

LINEAR VALVE ACTUATORS

FNW offers pneumatic valve actuators for linear valves such as knife gates, slide gates, and wedge gate valves. Actuators can be supplied with double-acting (air-to-open, air-to-close) and spring-return (air energized, spring to fail position closed or open) configurations depending on your control needs. 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 hydraulic linear actuators. Whatever your linear actuator and control needs are, contact FNW with your specific application requirements.

Features

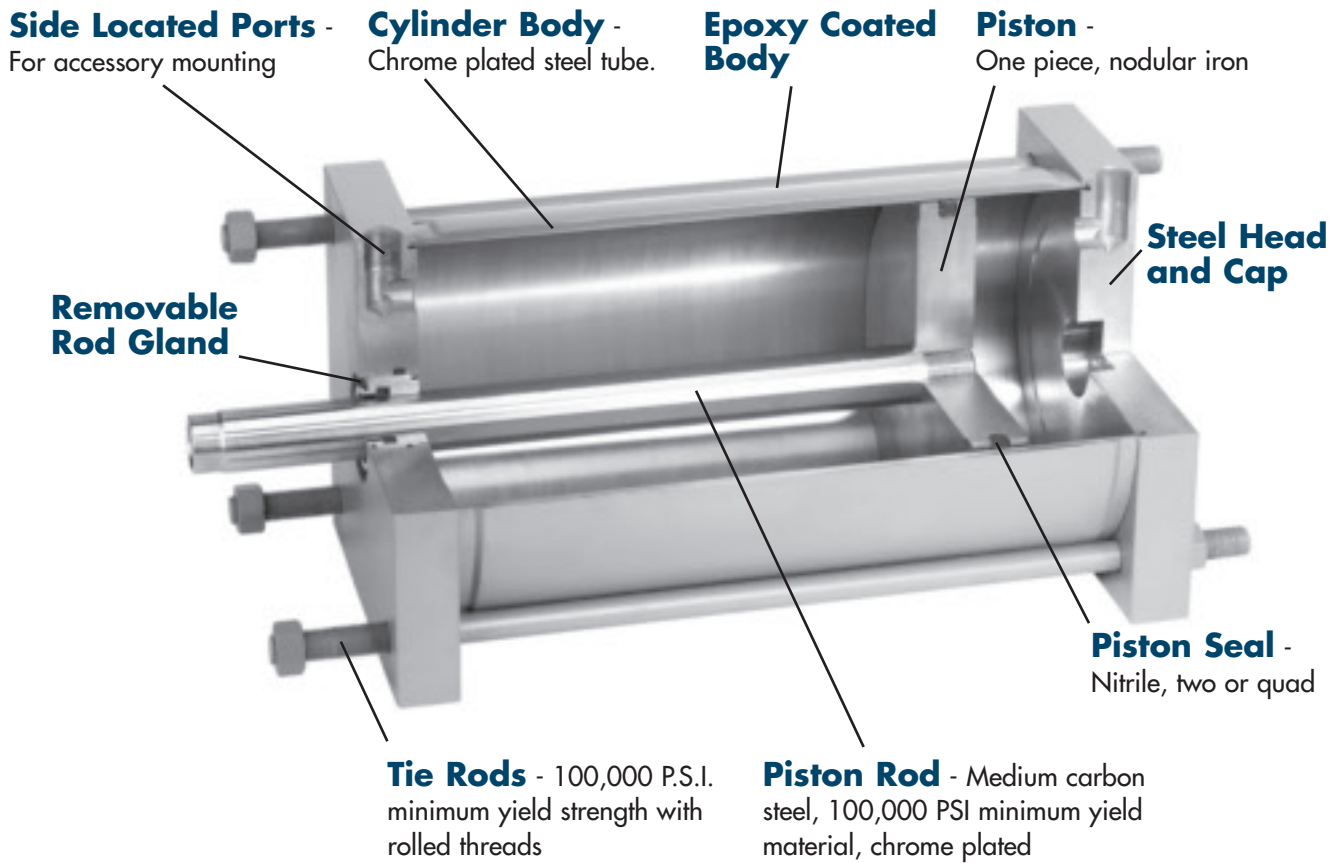
- Bore Sizes 3-1/4" through 24"
- Pressure Rated to 150 PSI Air
- Chrome Plated Cylinder
- Removable Rod Gland
- Factory Tested
- -10°F to +165°F Temperature Rating (standard)

Available Options

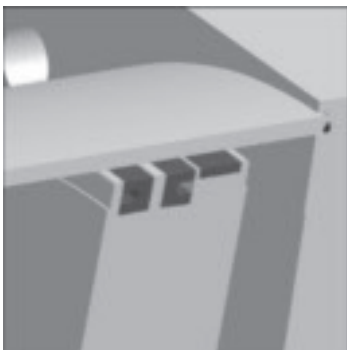
- Individual Rod Seal and Rod Wiper
- Stainless Steel Piston Rods
- Spring Extend or Retract
- Double Rod End Style
- Hi-Temp Seals (Fluorocarbon rated to 250°F)
- Water Service
- Lifting Eyes
 - Tie rod mount (ordered as an accessory)
 - Welded on cap face



Linear Actuator Construction



Piston Seals

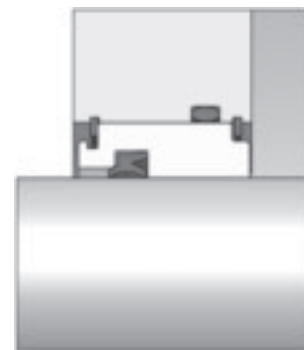


Two Nitrile lipseals, 3-1/4 - 5" and 16 - 24" bores.

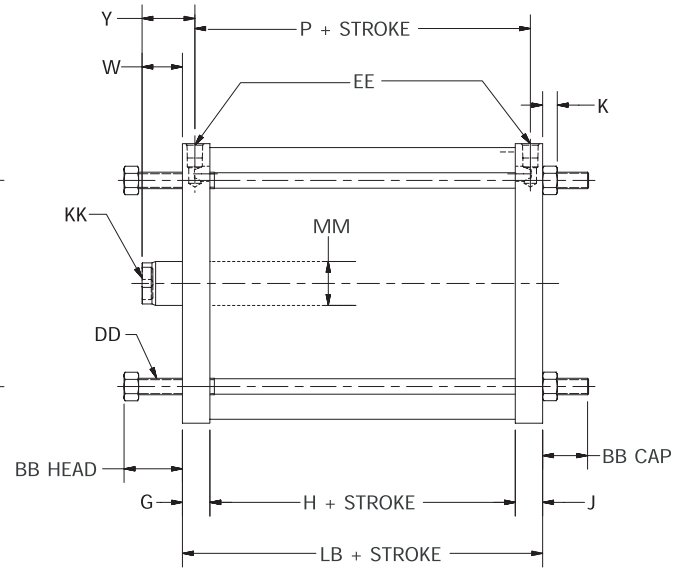
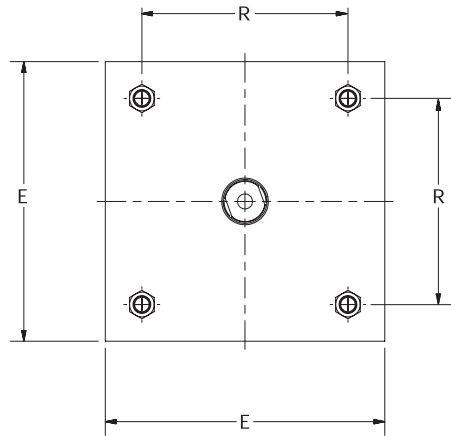
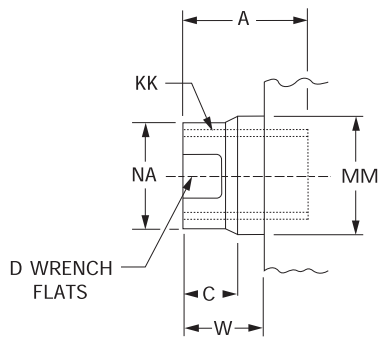


Nitrile "Quad" seal, 6-14" bores.

Removable Rod Gland



Heavy duty rod seal/wiper, 3-1/4 - 24" bores.



Dimensions (inches)

Bore	MM	KK	A	C	D	W	Y	BB Head	BB Cap	DD
3-1/4	1	3/4 - 16	1-1/8	1/2	7/8	3/4	1-3/16	1-3/8	1-1/4	3/8 - 24
4	1	3/4 - 16	1-1/8	1/2	7/8	3/4	1-3/16	1-3/8	1-1/4	3/8 - 24
5	1	3/4 - 16	1-1/8	1/2	7/8	3/4	1-3/16	1-13/16	1-1/4	1/2 - 20
6	1	3/4 - 16	1-1/8	1/2	7/8	7/8	1-5/16	1-13/16	1-1/4	1/2 - 20
7	1	3/4 - 16	1-1/8	1/2	7/8	7/8	1-5/16	2	1-1/2	5/8 - 18
8	1	3/4 - 16	1-1/8	1/2	7/8	7/8	1-5/16	2	1-1/2	5/8 - 18
10	1	3/4 - 16	1-1/8	1/2	7/8	1	1-9/16	2-1/4	1-1/2	3/4 - 16
12	1-3/8	1 - 14	1-5/8	5/8	1-1/8	1	1-9/16	2-1/4	1-1/2	3/4 - 16
14	1-3/8	1 - 14	1-5/8	5/8	1-1/8	1	1-11/16	2-1/2	2	7/8 - 14
16	1-3/8	1 - 14	1-5/8	3/4	1-1/2	1-1/4	1-15/16	2-3/4	2	1 - 14
18	2	1-1/2 - 12	2-1/4	7/8	1-11/16	1-1/2	2-1/4	3-1/4	2-1/2	1-1/8 - 12
20	2	1-1/2 - 12	2-1/4	7/8	1-11/16	1-1/2	2-1/4	3-1/4	2-1/2	1-1/4 - 12
22	3	2-1/4 - 12	3-1/2	1	2-5/8	2-1/4	3-7/16	3-1/2	2-1/2	1-1/4 - 12
24	3-1/2	2-1/4 - 12	3-1/2	1	3	2-1/4	3-3/4	3-1/2	2-1/2	1-1/4 - 12

Bore	E	EE (NPTF)	G & J	K	NA	R	Add Stroke (Inches)			Max Stroke*
							LB	H	P	
3-1/4	4	1/4	1	3/8	15/16	2.76	3-1/4	1-1/4	2-3/8	100
4	4-1/2	3/8	1	3/8	15/16	3.32	3-1/4	1-1/4	2-3/8	80
5	5-1/2	3/8	1	7/16	15/16	4.10	3-1/2	1-1/2	2-5/8	65
6	6-1/2	3/8	1	7/16	15/16	4.88	3	1	2-1/8	55
7	7-1/2	3/8	1	9/16	15/16	5.73	3-1/4	1-1/4	2-3/8	45
8	8-1/2	3/8	1	9/16	15/16	6.44	3-1/4	1-1/4	2-3/8	40
10	10-5/8	1/2	1-1/4	11/16	15/16	7.92	4	1-1/2	2-7/8	30
12	12-3/4	1/2	1-1/4	11/16	1-5/16	9.40	4-1/4	1-3/4	3-1/8	50
14	14-3/4	3/4	1-1/2	13/16	1-5/16	10.90	4-3/4	1-3/4	3-3/8	40
16	17	3/4	1-1/2	7/8	1-11/16	12.59	5	2	3-5/8	60
18	19	3/4	1-3/4	1	1-15/16	14.14	5-3/4	2-1/4	4-1/4	70
20	21	3/4	1-3/4	1-1/16	1-15/16	15.77	6	2-1/2	4-1/2	65
22	23	3/4	2	1-1/4	2-7/8	17.18	7-1/2	3-1/2	5-1/8	60
24	25-1/4	3/4	2-1/2	1-1/4	3-3/8	18.74	8-1/2	3-1/2	5-1/2	60

* Based upon rod buckling calculation at 100 PSI operating pressure.

Weights

Bore	Add Values for Total Weight	
	Base Weight w/Steel Cylinder (Lbs.)	Weight per inch of stroke w/Steel Cylinder (Lbs.)
3-1/4	9.5	0.6
4	14.7	0.8
5	22.9	1.0
6	34.6	1.1
7	50.3	1.6
8	66.7	2.0
10	125.1	2.6
12	173.1	3.3
14	268.8	3.8
16	373.3	5.9
18	490.3	6.9
20	752.1	10.0
22	971.5	12.2
24	1413.4	15.0



Linear Hydraulic Actuators

FNW can also supply linear hydraulic actuators for valves. Contact FNW with your specific application requirements.

DOC: FNWLINACT05 Ver. 7/05

© 2005 - FNW. All rights reserved.

The FNW logo is a registered trademark of Ferguson Enterprises, Inc.

The contents of this publication are presented for information purposes only, and while effort has been made to insure their accuracy, they are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.