

# Cylinders

## Cartridge Mount Mini

### Single Acting

- Easy to use, basic hydraulic cylinders in five capacities of manifold mount styles.
- Adjustable force ranging from minimal to maximum cylinder capacity, by adjusting the input pressure.
- Reduce or eliminate part distortion by providing accurate clamping force.
- Manifold mounting eliminates exposed tubing for clean, compact, clutter free fixtures.

Special tough wipers help keep chips and contaminants out of all cylinder sizes.

Positive piston stop shoulder keeps the spring from "bottoming out", guarding against premature spring failure which can plague other cylinder brands.

BHC™ (Black Hard Coating) on the cylinder body helps prevent scoring and scratching. After years of use, cylinder removal is easier because of the corrosion resistance of BHC™.



F-12

Model No.	Cylinder Capacity (lbs.)**	Stroke (in.)	Body Thread	Minimum Length (in.)	Piston Area (sq. in.)	Oil Capacity (cu. in.)
<b>Single Acting (S/A)</b>						
<b>Cylinders, actuated hydraulically 1 direction, spring returned.</b>						
21-0102-00*	125	0.12	3/8-24	1.16	0.028	0.004
21-0104-02	550	0.20	5/8-18	1.14	0.110	0.021
21-0105-03	980	0.25	3/4-16	1.48	0.196	0.049
21-0105-04				1.44		
21-0105-05	980	0.50	3/4-16	1.83	0.196	0.098
21-0105-06				1.83		
21-0108-04	2,200	0.38	1 1/16-16	1.36	0.442	0.166
21-0108-05		0.38		1.32		
21-0108-08		0.75		2.43		
21-0110-04	3,900	0.31	1 5/16-16	1.47	0.785	0.243

\* All cylinder pistons are chrome plated, hardened alloy steel with the exception of Model# 21-0102-00 which has a piston made of unhardened stainless steel.

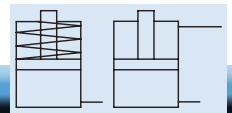
\*\* Cylinder capacities are listed at 5,000 psi maximum operating pressure. The output force is adjustable by varying the hydraulic system pressure. To determine approximate output force for your application, multiply the piston area by the operating pressure. Actual force may vary slightly due to friction loss, seal and wiper drag and/or return springs.

### Dimensions

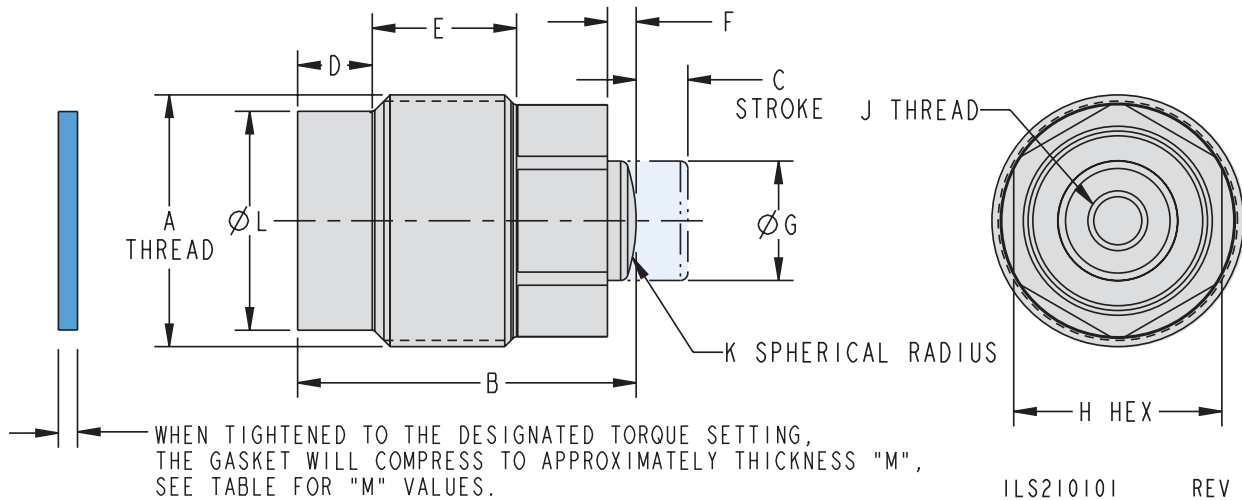
Model No.	A	B	C	D	E	F	G	H	J	K	L	M Metal	M Composite			
<b>Single Acting (S/A)</b>																
<b>Cylinders, actuated hydraulically 1 direction, spring returned.</b>																
21-0102-00	3/8-24	1.16	0.12	0.125	0.86	0.04	0.11	0.31	N/A	N/A	0.313	0.025	N/A			
21-0104-02	5/8-18	1.09	0.20	0.203	0.69	0.02	0.18	0.50	N/A	0.25	0.539	0.035	0.040			
21-0105-03	3/4-16	1.48	0.25	0.203	0.98	0.06	0.25	0.63	N/A	0.25	0.656	0.035	0.040			
21-0105-04		1.44												0.03	8-32 X 0.25	N/A
21-0105-05	3/4-16	1.83	0.50	0.203	1.24	0.18	0.25	0.63	N/A	0.25	0.656	0.035	0.040			
21-0105-06														8-32 X 0.25	N/A	
21-0108-04	1 1/16-16	1.36	0.38	0.312	0.61	0.06	0.50	0.87	N/A	0.75	0.916	0.035	0.040			
21-0108-05		1.32												0.03	1/4-20 X 0.38	N/A
21-0108-08		2.43												0.06	1/4-20 X 0.44	N/A
21-0110-04	1 5/16-16	1.47	0.31	0.312	0.72	0.09	0.63	1.00	1/4-20 X 0.50	N/A	1.222	N/A	0.040			



# Cylinders

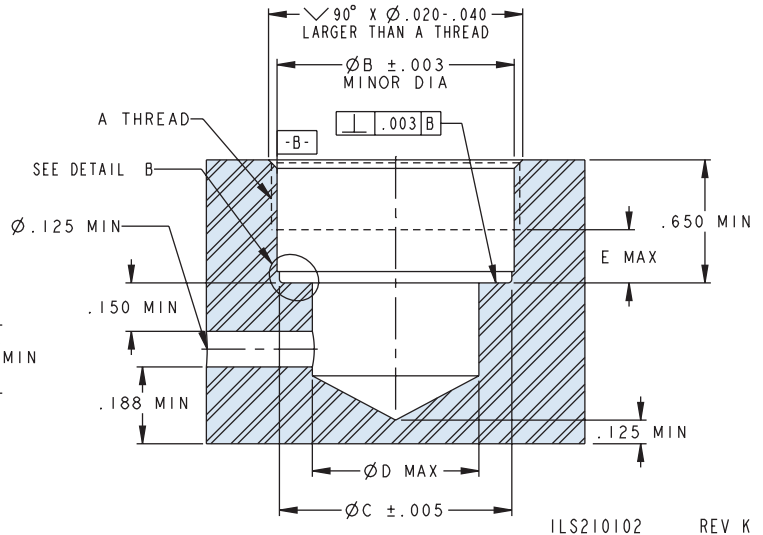
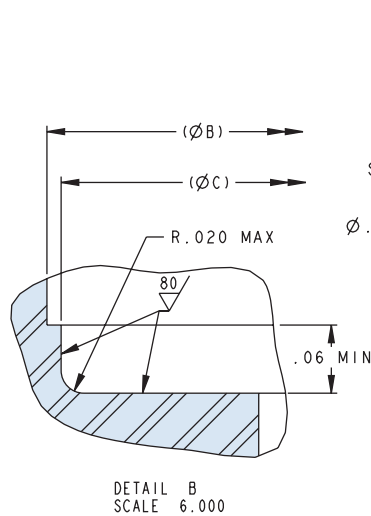
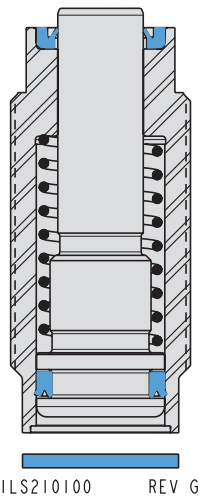


## Cartridge Mount Mini



ILS210101 REV L

F-13



### Cavity Dimensions

Model No.	A	Metal Gasket Torque*	Composite Gasket Torque*	B	C	D	E
<b>Single Acting (S/A)</b>							
<b>Cylinders, actuated hydraulically 1 direction, spring returned.</b>							
21-0102-00	3/8-24 UNF-2B	10 ft-lbs	N/A	0.335	0.325	0.13	0.100
21-0104-02	5/8-18 UNF-2B	30 ft-lbs	15 ft-lbs	0.572	0.545	0.31	0.156
21-0105-03	3/4-16 UNF-2B	40 ft-lbs	20 ft-lbs	0.690	0.662	0.38	0.156
21-0105-04							
21-0105-05	3/4-16 UNF-2B	40 ft-lbs	20 ft-lbs	0.690	0.662	0.38	0.156
21-0105-06							
21-0108-04	1 1/16-16 UN-2B	50 ft-lbs	25 ft-lbs	1.002	0.923	0.63	0.281
21-0108-05							
21-0108-08							
21-0110-04	1 5/16-16 UN-2B	N/A	35 ft-lbs	1.253	1.228	0.88	0.281

\* When both metal and composite gaskets are supplied, choose only one gasket.

- The metal gasket is recommended when the cavity seal surface has a very smooth finish, is flat and perpendicular to the minor diameter. The metal gasket must be torqued to a higher value, which is more resilient to machine vibrations providing, long term sealing.
- The composite gasket is recommended when the cavity seal surface has a rough finish or is not flat.

