8.625 | 17.250 | 6 | | | | | | | | | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H - 06 /04 -02-1/Z | 1.750 | 3.875 | 0.875 | 1.063 | 1.750 | 0.250 | 1.250 | 0.313 | -- | 3.250 | 0.281 | 4 | 3/8 | -6 | 1/4 | -4 |
| H - 06 /04 -03-1/Z | | 5.625 | | | | | | | -- | 5.000 | | 4 | | | | |
| H - 06 /04 -04-1/Z | | 7.375 | | | | | | | -- | 6.750 | | 4 | | | | |
| H - 06 /04 -05-1/Z | | 9.125 | | | | | | | -- | 8.500 | | 4 | | | | |
| H - 06 /04 -06-1/Z | | 10.875 | | | | | | | 5.125 | 10.250 | | 6 | | | | |
| H - 06 /04 -07-1/Z | | 12.625 | | | | | | | 5.125 | 12.000 | | 6 | | | | |
| H - 06 /04 -08-1/Z | | 14.375 | | | | | | | 6.875 | 13.750 | | 6 | | | | |
| H - 06 /04 -09-1/Z | | 16.125 | | | | | | | 6.875 | 15.500 | | 6 | | | | |
| H - 06 /04 -10-1/Z | 17.875 | 8.625 | 17.250 | 6 | | | | | | | | | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|--------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H - 08 /04 -02-1/Z | 1.750 | 3.875 | 0.875 | 1.063 | 1.750 | 0.250 | 1.250 | 0.313 | -- | 3.250 | 0.281 | 4 | 1/2 | -8 | 1/4 | -4 |
| H - 08 /04 -03-1/Z | | 5.625 | | | | | | | -- | 5.000 | | 4 | | | | |
| H - 08 /04 -04-1/Z | | 7.375 | | | | | | | -- | 6.750 | | 4 | | | | |
| H - 08 /04 -05-1/Z | | 9.125 | | | | | | | -- | 8.500 | | 4 | | | | |
| H - 08 /04 -06-1/Z | | 10.875 | | | | | | | 5.125 | 10.250 | | 6 | | | | |
| H - 08 /04 -07-1/Z | | 12.625 | | | | | | | 5.125 | 12.000 | | 6 | | | | |
| H - 08 /04 -08-1/Z | | 14.375 | | | | | | | 6.875 | 13.750 | | 6 | | | | |
| H - 08 /04 -09-1/Z | | 16.125 | | | | | | | 6.875 | 15.500 | | 6 | | | | |
| H - 08 /04 -10-1/Z | 17.875 | 8.625 | 17.250 | 6 | | | | | | | | | | | | |



06_SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-----|----|-----|----|
| H - _06_/06_-02-1/Z | 1.750 | 5.000 | 0.875 | 1.500 | 2.000 | 0.250 | 1.250 | 0.313 | -- | 4.375 | 0.281 | 4 | 3/8 | -6 | 3/8 | -6 |
| H - _06_/06_-03-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | | | |
| H - _06_/06_-04-1/Z | | 9.000 | | | | | | | -- | 8.375 | | 4 | | | | |
| H - _06_/06_-05-1/Z | | 11.000 | | | | | | | -- | 10.375 | | 4 | | | | |
| H - _06_/06_-06-1/Z | | 13.000 | | | | | | | 6.188 | 12.375 | | 6 | | | | |
| H - _06_/06_-07-1/Z | | 15.000 | | | | | | | 6.188 | 14.375 | | 6 | | | | |
| H - _06_/06_-08-1/Z | | 17.000 | | | | | | | 8.188 | 16.375 | | 6 | | | | |
| H - _06_/06_-09-1/Z | | 19.000 | | | | | | | 8.188 | 18.375 | | 6 | | | | |
| H - _06_/06_-10-1/Z | | 21.000 | | | | | | | 10.188 | 20.375 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-----|----|-----|----|
| H - _08_/06_-02-1/Z | 1.750 | 5.000 | 0.875 | 1.500 | 2.000 | 0.250 | 1.250 | 0.313 | -- | 4.375 | 0.281 | 4 | 1/2 | -8 | 3/8 | -6 |
| H - _08_/06_-03-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | | | |
| H - _08_/06_-04-1/Z | | 9.000 | | | | | | | -- | 8.375 | | 4 | | | | |
| H - _08_/06_-05-1/Z | | 11.000 | | | | | | | -- | 10.375 | | 4 | | | | |
| H - _08_/06_-06-1/Z | | 13.000 | | | | | | | 6.188 | 12.375 | | 6 | | | | |
| H - _08_/06_-07-1/Z | | 15.000 | | | | | | | 6.188 | 14.375 | | 6 | | | | |
| H - _08_/06_-08-1/Z | | 17.000 | | | | | | | 8.188 | 16.375 | | 6 | | | | |
| H - _08_/06_-09-1/Z | | 19.000 | | | | | | | 8.188 | 18.375 | | 6 | | | | |
| H - _08_/06_-10-1/Z | | 21.000 | | | | | | | 10.188 | 20.375 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-----|-----|-----|----|
| H - _12_/06_-02-1/Z | 2.000 | 5.000 | 1.000 | 1.500 | 2.000 | 0.250 | 1.500 | 0.313 | -- | 4.375 | 0.281 | 4 | 3/4 | -12 | 3/8 | -6 |
| H - _12_/06_-03-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | | | |
| H - _12_/06_-04-1/Z | | 9.000 | | | | | | | -- | 8.375 | | 4 | | | | |
| H - _12_/06_-05-1/Z | | 11.000 | | | | | | | -- | 10.375 | | 4 | | | | |
| H - _12_/06_-06-1/Z | | 13.000 | | | | | | | 6.188 | 12.375 | | 6 | | | | |
| H - _12_/06_-07-1/Z | | 15.000 | | | | | | | 6.188 | 14.375 | | 6 | | | | |
| H - _12_/06_-08-1/Z | | 17.000 | | | | | | | 8.188 | 16.375 | | 6 | | | | |
| H - _12_/06_-09-1/Z | | 19.000 | | | | | | | 8.188 | 18.375 | | 6 | | | | |
| H - _12_/06_-10-1/Z | | 21.000 | | | | | | | 10.188 | 20.375 | | 6 | | | | |

08_ SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|-----|----|
| H_08_08_02-1/Z | 1.750 | 5.375 | 0.875 | 1.500 | 2.375 | 0.250 | 1.250 | 0.313 | -- | 4.750 | 0.281 | 4 | 1/2 | -8 | 1/2 | -8 |
| H_08_08_03-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | | | |
| H_08_08_04-1/Z | | 10.125 | | | | | | | -- | 9.500 | | 4 | | | | |
| H_08_08_05-1/Z | | 12.500 | | | | | | | -- | 11.875 | | 4 | | | | |
| H_08_08_06-1/Z | | 14.875 | | | | | | | 7.125 | 14.250 | | 6 | | | | |
| H_08_08_07-1/Z | | 17.250 | | | | | | | 7.125 | 16.625 | | 6 | | | | |
| H_08_08_08-1/Z | | 19.625 | | | | | | | 9.500 | 19.000 | | 6 | | | | |
| H_08_08_09-1/Z | | 22.000 | | | | | | | 9.500 | 21.375 | | 6 | | | | |

3

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|-----|-----|----|
| H_12_08_02-1/Z | 2.000 | 5.375 | 1.000 | 1.500 | 2.375 | 0.250 | 1.500 | 0.313 | -- | 4.750 | 0.281 | 4 | 3/4 | -12 | 1/2 | -8 |
| H_12_08_03-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | | | |
| H_12_08_04-1/Z | | 10.125 | | | | | | | -- | 9.500 | | 4 | | | | |
| H_12_08_05-1/Z | | 12.500 | | | | | | | -- | 11.875 | | 4 | | | | |
| H_12_08_06-1/Z | | 14.875 | | | | | | | 7.125 | 14.250 | | 6 | | | | |
| H_12_08_07-1/Z | | 17.250 | | | | | | | 7.125 | 16.625 | | 6 | | | | |
| H_12_08_08-1/Z | | 19.625 | | | | | | | 9.500 | 19.000 | | 6 | | | | |
| H_12_08_09-1/Z | | 22.000 | | | | | | | 9.500 | 21.375 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|---|-----|-----|----|
| H_16_08_02-1/Z | 2.500 | 5.375 | 1.250 | 1.500 | 2.375 | 0.280 | 1.940 | 0.375 | -- | 4.625 | 0.344 | 4 | 1 | -16 | 1/2 | -8 |
| H_16_08_03-1/Z | | 7.750 | | | | | | | -- | 7.000 | | 4 | | | | |
| H_16_08_04-1/Z | | 10.125 | | | | | | | -- | 9.375 | | 4 | | | | |
| H_16_08_05-1/Z | | 12.500 | | | | | | | -- | 11.750 | | 4 | | | | |
| H_16_08_06-1/Z | | 14.875 | | | | | | | 7.063 | 14.125 | | 6 | | | | |
| H_16_08_07-1/Z | | 17.250 | | | | | | | 7.063 | 16.500 | | 6 | | | | |
| H_16_08_08-1/Z | | 19.625 | | | | | | | 9.438 | 18.875 | | 6 | | | | |
| H_16_08_09-1/Z | | 22.000 | | | | | | | 9.438 | 21.250 | | 6 | | | | |

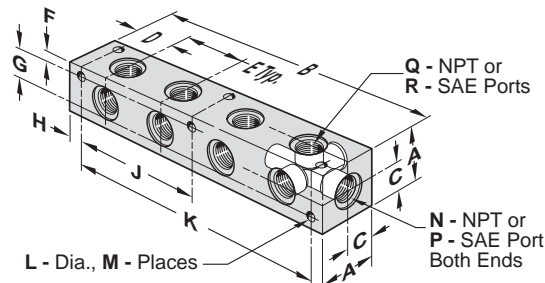
12_ SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|-----|-----|-----|
| H_12_12_02-1/Z | 2.500 | 6.875 | 1.250 | 1.813 | 3.250 | 0.280 | 1.940 | 0.375 | -- | 6.125 | 0.344 | 4 | 3/4 | -12 | 3/4 | -12 |
| H_12_12_03-1/Z | | 10.125 | | | | | | | -- | 9.375 | | 4 | | | | |
| H_12_12_04-1/Z | | 13.375 | | | | | | | -- | 12.625 | | 4 | | | | |
| H_12_12_05-1/Z | | 16.625 | | | | | | | -- | 15.875 | | 4 | | | | |
| H_12_12_06-1/Z | | 19.875 | | | | | | | 9.563 | 19.125 | | 6 | | | | |
| H_12_12_07-1/Z | | 23.125 | | | | | | | 9.563 | 22.375 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|---|-----|-----|-----|
| H_16_12_02-1/Z | 2.500 | 6.875 | 1.250 | 1.813 | 3.250 | 0.280 | 1.940 | 0.375 | -- | 6.125 | 0.344 | 4 | 1 | -16 | 3/4 | -12 |
| H_16_12_03-1/Z | | 10.125 | | | | | | | -- | 9.375 | | 4 | | | | |
| H_16_12_04-1/Z | | 13.375 | | | | | | | -- | 12.625 | | 4 | | | | |
| H_16_12_05-1/Z | | 16.625 | | | | | | | -- | 15.875 | | 4 | | | | |
| H_16_12_06-1/Z | | 19.875 | | | | | | | 9.563 | 19.125 | | 6 | | | | |
| H_16_12_07-1/Z | | 23.125 | | | | | | | 9.563 | 22.375 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|-----|-----|
| H_20_12_02-1/Z | 3.000 | 6.875 | 1.500 | 1.813 | 3.250 | 0.344 | 2.312 | 0.375 | -- | 6.125 | 0.406 | 4 | 1 1/4 | -20 | 3/4 | -12 |
| H_20_12_03-1/Z | | 10.125 | | | | | | | -- | 9.375 | | 4 | | | | |
| H_20_12_04-1/Z | | 13.375 | | | | | | | -- | 12.625 | | 4 | | | | |
| H_20_12_05-1/Z | | 16.625 | | | | | | | -- | 15.875 | | 4 | | | | |
| H_20_12_06-1/Z | | 19.875 | | | | | | | 9.563 | 19.125 | | 6 | | | | |
| H_20_12_07-1/Z | | 23.125 | | | | | | | 9.563 | 22.375 | | 6 | | | | |

Connection Manifold Header Bar Manifolds



16_SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|---|-----|---|-----|
| H_ 16 /16_-02-1/Z | 2.500 | 7.750 | 1.250 | 2.000 | 3.750 | 0.280 | 1.940 | 0.375 | -- | 7.000 | 0.344 | 4 | 1 | -16 | 1 | -16 |
| H_ 16 /16_-03-1/Z | | 11.500 | | | | | | | -- | 10.750 | | 4 | | | | |
| H_ 16 /16_-04-1/Z | | 15.250 | | | | | | | -- | 14.500 | | 4 | | | | |
| H_ 16 /16_-05-1/Z | | 19.000 | | | | | | | 7.250 | 18.250 | | 6 | | | | |
| H_ 16 /16_-06-1/Z | | 22.750 | | | | | | | 11.000 | 22.000 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-------|-----|---|-----|
| H_ 20 /16_-02-1/Z | 3.000 | 7.750 | 1.500 | 2.000 | 3.750 | 0.344 | 2.312 | 0.375 | -- | 7.000 | 0.406 | 4 | 1 1/4 | -20 | 1 | -16 |
| H_ 20 /16_-03-1/Z | | 11.500 | | | | | | | -- | 10.750 | | 4 | | | | |
| H_ 20 /16_-04-1/Z | | 15.250 | | | | | | | -- | 14.500 | | 4 | | | | |
| H_ 20 /16_-05-1/Z | | 19.000 | | | | | | | 7.250 | 18.250 | | 6 | | | | |
| H_ 20 /16_-06-1/Z | | 22.750 | | | | | | | 11.000 | 22.000 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-------|-----|---|-----|
| H_ 24 /16_-02-1/Z | 3.500 | 7.750 | 1.750 | 2.000 | 3.750 | 0.406 | 2.688 | 0.500 | -- | 6.750 | 0.531 | 4 | 1 1/2 | -24 | 1 | -16 |
| H_ 24 /16_-03-1/Z | | 11.500 | | | | | | | -- | 10.500 | | 4 | | | | |
| H_ 24 /16_-04-1/Z | | 15.250 | | | | | | | -- | 14.250 | | 4 | | | | |
| H_ 24 /16_-05-1/Z | | 19.000 | | | | | | | 7.125 | 18.000 | | 6 | | | | |
| H_ 24 /16_-06-1/Z | | 22.750 | | | | | | | 10.875 | 21.750 | | 6 | | | | |

20_SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|-------|-----|
| H_ 20 /20_-02-1/Z | 3.000 | 8.500 | 1.500 | 2.250 | 4.000 | 0.344 | 2.312 | 0.375 | -- | 7.750 | 0.406 | 4 | 1 1/4 | -20 | 1 1/4 | -20 |
| H_ 20 /20_-03-1/Z | | 12.500 | | | | | | | -- | 11.750 | | 4 | | | | |
| H_ 20 /20_-04-1/Z | | 16.500 | | | | | | | -- | 15.750 | | 4 | | | | |
| H_ 20 /20_-05-1/Z | | 20.500 | | | | | | | 7.875 | 19.750 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|-------|-----|
| H_ 24 /20_-02-1/Z | 3.500 | 8.500 | 1.750 | 2.250 | 4.000 | 0.406 | 2.688 | 0.500 | -- | 7.500 | 0.531 | 4 | 1 1/2 | -24 | 1 1/4 | -20 |
| H_ 24 /20_-03-1/Z | | 12.500 | | | | | | | -- | 11.500 | | 4 | | | | |
| H_ 24 /20_-04-1/Z | | 16.500 | | | | | | | -- | 15.500 | | 4 | | | | |
| H_ 24 /20_-05-1/Z | | 20.500 | | | | | | | 7.750 | 19.500 | | 6 | | | | |

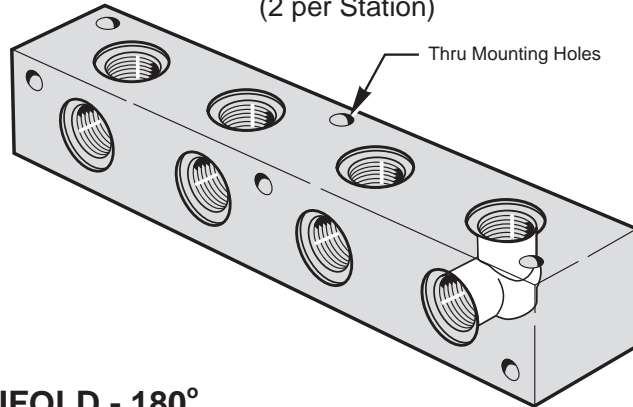
24_SIDE PORT

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|-------|-----|
| H_ 24 /24_-02-1/Z | 3.500 | 10.000 | 1.750 | 2.500 | 5.000 | 0.406 | 2.688 | 0.500 | -- | 9.000 | 0.531 | 4 | 1 1/2 | -24 | 1 1/2 | -24 |
| H_ 24 /24_-03-1/Z | | 15.000 | | | | | | | -- | 14.000 | | 4 | | | | |
| H_ 24 /24_-04-1/Z | | 20.000 | | | | | | | 9.500 | 19.000 | | 6 | | | | |

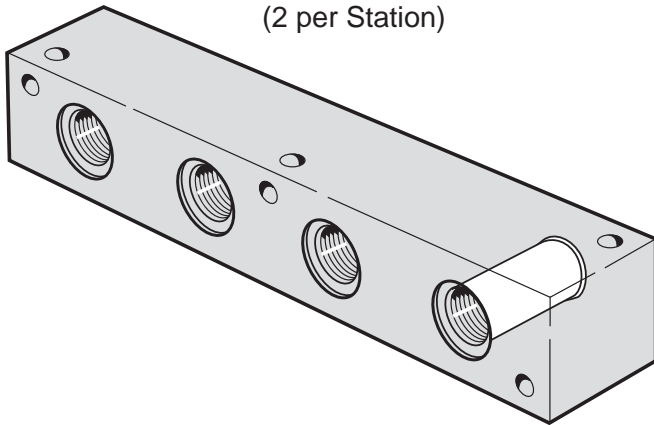
| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|---|-----|-------|-----|
| H_ 32P/24_-02-1/Z | 4.000 | 10.000 | 2.000 | 2.500 | 5.000 | 0.406 | 3.188 | 0.500 | -- | 9.000 | 0.531 | 4 | 2 | -32 | 1 1/2 | -24 |
| H_ 32P/24_-03-1/Z | | 15.000 | | | | | | | -- | 14.000 | | 4 | | | | |
| H_ 32P/24_-04-1/Z | | 20.000 | | | | | | | 9.500 | 19.000 | | 6 | | | | |

| PART NUMBER | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|-------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|---|-----|-------|-----|
| H_ 32S/24_-02-1/Z | 4.500 | 10.000 | 2.250 | 2.500 | 5.000 | 0.406 | 3.688 | 0.500 | -- | 9.000 | 0.531 | 4 | 2 | -32 | 1 1/2 | -24 |
| H_ 32S/24_-03-1/Z | | 15.000 | | | | | | | -- | 14.000 | | 4 | | | | |
| H_ 32S/24_-04-1/Z | | 20.000 | | | | | | | 9.500 | 19.000 | | 6 | | | | |

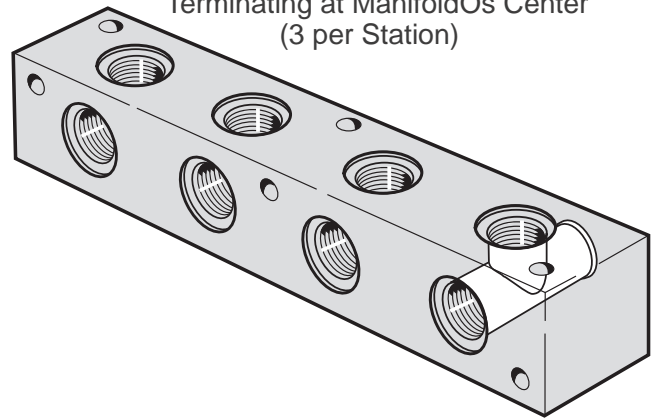
JUNCTION MANIFOLD - 90°
Side Connections at 90°
(2 per Station)



JUNCTION MANIFOLD - 180°
Side Connection Thru
(2 per Station)



JUNCTION MANIFOLD - 270°
3 Side Connections
Terminating at Manifold's Center
(3 per Station)



MAGNALOY JUNCTION MANIFOLD - PART NUMBER BREAKDOWN

J A - 2 7 0 0 0 / 0 8 S - 0 4 - 1 / Z

Product Code
J - Junction Manifold

Material Code
A - Aluminum
S - Ductile/Steel

Port Angles
09 - 90°
18 - 180°
27 - 270°

End Ports
00000 for all
Junction Manifold

* See size charts for standard sizes and porting. See Page 106 for Mounting Hardware.

| | |
|-----------------|---------------|
| 01P - 1/16 NPT | 04S - #4 SAE |
| 02P - 1/8 NPT | 06S - #6 SAE |
| 04P - 1/4 NPT | 08S - #8 SAE |
| 06P - 3/8 NPT | 12S - #12 SAE |
| 08P - 1/2 NPT | 16S - #16 SAE |
| 12P - 3/4 NPT | 20S - #20 SAE |
| 16P - 1" NPT | 24S - #24 SAE |
| 20P - 1 1/4 NPT | 32S - #32 SAE |
| 24P - 1 1/2 NPT | |
| 32P - 2" NPT | |

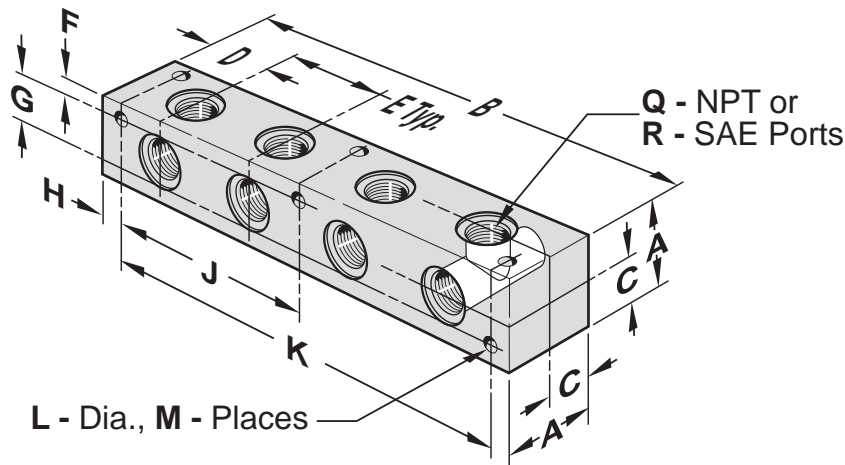
Options
Z - No Options

Design Series

Number of Stations

Side Ports *

##S - SAE
##P - NPTF



01P SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|------|----|
| J - _000/01P-02-1/Z | 1.500 | 3.250 | 0.750 | 1.000 | 1.250 | 0.250 | 1.000 | 0.313 | -- | 2.625 | 0.281 | 4 | 1/16 | -- |
| J - _000/01P-03-1/Z | | 4.500 | | | | | | | -- | 3.875 | | 4 | | |
| J - _000/01P-04-1/Z | | 5.750 | | | | | | | -- | 5.125 | | 4 | | |
| J - _000/01P-05-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | |
| J - _000/01P-06-1/Z | | 8.250 | | | | | | | 3.813 | 7.625 | | 6 | | |
| J - _000/01P-07-1/Z | | 9.500 | | | | | | | 3.813 | 8.875 | | 6 | | |
| J - _000/01P-08-1/Z | | 10.750 | | | | | | | 5.063 | 10.125 | | 6 | | |
| J - _000/01P-09-1/Z | | 12.000 | | | | | | | 5.063 | 11.375 | | 6 | | |
| J - _000/01P-10-1/Z | | 13.250 | | | | | | | 6.313 | 12.625 | | 6 | | |

02P SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|
| J - _000/02P-02-1/Z | 1.500 | 3.625 | 0.750 | 1.125 | 1.375 | 0.250 | 1.000 | 0.313 | -- | 3.000 | 0.281 | 4 | 1/8 | -- |
| J - _000/02P-03-1/Z | | 5.000 | | | | | | | -- | 4.375 | | 4 | | |
| J - _000/02P-04-1/Z | | 6.375 | | | | | | | -- | 5.750 | | 4 | | |
| J - _000/02P-05-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | |
| J - _000/02P-06-1/Z | | 9.125 | | | | | | | 4.250 | 8.500 | | 6 | | |
| J - _000/02P-07-1/Z | | 10.500 | | | | | | | 4.250 | 9.875 | | 6 | | |
| J - _000/02P-08-1/Z | | 11.875 | | | | | | | 5.625 | 11.250 | | 6 | | |
| J - _000/02P-09-1/Z | | 13.250 | | | | | | | 5.625 | 12.625 | | 6 | | |
| J - _000/02P-10-1/Z | | 14.625 | | | | | | | 7.000 | 14.000 | | 6 | | |

04_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|
| J - _000/04_-02-1/Z | 1.750 | 3.875 | 0.875 | 1.063 | 1.750 | 0.250 | 1.250 | 0.313 | -- | 3.250 | 0.281 | 4 | 1/4 | -4 |
| J - _000/04_-03-1/Z | | 5.625 | | | | | | | -- | 5.000 | | 4 | | |
| J - _000/04_-04-1/Z | | 7.375 | | | | | | | -- | 6.750 | | 4 | | |
| J - _000/04_-05-1/Z | | 9.125 | | | | | | | -- | 8.500 | | 4 | | |
| J - _000/04_-06-1/Z | | 10.875 | | | | | | | 5.125 | 10.250 | | 6 | | |
| J - _000/04_-07-1/Z | | 12.625 | | | | | | | 5.125 | 12.000 | | 6 | | |
| J - _000/04_-08-1/Z | | 14.375 | | | | | | | 6.875 | 13.750 | | 6 | | |
| J - _000/04_-09-1/Z | | 16.125 | | | | | | | 6.875 | 15.500 | | 6 | | |
| J - _000/04_-10-1/Z | | 17.875 | | | | | | | 8.625 | 17.250 | | 6 | | |

06_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|-----|----|
| J - _000/06_-02-1/Z | 1.750 | 5.000 | 0.875 | 1.500 | 2.000 | 0.250 | 1.250 | 0.313 | -- | 4.375 | 0.281 | 4 | 3/8 | -6 |
| J - _000/06_-03-1/Z | | 7.000 | | | | | | | -- | 6.375 | | 4 | | |
| J - _000/06_-04-1/Z | | 9.000 | | | | | | | -- | 8.375 | | 4 | | |
| J - _000/06_-05-1/Z | | 11.000 | | | | | | | -- | 10.375 | | 4 | | |
| J - _000/06_-06-1/Z | | 13.000 | | | | | | | 6.188 | 12.375 | | 6 | | |
| J - _000/06_-07-1/Z | | 15.000 | | | | | | | 6.188 | 14.375 | | 6 | | |
| J - _000/06_-08-1/Z | | 17.000 | | | | | | | 8.188 | 16.375 | | 6 | | |
| J - _000/06_-09-1/Z | | 19.000 | | | | | | | 8.188 | 18.375 | | 6 | | |
| J - _000/06_-10-1/Z | | 21.000 | | | | | | | 10.188 | 20.375 | | 6 | | |

08_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|----|
| J - _000/08_-02-1/Z | 2.000 | 5.375 | 1.000 | 1.500 | 2.375 | 0.250 | 1.500 | 0.313 | -- | 4.750 | 0.281 | 4 | 1/2 | -8 |
| J - _000/08_-03-1/Z | | 7.750 | | | | | | | -- | 7.125 | | 4 | | |
| J - _000/08_-04-1/Z | | 10.125 | | | | | | | -- | 9.500 | | 4 | | |
| J - _000/08_-05-1/Z | | 12.500 | | | | | | | -- | 11.875 | | 4 | | |
| J - _000/08_-06-1/Z | | 14.875 | | | | | | | 7.125 | 14.250 | | 6 | | |
| J - _000/08_-07-1/Z | | 17.250 | | | | | | | 7.125 | 16.625 | | 6 | | |
| J - _000/08_-08-1/Z | | 19.625 | | | | | | | 9.500 | 19.000 | | 6 | | |
| J - _000/08_-09-1/Z | | 22.000 | | | | | | | 9.500 | 21.375 | | 6 | | |

12_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-----|-----|
| J - _000/12_-02-1/Z | 2.500 | 6.875 | 1.250 | 1.813 | 3.250 | 0.280 | 1.940 | 0.375 | -- | 6.125 | 0.344 | 4 | 3/4 | -12 |
| J - _000/12_-03-1/Z | | 10.125 | | | | | | | -- | 9.375 | | 4 | | |
| J - _000/12_-04-1/Z | | 13.375 | | | | | | | -- | 12.625 | | 4 | | |
| J - _000/12_-05-1/Z | | 16.625 | | | | | | | -- | 15.875 | | 4 | | |
| J - _000/12_-06-1/Z | | 19.875 | | | | | | | 9.563 | 19.125 | | 6 | | |
| J - _000/12_-07-1/Z | | 23.125 | | | | | | | 9.563 | 22.375 | | 6 | | |

16_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---|---|-----|
| J - _000/16_-02-1/Z | 3.000 | 7.750 | 1.500 | 2.000 | 3.750 | 0.344 | 2.312 | 0.375 | -- | 7.000 | 0.406 | 4 | 1 | -16 |
| J - _000/16_-03-1/Z | | 11.500 | | | | | | | -- | 10.750 | | 4 | | |
| J - _000/16_-04-1/Z | | 15.250 | | | | | | | -- | 14.500 | | 4 | | |
| J - _000/16_-05-1/Z | | 19.000 | | | | | | | 7.250 | 18.250 | | 6 | | |
| J - _000/16_-06-1/Z | | 22.750 | | | | | | | 11.000 | 22.000 | | 6 | | |

20_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|
| J - _000/20_-02-1/Z | 3.500 | 8.500 | 1.750 | 2.250 | 4.000 | 0.410 | 2.688 | 0.500 | -- | 7.500 | 0.531 | 4 | 1-1/4 | -20 |
| J - _000/20_-03-1/Z | | 12.500 | | | | | | | -- | 11.500 | | 4 | | |
| J - _000/20_-04-1/Z | | 16.500 | | | | | | | -- | 15.500 | | 4 | | |
| J - _000/20_-05-1/Z | | 20.500 | | | | | | | 7.750 | 19.500 | | 6 | | |

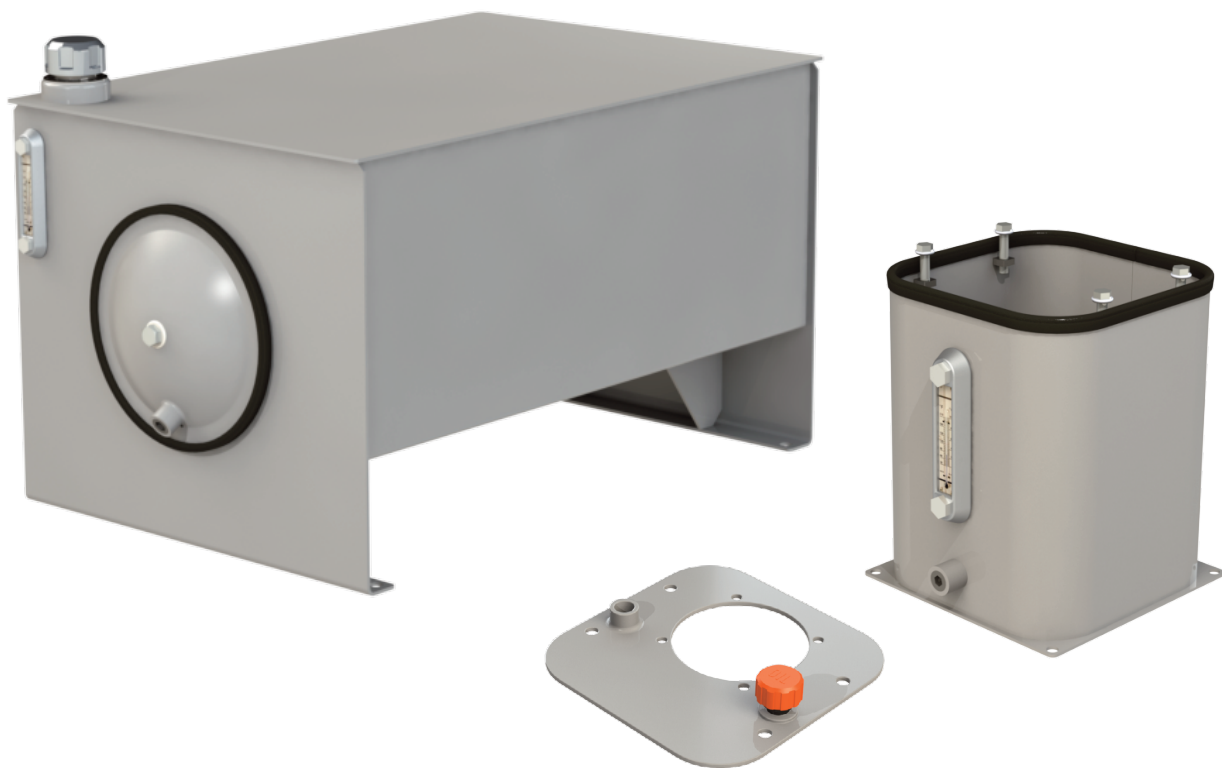
24_ SIDE PORT

| PART NO. | A | B | C | D | E | F | G | H | J | K | L | M | Q | R |
|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|---|-------|-----|
| J - _000/24_-02-1/Z | 4.000 | 10.000 | 2.000 | 2.500 | 5.000 | 0.410 | 3.188 | 0.500 | -- | 9.000 | 0.531 | 4 | 1-1/2 | -24 |
| J - _000/24_-03-1/Z | | 15.000 | | | | | | | -- | 14.000 | | 4 | | |
| J - _000/24_-04-1/Z | | 20.000 | | | | | | | 9.500 | 19.000 | | 6 | | |

3

SECTION 4

MAGNALOY HYDRAULIC RESERVOIRS



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.

Quality

Every Magnaloy reservoir is leak tested using a dye penetrant, ensuring the integrity of each and every weld. In addition, every sharp edge and corner is deburred to help eliminate the risk of dangerous and costly injuries to assembly personnel. To insure a leakproof assembly, Magnaloy utilizes NPT Tapered Thread Fittings and Plugs for all Reservoir Drains.

Please Note: We do NOT leak test any welds on the top of our reservoirs. If you need a positive leak free top, please consult the factory.

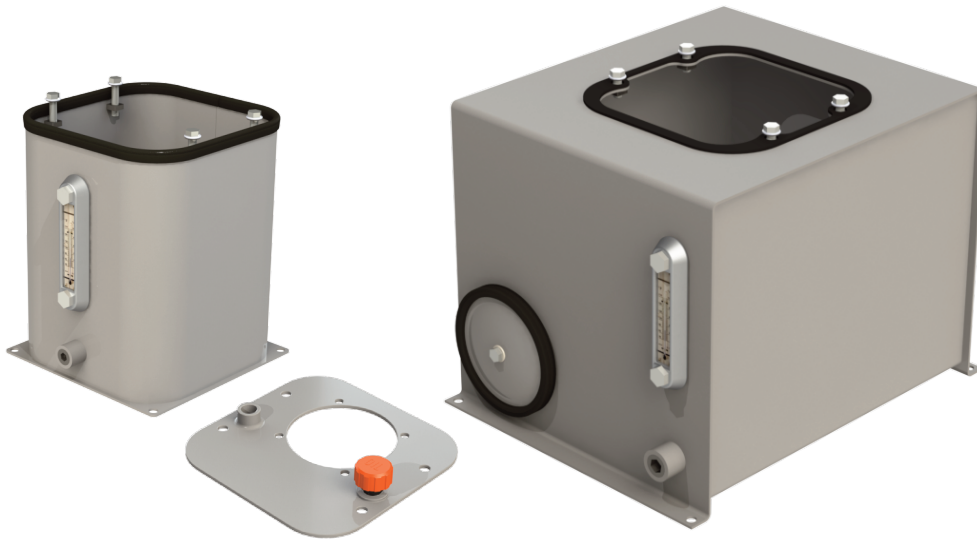
4

Custom

Whether a standard reservoir form our catalog, a hand sketch or DIN style, Magnaloy welcomes the opportunity to create a reservoir that will satisfy your application requirements. We specialize in pre-cut holes and/or special prepping of reservoirs reducing costly labor assembly time.

Value

Our prices are competitive with all manufacturers of quality reservoirs. Magnaloy reservoirs arrive clean and ready to assemble. No costly labor required for cleanup. Other value added features include “one stop shopping” resulting in savings from fewer issued checks, purchase orders, correspondence and single source follow-up.



The Magnaloy Tradition Continues

In the early planning stages of our reservoir line, a customer exclaimed, when learning of our new product, “if magnaloy is putting their name on it, that’s good enough for me.” Where other manufacturers dabble in expanding their product line, we take every new product very serious and ensure the magnaloy tradition of quality, value and support continues.

Other Magnaloy Reservoir Necessities

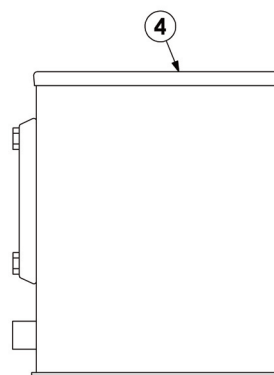
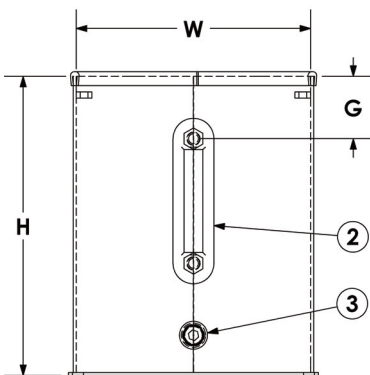
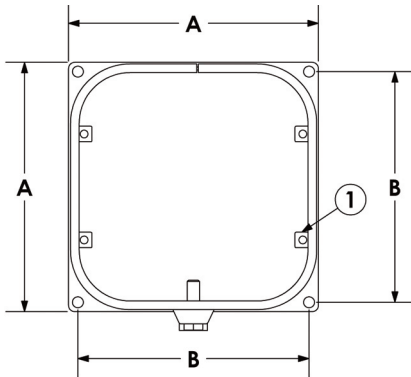
Magnaloy offers a full line of Accessory Products for your reservoir. These include Filler Breather Caps, Adapters, Mounting Flanges, Screens, Suction Strainers, Spin-on and Tank Top Filters, Liquid Level Gauges and other products. See Magnaloy’s complete line of accessory items in our Accessory Products Catalog or visit us at www.magnaloy.com.

Vertical ECONO Reservoirs



Magnaloy Coupling Company's line of reservoirs begins with the Econo Series. These reservoirs are available in 2, 3, 5, 8, 10, 14, 20 and 25 gallon capacities. Each reservoir includes our Sight Level Gauge w/Temperature Readout, NPT Tank Drain, cutout and tapped holes for Reservoir Cover Plate (ordered separately), 6" Steel End Cover (on 8 gallon and larger), Primer Coated Exterior and Rust Inhibitor Coated Interior. All edges are deburred for safe handling.

RVP02, RVP03 and RVP05 Econo Reservoirs:



Features:

- 1 - 3/8-16 Cover Mounting Nuts
 - 2 - Magnaloy Sight Level Gauge w/temp *
 - 3 - 1/2" NPT Drain
 - 4 - Neoprene Gasket for Cover Plate Seal **
- Primer Coated Exterior
Rust Inhibitor Coated Interior

* Sight Level Gauge:

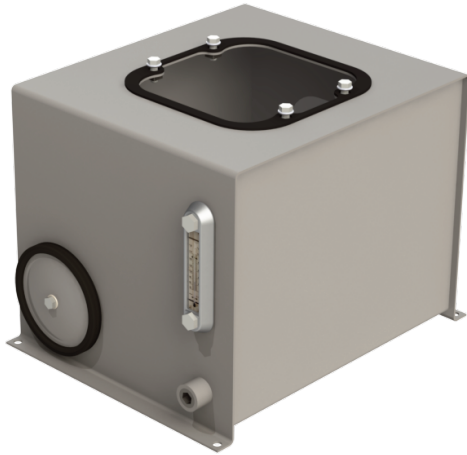
- 2 gallon - 3" Gauge (SLLG-03T-C)
- 3 & 5 gallon - 5" Gauge (SLLG-05T-C)

** Cover Plate is ordered as a separate item, see page 121 for specifications

| Part Number | A | B | G | H | W |
|-------------|-------|------|------|-------|------|
| RVP02 | 10.50 | 9.25 | 1.13 | 8.00 | 9.38 |
| RVP03 | 10.50 | 9.25 | 2.50 | 12.00 | 9.38 |
| RVP05 | 10.50 | 9.25 | 1.50 | 16.00 | 9.38 |

NOTE: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RVP08, RVP10 and RVP14 Econo Reservoirs:



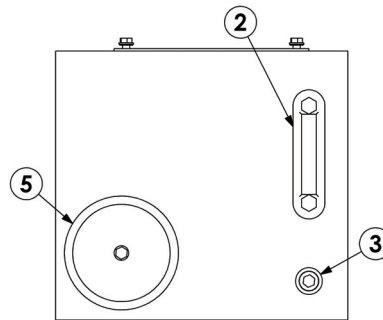
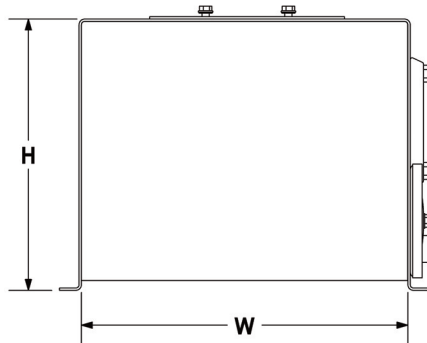
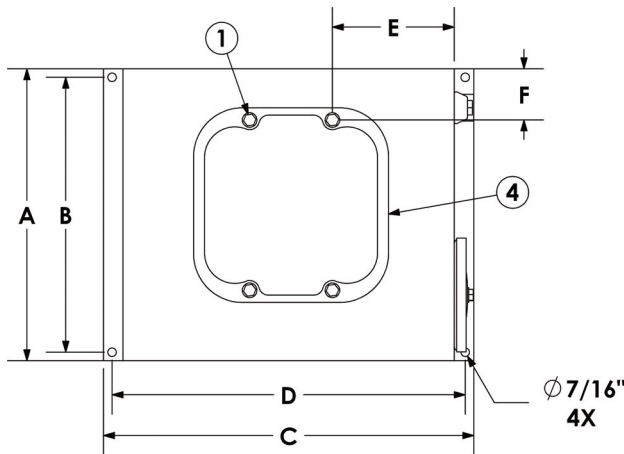
Features:

- 1 - 3/8-16 Cover Mounting Nuts
- 2 - Magnaloy 5" Sight Level Gauge w/temp (SLLG-05T-C)
- 3 - 3/4" NPT Drain
- 4 - Neoprene Gasket for Cover Plate Seal *
- 5 - 6" Steel Clean-out Cover (REC06)

Primer Coated Exterior

Rust Inhibitor Coated Interior

* Cover Plate is ordered as a separate item, see page 121 for specifications



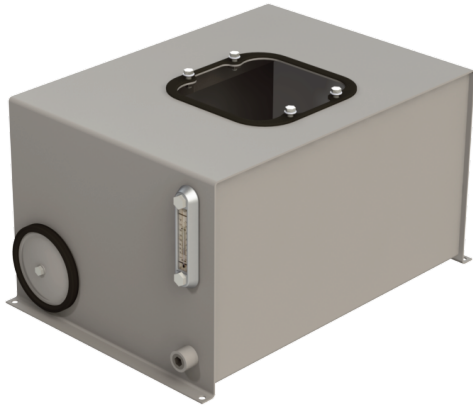
| Part Number | A | B | C | D | E | F | G | H | W |
|-------------|-------|-------|-------|-------|------|------|------|-------|-------|
| RVP08 | 12.00 | 11.13 | 14.25 | 13.38 | 5.06 | 1.63 | 3.13 | 18.13 | 12.00 |
| RVP10 | 15.00 | 14.13 | 19.00 | 18.13 | 6.25 | 2.63 | 2.81 | 13.94 | 16.75 |
| RVP14 | 12.00 | 11.13 | 20.25 | 19.38 | 6.88 | 1.63 | 2.88 | 20.13 | 18.00 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

Vertical ECONO Reservoirs



RVP20 and RVP25 Econo Reservoirs:



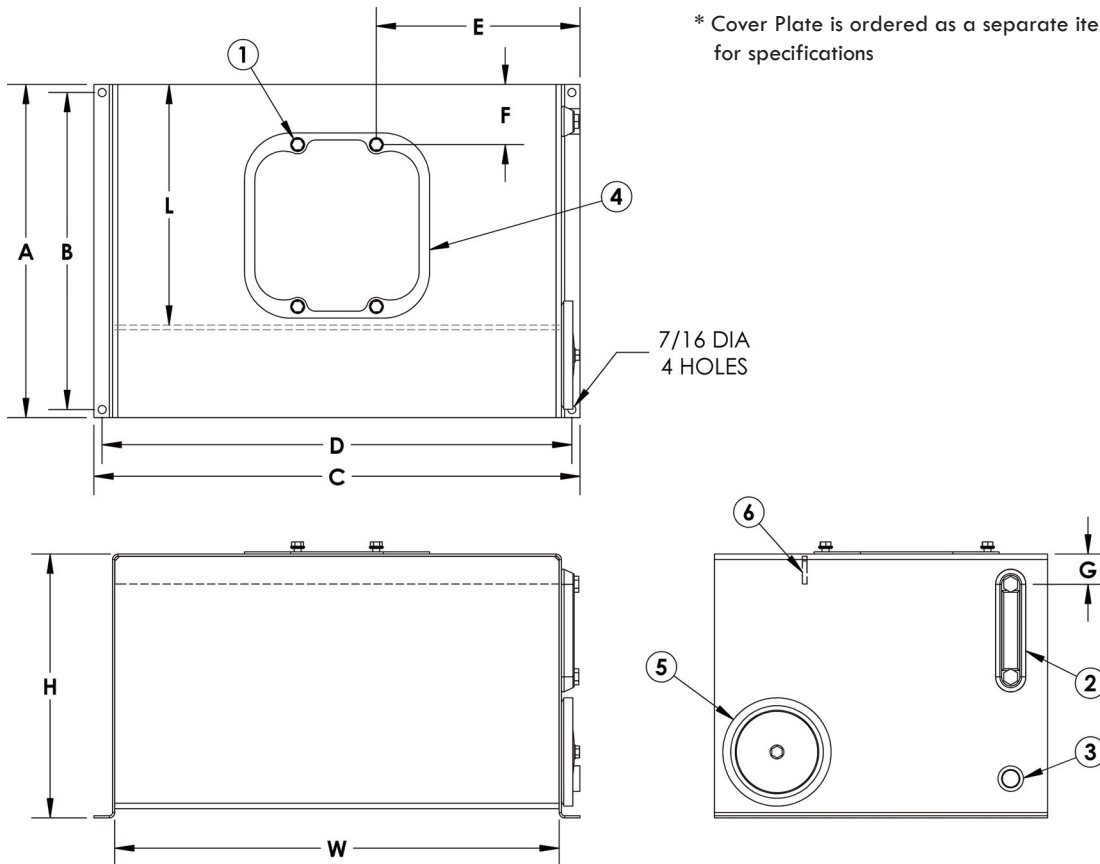
Features:

- 1 - 3/8-16 Cover Mounting Nuts
- 2 - Magnaloy 5" Sight Level Gauge w/temp (SLLG-05T-C)
- 3 - 3/4" NPT Drain
- 4 - Neoprene Gasket for Cover Plate Seal *
- 5 - 6" Steel Clean-out Cover (REC06)
- 6 - Tank Top Stiffener for rigidity and noise reduction

Primer Coated Exterior

Rust Inhibitor Coated Interior

* Cover Plate is ordered as a separate item, see page 121 for specifications



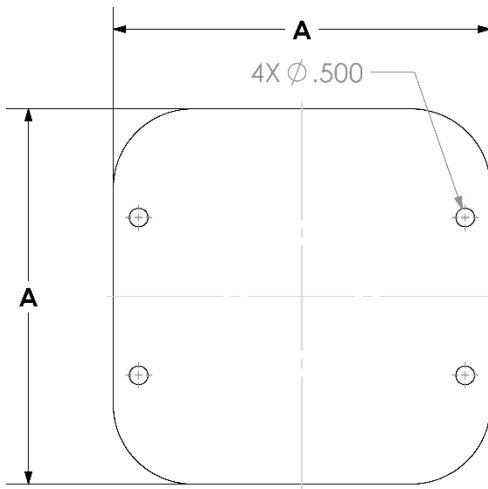
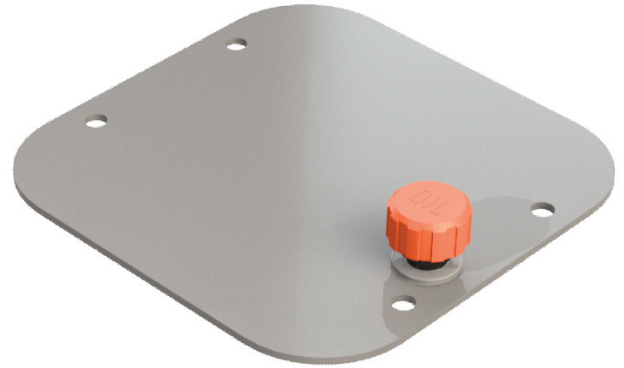
| Part Number | A | B | C | D | E | F | G | H | L | W |
|-------------|-------|-------|-------|-------|----|------|------|-------|-------|-------|
| RVP20 | 18.00 | 17.13 | 26.25 | 25.38 | 10 | 3.25 | 1.63 | 14.25 | 13.00 | 24.00 |
| RVP25 | 18.00 | 17.13 | 26.25 | 25.38 | 10 | 3 | 5.63 | 18.13 | 12.25 | 24.00 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RVPT-1, RVPT-2 Cover Plates:

Magnaloy offer 4 choices of Cover Plates for the Econo Series of Reservoirs to meet your specific requirements. Each Cover Plate will fit any of the Econo Reservoirs. All Cover Plates are formed from 7 gauge sheet metal.

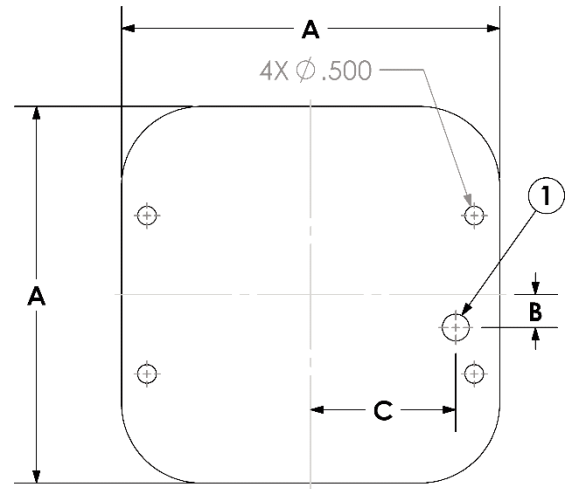
4



RVPT-1

Includes:

- 1) Blank Cover



RVPT-2

Includes:

- 1) Filler Breather Cutout(1/2" NPT)
- 2) Mini Filler Breather FB-C-MB-P008

| Part Number | A | B | C | D |
|-------------|-------|-----|------|-----|
| RVPT-1 | 10.11 | N/A | N/A | N/A |
| RVPT-2 | 10.11 | .88 | 3.88 | N/A |

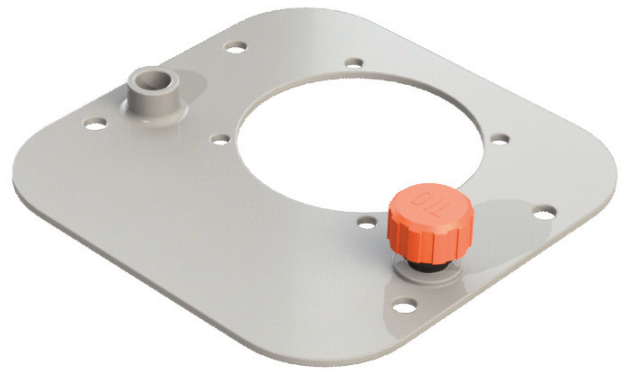
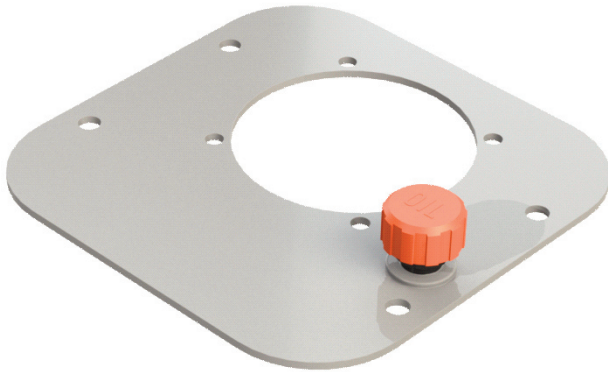
NOTE: Reservoirs and Cover Plates are ordered separately. Order by the specific part number for the Reservoir and Cover Plate.

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

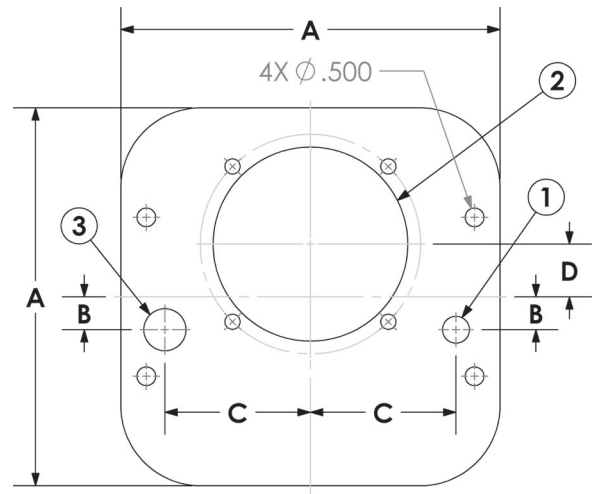
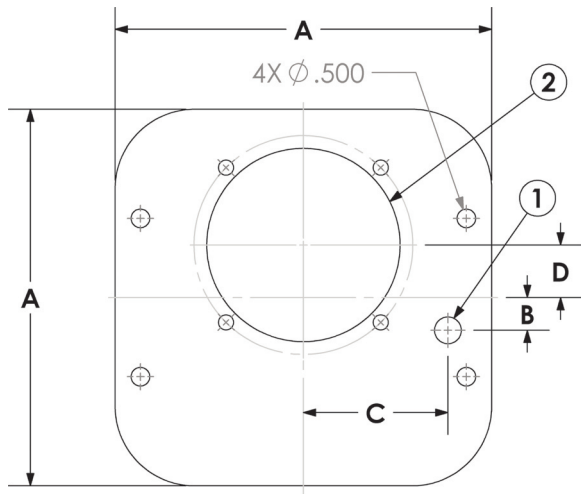
Vertical ECONO Reservoirs

RVPT-3, RVPT-4 Cover Plates:

Magnaloy offer 4 choices of Cover Plates for the Econo Series of Reservoirs to meet your specific requirements. Each Cover Plate will fit any of the Econo Reservoirs. All Cover Plates are formed from 7 gauge sheet metal.



4



RVPT-3

Includes:

- 1) Filler Breather Cutout(1/2" NPT)
- 2) 056C Mount Cutout
- 3) Mini Filler Breather FB-C-MB-P008

RVPT-4

Includes:

- 1) Filler Breather Cutout(1/2" NPT)
- 2) 056C Mount Cutout
- 3) 1/2" NPT Connector
- 4) Mini Filler Breather FB-C-MB-P008

| Part Number | A | B | C | D |
|-------------|-------|-----|------|------|
| RVPT-3 | 10.11 | .88 | 3.88 | 1.41 |
| RVPT-4 | 10.11 | .88 | 3.88 | 1.41 |

NOTE: Reservoirs and Cover Plates are ordered separately. Order by the specific part number for the Reservoir and Cover Plate.

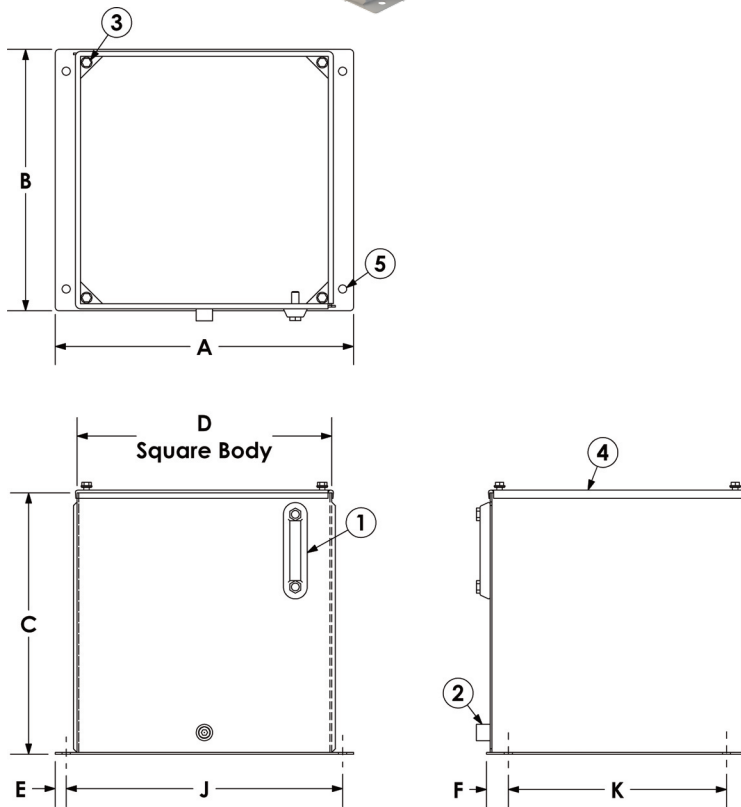
DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RVSxx-x Series Reservoirs:



| Size | Body Form | Bottom Form |
|--------|-----------|-------------|
| 5 gal | 11 ga | 11 ga |
| 10 gal | 11 ga | 11 ga |
| 20 gal | 11 ga | 11 ga |
| 30 gal | 11 ga | 11 ga |
| 40 gal | 11 ga | 11 ga |

4



Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - 1/2" NPT Tank Drain
 - 3 - (4) 3/8-16 Threaded Gussets for Cover Mounting Bolts
 - 4 - "U" Gasket for Top Seal
 - 5 - 9/16" Dia. Holes on Bottom Flange for Tank Mounting
- Choice of Top - ordered separately, see page 125
- Primer Coated Exterior
- Rust Inhibitor Coated Interior

| Part Number | Series | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | |
|-------------|--------|------------------|-------------------------------|------|-------|------|------|------|------|----|
| | | | A | B | C | D | E | F | J | K |
| RVS05-1 | 1 | 5 | 14.5 | 12.5 | 10 | 12 | 0.5 | 1.25 | 13.5 | 10 |
| RVS10A-1 | 1 | 10 | 14.5 | 12.5 | 19.69 | 12 | 0.5 | 1.25 | 13.5 | 10 |
| RVS10B-2 | 2 | 10 | 19 | 16.5 | 11.75 | 16 | 0.75 | 1.25 | 17.5 | 14 |
| RVS10-2 | 2 | 10 | 19 | 16.5 | 15 | 16 | 0.75 | 1.25 | 17.5 | 14 |
| RVS20-2 | 2 | 20 | 19 | 16.5 | 23.69 | 16 | 0.75 | 1.25 | 17.5 | 14 |
| RVS20-3 | 3 | 20 | 20.5 | 18 | 18 | 17.5 | 0.75 | 1.5 | 19 | 15 |
| RVS30-2 | 2 | 30 | 19 | 16.5 | 35.69 | 16 | 0.75 | 1.25 | 17.5 | 14 |
| RVS30-3 | 3 | 30 | 20.5 | 18 | 26 | 17.5 | 0.75 | 1.5 | 19 | 15 |
| RVS40-3 | 3 | 40 | 20.5 | 18 | 34 | 17.5 | 0.75 | 1.5 | 19 | 15 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

Vertical Series Reservoirs

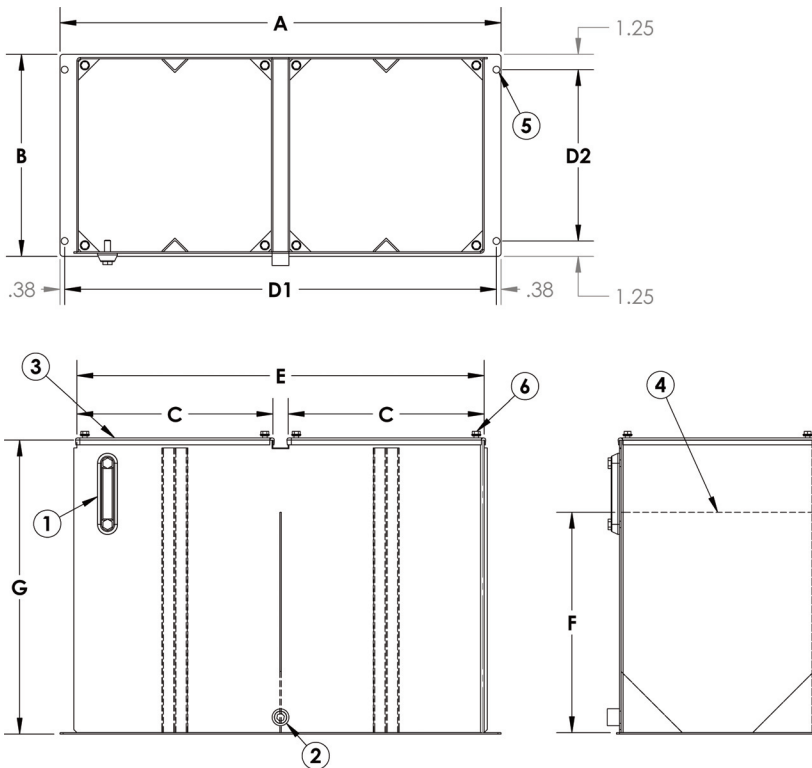


Dual Vertical Reservoirs:



| Size | Body Form | Bottom Form |
|----------|-----------|-------------|
| Series 2 | | |
| 40 gal | 11 ga | 11 ga |
| 60 gal | 11 ga | 11 ga |
| Series 3 | | |
| 50 gal | 11 ga | 11 ga |
| 60 gal | 11 ga | 11 ga |

4



Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - 3/4 NPT Drain
 - 3 - "U" Gaskets for Cover Plates
 - 4 - Baffle with Cutouts for Circulation
 - 5 - 9/16 Dia. Holes (4) on Bottom Flange for Tank Mounting
 - 6 - 3/8-16 Bolts (8) for Cover Tie Down
- Choice of Tops - ordered separately (2 tops required per reservoir)(not shown), see page 125
- Prime Coated Exterior
Rust Inhibitor Coated Interior

Dual Vertical Reservoirs- Series 2 (order Series 2 Tops)

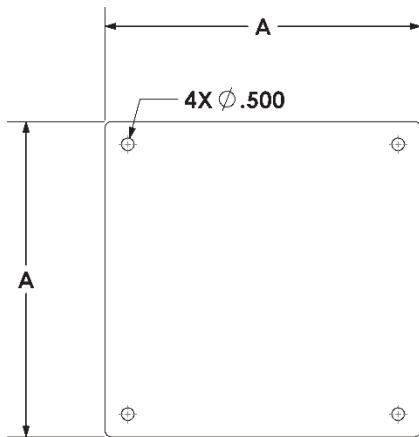
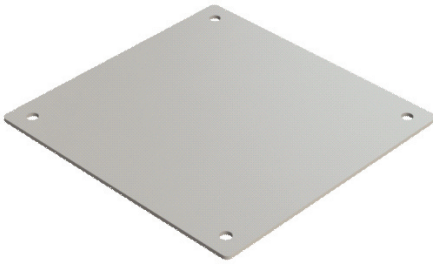
| PART NO. | SIZE. | A | B | C | D1 | D2 | E | F | G |
|----------|-----------|----|------|----|-------|----|----|----|----|
| RDVS40-2 | 40 Gallon | 36 | 16.5 | 16 | 35.25 | 14 | 33 | 18 | 24 |
| RDVS60-2 | 60 Gallon | 36 | 16.5 | 16 | 35.25 | 14 | 33 | 24 | 36 |

Dual Vertical Reservoirs- Series 3 (order Series 3 Tops)

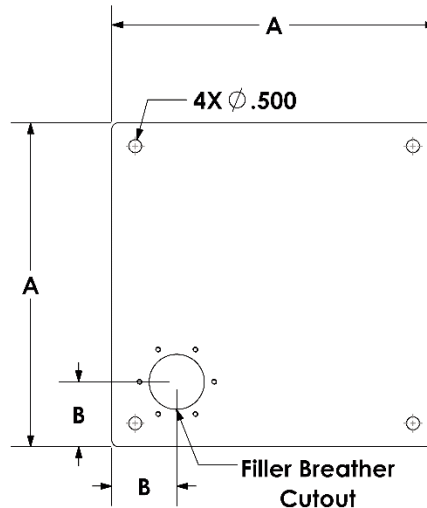
| PART NO. | SIZE | A | B | C | D1 | D2 | E | F | G |
|----------|-----------|----|----|------|-------|------|----|------|------|
| RDVS50-3 | 50 Gallon | 39 | 18 | 17.5 | 38.25 | 15.5 | 36 | 19 | 22.5 |
| RDVS60-3 | 60 Gallon | 39 | 18 | 17.5 | 38.25 | 15.5 | 36 | 22.5 | 26.5 |

RVS & Dual Vertical Series Reservoir Tops (Series 1):

4

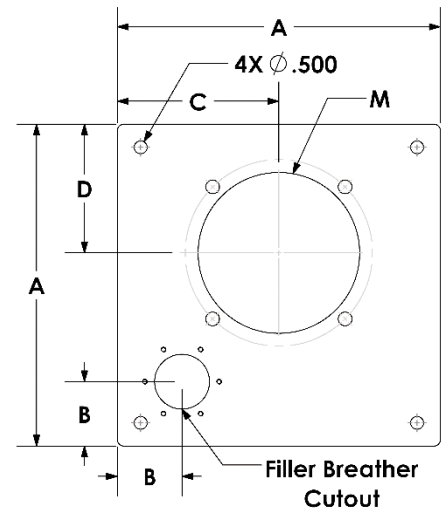
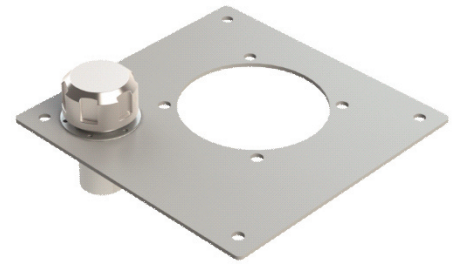


Part Number:
RVS1-T-1



Includes Filler Breather
P/N FB-H008W

Part Number:
RVS1-T-2



Includes Filler Breather
P/N FB-H008W

Example Part Number:
RVS1-T-3/A
RVS1-T-3/B
RVS1-T-4/C

** See Magnaloy's Pump/Motor Mounts, page 18 for more details

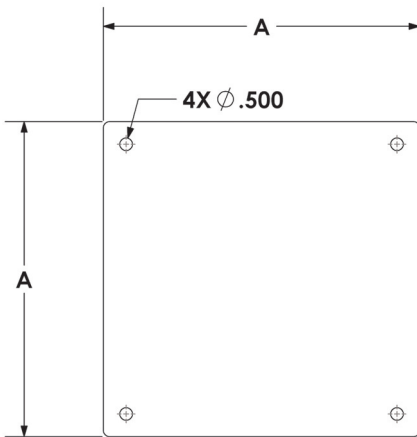
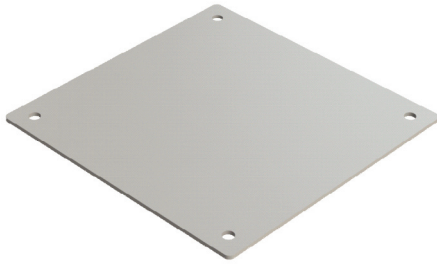
| Vertical Reservoir Top | Fits Reservoir Series | Reservoir Top Dimensions (Inches) | | | | Pump/Motor Cutout (Inches) | | | |
|------------------------|-----------------------|-----------------------------------|-----|------|---|----------------------------|------------|----------|--------------|
| | | A | B | C | D | M Dia | M Hole Dia | M B.H.C. | Adapter Size |
| RVS1-T-1 | 1 | 12.5 | - | - | - | - | - | - | - |
| RVS1-T-2 | 1 | 12.5 | 2.5 | - | - | - | - | - | - |
| RVS1-T-3/A | 1 | 12.5 | 2.5 | 6.25 | 5 | 5.19 | 7/16 | 5.88 | 056 option A |
| RVS1-T-3/B | 1 | 12.5 | 2.5 | 6.25 | 5 | 5.00 | 7/16 | 5.88 | 056 option B |
| RVS1-T-4/C | 1 | 12.5 | 2.5 | 6.25 | 5 | 6.25 | 17/32 | 7.25 | 182 option A |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

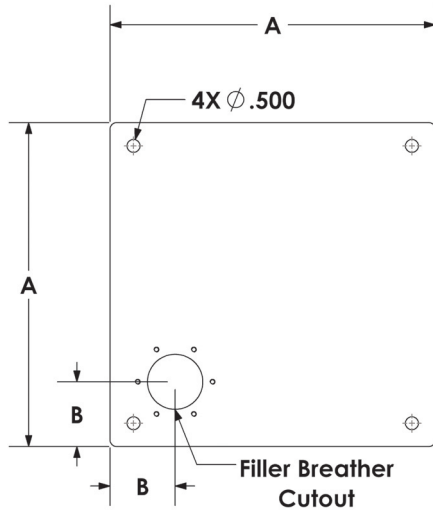
Vertical Series Reservoirs



RVS & Dual Vertical Series Reservoir Tops (Series 2):

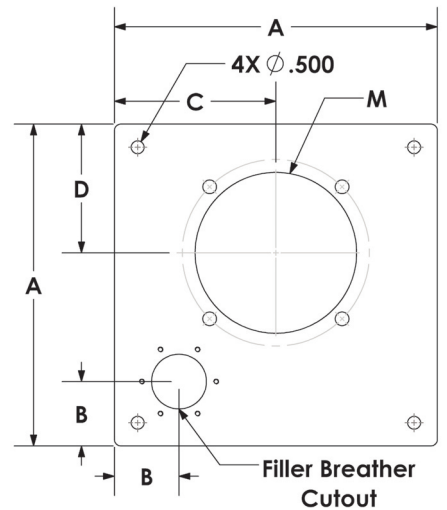
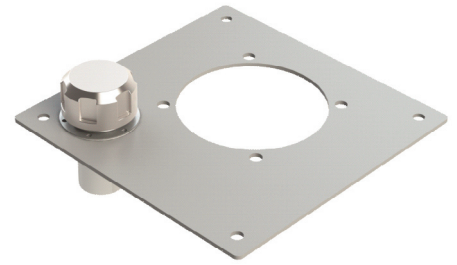


Part Number:
RVS2-T-1



Includes Filler Breather
P/N FB-H008W

Part Number:
RVS2-T-2



Includes Filler Breather
P/N FB-H008W

Example Part Number:
RVS2-T-3/A
RVS2-T-3/B
RVS2-T-4/C
RVS2-T-4/D

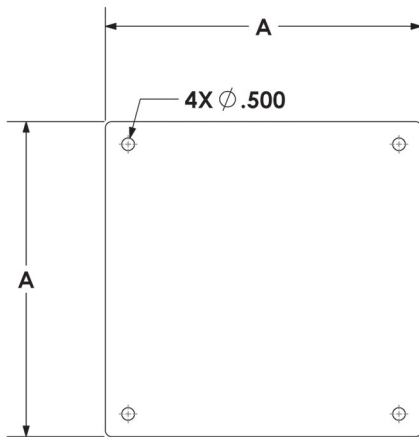
** See Magnaloy's Pump/Motor Mounts, page 18 for more details

| Vertical Reservoir Top | Fits Reservoir Series | Reservoir Top Dimensions (Inches) | | | | Pump/Motor Cutout (Inches) | | | |
|------------------------|-----------------------|-----------------------------------|-----|------|------|----------------------------|------------|----------|--------------|
| | | A | B | C | D | M Dia | M Hole Dia | M B.H.C. | Adapter Size |
| RVS2-T-1 | 2 | 16.5 | - | - | - | - | - | - | - |
| RVS2-T-2 | 2 | 16.5 | 2.5 | - | - | - | - | - | - |
| RVS2-T-3/A | 2 | 16.5 | 2.5 | 8.25 | 5.5 | 5.19 | 7/16 | 5.88 | 056 option A |
| RVS2-T-3/B | 2 | 16.5 | 2.5 | 8.25 | 5.5 | 5.00 | 7/16 | 5.88 | 056 option B |
| RVS2-T-4/C | 2 | 16.5 | 2.5 | 8.25 | 6.25 | 6.25 | 17/32 | 7.25 | 182 option A |
| RVS2-T-4/D | 2 | 16.5 | 2.5 | 8.25 | 6.25 | 9.13 | 17/32 | 10.25 | 182 option B |

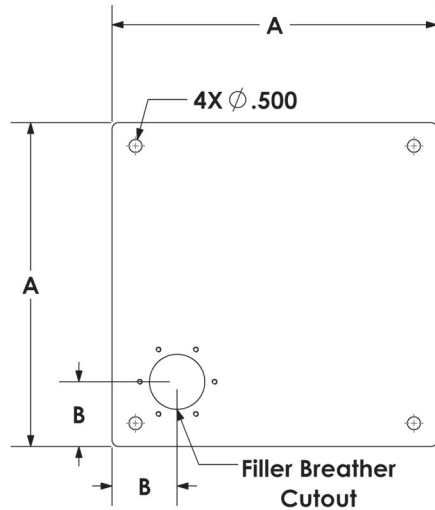
DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RVS & Dual Vertical Series Reservoir Tops (Series 3):

4

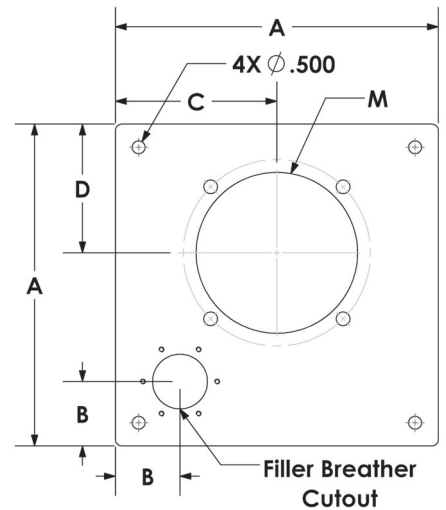
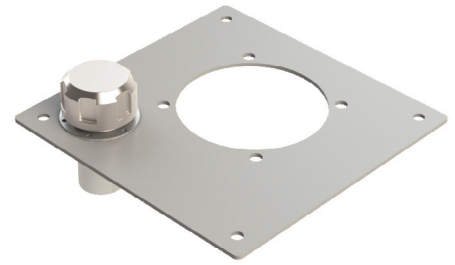


Part Number:
RVS3-T-1



Includes Filler Breather
P/N FB-H008W

Part Number:
RVS3-T-2



Includes Filler Breather
P/N FB-H008W

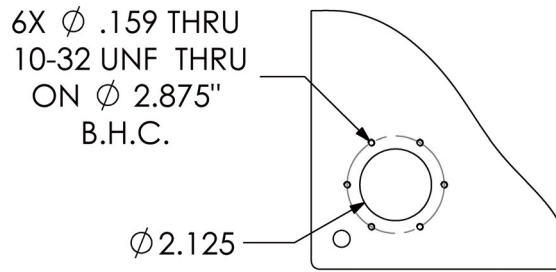
Example Part Number:
RVS3-T-3/A
RVS3-T-3/B
RVS3-T-4/C
RVS3-T-4/D

** See Magnaloy's Pump/Motor Mounts, page 18 for more details

| Vertical Reservoir Top | Fits Reservoir Series | Reservoir Top Dimensions (Inches) | | | | Pump/Motor Cutout (Inches) | | | |
|------------------------|-----------------------|-----------------------------------|-----|---|------|----------------------------|------------|----------|--------------|
| | | A | B | C | D | M Dia | M Hole Dia | M B.H.C. | Adapter Size |
| RVS3-T-1 | 3 | 18 | - | - | - | - | - | - | - |
| RVS3-T-2 | 3 | 18 | 2.5 | - | - | - | - | - | - |
| RVS3-T-3/A | 3 | 18 | 2.5 | 9 | 5.5 | 5.19 | 7/16 | 5.88 | 056 option A |
| RVS3-T-3/B | 3 | 18 | 2.5 | 9 | 5.5 | 5.00 | 7/16 | 5.88 | 056 option B |
| RVS3-T-4/C | 3 | 18 | 2.5 | 9 | 6.25 | 6.25 | 17/32 | 7.25 | 182 option A |
| RVS3-T-4/D | 3 | 18 | 2.5 | 9 | 6.25 | 9.13 | 17/32 | 10.25 | 182 option B |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

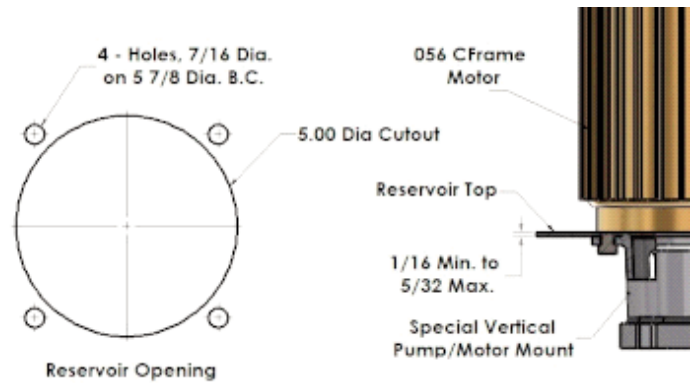
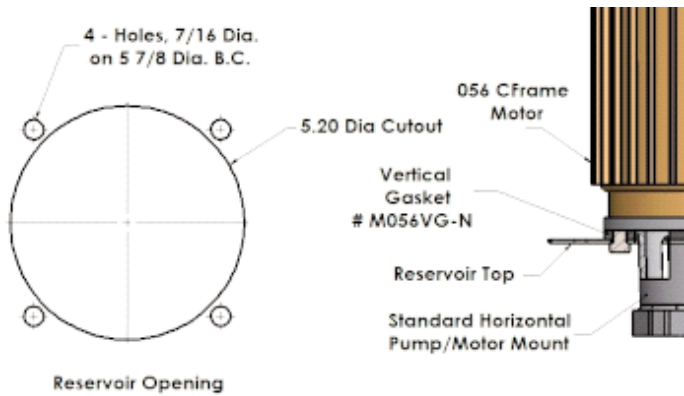
Filler Breather Cutout Dimensions



NEMA Frame 56C thru 145TC Vertical Mounting

OPTION A

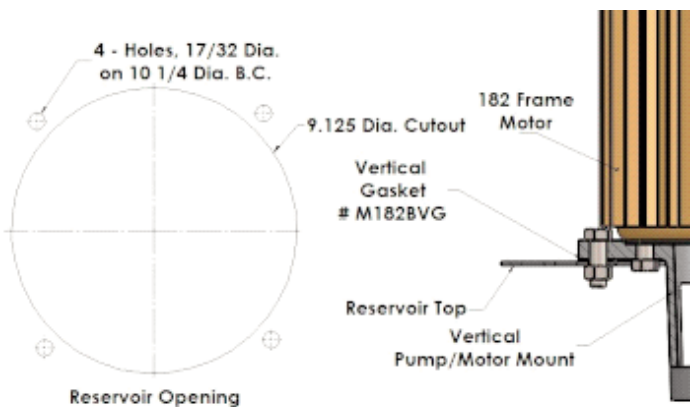
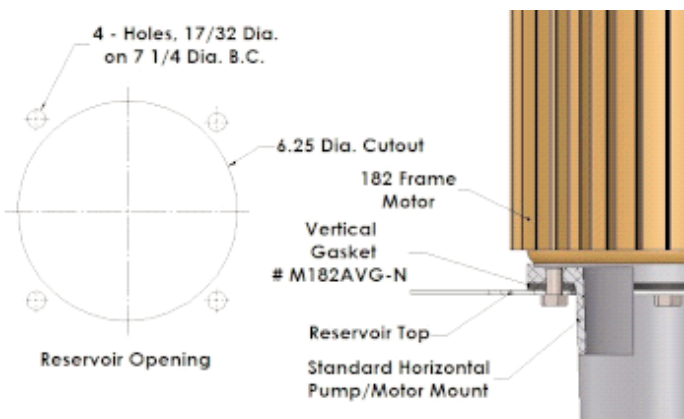
OPTION B



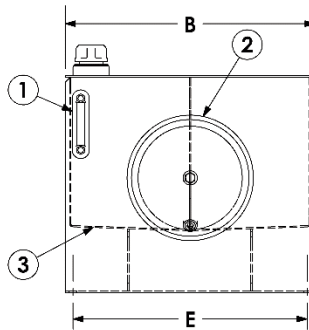
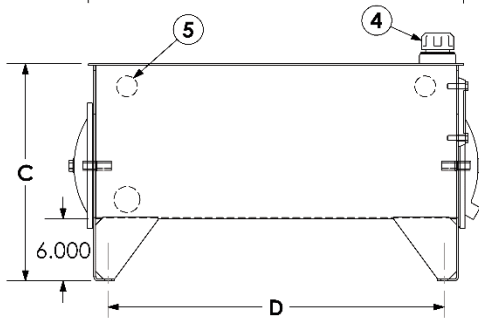
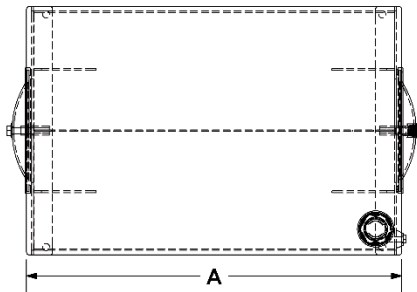
NEMA Frame 182TC thru 256TC Vertical Mounting

OPTION A

OPTION B



RJICxx-FT* JIC Series Reservoirs:



| Size | Ends | Form | Top | Baffle |
|---------|------|-------|------|--------|
| 10 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 15 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 20 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 30 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 40 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 50 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 60 gal | 7 ga | 11 ga | 1/4" | 12 ga |
| 80 gal | 7 ga | 11 ga | 3/8" | 12 ga |
| 100 gal | 7 ga | 11 ga | 3/8" | 12 ga |
| 120 gal | 3/8" | 11 ga | 3/8" | 12 ga |
| 150 gal | 3/8" | 11 ga | 3/8" | 12 ga |
| 200 gal | 3/8" | 7 ga | 3/8" | 12 ga |

Includes:

- 1 - Sight Level Gauge (front mount)
(SLLG-05T-C)
 - 2 - End Cover w/3/4" NPT Drain
End Cover w/out Drain (opposite end)
 - 3 - Sloped Bottom
 - 4 - Filler Breather Cap, Riser and Screen
(FB-H008W)
 - 5 - Baffle w/Circulation Cutout
- Primer Coated Exterior
Rust Inhibitor Coated Interior

NOTE: Welds on the Top of these reservoirs are NOT leak tested.

| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | End Cover |
|-------------|------------------|-------------------------------|----|-------|-------|------|-----------|
| | | A | B | C | D | E | |
| RJIC010-FT | 10 | 22 | 18 | 19 | 18.25 | 16.5 | 12" |
| RJIC015-FT | 15 | 26 | 18 | 19 | 22.25 | 16.5 | 12" |
| RJIC020-FT | 20 | 30 | 18 | 19 | 26.25 | 16.5 | 12" |
| RJIC030-FT | 30 | 36 | 24 | 19.38 | 32.25 | 22.5 | 12" |
| RJIC040-FT | 40 | 36 | 24 | 21 | 32.25 | 22.5 | 12" |
| RJIC050-FT | 50 | 36 | 24 | 23 | 32.25 | 22.5 | 16" |
| RJIC060-FT | 60 | 48 | 27 | 20.69 | 44.25 | 25.5 | 16" |
| RJIC080-FT | 80 | 60 | 27 | 21.5 | 56.25 | 25.5 | 16" |
| RJIC100-FT | 100 | 60 | 27 | 23.5 | 56.25 | 25.5 | 16" |
| RJIC120-FT | 120 | 60 | 30 | 27 | 56.25 | 28.5 | 16" |
| RJIC150-FT | 150 | 60 | 30 | 31 | 56.25 | 28.5 | 16" |
| RJIC200-FT | 200 | 72 | 36 | 29.38 | 68.25 | 34.5 | 18" |

NOTE: Couplings, both SAE & NPT can be installed per your specifications

* Also available with Removable Top (substitute **RT** for **FT**) and Removable Baffle (substitute **RB** for **FT**)

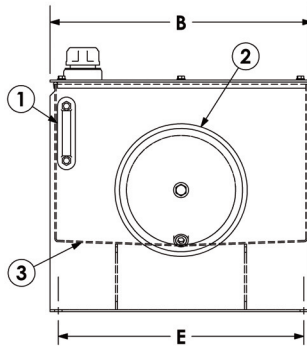
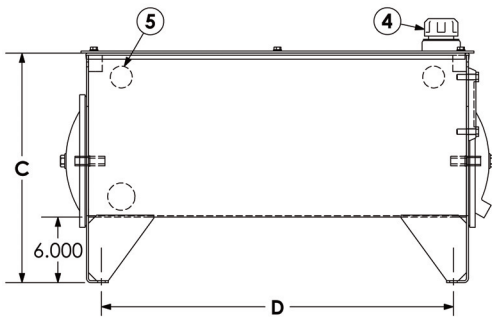
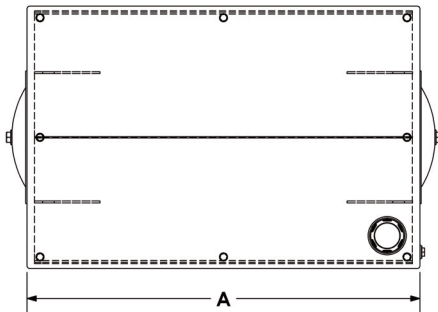
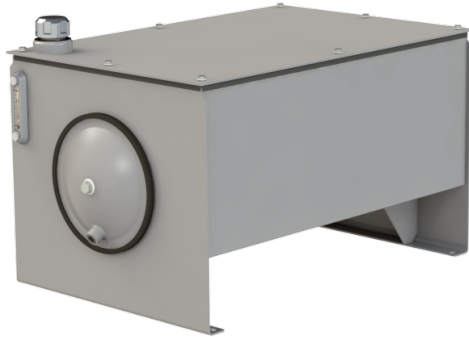
See page **JIC-RB** for dimensions of the **RB** versions.

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

JIC Series Reservoirs



RJICxx-RB* JIC Series Reservoirs:



| Size | Ends | Form | Top | Baffle |
|---------|------|-------|------|--------|
| 10 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 15 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 20 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 30 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 40 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 50 gal | 7 ga | 11 ga | 7 ga | 12 ga |
| 60 gal | 7 ga | 11 ga | 1/4" | 12 ga |
| 80 gal | 7 ga | 11 ga | 3/8" | 12 ga |
| 100 gal | 7 ga | 11 ga | 3/8" | 12 ga |
| 120 gal | 3/8" | 11 ga | 3/8" | 12 ga |
| 150 gal | 3/8" | 11 ga | 3/8" | 12 ga |
| 200 gal | 3/8" | 7 ga | 3/8" | 12 ga |

Includes:

- 1 - Sight Level Gauge (front mount)
(SLLG-05T-C)
 - 2 - End Cover w/3/4" NPT Drain
End Cover w/out Drain (opposite end)
 - 3 - Sloped Bottom
 - 4 - Filler Breather Cap, Riser and Screen
(FB-H008W)
 - 5 - Baffle w/Circulation Cutout
- Primer Coated Exterior
Rust Inhibitor Coated Interior

NOTE: Welds on the Top of these reservoirs are NOT leak tested.

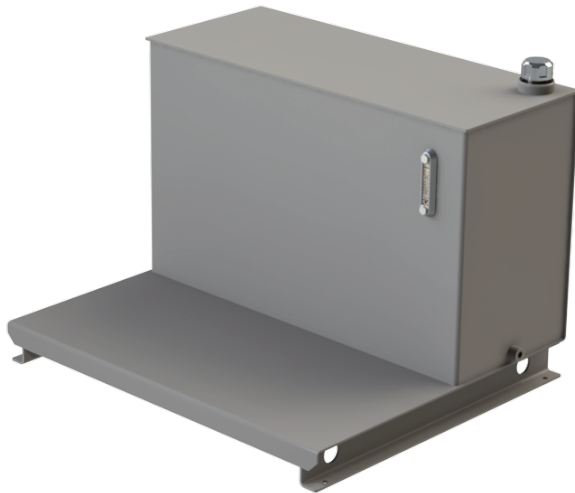
| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | End Cover |
|-------------|------------------|-------------------------------|----|-------|-------|------|-----------|
| | | A | B | C | D | E | |
| RJIC010-RB | 10 | 24 | 16 | 18 | 20.25 | 14.5 | 12" |
| RJIC015-RB | 15 | 26 | 18 | 19 | 22.25 | 16.5 | 12" |
| RJIC020-RB | 20 | 32 | 21 | 18 | 28.12 | 19.5 | 12" |
| RJIC030-RB | 30 | 36 | 24 | 19.38 | 32.25 | 22.5 | 12" |
| RJIC040-RB | 40 | 36 | 24 | 21 | 32.25 | 22.5 | 12" |
| RJIC050-RB | 50 | 36 | 24 | 23 | 32.25 | 22.5 | 12" |
| RJIC060-RB | 60 | 38 | 25 | 25 | 34.25 | 23.5 | 18" |
| RJIC080-RB | 80 | 47 | 30 | 26.88 | 43.25 | 28.5 | 18" |
| RJIC100-RB | 100 | 47 | 30 | 29 | 43.25 | 28.5 | 18" |
| RJIC120-RB | 120 | 60 | 30 | 27 | 56.25 | 28.5 | 18" |
| RJIC150-RB | 150 | 60 | 30 | 31 | 56.25 | 28.5 | 18" |
| RJIC200-RB | 200 | 72 | 36 | 29 | 68.25 | 34.5 | 18" |

NOTE: Couplings, both SAE & NPT can be installed per your specifications

* The Removable Baffle reservoir comes with a fixed top only. See page 129 of our catalog for information on the fixed top/fixed baffle (FT) or removable top (RT) versions.

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RLCxx-FT Series Reservoirs:

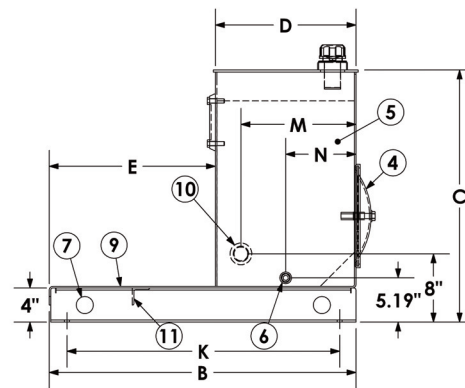
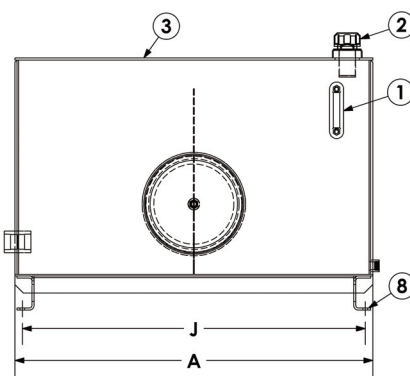


| Size | Form | Top | Bottom | Baffle |
|---------|------|------|--------|--------|
| 10 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 20 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 30 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 45 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 60 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 80 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 100 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 120 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 150 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 200 gal | 7 ga | 1/4" | 3/8" | 11 ga |

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Fixed Top (Welded)
 - 4 - Clean-out Cover on Back Side
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
 - 9 - Optional Porch Sizes-consult factory
 - 10 - Return Line Connection - "O" NPT
 - 11 - Bottom Stiffener
- Primer Coated Exterior
Rust Inhibitor Coated Interior

NOTE: Welds on the Top of these reservoirs are NOT leak tested.



| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | Return Connections | | | Cover Size |
|-------------|------------------|-------------------------------|----|-------|------|-------|-------|----|--------------------|-------|--------|------------|
| | | A | B | C | D | E | J | K | M | N | O | |
| RLC010-FT | 10 | 24 | 22 | 26.56 | 6.5 | 15.44 | 22.25 | 18 | 4.5 | 3.25 | 1/2" | 12 |
| RLC020-FT | 20 | 36 | 27 | 26.56 | 7.5 | 19.44 | 34.25 | 23 | 5.5 | 3.75 | 1" | 12 |
| RLC030-FT | 30 | 36 | 30 | 28.56 | 10.5 | 19.44 | 34.25 | 26 | 7.5 | 5.25 | 1 1/2" | 12 |
| RLC045-FT | 45 | 42 | 36 | 29.56 | 12.5 | 23.44 | 40.25 | 32 | 9.5 | 6.25 | 1 1/2" | 12 |
| RLC060-FT | 60 | 42 | 36 | 29.56 | 16.5 | 19.44 | 40.25 | 32 | 13.5 | 8.25 | 1 1/2" | 12 |
| RLC080-FT | 80 | 48 | 42 | 30.56 | 18.5 | 23.5 | 46.25 | 38 | 15.5 | 9.25 | 1 1/2" | 16 |
| RLC100-FT | 100 | 50 | 47 | 31.56 | 21.5 | 25.5 | 48.25 | 43 | 18.5 | 10.75 | 2" | 16 |
| RLC120-FT | 120 | 52 | 50 | 32.56 | 22.5 | 27.5 | 50.25 | 46 | 19.5 | 11.25 | 2" | 16 |
| RLC150-FT | 150 | 60 | 50 | 33.56 | 22.5 | 27.5 | 58.25 | 46 | 19.5 | 11.25 | 2" | 16 |
| RLC200-FT | 200 | 60 | 57 | 40.56 | 25.5 | 31.5 | 58.25 | 53 | 22.5 | 12.75 | 2" | 16 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

L Series Reservoirs



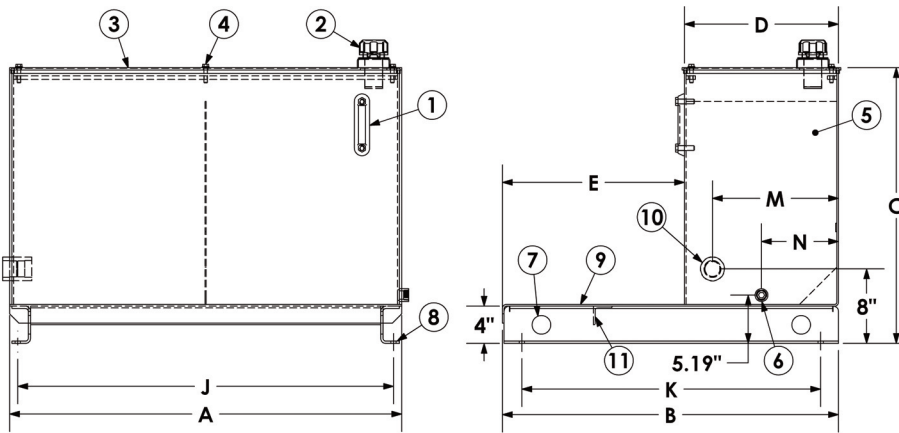
RLPxx-RT Series Reservoirs:



| Size | Form | Top | Bottom | Baffle |
|---------|------|------|--------|--------|
| 10 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 20 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 30 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 45 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 60 gal | 7 ga | 1/4" | 7 ga | 11 ga |
| 80 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 100 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 120 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 150 gal | 7 ga | 1/4" | 3/8" | 11 ga |
| 200 gal | 7 ga | 1/4" | 3/8" | 11 ga |

Includes:

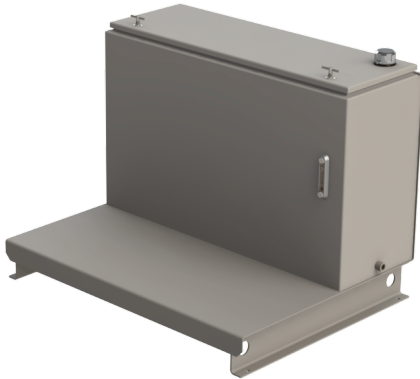
- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Removable Top w/Gasket
 - 4 - 6 Bolts to Secure Top
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
 - 9 - Optional Porch Sizes - consult factory
 - 10 - Return Line Connection - "O" NPT
 - 11 - Bottom Stiffener
- Primer Coated Exterior
Rust Inhibitor Coated Interior



| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | Return Connections | | |
|-------------|------------------|-------------------------------|----|-------|------|-------|-------|----|--------------------|-------|--------|
| | | A | B | C | D | E | J | K | M | N | O |
| RLP010-RT | 10 | 24 | 22 | 26.56 | 6.5 | 15.44 | 22.25 | 18 | 4.5 | 3.25 | 1/2" |
| RLP020-RT | 20 | 36 | 27 | 26.56 | 7.5 | 19.44 | 34.25 | 23 | 5.5 | 3.75 | 1" |
| RLP030-RT | 30 | 36 | 30 | 28.56 | 10.5 | 19.44 | 34.25 | 26 | 7.5 | 5.25 | 1 1/2" |
| RLP045-RT | 45 | 42 | 36 | 29.56 | 12.5 | 23.44 | 40.25 | 32 | 9.5 | 6.25 | 1 1/2" |
| RLP060-RT | 60 | 42 | 36 | 29.56 | 16.5 | 19.44 | 40.25 | 32 | 13.5 | 8.25 | 1 1/2" |
| RLP080-RT | 80 | 48 | 42 | 30.56 | 18.5 | 23.5 | 46.25 | 38 | 15.5 | 9.25 | 1 1/2" |
| RLP100-RT | 100 | 50 | 47 | 31.56 | 21.5 | 25.5 | 48.25 | 43 | 18.5 | 10.75 | 2" |
| RLP120-RT | 120 | 52 | 50 | 32.56 | 22.5 | 27.5 | 50.25 | 46 | 19.5 | 11.25 | 2" |
| RLP150-RT | 150 | 60 | 50 | 33.56 | 22.5 | 27.5 | 58.25 | 46 | 19.5 | 11.25 | 2" |
| RLP200-RT | 200 | 60 | 57 | 40.56 | 25.5 | 31.5 | 58.25 | 53 | 22.5 | 12.75 | 2" |

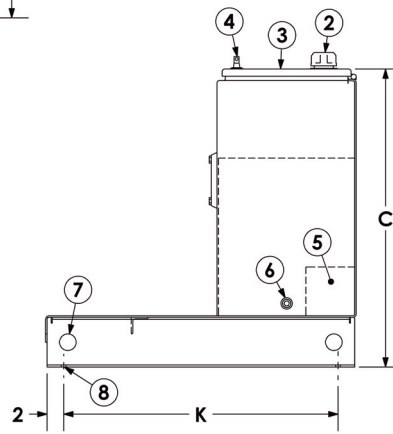
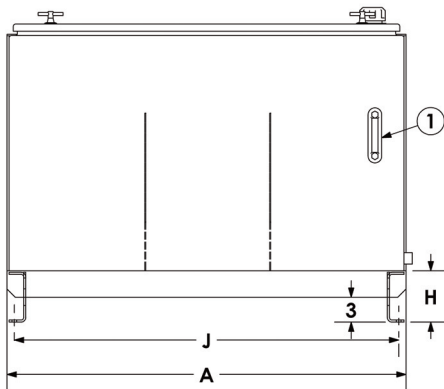
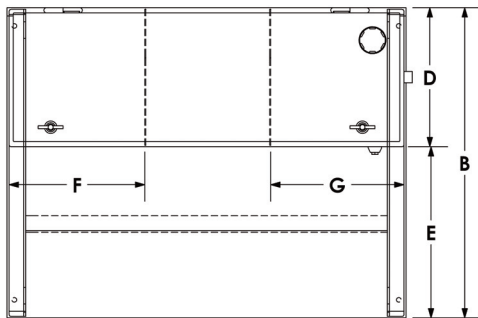
DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RLPxx-HT Series Reservoirs:



| Size | Form | Top | Bottom | Baffle |
|---------|------|-------|--------|--------|
| 10 gal | 7 ga | 11 ga | 7 ga | 11 ga |
| 20 gal | 7 ga | 11 ga | 7 ga | 11 ga |
| 30 gal | 7 ga | 11 ga | 7 ga | 11 ga |
| 45 gal | 7 ga | 11 ga | 7 ga | 11 ga |
| 60 gal | 7 ga | 11 ga | 7 ga | 11 ga |
| 80 gal | 7 ga | 11 ga | 3/8" | 11 ga |
| 100 gal | 7 ga | 11 ga | 3/8" | 11 ga |
| 120 gal | 7 ga | 11 ga | 3/8" | 11 ga |
| 150 gal | 7 ga | 11 ga | 3/8" | 11 ga |
| 200 gal | 7 ga | 11 ga | 3/8" | 11 ga |

4



Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Hinged Top w/Gasket
 - 4 - T-Handles to Secure Top
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
- Primer Coated Exterior
Rust Inhibitor Coated Interior

| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | | | |
|-------------|------------------|-------------------------------|-------|-------|-------|-------|-----|----|------|-------|----|
| | | A | B | C | D | E | F | G | H | J | K |
| RLP010-HT | 10 | 24 | 23.38 | 23.88 | 11.13 | 12.25 | N/A | 11 | 6.18 | 22.25 | 19 |
| RLP020-HT | 20 | 30 | 27.38 | 25.88 | 13.5 | 13.88 | N/A | 12 | 6.18 | 28.25 | 23 |
| RLP030-HT | 30 | 36 | 30.38 | 29.88 | 13.75 | 16.63 | N/A | 12 | 6.18 | 34.25 | 26 |
| RLP045-HT | 45 | 54 | 31.38 | 29.88 | 13.75 | 17.63 | 12 | 12 | 6.18 | 52.25 | 27 |
| RLP060-HT | 60 | 48 | 37.38 | 35.88 | 16.75 | 20.63 | N/A | 16 | 6.18 | 46.25 | 33 |
| RLP080-HT | 80 | 66 | 38.56 | 36.06 | 16.38 | 22 | 16 | 16 | 6.38 | 64.25 | 34 |
| RLP100-HT | 100 | 60 | 42.56 | 39.06 | 19.38 | 23 | N/A | 16 | 6.38 | 58.25 | 38 |
| RLP120-HT | 120 | 72 | 42.56 | 39.06 | 19.38 | 23 | 16 | 16 | 6.38 | 70.25 | 38 |
| RLP150-HT | 150 | 72 | 50.56 | 39.06 | 25.38 | 25 | N/A | 16 | 6.38 | 70.25 | 46 |
| RLP200-HT | 200 | 84 | 51.56 | 42.06 | 25.38 | 26 | 16 | 16 | 6.38 | 82.25 | 47 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

L Series Reservoirs



RLPxx-PHT Series Reservoirs:

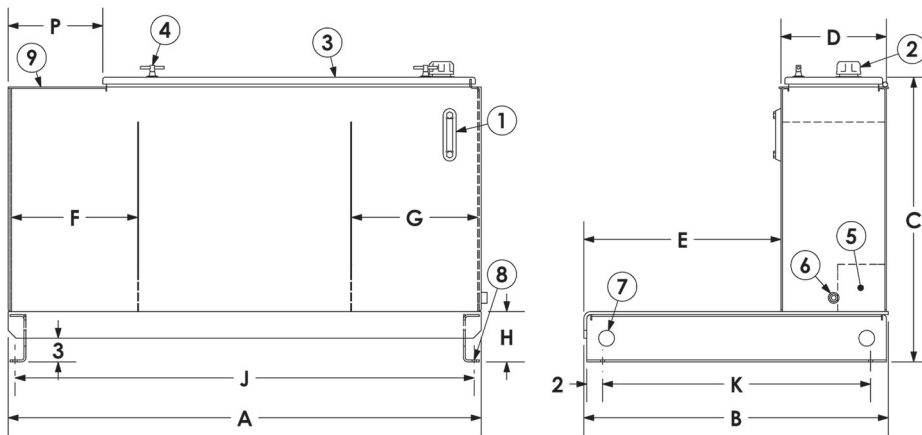


| Size | Form | Top | Lid | Bottom | Baffle |
|---------|------|------|-------|--------|--------|
| 80 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 100 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 120 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 150 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 200 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Partial Hinged Top w/Gasket
 - 4 - T-Handles to Secure Top
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
 - 9 - Upper Porch for filter mounting
- Primer Coated Exterior
Rust Inhibitor Coated Interior

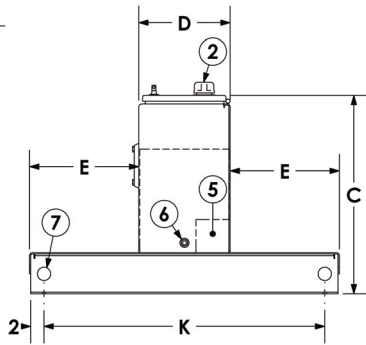
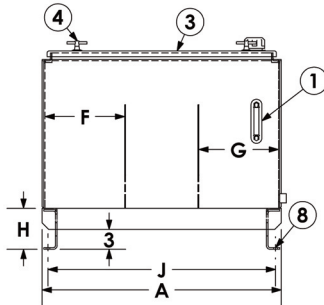
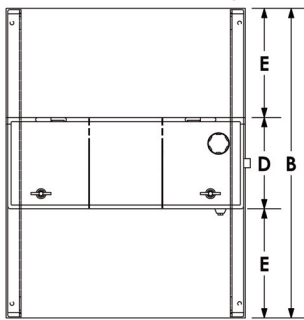
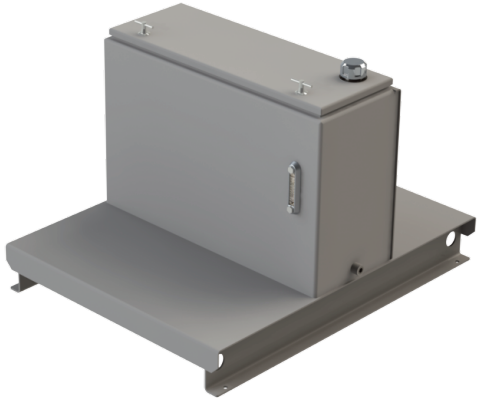
NOTE: Welds on the Top of these reservoirs are NOT leak tested.



| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | | | | |
|-------------|------------------|-------------------------------|-------|-------|-------|----|----|----|------|-------|----|----|
| | | A | B | C | D | E | F | G | H | J | K | P |
| RLP080-PHT | 80 | 60 | 38.56 | 36.06 | 13.38 | 25 | 16 | 16 | 6.38 | 58.25 | 34 | 12 |
| RLP100-PHT | 100 | 60 | 42.56 | 36.06 | 16.38 | 26 | 16 | 16 | 6.38 | 58.25 | 38 | 12 |
| RLP120-PHT | 120 | 72 | 42.56 | 36.06 | 16.38 | 26 | 16 | 16 | 6.38 | 70.25 | 38 | 12 |
| RLP150-PHT | 150 | 72 | 50.56 | 39.06 | 18.38 | 32 | 16 | 16 | 6.38 | 70.25 | 46 | 12 |
| RLP200-PHT | 200 | 84 | 51.56 | 42.06 | 18.38 | 33 | 24 | 16 | 6.38 | 82.25 | 47 | 16 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RTPxxx-HT Series Reservoirs:



| Size | Form | Top | Lid | Bottom | Baffle |
|---------|------|------|-------|--------|--------|
| 10 gal | 7 ga | 7 ga | 11 ga | 7 ga | 11 ga |
| 20 gal | 7 ga | 7 ga | 11 ga | 7 ga | 11 ga |
| 30 gal | 7 ga | 7 ga | 11 ga | 7 ga | 11 ga |
| 45 gal | 7 ga | 7 ga | 11 ga | 7 ga | 11 ga |
| 60 gal | 7 ga | 7 ga | 11 ga | 7 ga | 11 ga |
| 80 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 100 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 120 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 150 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 200 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 300 gal | 7 ga | 7 ga | 11 ga | 1/2" | 11 ga |
| 400 gal | 7 ga | 7 ga | 11 ga | 1/2" | 11 ga |

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Hinged Top w/Gasket
 - 4 - T-Handles to Secure Top
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
 - 9 - Upper Porch for filter mounting
- Primer Coated Exterior
Rust Inhibitor Coated Interior

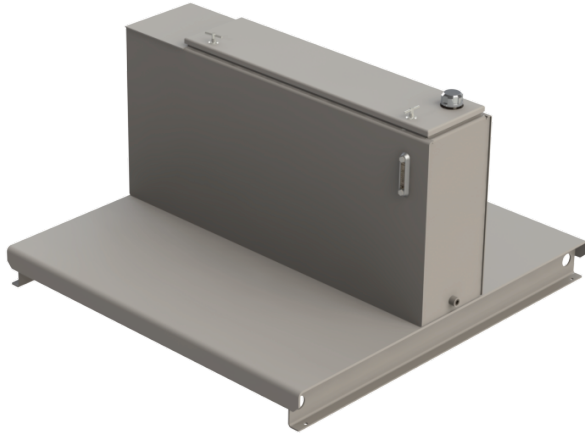
| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | | | |
|-------------|------------------|-------------------------------|-------|-------|-------|-------|-----|----|------|-------|-------|
| | | A | B | C | D | E | F | G | H | J | K |
| RTP010-HT | 10 | 24 | 35.25 | 23.88 | 11.12 | 12.06 | N/A | 11 | 6.19 | 22.25 | 30.88 |
| RTP020-HT | 20 | 30 | 40.62 | 25.88 | 13.5 | 13.56 | N/A | 12 | 6.19 | 28.25 | 36.25 |
| RTP030-HT | 30 | 36 | 46.62 | 29.88 | 13.75 | 16.44 | N/A | 12 | 6.19 | 34.25 | 42.25 |
| RTP045-HT | 45 | 54 | 48.62 | 29.88 | 13.75 | 17.44 | 12 | 12 | 6.19 | 52.25 | 44.25 |
| RTP060-HT | 60 | 48 | 58 | 35.88 | 16.75 | 20.62 | N/A | 16 | 6.19 | 46.25 | 53.62 |
| RTP080-HT | 80 | 66 | 61.12 | 36.06 | 16.38 | 22.38 | 16 | 16 | 6.38 | 64.25 | 56.38 |
| RTP100-HT | 100 | 60 | 66.12 | 39.06 | 19.38 | 23.38 | N/A | 16 | 6.38 | 58.25 | 61.38 |
| RTP120-HT | 120 | 72 | 68.12 | 39.06 | 19.38 | 24.38 | 16 | 16 | 6.38 | 70.25 | 63.38 |
| RTP150-HT | 150 | 72 | 76.12 | 39.06 | 25.38 | 25.38 | N/A | 16 | 6.38 | 70.25 | 71.38 |
| RTP200-HT | 200 | 84 | 78.12 | 42.06 | 25.38 | 26.38 | 16 | 16 | 6.38 | 82.25 | 73.38 |
| RTP300-HT | 300 | 84 | 77.75 | 54.19 | 25.38 | 26.19 | 16 | 16 | 6.5 | 82.25 | 73.25 |
| RTP400-HT | 400 | 84 | 91 | 54.19 | 28.38 | 31.31 | 16 | 16 | 6.5 | 82.25 | 86.5 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

T Series Reservoirs



RTPxxx-PHT Series Reservoirs:



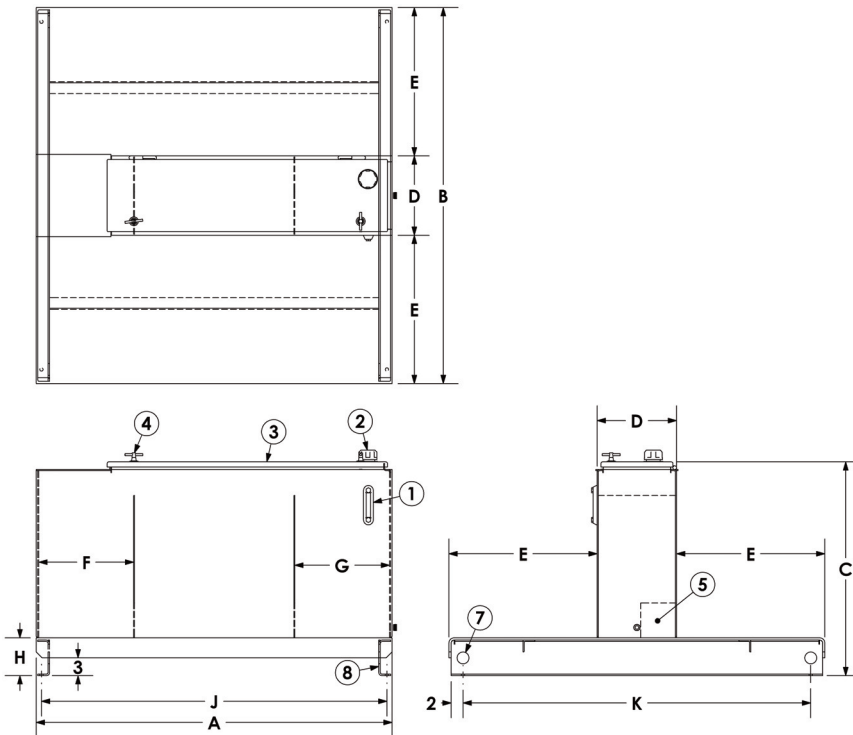
| Size | Form | Top | Lid | Bottom | Baffle |
|---------|------|------|-------|--------|--------|
| 80 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 100 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 120 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 150 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |
| 200 gal | 7 ga | 7 ga | 11 ga | 3/8" | 11 ga |

4

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W)
 - 3 - Partial Hinged Top w/Gasket
 - 4 - T-Handles to Secure Top
 - 5 - Baffles w/Circulation Cutout
 - 6 - 3/4" NPT Tank Drain
 - 7 - Lifting Holes in Channel Ends
 - 8 - 9/16 Dia Holes, 2 per Channel
 - 9 - Upper Porch for filter mounting
- Primer Coated Exterior
Rust Inhibitor Coated Interior

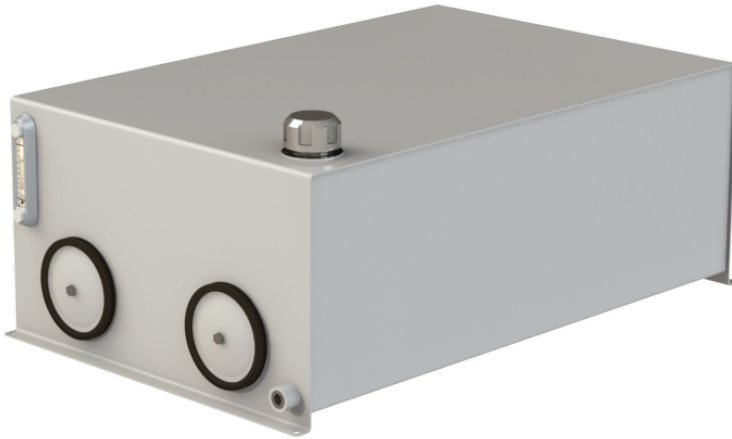
NOTE: Welds on the Top of these reservoirs are NOT leak tested.



| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | | | | | |
|-------------|------------------|-------------------------------|-------|-------|-------|----|----|----|------|-------|-------|----|
| | | A | B | C | D | E | F | G | H | J | K | P |
| RTP080-PHT | 80 | 60 | 63.38 | 36.06 | 13.38 | 25 | 16 | 16 | 6.38 | 58.25 | 58.63 | 12 |
| RTP100-PHT | 100 | 60 | 68.38 | 36.06 | 16.38 | 26 | 16 | 16 | 6.38 | 58.25 | 63.63 | 12 |
| RTP120-PHT | 120 | 72 | 68.38 | 36.06 | 16.38 | 26 | 16 | 16 | 6.38 | 70.25 | 63.63 | 12 |
| RTP150-PHT | 150 | 72 | 82.38 | 39.06 | 18.38 | 32 | 16 | 16 | 6.38 | 70.25 | 77.63 | 12 |
| RTP200-PHT | 200 | 84 | 84.38 | 42.06 | 18.38 | 33 | 24 | 16 | 6.38 | 82.25 | 79.63 | 16 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RHCxx-FT Series Reservoirs:



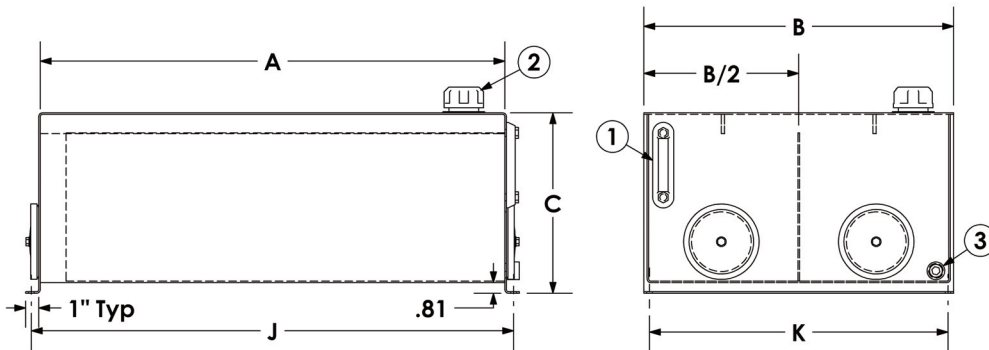
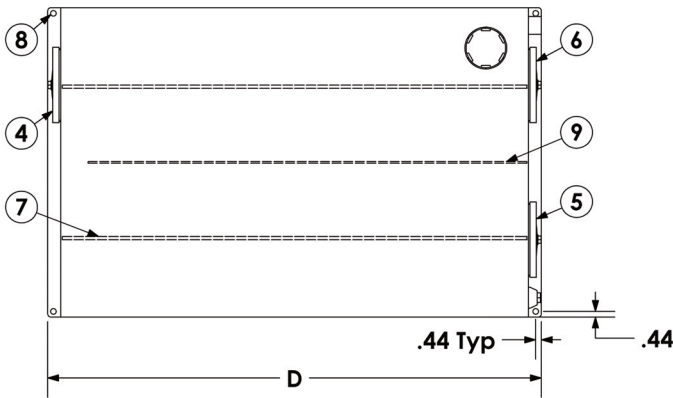
4

| Size | Ends | Form | Top | Baffle |
|------|-------|-------|-------|--------|
| ALL | 11 ga | 11 ga | 11 ga | 11 ga |

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
 - 3 - 3/4" NPT Tank Drain
 - 4 - End Cover - 10, 20, 30 Gal Only
 - 5 - End Cover - 10, 20, 30 & 40 Gal
 - 6 - End Cover - 40 Gal Only
 - End Cover - 60 Gal Only - single 12" cover centered on each end.
 - 7 - Top Stiffeners - except 10 Gal
 - 8 - 7/16" Dia. Holes on Bottom Flange for Tank Mounting
 - 9 - Baffle w/cutout for circulation
- Primer Coated Exterior
Rust Inhibitor Coated Interior

NOTE: Welds on the Top of these reservoirs are NOT leak tested.



| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | |
|-------------|------------------|-------------------------------|----|-------|-------|-------|-------|
| | | A | B | C | D | J | K |
| RHC010-FT | 10 | 20 | 14 | 12 | 22.25 | 21.38 | 13.13 |
| RHC020-FT | 20 | 24 | 18 | 14 | 26.25 | 25.38 | 17.13 |
| RHC030-FT | 30 | 36 | 18 | 14 | 38.25 | 37.38 | 17.13 |
| RHC040-FT | 40 | 36 | 24 | 14 | 38.25 | 37.38 | 23.13 |
| RHC060-FT | 60 | 40 | 30 | 16.63 | 42.38 | 41.50 | 29.13 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

Horizontal Series Reservoirs



RHPxx-RT Series Reservoirs:

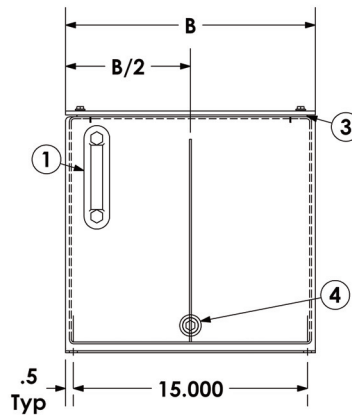
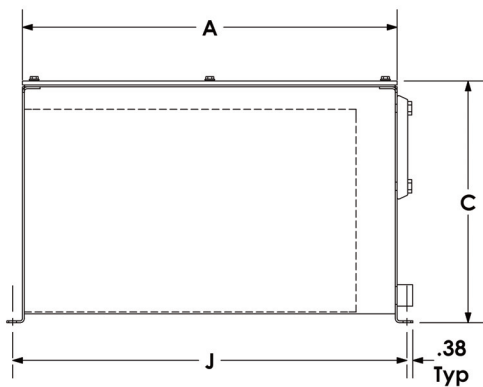
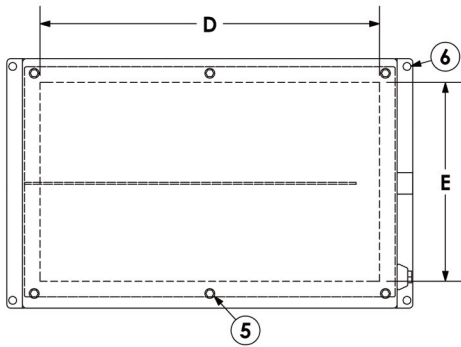


| Size | Ends | Form | Top | Baffle |
|--------|-------|-------|------|--------|
| 10 gal | 11 ga | 11 ga | 1/4" | 11 ga |
| 20 gal | 11 ga | 11 ga | 1/4" | 11 ga |
| 30 gal | 11 ga | 11 ga | 1/4" | 11 ga |
| 40 gal | 11 ga | 11 ga | 1/4" | 11 ga |

4

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C)
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
 - 3 - Neoprene Foam Gasket Top Seal
 - 4 - 3/4" NPT Tank Drain
 - 5 - 6 Bolts to secure Top (1/4"-20)
 - 6 - 1/2" Dia. Holes on Bottom Flange for Tank Mounting
- Primer Coated Exterior
Rust Inhibitor Coated Interior



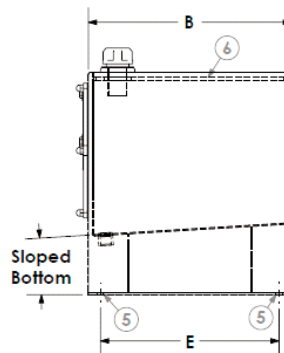
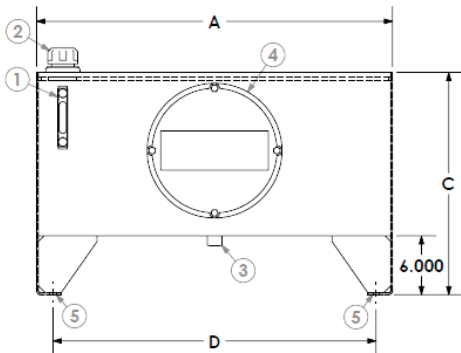
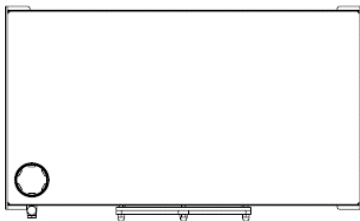
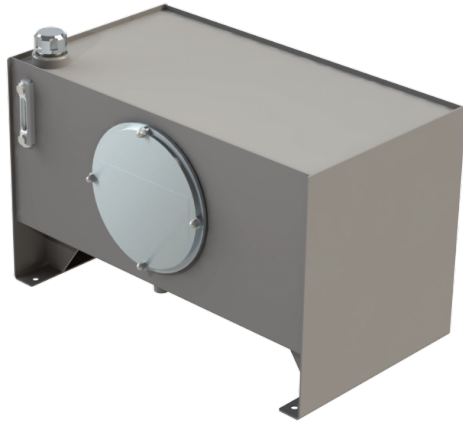
| Part Number | Capacity Gallons | Reservoir Dimensions (Inches) | | | | | | |
|-------------|------------------|-------------------------------|----|------|-------|-------|-------|----|
| | | A | B | C | D | E | J | K |
| RHP010-RT | 10 | 24 | 16 | 9.5 | 21.75 | 12.75 | 25.25 | 15 |
| RHP020-RT | 20 | 24 | 16 | 15.5 | 21.75 | 12.75 | 25.25 | 15 |
| RHP030-RT | 30 | 24 | 16 | 21.5 | 21.75 | 12.75 | 25.25 | 15 |
| RHP040-RT | 40 | 24 | 16 | 27.5 | 21.75 | 12.75 | 25.25 | 15 |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RDINxxx-AFA (Front Access) A Type Reservoirs:

Type A DIN Reservoirs are constructed with a recessed welded top and front clean-out access. The reservoir has an elevated reservoir floor sloped toward the front clean-out access with bottom mounted drain plug. Each reservoir is supplied with a sight level gauge, filler breather and access cover.

4



| Size | Ends | Form | Top | Baffle | Drain |
|-----------|------|-------|------|--------|---------|
| 20 - 40 | 7ga | 11 ga | 7 ga | N/A | #12 SAE |
| 60 - 80 | 7 ga | 11 ga | 3/8" | N/A | #12 SAE |
| 100 - 150 | 3/8" | 11 ga | 3/8" | N/A | #16 SAE |
| 200 - 300 | 3/8" | 7 ga | 3/8" | N/A | #16 SAE |

Includes:

- 1 - Sight Level Gauge (front mount) (SLLG-05T-C on Sizes less than 100 Gal., SSLG-10T-C on Sizes 100 Gal. and greater.
 - 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
 - 3 - SAE O-ring Drain
 - 4 - DIN Style End Cover
 - 5 - 5/8" Dia. Holes on Bottom Flange for Tank Mounting
 - 6 - Recessed Top (Drip Tray)
- Primer Coated Exterior
Rust Inhibitor Coated Interior

Note: * Drain plugs need to be sealed and tightened before use.

* Sight Gage and Filler Breather are shipped loose inside the reservoir.

* Industry accepted design practice for Hydraulic systems limits maximum operating temperature to 180° F (28°C), but materials used for fabrication of the reservoirs are capable of operating temperature between -40° and 250° F (-40° and 121° C).

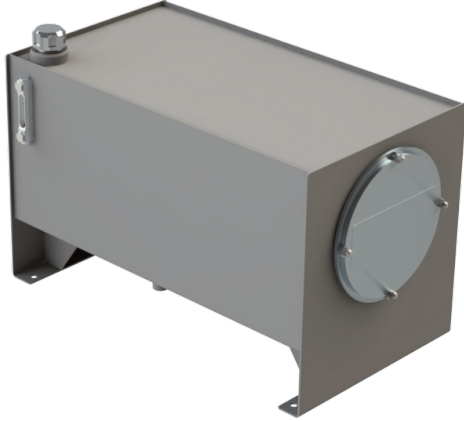
Caution: Reservoirs are not designed for positive or negative pressure applications, consult factory for these applications.

| Part Number | Capacity | | Reservoir Dimensions (inches) | | | | | | End Cover |
|-------------|-----------|----------|-------------------------------|---------|----------|-------------|-------|---------------|-----------|
| | | | A | B | C | D | E | F | |
| | (Gallons) | (Liters) | (length) | (width) | (height) | Mntg. Ctrs. | | (Mntg. Ctrs.) | |
| RDIN020-AFA | 20 | 76 | 24.38 | 18.00 | 21.00 | 21.75 | 15.50 | 5.00 | |
| RDIN030-AFA | 30 | 114 | 30.38 | 20.75 | 21.44 | 27.00 | 18.25 | 5.00 | |
| RDIN040-AFA | 40 | 151 | 36.38 | 20.75 | 22.75 | 33.00 | 18.25 | 5.00 | |
| RDIN060-AFA | 60 | 227 | 42.38 | 24.00 | 24.75 | 39.00 | 21.50 | 5.00 | |
| RDIN080-AFA | 80 | 303 | 42.38 | 30.00 | 25.38 | 39.00 | 27.50 | 5.00 | |
| RDIN100-AFA | 100 | 379 | 42.38 | 30.00 | 29.25 | 39.00 | 27.50 | 10.00 | |
| RDIN120-AFA | 120 | 454 | 48.50 | 30.00 | 30.25 | 45.00 | 27.50 | 10.00 | |
| RDIN150-AFA | 150 | 568 | 60.50 | 30.00 | 30.25 | 57.00 | 27.50 | 10.00 | |
| RDIN200-AFA | 200 | 757 | 72.75 | 36.00 | 29.81 | 69.00 | 33.50 | 10.00 | |
| RDIN300-AFA | 300 | 1136 | 72.75 | 36.00 | 38.69 | 69.00 | 33.50 | 10.00 | |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RDINxxx-BSA (Side Access) B Type Reservoirs:

Type B DIN Reservoirs are constructed with a recessed welded top and clean-out access on each end. The reservoir has an elevated reservoir floor sloped toward the front panel with bottom mounted drain plug. Each reservoir is supplied with a sight level gauge, filler breather and access cover.



| Size | Ends | Form | Top | Baffle | Drain |
|-----------|------|-------|------|--------|---------|
| 20 -40 | 7ga | 11 ga | 7 ga | 11 ga | #12 SAE |
| 60 - 80 | 7 ga | 11 ga | 3/8" | 11 ga | #12 SAE |
| 100 - 150 | 3/8" | 11 ga | 3/8" | 11 ga | #16 SAE |
| 200 - 300 | 3/8" | 7 ga | 3/8" | 11 ga | #16 SAE |

4

Includes:

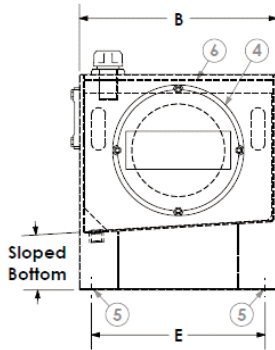
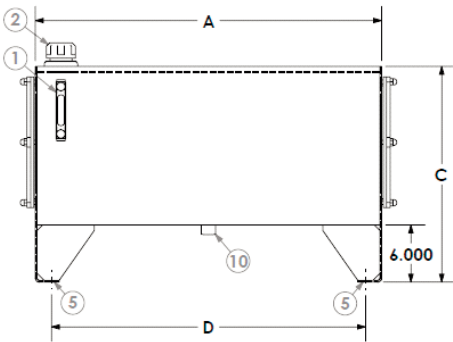
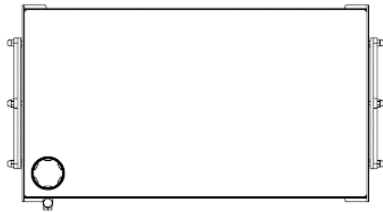
- 1 - Sight Level Gauge (front mount) (SLLG-05T-C on Sizes less than 100 Gal., SSLG-10T-C on Sizes 100 Gal. and greater.
- 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
- 3 - SAE O-ring Drain
- 4 - DIN Style End Cover
- 5 - 5/8" Dia. Holes on Bottom Flange for Tank Mounting
- 6 - Recessed Top (Drip Tray)
Primer Coated Exterior
Rust Inhibitor Coated Interior

Note: * Drain plugs need to be sealed and tightened before use.

* Sight Gage and Filler Breather are shipped loose inside the reservoir.

* Industry accepted design practice for Hydraulic systems limits maximum operating temperature to 180° F (28°C), but materials used for fabrication of the reservoirs are capable of operating temperature between -40° and 250° F (-40° and 121° C).

Caution: Reservoirs are not designed for positive or negative pressure applications, consult factory for these applications.



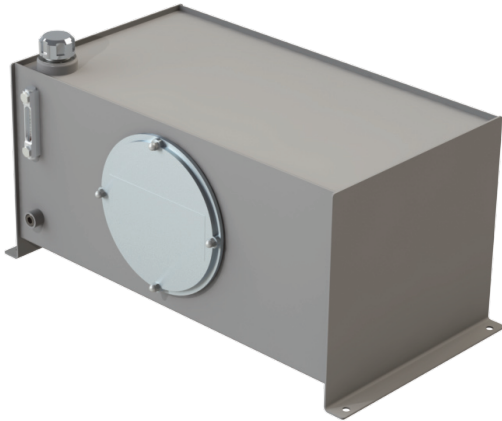
| Part Number | Capacity | | Reservoir Dimensions (inches) | | | | | | End Cover |
|-------------|-----------|----------|-------------------------------|---------|----------|--------------|-------|--------------|-----------|
| | | | A | B | C | (Mtg. Ctrs.) | | Sight Gauge | |
| | (Gallons) | (Liters) | (length) | (width) | (height) | D | E | (Mtg. Ctrs.) | |
| RDIN020-BSA | 20 | 76 | 24.38 | 18.00 | 21.00 | 21.75 | 15.50 | 5.00 | |
| RDIN030-BSA | 30 | 114 | 30.38 | 20.75 | 21.44 | 27.00 | 18.25 | 5.00 | |
| RDIN040-BSA | 40 | 151 | 36.38 | 20.75 | 22.75 | 33.00 | 18.25 | 5.00 | |
| RDIN060-BSA | 60 | 227 | 42.38 | 24.00 | 24.75 | 39.00 | 21.50 | 5.00 | |
| RDIN080-BSA | 80 | 303 | 42.38 | 30.00 | 25.38 | 39.00 | 27.50 | 5.00 | |
| RDIN100-BSA | 100 | 379 | 42.38 | 30.00 | 29.25 | 39.00 | 27.50 | 10.00 | |
| RDIN120-BSA | 120 | 454 | 48.50 | 30.00 | 30.25 | 45.00 | 27.50 | 10.00 | |
| RDIN150-BSA | 150 | 568 | 60.50 | 30.00 | 30.25 | 57.00 | 27.50 | 10.00 | |
| RDIN200-BSA | 200 | 757 | 72.75 | 36.00 | 29.81 | 69.00 | 33.50 | 10.00 | |
| RDIN300-BSA | 300 | 1136 | 72.75 | 36.00 | 38.69 | 69.00 | 33.50 | 10.00 | |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

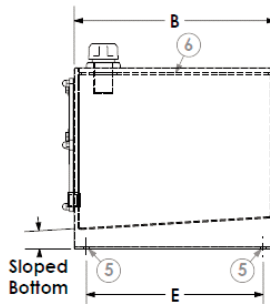
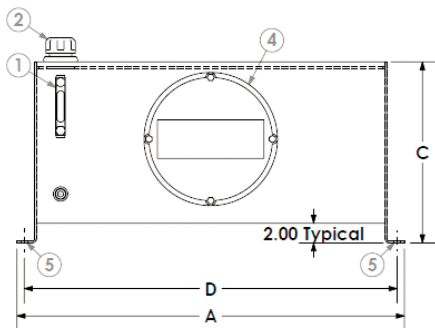
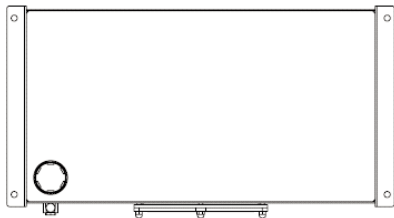
RDINxxx-CFA (Front Access) C Type Reservoirs:

Type C DIN Reservoirs are constructed with a recessed welded top and front clean-out access. The reservoir has a low profile with mounting feet flanged outward from the tank. The reservoir floor is sloped toward the front clean-out access with a bottom mounted drain plug. Each reservoir is supplied with a sight level gauge, filler breather and access cover.

4



| Size | Ends | Form | Top | Baffle | Drain |
|-----------|------|-------|------|--------|---------|
| 20 -40 | 7ga | 11 ga | 7 ga | N/A | #12 SAE |
| 60 - 80 | 7 ga | 11 ga | 3/8" | N/A | #12 SAE |
| 100 - 150 | 3/8" | 11 ga | 3/8" | N/A | #16 SAE |
| 200 | 3/8" | 7 ga | 3/8" | N/A | #16 SAE |



Includes:

- 1- Sight Level Gauge (front mount) (SLLG-05T-C on Sizes less than 100 Gal., SSLG-10T-C on Sizes 100 Gal. and greater.
- 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
- 3 - SAE O-ring Drain
- 4 - DIN Style End Cover
- 5 - 5/8" Dia. Holes on Bottom Flange for Tank Mounting
- 6 - Recessed Top (Drip Tray)
Primer Coated Exterior
Rust Inhibitor Coated Interior

Note: * Drain plugs need to be sealed and tightened before use.

* Sight Gage and Filler Breather are shipped loose inside the reservoir.

* Industry accepted design practice for Hydraulic systems limits maximum operating temperature to 180° F (28°C), but materials used for fabrication of the reservoirs are capable of operating temperature between -40° and 250° F (-40° and 121° C).

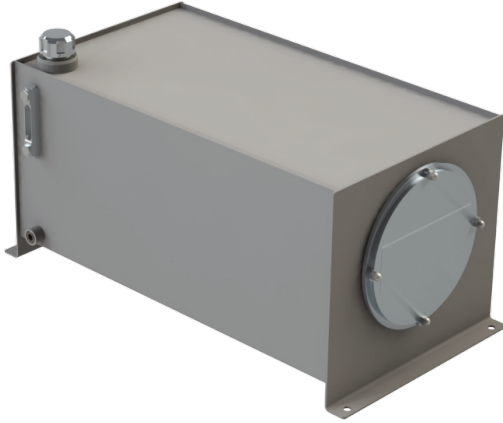
Caution: Reservoirs are not designed for positive or negative pressure applications, consult factory for these applications.

| Part Number | Capacity | | Reservoir Dimensions (inches) | | | | | | End Cover |
|-------------|-----------|----------|-------------------------------|---------|----------|--------------|-------|--------------|-----------|
| | | | A | B | C | (Mtg. Ctrs.) | | Sight Gauge | |
| | (Gallons) | (Liters) | (length) | (width) | (height) | D | E | (Mtg. Ctrs.) | |
| RDIN020-CFA | 20 | 76 | 28.00 | 18.00 | 17.00 | 26.50 | 15.50 | 5.00 | |
| RDIN030-CFA | 30 | 114 | 34.00 | 20.75 | 17.44 | 32.50 | 18.25 | 5.00 | |
| RDIN040-CFA | 40 | 151 | 40.00 | 20.75 | 18.75 | 38.50 | 18.25 | 5.00 | |
| RDIN060-CFA | 60 | 227 | 46.00 | 24.00 | 20.75 | 44.50 | 21.50 | 5.00 | |
| RDIN080-CFA | 80 | 303 | 46.00 | 30.00 | 21.38 | 44.50 | 27.50 | 5.00 | |
| RDIN100-CFA | 100 | 379 | 46.00 | 30.00 | 25.25 | 44.50 | 27.50 | 10.00 | |
| RDIN120-CFA | 120 | 454 | 52.00 | 30.00 | 26.25 | 50.50 | 27.50 | 10.00 | |
| RDIN150-CFA | 150 | 568 | 64.00 | 30.00 | 26.25 | 62.50 | 27.50 | 10.00 | |
| RDIN200-CFA | 200 | 757 | 77.00 | 36.00 | 25.81 | 75.50 | 33.50 | 10.00 | |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

RDINxxxDSA (Side Access) D Type Reservoirs:

Type D DIN Reservoirs are constructed with a recessed welded top and clean-out access on each end. The reservoir has a low profile with mounting feet flanged outward from the tank. The reservoir floor is sloped toward the front panel with a bottom mounted drain plug. Each reservoir is supplied with a sight level gauge, filler breather and access cover.



| Size | Ends | Form | Top | Baffle | Drain |
|-----------|------|-------|------|--------|---------|
| 20 -40 | 7ga | 11 ga | 7 ga | 11 ga | #12 SAE |
| 60 - 80 | 7 ga | 11 ga | 3/8" | 11 ga | #12 SAE |
| 100 - 150 | 3/8" | 11 ga | 3/8" | 11 ga | #16 SAE |
| 200 | 3/8" | 7 ga | 3/8" | 11 ga | #16 SAE |

Includes:

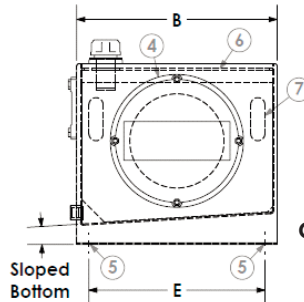
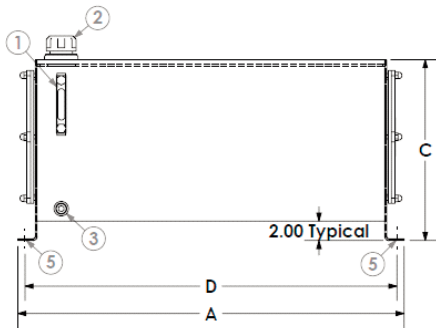
- 1- Sight Level Gauge (front mount) (SLLG-05T-C on Sizes less than 100 Gal., SSLG-10T-C on Sizes 100 Gal. and greater.
- 2 - Filler Breather Cap, Riser and Screen (FB-H008W) Included, **Cutout Hole Not Provided**
- 3 - SAE O-ring Drain
- 4 - DIN Style End Cover
- 5 - 5/8" Dia. Holes on Bottom Flange for Tank Mounting
- 6 - Recessed Top (Drip Tray)
Primer Coated Exterior
Rust Inhibitor Coated Interior

Note: * Drain plugs need to be sealed and tightened before use.

* Sight Gage and Filler Breather are shipped loose inside the reservoir.

* Industry accepted design practice for Hydraulic systems limits maximum operating temperature to 180° F (28°C), but materials used for fabrication of the reservoirs are capable of operating temperature between -40° and 250° F (-40° and 121° C).

Caution: Reservoirs are not designed for positive or negative pressure applications, consult factory for these applications.

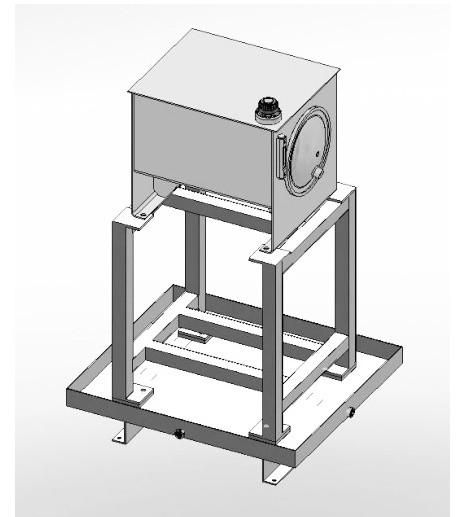
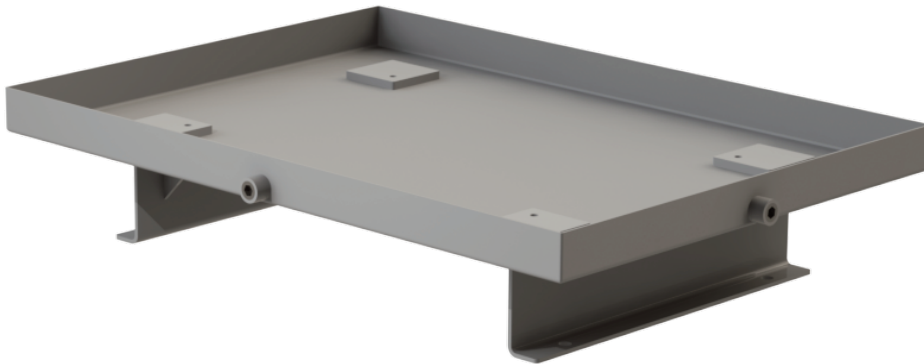


| Part Number | Capacity | | Reservoir Dimensions (inches) | | | | | | End Cover |
|-------------|-----------|----------|-------------------------------|---------|----------|--------------|-------|--------------|-----------|
| | | | A | B | C | (Mtg. Ctrs.) | | Sight Gauge | |
| | (Gallons) | (Liters) | (length) | (width) | (height) | D | E | (Mtg. Ctrs.) | |
| RDIN020-DSA | 20 | 76 | 28.00 | 18.00 | 17.00 | 26.50 | 15.50 | 5.00 | |
| RDIN030-DSA | 30 | 114 | 34.00 | 20.75 | 17.44 | 32.50 | 18.25 | 5.00 | |
| RDIN040-DSA | 40 | 151 | 40.00 | 20.75 | 18.75 | 38.50 | 18.25 | 5.00 | |
| RDIN060-DSA | 60 | 227 | 46.00 | 24.00 | 20.25 | 44.50 | 21.50 | 5.00 | |
| RDIN080-DSA | 80 | 303 | 46.00 | 30.00 | 21.38 | 44.50 | 27.50 | 5.00 | |
| RDIN100-DSA | 100 | 379 | 46.00 | 30.00 | 25.25 | 44.50 | 27.50 | 10.00 | |
| RDIN120-DSA | 120 | 454 | 52.00 | 30.00 | 26.25 | 50.50 | 27.50 | 10.00 | |
| RDIN150-DSA | 150 | 568 | 64.00 | 30.00 | 26.25 | 62.50 | 27.50 | 10.00 | |
| RDIN200-DSA | 200 | 757 | 77.00 | 36.00 | 25.81 | 72.50 | 33.50 | 10.00 | |

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

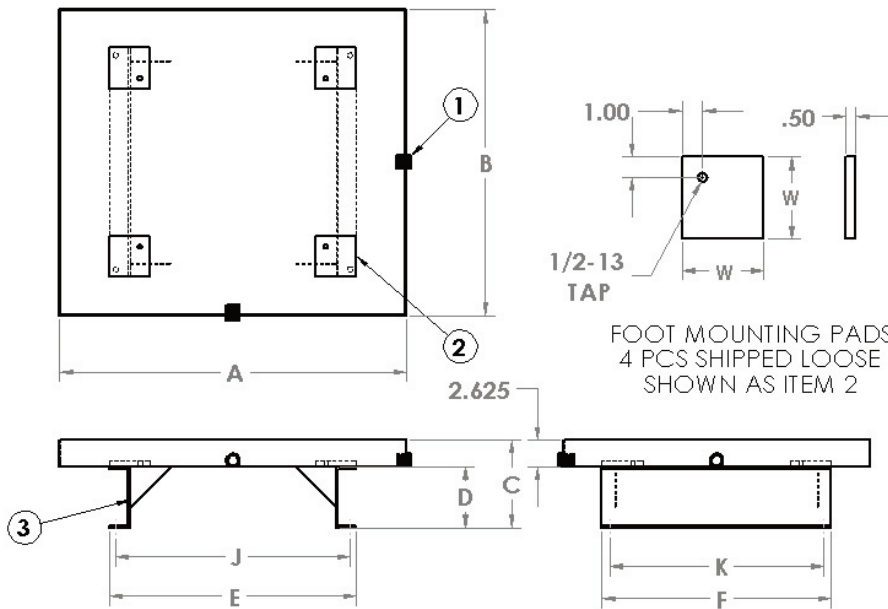
Fits Magnaloy RJIC Series Reservoirs and Stacking Modules:

4



Includes:

- 1 - (2) 3/4" NPT Drains
 - 2 - (4) Foot Mounting Pads
Included (loose)
 - 3 - To eliminate Risers Change
Part Number to RJDPP Series
- Sizes 10 thru 100 Drip Pans are
11 gauge
Sizes 120 thru 200 Drip Pans are
7 gauge
Primer Coated Exterior
All Edges Deburred
Designed to fit Magnaloy
Stacking Module (pg 139)
and RJIC Reservoir (pg 124)
(see image above)



| Part Number | Drip Pan Size (Gallons) | Fits Reservoir | Drip Pan Dimensions (Inches) | | | | | | | | Pad W |
|-------------|-------------------------|--------------------|------------------------------|----|------|---|-------|------|-------|------|-------|
| | | | A | B | C | D | E | F | J | K | |
| RJDPR010 | 10 | RJIC010- | 34 | 30 | 8.63 | 6 | 24.25 | 22.5 | 22.75 | 16.5 | 4 |
| RJDPR015 | 15 | RJIC015- | 38 | 30 | 8.63 | 6 | 28.25 | 22.5 | 26.75 | 16.5 | 4 |
| RJDPR020 | 20 | RJIC020- | 42 | 30 | 8.63 | 6 | 32.25 | 22.5 | 30.75 | 16.5 | 4 |
| RJDPR030 | 30-50 | RJIC030- thru 50- | 48 | 36 | 8.63 | 6 | 38.25 | 28.5 | 36.75 | 22.5 | 4 |
| RJDPR060 | 60 | RJIC060- | 60 | 39 | 8.63 | 6 | 50.25 | 31.5 | 48.75 | 25.5 | 4 |
| RJDPR080 | 80-100 | RJIC080- thru 100- | 72 | 39 | 8.63 | 6 | 62.25 | 31.5 | 60.75 | 25.5 | 4 |
| RJDPR120 | 120-150 | RJIC120- thru 150- | 72 | 42 | 8.63 | 6 | 64.25 | 36.5 | 62.75 | 28.5 | 5 |
| RJDPR200 | 200 | RJIC200- | 84 | 48 | 8.63 | 6 | 69.75 | 42.5 | 68.25 | 34.5 | 5 |

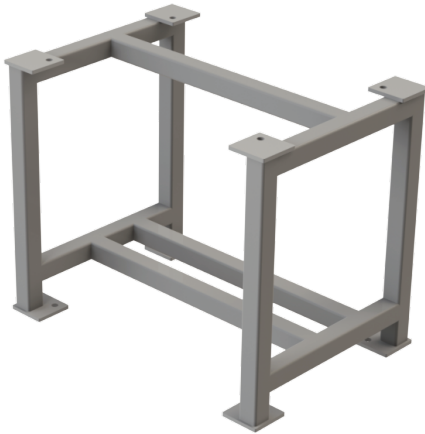
NOTE : RJDPR Series include 6" Risers, Substitute RJDPP for Series number (same dimensions) if no Risers are needed.

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

Stacking Modules for RJIC Series Reservoirs

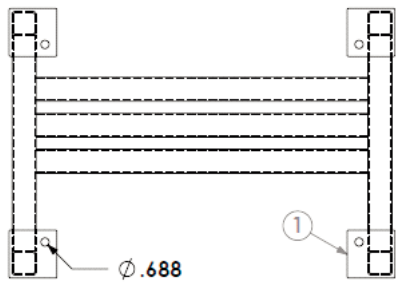


Fits Magnaloy RJIC Series Reservoirs and Drip Pans:

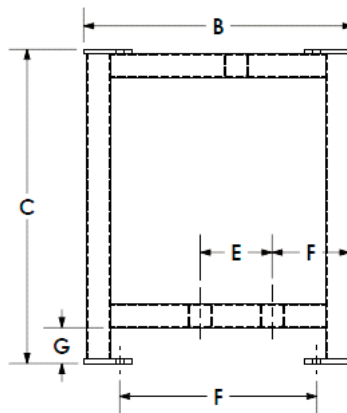
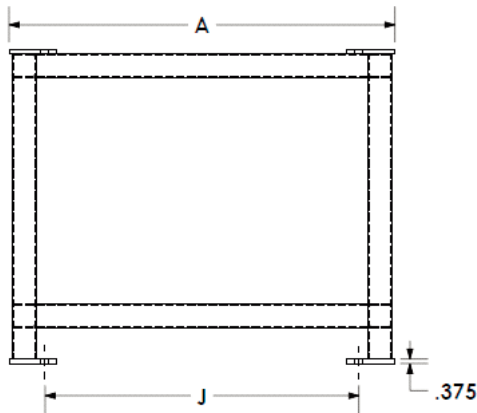


| Size | Material | Foot Pads |
|------|--------------|-------------|
| 10 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 15 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 20 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 30 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 40 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 50 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 60 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 80 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 100 | 2 x 2 x 11ga | 4 x 4 x 3/8 |
| 120 | 3 x 3 x 7ga | 5 x 5 x 3/8 |
| 150 | 3 x 3 x 7ga | 5 x 5 x 3/8 |
| 200 | 3 x 3 x 7ga | 5 x 5 x 3/8 |

4



FOOT MOUNTING PADS, TYP
4 EACH TOP & BOTTOM



Includes:

- (4) Foot Mounting Pads, Top and Bottom that aligns with RJIC Series Reservoir Mounting Holes and RJDPx Drip Pan Mounting Pads

Primer Coated Exterior

All Edges Deburred

Designed to fit Magnaloy

RJDPx Drip Pan (pg 143)

and RJIC-FT & RT reservoirs only (pg 129)

(see image, top of page 143)

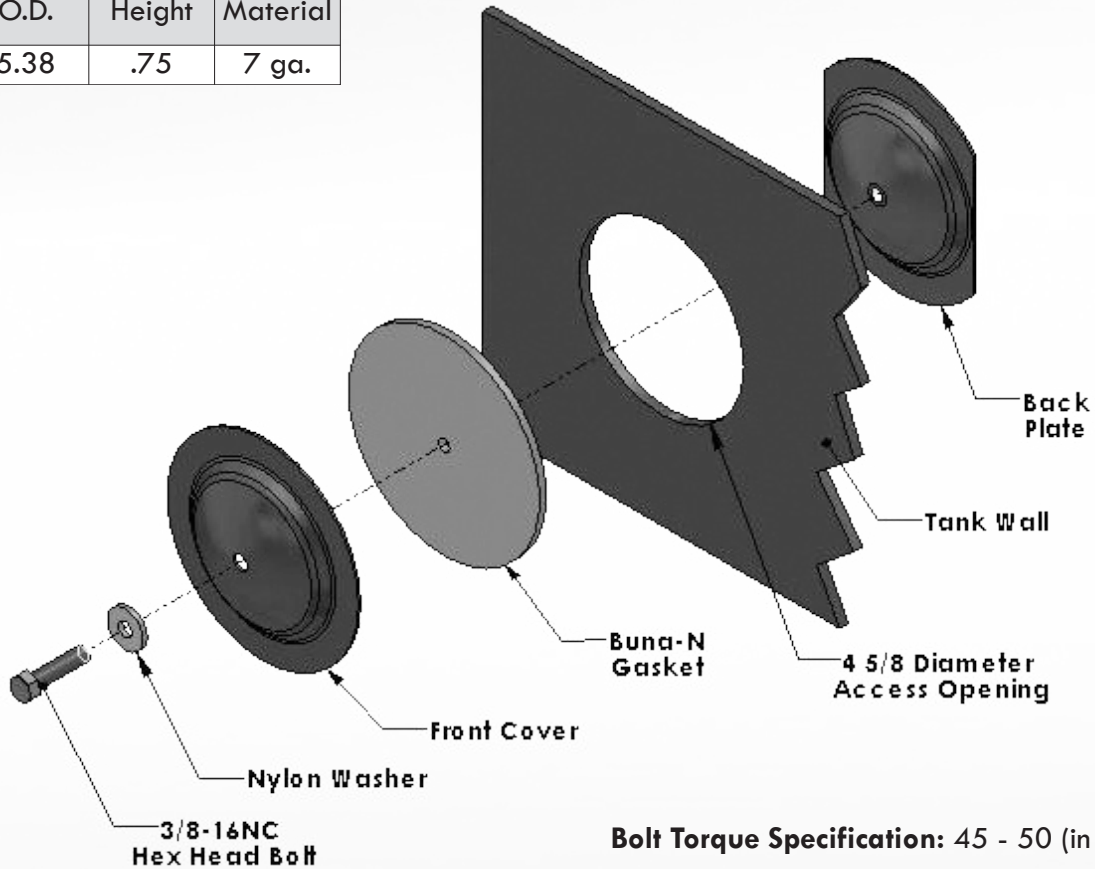
| Part Number | Fits Reservoir | Drip Pan Dimensions (Inches) | | | | Reservoir Dimensions (Inches) | | | | |
|-------------|--------------------|------------------------------|-------|-------|------|-------------------------------|-----|---|-------|------|
| | | A | B | C | D | E | F | G | J | K |
| RJSM010 | RJIC010- | 24.25 | 22.5 | 26.25 | 9.5 | 6* | 6.5 | 3 | 18.25 | 16.5 |
| RJSM015 | RJIC015- | 26.25 | 22.25 | 26.25 | 9.5 | 6* | 6.5 | 3 | 22.25 | 16.5 |
| RJSM020 | RJIC020- | 32.25 | 22.5 | 26.25 | 9.5 | 6* | 6.5 | 3 | 26.25 | 16.5 |
| RJSM030 | RJIC030- thru 050- | 38.25 | 28.5 | 26.25 | 12.5 | 6* | 9.5 | 3 | 32.25 | 22.5 |
| RJSM060 | RIC0J60- | 50.25 | 31.5 | 32.5 | 14 | 9* | 9.5 | 3 | 44.25 | 25.5 |
| RJSM080 | RJIC080- | 62.25 | 31.5 | 31.5 | 14 | 9* | 9.5 | 3 | 56.25 | 25.5 |
| RJSM100 | RJIC100- | 62.25 | 31.5 | 36.75 | 14 | 9* | 9.5 | 3 | 56.25 | 25.5 |
| RJSM120 | RJIC120- thru 150- | 64.25 | 36.5 | 36.75 | 15.5 | 9* | 11 | 3 | 56.25 | 28.5 |
| RJSM200 | RJIC200- | 76.25 | 42.5 | 36.75 | 18.5 | 9* | 14 | 3 | 68.25 | 34.5 |

* This dimension can be changed at no additional charge to accommodate your pump/motor combination, consult factory.

DISCLAIMER: Due to Magnaloy's policy of continuous improvement, specifications are subject to change without notice.

6 Inch Steel End Cover:

| End Cover Size | O.D. | Height | Material |
|----------------|------|--------|----------|
| REC06 | 5.38 | .75 | 7 ga. |



End Cover Assembly and Component Part Numbers:

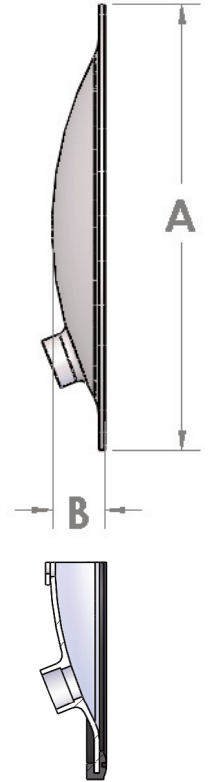
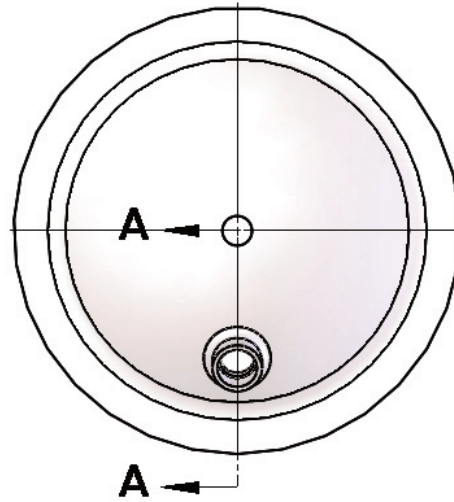
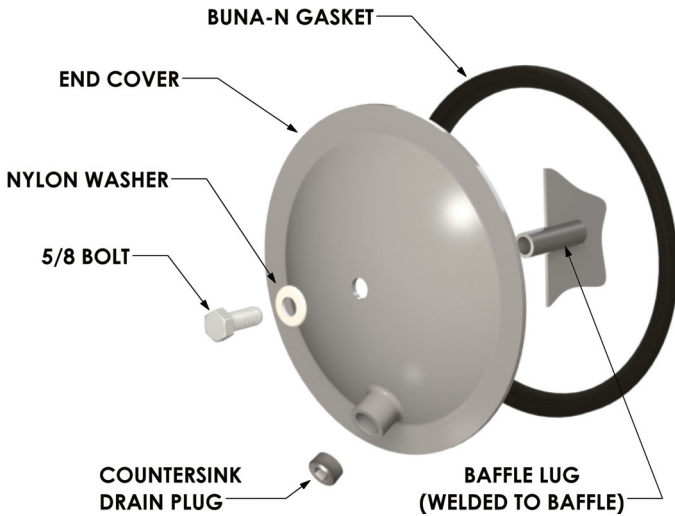
| End Cover Size | End Cover Assembly | End Cover Front Cover | End Cover Back Plate | End Cover Gasket | End Cover Nylon Washer | End Cover Bolt |
|----------------|--------------------|-----------------------|----------------------|------------------|------------------------|----------------|
| 6" | REC06K | REC06C | REC06B | REC06G | REC06W | REC06F |

NOTE: End Cover Assembly Includes - (1) Front Plate, (1) Back Plate, (1) 3/8-16 x 1.25" Bolt, (1) Nylon Crush Washer, (1) Buna-N Cover Gasket.

NOTE: 4.625" Diameter Hole in the Reservoir is required for installation.

End Covers

12, 14, 16, & 18 Inch Steel End Covers:



4

| End Cover Size | A | B | Material |
|----------------|-------|------|----------|
| 12" | 11.75 | 1.38 | 7 ga |
| 14" | 13.75 | 1.50 | 7 ga |
| 16" | 15.88 | 1.88 | 7 ga |
| 18" | 17.34 | 2.25 | 7 ga |

Bolt Torque Specification: 15 (ft lbs)

SECTION A-A
(with Gasket Installed)

Steel End Cover Kit and Component Part Numbers:

| End Cover Size | End Cover Kit w/out Drain | End Cover Kit with 3/4" NPT Drain | End Cover Only w/out Drain | End Cover Only with 3/4" NPT Drain | End Cover Kit with #12 SAE Drain | End Cover Only with #12 SAE Drain |
|----------------|---------------------------|-----------------------------------|----------------------------|------------------------------------|----------------------------------|-----------------------------------|
| 12" | REC12KX | REC12KN | REC12CX | REC12CN | REC12KS | REC12CS |
| 14" | REC14KX | REC14KN | REC14CX | REC14CN | REC14KS | REC14CS |
| 16" | REC16KX | REC16KN | REC16CX | REC16CN | REC16KS | REC16CS |
| 18" | REC18KX | REC18KN | REC18CX | REC18CN | REC18KS | REC18CS |

Stainless Steel End Cover Kit and Component Part Numbers:

| End Cover Size | End Cover Kit w/out Drain | End Cover Kit with 3/4" NPT Drain | End Cover Only w/out Drain | End Cover Only with 3/4" NPT Drain | End Cover Kit w/#12 SAE Drain | End Cover Only w/#12 SAE Drain |
|----------------|---------------------------|-----------------------------------|----------------------------|------------------------------------|-------------------------------|--------------------------------|
| 12" | RECS12KX | RECS12KN | RECS12CX | RECS12CN | N/A | N/A |
| 16" | RECS16KX | RECS16KN | RECS16CX | RECS16CN | N/A | N/A |

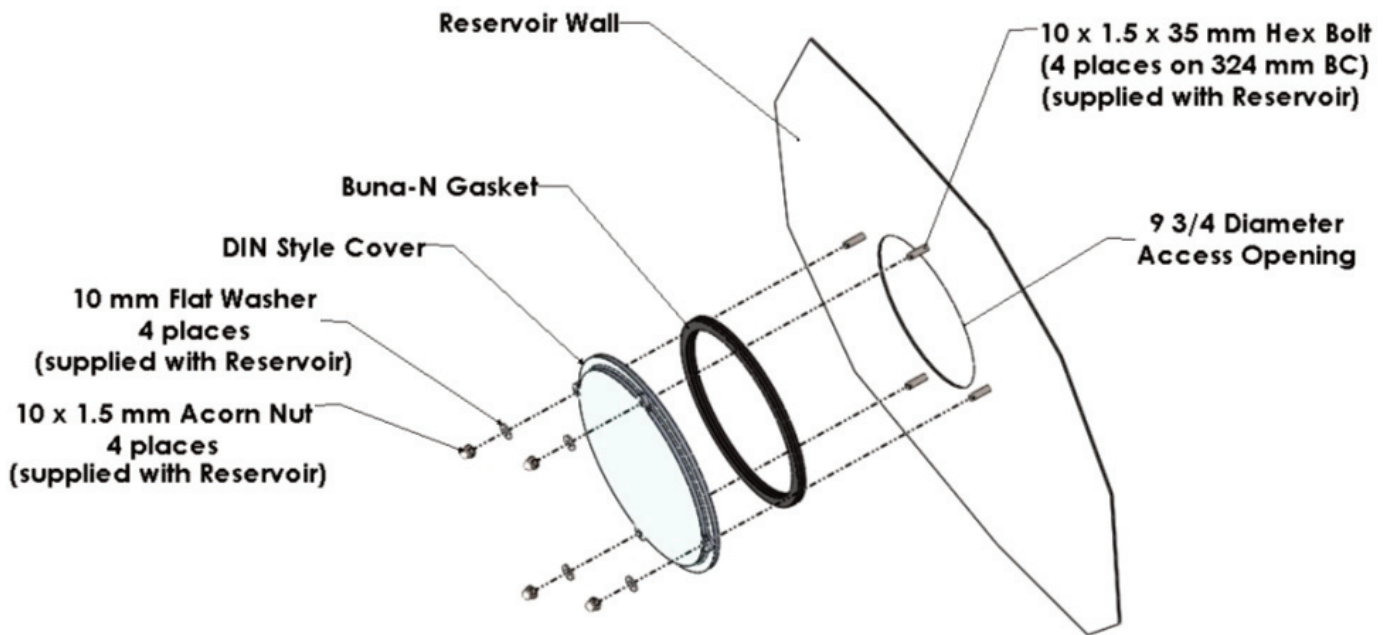
NOTE: End Cover Kit Includes: (1) End Cover, (1) Buna-N Gasket, (1) 5/8-11 Bolt, (1) Nylon Washer, (1) Baffle Lug, (1) Countersunk Drain Plug (Covers w/Drain). (For Stainless Kit: Bolt is Stainless, but Baffle lug is not)

NOTE: End Cover Only Includes: (1) End Cover, (1) Buna-N Gasket

Bolt-On DIN Style End Cover:

| End Cover Size | O.D. | Height | Material |
|----------------|-------|--------|---------------|
| REC-M350K | 350mm | 18mm | Cast Aluminum |

4



Acorn Nut Torque Specification: 35 (in lbs)

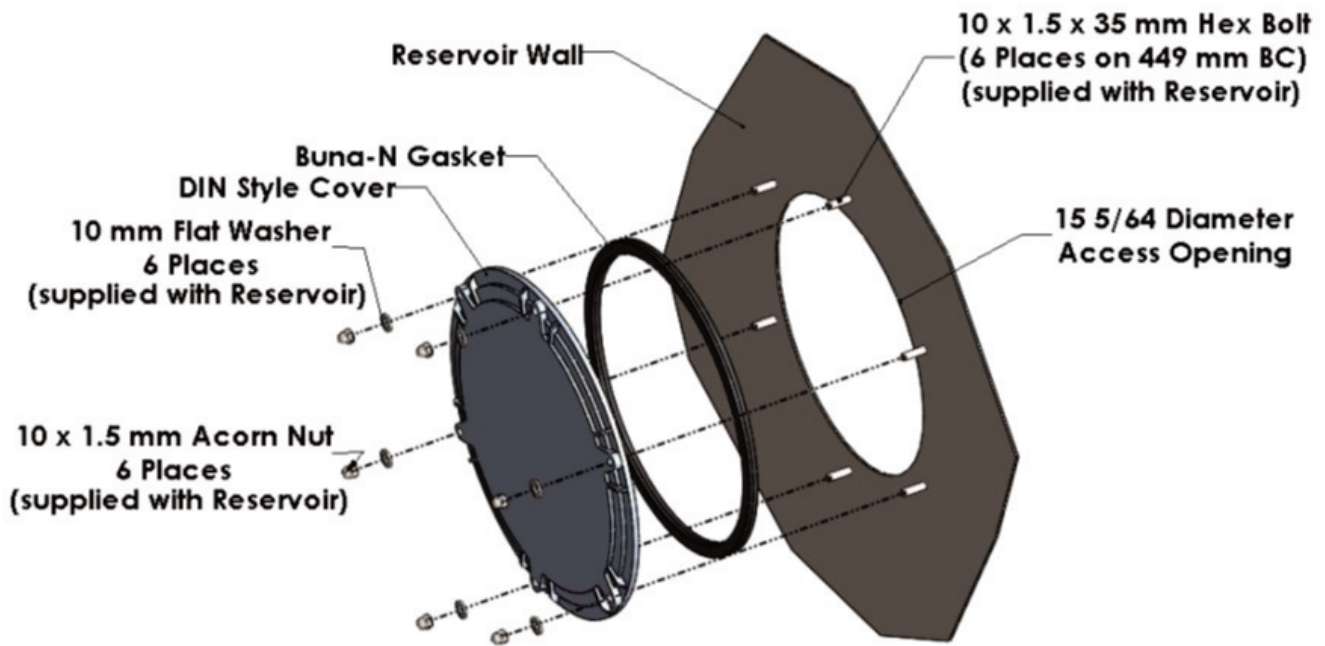
NOTE: End Cover Assembly Includes - (1) DIN Style Cover, (1) Buna-N Gasket, (fasteners/mounting hardware **not included**).

NOTE: 9.75" Diameter Hole in Reservoir is required for installation and (4) 11 mm Diameter Holes Equally spaced 324mm BC (leak free installation).

End Covers

Bolt-On DIN Style End Cover:

| End Cover Size | O.D. | Height | Material |
|----------------|-------|--------|---------------|
| REC-M475K | 475mm | 18mm | Cast Aluminum |



Acorn Nut Torque Specification: 35 (in lbs)

NOTE: End Cover Assembly Includes - (1) DIN Style Cover, (1) Buna-N Gasket, (fasteners/mounting hardware **not included**).

NOTE: 15.08" Diameter Hole in Reservoir is required for installation and (6) 11 mm Diameter Holes Equally spaced on a 449mm BC (leak free installation).



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SECTION 5

MAGNALOY RESERVOIR ACCESSORIES



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.

High Capacity Spin-On Adapters

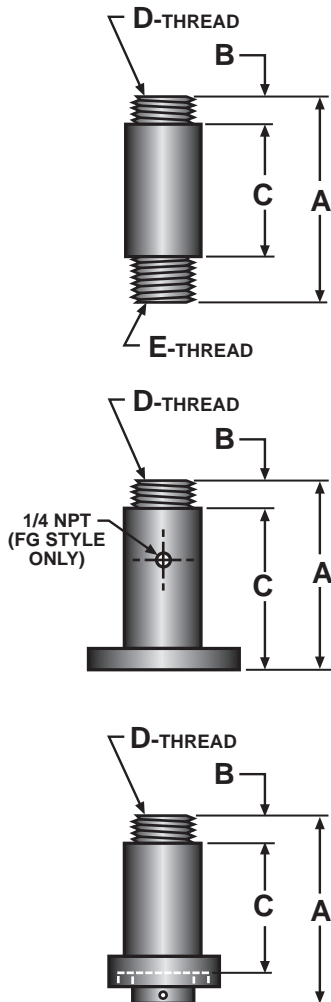
Converts standard breather installation to accept a high efficiency spin-on air breather



5

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 |

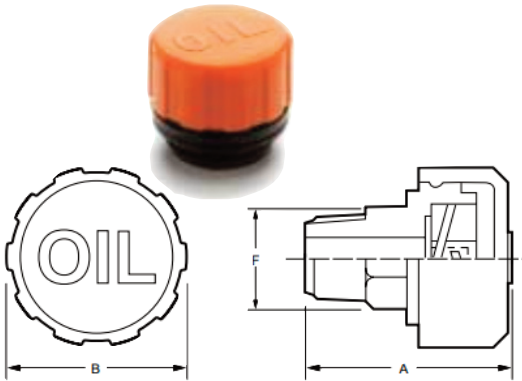
Bayonet Style Spin-On

| 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.



MB Type - Mini Breather



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 relief, Chrome Plated

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

| Type | Part Number | Mounting Type | A | B | F |
|------|--------------|---------------|------|------|--------|
| A | FB-C-A | Bayonet | 1.33 | 2.55 | |
| D | FB-C-D | Bayonet | 1.30 | 2.55 | |
| H | FB-C-H | Bayonet | 1.56 | 3.00 | |
| K | FB-C-K | Bayonet | .94 | 2.88 | |
| MB | FB-C-MB-P004 | 1/4 NPT | 1.80 | 1.70 | 1-1/16 |
| MB | FB-C-MB-P006 | 3/8 NPT | 1.73 | 1.65 | 3/4 |
| MB | FB-C-MB-P008 | 1/2 NPT | 1.85 | 1.65 | 1 |
| MB | FB-C-MB-P012 | 3/4 NPT | 1.85 | 1.65 | 1-1/8 |

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:



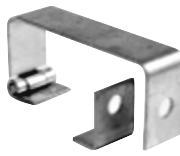
| Part Number | Code | Mesh | Material | Length |
|-------------|------|---------|-----------|--------|
| FB-S-C16 | C | 16 Mesh | Stainless | 3.00 |
| FB-S-P | P | 30 Mesh | Nylon | 4.00 |
| FB-S-R * | R | 30 Mesh | Brass | 4.00 |
| FB-S-V * | V | 30 Mesh | Brass | 9.25 |
| FB-S-W | W | 30 Mesh | Stainless | 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 Breather Options:



PL - Pad Lock



L - Locking Cap



D - Dipstick

5

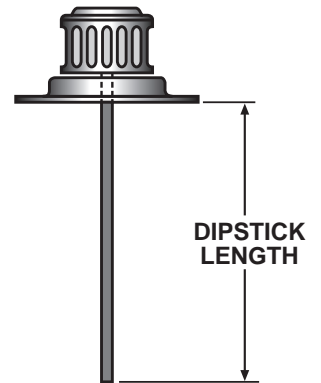
| Part Number | Code | Description |
|-------------|------|---|
| FB-O-PL | PL | Pad Lock - not included with locking cap option |
| FB-O-L | L | Cap Lock Kit |
| FB-O-D* | D | Dipstick - specify length, measured from bottom of mounting flange to end of dipstick |

* Dipstick Option can be ordered as part of a cap assembly **ONLY**.

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 | Option |
|-------|-------------|
| Blank | No Options |
| PL | Pad Lock |
| L | Locking Cap |
| D | Dipstick |

| 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 | 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 |

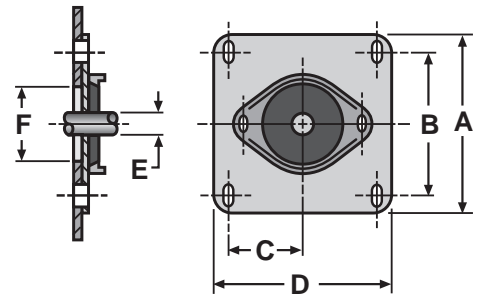
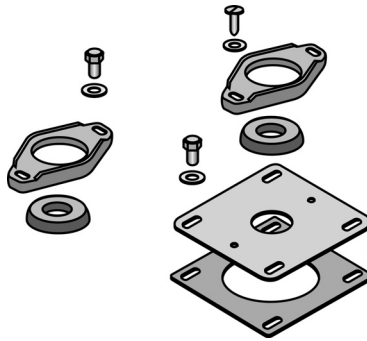
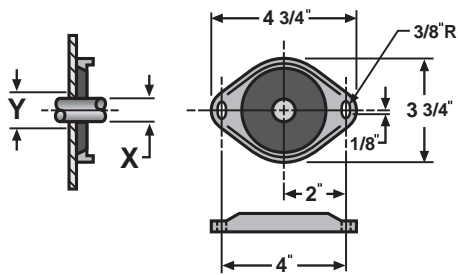
Reservoir Flanges



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-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-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 |

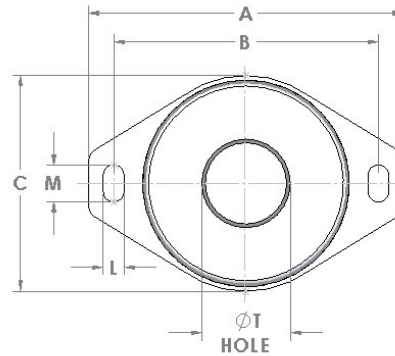
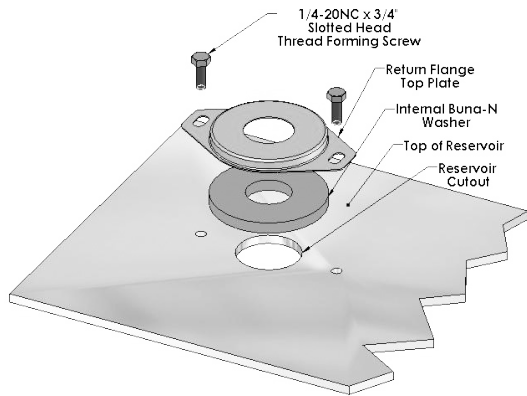
Economy Suction and Return Line Flanges - an alternative to the Magnaloy Premium Line of Suction and Return Line Flanges.

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:

5



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 |

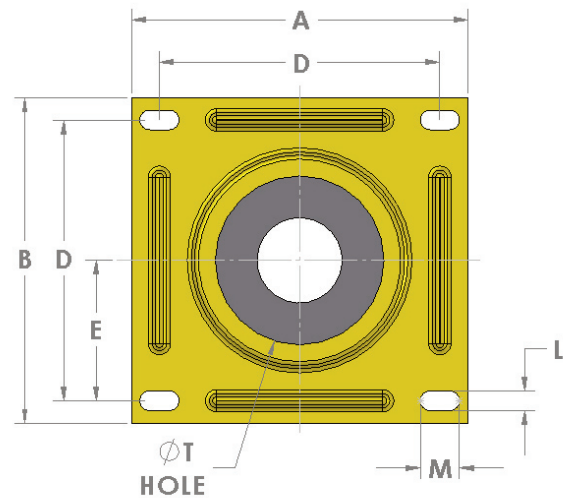
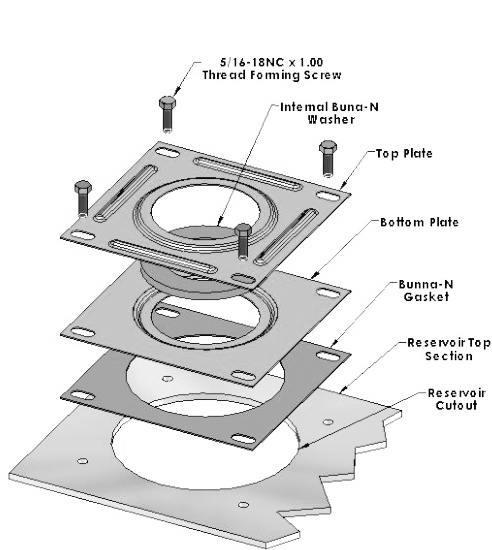
Tube Sizes:

| 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 |

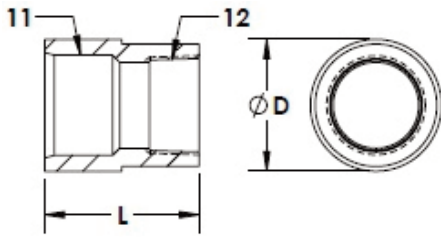
Pipe Sizes:

| 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 | 2 1/2 | 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 |

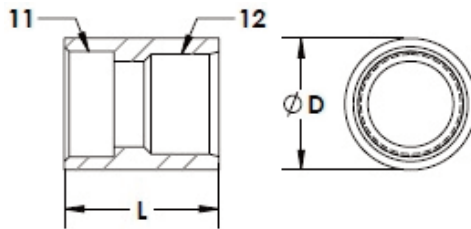
Tube Sizes:

| 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 |

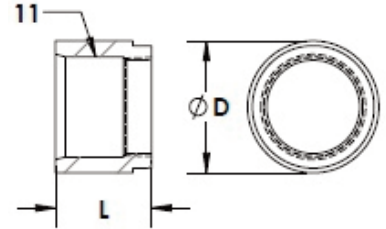
- 1 Use this Blank Flange for covering unused openings or for custom Pipe or Tube Sizes.
- 2 Opening in metal flange - required clearance to Pipe or Tube OD.



Full Couplings



Socket Weld Full Couplings



Half Couplings

5

SAE to NPT Full Couplings:

| Part Number | D1 Diameter | D2 Diameter | L1 Length | L2 Length | T1 SAE Size | T1 Thread | T2 Thread |
|-------------|-------------|-------------|-----------|-----------|-------------|--------------|-----------|
| 4S-4N-TD | 1.00 | .875 | 1.27 | .64 | #4 | 7/16-20 UNF | 1/4" NPT |
| 6S-6N-TD | 1.13 | 1.00 | 1.50 | .75 | #6 | 9/16-18 UNF | 3/8" NPT |
| 8S-8N-TD | 1.25 | 1.125 | 1.63 | .82 | #8 | 3/4-16 UNF | 1/2" NPT |
| 10S-12N-TD | 1.50 | 1.375 | 1.75 | .88 | #10 | 7/8-14 UNF | 3/4" NPT |
| 12S-12N-TD | 1.50 | 1.375 | 2.06 | 1.03 | #12 | 1-1/16-12 UN | 3/4" NPT |
| 16S-16N-TD | 1.75 | 1.625 | 2.06 | 1.03 | #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 | 1.63 | #8 | 3/4-16 UNF | 1/2" Pipe |
| 12S-12W | 1.50 | 2.06 | #12 | 1-1/16-12 UN | 3/4" Pipe |
| 16S-16W | 1.75 | 2.06 | #16 | 1-5/16-12 UN | 1" Pipe |
| 20S-20W | 2.25 | 2.06 | #20 | 1-5/8-12 UN | 1-1/4" Pipe |
| 24S-24W | 2.75 | 2.20 | #24 | 1-7/8-12 UN | 1-1/2" Pipe |

SAE Half Couplings:

| Part Number | D1 Diameter | D2 Diameter | L1 Length | L2 Length | T1 SAE Size | T1 Thread |
|-------------|-------------|-------------|-----------|-----------|-------------|--------------|
| 4S-TD | 0.88 | .75 | 1.00 | .25 | #4 | 7/16-20 UNF |
| 6S-TD | 1.00 | .875 | 1.00 | .25 | #6 | 9/16-18 UNF |
| 8S-TD | 1.25 | 1.125 | 1.06 | .25 | #8 | 3/4-16 UNF |
| 10S-TD | 1.38 | 1.25 | 1.06 | .25 | #10 | 7/8-14 UNF |
| 12S-TD | 1.50 | 1.375 | 1.28 | .25 | #12 | 1-1/16-12 UN |
| 16S-TD | 1.75 | 1.625 | 1.28 | .25 | #16 | 1-5/16-12 UN |
| 20S-TD | 2.25 | 2.125 | 1.28 | .25 | #20 | 1-5/8-12 UN |
| 24S-TD | 2.75 | 2.50 | 1.28 | .25 | #24 | 1-7/8-12 UN |

Channel Mounted Cushion Clamps

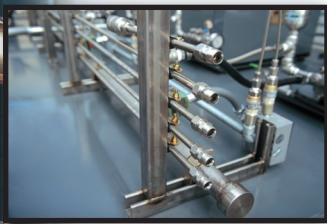


Magnaloy offers a complete line of channel-mounted cushion clamps for a great looking, vibration free tube/pipe mounting solution.



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

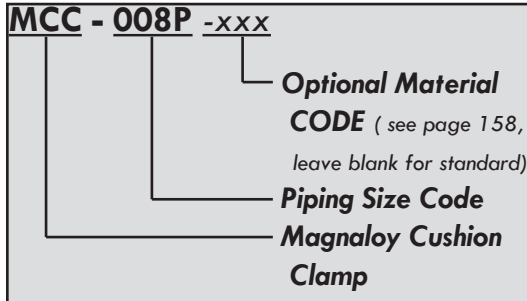
Optional Cushion Clamp Materials:

| 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 |

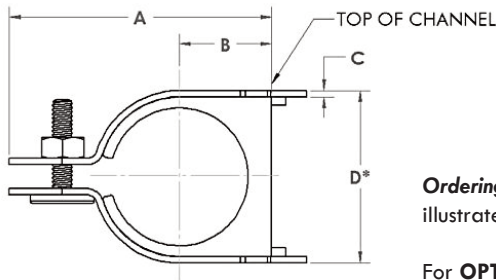


Clamp Assembly Part Numbers, Availability and Dimensional Data

Clamp Assembly Part Number Breakdown:



See Reference Section, page 212, 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 |
| Fiberglass | | | 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 this page and the next page, depending Pipe or Tube sizes.

For **OPTIONAL MATERIALS** consult page 158 and select the material combination best suited for your requirements. Use the part number as above, followed by the material **CODE** from page 158.

TUBE Sizes:

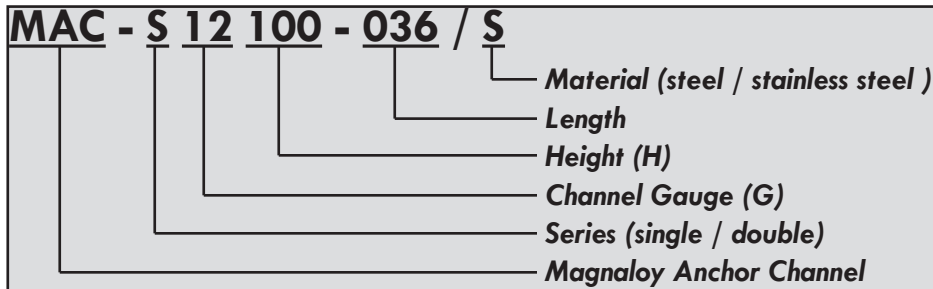
| TUBE Outside Diameter | .250 | .312 | .375 | .470 | .500 | .625 | .750 | .875 | 1.000 | 1.125 | 1.190 | 1.250 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 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 161 for part numbers.

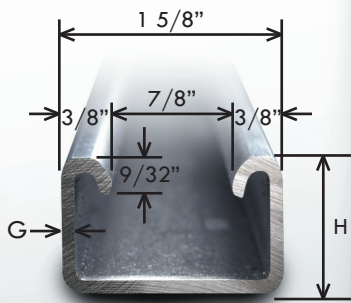
Clamp Anchor Channel Part Number Breakdown:



Channel Notes:

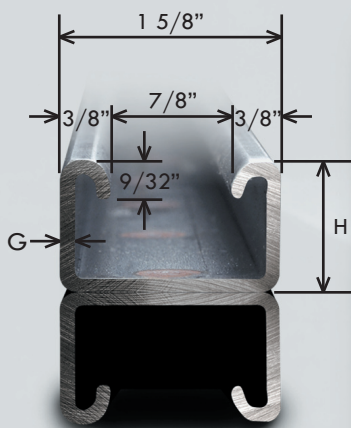
- All Channel widths 1 5/8"
- Steel Channel shipped with plain finish (hot rolled p.o.)
- Special cut tolerances +/- 1/8"

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" |

Suction Strainers



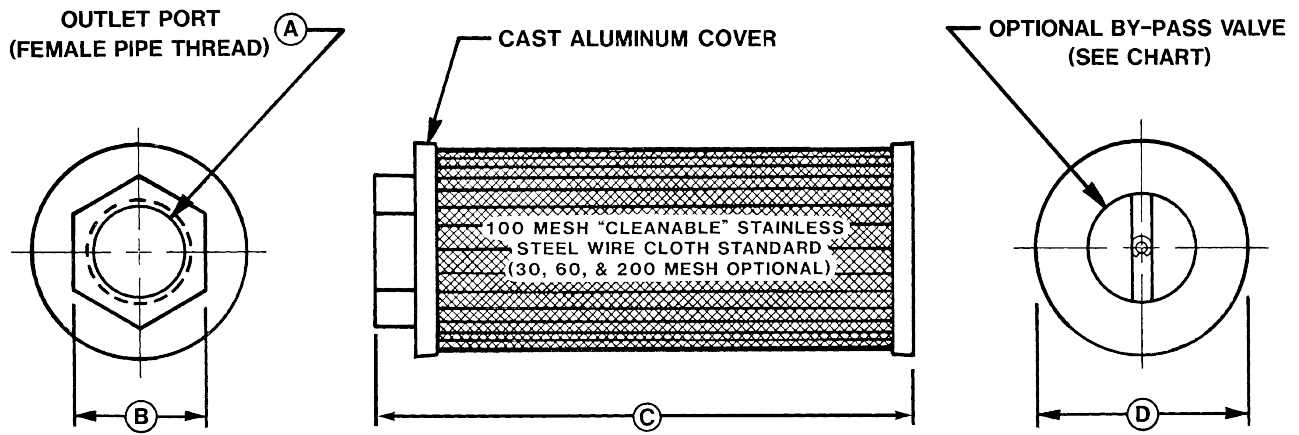
Internally Mounted Tank Filters - your front-line defense against particle contamination



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.

5



| 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 |
| SS-116P300-X-X | 3" NPT | 4.00" | 12.50" | 4.20" | 116 GPM |

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

How to Order:

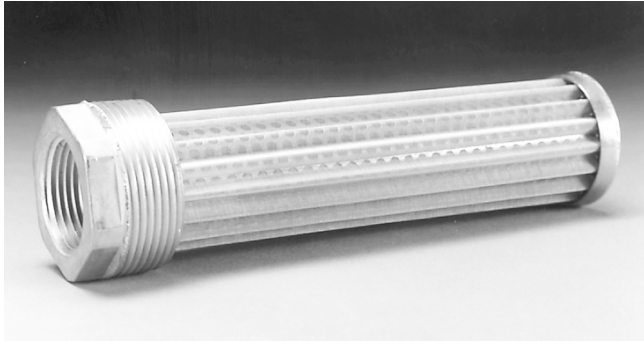
SS-003P006-1-0

| Model Code |
|------------|
| 003P006 |
| 005P008 |
| 008P012 |
| 014P100 |
| 023P104 |
| 032P108 |
| 053P200 |
| 075P208 |
| 116P300 |

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

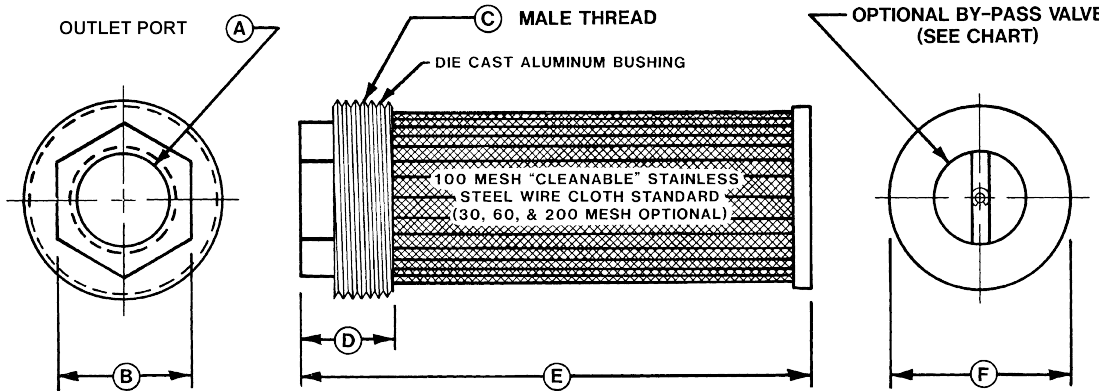
| Code | Wire Cloth Mesh |
|------|-----------------|
| 1 | 100 Mesh (Std) |
| 3 | 30 Mesh |

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 |

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 |

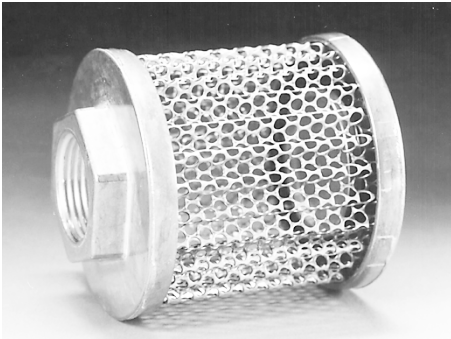
| Code | By-Pass Valve Setting |
|------|-----------------------|
| 0 | No By-Pass Valve |
| 3 | 3 PSI |
| 5 | 5 PSI |

| Code | Wire Cloth Mesh |
|------|-----------------|
| 1 | 100 Mesh (Std) |
| 3 | 30 Mesh |

Tank Diffusers



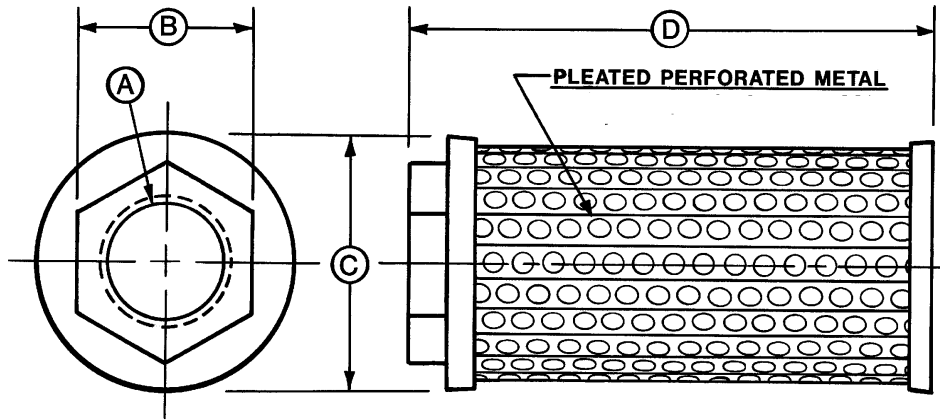
Internally Mounted Tank Diffusers - evenly disperses return line fluid for heat dissipation and prevents fluid aeration.



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.

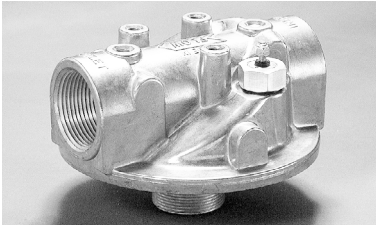
5



| 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-025P012-D2 | 3/4" NPT | 1.75" | 3.20" | 2.20" | 25 GPM | 20:1 |
| 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 |

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

Spin-On Filter Head with ΔP Indicator Option:



This product is obsolete and no longer available

For reference only

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 214 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 | Availability | Overall Length |
|-----------------|------------------|-----------------|---------------|-------------------------|----------------------|-------------------|-------------------|----------------|
| CSFE-003-069 | 5.1" | 1 1/2-16 UN | 3 Micron | 3/10/22 | 850 in ² | White/Green | Obsolete | 6.9" |
| CSFE-010-069 | 5.1" | 1 1/2-16 UN | 10 Micron | 9/22/24 | 950 in ² | White/Red | Ltd. Availability | 6.9" |
| CSFE-025-069 | 5.1" | 1 1/2-16 UN | 25 Micron | 29/46/54 | 950 in ² | White/Black | Ltd. Availability | 6.9" |
| CSFE-141-069 | 5.1" | 1 1/2-16 UN | 141 Micron | | 200 in ² | White/Blue | Obsolete | 6.9" |
| CSFE-003-109 | 5.1" | 1 1/2-16 UN | 3 Micron | 3/10/22 | 1170 in ² | White/Green | Obsolete | 10.9" |
| CSFE-003-109/WA | 5.1" | 1 1/2-16 UN | 3 Micron | 5/21/23 | 648 in ² | White/Orange | Obsolete | 10.9" |
| CSFE-010-109 | 5.1" | 1 1/2-16 UN | 10 Micron | 10/22/33 | 1710 in ² | White/Red | Obsolete | 10.9" |
| CSFE-010-109/WA | 5.1" | 1 1/2-16 UN | 10 Micron | 8/25/30 | 648 in ² | White/Orange | Ltd. Availability | 10.9" |
| CSFE-025-109 | 5.1" | 1 1/2-16 UN | 25 Micron | 29/46/54 | 1710 in ² | White/Black | Obsolete | 10.9" |
| CSFE-141-109 | 5.1" | 1 1/2-16 UN | 141 Micron | | 380 in ² | White/Blue | Ltd. Availability | 10.9" |

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 | Availability | Overall Length |
|--------------|------------------|-----------------|---------------|-------------------------|----------------------|-------------------|-------------------|----------------|
| SSFE-003-067 | 5.1" | 1 1/2-16 UN | 3 Micron | 2/3/4 | 680 in ² | White/Green | Obsolete | 6.7" |
| SSFE-010-067 | 5.1" | 1 1/2-16 UN | 10 Micron | 4/10/12 | 561 in ² | White/Red | Ltd. Availability | 6.7" |
| SSFE-025-067 | 5.1" | 1 1/2-16 UN | 25 Micron | 8/25/30 | 673 in ² | White/Black | Obsolete | 6.7" |
| SSFE-003-107 | 5.1" | 1 1/2-16 UN | 3 Micron | 2/3/4 | 1260 in ² | White/Green | Obsolete | 10.7" |
| SSFE-010-107 | 5.1" | 1 1/2-16 UN | 10 Micron | 4/10/12 | 1041 in ² | White/Red | Obsolete | 10.7" |
| SSFE-025-107 | 5.1" | 1 1/2-16 UN | 25 Micron | 8/25/30 | 1246 in ² | White/Black | Obsolete | 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).



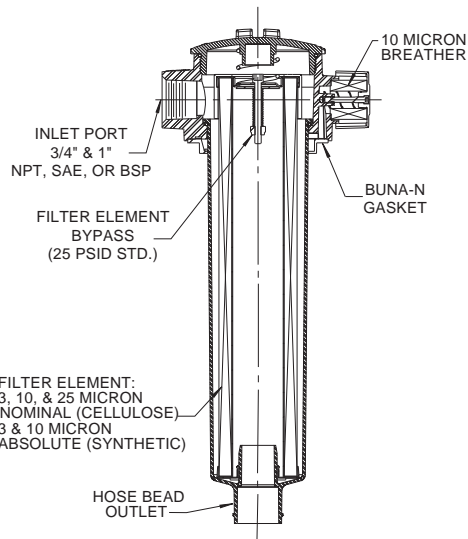
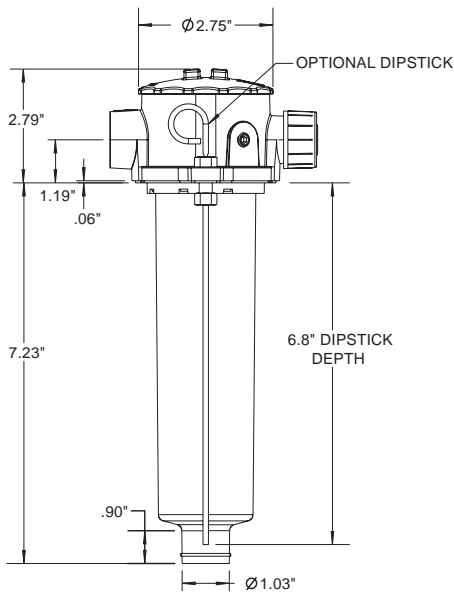
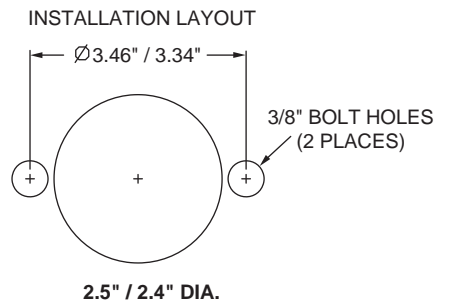
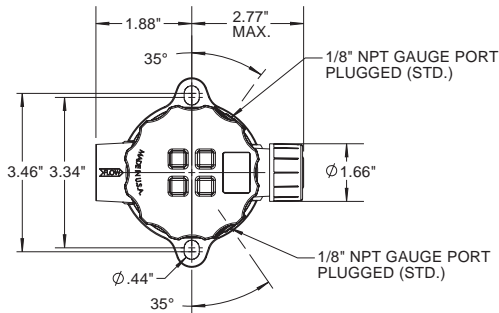
How to Order:

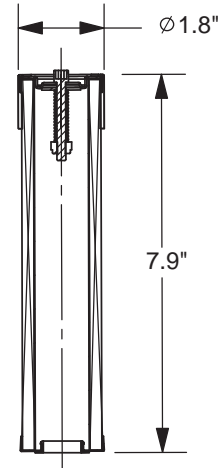
TTF-ITB-P008-0

Series: Integral Tank Breather

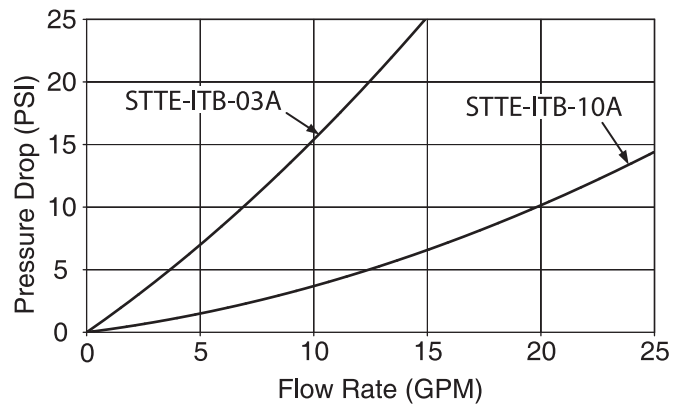
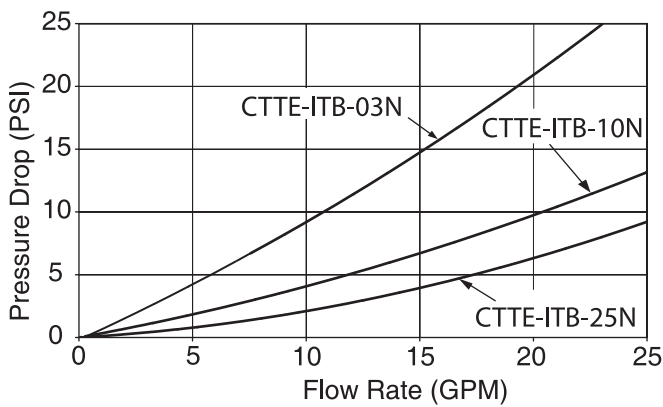
| Code | Port Size |
|------|-----------|
| B012 | 3/4" BSP |
| S008 | #8 SAE |

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





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



Tank Top Filter Elements

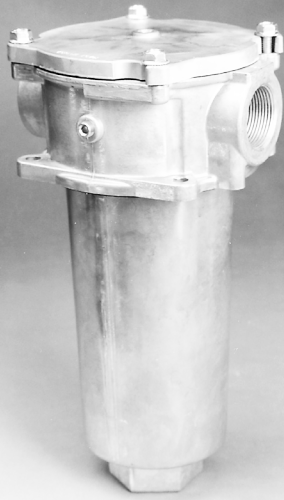
Cellulose Media Series: for use with Magnaloy Series TTF-ITB Tank Top Filter Head

| 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 |

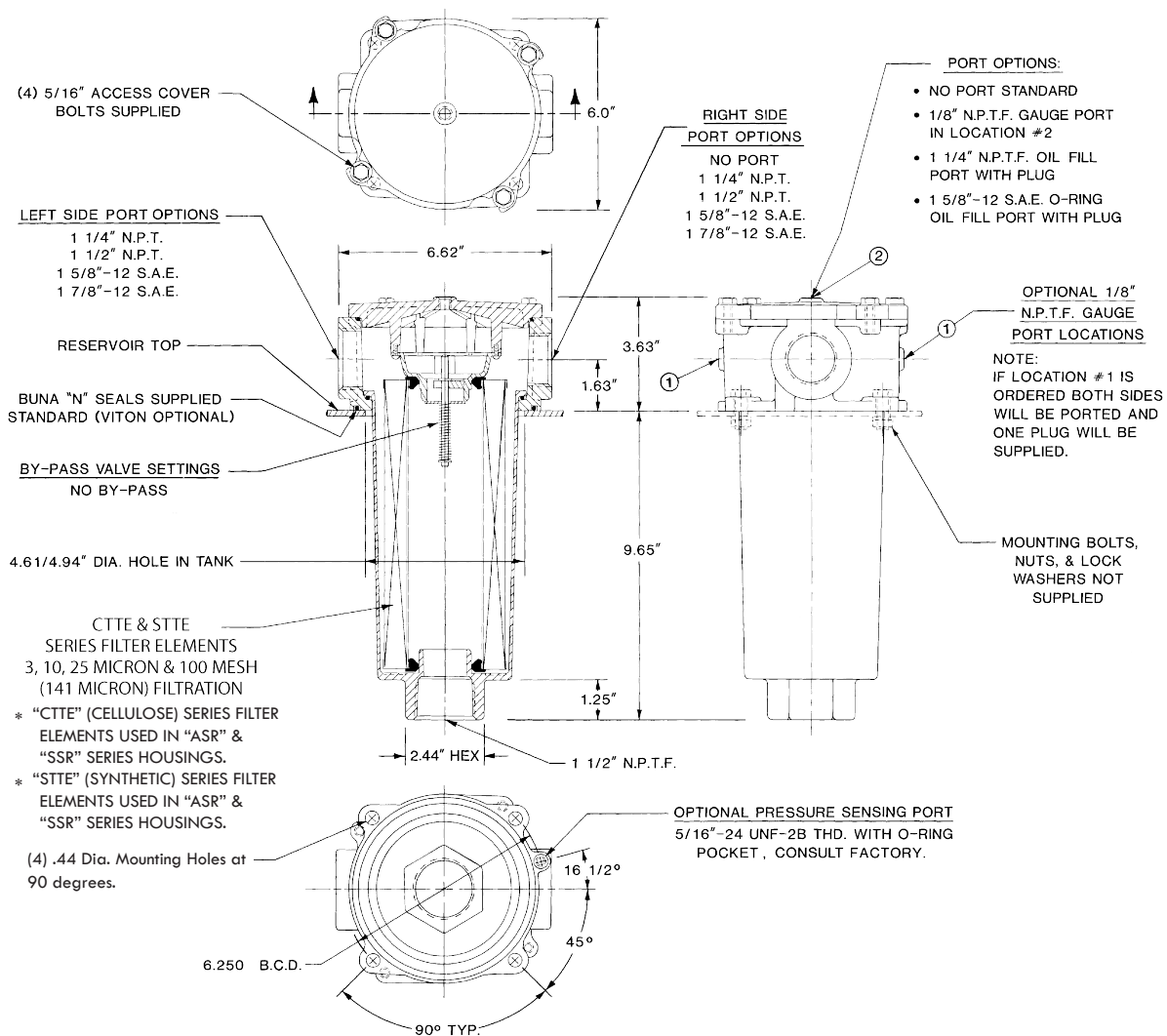
Suction/Return Line Series



5

Features:

- Flow Rates: ASR Housing (accepts "CTTE-ASR" and "SSTE-ASR" filter elements); 96 GPM (Return), 32 GPM (Suction)
SSR Housing (accepts "CTTE-SSR" and "SSTE-SSR" filter elements); 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
- 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 STE 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 |

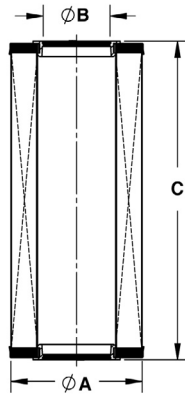
| Code | Check Valve Option |
|------|--------------------|
| 0 | No Check Valve |
| V | with Check Valve |

| 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 |
|------|--|
| 00 | No Gauge Port, No Oil Fill Port |
| 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) |

5

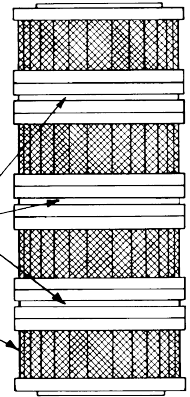


Magnetic Elements

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



5

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 | | 108 in ² | 3.91" | 1.96" | 9.19" | Outside to Inside |
| CTTE-ASR-100-092-IO* | 141 Micron | | 108 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 | | 216 in ² | 3.91" | 1.96" | 18.19" | Outside to Inside |

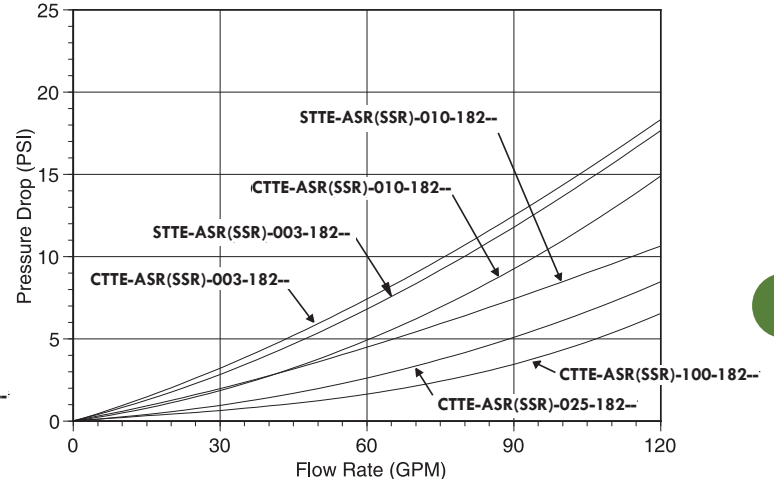
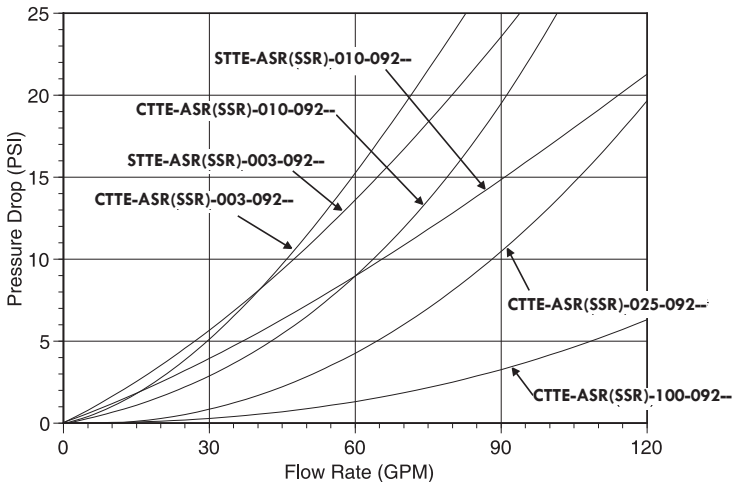
Synthetic Media Series: for use with Magnaloy Series TTF-ASR Tank Top Filter

| 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



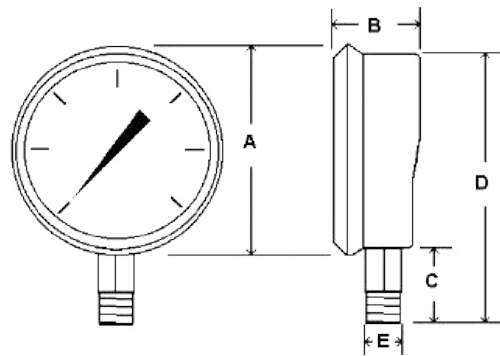
5

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 |

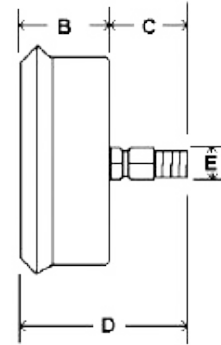
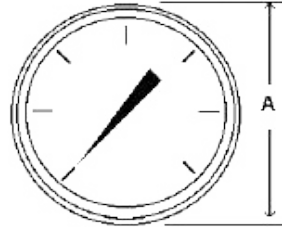
| Size | 2 1/2" Dial | | 4" Dial | |
|-------|-------------|----|----------|-----|
| Units | Inch | mm | Inch | mm |
| A | 2.80 | 71 | 4.32 | 110 |
| B | 1.28 | 33 | 1.63 | 42 |
| C | 1.07 | 27 | 1.25 | 32 |
| D | 3.55 | 90 | 5.57 | 141 |
| E | 1/4" NPT | | 1/4" NPT | |
| | | | 1/2" NPT | |

* 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 * |

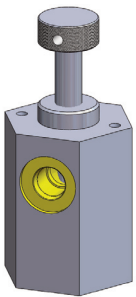
* Available in Bottom Stem Series Only with 4" Dial

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.

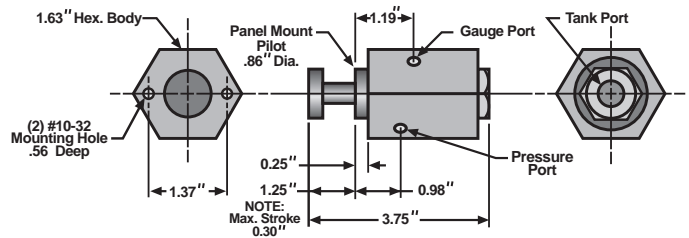
Magnaloy Gauge Isolators are manufactured from high quality steel hexagonal bar stock and machined to exact tolerances. Pressure is supplied to the gauge only when requested, by pushing the knob. This prevents gauge failure caused by continuous exposure of the gauge to damaging pressure surges and helps 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:

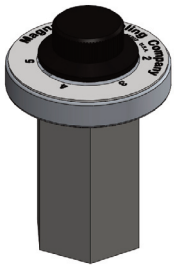
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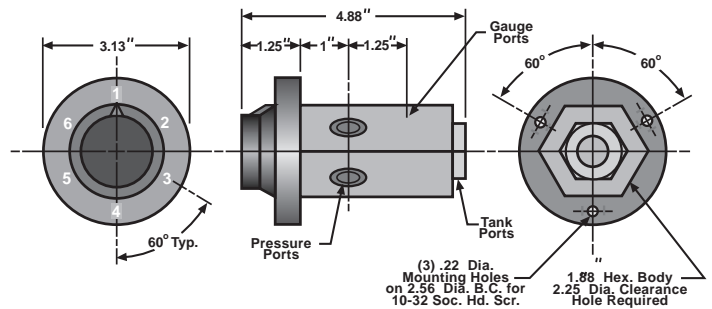
- Push to read.
- Operating Temperature -30° F to 240° F.
- 5,000 PSI working pressure.
- Viton Seals.
- 1/4" NPT or #4 SAE O-Ring ports.
- Panel or in-line mounting (maximum panel thickness - 5/16")



Six Position Gauge Isolator Specifications:

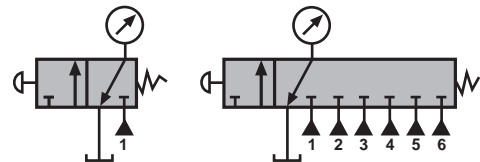


- Turn to select position, push to read.
- Operating Temperature -30° F to 240° F.
- 5,000 PSI working pressure.
- Viton Seals.
- #4 SAE O-Ring ports.
- Panel mounting.
- Read up to 6 pressure signals from a single gauge.

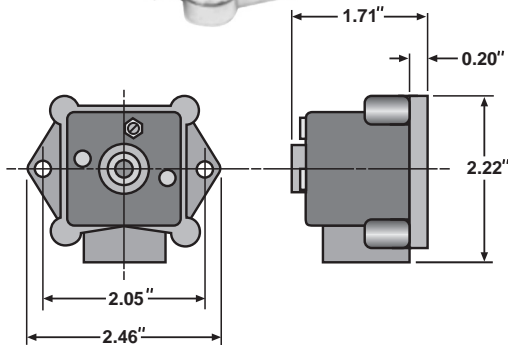
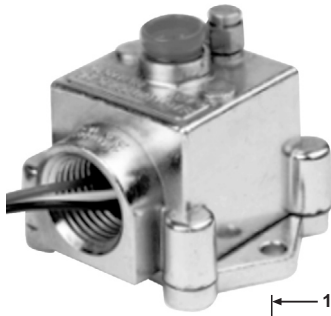


Ordering Specifications:

| 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 TWO Signals in a Single Switch.



- 1. Double Versatility.** As many as two 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 both 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.

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 Independently adjustable switch
- 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 |
|-----------------|-----------|-------------------------|
| Normally Open | Red | Red w/1 Yellow Stripe |
| Common | White | White w/1 Yellow Stripe |
| Normally Closed | Black | Black w/1 Yellow Stripe |

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.

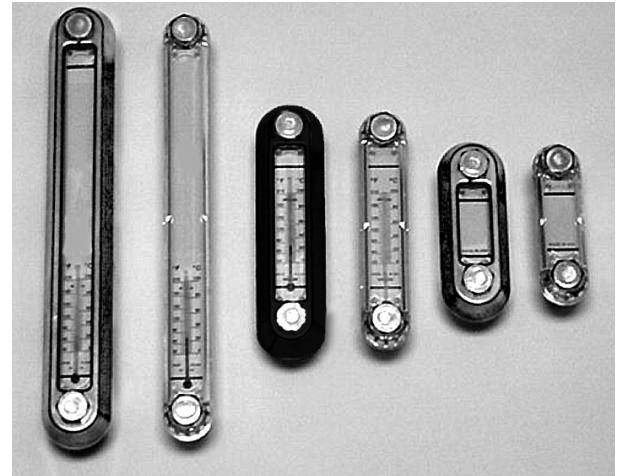
To specify pre-set pressure(s), note setting(s) after part number.
For optional operating ranges specify (L) or (H) after part number.

For Continuous reading of Fluid Level and Temperature

Standard Line - Liquid Column Series

Features:

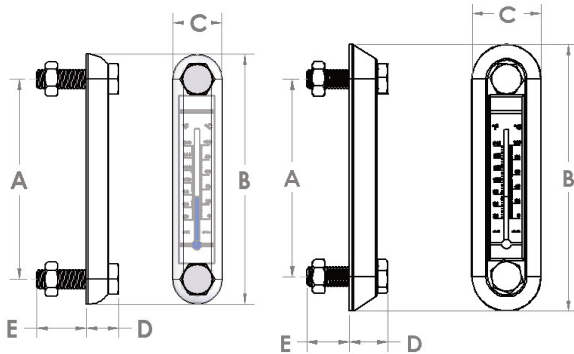
- UV Resistant Transparent Dupont Grilamid Case
- All-Around Visibility of the Fluid Level
- Buna-N O-ring Seals
- Zinc Plated Bolts
- Available with Optional Cast Aluminum Cover to Provide additional breakage protection
- Includes Thermometer with Blue Fluid for easy readings
- 212° F Maximum Temperature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



5

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" |

Premium Line - Liquid Column Series

Features:

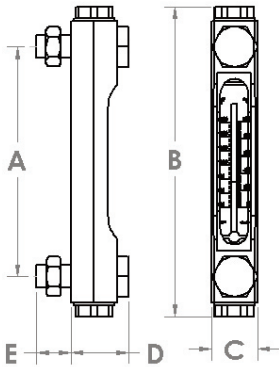
- Borosilicate sight glass compatible with all hydraulic fluids and will not discolor
- 20 PSI maximum working pressure at 250° F
- May be front mounted by threaded tank holes or rear mounted with provided nuts
- Mounting bolts provide 1/16" alignment adjustment to facilitate installation
- Low profile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



Premium LLG Line

Warning: Not recommended for use with acidic fluids, caustic fluids, volatile fluids, water and steam

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) |

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

Notes:

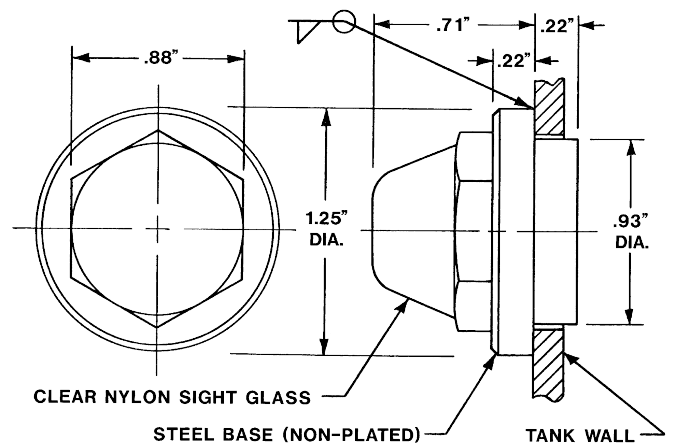
- 1 - 1/2-20 UNF with Premium Line
- 2 - Not Available with Premium Line
- 3 - Premium Line design incorporates integral gauge guard

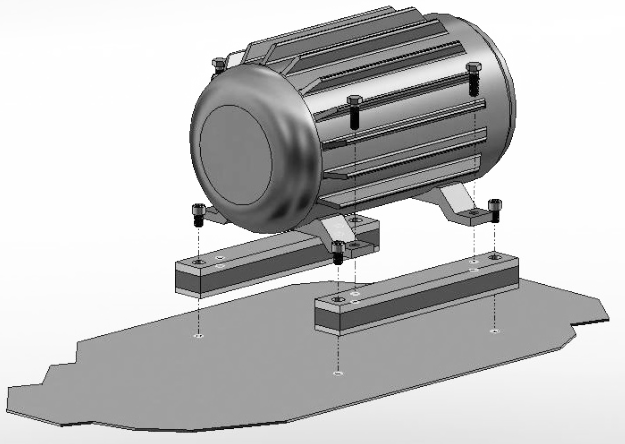
Sight Glass Series

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

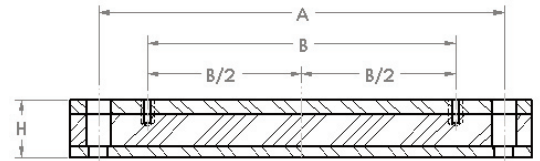
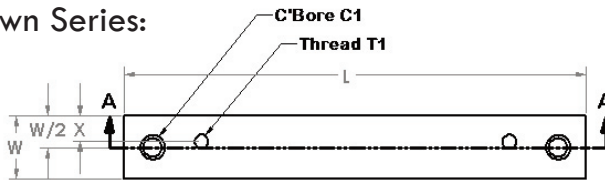




Features:

- Reduces noise and vibrations
- Available to accommodate NEMA frame sizes 056C thru 405TC
- 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

NEMA Bolt Down Series:



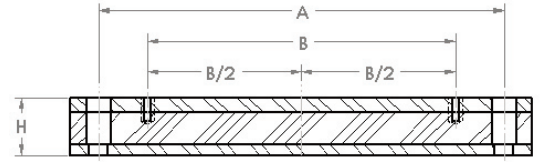
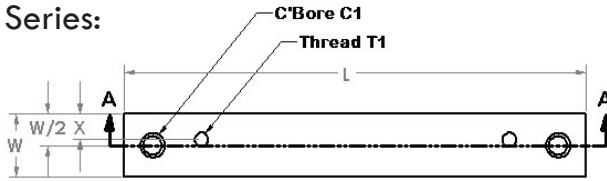
SECTION A-A

| 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 | 3.15 | 2.36 | 14.0 | 10.5 | 1.562 | 3/4-10 | 5/8-11 |
| MDB326-B | 326TC/TSC | 17.5 | 3.15 | 2.36 | 15.5 | 12.0 | 1.562 | 3/4-10 | 5/8-11 |
| MDB364-B | 364TC/TSC | 17.0 | 3.15 | 2.36 | 15.0 | 11.25 | 1.562 | 3/4-10 | 5/8-11 |
| MDB365-B | 365TC/TSC | 18.0 | 3.15 | 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 |
| MDB447-B | 447TC/TSC | 29.5 | 4.72 | 2.36 | 26.75 | 20.0 | 2.375 | 1-8 | 3/4-10 |
| MDB449-B | 449TC/TSC | 34.5 | 4.72 | 2.36 | 31.75 | 25.0 | 2.375 | 1-8 | 3/4-10 |

Motor Dampening Bars



IEC Bolt Down Series:

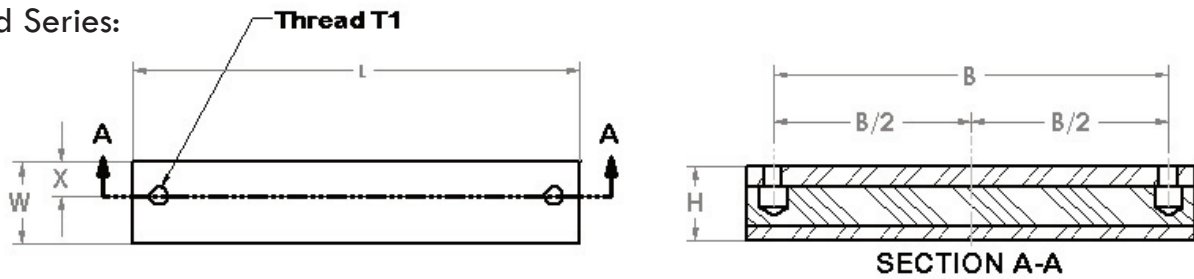


SECTION A-A

| Part Number | Motor Size | Dampening Bar Dimensions (mm) | | | | | | | |
|-------------|------------|-------------------------------|-----|----|-----|-----|------|--------|-----|
| | | L | W | H | A | B | X | C1 for | T1 |
| MDB071-B | 71 | 196 | 50 | 40 | 156 | 90 | 21 | 1/2-13 | M6 |
| MDB080-B | 80 | 176 | 50 | 40 | 146 | 100 | 22 | 1/2-13 | M8 |
| MDB090S-B | 90 S | 196 | 50 | 40 | 156 | 100 | 24.5 | 1/2-13 | M8 |
| MDB090L-B | 90 L | 240 | 50 | 40 | 205 | 125 | 24 | 1/2-13 | M8 |
| MDB100L-B | 100 L | 240 | 50 | 40 | 205 | 140 | 22 | 1/2-13 | M10 |
| MDB112M-B | 112 M | 240 | 50 | 40 | 205 | 140 | 22 | 1/2-13 | M10 |
| MDB132S-B | 132 S | 280 | 50 | 45 | 245 | 140 | 20 | 1/2-13 | M10 |
| MDB132M-B | 132 M | 280 | 50 | 45 | 245 | 178 | 20 | 1/2-13 | M10 |
| MDB160M-B | 160 M | 340 | 70 | 60 | 300 | 210 | 28 | 5/8-11 | M12 |
| MDB160L-B | 160 L | 416 | 70 | 60 | 370 | 254 | 28 | 5/8-11 | M12 |
| MDB180M-B | 180 M | 416 | 70 | 60 | 370 | 241 | 35 | 5/8-11 | M12 |
| MDB180L-B | 180 L | 446 | 70 | 60 | 400 | 279 | 35 | 5/8-11 | M12 |
| MDB200L-B | 200 L | 492 | 70 | 60 | 430 | 305 | 35 | 3/4-10 | M16 |
| MDB225S-B | 225 S | 492 | 70 | 60 | 430 | 286 | 35 | 3/4-10 | M16 |
| MDB225M-B | 225 M | 492 | 70 | 60 | 445 | 311 | 35 | 3/4-10 | M16 |
| MDB250M-B | 250 M | 492 | 100 | 60 | 445 | 349 | 50 | 3/4-10 | M20 |
| MDB280S-B | 280 S | 614 | 100 | 60 | 570 | 368 | 50 | 3/4-10 | M20 |
| MDB280M-B | 280 M | 614 | 100 | 60 | 570 | 419 | 50 | 3/4-10 | M20 |
| MDB315S-B | 315 S | 614 | 120 | 60 | 570 | 406 | 60 | 3/4-10 | M24 |
| MDB315M-B | 315 M | 614 | 120 | 60 | 570 | 457 | 60 | 3/4-10 | M24 |
| MDB315L-B | 315 L | 704 | 120 | 60 | 660 | 508 | 60 | 3/4-10 | M24 |

5

NEMA Weld Series:



5

| 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 | 3.15 | 2.36 | 10.5 | 1.562 | 5/8-11 |
| MDB326-W | 326TC/TSC | 14 | 3.15 | 2.36 | 12.0 | 1.562 | 5/8-11 |
| MDB364-W | 364TC/TSC | 13.5 | 3.15 | 2.36 | 11.25 | 1.562 | 5/8-11 |
| MDB365-W | 365TC/TSC | 14.5 | 3.15 | 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 |
| MDB447-W | 447TC/TSC | 24.5 | 4.72 | 2.36 | 20.0 | 2.375 | 3/4-10 |
| MDB449-W | 449TC/TSC | 31.0 | 4.72 | 2.36 | 25.0 | 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.

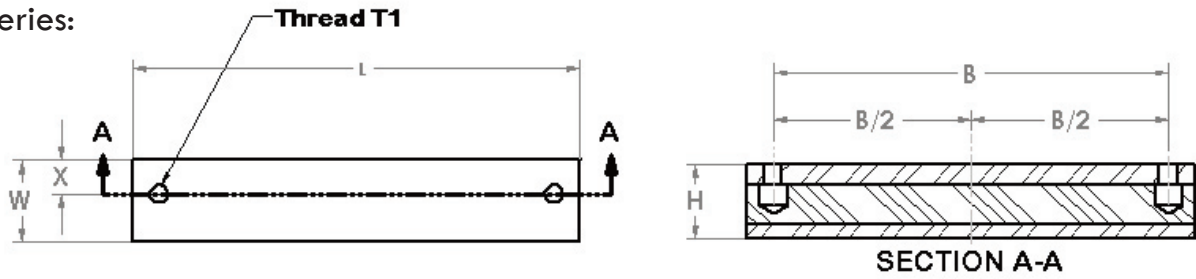
Magnaloy offers a solution to this situation - the **Magnaloy Weld Pad Kit**.

See page 183 for details.

Motor Dampening Bars



IEC Weld Series:



| Part Number | Motor Size | Dampening Bar Dimensions (mm) | | | | | |
|-------------|------------|-------------------------------|-----|----|-----|------|-----|
| | | L | W | H | B | X | T1 |
| MDB071-W | 71 | 130 | 50 | 40 | 90 | 21 | M6 |
| MDB080-W | 80 | 140 | 50 | 40 | 100 | 22 | M8 |
| MDB090S-W | 90 S | 140 | 50 | 40 | 100 | 24.5 | M8 |
| MDB090L-W | 90 L | 165 | 50 | 40 | 125 | 24 | M8 |
| MDB100L-W | 100 L | 180 | 50 | 40 | 140 | 22 | M10 |
| MDB112M-W | 112 M | 180 | 50 | 40 | 140 | 22 | M10 |
| MDB132S-W | 132 S | 197 | 50 | 45 | 140 | 20 | M10 |
| MDB132M-W | 132 M | 229 | 50 | 45 | 178 | 20 | M10 |
| MDB160M-W | 160 M | 267 | 70 | 60 | 210 | 28 | M12 |
| MDB160L-W | 160 L | 311 | 70 | 60 | 254 | 28 | M12 |
| MDB180M-W | 180 M | 305 | 70 | 60 | 241 | 35 | M12 |
| MDB180L-W | 180 L | 337 | 70 | 60 | 279 | 35 | M12 |
| MDB200L-W | 200 L | 357 | 70 | 60 | 305 | 35 | M16 |
| MDB225S-W | 225 S | 343 | 70 | 60 | 286 | 35 | M16 |
| MDB225M-W | 225 M | 343 | 70 | 60 | 311 | 35 | M16 |
| MDB250M-W | 250 M | 394 | 100 | 60 | 349 | 50 | M20 |
| MDB280S-W | 280 S | 495 | 100 | 60 | 368 | 50 | M20 |
| MDB280M-W | 280 M | 495 | 100 | 60 | 419 | 50 | M20 |
| MDB315S-W | 315 S | 481 | 120 | 60 | 406 | 60 | M24 |
| MDB315M-B | 315 M | 532 | 120 | 60 | 457 | 60 | M24 |
| MDB315L-B | 315 L | 583 | 120 | 60 | 508 | 60 | M24 |

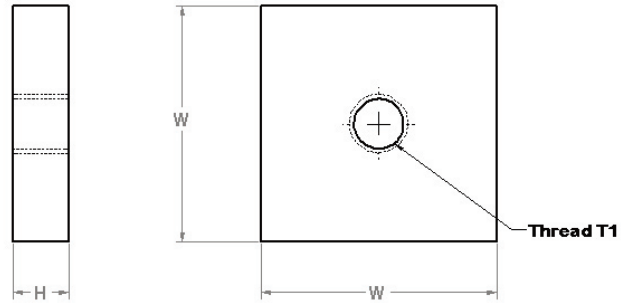
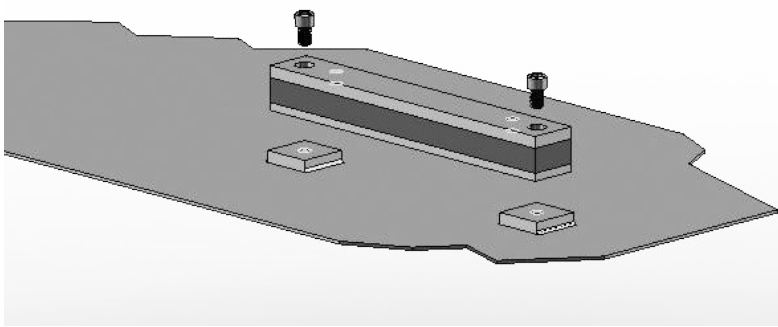
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NEMA & IEC Weld Pad Kit:

Features:

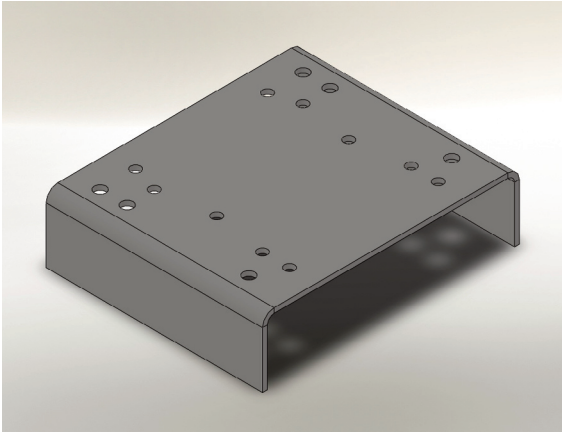
- Allows simple bolt down installation and design flexibility without drilling and tapping the reservoir surface.
- Eliminates the possibility of heat damage to rubber vulcanization caused by welding directly on the dampening bar.
- Available in sizes to accommodate all Magnaloy Motor Dampening Bars.
- 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).

5



| Part Number | Fits Motor Frames/Sizes | 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 | 1-8 UNC |
| MWP444-449 | 444TC/TSC thru 449TC/TSC | 4.75 | .75 | 1-8 UNC |
| MWP071-132M | IEC 071 thru IEC132M | 2.0 | .50 | 1/2-13 UNC |
| MWP160M-180L | IEC 160M thru IEC 180L | 2.75 | .50 | 5/8-11 UNC |
| MWP200L-315L | IEC 200L thru IEC 315L | 2.75 | .75 | 3/4-10 UNC |

Motor Base Plate:

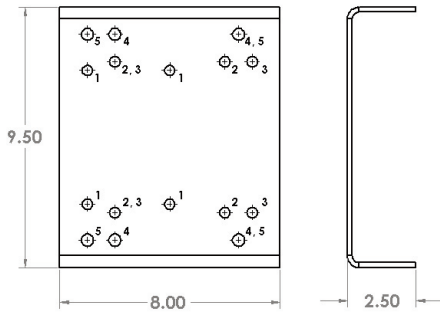


Features:

- 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.

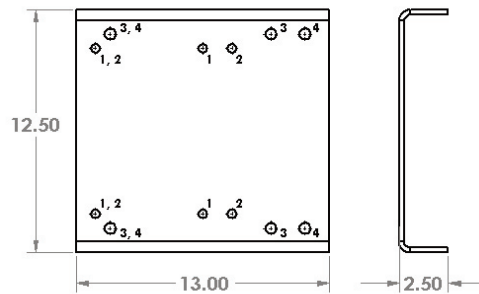
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MBP-056/184 - Fits NEMA frame motors 056C thru 184TC



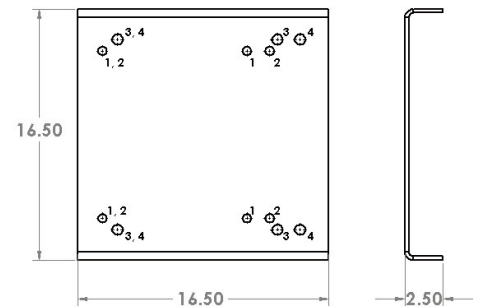
| Feature Number | Motor Frame | Hole Diameter | Number of Holes |
|----------------|-------------|---------------|-----------------|
| 1 | 056C | 0.375 | 4 |
| 2 | 143TC | 0.375 | 4 |
| 3 | 145TC | 0.375 | 4 |
| 4 | 182TC | 0.437 | 4 |
| 5 | 184TC | 0.437 | 4 |

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 |

5


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 6

MAGNALOY ROD END ALIGNMENT COUPLERS



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.

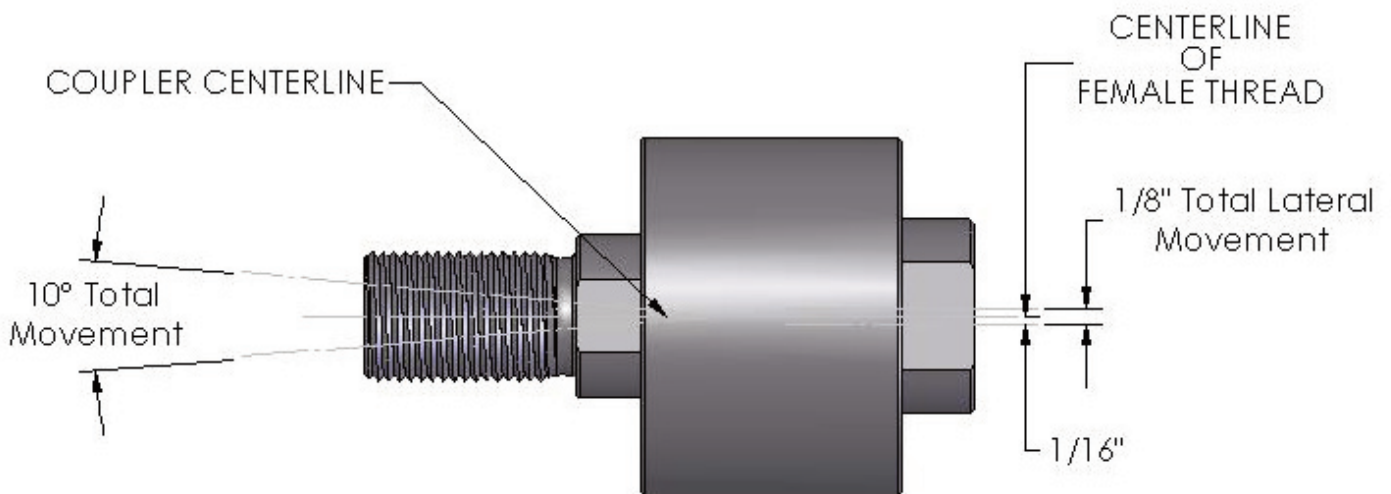
6



- Total of 10° Spherical Movement in push or pull.
- Total of 1/8" Lateral Movement.
- Manufactured from high tensile and hardened materials.
- Lubricated at factory.

Time and Money Saving Features

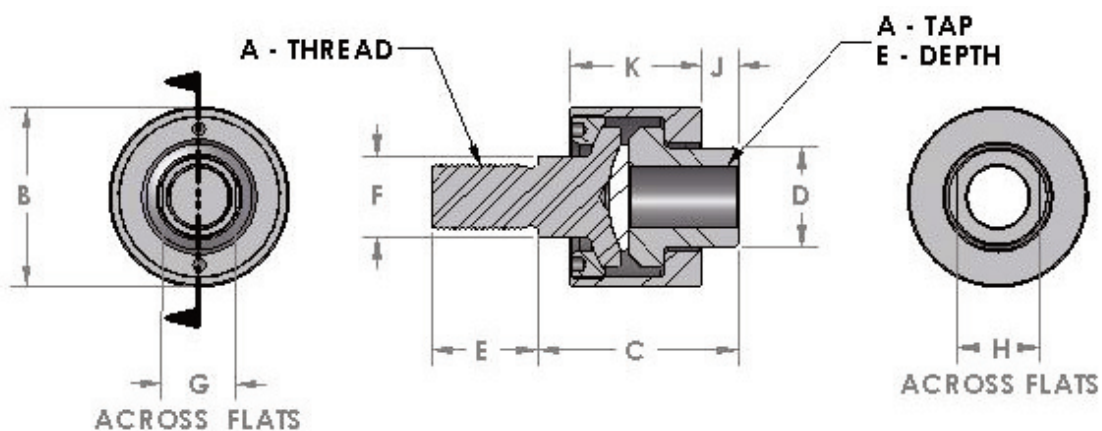
- Eliminates need for custom designing.
- Simplifies cylinder installation.
- Increases design tolerances.
- Cuts cylinder repairs.
- Increases cylinder life - easier on seals, wiper, bearing surfaces and cushion parts.
- Compensates for machinery deflection and cuts bearing wear from side loads and binding.
- Allows equally effective angular or lateral displacement in either direction, push or pull.
- Immediated delivery from stock on thread sizes thru 1 1/2".
- Adjusted at factory, no clearance of end play.
- Same load rating push or pull.
- Internal thread mates with standard style No. 2 cylinder piston rods; external with style No. 3.
- Available in metric threads, consult factory.
- Available in Stainless Steel, consult factory.



M - Series

| PART NO. | A THREAD SIZE | B | C* | D | E | F | G | H | J* | K | MAX. RATED LOAD | PULL AT YIELD | APROX. WEIGHT (LBS.) |
|--|------------------------------|--------|--------|-------|-------|----------------|-------|----------------|-------|-------|-------------------------------|-------------------------------|----------------------------|
| M010-01024 M010-01224 | 5/16-24 3/8-24 | 1.562 | 1.750 | 0.750 | 0.500 | 0.625 | 0.500 | 0.625 | 0.375 | 1.031 | 1,450 2,425 | 8,800 9,700 | 0.5 |
| M015-01420 M015-01620 | 7/16-20 1/2-20 | 1.562 | 2.000 | 0.750 | 0.750 | 0.625 | 0.500 | 0.625 | 0.500 | 1.031 | 3,250 4,450 | 13,000 17,800 | 0.6 |
| M020-02018 M020-02416 M020-02814 | 5/8-18 3/4-16 7/8-14 | 2.125 | 2.312 | 1.250 | 1.125 | 1.000 | 0.875 | 1.125 | 0.531 | 1.312 | 7,150 9,050 14,450 | 28,600 36,200 57,800 | 1.4 |
| M030-10014 | 1-14 | 2.750 | 3.062 | 1.500 | 1.625 | 1.250 | 1.125 | 1.250 | 0.562 | 2.000 | 19,425 | 77,700 | 3.3 |
| M040-10812 | 1-1/4-12 | 3.500 | 4.000 | 2.000 | 2.000 | 1.500 | 1.250 | 1.687 | 0.750 | 2.500 | 30,825 | 123,300 | 6.9 |
| M050-11612 M050-12412 | 1-1/2-12 1-3/4-12 | 4.000 | 4.375 | 2.250 | 2.250 | 1.750 2.000 | 1.500 | 1.937 | 0.875 | 2.750 | 45,750 58,350 | 183,000 233,400 | 9.8 |
| M060-12812 M060-20012 | 1-7/8-12 2-12 | 5.000 | 5.625 | 3.000 | 3.000 | 2.250 | 2.000 | 2.625 | 1.375 | 3.375 | 67,550 77,450 | 270,200 309,800 | 19.8 |
| M070-20812 | 2-1/4-12 | 6.750 | 6.375 | 3.250 | 3.500 | 2.750 | 2.375 | 2.875 | 1.625 | 3.750 | 99,250 | 397,000 | 35.3 |
| M080-21612 M080-22412 M080-30012 | 2-1/2-12 2-3/4-12 3-12 | 7.000 | 6.500 | 4.000 | 3.500 | 3.250 | 2.875 | 3.375 3.500 | 1.625 | 3.875 | 123,750 150,950 180,850 | 495,000 603,800 723,400 | 45.3 |
| M100-30812 | 3-1/4-12 | 9.250 | 8.500 | 5.250 | 4.500 | 4.000 | 3.375 | 4.500 | 2.000 | 5.500 | 213,450 | 853,800 | --- |
| M140-40812 | 4 1/4-12 | 12.875 | 11.250 | 7.750 | 4.500 | 5.500 | 4.875 | 7.000 | 1.500 | 8.750 | 370,850 | 1,483,400 | --- |

* Tolerance +/- .030 inch, all other dimensions +/- .015 inch



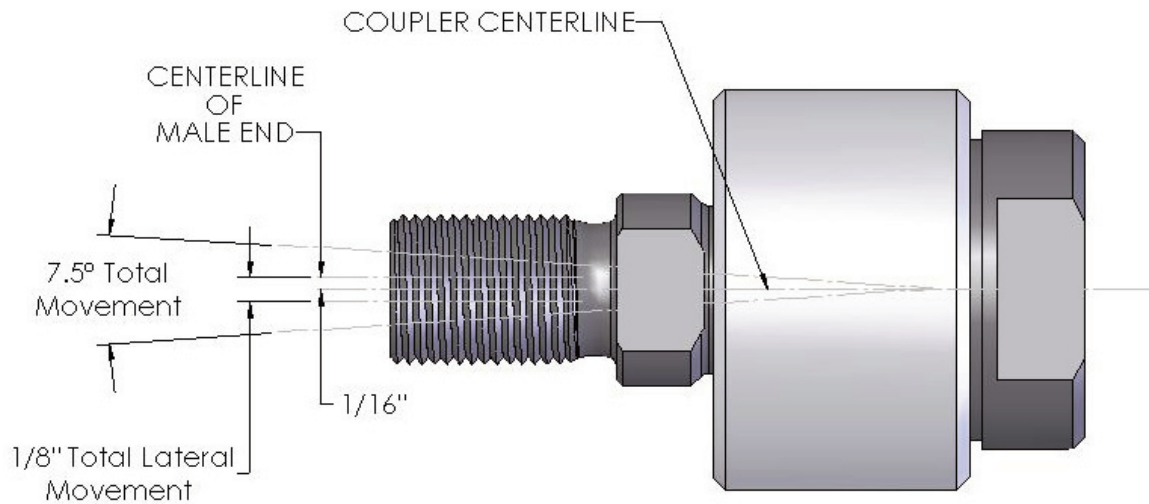
M - Series

6



Time and Money Saving Features

- Lubricated at factory.
- Adjusted at factory, no clearance or end play.
- Same load rating - push or pull.
- Internal thread mates with standard style No. 2 cylinder piston rods; external thread with style No. 3.
- Total of $7\ 1/2^\circ$ Spherical Movement and $1/8''$ Lateral movement capabilities.
- Designed to retro-fit with competitive brands while offering increased strength and misalignment capabilities.
- Manufactured from high tensile and hardened materials for additional strength and dependability.
- Available in metric threads, consult factory.
- Available in Stainless Steel, consult factory.



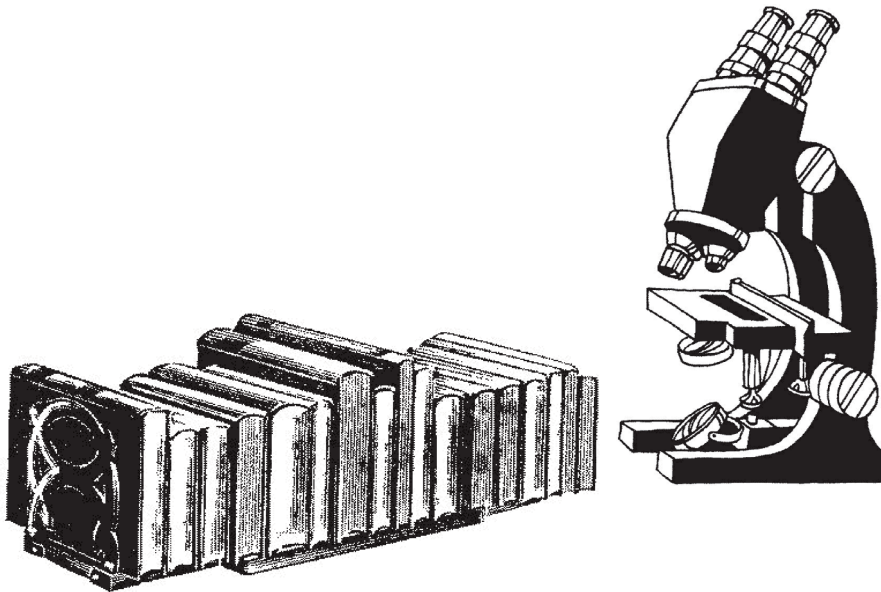


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SECTION R

REFERENCE SECTION

R



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.

The following pages contain several reference items for use with the various Magnaloy Products. To assist in the use of these pages, the top menu bar indicates the product line most likely to be of interest with the page. Additional information on Magnaloy products can be found on our web site at www.magnaloy.com. This resource would contain the most recent information available.

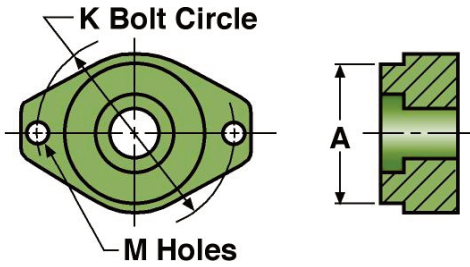
R

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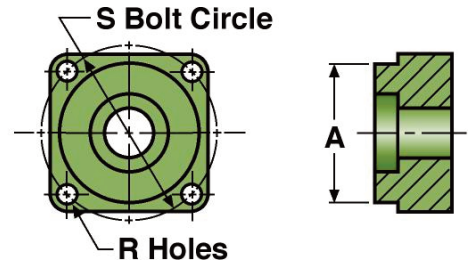
Pump/Motor Mounts - SAE & Metric Mounts

SAE - 2 Bolt Mount Pump Flanges



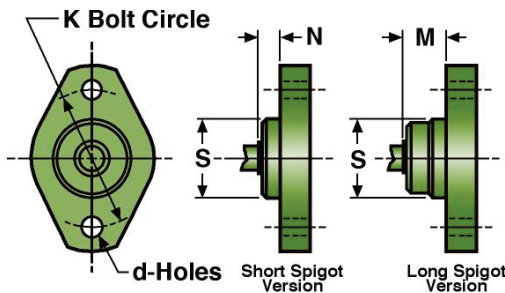
| | A | K | M |
|------------------------|-------------------|--------------------------|-------|
| SAE AA | 2.000 | 3.250 | 0.406 |
| SAE A | 3.250 | 4.187 | 0.438 |
| SAE B | 4.000 | 5.750 | 0.562 |
| SAE C | 5.000 | 7.125 | 0.688 |
| SAE D | 6.000 | 9.000 | 0.812 |
| SAE E | 6.500 | 12.500 | 1.062 |
| SAE F | 7.000 | 13.781 | 1.062 |
| Mounting Flange | Pilot Dia. | Flange Dimensions | |

SAE - 4 Bolt Mount Pump Flanges



| | A | S | R |
|------------------------|-------------------|--------------------------|-------|
| USA4F17 | 1.781 | 2.838 | 0.375 |
| SAE A | 3.250 | 4.125 | 0.438 |
| SAE B | 4.000 | 5.000 | 0.562 |
| SAE C | 5.000 | 6.375 | 0.562 |
| SAE D | 6.000 | 9.000 | 0.812 |
| SAE E | 6.500 | 12.500 | 0.812 |
| SAE F | 7.000 | 13.781 | 1.062 |
| Mounting Flange | Pilot Dia. | Flange Dimensions | |

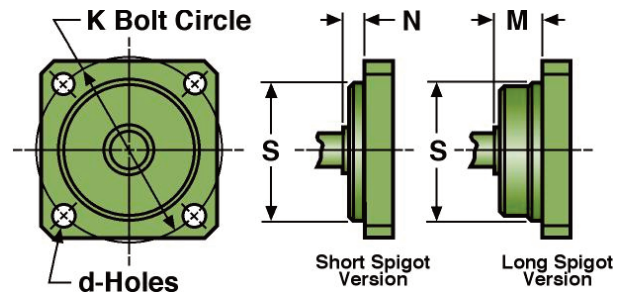
Metric Oval Mount (2 Bolt) Pump Flanges



(All dimensions in mm)

| | s | K | d | N | M |
|------------------------|-------------------|--------------------------|-----|----|----|
| 32 A2 | 32 | 56 | 6.6 | 8 | 16 |
| 40 A2 | 40 | 63 | 6.6 | 8 | 16 |
| 50 A2 | 50 | 80 | 9 | 8 | 20 |
| 63 A2 | 63 | 100 | 9 | 8 | 20 |
| 80 A2 | 80 | 109 | 11 | 8 | 20 |
| 100 A2 | 100 | 140 | 14 | 10 | 25 |
| 112 A2 | 112 | 160 | 14 | 10 | 25 |
| 125 A2 | 125 | 180 | 18 | 10 | 32 |
| 140 A2 | 140 | 200 | 18 | 10 | 32 |
| 160 A2 | 160 | 224 | 22 | 10 | 40 |
| 180 A2 | 180 | 250 | 22 | 10 | 40 |
| 200 A2 | 200 | 280 | 26 | 10 | 50 |
| Mounting Flange | Pilot Dia. | Flange Dimensions | | | |

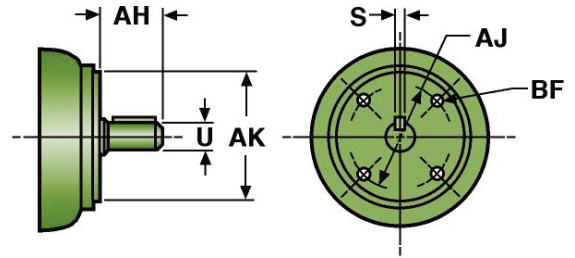
Metric Square Mount (4 Bolt) Pump Flanges



(All dimensions in mm)

| | s | K | d | N | M |
|------------------------|-------------------|--------------------------|----|----|----|
| 63 B4 | 63 | 85 | 9 | 8 | 20 |
| 63 S4 | 63 | 80 | M8 | 8 | 20 |
| 80 B4 | 80 | 103 | 9 | 8 | 20 |
| 80 S4 | 80 | 100 | 9 | 8 | 20 |
| 100 B4 | 100 | 125 | 11 | 10 | 25 |
| 112 B4 | 112 | 140 | 11 | 10 | 25 |
| 125 B4 | 125 | 160 | 14 | 10 | 32 |
| 140 B4 | 140 | 180 | 14 | 10 | 32 |
| 160 B4 | 160 | 200 | 18 | 10 | 40 |
| 180 B4 | 180 | 224 | 18 | 10 | 40 |
| 200 B4 | 200 | 250 | 22 | 10 | 50 |
| 224 B4 | 224 | 280 | 22 | 10 | 50 |
| 250 B4 | 250 | 315 | 26 | 10 | 50 |
| Mounting Flange | Pilot Dia. | Flange Dimensions | | | |

NEMA 'C' Face Motor Dimensions



U-Frame Dimensions

| | 182UC | 213UC | 254UC | 284UC | 324USC | 324UC | 364USC | 364UC | 404USC | 404UC | 444USC | 444UC |
|-----|--------|--------|-----------|----------|----------|----------|----------|----------|----------|----------|------------|------------|
| | 184UC | 215UC | 256UC | 286UC | 326USC | 326UC | 365USC | 365UC | 405USC | 405UC | 445USC | 445UC |
| AH | 2.125 | 2.75 | 3.50 | 4.625 | 3.00 | 5.375 | 3.50 | 6.125 | 4.00 | 6.875 | 4.00 | 8.375 |
| U | 7/8 | 1 1/8 | 1 3/8 | 1 5/8 | 1 5/8 | 1 7/8 | 1 7/8 | 2 1/8 | 2 1/8 | 2 3/8 | 2 1/8 | 2 7/8 |
| S | 3/16 | 1/4 | 5/16 | 3/8 | 3/8 | 1/2 | 1/2 | 1/2 | 1/2 | 5/8 | 1/2 | 3/4 |
| AK | 4.50 | 8.50 | 8.50 | 10.50 | 12.50 | 12.50 | 12.50 | 12.50 | 12.50 | 12.50 | 16.00 | 16.00 |
| AJ | 5.875 | 7.25 | 7.25 | 9.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 14.00 | 14.00 |
| BF | 3/8-16 | 1/2-13 | 1/2-13 | 1/2-13 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 |
| HP* | 1 2 | 3 5 | 7.5 10 | 15 20 | 25 30 | 25 30 | 40 50 | 40 50 | 60 75 | 60 75 | 125 150 | 125 150 |

T-Frame Dimensions

| | 056C | 143TC | 182TC | 213TC | 254TC | 284TSC | 284TC | 324TSC | 324TC | 364TSC | 364TC | 404TSC | 404TC | 444TSC | 444TC |
|-----|------------|--------|--------|-----------|----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|------------|
| | | 145TC | 184TC | 215TC | 256TC | 286TSC | 286TC | 326TSC | 326TC | 365TSC | 365TC | 405TSC | 405TC | 449TSC | 449TC |
| AH | 2.062 | 2.125 | 2.625 | 3.125 | 3.75 | 3.00 | 4.375 | 3.50 | 5.00 | 3.50 | 5.625 | 4.00 | 7.00 | 4.50 | 8.25 |
| U | 5/8 | 7/8 | 1 1/8 | 1 3/8 | 1 5/8 | 1 5/8 | 1 7/8 | 1 7/8 | 2 1/8 | 1 7/8 | 2 3/8 | 2 1/8 | 2 7/8 | 2 3/8 | 3 3/8 |
| S | 3/16 | 3/16 | 1/4 | 5/16 | 3/8 | 3/8 | 1/2 | 1/2 | 1/2 | 1/2 | 5/8 | 1/2 | 3/4 | 5/8 | 7/8 |
| AK | 4.50 | 4.50 | 8.50 | 8.50 | 8.50 | 10.50 | 10.50 | 12.50 | 12.50 | 12.50 | 12.50 | 12.50 | 12.50 | 16.00 | 16.00 |
| AJ | 5.875 | 5.875 | 7.25 | 7.25 | 7.25 | 9.00 | 9.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 14.00 | 14.00 |
| BF | 3/8-16 | 3/8-16 | 1/2-13 | 1/2-13 | 1/2-13 | 1/2-13 | 1/2-13 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 | 5/8-11 |
| HP* | 1/4 1/2 | 1 2 | 3 5 | 7.5 10 | 15 20 | 25 30 | 25 30 | 40 50 | 40 50 | 60 75 | 60 75 | 100 125 | 100 125 | 150 200 | 150 200 |

D-Frame Dimensions

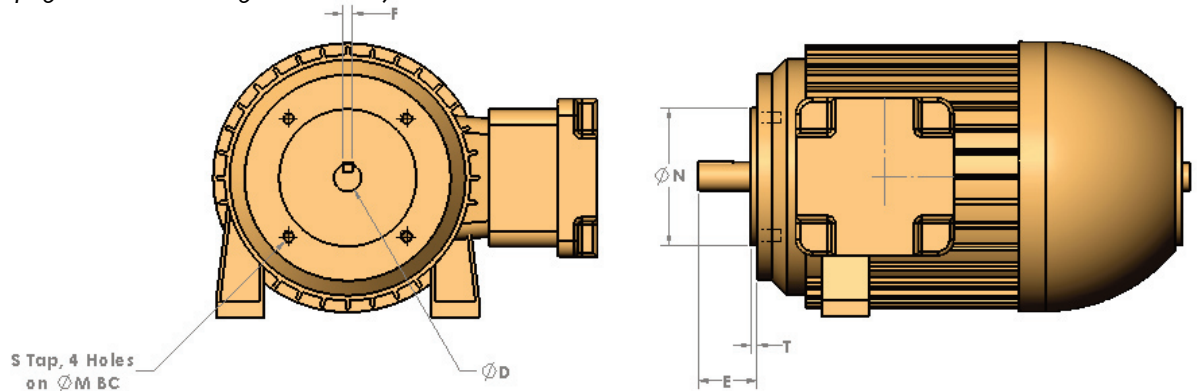
| | 143TD | 182D | 182TD | 213D | 213TD | 254UD | 254TD | 284UD | 284TSD | 284TD | 324USD | 324UD | 324TSD | 324TD | 364USD |
|-----|--------|--------|--------|--------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 145TD | 184D | 184TD | 215D | 215TD | 256UD | 256TD | 286UD | 286TSD | 286TD | 326USD | 326UD | 326TSD | 326TD | 365USD |
| AH | 2.25 | 2.25 | 2.75 | 3.00 | 3.38 | 3.75 | 4.00 | 4.88 | 3.25 | 4.62 | 3.25 | 5.62 | 3.75 | 5.25 | 3.75 |
| U | 7/8 | 7/8 | 1 1/8 | 1 1/8 | 1 3/8 | 1 3/8 | 1 5/8 | 1 5/8 | 1 5/8 | 1 7/8 | 1 5/8 | 1 7/8 | 1 7/8 | 2 1/8 | 1 7/8 |
| S | 3/16 | 3/16 | 1/4 | 1/4 | 5/16 | 5/16 | 3/8 | 3/8 | 3/8 | 1/2 | 3/8 | 1/2 | 1/2 | 1/2 | 1/2 |
| AK | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| AJ | 10.00 | 10.00 | 10.11 | 10.00 | 10.00 | 12.50 | 12.50 | 12.50 | 12.50 | 12.50 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| BF | 9/16 | 9/16 | 9/16 | 9/16 | 9/16 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 |
| HP* | 1 2 | 1 2 | 3 5 | 3 5 | 7.5 10 | 7.5 10 | 15 20 | 15 20 | 25 30 | 25 30 | 25 30 | 25 30 | 25 30 | 40 50 | 40 50 |

| | 364UD | 364TSD | 364TD | 404USD | 404UD | 404TSD | 404TD | 444USD | 444UD | 444TSD | 444TD | 447TSD | 447TD | 504SD | 504UD |
|-----|----------|----------|----------|----------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 365UD | 365TSD | 365TD | 405USD | 405UD | 405TSD | 405TD | 445USD | 445UD | 445TSD | 445TD | 449TSD | 449TD | 505SD | 505UD |
| AH | 6.38 | 3.75 | 5.88 | 4.25 | 7.12 | 4.25 | 7.25 | 4.25 | 6.620 | 4.75 | 8.50 | 4.75 | 8.50 | 4.25 | 8.62 |
| U | 2 1/8 | 1 7/8 | 2 3/8 | 2 1/8 | 2 3/8 | 2 1/8 | 2 7/8 | 2 1/8 | 2 7/8 | 2 3/8 | 3 3/8 | 2 3/8 | 3 3/8 | 2 1/8 | 2 7/8 |
| S | 1/2 | 1/2 | 5/8 | 1/2 | 5/8 | 1/2 | 3/4 | 1/2 | 3/4 | 5/8 | 7/8 | 5/8 | 7/8 | 1/2 | 3/4 |
| AK | 14.00 | 14.00 | 14.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| AJ | 16.00 | 16.00 | 16.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 22.00 | 22.00 |
| BF | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 | 53/64 |
| HP* | 40 50 | 60 75 | 60 75 | 60 75 | 60 75 | 100 125 | 100 125 | 125 150 | 125 150 | 150 200 | 150 200 | 150 200 | 150 200 | 200 250 | 200 250 |

* Horse Power at 1750 RPM

IEC Metric 'C' Flange Motor Dimensions

(see page 200 for FF Flange Dimensions)



| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|------------|------|------|--------------|-------------|----|----|---|----|-----|----|-----|------|
| BF5 63 | 30-- | F115 | 095ML | FF | 23 | 11 | 4 | 95 | 115 | 10 | 3.0 | 0.25 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|--------------------|------|------|--------------|-------------|----|----|---|-----|-----|----|-----|------|
| BF5 71M42 (2 pole) | 30-- | F130 | 110ML | FF | 30 | 14 | 5 | 110 | 130 | 10 | 3.5 | 0.74 |
| BF5 71M42 (2 pole) | 36-- | F85 | 070ML | C | 30 | 14 | 5 | 70 | 85 | M6 | 2.5 | 0.74 |
| BF5 71M44 (4 pole) | 30-- | F130 | 110ML | FF | 30 | 14 | 5 | 110 | 130 | 10 | 3.5 | 0.50 |
| BF5 71M44 (4 pole) | 36-- | F85 | 070ML | C | 30 | 14 | 5 | 70 | 85 | M6 | 2.5 | 0.50 |
| BF5 71M46 (6 pole) | 30-- | F130 | 110ML | FF | 30 | 14 | 5 | 110 | 130 | 10 | 3.5 | 0.34 |
| BF5 71M46 (6 pole) | 36-- | F85 | 070ML | C | 30 | 14 | 5 | 70 | 85 | M6 | 2.5 | 0.34 |
| BF5 71M48 (8 pole) | 30-- | F130 | 110ML | FF | 30 | 14 | 5 | 110 | 130 | 10 | 3.5 | 0.16 |
| BF5 71M48 (8 pole) | 36-- | F85 | 070ML | C | 30 | 14 | 5 | 70 | 85 | M6 | 2.5 | 0.16 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|----|----|---|-----|-----|----|-----|------|
| BF5 80M42 (2 pole) | 30-- | F165 | 130ML | FF | 40 | 19 | 6 | 130 | 165 | 12 | 3.5 | 1.47 |
| BF5 80M42 (2 pole) | 36-- | F100 | 080ML | C | 40 | 19 | 6 | 80 | 100 | M6 | 3.0 | 1.47 |
| BF5 80M44 (4 pole) | 30-- | F165 | 130ML | FF | 40 | 19 | 6 | 130 | 165 | 12 | 3.5 | 1.01 |
| BF5 80M 44 (4 pole) | 36-- | F100 | 080ML | C | 40 | 19 | 6 | 80 | 100 | M6 | 3.0 | 1.01 |
| BF5 80M66 (6 pole) | 30-- | F165 | 130ML | FF | 40 | 19 | 6 | 130 | 165 | 12 | 3.5 | 0.74 |
| BF5 80M66 (6 pole) | 36-- | F100 | 080ML | C | 40 | 19 | 6 | 80 | 100 | M6 | 3.0 | 0.74 |
| BF5 80M68 (8 pole) | 30-- | F165 | 130ML | FF | 40 | 19 | 6 | 130 | 165 | 12 | 3.5 | 0.34 |
| BF5 80M68 (8 pole) | 36-- | F100 | 080ML | C | 40 | 19 | 6 | 80 | 100 | M6 | 3.0 | 0.34 |

R

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|--------------------|------|------|--------------|-------------|----|----|---|-----|-----|----|-----|------|
| BF5 90L42 (2 pole) | 30-- | F165 | 130ML | FF | 50 | 24 | 8 | 130 | 165 | 12 | 3.5 | 2.95 |
| BF5 90L42 (2 pole) | 36-- | F115 | 095ML | C | 50 | 24 | 8 | 95 | 115 | M8 | 3.0 | 2.95 |
| BF5 90L44 (4 pole) | 30-- | F165 | 130ML | FF | 50 | 24 | 8 | 130 | 165 | 12 | 3.5 | 2.01 |
| BF5 90L44 (4 pole) | 36-- | F115 | 095ML | C | 50 | 24 | 8 | 95 | 115 | M8 | 3.0 | 2.01 |
| BF5 90L66 (6 pole) | 30-- | F165 | 130ML | FF | 50 | 24 | 8 | 130 | 165 | 12 | 3.5 | 1.47 |
| BF5 90L66 (6 pole) | 36-- | F115 | 095ML | C | 50 | 24 | 8 | 95 | 115 | M8 | 3.0 | 1.47 |
| BF5 90L68 (8 pole) | 30-- | F165 | 130ML | FF | 50 | 24 | 8 | 130 | 165 | 12 | 3.5 | 0.74 |
| BF5 90L68 (8 pole) | 36-- | F115 | 095ML | C | 50 | 24 | 8 | 95 | 115 | M8 | 3.0 | 0.74 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|----|----|---|-----|-----|----|-----|------|
| BF5 100L42 (2 pole) | 30-- | F215 | 180ML | FF | 60 | 26 | 8 | 180 | 215 | 15 | 4.0 | 4.02 |
| BF5 100L42 (2 pole) | 36-- | F130 | 110ML | C | 60 | 26 | 8 | 110 | 130 | M8 | 3.5 | 4.02 |
| BF5 100L44 (4 pole) | 30-- | F215 | 180ML | FF | 60 | 26 | 8 | 180 | 215 | 15 | 4.0 | 4.02 |
| BF5 100L44 (4 pole) | 36-- | F130 | 110ML | C | 60 | 26 | 8 | 110 | 130 | M8 | 3.5 | 4.02 |
| BF5 100L46 (6 pole) | 30-- | F215 | 180ML | FF | 60 | 26 | 8 | 180 | 215 | 15 | 4.0 | 2.01 |
| BF5 100L46 (6 pole) | 36-- | F130 | 110ML | C | 60 | 26 | 8 | 110 | 130 | M8 | 3.5 | 2.01 |
| BF5 100L48 (8 pole) | 30-- | F215 | 180ML | FF | 60 | 26 | 8 | 180 | 215 | 15 | 4.0 | 1.47 |
| BF5 100L48 (8 pole) | 36-- | F130 | 110ML | C | 60 | 26 | 8 | 110 | 130 | M8 | 3.5 | 1.47 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|----|----|---|-----|-----|----|-----|------|
| BF5 112M22 (2 pole) | 30-- | F215 | 180ML | FF | 60 | 28 | 8 | 180 | 215 | 15 | 4.0 | 5.36 |
| BF5 112M22 (2 pole) | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 5.36 |
| BF5 112M44 (4 pole) | 30-- | F215 | 180ML | FF | 60 | 28 | 8 | 180 | 215 | 15 | 4.0 | 5.36 |
| BF5 112M44 (4 pole) | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 5.36 |
| BF5 112M46 (6 pole) | 30-- | F215 | 180ML | FF | 60 | 28 | 8 | 180 | 215 | 15 | 4.0 | 2.95 |
| BF5 112M46 (6 pole) | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 2.95 |
| BF5 112M48 (8 pole) | 30-- | F215 | 180ML | FF | 60 | 28 | 8 | 180 | 215 | 15 | 4.0 | 2.01 |
| BF5 112M48 (8 pole) | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 2.01 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|----|----|----|-----|-----|-----|-----|-------|
| BF5 132S62 (2 pole) | 30-- | F265 | 230ML | FF | 80 | 38 | 10 | 230 | 265 | 15 | 4.0 | 10.05 |
| BF5 132S62 (2 pole) | 36-- | F165 | 130ML | C | 80 | 38 | 10 | 130 | 165 | M10 | 3.5 | 10.05 |
| BF5 132M84 (4 pole) | 30-- | F265 | 230ML | FF | 80 | 38 | 10 | 230 | 265 | 15 | 4.0 | 10.05 |
| BF5 132M84 (4 pole) | 36-- | F165 | 130ML | C | 80 | 38 | 10 | 130 | 165 | M10 | 3.5 | 10.05 |
| BF5 132M46 (6 pole) | 30-- | F265 | 230ML | FF | 80 | 38 | 10 | 230 | 265 | 15 | 4.0 | 5.36 |
| BF5 132M46 (6 pole) | 36-- | F165 | 130ML | C | 80 | 38 | 10 | 130 | 165 | M10 | 3.5 | 5.36 |
| BF5 132M88 (8 pole) | 30-- | F265 | 230ML | FF | 80 | 38 | 10 | 230 | 265 | 15 | 4.0 | 4.02 |
| BF5 132M88 (8 pole) | 36-- | F165 | 130ML | C | 80 | 38 | 10 | 130 | 165 | M10 | 3.5 | 4.02 |

R

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|-------|
| BF5 160M42 (2 pole) | 30-- | F300 | 250ML | FF | 110 | 42 | 12 | 250 | 300 | 19 | 5.0 | 20.11 |
| BF5 160L64 (4 pole) | 30-- | F300 | 250ML | FF | 110 | 42 | 12 | 250 | 300 | 19 | 5.0 | 20.11 |
| BF5 160L66 (6 pole) | 30-- | F300 | 250ML | FF | 110 | 42 | 12 | 250 | 300 | 19 | 5.0 | 14.75 |
| BF5 160M48 (8 pole) | 30-- | F300 | 250ML | FF | 110 | 42 | 12 | 250 | 300 | 19 | 5.0 | 7.37 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|-------|
| BF5 180M42 (2 pole) | 30-- | F300 | 250ML | FF | 110 | 48 | 14 | 250 | 300 | 19 | 5.0 | 29.49 |
| BF5 180L64 (4 pole) | 30-- | F300 | 250ML | FF | 110 | 48 | 14 | 250 | 300 | 19 | 5.0 | 29.49 |
| BF5 180L46 (6 pole) | 30-- | F300 | 250ML | FF | 110 | 48 | 14 | 250 | 300 | 19 | 5.0 | 20.11 |
| BF5 180L48 (8 pole) | 30-- | F300 | 250ML | FF | 110 | 48 | 14 | 250 | 300 | 19 | 5.0 | 14.75 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|-------|
| BF5 200L82 (2 pole) | 30-- | F350 | 300ML | FF | 110 | 55 | 16 | 300 | 350 | 19 | 5.0 | 49.6 |
| BF5 200L64 (4 pole) | 30-- | F350 | 300ML | FF | 110 | 55 | 16 | 300 | 350 | 19 | 5.0 | 49.6 |
| BF5 200L46 (6 pole) | 30-- | F350 | 300ML | FF | 110 | 55 | 16 | 300 | 350 | 19 | 5.0 | 29.49 |
| BF5 200L48 (8 pole) | 30-- | F350 | 300ML | FF | 110 | 55 | 16 | 300 | 350 | 19 | 5.0 | 20.11 |

R

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|-------|
| BF5 225M42 (2 pole) | 30-- | F400 | 350ML | FF | 110 | 55 | 16 | 350 | 400 | 19 | 5.0 | 60.32 |
| BF5 225M44 (4 pole) | 30-- | F400 | 350ML | FF | 110 | 55 | 16 | 350 | 400 | 19 | 5.0 | 60.32 |
| BF5 225M46 (6 pole) | 30-- | F400 | 350ML | FF | 110 | 55 | 16 | 350 | 400 | 19 | 5.0 | 40.21 |
| BF5 225M48 (8 pole) | 30-- | F400 | 350ML | FF | 110 | 55 | 16 | 350 | 400 | 19 | 5.0 | 29.49 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|---------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|-------|
| BF4 250M42 (2 pole) | 30-- | F500 | 450ML | FF | 140 | 60 | 18 | 450 | 500 | 19 | 5.0 | 73.73 |
| BF4 250M44 (4 pole) | 30-- | F500 | 450ML | FF | 140 | 65 | 18 | 450 | 500 | 19 | 5.0 | 73.73 |
| BF4 250M26 (6 pole) | 30-- | F500 | 450ML | FF | 140 | 65 | 18 | 450 | 500 | 19 | 5.0 | 49.60 |
| BF4 250M48 (8 pole) | 30-- | F500 | 450ML | FF | 140 | 65 | 18 | 450 | 500 | 19 | 5.0 | 40.21 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|----------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|--------|
| BF4 280MA62 (2 pole) | 30-- | F500 | 450ML | FF | 140 | 65 | 18 | 450 | 500 | 19 | 5.0 | 120.64 |
| BF4 280MA84 (4 pole) | 30-- | F500 | 450ML | FF | 140 | 75 | 20 | 450 | 500 | 19 | 5.0 | 120.64 |
| BF4 280MA46 (6 pole) | 30-- | F500 | 450ML | FF | 140 | 75 | 20 | 450 | 500 | 19 | 5.0 | 73.73 |
| BF4 280MA68 (8 pole) | 30-- | F500 | 450ML | FF | 140 | 75 | 20 | 450 | 500 | 19 | 5.0 | 60.32 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|----------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|--------|
| BF4 315MA62 (2 pole) | 30-- | F600 | 550ML | FF | 140 | 65 | 18 | 550 | 600 | 24 | 6.0 | 176.94 |
| BF4 315MA64 (4 pole) | 30-- | F600 | 550ML | FF | 170 | 80 | 22 | 550 | 600 | 24 | 6.0 | 176.94 |
| BF4 315MA66 (6 pole) | 30-- | F600 | 550ML | FF | 170 | 80 | 22 | 550 | 600 | 24 | 6.0 | 120.64 |
| BF4 315MA68 (8 pole) | 30-- | F600 | 550ML | FF | 170 | 80 | 22 | 550 | 600 | 24 | 6.0 | 100.54 |

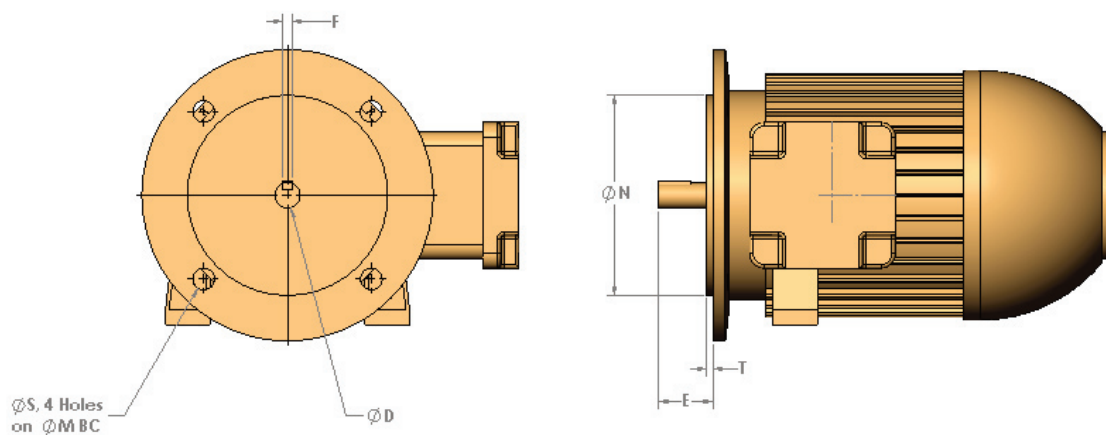
| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|----------------------|------|------|--------------|-------------|-----|----|----|-----|-----|----|-----|--------|
| BF3 315MA82 (2 pole) | 30-- | F600 | 550ML | FF | 140 | 70 | 20 | 550 | 600 | 24 | 6.0 | 268.10 |
| BF3 315MA84 (4 pole) | 30-- | F600 | 550ML | FF | 170 | 90 | 25 | 550 | 600 | 24 | 6.0 | 268.10 |
| BF3 315MA86 (6 pole) | 30-- | F600 | 550ML | FF | 170 | 90 | 25 | 550 | 600 | 24 | 6.0 | 176.94 |
| BF3 315MA88 (8 pole) | 30-- | F600 | 550ML | FF | 170 | 90 | 2 | 550 | 600 | 24 | 6.0 | 147.45 |

| Motor Type | Form | IEC | Flange Group | Flange Type | E | D | F | N | M | S | T | HP |
|--------------|------|------|--------------|-------------|-----|----|----|-----|-----|-----|-----|------|
| B14 63A | 36-- | F75 | 060ML | C | 23 | 11 | 4 | 60 | 75 | M5 | 2.5 | 0.25 |
| B14 63B | 36-- | F100 | 080ML | C | 23 | 11 | 4 | 80 | 100 | M6 | 2.5 | 0.74 |
| B14 71A | 36-- | F85 | 070ML | C | 30 | 14 | 5 | 70 | 85 | M6 | 2.5 | 0.34 |
| B14 71B | 36-- | F115 | 095ML | C | 30 | 14 | 5 | 95 | 115 | M8 | 3.0 | 1.48 |
| B14 80A | 36-- | F100 | 080ML | C | 40 | 19 | 6 | 80 | 100 | M8 | 3.0 | 0.74 |
| B14 80 B | 36-- | F130 | 110ML | C | 40 | 19 | 6 | 110 | 130 | M8 | 3.5 | 2.68 |
| B14 90S/L A | 36-- | F115 | 095ML | C | 50 | 24 | 8 | 95 | 115 | M8 | 3.0 | 1.48 |
| B14 90S/L B | 36-- | F130 | 110ML | C | 50 | 24 | 8 | 110 | 130 | M8 | 3.5 | 2.68 |
| B14 100L A | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 2.68 |
| B14 100L B | 36-- | F165 | 130ML | C | 60 | 28 | 8 | 130 | 165 | M10 | 3.5 | 6.71 |
| B14 112M A | 36-- | F130 | 110ML | C | 60 | 28 | 8 | 110 | 130 | M8 | 3.5 | 2.68 |
| B14 112M B | 36-- | F165 | 130ML | C | 60 | 28 | 8 | 130 | 165 | M10 | 3.5 | 6.71 |
| B14 132S/M A | 36-- | F165 | 130ML | C | 80 | 38 | 10 | 130 | 165 | M10 | 3.5 | 6.71 |
| B14 160M/L A | 36-- | F215 | 180ML | C | 110 | 42 | 12 | 180 | 215 | M12 | 4.0 | 7.50 |

R

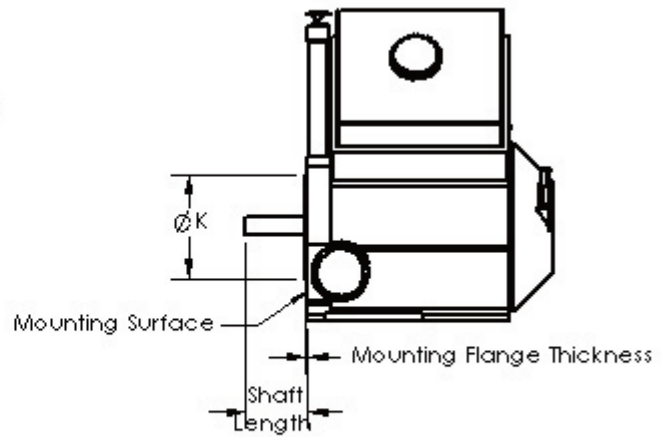
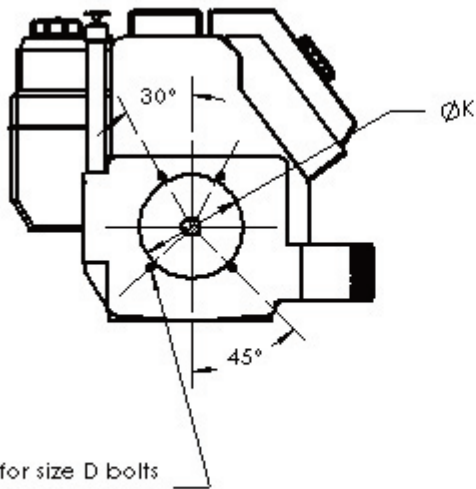
IEC Metric 'FF' Flange Motor Dimensions

(see page 196 for C Flange Dimensions)



I/C Engine Dimensions

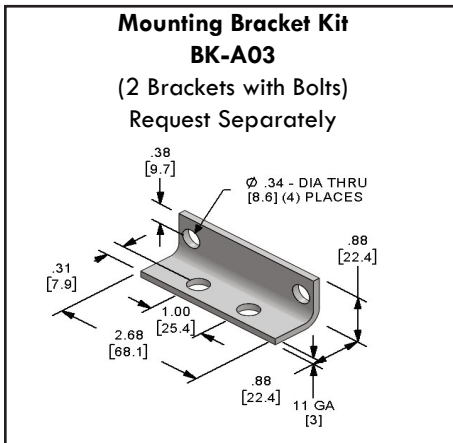
R



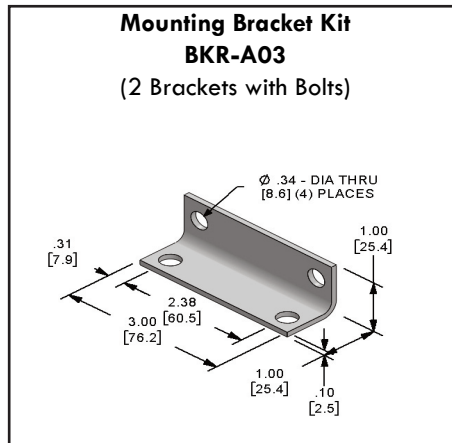
Drill & Tap for size D bolts
on $\varnothing J$ B.C., 4 holes

| | K | J | D |
|------------------------------|-----------------------|------------------------------|---------|
| E575 | 5.75 | 6.50 | 3/8-16 |
| E644 | 6.437 | 7.75 | 7/16-14 |
| E700 | 7.00 | 7.75 | 7/16-14 |
| E787 | 7.875 | 9.25 | 7/16-14 |
| Engine Size Group | Pilot Dia. | Flange Dimensions | |

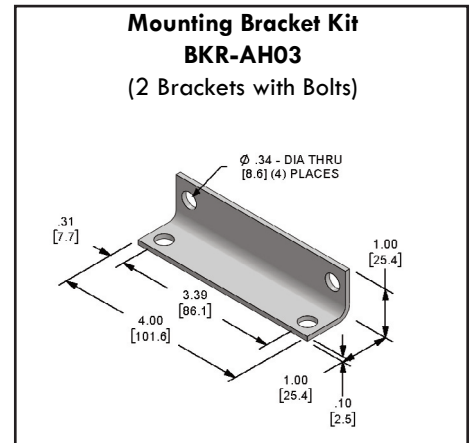
D03 Bar Manifold
Parallel & Series



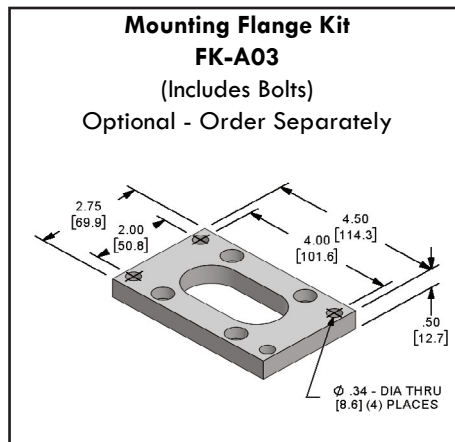
D03 Standard Flow
Retro Design Manifold



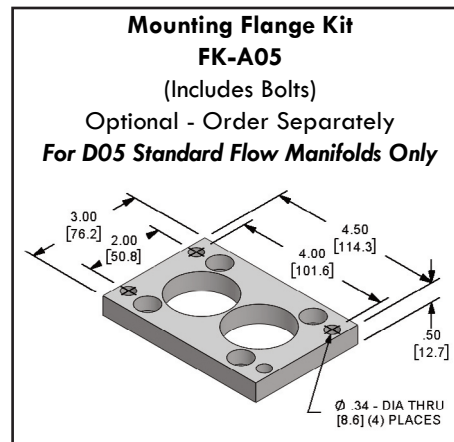
D03 High Flow
Retro Design Manifold



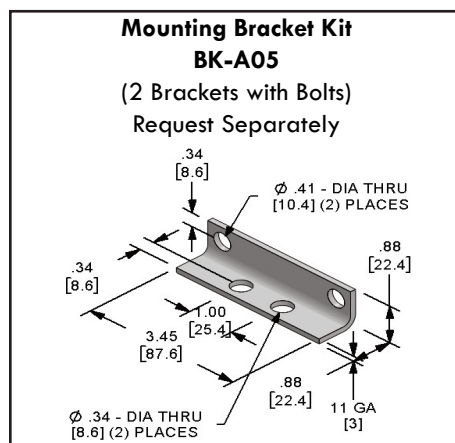
D03 Bar Manifold
Parallel & Series



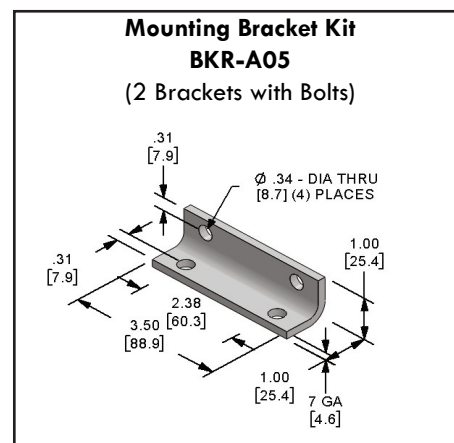
D05 Bar Manifold
Parallel & Series



D05 Bar Manifold
Parallel

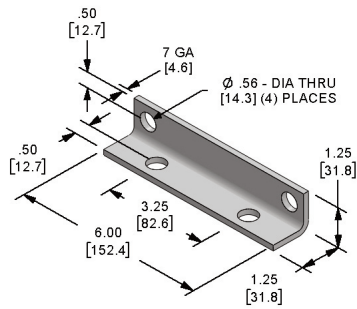


D05 Bar Manifold
Series



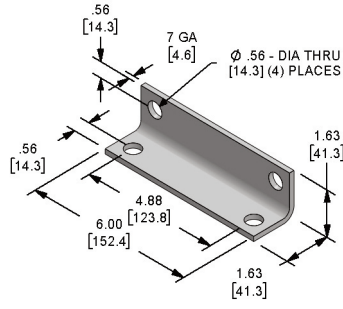
**D08 Bar Manifold
Parallel**

**Mounting Bracket Kit
BK-A08**
(2 Brackets with Bolts)
Request Separately



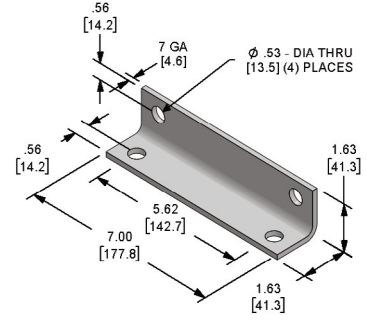
**D08 Bar Manifold
Series**

**Mounting Bracket Kit
BKR-SS08**
(2 Brackets with Bolts)



**D08 High Flow
Retro Design Manifold**

**Mounting Bracket Kit
BKR-AH08**
(2 Brackets with Bolts)



R

**Manufacturer's Cross Reference
For Stocked Relief Valve Cartridges**



Usage: *All Current Bar Manifolds (Except D03 "SBM" and D03 Series)
& Subplates w/C-10-2 Cavity (Pressure at Nose)*

| Magnaloy Part Number | Mantech Part Number | Delta Power Part Number | Pressure Range/Setting |
|---------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| RV-C10-2-15 | S-10-1-15 | DE-RVA-00-1500 | 200-1500 PSI |
| RV-C10-2-30 | S-10-1-30 | DE-RVA-00-3000 | 1500-3000 PSI |

R

Usage: *Current D03 Series and D03 Original Design ("SBM") Bar Manifolds)
(Reverse Flow Cartridge) C-10-2 Cavity (Pressure at Side)*

| Magnaloy Part Number | Mantech Part Number | Delta Power Part Number | Pressure Range/Setting |
|---------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| RV-C10-2R-02 | S-10-2-2 | DE-RVD-00-0200 | 50-200 PSI |
| RV-C10-2R-15 | S-10-2-15 | DE-RVD-00-1500 | 200-1500 PSI |
| RV-C10-2R-30 | S-10-2-30 | DE-RVD-00-3000 | 1500-3000 PSI |

Usage: *D05 Original Design Bar Manifolds and All Current
w/Sun T-3A Cavity (Pressure at Nose)*

| Magnaloy Part Number | Mantech Part Number | Delta Power Part Number | Pressure Range/Setting |
|---------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| RV-T3A-08 | S-10-3-8 | RPGCJDV | 25-800 PSI |
| RV-T3A-15 | S-10-3-15 | RPGCJBV | 50-1500 PSI |
| RV-T3A-30 | S-10-3-30 | RPGCJAV | 100-3000 PSI |

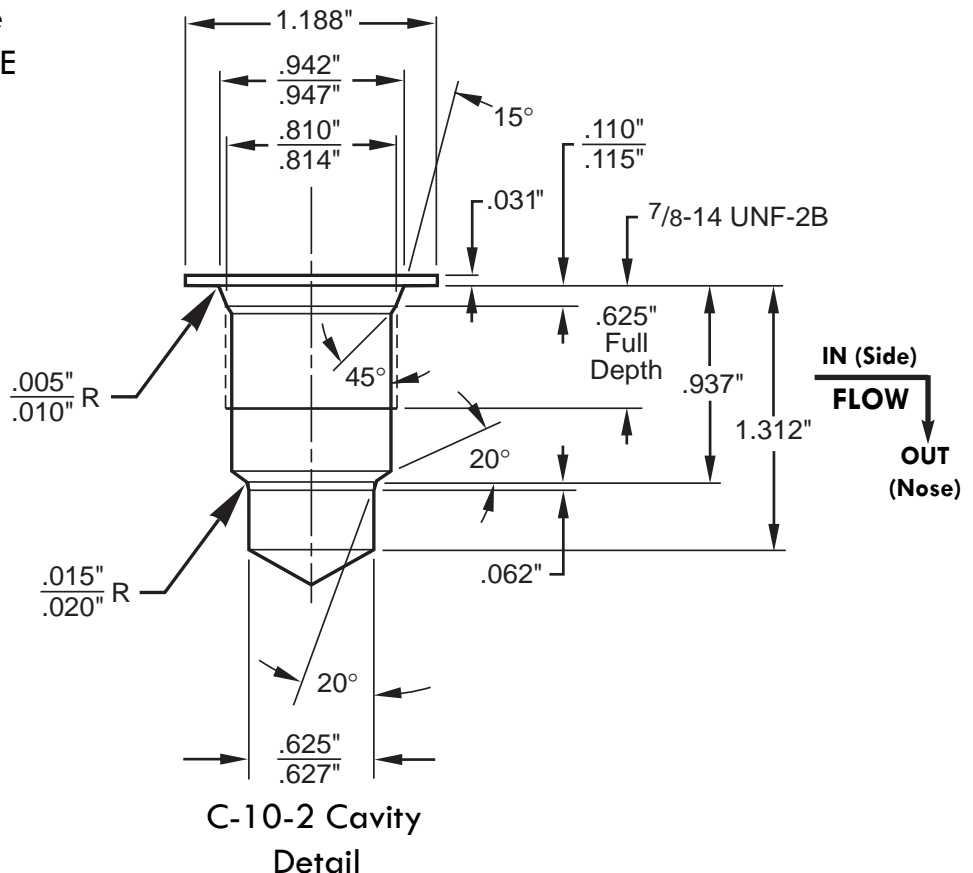
Usage: *All Current w/Sun T-10A Cavity (Pressure at Nose)*

| Magnaloy Part Number | Mantech Part Number | Delta Power Part Number | Pressure Range/Setting |
|---------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| RV-T10A-15 | S-10-10-15 | RPECJBV | 50-1500 PSI |
| RV-T10A-30 | S-10-10-30 | RPECJAV | 100-3000 PSI |

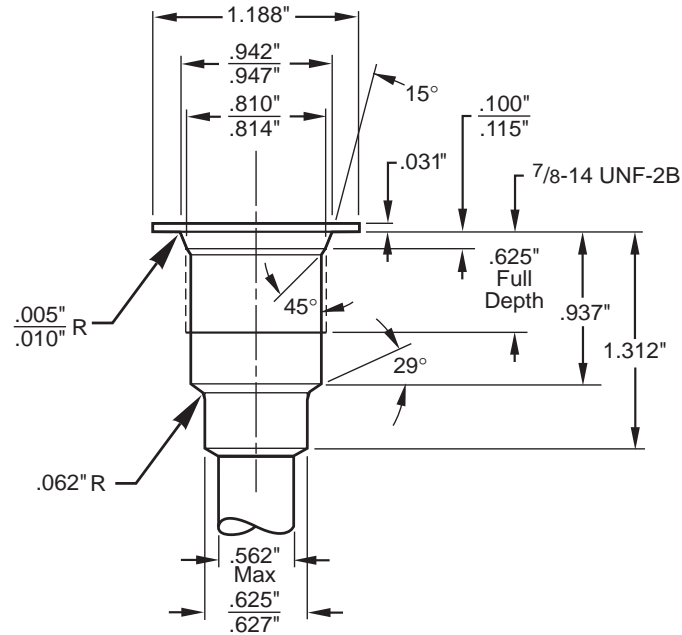
| Supplier | Part Number | | Pressure Range |
|---|----------------|-----------------------------|----------------|
| | Magnaloy | Mantech (Original Model) | |
| Magnaloy Coupling Co. (for D03 Series & Original Design (SBM) Manifolds) | RV-C10-2R-02 | S-10-2-2 | 50-200 PSI |
| | RV-C10-2R-15 | S-10-2-15 | 200-1500 PSI |
| | RV-C10-2R-30 | S-10-2-30 | 1500-3000 PSI |
| Delta Power Hydraulics | DE-RVD-00-0200 | | 50-200 PSI |
| | DE-RVD-00-1500 | | 200-1500 PSI |
| | DE-RVD-00-3000 | | 1500-3000 PSI |

Valves requiring equivalent cavities to illustrations shown below may be substituted.

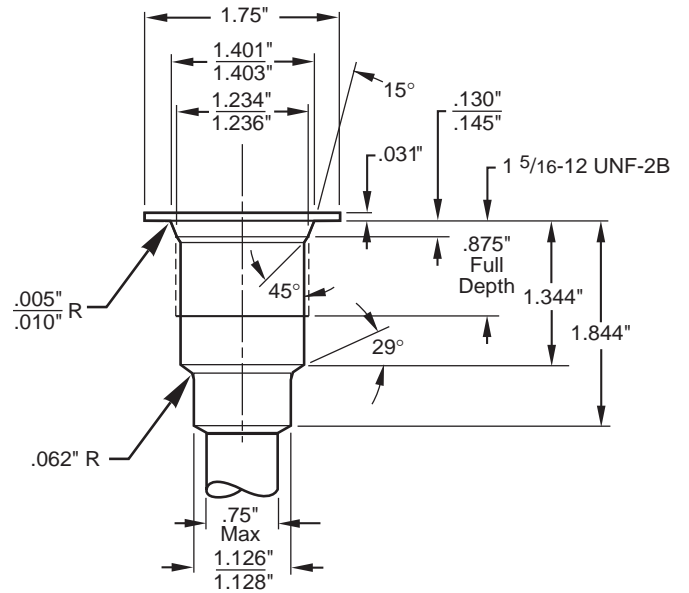
This is a Standard C10-2 Cavity except the valve has a reverse flow with SIDE INLET and NOSE OUTLET.



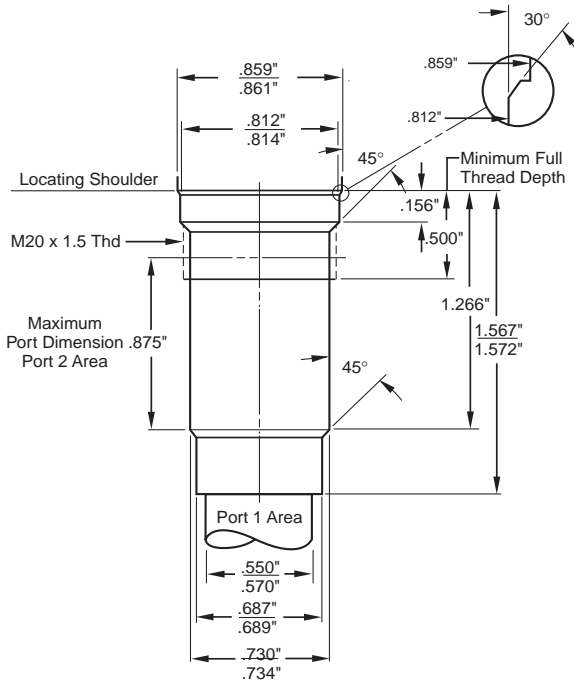
Common C-10-2



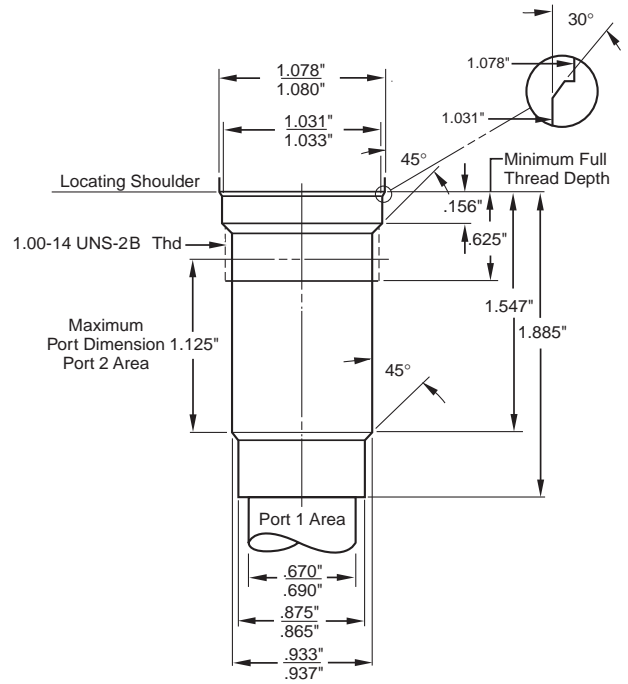
Common C-16-2



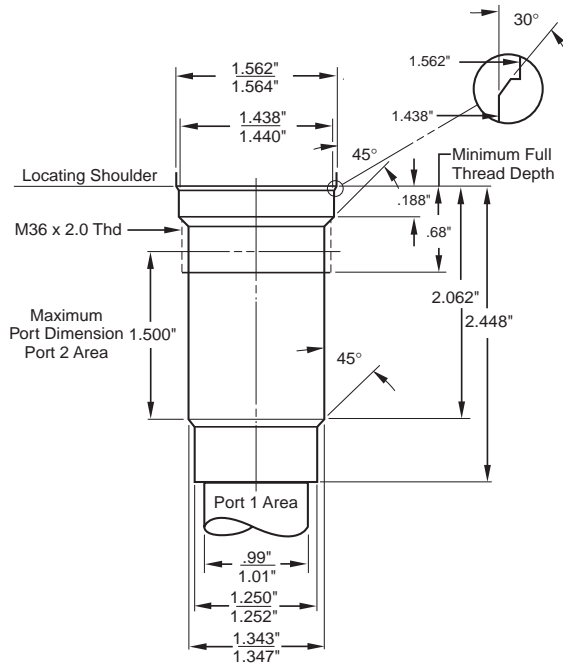
Sun T-10A



Sun T-3A

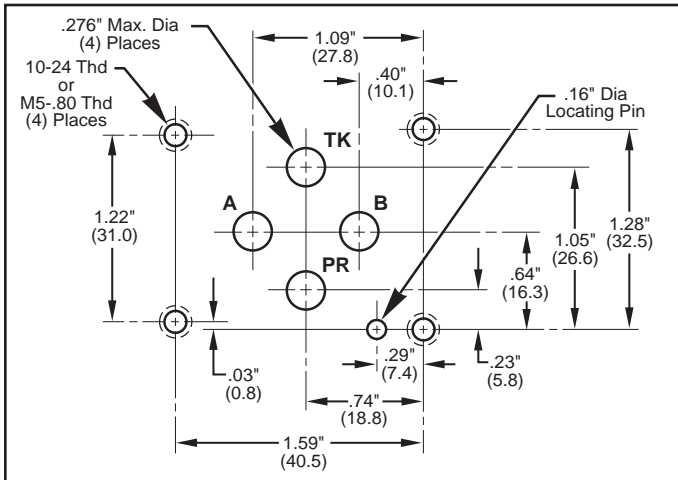


Sun T-16A

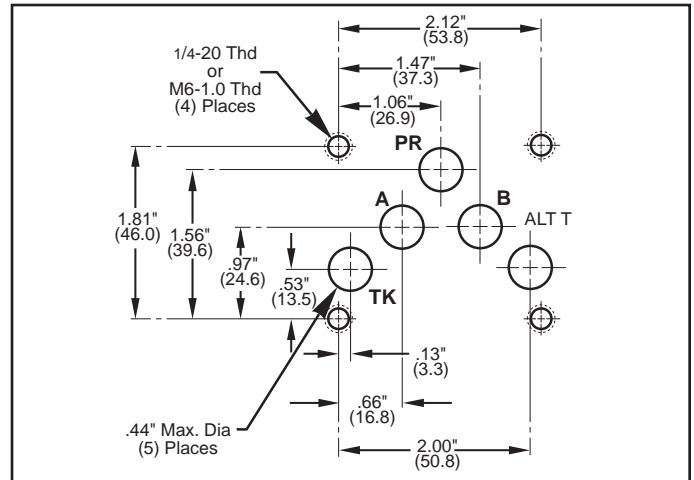


R

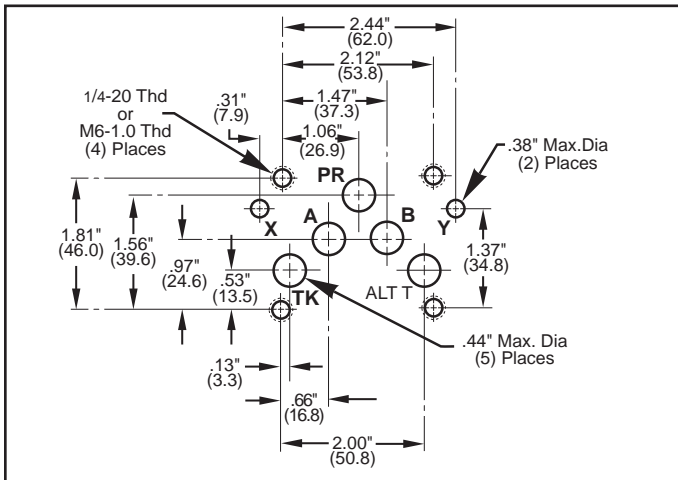
D03 Directional Valve Interface



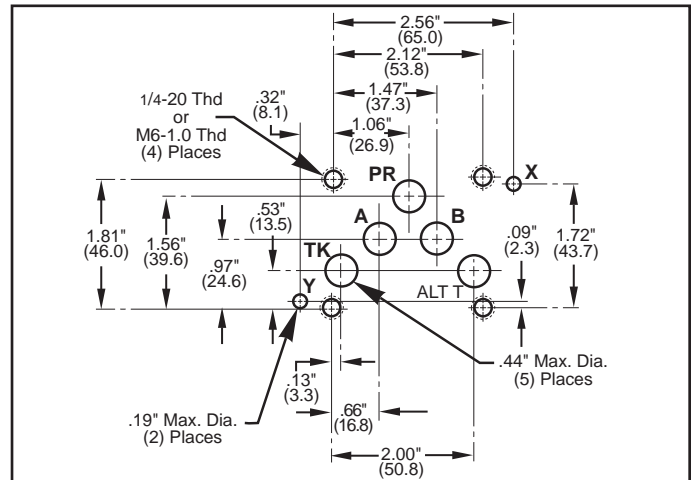
D05 Directional Valve Interface



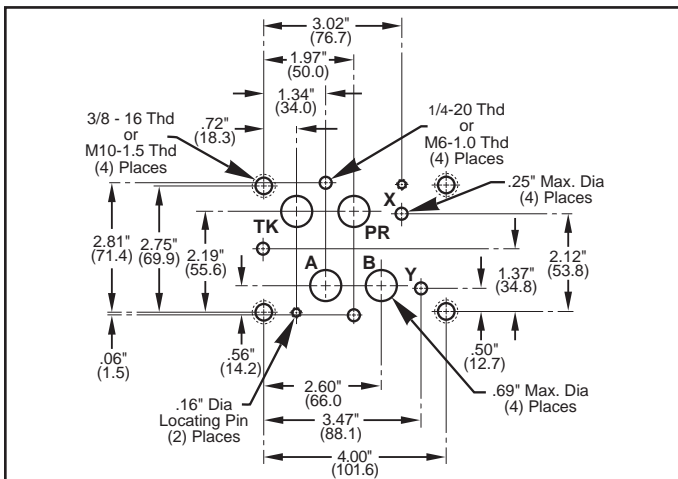
D05E Directional Valve Interface



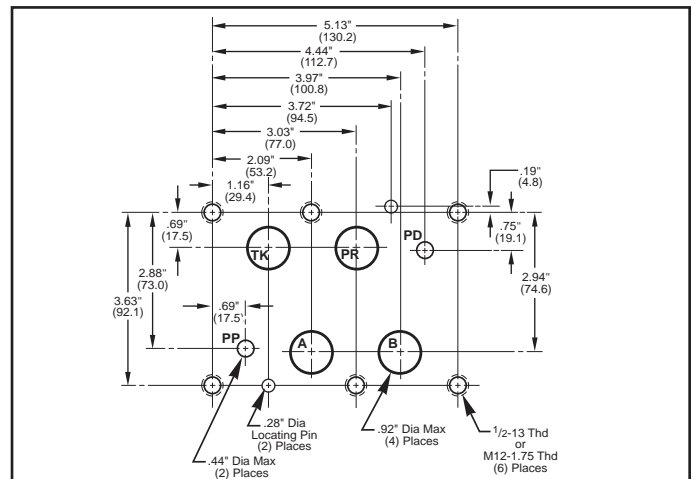
D05H Directional Valve Interface



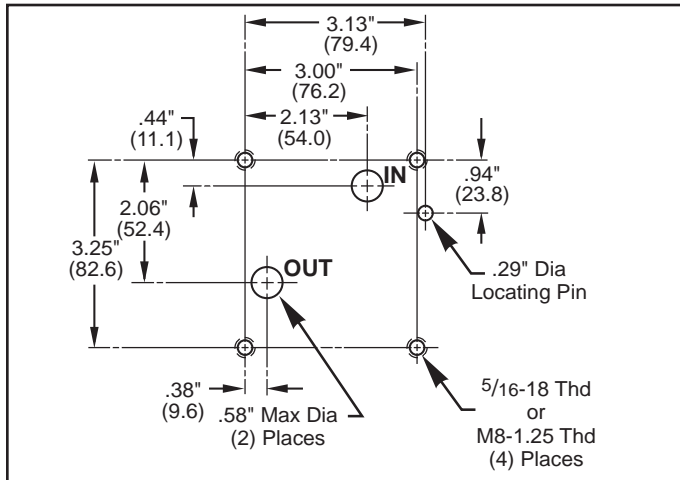
D07 Directional Valve Interface



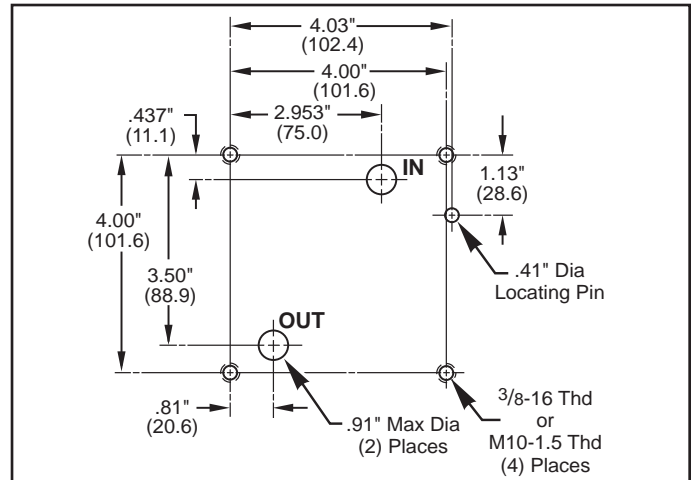
D08 Directional Valve Interface



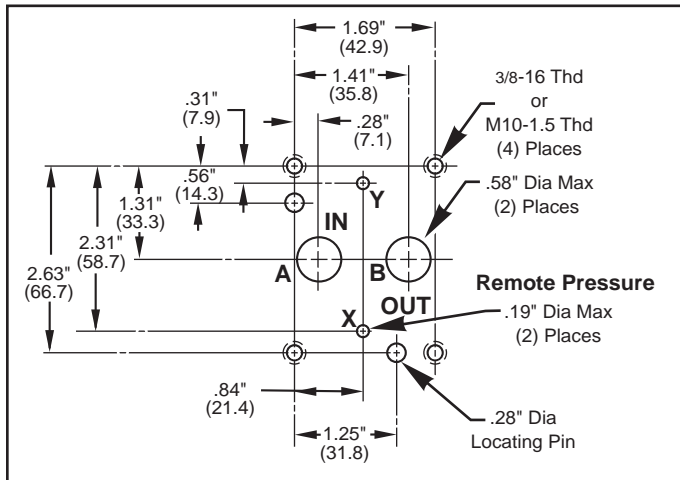
2F06 Flow Control Valve Interface



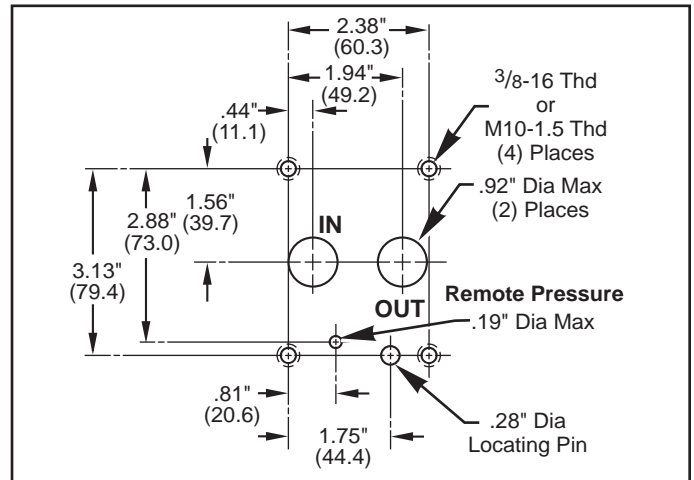
2F06 Flow Control Valve Interface



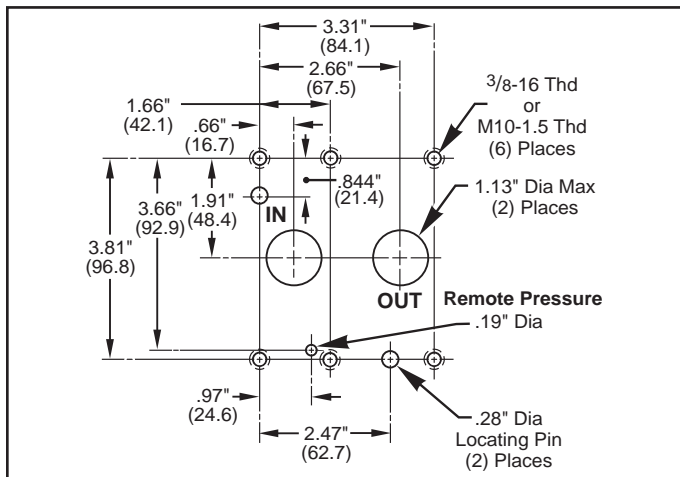
P06 Pressure Control Valve Interface



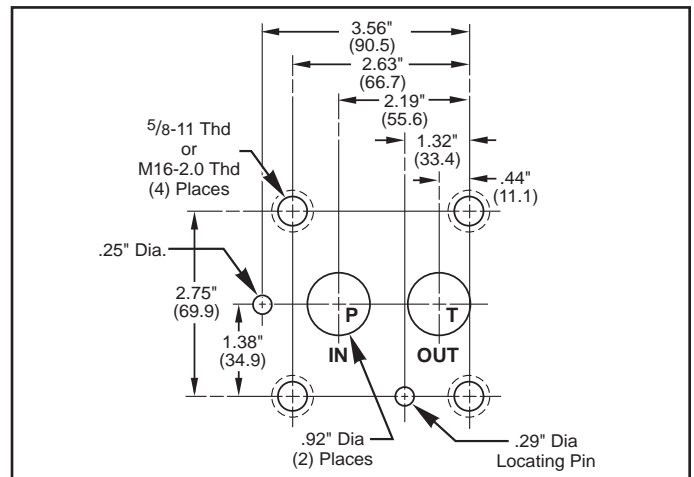
P08 Pressure Control Valve Interface



P10 Pressure Control Valve Interface

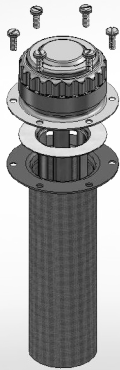


R08 Pilot Oper. Pres. Relief Valve Interface



| Valve Manufacturer | Directional Valve | | | Pressure Control & Pressures Reducing Valves | | Flow Control Valves | |
|--------------------|-------------------|----------|------------|--|----------------|---------------------|------------|
| | NFPA DO3 | NFPA DO5 | NFPA DO8 | NFPA P06 | NFPA P10 | NFPA F02 | NFPA F03 |
| Continental | V* 3M V* 5M | V* 12M | V* 35M | | | F12M | F30M |
| Double A | 005 | 02 | 06 | BPQ-06 WQP-06 | QSA-185 | QXA-02 | QXA-03 |
| Hartman | 00 | 1/8" | 3/4" | 3/4" | 1 1/2" | | |
| Parker | 2M | 3/8" | 3/4" | 16 | 20 | 60 | 80 |
| Racine | | 1/4" | 3/4" | 3/4" | 1 1/4" | 1/4" | 3/8" |
| Rexroth | 6 | 8 & 10 | 20 & 22 | DZ-20 DR-20 | DZ-30 DR-30 | 2FRMM10-1 | 2FRMM15-1 |
| Rivett | 01-61 | 02-41 | 68** 3/8-1 | | | P-8622-02-41 | |
| Vickers | DG4V | DG45401 | DG55406 | RCG-06 XG-06 | RG-10 | FG-02-1500 | FG-03-1500 |

What you should know about Filler Breathers!



R

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



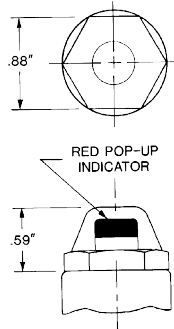
| Unistrut Par No. | Hycon Part No. | Hydro-craft Part No. | Hydra-Zorb Part No. | Magnaloy Part No. |
|-----------------------|----------------|----------------------|---------------------|-------------------|
| - TUBE SIZES - | | | | |
| 004T008 | H004T008 | WS-04 | 100025 | MCC-008T |
| 006T010 | 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 |

R

Differential Pressure ΔP Indicators

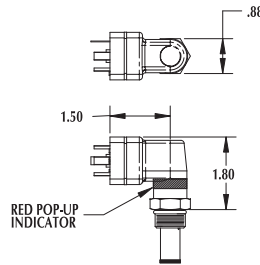
For use with Magnaloy SFH series Spin-On Filter Head

DP03 Series

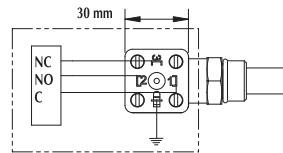


Low Pressure Visual Indicator
 200 PSI max Operating Pressure
 Temperature range up to 150° F
 Automatic Resetting
 Factory Installed, Available as kit for field replacement
 For use with SFH Series Head Only

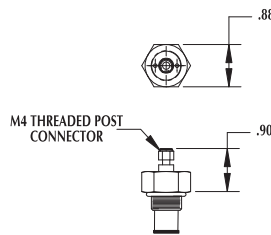
DP05 Series



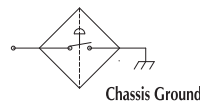
Cartridge Style Visual/Electrical Indicator
 Hirschman (DIN 43650 Type AM Receptacle 11mm)
 1NO, 1NC, & Common SPDT Switch (3 pole & ground)
 5A; 125/250 VAC, 24 VDC (Resistive)
 6000 psi max Operating Pressure
 Temperatures up to 200F
 Automatic Resetting
 Factory Installed. Available as kit for field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

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

Hydraulic Pipe, Tube and Hose Flow Data



A collection of useful hydraulic pipe, tube and hose information showing material classes, recommended fluid speeds and fluid flow capacities based on these speeds.

| NORMAL MAXIMUM FLUID SPEEDS | | | | | | |
|-----------------------------|------------------------|-----------------------|------------------------------|-----------------------|-----------------------|------------------|
| | IN SUCTION LINES | | IN PRESSURE AND RETURN LINES | | | |
| | Gerotor and Gear Pumps | Vane and Piston Pumps | Up to 2 Feet Long | 2 Feet to 4 Feet Long | 4 Feet to 8 Feet Long | Over 8 Feet Long |
| Typical Hydraulic Fluids | 6 Ft./Sec. | 4 Ft./Sec. | 30 Ft./Sec. | 20 Ft./Sec. | 15 Ft./Sec. | 10 Ft./Sec. |
| Fire Resistant Fluids | 4 Ft./Sec. | 3 Ft./Sec. | 25 Ft./Sec. | 15 Ft./Sec. | 10 Ft./Sec. | 7.5 Ft./Sec. |

| MATERIALS | | | | |
|-----------|------------------------|-----------------------|--------------------------------|---------------------|
| | Pipe Fittings | Pipe | Tube Fittings | Tube |
| Class 1 | 150 PSI Malleable Iron | Pickled, Schedule 40 | SAE 37° Flare Fitting, 3 Piece | 1010 Steel |
| Class 2 | 2000 PSI Forged Steel | Pickled, Schedule 80 | | 304 Stainless Steel |
| Class 3 | 3000 PSI Forged Steel | | | |
| Class 4 | 6000 PSI Forged Steel | Pickled, Schedule 160 | | |

PIPE DATA

| Class 1 (Schedule 40 Steel Pipe) | | | | | |
|----------------------------------|-----------|------------------|------------------|-------------------|-------------------|
| Nominal Size | Burst PSI | GPM @ 3 Ft./Sec. | GPM @ 4 Ft./Sec. | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. |
| 1/4 | 19,500 | 0.98 | 1.24 | 3.27 | 4.9 |
| 3/8 | 16,200 | 1.80 | 2.40 | 6.00 | 9.0 |
| 1/2 | 15,600 | 2.85 | 3.85 | 9.50 | 14.3 |
| 3/4 | 12,900 | 5.01 | 6.78 | 16.7 | 25.1 |
| 1 | 12,200 | 8.08 | 10.8 | 27.0 | 40.6 |
| 1 1/4 | 10,100 | 14.0 | 18.8 | 46.8 | 70.3 |
| 1 1/2 | 9,100 | 19.0 | 25.8 | 63.7 | 95.6 |
| 2 | 7,800 | 31.4 | 42.2 | 105 | 157 |
| 2 1/2 | 8,500 | 44.8 | 60.4 | 150 | 225 |
| 3 | 7,400 | 69.1 | 93.8 | 232 | 347 |
| 3 1/2 | 6,800 | 92.4 | 125 | 310 | 465 |
| 4 | 6,300 | 119 | 150 | 399 | 598 |
| 4 1/2 | 5,900 | 149 | 202 | 499 | 749 |
| 5 | 5,500 | 187 | 252 | 627 | 940 |
| 6 | 5,100 | 270 | 364 | 904 | 1357 |

| Class 2 and 3 (Schedule 80 Steel Pipe) | | | | |
|--|-----------|-------------------|-------------------|--|
| Nominal Size | Burst PSI | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. | |
| 1/4 | 26,400 | 2.2 | 3.4 | |
| 3/8 | 22,500 | 4.4 | 6.6 | |
| 1/2 | 21,000 | 7.3 | 11.0 | |
| 3/4 | 17,600 | 13.6 | 20.3 | |
| 1 | 15,900 | 22.5 | 33.8 | |
| 1 1/4 | 13,900 | 40.1 | 60.2 | |
| 1 1/2 | 12,600 | 55.3 | 83.0 | |
| 2 | 11,000 | 92.5 | 139 | |
| 2 1/2 | 11,500 | 133 | 199 | |
| 3 | 10,300 | 207 | 310 | |
| 3 1/2 | 9,500 | 278 | 418 | |
| 4 | 9,000 | 360 | 540 | |
| 4 1/2 | 8,500 | 453 | 679 | |
| 5 | 8,100 | 570 | 855 | |
| 6 | 7,800 | 816 | 1225 | |

| Class 5 (Schedule 160 Steel Pipe) | | | | |
|-----------------------------------|-----------|-------------------|-------------------|--|
| Nominal Size | Burst PSI | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. | |
| 1/4 | | | | |
| 3/8 | | | | |
| 1/2 | 26,700 | 5.34 | 8.01 | |
| 3/4 | 25,000 | 8.49 | 12.7 | |
| 1 | 22,300 | 16.3 | 24.5 | |
| 1 1/4 | 18,100 | 33.1 | 49.7 | |
| 1 1/2 | 17,700 | 44.0 | 66.1 | |
| 2 | 17,500 | 70.2 | 105 | |
| 2 1/2 | 15,700 | 111 | 167 | |
| 3 | 15,000 | 170 | 254 | |
| 3 1/2 | | | | |
| 4 | 14,200 | 291 | 436 | |
| 4 1/2 | | | | |
| 5 | 13,500 | 458 | 686 | |
| 6 | 13,000 | 662 | 994 | |

TUBE DATA

| Class 1 and 2 (1010 Steel) | | | | | | |
|----------------------------|-------------|-----------|------------------|------------------|-------------------|-------------------|
| Outside Diameter | Wall Thick. | Burst PSI | GPM @ 3 Ft./Sec. | GPM @ 4 Ft./Sec. | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. |
| 3/8 | .049 | 14,370 | .56 | .76 | 1.9 | 2.8 |
| 1/2 | .049 | 10,780 | 1.19 | 1.60 | 4.0 | 5.94 |
| 5/8 | .065 | 11,440 | 1.80 | 2.40 | 6.0 | 9.0 |
| 3/4 | .072 | 10,560 | 2.70 | 3.58 | 8.98 | 13.5 |
| 7/8 | .083 | 10,430 | 3.69 | 4.92 | 12.3 | 18.5 |
| 1 | .095 | 10,450 | 4.82 | 6.42 | 16.1 | 24.1 |
| 1 1/4 | .120 | 10,460 | 7.49 | 10.0 | 25.0 | 37.6 |
| 1 1/2 | .134 | 9,830 | 11.1 | 15.0 | 37.2 | 55.7 |

| Class 3 (304 Stainless Steel) | | | | |
|-------------------------------|-------------|-----------|-------------------|-------------------|
| Outside Diameter | Wall Thick. | Burst PSI | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. |
| 3/8 | .049 | 19,600 | 1.9 | 2.8 |
| 1/2 | .049 | 14,700 | 4.0 | 5.9 |
| 5/8 | .065 | 15,600 | 6.0 | 9.0 |
| 3/4 | .065 | 13,000 | 9.4 | 13.5 |
| 7/8 | .095 | 11,940 | 11.5 | 18.5 |
| 1 | .095 | 14,250 | 16.1 | 24.1 |
| 1 1/4 | .120 | 14,400 | 25.0 | 37.6 |
| 1 1/2 | .120 | 12,000 | 38.9 | 55.7 |

| Class 5 (304 Stainless Steel) | | | | |
|-------------------------------|-------------|-----------|-------------------|-------------------|
| Outside Diameter | Wall Thick. | Burst PSI | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. |
| 3/8 | .049 | 19,600 | 1.5 | 2.8 |
| 1/2 | .065 | 19,500 | 3.3 | 5.0 |
| 3/4 | .095 | 19,500 | 7.7 | 11.5 |
| 7/8 | .120 | 20,570 | 9.9 | 14.8 |

HOSE DATA

| Nominal Size | Inside Diameter | GPM @ 3 Ft./Sec. | GPM @ 4 Ft./Sec. | GPM @ 10 Ft./Sec. | GPM @ 15 Ft./Sec. |
|--------------|-----------------|------------------|------------------|-------------------|-------------------|
| 4 | 1/4 | .46 | .62 | 1.54 | 2.30 |
| 6 | 3/8 | 1.03 | 1.38 | 3.44 | 5.16 |
| 8 | 1/2 | 1.84 | 2.44 | 6.12 | 9.18 |
| 10 | 5/8 | 2.87 | 3.82 | 9.56 | 14.3 |
| 12 | 3/4 | 4.13 | 5.52 | 13.8 | 20.7 |
| 16 | 1 | 7.34 | 9.72 | 24.4 | 36.7 |
| 20 | 1 1/4 | 11.5 | 15.2 | 38.2 | 57.4 |
| 24 | 1 1/2 | 16.5 | 22.0 | 55.0 | 82.6 |
| 32 | 2 | 29.4 | 39.2 | 98.0 | 147 |
| 40 | 2 1/2 | 45.9 | 61.2 | 153 | 230 |
| 48 | 3 | 66.1 | 87.8 | 220 | 330 |
| 56 | 3 1/2 | 90.0 | 120 | 300 | 450 |
| 64 | 4 | 118 | 156 | 392 | 588 |

PIPE, TUBE, HOSE INFORMATION

| Equivalent Sizes (Common) | | | | | |
|---------------------------|-----------------------|----------------------|-----------|------------------------------|-----------|
| Nominal Pipe Size | Tube Outside Diameter | Hose Inside Diameter | Hose Size | SAE Straight Thread - O'Ring | |
| | | | | Size | Thread |
| 1/4 | 3/8 | 1/4 | 4 | 6 | 9/16-18 |
| 3/8 | 1/2 | 3/8 | 6 | 8 | 3/4-16 |
| 1/2 | 5/8 | 1/2 | 8 | 10 | 7/8-14 |
| | 3/4 | 5/8 | 10 | 12 | 1 1/16-12 |
| 3/4 | 7/8 | 3/4 | 12 | 14 | 1 3/16-12 |
| 1 | 1 | 1 | 16 | 16 | 1 5/16-12 |
| 1 1/4 | 1 1/4 | 1 1/4 | 20 | 20 | 1 5/8-12 |
| 1 1/2 | 1 1/2 | 1 1/2 | 24 | 24 | 1 7/8-12 |
| 2 | | 2 | 32 | | |

R

| US MESH | INCHES | MICRONS | MILLIMETERS |
|---------|--------|---------|-------------|
| 3 | 0.2650 | 6730 | 6.730 |
| 4 | 0.1870 | 4760 | 4.760 |
| 5 | 0.1570 | 4000 | 4.000 |
| 6 | 0.1320 | 3360 | 3.360 |
| 7 | .01110 | 2830 | 2.830 |
| 8 | 0.0937 | 2380 | 2.380 |
| 10 | 0.0787 | 2000 | 2.000 |
| 12 | 0.0661 | 1680 | 1.680 |
| 14 | 0.0555 | 1410 | 1.410 |
| 16 | 0.0469 | 1190 | 1.190 |
| 18 | 0.0394 | 1000 | 1.000 |
| 20 | 0.0331 | 841 | 0.841 |
| 25 | 0.0280 | 707 | 0.707 |
| 30 | 0.0232 | 595 | 0.595 |
| 35 | 0.0197 | 500 | 0.500 |
| 40 | 0.0165 | 400 | 0.400 |
| 45 | 0.0138 | 354 | 0.354 |
| 50 | 0.0117 | 297 | 0.297 |
| 60 | 0.0098 | 250 | 0.250 |
| 70 | 0.0083 | 210 | 0.210 |
| 80 | 0.0070 | 177 | 0.177 |
| 100 | 0.0059 | 149 | 0.149 |
| 120 | 0.0049 | 125 | 0.125 |
| 140 | 0.0041 | 105 | 0.105 |
| 170 | 0.0035 | 88 | 0.088 |
| 200 | 0.0029 | 74 | 0.074 |
| 230 | 0.0024 | 63 | 0.063 |
| 270 | 0.0021 | 53 | 0.053 |
| 325 | 0.0017 | 44 | 0.044 |
| 400 | 0.0015 | 37 | 0.037 |

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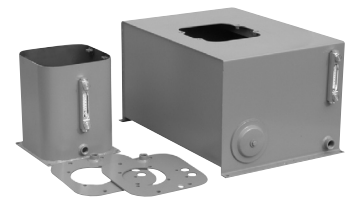
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