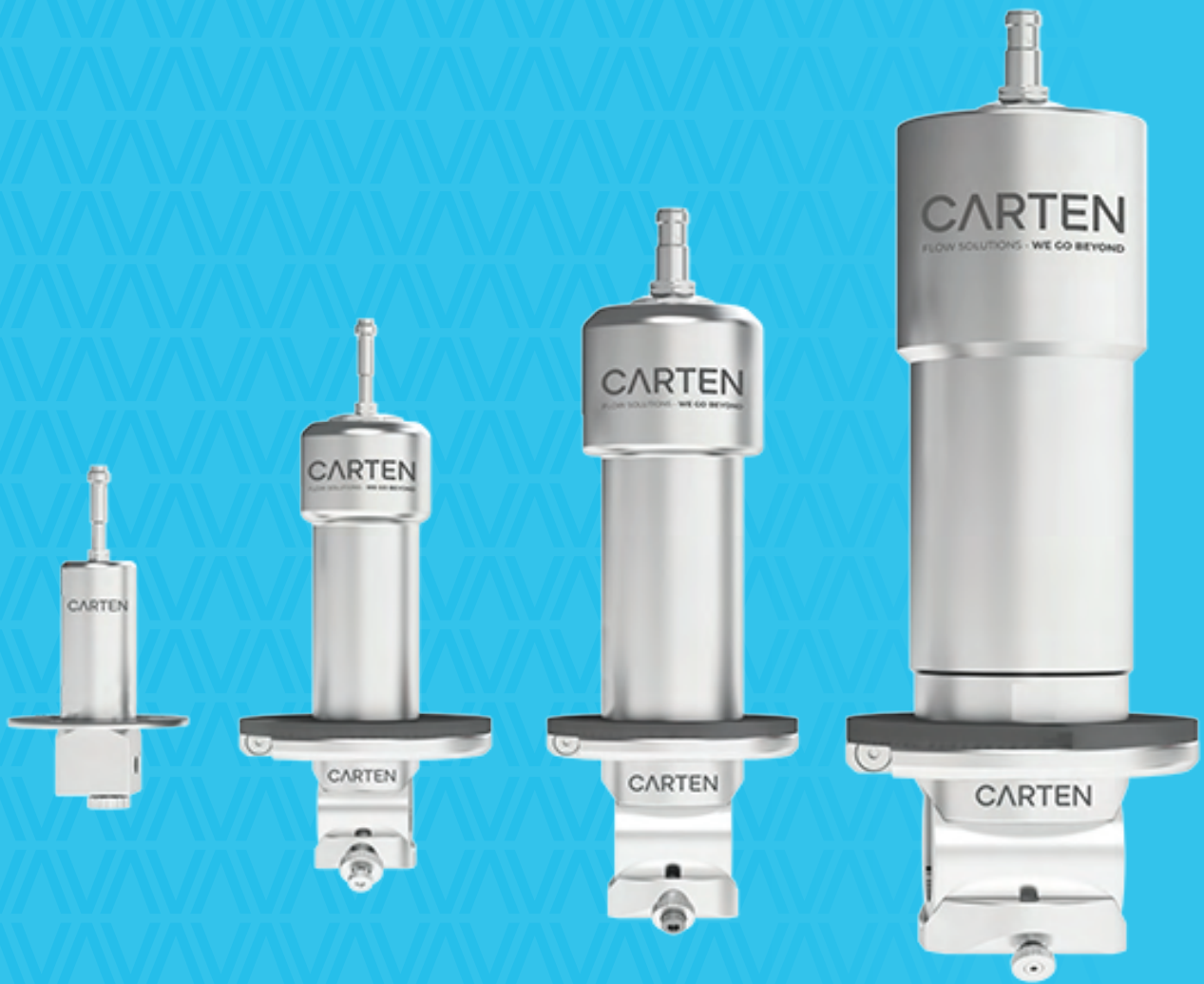


CARTEN

FLOW SOLUTIONS - **WE GO BEYOND**

INTRODUCING CARTEN'S OMNIA BPV SERIES PINCH VALVES



Omnia BPV Series

Pinch Valves for Single-Use Applications

The patented BPV series can be used on any tubing or flow kit, including reinforced tubing, and allows the customer to change tubing line size on site through the changeout of just one component.

Key Features

For use with all Tubing Brands/Compounds

Available in line sizes from 1/16" ID to 1" ID

Integrated lock out feature with safety guard

Full compliance to Industry Standards

Typical Applications

All upstream, downstream, fill-finish applications in single-use, applications requiring multiple line size interchangeability, high pressure pump shut-off, PUPSIT, sampling, fluid transfer applications.

Key Specifications

Materials of Construction	Cleanliness	Specifications	Options
304/316 stainless	Manufactured in a White Room	100% Leak tested as per ASME BPE / ANSI FCI 70/2 Class VI	Multiple brands, compounds, and tubing line sizes
Barstock-only source	No lubricant or grease at tubing insert area	Cycle-tested utilising customer specified tubing to ensure optimum usage	Manual, or pneumatic
		Standard tube size ranging from 1/16" ID to 1 ID	Multiple tube holders allowing tubing line size changeout
		6-7 bar 88-101 psi	4/20mA switching / signalling position sensing solenoid actuation



Omnia Series Pneumatic Pinch Valves

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

Carten's Omnia Series sanitary pneumatic pinch valve offers unique advantages over traditional "throw away" polymer components for shut-off single use applications. The valve structure is manufactured utilising 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.

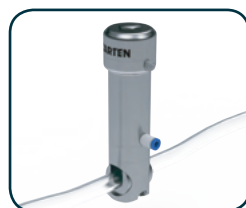
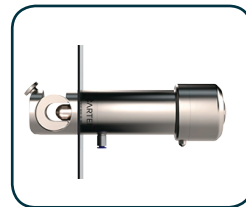
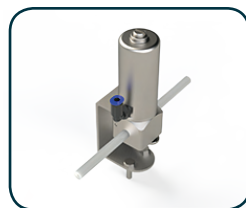
Single use tubing sizes from 1/16" to 1" ID (Internal Diameter) can be utilised with these valves. The tubing inserts can be changed out if different size tubes are utilised within the range of the valve.



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 Omnia Pneumatic Valve:

- Patented design
- Multiple valve sizes available to cover different tube sizes
- Multi-Use assemblies for single use applications
- Easy automation
- For use with all tubing brands and compounds
- All stainless material
- Quick changeout of single use tubing sets
- Maintenance free
- Integrated lock out feature with safety guard



SPECIFICATIONS - OMNIA SERIES PNEUMATIC PINCH VALVES

Control Type	Pneumatic
Line Pressure Rating	Max 4 Bar
Operating Temperature	Tubing Dependent
Materials of Construction	Body, Holder, Stem , Compressor Actuator (Cylinder): 316L
Minimum Instrument Air Pressure	6 Bar (87psi) for N.C (Normally Closed Valve), and N.O. (Normally Open Valve)
Maximum Instrument Air Pressure	7 Bar (N.C & N.O)
Instrument Air Supply	6mm standard (Options Available), Connection on Utility side of valve

PERFORMANCE

Leak Rate	0cc/min (ANSI FCI70/2 Class IV) Dynamic (Flowing) Water 0cc/min (ANSI FCI70 /1 Class VI) Static (Compressed) Air
Life Cycle	Tubing:300 without failure using flowing water at maximum validated pressure

SELECTOR

	 Mini (BPA010)	 Small (BPA025)	 Large (BPA050)	 XL (BPA080)
Tubing Size	1/16" - 1/4" ID (Max 3/8" OD)	1/16" - 3/8" ID (Max 5/8" OD)	3/8" - 3/4" ID	1/2" - 1" ID
PCS (Peristaltic Pump Tubing)	Y	Y	Y	Y
TPE (Thermoplastic Elastomer Tubing)	Y	Y	Y	Y
Braided Tubing 4 BAR (58 PSI) Max	Y	Y	Y	Y

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

KEY FEATURES - OMNIA SERIES PNEUMATIC PINCH VALVES

- **1-piece change-out for new line size:** Line size of tubing can be changed through the swap out of just one component – the tube insert.
- **All standard tubing covered in three sizes:** All standard applications utilizing silicon or TPE tubing up to 1.440 inch is covered using just three valve sizes - BPA025/BPA050/BPA080.
- **Integrated safety guard:** Safety guard is integrated into batch change-out process – the holder rotates providing a full barrier to prevent operator pinch point during process operation.



- **Integrated pinch point safety shut-off:**

Lockout tagout device now integrated into batch change-out process – the holder rotates now providing a full barrier to prevent operator pinch point in the event of critical instrument air failure

- **Air connector positioned further up cylinder:**

This allows equipment manufacturers seal instrument air supply with utilities behind an IP-rated enclosure.

- **Backward compatible installation:**

The Omnia design can be installed in place of GEN 1 if required with the exact same fittings - full backward compatibility.

- **Bench top option:** Bench-top BPA010 options ranging from 3/8" OD, allowing scale down options become a reality.

- **Filtered exhaust air:** Vented air weep holes now fitted with filter to further facilitate biologic grade manufacturing.



TUBING INSERT KIT ORDERING INFORMATION

ID	OD	Small (BPA025)	Large (BPA050)	XL (BPA080)
1/4"	7/16"	P200147		
1/4"	1/2"	P200215		
3/8"	5/8"	P20050	P200053	
1/2"	3/4"		P200111	P200093
1/2"	7/8"		P200052	P200109
3/4"	1"		P200037	P200096
3/4"	1 1/8"		P200112	P200104
1"	1 3/8"			P200013
1"	1 1/2"			

OTHER SIZES AVAILABLE UPON REQUEST



Tube Insert

Note: Tubing insert kits are to be utilized if the tubing line sizes change within the valve operating tube size limits. No insert kits for Mini valves. Mini valves are specific to the tube sets.

ORDERING INFORMATION - OMNIA SERIES PNEUMATIC PINCH VALVES

Tubing Size		Mini N.C. (BPA010)	Mini N.O. (BPA010)	Small N.C. (BPA025)	Small N.O. (BPA025)
ID	OD				
1/8"	1/4"	BPA010-125x250-NC-WALL MOUNT	BPA010-125x250-NO-WALL MOUNT		
1/4"	3/8"	BPA010-250x375-NC-WALL MOUNT	BPA010-125x250-NO-WALL MOUNT		
1/4"	7/16"			BPA025-003	BPA025-004
1/4"	1/2"			BPA025-025	BPA025-024
3/8"	5/8"			BPA025-001	BPA025-002

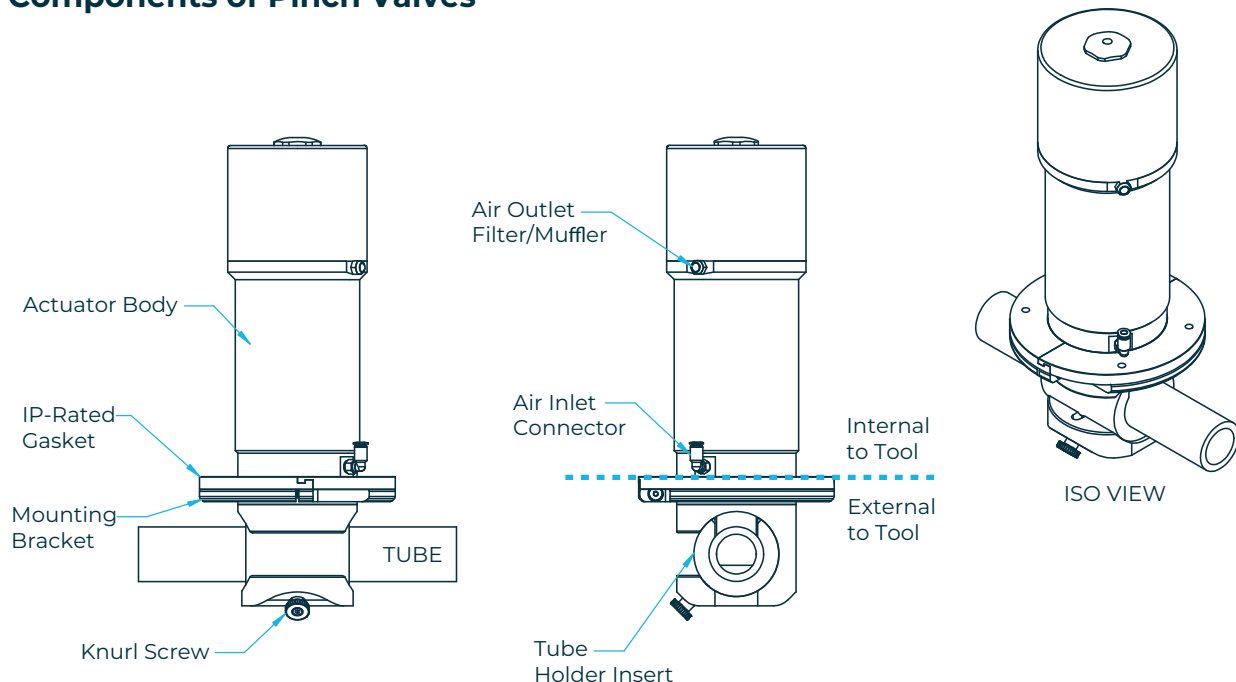
Tubing Size		Large N.C. (BPA050)	Large N.O. (BPA050)	XL N.C. (BPA080)	XL N.O. (BPA080)
ID	OD				
3/8"	5/8"	BPA050-004	BPA050-031		
1/2"	3/4"	BPA050-017	BPA050-032	BPA080-024	BPA080-037
1/2"	7/8"	BPA050-003	BPA050-033	BPA080-034	BPA080-038
3/4"	1"	BPA050-001	BPA050-002	BPA080-032	BPA080-036
3/4"	1 1/8"	BPA050-030	BPA050-034	BPA080-033	BPA080-035
1"	1 3/8"			BPA080-001	BPA080-003
1"	1 1/2"				

OTHER SIZES AVAILABLE UPON REQUEST

ID = INSIDE DIAMETER OF TUBING
 OD = OUTSIDE DIAMETER OF TUBING
 N.O. = Normally Open Valve
 N.C. = Normally Closed Valve

OMNIA SERIES PNEUMATIC PINCH VALVES

Components of Pinch Valves



ADDITIONAL VALVE OPTIONS - BPV SERIES PNEUMATIC PINCH VALVES



- Positioner (PO)
 - Compact Digital electropneumatic positioner for the integrated mounting on process control valves.
 - Remote setpoint adjustment via a 4-20 mA signal
 - A contact-free continuous sensor measures the position of the valve spindle.
 - Simple installation through automatic tune function and setting through DIP-switch
- Proximity Sensor (PS)
 - Position sensor for rising stem valves
 - Position feedback for valves
 - Absolute distance measurement
 - Monitoring of the valve compression
- Sense Open/Closed (SO/SC)
 - Inductive Sensor
 - Multiple options based on need and size of valve
- Visual Indicator (VI)
 - Visual Indicator on valve
- Pressure controller (PC)
 - Proportional gas pressure regulator
 - Remote setpoint adjustment via a 4-20 mA signal



Note: Contact us to review specific additional valve options.

INTERATED SINGLE - USE SOLUTIONS - FLUID TRANSFER MODULES



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

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