

## PBV Series Manual Pinch Valves

Multi-Use Pinch Valves for SU  
(Single-Use) Bioprocessing Applications

Carten's PBV Series sanitary manual pinch valve offers unique advantages over traditional "throw away" polymer components for shut-off single use applications. The valve structure is manufactured utilizing polished stainless steel, allowing all tubing brands and compounds to be operated uniformly from batch-to-batch, with no physical breaks in the process tubing preventing any possibility of contamination.

Single use tubing sizes from 1/16" to 1" ID (Internal Diameter) can be utilized with these valves. The tubing inserts can be changed out if different size tubes are utilized within the range of the valve.

Carten's pinch valve for single use applications provides the most efficient and best-in-class for optimum flow control, adaptability, minimal footprint, cost effective, maintenance friendly design for critical sterile processes.



### Advantages of Carten's Manual Hinged Valve

- Patented design
- Minimum valve sizes- Interchangeable tubing insert kit
- Reusable valve assembly
- Fine control
- Suitable for 1/16" – 1" (ID) tubing
- Suitable for all tubing brands/ compounds
- No lubricants used
- Rapid change-out of tubing
- Dome design for high batch cycles
- Suitable for continuous manufacturing
- Ease of maintenance
- Quick changeout of single use tubing sets



## SPECIFICATIONS - BPV SERIES PNEUMATIC PINCH VALVES

<b>Control Type</b>	Manual
<b>Line Pressure Rating</b>	Max 5Bar (72.5psi) (dependent on braided tubing used, per line size)
<b>Operating Temperature</b>	Tubing Dependent
<b>Materials of Construction</b>	Body, Compressor: ASTM A479 316L (S31603)
	Handwheel: PPS (40% G.F.)
	Tube Holder:

## PERFORMANCE

<b>Leak Rate</b>	0cc/min (ANSI FCI70/2 Class IV) Dynamic (Flowing) Water 0cc/min (ANSI FCI 70/1 Class VI) Static (Compressed) Air
<b>Life Cycle</b>	Tubing: 300 without failure using flowing water at max pressure of tubing
<b>Particulates</b>	As per USP 788, real-time analysis
<b>Hold Test</b>	TPE, PCS, and traded tubing held closed at atmosphere, 48 hrs, tubing re-opens automatically

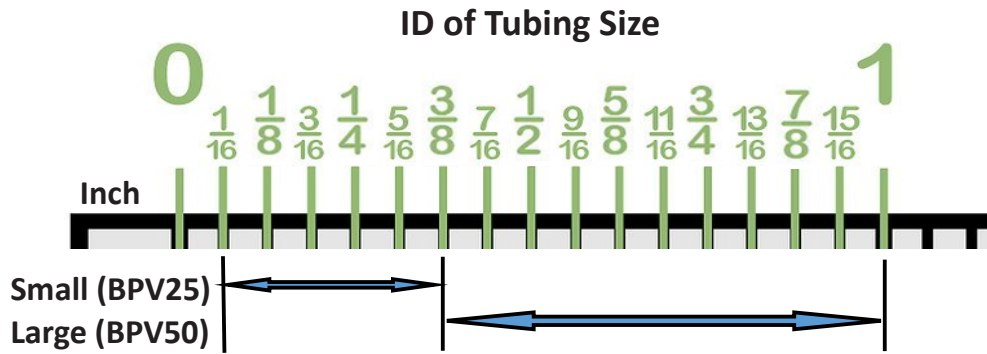
## SELECTOR

	<p><b>Small (BP25)</b></p>	<p><b>Large Manual (BP50)</b></p>
<b>Tubing Size</b>	1/16" - 3/8" ID (Max 3/8" OD)	3/8" - 1" ID
<b>PCS (Peristaltic Pump Tubing)</b>	Y	Y
<b>TPE (Thermoplastic Elastomer Tubing)</b>	Y	Y
<b>Braided Tubing 2 BAR (29 PSI) Max</b>	Y	Y
<b>Braided Tubing 5 BAR (72.4 PSI) Max</b>	Y	Y

ID = INSIDE DIAMETER OF TUBING  
OD = OUTSIDE DIAMETER OF TUBING

## PINCH VALVE SIZES - BPV SERIES PNEUMATIC PINCH VALVES

### SELECTOR



### KEY FEATURES OF BPV SERIES PNEUMATIC PINCH VALVES

- **High pressure capability:** From unique holder compression design – braided tubing and hardened silicon can be controlled and sealed with ease.
- **Holder tubing flexibility (same holder for tubing):** Holder geometry and additional force generation allows flexibility to use the same interchangeable parts across different line sizes – for example 1" ID can be combined with all tubing from 1.34" – 1.44" OD using the same valve parts.



- **Rapid batch change-out (full face of valve exposed):** Full access to holder when rotated to allow rapid change-out of tubing with no restriction from holder design.

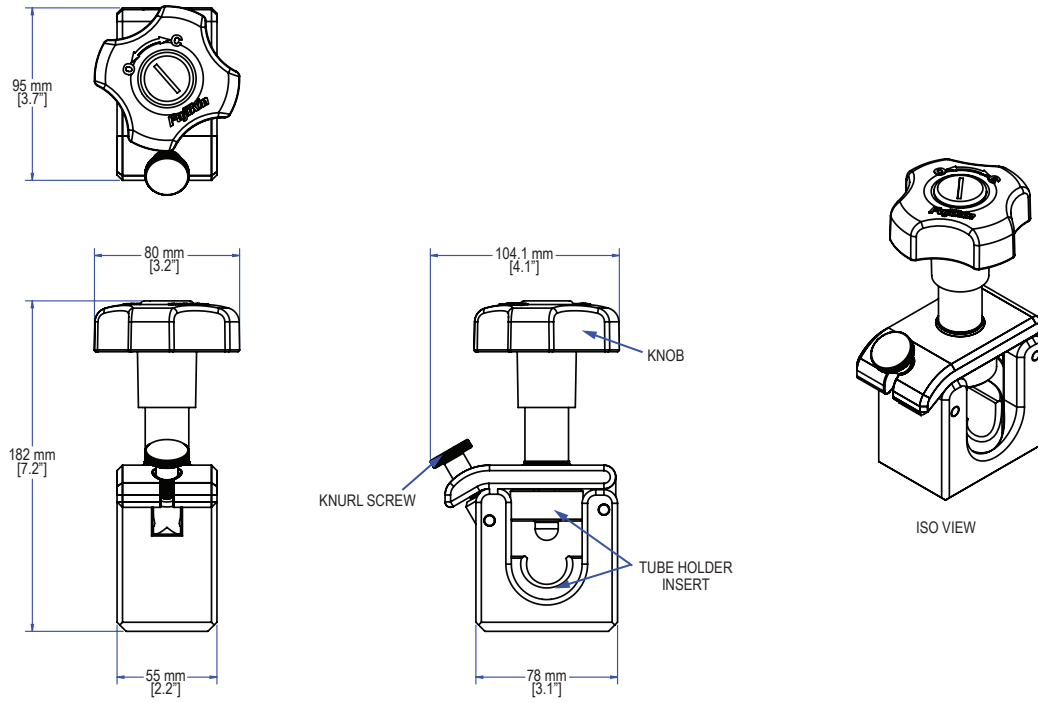


- **Process of Record:** Valves installed with biologic manufacturers, CDMO's, and OEM'S in all global regions, multiple applications, and for many years, Performance is proven in the field.

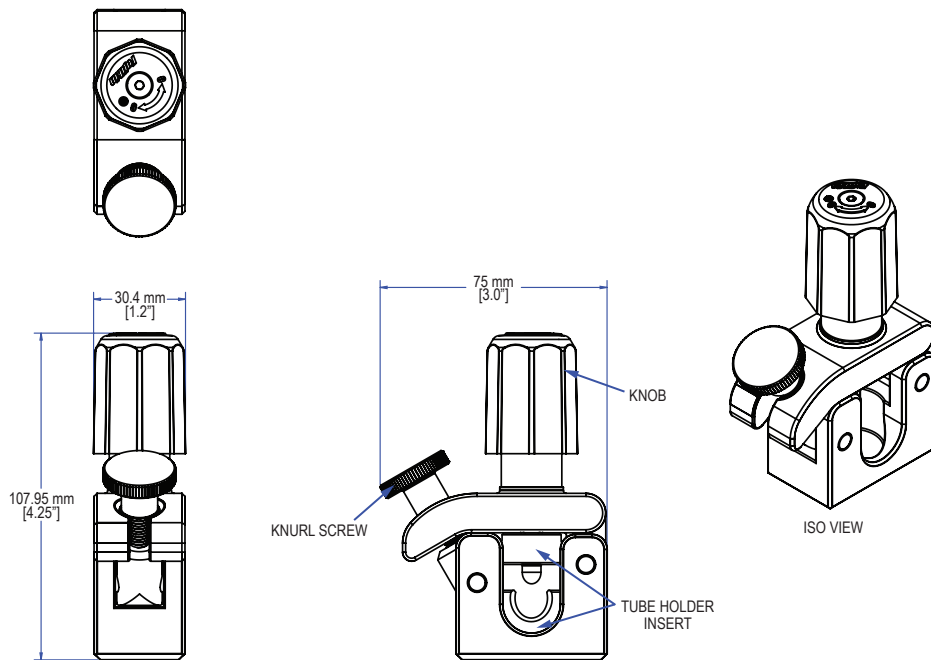
- **Installation Orientation:** Can be installed in every plain and orientation – horizontal, vertical, and upside-down.
- **All standard tubing covered in two sizes:** All standard applications utilizing silicon or TPE tubing up to 1.5 BAR is covered using just the BP25/ BP50 valve sizes.
- **2-piece change-out for new line size:** Line size of tubing can be changed through the simple swap out of just two components – the unique patented valve parts- the compressor and holder.
- **Lockout Option for Stem:** Lockout tagout device can be added simply to valve design to prevent operator pinch point in the event of critical instrument air failure.



## DIMENSIONS - BP50 SERIES PNEUMATIC PINCH VALVES



## DIMENSIONS - BP25 SERIES PNEUMATIC PINCH VALVES



## ORDERING INFORMATION - BPV SERIES PNEUMATIC PINCH VALVES

Code	Tubing Size		Small (BP25)	Large (BP50)
	ID	OD		
B6	1/8"	1/4"	BP25-VL-500-B6	
C8	3/16"	3/8"	BP25-VL-500-C8	
C9	1/4"	7/16"	BP25-VL-500-C9	
D9	1/4"	1/2"	BP25-VL-500-D9	
D11	3/8"	5/8"	BP25-VL-500-D11	BP50-VL-500-D11
D14	1/2"	3/4"		BP50-VL-500-D14
F14	1/2"	7/8"		BP50-VL-500-F14
D17	3/4"	1"		BP50-VL-500-D17
F17	3/4"	1 1/8"		BP50-VL-500-F17
F19	1"	1 3/8"		BP50-VL-500-F19

Other sizes available upon request.

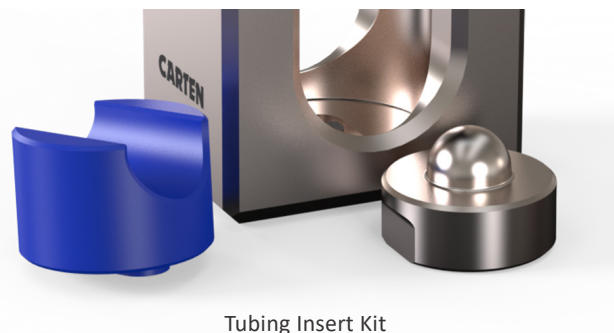
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### TUBING INSERT KIT ORDERING INFORMATION

Code	Tubing Size		Small (BP25)	Large (BP50)
	ID	OD		
B6	1/8"	1/4"	BP25-DP-114	
C8	3/16"	3/8"	BP25-DP-208	
C9	1/4"	7/16"	BP25-DP-209	
D9	1/4"	1/2"	BP25-DP-309	
D11	3/8"	5/8"	BP25-DP-311	BP50-DP-311
D14	1/2"	3/4"		BP50-DP-314
F14	1/2"	7/8"		BP50-DP-514
D17	3/4"	1"		BP50-DP-317
F17	3/4"	1 1/8"		BP50-DP-517
F19	1"	1 3/8"		BP50-DP-519

OTHER SIZES AVAILABLE UPON REQUEST

**Note:** Tubing insert kits are to be utilized if the tubing line size change within the valve operating tube size limits.



Tubing Insert Kit

## CUSTOM APPLICATION CARTS

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Carten can design and manufacture custom carts for your specific applications utilizing the single use pinch valves. This will allow for ease of installation of Single-Use Tubing Sets.



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