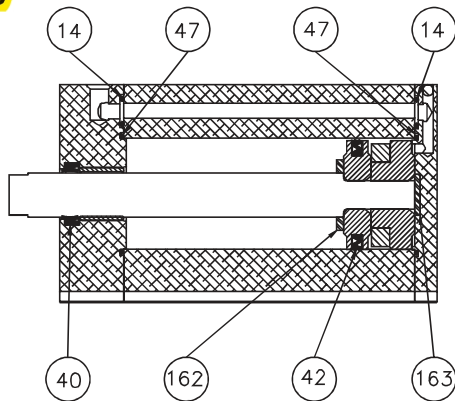
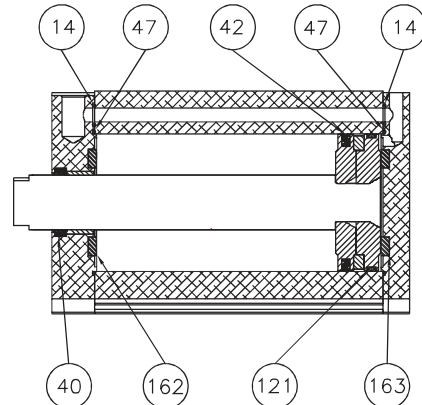


**Seal Kits for P1M Series
Air Cylinders**



12mm to 25mm Bores



32mm to 100mm Bores

Single Rod Seal Kit Contains:

Qty	Part	Symbol	Qty	Part	Symbol
2	Rod seal/wiper	#40	1	Wear band	#121
1	Z-Piston Seal	#42		(Only on 32-100 Bores)	
2	End Seals	#47	1	Cap End Bumper	#163
2	Transfer port seals	#14	1	Head End Bumper	#162

Double Rod Seal Kit Contains:

Qty	Part	Symbol	Qty	Part	Symbol
2	Rod seal/wiper	#40	1	Wear band	#121
1	Z-Piston Seal	#42		(Only on 32-100 Bores)	
2	End Seals	#47	2	Head End Bumper	#162
2	Transfer port seals	#14			

Service kits of expendable parts for fluid power cylinders are stocked in principal industrial locations across the U.S.A. and other countries. For prompt delivery and complete information, contact your nearest distributor.

Service kits of expendable parts for fluid power cylinders are available for either Class 1, or Class 5 fluid service.

Standard Seals - Class 1 Service are standard, and contain a Nitrile piston seal and a polyurethane rod seal for standard fluid service. These seals are suitable for use when air is the operating medium.

The recommended operating temperature range for Class 1 seals is: -4°F. (-20°C.) to +176°F. (+80°C.)

Fluorocarbon Seals - Class 5 Service kits contain Fluorocarbon seals and are especially suited for elevated temperature service.

The recommended temperature range for Class 5 is: +14°F. (-10°C.) to +302°F. (+150°C.).

Bore	Single Rod Cylinders		Double Rod Cylinders	
	Class 1 Seals	Class 5 Seals*	Class 1 Seals	Class 5 Seals*
12	P1M-6DRN	P1M-6DRV	P1M-6DRT	P1M-6DRP
16	P1M-6FRN	P1M-6FRV	P1M-6FRT	P1M-6FRP
20	P1M-6HRN	P1M-6HRV	P1M-6HRT	P1M-6HRP
25	P1M-6JRN	P1M-6JRV	P1M-6JRT	P1M-6JRP
32	P1M-6KRN	P1M-6KRV	P1M-6KRT	P1M-6KRP
40	P1M-6LRN	P1M-6LRV	P1M-6LRT	P1M-6LRP
50	P1M-6MRN	P1M-6MRV	P1M-6MRT	P1M-6MRP
63	P1M-6NRN	P1M-6NRV	P1M-6NRT	P1M-6NRP
80	P1M-6PRN	P1M-6PRV	P1M-6PRT	P1M-6PRP
100	P1M-6QRN	P1M-6QRV	P1M-6QRT	P1M-6QRP

* No Bumpers Included

Mounting Kits

Rear Pivot Mounting Kits –Style A or B (Fig. 1)

Place pivot mount over end cap, lining up the appropriate two fastener holes for 12-50mm bore or four fastener holes for 63-100mm bore in the end cap with the pivot mounting plate. Note that the pivot mount can be rotated allowing for different cylinder port locations. Secure mounting to cylinder cap (finger tight), using the two or four fasteners. Torque the fasteners to the specifications in the table below.

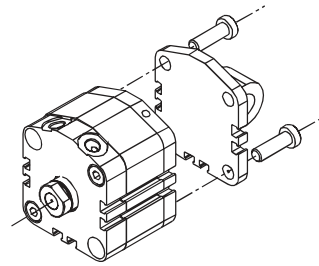


Fig. 1

End Angle Mounting Kit –Style F (Fig.2)

The end angles bolt to the front and rear of the cylinder end caps. Line up the two fastener holes for 12-50mm bore or four fastener holes for 63-100mm bore of the angle plate with the two or four fastener holes in the cylinder head. Secure (finger tight) using two of four fasteners. Repeat this assembly at the opposite end. Place the assembly with the end angles down on a flat surface and torque the four or eight fasteners to the specifications shown in the table below.

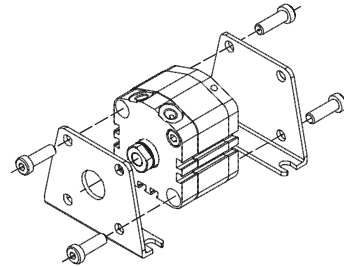


Fig. 2

Flange Mounting Kits –Style J and H (Fig. 3)

Place rectangular flange plate over appropriate end cap. Line up the appropriate two holes for 12-50 mm bores or four holes for 63-100mm bores in the mounting plate with the two or four fastener holes in the cylinder end cap. Note that the rectangular mounting plate can be rotated to allow for different port locations. Secure the rectangular mounting plate to the end cap (finger tight) using the two or four fasteners. Then torque the two or four fasteners to the specifications shown in the table below.

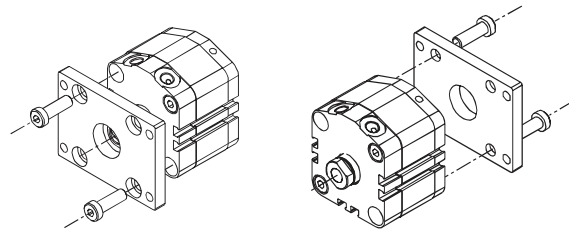


Fig. 3

Note: These drawings represent bore sizes 12-50mm. The 63-100mm bore sizes will have four fasteners at each end of the cylinder. See General Assembly Instructions on the following page.

Bore	Style J & H Kit Part No.	Style A Kit Part No.	Style B Kit Part No.	Style F Kit Part No.	Fastener Torque	
					N-m	Inch Lbs.
12	P1M-4DMB	P1M-4DMT	P1M-4DME	P1M-4DMF	1.4-1.8	12-16
16	P1M-4FMB	P1M-4FMT	P1M-4FME	P1M-4FMF	1.4-1.8	12-16
20	P1M-4HMB	P1M-4HMT	P1M-4HME	P1M-4HMF	3.6-4.0	32-36
25	P1M-4JMB	P1M-4JMT	P1M-4JME	P1M-4JMF	3.6-4.0	32-36
32	P1M-4KMB	P1M-4KMT	P1M-4KME	P1M-4KMF	3.6-4.0	32-36
40	P1M-4LMB	P1M-4LMT	P1M-4LME	P1M-4LMF	3.6-4.0	32-36
50	P1M-4MMB	P1M-4MMT	P1M-4MME	P1M-4MMF	8.0-9.0	72-80
63	P1M-4NMB	P1M-4NMT	P1M-4NME	P1M-4NMF	3.6-4.0	32-36
80	P1M-4PMB	P1M-4PMT	P1M-4PME	P1M-4PMF	8.0-9.0	72-80
100	P1M-4QMB	P1M-4QMT	P1M-4QME	P1M-4QMF	24.0-25.7	212-228

Mounting Kits

General Assembly Instructions

Perform the following steps when dis-assembling, installing mounting kits and re-assembling P1M Series cylinders.

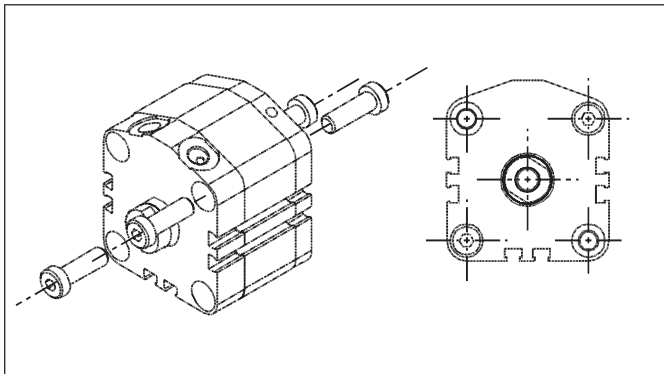
Dis-assembly of cylinder to add Mounting Kit

- 1) Un-torque cylinder mounting fasteners using corner to corner sequence until fasteners are finger tight.
- 2) Remove all fasteners.
- 3) Clean mating parts to remove oil, grease and dirt.
- 4) Fasteners should be clean, dry and burr free.
- 5) Brush mounting fastener threads thoroughly with anti-seize lubricant.
- 6) Follow the appropriate procedure below for the desired mounting.

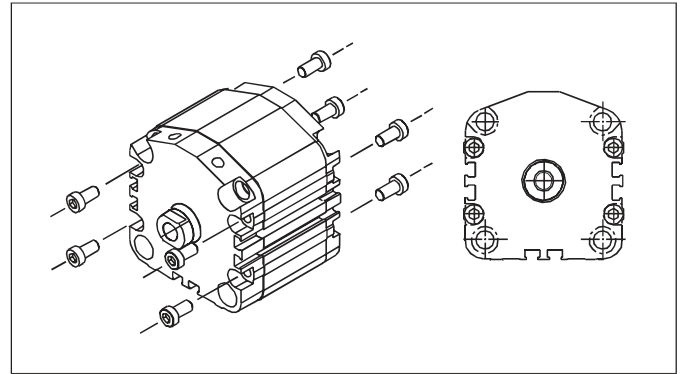
Re-Assembly and Torquing of Cylinder after Maintenance

The following procedure is recommended to ensure the correct re-assembly of the cylinder.

- A) Tighten the mounting fasteners in the opposite corner sequence to approximately 3/4 of final tightening torque. Refer to illustration for fastener position and quantity.
- B) Using a calibrated torque wrench, tighten the mounting fasteners to the final torque listed repeating the opposite corner sequence procedure.



12mm to 50mm Bores



63mm to 100mm Bores

See above for disassembly and reassembly instructions. See previous page for fastener torque values.

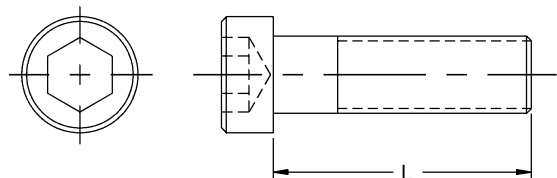
Mounting Screw Lengths Please refer to following table for the appropriate screw lengths (L) with respect to the cylinder bore , mounting head and cap configuration.

“L”Screw lengths in mm.

12mm Bore (M4 Screw)				16mm Bore (M4 Screw)				20mm Bore (M6 Screw)				25mm Bore (M6 Screw)			
	Clevis	Flange	Foot		Clevis	Flange	Foot		Clevis	Flange	Foot		Clevis	Flange	Foot
Unported Cap	16	12	12	Unported Cap	16	12	12	Unported Cap	20	18	18	Unported Cap	20	18	18
Ported Cap	20	20	20	Ported Cap	20	20	20	Ported Cap	23	23	23	Ported Cap	25	25	23
ELP Head		20	20	ELP Head		20	20	ELP Head		23	23	ELP Head		25	23
Long Head		25	25	Long Head		25	25	Long Head		28	28	Long Head		28	28

32mm Bore (M6 Screw)				40mm Bore (M6 Screw)				50mm Bore (M8 Screw)				63mm Bore (M10 Screw)			
	Clevis	Flange	Foot		Clevis	Flange	Foot		Clevis	Flange	Foot		Clevis	Flange	Foot
Unported Cap	23	20	20	Unported Cap	23	20	20	Unported Cap	30	25	25	Unported Cap	35	30	30
Ported Cap	30	30	30	Ported Cap	30	30	30	Ported Cap	35	32	32	Ported Cap	40	35	35
ELP Head		30	30	ELP Head		30	30	ELP Head		32	32	ELP Head		35	35
Long Head		30	30	Long Head		30	30	Long Head		35	35	Long Head		40	40

80mm Bore (M12 Screw)				100mm Bore (M12 Screw)			
	Clevis	Flange	Foot		Clevis	Flange	Foot
Unported Cap	40	35	35	Unported Cap	45	35	40
Ported Cap	50	45	45	Ported Cap	55	45	50
Head		45	45	Head		45	50



All lengths listed measured per above drawing in mm

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9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

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