

A Different Way to Handle Common Clamping and Actuating Problems

Pawling Engineered Products has standardized its Pneuma-Seal® line of custom inflatable elastomeric bladders to simplify the design, fabrication, selection, and use of devices requiring pneumatic actuation or clamping. Believed to be the first line of standard inflatable rubber bladders, Pneuma-Cel is designed to for high cycle clamping and actuating applications. Pneuma-Cel's construction consists of a high quality EPDM elastomer optimized for long cycle life and prolonged wear. Typical applications for Pneuma-Cel include:



- Stopping/braking products along a conveyor system
- Firmly clamping two pieces together during bonding applications
- Actuating switching devices

Why Use Pneuma-Cel Instead of a Standard Piston Style Actuator?

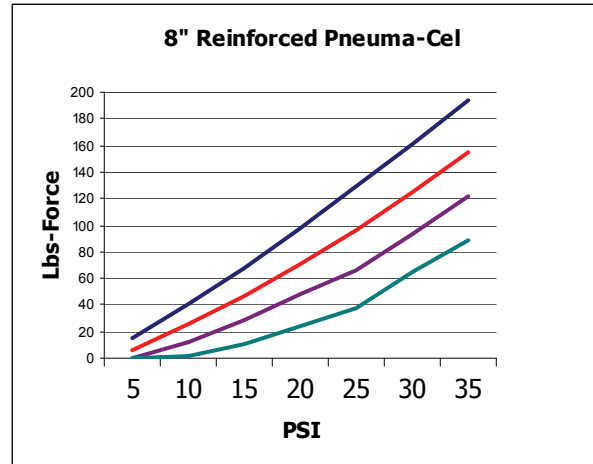
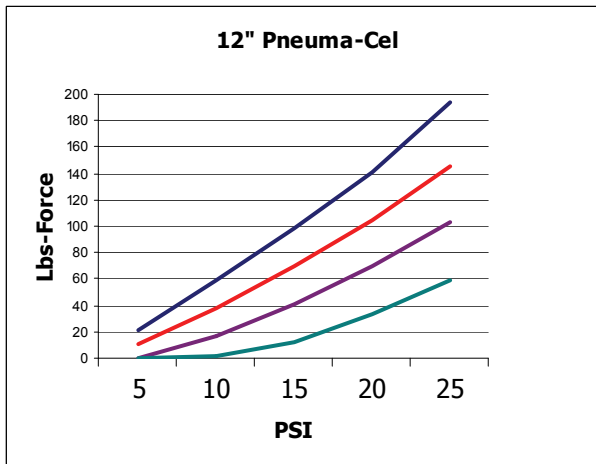
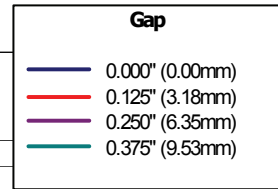
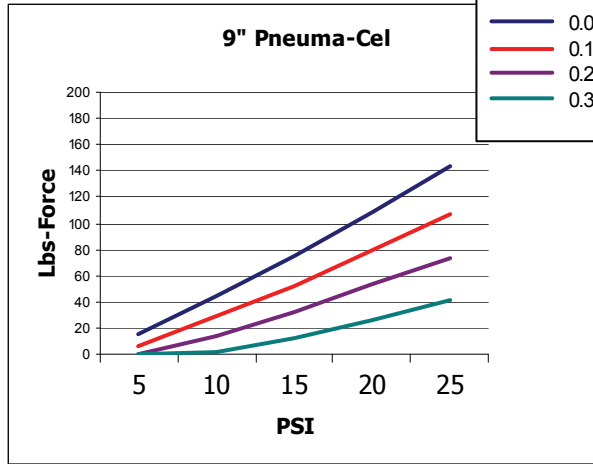
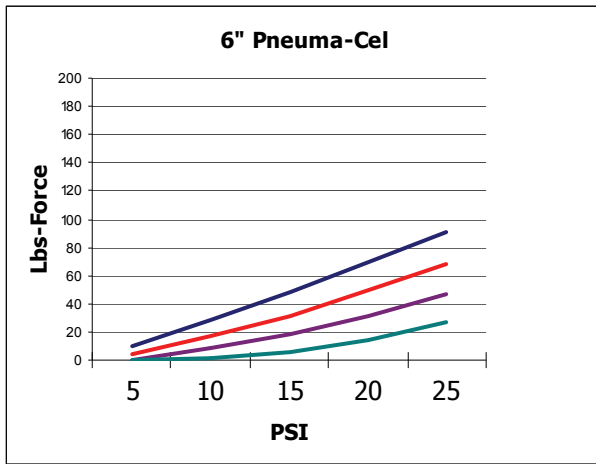
When compared to a standard piston-type actuator, Pneuma-Cel offers several unique advantages:

- Allows for soft, conformal clamping of delicate and/or irregularly shaped parts
- Generates a variable force (up to 200 lbs-force) depending upon the designed gap and pressure (see back for more details).
- Installs easily (just plug into an air line with regulator) and is readily available with typical turnaround times less than 3 days

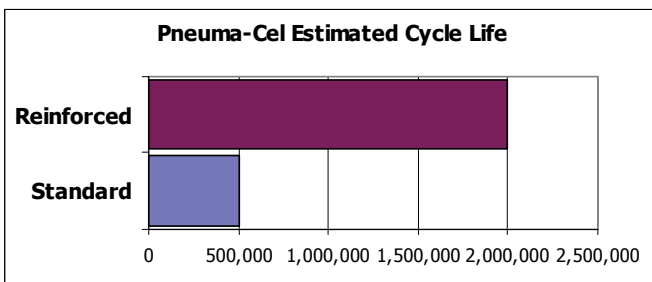
Pneuma-Cel is available in three standard sizes – 6" (152.4mm), 9" (228.6mm), and 12" (304.8mm) with a 6" long flexible hose connection terminated with a male 1/8"-27 NPT fitting. Maximum operating pressures for the standard bladder is 25 psi (1.7 bar).

Recently, Pawling has introduced a **NEW, reinforced version** of the Pneuma-Cel. Available in 8" (203.2mm) lengths, the reinforced Pneuma-Cel has been cycled over 2,000,000 times under standard gap and pressure conditions with no failures. The reinforced Pneuma-Cel can also operate to a maximum of 35 psi (2.38 bar), thereby generating high forces over a smaller footprint.

Pneuma-Cel Lbs-Force Data



Pneuma-Cel Estimated Cycle Life



** Note: Cycle life is extremely dependent upon application conditions. Temperature, chemical interaction, pressure used, cycles/day, and contact with abrasives will have possible negative effects on bladder life. Please consult Pawling for further information.



All information supplied by or on behalf of Pawling Corporation in relation to its products, whether in the nature of data, recommendations or otherwise, is believed reliable, but Pawling Corporation assumes no liability whatsoever in respect of application, processing or use made of the information, or any consequences thereof.