

**CARTEN®**

# ***SOLUTION PINCH VALVE SYSTEMS***

***(BPV SERIES)***

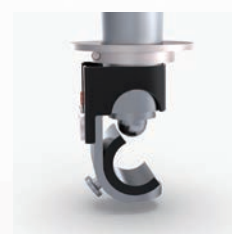
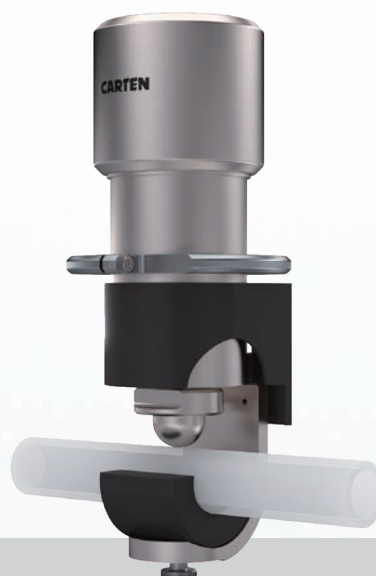
***Solution for Single-Use Systems***



**Single-use pinch valves compatible with numerous sizes**

## Integrated valves: Products that can be incorporated into equipment

1. High-durability, reusable valves
2. Assembly structure that allows attachment to panels
3. Compatible with tubes having internal diameters from 1/8 inch to 1.5 inch
4. Protective guards for operation
5. Can be changed to accommodate all single-use tube sizes
6. Compatible with multiple tube manufacturers
7. Accommodates instrumentation (proximity sensors, etc.)
8. Real-time analysis of valves and tubes
9. Certification under actual usage conditions
10. Compatible with continuous production



### General single-use applications

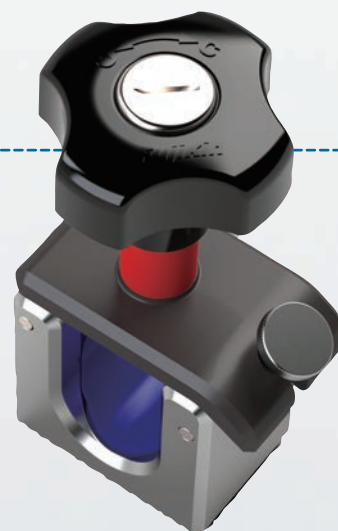
Filling systems | Single-pass and tangential flow filtration (TFF) |

Water for injection | Biopharmaceutical manufacture | Cell cultures | Chromatography | Sterile processes

## Manual pinch valves

### Advantages of **CARTEN**® manual pinch valves

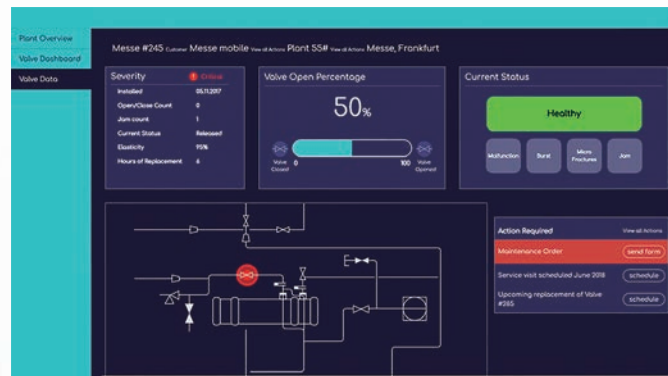
1. Hinge structure allows for easy attachment and detachment
2. Lightweight PPS wheel (40% glass)
3. Linear control versions for each tube size
4. Compatible with tubes having internal diameters from 1/8 inch to 1.5 inch
5. Compatible with platinum silicone and TPE
6. No lubricants used
7. Compact versions can be used (< 1/2")
8. Rapid switching of tube sizes
9. Real-time analysis of valves and tubes
10. Certification under actual usage conditions
11. Compatible with continuous production



# Advanced **CARTEN**® technology for single-use valves

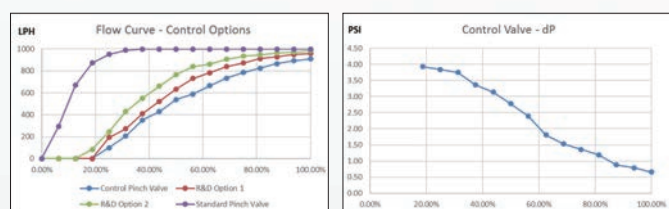
## Real-time analysis of tubes

Tube abrasion, wear, etc. are analyzed in real time by a tube surface sensor. We are developing preventive maintenance based on remote monitoring.



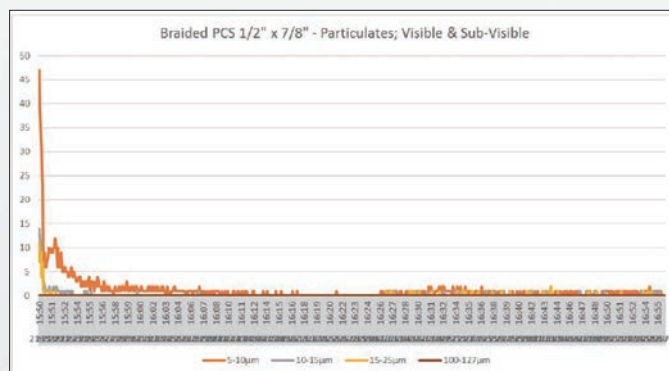
## Flow rate control

Flow rate can be controlled to match specifications. Control performance is measured and output.



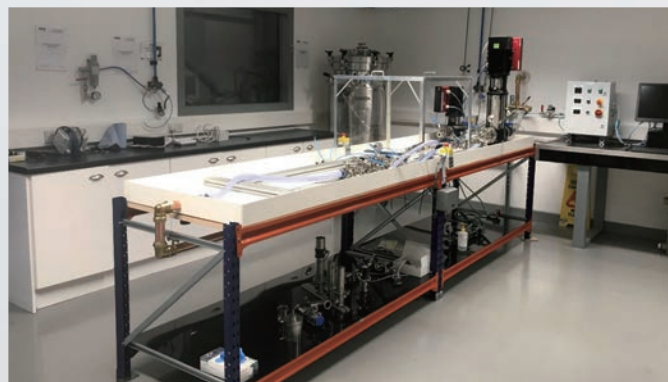
## Particle measurement

Dust generation from tubes is evaluated using manufacturing technology and evaluation technology for semiconductor manufacturing process valves.



## Tube evaluation

At our on-site research and development center, we evaluate tubes used in valves through simulated processes.



# BPV series part numbers

## BPV - ADV P 25 S - B 6 - I01

1

2

3

4

5

6

7

8

1	Valve series	Bio pinch valves	BPV						
2	Body type	Integrated (pneumatic)	ADV						
		Hinge type (manual)	HIN						
3	Operation	Manual	M						
		Pneumatic	P						
4	Tube holder Size	Small (internal diameter 1/2 inch or less)	25						
		Large (internal diameter 1 inch or less)	50						
		High-pressure/reinforced type	80						
5	Control type	On-off	S						
		Control	C						
6	Tube	Tube wall thickness		Size				Size	
				inches	mm			inches	mm
			A	1/32"	0.8		E	5/32"	4.0
			B	1/16"	1.6		F	3/16"	4.8
			C	3/32"	2.4		G	1/4"	6.4
			D	1/8"	3.2				
7	Tube	Tube internal diameter		Size				Size	
				inches	mm			inches	mm
			1	1/50"	0.5		11	3/8"	9.6
			2	1/40"	0.635		12	7/16"	11.2
			3	1/32"	0.8		13	15/32"	12.0
			4	1/16"	1.6		14	1/2"	12.7
			5	3/32"	2.4		15	5/8"	15.9
			6	1/8"	3.2		16	0.63"	16.0
			7	5/32"	4.0		17	3/4"	19.05
			8	3/16"	4.8		18	7/8"	22.2
			9	1/4"	6.4		19	1"	25.4
			10	5/16"	8.0		20	1 1/4"	31.75
			21	1.5"	38.1				
8	Options	Proximity sensor	I01						
		E/P positioner	B01						
		Other	I04						