

Cartridge Pull Cylinders

110069



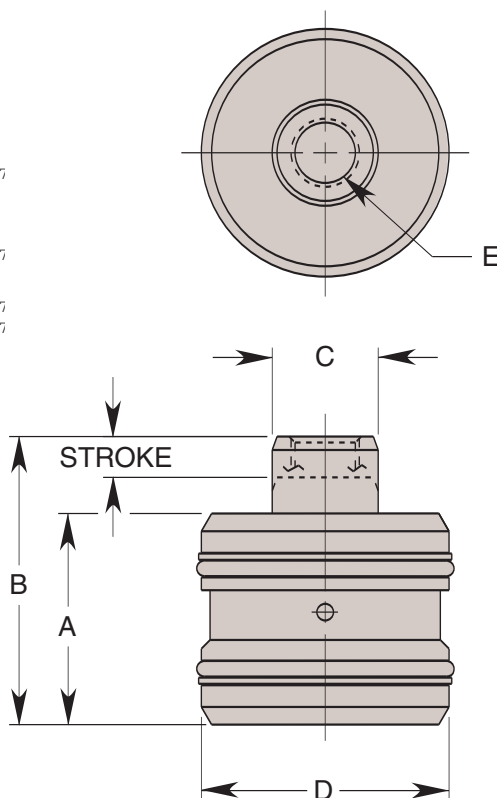
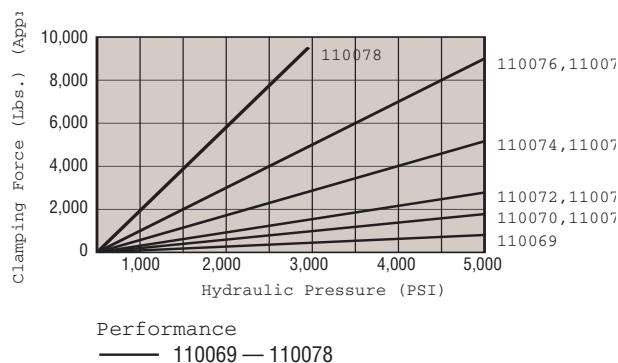
These cylinders retract when hydraulically pressurized to exert a pulling force on clamping elements or mechanisms. For straight pull applications only, they allow the user to design a cylinder into a fixture while maintaining the replaceability and long life of a heat treated, corrosion resistant cylinder body. Designed for single-acting systems only, the cylinder's return spring is built into the piston and requires no additional fixture space.

The pull cylinders are designed for cartridge mounting in a cavity supplied by the fixture builder. The required cavity is simply a cylindrical bore with a properly deburred pressure port intersecting it, providing the fluid connection. The depth of the bore matches nominal plate thickness so the cylinder can be easily "sandwiched" between two plates if desired. Where possible, pins inserted in the back of the piston are provided. These pins are

guided by holes drilled in the sub-plate and will prevent cylinder rotation when adjustments are made. A breather hole should always be provided and may be combined with the pin holes where appropriate.

Features:

- Minimal space requirements
- 5,000 psi max.
- Rod wiper excludes contaminants
- Manifold mounting eliminates exposed tubing
- Plating & Power-Tech™ processes resist corrosion
- Single-acting, spring-return
- Return spring included
- Power-Tech™ treated body for long wear and corrosion resistance



Cat. No.	Specifications				Dimensions (In Inches)					
	Force (Lbs.)	Stroke (In.)	Eff. Area (Sq. In.)	Oil Cap. (Cu. In.)	A	B	C	D	E Piston Thread	
									Size	Depth
110069	685	.123	.137	.017	1.115	1.210	.373	.810	8-32 UNC	.320
*110070	1,765		.353	.043			1.185			
110071				.063						
*110072	2,685	.178	.537	.096	1.240	1.325	.560	1.309	¼-20 UNC	.375
110073			5,210	1.042		.185		1.470		
*110074										
110075	5,210	.288	1.802	.519	1.365	1.470	.748	1.748	⅝-18 UNC	.470
*110076	9,010									
110077										
*110078	17,710	.288	3.542	1.020	1.490	1.605	.873	2.123	⅝-13 UNC	.500
						1.690				

* Intended for lower pressure applications. Operation above 2,500 psi may limit the cycle life of the cylinder and attaching fastener.

SPX HYTEC®

Edges of hole must be blended to avoid cutting O-ring. Blend on passage hole must stay in tolerance zone.

20°

C

D

E

F

B

Blend Corner (.080 R. Ref.)

G (FOR BLIND PIN HOLE)

K $\Phi \varnothing .015 \text{ M}$

H

J

A

65

Required thickness will vary due to fixture material used. Must resist maximum cylinder force.

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Cat. No.	Cavity Dimensions (In Inches)				Oil Passage Location (In Inches)		Cavity Dimensions (In Inches)				
	A Dia.	B Cyl. Body Cavity	C Dia.	†D	E Min.	F Max.	G Min.	H	J	K Dia.	*L Vent Dia. Min.
110069	.812 .815	1.120 1.130	.387 .577	.125 .145	.475	.728	—	—	—	—	.125
110070	1.187 1.190		.572 .911		.427	.710					
110071			.437		.787						
110072	1.312 1.315	1.245 1.255	.572 1.000		.476	.734					
110073											
110074	1.750 1.753	1.370 1.380	.760 1.437		.531	.819					
110075											
110076	2.125 2.128	1.495 1.505	.885 1.812		.526	.943	.510	.550	1.100	.270 .280	
110077											
110078	2.875 2.878	1.620 1.630	1.074 2.500			1.001	.650	.785	1.570		

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