

Cylinders

Threaded

Single and Double Acting

- Easy to use, basic hydraulic cylinders in SAE 4 ported designs.
- Designed for long life in high production applications.
- Reduce or eliminate part distortion by providing accurate, repeatable clamping force.
- Double Acting cylinders assure complete powered retraction for CNC controlled operations (where time is critical) or when using heavy end effectors. Single acting cylinders should be used with small end effectors only and where retraction speed is not critical.
- Coaxial spring design adds long life to Single Acting units.

Hardened chrome alloy steel pistons won't "mushroom" even when used without grippers.

Springs are designed to return the cylinder and contact points, not intended to pull mechanisms.



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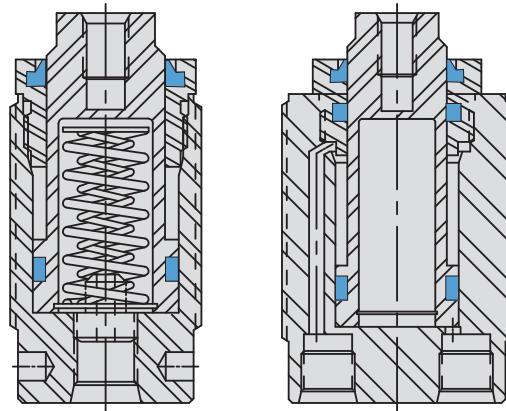
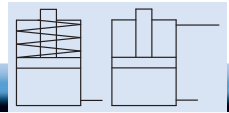
Model No.	Cylinder Capacity (lb.)**		Stroke (in.)	Body Thread	Minimum Length	Effective Piston Area (sq. in.)		Oil Capacity (cu. in.)	
	Extend	Retract				Extend	Retract	Extend	Retract
Single Acting (S/A)			Cylinders, actuated hydraulically 1 direction, spring returned.						
20-0110-00			0.50		2.68			0.393	
20-0110-01	3900	N/A	1.00	1 5/16-16	3.18	0.785	N/A	0.785	N/A
20-0110-04			1.50		3.80			1.177	
20-0110-02			2.00		4.30			1.570	
20-0115-00			0.50		2.75			0.884	
20-0115-01	8800	N/A	1.00	1 7/8-16	3.25	1.767	N/A	1.767	N/A
20-0115-04			1.50		3.75			2.650	
20-0115-02			2.00		4.26			3.534	
Double Acting (D/A)			Cylinders, actuated hydraulically both directions.						
20-0210-00			0.50		2.68			0.393	0.134
20-0210-01	3900	1300	1.00	1 7/8-16	3.18	0.785	0.267	0.785	0.267
20-0210-04			1.50		3.80			1.177	0.400
20-0210-02			2.00		4.30			1.570	0.534
20-0215-00			0.50		2.75			0.884	0.386
20-0215-01	8800	3800	1.00	2 1/2-16	3.25	1.767	0.773	1.767	0.773
20-0215-04			1.50		3.75			2.650	1.160
20-0215-02			2.00		4.26			3.534	1.546

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

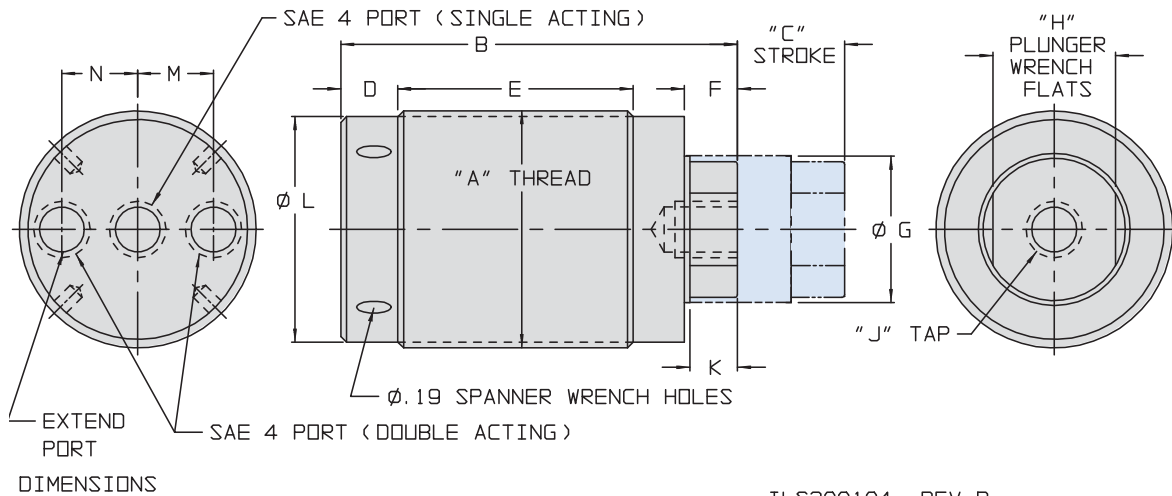
Dimensions at 3900 lb. Capacity, Extended

Model No.	Extend Capacity (lb.)	A	B	C	D	E	F	G	H	J	K	L	M	N
Single Acting (S/A)														
20-0110-00			2.68	0.50		1.56								
20-0110-01	3900	1 5/16-16	3.18	1.00	0.50	2.06	0.32	0.81	0.68	5/16-18 X 0.44	0.28	1.22	N/A	N/A
20-0110-04			3.80	1.50		2.56								
20-0110-02			4.30	2.00		3.18								
Double Acting (D/A)														
20-0210-00			2.68	0.50		1.56								
20-0210-01	3900	1 7/8-16	3.18	1.00	0.50	2.06	0.32	0.81	0.68	5/16-18 X 0.44	0.28	1.76	0.56	0.56
20-0210-04			3.80	1.50		2.56								
20-0210-02			4.30	2.00		3.18								





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Dimensions at 8800 lb. Capacity, Extended

Model No.	Extend Capacity (lb)	A	B	C	D	E	F	G	H	J	K	L	M	N	
Cylinders, actuated hydraulically 1 direction, spring returned.															
20-0115-00	8800	1 7/8-16	2.75	0.50		1.56									
20-0115-01			3.25	1.00	0.50	2.06	0.40	1.13	1.00	1/2-13 X 0.51	0.36	1.78	N/A	N/A	
20-0115-04			3.75	1.50		2.56									
20-0115-02			4.26	2.00		3.06									
Cylinders, actuated hydraulically both directions.															
20-0215-00	8800	2 1/2-16	2.75	0.50		1.56									
20-0215-01			3.25	1.00	0.50	2.06	0.40	1.13	1.00	1/2-13 X 0.51	0.36	2.39	0.81	0.44	
20-0215-04			3.75	1.50		2.56									
20-0215-02			4.26	2.00		3.06									

All dimensions are in inches. For mounting hardware details, see page L-1.

