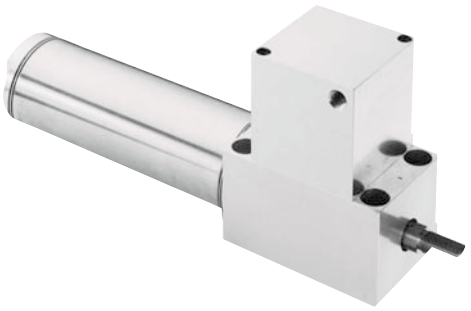
Rod Lock Cylinders



The Bimba Original Line Rod Lock Cylinder is a normally clamped unit that holds the piston rod in position when air pressure is not present. It is ideal for preventing drift at machine shut down.

How to Order

The model number for all Original Line Rod Lock cylinders consists of three alphanumeric clusters. These designate product type, bore size and stroke length, and options.

Please note the following features are standard, and are included in all model numbers: BFLM (Block Front with Magnet) and W (Rod Wiper).

Product Type
BFLM - Original Line Rod Lock
(Block Front and Magnet Standard)

Bore Size
04 - 3/4"
09 - 1-1/16"
17 - 1-1/2"
31 - 2"
50 - 2-1/2"
70 - 3"

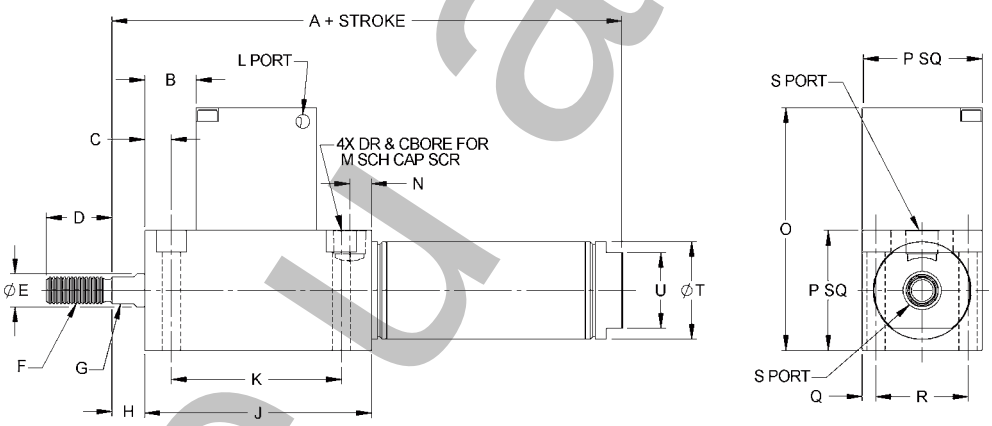
Standard Stroke Lengths
Refer by bore size to OL double-acting standard stroke lengths

BFLM - 093 - DW

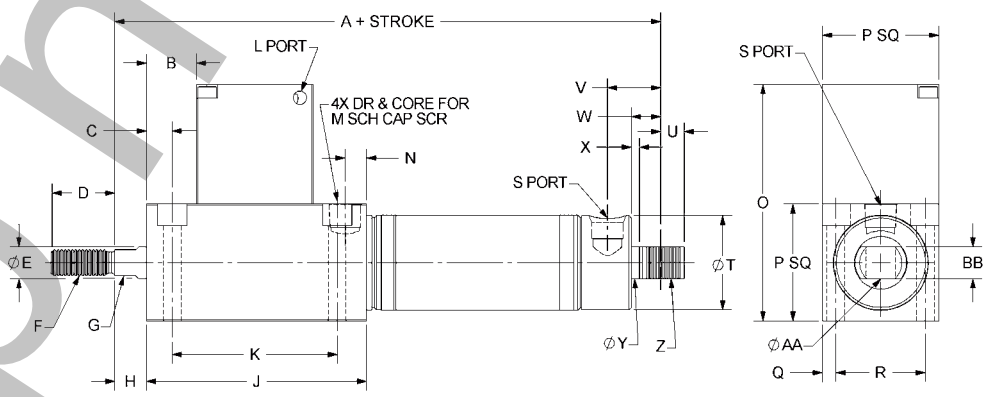
Mounting Style	
D	- Axial Rear Port
DXP	- Universal Mount (Includes pivot bushing)

Options		
B	-	Double Acting Bumpers
F	-	Molycoated Body ID
N	-	Low Temperature Operation (-40°F to +200°F)
Q	-	Side Port Rear Head
T2, T3, T4	-	Add Track for MS Series Switch
V	-	High Temperature Operation (0°F to +400°F)
W	-	Rod Wiper (standard)
EE	-	Extra Rod Extension

Dimensions
D Mounting Style



DXP Mounting Style



Dimensions (in.)
D Model

Bore	A	B	C	D	E	F	G	H	J	K	L
3/4" (04)	4.48	0.72	0.37	0.75	0.31	1/4-28 UNF-2A	0.25	0.25	2.48	1.83	#10-32 UNF-2B
1-1/16" (09)	4.84	0.61	0.59	0.75	0.38	5/16-24 UNF-2A	0.31	0.38	2.6	1.95	#10-32 UNF-2B
1-1/2" (17)	5.47	0.82	0.32	1.25	0.5	7/16-20 UNF-2A	0.43	0.38	3.37	2.75	1/8 NPT
2" (31)	6.84	0.88	0.44	1.25	0.62	1/2-20 UNF-2A	0.56	0.38	3.97	3.13	1/8 NPT
2-1/2" (50)	7.48	0.87	0.43	1.25	0.75	1/2-20 UNF-2A	0.62	0.38	4.61	3.62	1/4 NPT
3" (70)	8.22	0.92	0.46	1.25	0.75	5/8-16 UNF-2A	0.62	0.38	5.15	4.17	1/4 NPT

Bore	M	N	O	P	Q	R	S	T	U
3/4" (04)	#10	0.25	2.32	1.12	0.16	0.81	1/8 NPT	0.80	0.62
1-1/16" (09)	#10	0.25	2.78	1.38	0.16	1.06	1/8 NPT	1.12	0.87
1-1/2" (17)	1/4	0.32	3.38	1.75	0.25	1.25	1/4 NPT	1.56	0.88
2" (31)	3/8	0.39	4.45	2.25	0.31	1.62	1/4 NPT	2.08	1.24
2-1/2" (50)	7/16	0.42	5.67	2.75	0.44	1.88	1/4 NPT	2.58	1.74
3" (70)	1/2	0.42	6.28	3.25	0.5	2.25	3/8 NPT	3.13	1.99

DXP Model

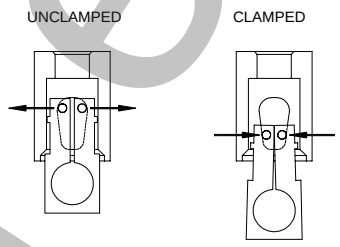
Bore	A	U	V	W	X	Y	Z	AA	BB
3/4" (04)	5.26	0.28	0.62	0.35	0.09	0.62	5/8-18 UNF-2A	0.25	0.37
1-1/16" (09)	5.44	0.28	0.62	0.34	0.09	0.62	5/8-18 UNF-2A	0.25	0.37
1-1/2" (17)	6.68	0.47	0.97	0.56	0.09	1.00	1-14 UNF-2A	0.38	0.68
2" (31)	7.78	0.44	1.03	0.56	0.13	1.37	1-1/4-12 UNF-2A	0.38	0.72
2-1/2" (50)	8.42	0.44	1.03	0.56	0.12	1.50	1-3/8-12 UNF-2A	0.38	0.72
3" (70)	9.47	0.63	1.34	0.81	0.19	1.62	1-1/2-12 UNF-2A	0.50	0.85

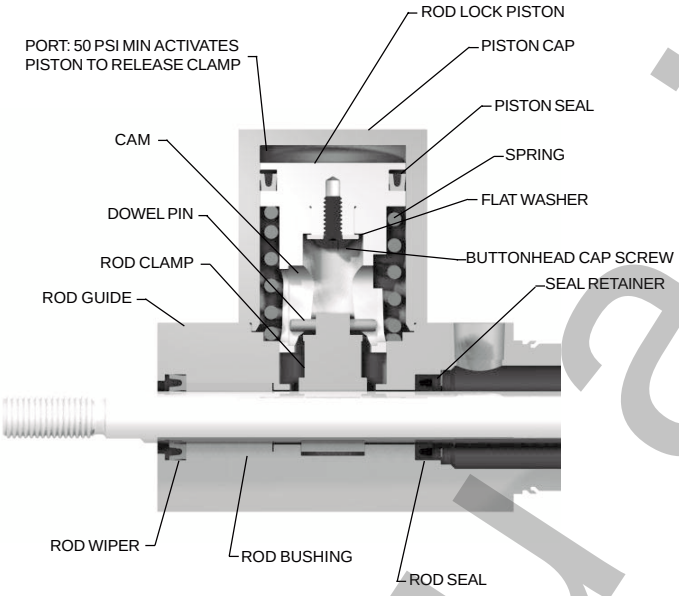
Options
Dimensional Deviations from Standard

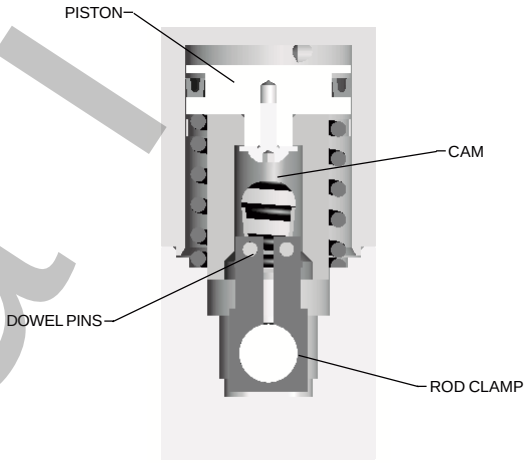
Option	Dimensional Deviation
Q - Side Port Rear Head	Use DXP model, omit rear pivot tang
B - Bumpers Add to Overall Length by Bore Size:	04 - no adder 09 - .13" 17 - .13" 31 - .25" 50 - .25" 70 - .25"

How It Works

- Dowel pins ride in the cam groove.
- When air pressure is present, piston actuates and dowel pins follow cam to open position, allowing piston rod to travel freely through clamp.
- In absense of pressure, the spring actuates piston and dowels follow to closed position, activating the rod clamp.







Engineering Specifications

Operating Medium:	Air
Operating Pressure:	50 psi minimum (to actuate lock piston) 125 psi maximum
Temperature Range:	-20 to +200 degrees F
Lubrication:	HT-99
Cylinder body:	304 stainless steel
Rod Guide, Rear Head:	Aluminum
Cap:	Anodized aluminum
Piston & Rod Seal:	Buna-N
Rod & Pivot Bushing:	Sintered bronze
Piston Rod:	Hard chrome plated stainless steel
Expected Service Life:	5 million cylinder actuations 1 million lock actuations

Rod Lock Holding Forces

Bore	Holding Force (Pounds)
3/4" (04)	40
1-1/16" (09)	90
1-1/2" (17)	170
2" (31)	310
2-1/2" (50)	500
3" (70)	700

Operating Guidelines/Product Precautions

- The Rod Lock is not a safety device.
- Do not use for intermediate stopping; the cylinder is designed to prevent drift from a stationary position.
- Load weight must not exceed the stated holding force for the cylinder.