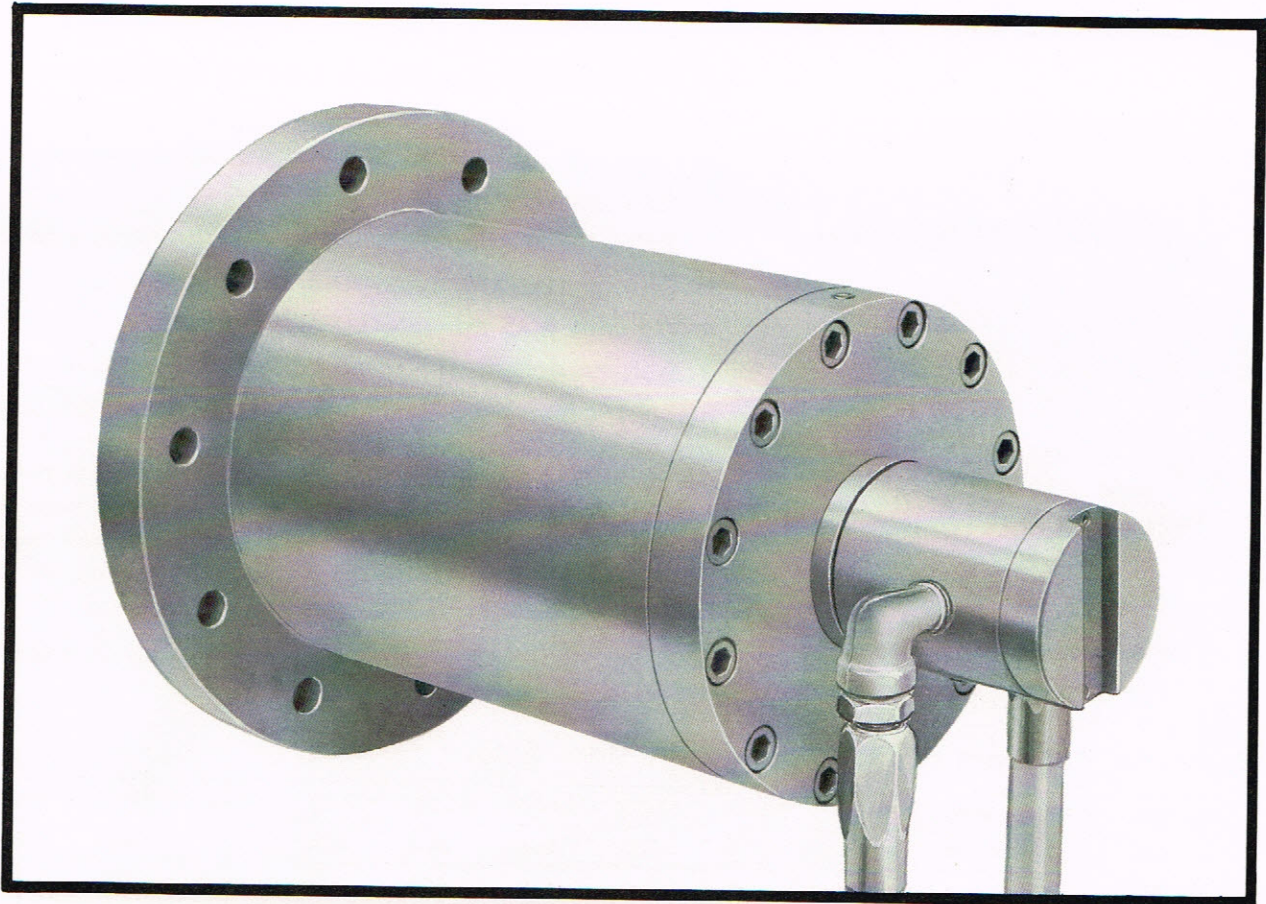
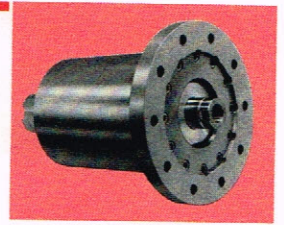




SECTION A
Heavy Duty
Air/Hydraulic
Rotating Cylinders
Up to 500 RPM

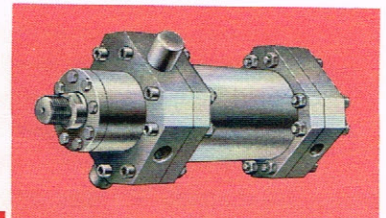
Specifications and Dimensions



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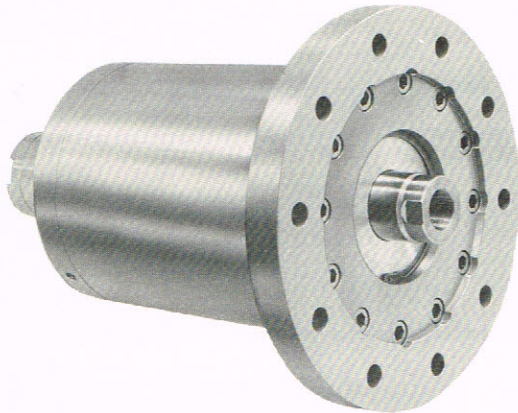
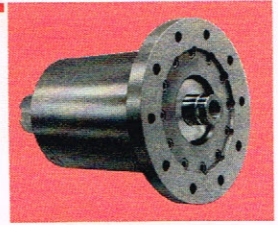
Telex: 27-0557



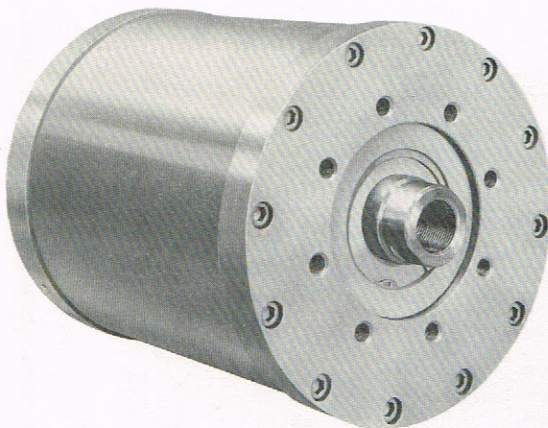
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Heavy Duty Air/Hydraulic Rotating Cylinder



Flange Mount Rotating Cylinder



Flush Mount Rotating Cylinder

Provides all you need in rotation and linear actuation . . .

- High rpm capacities.
- Variable or fractional length stroke to fit application.
- Flush or flange mounting.
- Oversize rods available as standard.
- Hard, chrome plated piston rods, honed 8 rms.
- All steel construction.
- Self regulating wear compensating pressure energized seals for zero by pass.
- 16 rms precision honed tube for maximum seal life.
- Tapped cartridge bushing for quick removal.
- Large diameter couplings standard for maximum flow capacity.
- Extra large couplings for heavy duty use available.
- Double bearing supported couplings.
- Coolant and tell-tale sensor options.
- Bolt-on coupling—removable from outside.

ROTO-THRUST Rotating Air/Hydraulic Cylinders are designed for optimum performance. 500 RPM can be maintained through the double bearing supported coupling. In addition to the axial support and stability of the coupling, the large diameter allows for a coolant inlet or the use of a probe indicator to actuate travel limit devices. The design latitude offered broadens the inherent capabilities of the rotating cylinder.

Rotating Cylinders designed for performance up to 2,000 RPM are offered as an option.

Hydraulic Pressure and RPM Limits by Bore Size:

Bore Size	4.50	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	24.00	28.00
PSI	1,000	1,000	1,000	1,000	1,000	500	500	500	500	500	500
RPM	500	500	500	500	500	500	500	500	500	500	500

Air Service:

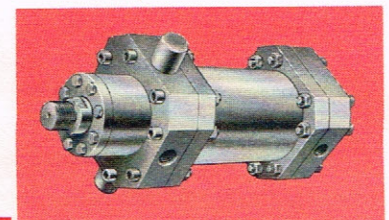
All bore sizes have 250 PSI and 500 RPM limits.

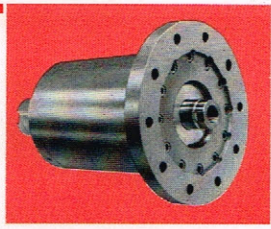
Ordering Instructions:

Order by model number; specify operating medium (oil, air, etc.), bore, length of stroke, maximum RPM and PSI. If oversize rods are desired, make certain correct model number is used. Rotating cylinders other than those listed will be quoted on request. See following pages for specifications.

For higher PSI and/or RPM requirements, contact our sales department.

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Coupling Data

Both 20 and 45 GPM coupling housings have a 4 to 6 micro finish bore to assure long life and optimum sealing. Each end of the housing is supported on the stem with friction free hermetically sealed ball bearings. The standard coupling is rated at 20 GPM and is available with tell-tale sensor and coolant feed through options. (see page 6).

The 45 GPM coupling is available as an option for cylinders with 8 in. and larger bore sizes. Tell-tale sensor and coolant feed through options available.

45 GPM flow rate at 15 FPS velocity, 1,000 PSI and 350 RPM. Higher pressures and RPM's available on request.

Seals

Standard: For petroleum base fluids, graphite impregnated Buna N seals are used to provide long seal life and are cushioned by conical shaped back up rings for maximum pressure.

Special: For phosphate ester and equivalent fire resistant fluids, viton seals are available. For water glycols, water and oil emulsion or plain water, spring loaded teflon continuous rings are available.

RPM

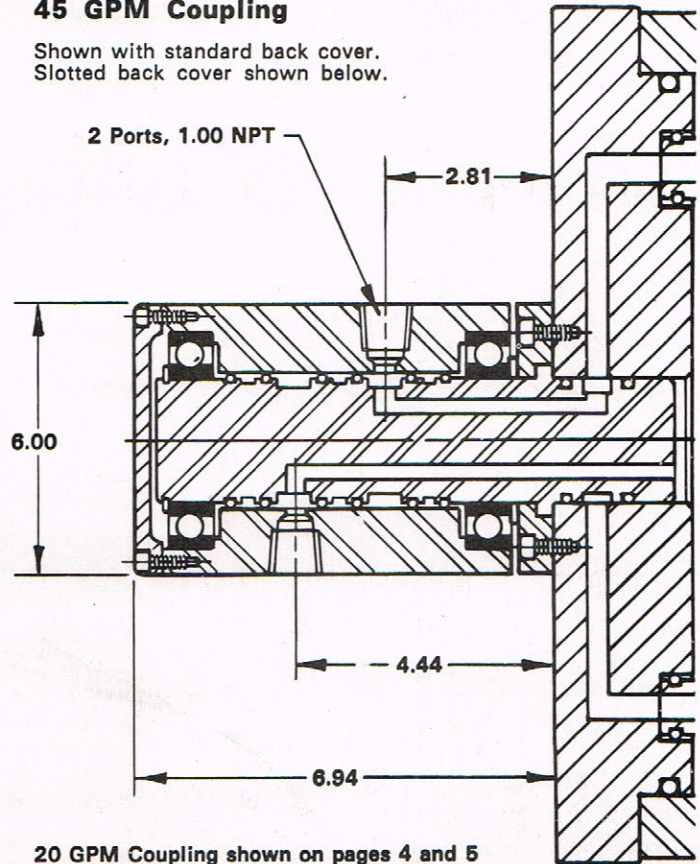
RPM requirements greater than 500 for the 20 GPM coupling and 350 for the 45 GPM coupling are special and will be quoted on request. Please contact your area representative or the factory.

Pressure

Pressure ratings higher than catalog standards are special and will be quoted on request.

45 GPM Coupling

Shown with standard back cover. Slotted back cover shown below.

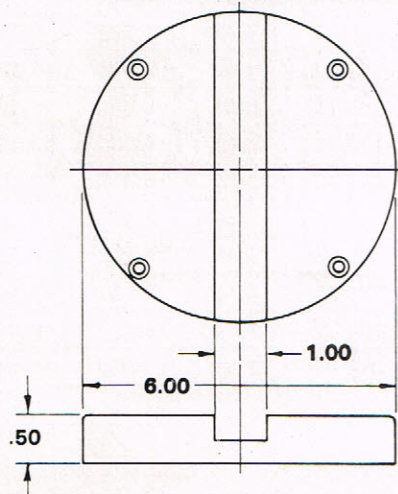


20 GPM Coupling shown on pages 4 and 5

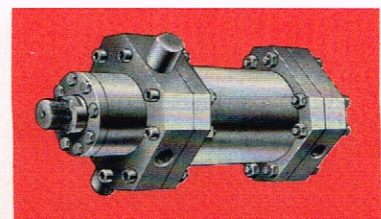
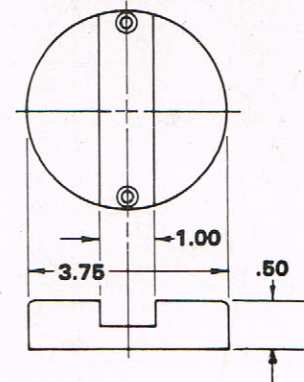
Slotted Coupling Back Cover

Both 20 and 45 GPM couplings are available with a slotted back plate to accommodate a stabilizer bar.

45 GPM Coupling Back Cover



20 GPM Coupling Back Cover



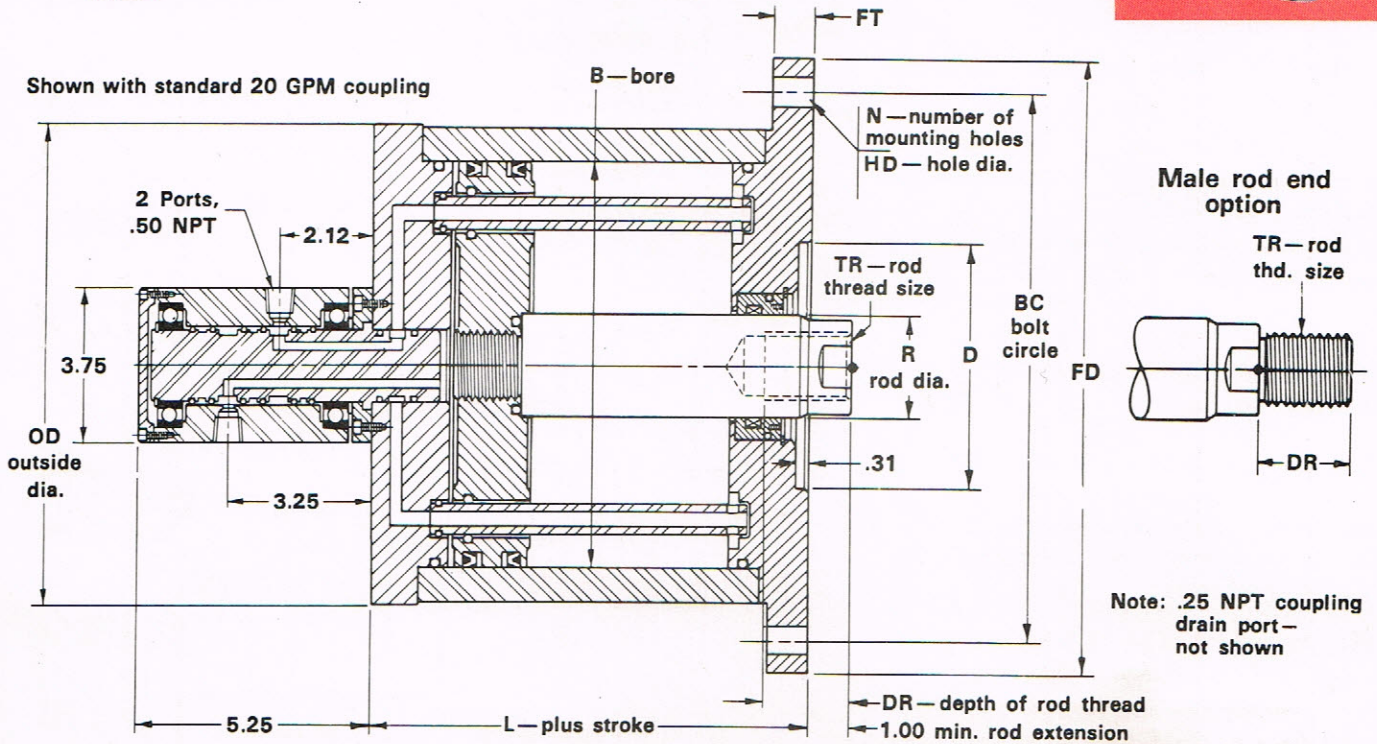
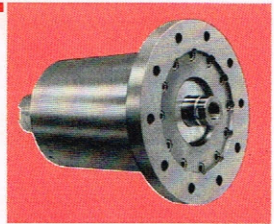
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Flange Mounted Rotating Cylinders



Specifications and Dimensions

Model Number	B bore	R rod dia.	DR	TR	L + stroke	D +.001 -.000	BC	N	HD	FD	FT	OD
30100-F	3.00	1.00	1.00	3/4-16	5.12	3.000	5.88	4	.53	7.12	1.00	4.62
45125-F	4.50	1.25	1.25	7/8-14	5.75	3.000	7.00	5	.53	8.00	1.00	6.12
45175-F	4.50	1.75	1.75	1 1/4-12	5.75	4.002	7.00	5	.53	8.00	1.00	6.12
60175-F	6.00	1.75	1.75	1 1/4-12	6.38	4.500	8.75	8	.53	9.75	1.00	7.75
60250-F	6.00	2.50	2.50	1 7/8-12	6.38	5.502	8.75	8	.53	9.75	1.00	7.75
80200-F	8.00	2.00	2.00	1 1/2-12	6.62	5.000	11.50	6	.78	13.12	1.25	9.88
80300-F	8.00	3.00	3.00	2 1/4-12	6.62	6.002	11.50	6	.78	13.12	1.25	9.88
10250-F	10.00	2.50	2.50	1 3/4-12	6.75	6.000	13.50	10	.78	15.62	1.38	11.88
10350-F	10.00	3.50	3.50	2 1/2-12	6.75	8.002	13.50	10	.78	15.62	1.38	11.88
12350-F	12.00	3.50	3.50	2-12	7.75	7.500	16.25	10	.91	18.00	1.50	14.19
12450-F	12.00	4.50	4.50	3-12	7.75	10.002	16.25	10	.91	18.00	1.50	14.19
14400-F	14.00	4.00	4.00	2 1/2-12	7.75	9.000	18.25	12	.91	20.00	1.50	16.25
14500-F	14.00	5.00	5.00	3 1/2-12	7.75	10.002	18.25	12	.91	20.00	1.50	16.25
16400-F	16.00	4.00	4.00	2 1/2-12	10.00	10.000	20.88	12	1.06	23.00	1.50	18.62

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