

LINEAR VALVE ACTUATORS

FNW offers hydraulic valve actuators for linear valves such as knife gates, slide gates, and wedge gate valves. Actuators are supplied with double-acting (pressure-to-open, pressure-to-close) action. Coupled with actuation accessories such as solenoids, position switches, and positioners, FNW can supply a valve with a complete control package. FNW can also supply pneumatic linear actuators. Whatever your linear actuator and control needs are, contact FNW with your specific application requirements.

Features:

- Double Acting
- Bore Sizes 1-1/2" through 6"
- Heavy Walled Cylinder with Honed to Micro Finish Bore
- Externally Removable Piston Rod Gland
- Dual Piston Rod Seal for Integrity and Rod Wiper
- Grooved Alignment Between Body and Caps
- Head Plate Adapter for Easy Mounting
- Factory Tested
- -10°F to 165°F Temperature Range (Standard Seals)

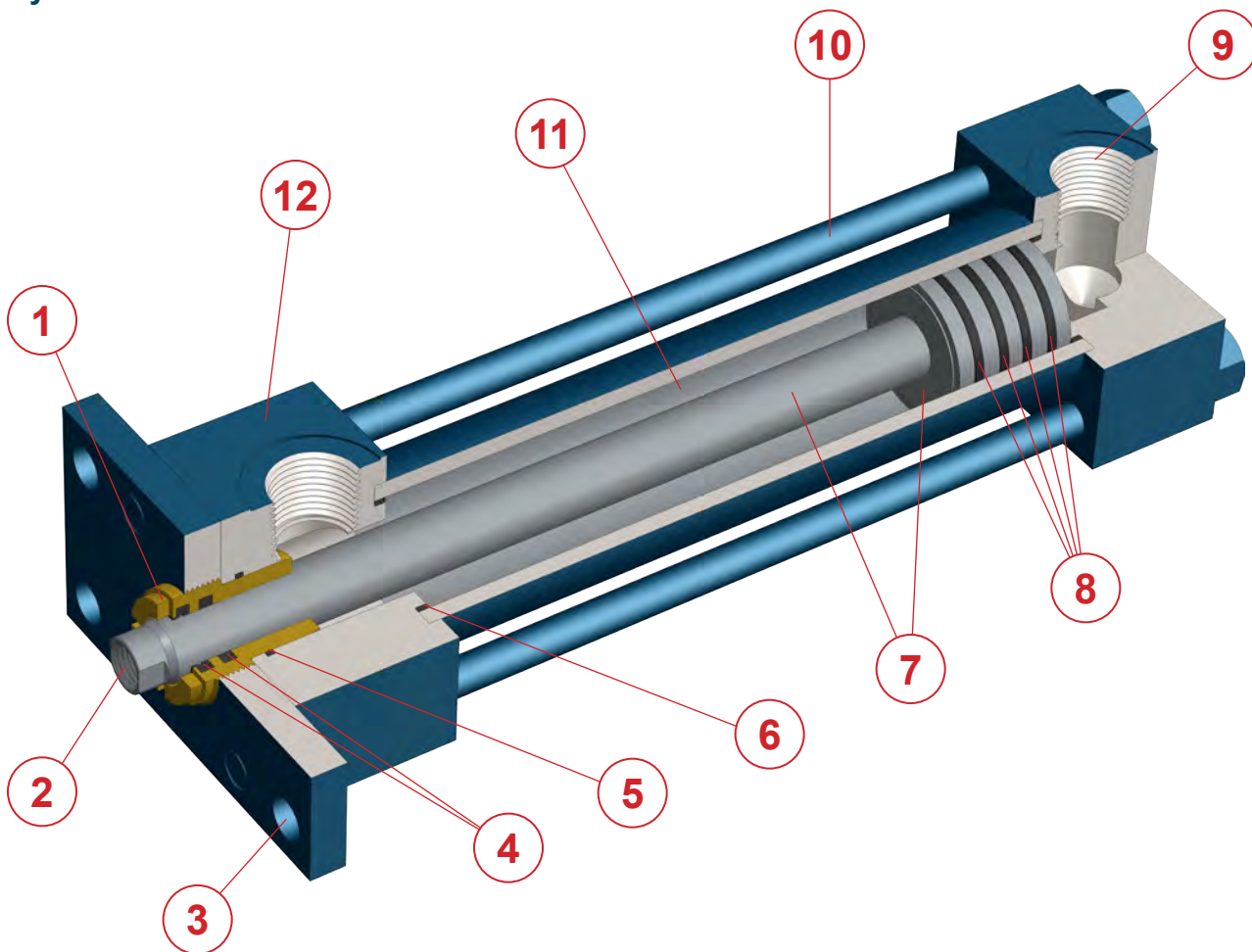
Available Options:

- Cushions at either end or both ends of stroke.
- Hi-Temp Seals (-10°F to 250°F)
- Low-Temp Seals (-50°F to 150°F)
- Spring Loaded Filled PTFE Piston Seals to Optimize Piston Seal Performance
- High Load Piston Design, Adds Wear Rings and Bronze Filled PTFE Seals to Compensate for Side Loading

Additional options are available. Contact FNW sales for your specific application needs.

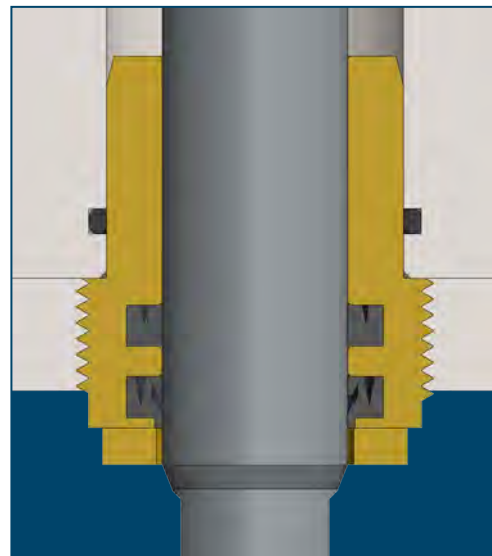


Cylinder Construction

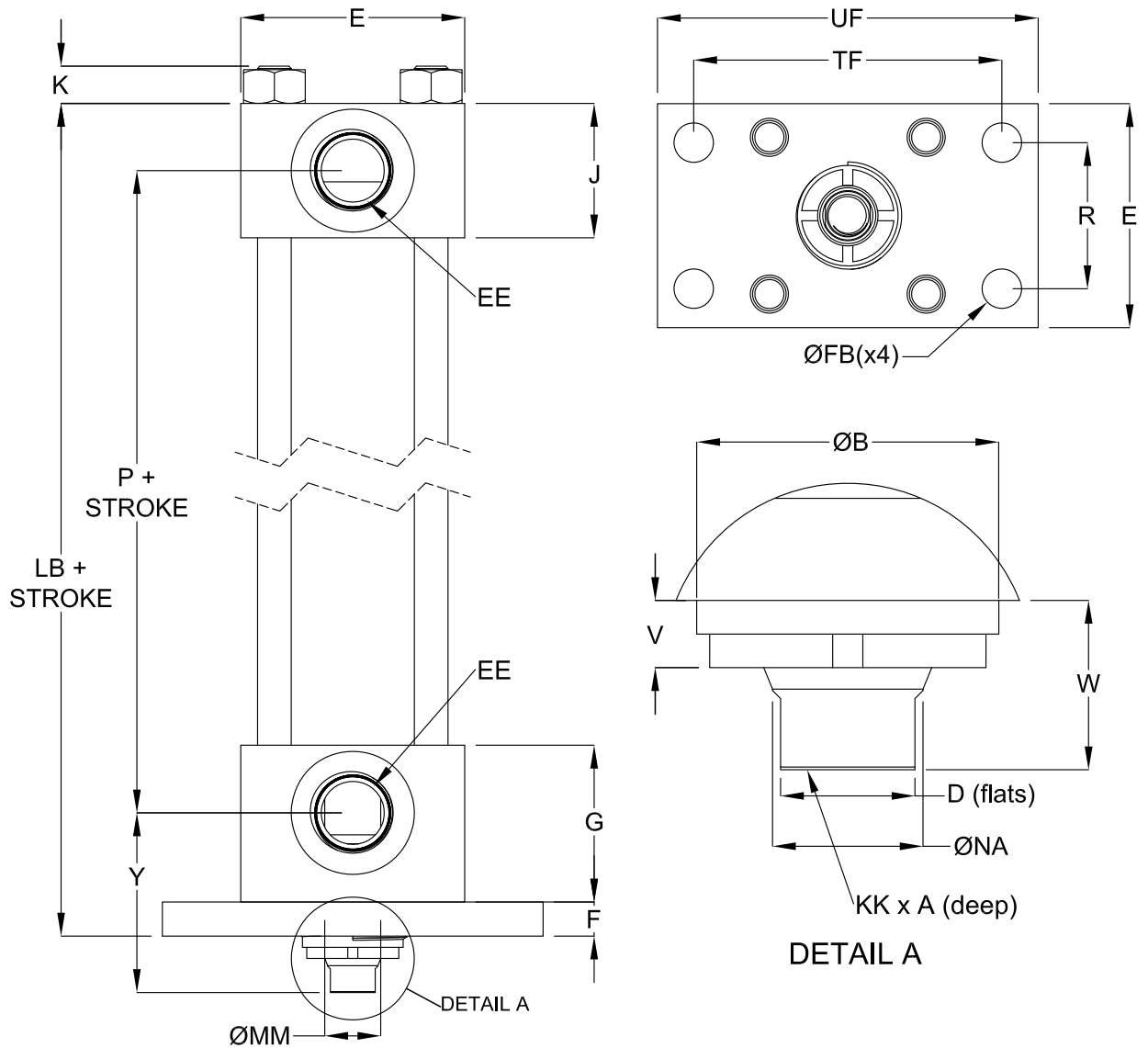


Features Description

1. The Rod Gland Assembly is externally removable without disassembling the cylinder.
2. Standard cylinders include a female threaded piston rod connection and come standard with two wrench flats to facilitate rod end attachment. Piston rods made from case hardened medium carbon steel, are hard chrome plated and polished to a 10 RMS surface finish.
3. The gland plate at the head of the cylinder is extended for easy attachment to valve mounting plates.
4. Self-compensating and self-relieving primary seal ensures positive seal and the secondary seal wiper seal keeps the rod clean during extend and return strokes.
5. The gland o-ring seals between cylinder head and gland and serves as a prevailing torque-type lock.
6. Pressure actuated o-ring seals and alignment grooves are located at each end of the body to assure tube to head alignment and leak free operation.
7. Chrome plated medium carbon steel piston rod and one-piece nodular iron piston are permanently locked together using anaerobic adhesive.
8. Standard piston seals are cast iron rings. Other piston seals available on request.
9. SAE o-ring ports for hydraulic supply are standard throughout the entire bore range and side ported to facilitate accessory mounting.
10. All tie rods are made from high strength material rated to a minimum yield of 100,000 PSI with rolled threads for added strength.
11. Cylinder bodies are heavy walled steel tubing, honed to a micro finish bore.
12. Cylinder exterior is enamel coated for added corrosion resistance.



Externally Removable/Replaceable Rod Gland Assembly with Dual Piston Rod Seals/Wiper



Dimensions (inches)

Bore	ØMM	KK	A	øB	D	NA	V	W	Y	F	G	J	K	UF	E	TF	R	ØFB	EE (SAE)	Add Stroke (Inches)	
																				LB	P
1-1/2	0.625	7/16 - 20	0.75	1.124	0.50	0.56	0.25	0.63	2.00	0.38	1.75	1.50	0.62	4.25	2.50	3.44	1.63	0.44	1/2"	5.00	2.88
2	1.000	3/4 - 16	1.13	1.499	0.88	0.94	0.25	0.75	2.38	0.63	1.75	1.50	0.69	5.13	3.00	4.13	2.05	0.56	1/2"	5.25	2.88
2-1/2	1.000	3/4 - 16	1.13	1.499	0.88	0.94	0.25	0.75	2.38	0.63	1.75	1.50	0.68	5.63	3.50	4.63	2.55	0.56	1/2"	5.38	3.00
3-1/4	1.375	1 - 14	1.63	1.999	1.13	1.31	0.25	0.88	2.75	0.75	2.00	1.75	0.81	7.13	4.50	5.88	3.25	0.69	3/4"	6.25	3.50
4	1.750	1-1/4 - 12	2.00	2.374	1.50	1.69	0.25	1.00	3.00	0.88	2.00	1.75	0.87	7.63	5.00	6.38	3.82	0.69	3/4"	6.63	3.75
5	2.000	1-1/2 - 12	2.25	2.624	1.69	1.94	0.25	1.13	3.13	0.88	2.00	1.75	1.12	9.75	6.50	8.19	4.95	0.94	3/4"	7.13	4.25
6	2.500	1-7/8 - 12	3.00	3.124	2.06	2.38	0.25	1.25	3.50	1.00	2.25	2.25	1.18	11.25	7.50	9.44	5.73	1.03	1"	8.38	4.88

Weight (pounds)

Bore	Add Values for Total Weight	
	Base Weight (lbs.)	Weight per inch of stroke (lbs.)
1-1/2	7.8	0.5
2	11.6	0.8
2-1/2	17.0	1.1
3-1/4	32.0	1.8
4	48.0	2.5
5	76.0	3.4
6	125.0	5.2

Pressure (PSI)

Bore	Max. PSI Pushing
1-1/2	1,500
2	2,000
2-1/2	2,000
3-1/4	1,800
4	1,800
5	1,300
6	1,200

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