

**iPolymer Air Cylinders** are frequently used where splash-back or fumes from highly aggressive chemicals are prime considerations. Often used near corrosive chemicals these PVC, Polypropylene and PVDF cylinders are just the right answer for providing strength, durability and reliability in your severe service actuation application.

Our air cylinders are available in strokes from 1 – 16 inches and have standard easy-to-use mounting and optional position sensors. We are also happy to discuss customizing air cylinders to fit your individual needs.

The weight an iPolymer Air Cylinder can push & pull depends on many factors, including but not limited to; orientation, sliding surface friction, effect of gravity, rate of speed, distance of travel, available compressed air, and design of the pneumatic circuit. In general, our iPolymer Air Cylinders are design to drive: 90 lbf | 400 N | 40.8 kg



### Applications

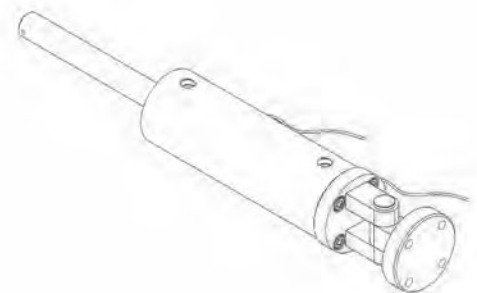
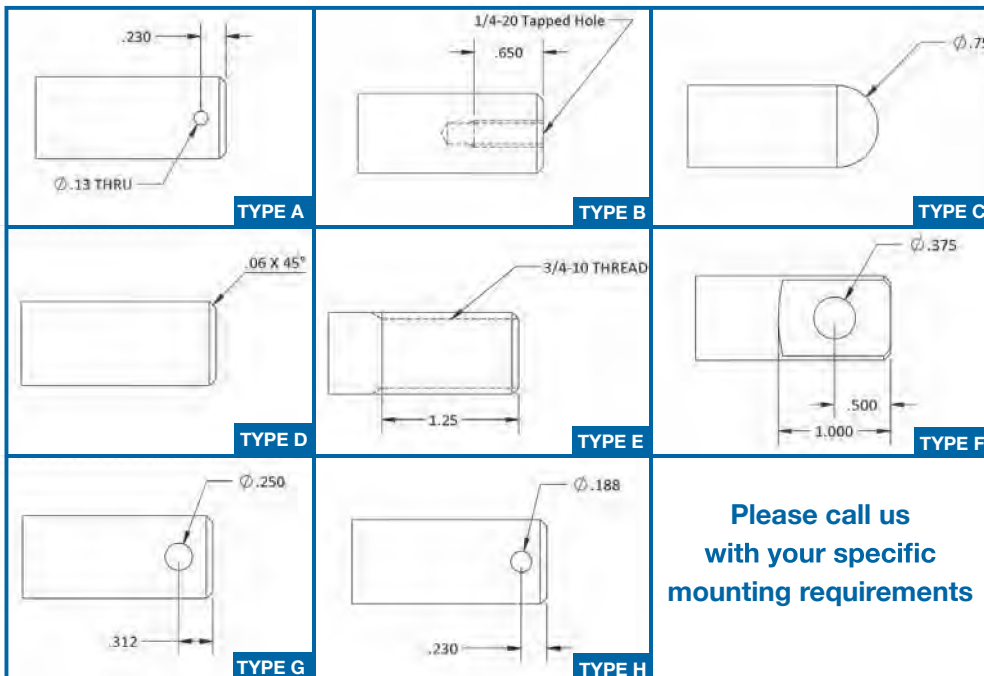
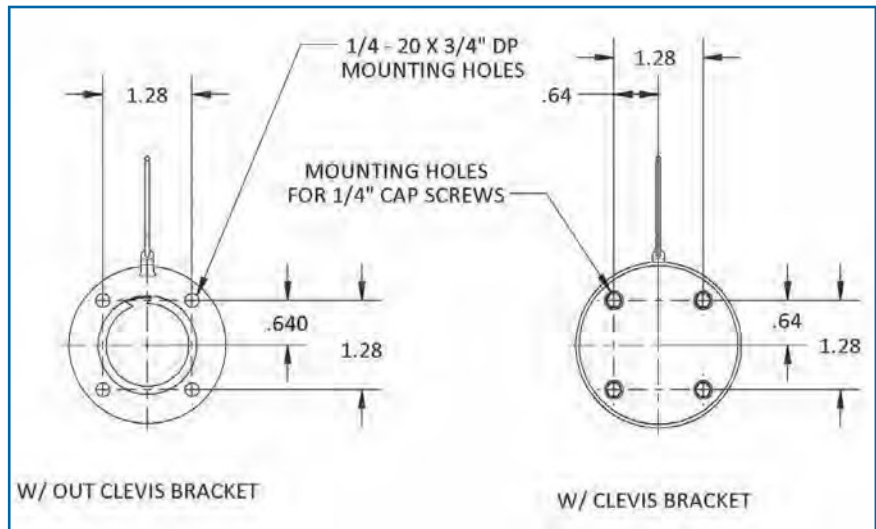
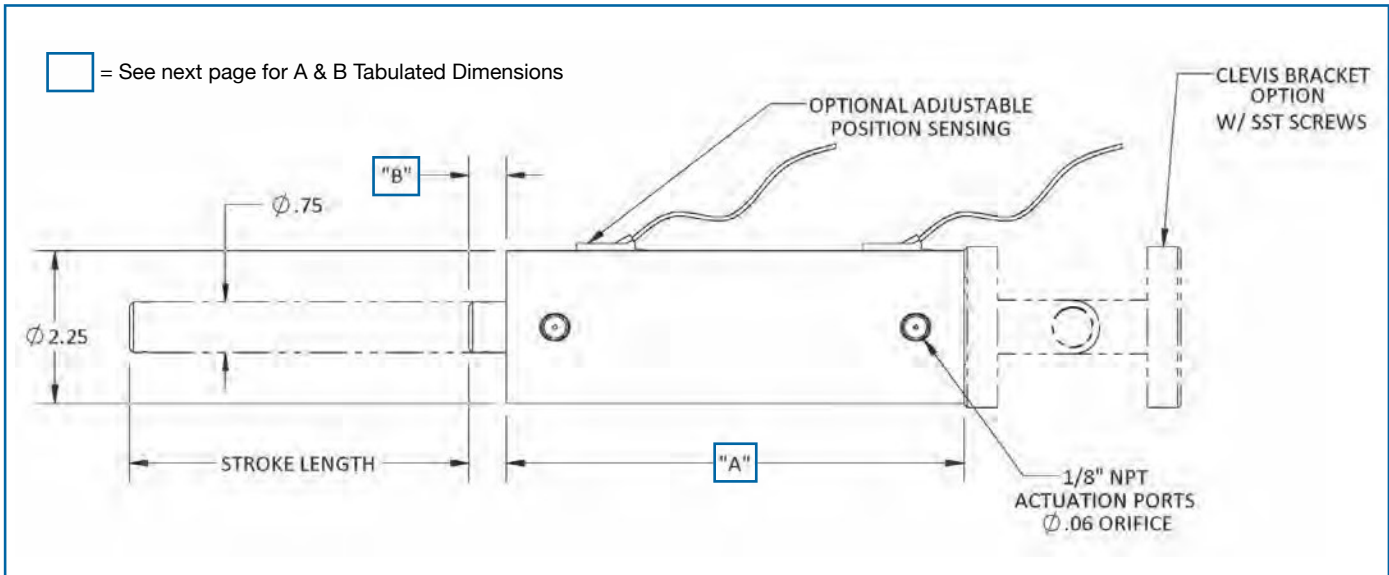
- Remote pneumatic controlled actuation for opening and closing doors and drawers
- Actuating drains and vents
- Continuous repositioning of process loads

### Specifications

<b>Cylinder Bore</b>	1.25"	
<b>Port Connections</b>	1/8 FNPT	
<b>Actuation Pressure</b>	Min.	Max.
<b>1" - 16"</b>	20 psi	80 psi
<b>Maximum Ambient Temperature</b>		
<b>PVC</b>	140° F / 60° C	
<b>Polypropylene</b>	160° F / 70° C	
<b>PVDF</b>	212° F / 100° C	



= See next page for A & B Tabulated Dimensions



STROKE LENGTH	"A"
1"	2.57
2"	3.57
3"	4.57
4"	5.57
5"	6.75
6"	7.75
7"	8.75
8"	9.75
9"	10.75
10"	11.75
11"	12.75
12"	13.75
13"	14.75
14"	15.75
15"	16.75
16"	17.75

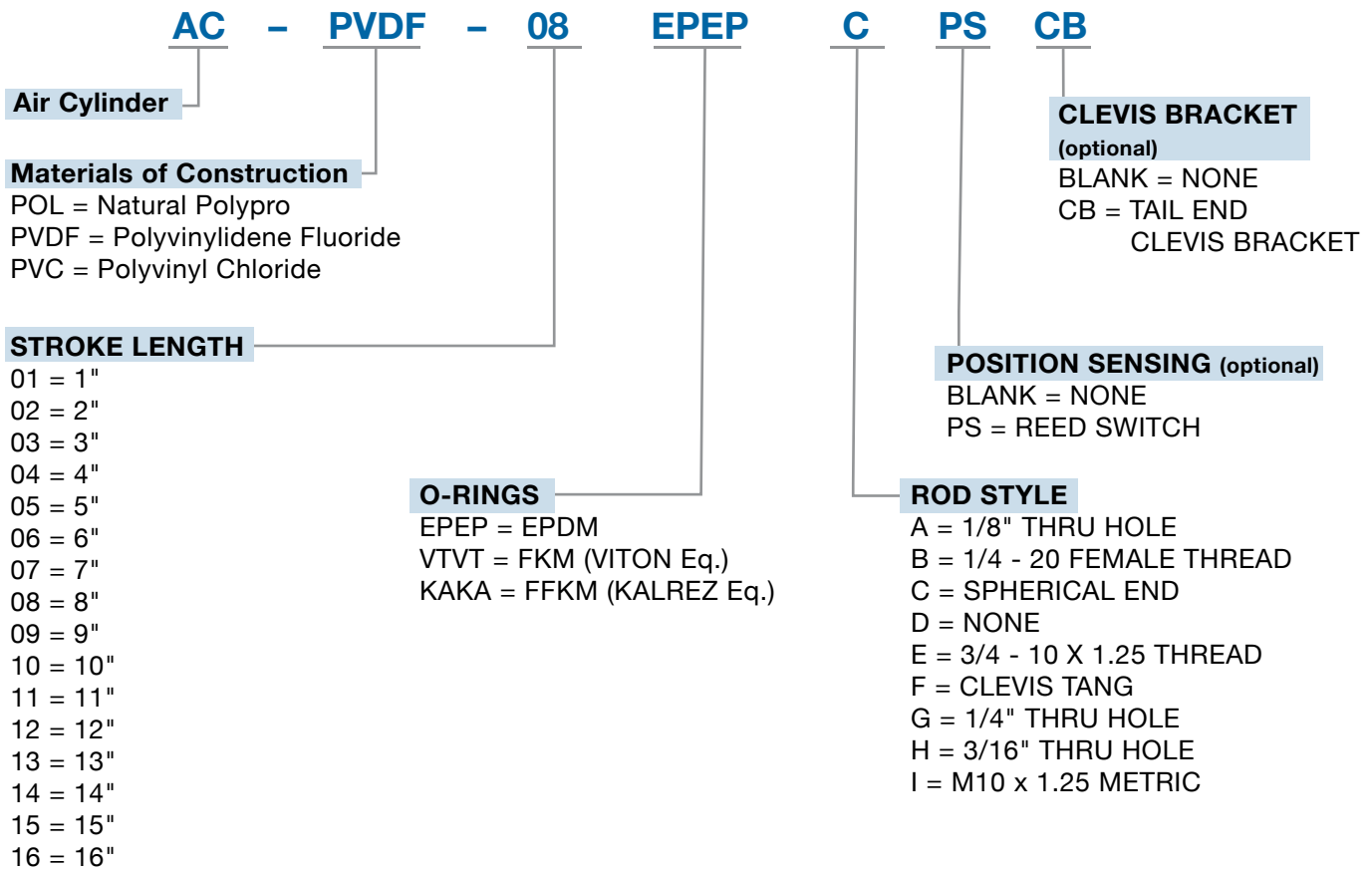
ROD TYPE	"B"
A	.55
B	.55
C	.55
D	.55
E	1.3
F	1.3
G	.55
H	.55



**Call iPolymer for:**

- Special end & trunnion mounting configurations
- Special porting & manifold configurations
- Applications requiring larger bore cylinders
- Special configured cylinder with Spring to Extend
- Special configured cylinder with Spring to Retract

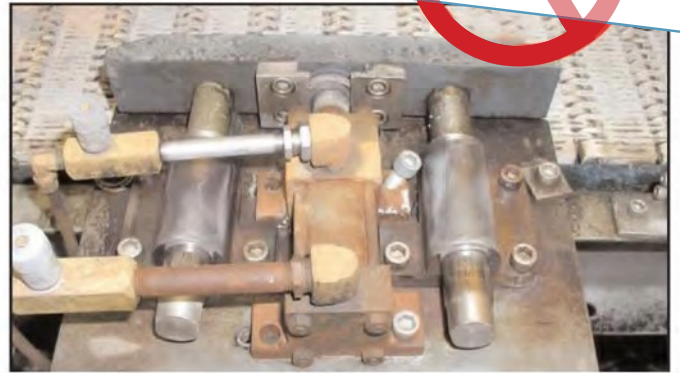
**Air Cylinders: ORDERING FORMAT**



Plastic Air Cylinder

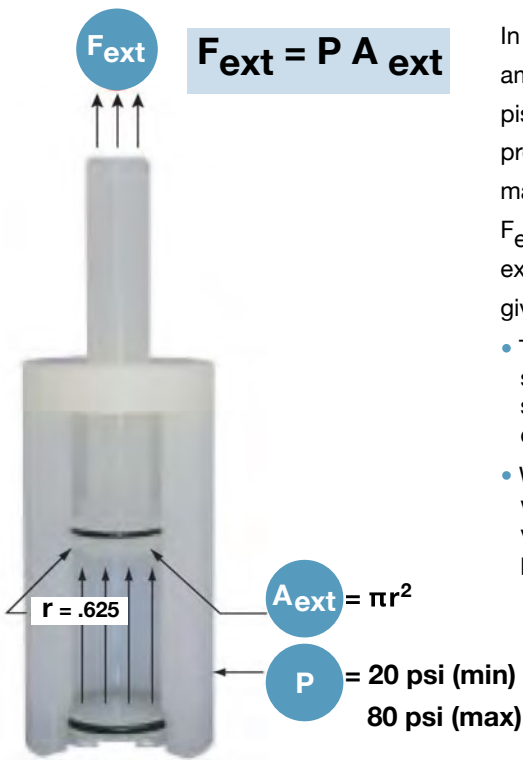
# Polymers are Better!

Metal Air Cylinder



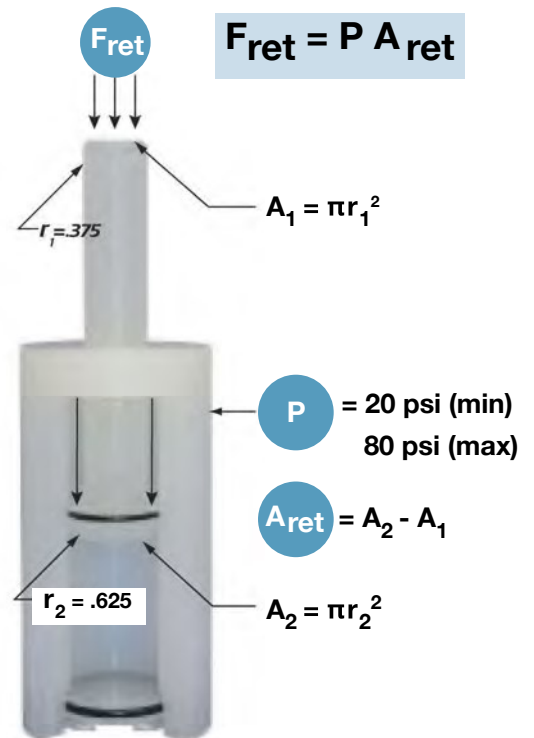
## High Quality Plastic Air Cylinder

- Our High Purity Plastic Air Cylinders are corrosion resistant, durable and light weight.
- Please call us to discuss customizing our air cylinders to fit your individual specification.
- Plastic air cylinders are the logical next step for your harsh process environment.



In these equations, F equals the amount of force exerted by the piston depending on the actuation pressure. The Air Cylinder has a min/ max actuation pressure of 20-80 psi.  $F_{ext}$  is the variable given for the force extending the piston.  $F_{ret}$  is the variable given for the force retracting the piston.

- The rod & head o-rings will create a slight amount of static and dynamic seal friction (breakaway and running drag).
- Without the applied load, the cylinder will travel its complete stroke length very rapidly under minimum applied pressure (20 psi).



### iPolymer Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
2. Call us for special applications. We can manufacture our Air Cylinders with special mounting and interface dimensions.
3. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.

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international polymer solutions inc. • manufacturer of high purity fluid handling products  
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