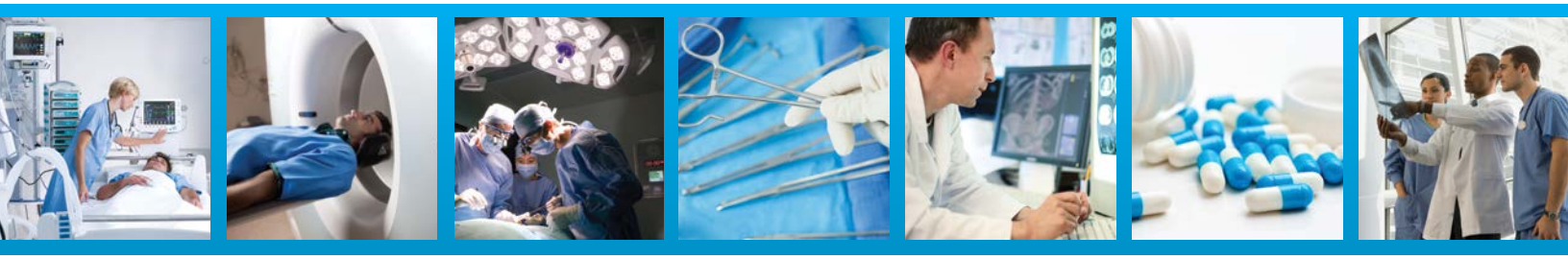
Brochure

BIMBA | ACRO

Medical & Bioprocessing Solutions



Delivering Innovative Pinch Valves & Fluid Control Components



BIMBA | ACRO

DEDICATED TO SMARTER DEVICE DESIGN

With more than 40 years of experience, Acro Associates, Inc. continues to lead the industry in providing innovative fluidic products and engineering design services to the medical device and bioprocessing communities.

From solenoid and pneumatic pinch valves, to fluidic fittings and accessories, the Acro team of experts is dedicated to helping design engineers satisfy regulatory requirements with only the most efficient solutions.

Industry-Leading Quality

As a certified California Department of Public Health medical device manufacturer and ISO 9001:2008 compliant company, Acro consistently delivers high-quality solutions.

ISO 9001
Certificate Number: 30521

- QUALITY MANAGEMENT SYSTEM

  Acro's Quality Management Program employs Lean-Six Sigma best practices to ensure that customer, vendor and partner standards of quality are met.

Product Assurance

All products are rigorously inspected, tested and validated to guarantee that they meet manufacturer specifications and requirements for reliability and performance.

- COMMITMENT TO GROWTH

  Metrics, including vendor certification/performance, manufacturing yields/failures and customer satisfaction are continually monitored to empower product and service improvement.

- TRAINING

  Acro supports ongoing training and skill development for all employees—ensuring that customers experience superior service.



Compact Design Valve for Biopharmaceutical Processing

Pneumatic Pinch Valves are designed for biopharmaceutical processing, food and beverage, and industrial applications where sterility and wash down procedures are needed. These robust units offer reliability and performance—especially when working with harder or larger diameter tubing that requires stronger pinch forces.

Designed for disposable tubing, each model contains an easy snap-in tube slot for quick loading and unloading procedures. Panel or base mountable units can also be configured with optional state sensors, controllers, or setup in normally-open or normally-closed default states. Optional safety caps on certain models are also available to address operational hazards.







Experience the Difference

- Compact design that allows the customer to select preferred tubing within recommended guidelines
- Base or Panel mount ready with snap-in tubing slot
- Optional valve state detection sensors
- Optional 3- or 4-way controllers for pressure venting between states
- Panel splash seals for wash down procedures
- Manual overrides on model 932 and 933
- Offered in Black Anodized Aluminum or 316L stainless steel
- Warranted for 18 months

Each product is also calibrated for pinch force, pinch gap and stroke to ensure optimal performance.

THE ULTIMATE FLUID CONTROL SOLUTION

The combination of Bimba brand Acro Pneumatic Pinch Valves, Mead Solenoid Valves and Pneumadyne Push-to-Connect fittings provides customers with a powerful and reliable system for fluid control. By bringing together fluidic technology, known for it's industry-proven performance, customers receive a complete solution.

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Acro Pneumatic Pinch Valves

Rounded plunger head supports larger tubing and stronger pinch forces for robust performance

+

BIMBA | MEAD

Mead Solenoid Va Air Preparation

Single or double solenoid op piloted for high flow and low





Integrated Systems

alves and

erations are internally
er power consumption

+

BIMBA | PNEUMADYNE

Pneumadyne Push-to-Connect Fittings

Enables quick tubing connection and disconnection with a leakproof fit





SIMPLE AND AFFORDABLE SERIES PNEUMATIC PINCH VALUES

SIMPLE AND AFFORDABLE SERIES PNEUMATIC PINCH VALVES

THE THREE TUBING LISTED BELOW ARE RECOMMENDED FOR ALL VALVE MODELS, NORMALLY CLOSED AND NORMALLY OPEN, AT THEIR RESPECTIVE TUBING RANGE AND MIN. WALL THICKNESS AT 70°F

VALVE MODEL	TUBING O.D. RANGE [in./mm]	MIN. WALL THICKNESS [in./mm]	No.	TUBING O.D. [in./mm]	TUBING I.D. [in./mm]	MATERIAL	DUROMETER [SHORE A]	MANUFACTURER MAX PRESSURE [PSI / Bar]†	MAX TESTED MEDIA PRESSURE [PSI / Bar]†	VALVE PART NUMBER
ALL	DEPENDENT ON VALVE MODEL SEE CHART BELOW	SEE CHART BELOW	1	SEE CHART BELOW	SEE CHART BELOW	C-FLEX	50 - 60	9 - 15 / .6 - 1.0	9 - 15 / .6 - 1.0	SEE CHART BELOW DEPENDENT ON TUBING O.D.
			2			PHARMED BPT	64	9 - 30 / .6 - 2.1	9 - 30 / .6 - 2.1	
			3			SILICONE	50 - 60	9 - 15 / .6 - 1.0	9 - 15 / .6 - 1.0	

SIMPLE AND AFFORDABLE SERIES PNEUMATIC PINCH VALVES - NORMALLY CLOSED CONFIGURATION

VALVE MODEL	VALVE MODEL ACCOMMODATES TUBING OUTER DIAMTER RANGE [in./mm]	MIN. TUBING WALL THICKNESS REQUIRED [in./mm]**	RECOMMENDED TUBING AND MEDIA PRESSURES FOR NORMALLY CLOSED VALVES AT 70°F FOR DIFFERENT TUBING AND MEDIA PRESSURES, COMPLIMENTARY TUBING TESTS AVAILABLE††							
			No.	TUBING O.D. [in./mm]	TUBING I.D. [in./mm]	MATERIAL	DUROMETER [SHORE A]	MANUFACTURER MAX PRESSURE [PSI / Bar]†	MAX TESTED MEDIA PRESSURE [PSI / Bar]†	VALVE PART NUMBER [recommend supply pressure, PSI / Bar]
932	.125 - .177 / 3.2 - 4.5 (1/8 - .177)	.032 / .8 (1/32)	1	.125 3.2	.063 1.6	POLYURETHANE	70 - 85	105 / 7.2	50 / 3.4	932CN-SABP5-040-0188 932CS-SABP5-040-0188* [50 - 125 / 3.4 - 8.6]
			2			PVC	60 - 70	65 / 4.5	50 / 3.4	
			3			TYGON B-44-4X	65	60 / 4.1	50 / 3.4	
932	.188 - .250 / 4.8 - 6.4 (3/16 - 1/4)	.063 / 1.6 (1/16)	1	.250 6.4	.125 3.2	PHARMA 80	80	249 / 17.2	50 / 3.4	932CN-SABP5-060-0188 932CS-SABP5-060-0188* [50 - 125 / 3.4 - 8.6]
			2			POLYURETHANE	70 - 80	110 / 7.6	50 / 3.4	
			3			PVC	60 - 70	65 / 4.5	50 / 3.4	
			4			TYGON B-44-4X	65	60 / 4.1	50 / 3.4	
933	.250 - .375 / 6.4 - 9.5 (1/4 - 3/8)	.063 / 1.6 (1/16)	1	.375 / 9.5	.125 / 3.2	SILICONE, BRAID REINFORCED	60 - 65	175 / 12.1	50 / 3.4	933CN-SABP5-040-0375 933CS-SABP5-040-0375* [50 - 125 / 3.4 - 8.6]
			2	.375 / 9.5	.188 / 4.8	PHARMA 65	65	15 / 1.0	15 / 1.0	
			3	.375 9.5	.250 6.4	PHARMA 80	80	249 / 17.2	30 / 2.1	
			4			PVC	60 - 70	45 / 3.1	45 / 3.1	
			5			TYGON B-44-4X	65	34 / 2.3	34 / 2.3	
934	.500 - .750 / 12.7 - 19.1 (1/2 - 3/4)	.063 / 1.6 (1/16)	1	.500 12.7	.375 9.5	PHARMA 50	50	10 / .7	10 / .7	934CN-SABP5-094-0750 934CS-SABP5-094-0750* [60 - 125 / 4.1 - 8.6]
			2			POLYURETHANE	70 - 85	55	30 / 2.1‡	
			3			PVC	60 - 70	30 / 2.1	30 / 2.1	
			4			TYGON B-44-4X	65	25 / 1.7	25 / 1.7	
934	.500 - .750 / 12.7 - 19.1 (1/2 - 3/4)	.125 / 3.2 (1/8)	1	.500 12.7	.250 6.4	PHARMA 50	50	17 / 1.2	17 / 1.2	934CN-SABP5-160-0750 934CS-SABP5-160-0750* [60 - 125 / 4.1 - 8.6]
			2			SILICONE, BRAID REINFORCED	60 - 65	160 / 11.0	50 / 3.4	
			3			TYGON B-44-4X	65	60 / 4.1	30 / 2.1‡	
			4	.750 / 19.1	.500 / 12.7	PHARMA 65	65	11 / .8	11 / .8	
935	.750 - 1.000 / 19.1 - 25.4 (3/4 - 1)	.125 / 3.2 (1/8)	1	1.000 / 25.4	.750 / 19.1	PHARMA 50	50	9 / .6	9 / .6	935CN-SABP5-160-1000 935CS-SABP5-160-1000* [60 - 125 / 4.1 - 8.6]
935	.750 - 1.000 / 19.1 - 25.4 (3/4 - 1)	.125 / 3.2 (1/8)	1	0.938 / 23.8	.625 / 15.9	TYGON B-44-4X	65	35 / 2.4	20 / 1.4 ‡	935CN-SABP8-160-1000 935CS-SABP8-160-1000* [80 - 125 / 5.5 - 8.6] (High Force)
			2	1.000 / 25.4	.625 / 15.9	SILICONE, BRAID REINFORCED	60 - 65	100 / 6.9	40 / 2.8	
			3	1.000 25.4	.750 19.1	PHARMA 65	65	7 / .5	7 / .5	
			4			PVC	60 - 70	30 / 2.1	20 / 1.4‡	
936	1.125 - 1.625 / 28.6 - 41.3 (1 1/8 - 1 5/8)	.188 / 4.8 (3/16)	1	1.360 / 34.5	1.000 / 25.4	SILICONE, BRAID REINFORCED	60	65 / 4.5	30 / 2.1‡	936CS-SABP5-250-1500* [70 - 125 / 4.8 - 8.6]
			2	1.375 / 34.9	1.000 / 25.4	NORPRENE, BRAID REINFORCED	60	75 / 5.2	30 / 2.1	
			3	1.485 / 37.7	1.125 / 28.6	SILICONE, BRAID REINFORCED	60	55 / 3.8	30 / 2.1‡	
			4	1.625 / 41.3	1.250 / 31.8	PVC	60	20 / 1.4	10 / 1.4	
936	1.125 - 1.625 / 28.6 - 41.3 (1 1/8 - 1 5/8)	.188 / 4.8 (3/16)	1	1.360 / 34.5	1.000 / 25.4	SILICONE, BRAID REINFORCED	60	65 / 4.5	65 / 4.5	936CS-SABP8-250-1500* [90 - 125 / 6.2 - 8.6] (High Force)
			2	1.375 / 34.9	1.000 / 25.4	NORPRENE, BRAID REINFORCED	60	75 / 5.2	75 / 5.2	
			3	1.485 / 37.7	1.125 / 28.6	SILICONE, BRAID REINFORCED	60	55 / 3.8	55 / 3.8	
			4	1.625 / 41.3	1.250 / 31.8	PVC	60	20 / 1.4	20 / 1.4	
			5			PVC, BRAID REINFORCED	66	85 / 5.9	20 / 2.1‡	

*Valve model with position sensor.

†Maximum media pressure for reference only. User to verify performance. Shown manufacturer maximum rated pressure is for reference only and may change over time. Please consult tubing manufacturer for maximum rated working pressure and temperature.

‡Tubing may require conditioning for an instant seal. Conditioning consists of tubing being pinched by the valve for approximately 15 seconds without media pressure. Various factors can affect tubing seal rate that require conditioning.

**Tubing wall thickness can be calculated by the formula: wall thickness = (outer diameter - inner diameter)/2

††For any conditions not stated in the above Tubing Recommendation table please contact Acro Associates and we will gladly determine valve suitability with a complimentary tubing test.

SIMPLE AND AFFORDABLE SERIES PNEUMATIC PINCH VALVES - NORMALLY OPEN CONFIGURATION

VALVE MODEL	VALVE MODEL ACCOMMODATES TUBING OUTER DIAMTER RANGE [in./mm]	MIN. TUBING WALL THICKNESS REQUIRED [in./mm]**	RECOMMENDED TUBING AND MEDIA PRESSURES FOR NORMALLY OPEN VALVES AT 70°F FOR DIFFERENT TUBING AND MEDIA PRESSURES, COMPLIMENTARY TUBING TESTS AVAILABLE††							
			No.	TUBING O.D. [in./mm]	TUBING I.D. [in./mm]	MATERIAL	DUROMETER [SHORE A]	MANUFACTURER MAX PRESSURE [PSI / Bar]†	MAX TESTED MEDIA PRESSURE [PSI / Bar]†	VALVE PART NUMBER [recommend supply pressure, PSI / Bar]
932	.125 - .177 / 3.2 - 4.5 (1/8 - .177)	.032 / .8 (1/32)	1	.125 3.2	.063 1.6	POLYURETHANE	70 - 85	105 / 7.2	50 / 3.4	932QN-SABP5-040-0188 932QS-SABP5-040-0188* [80 - 125 / 3.4 - 8.6]
			2			PVC	60 - 70	65 / 4.5	50 / 3.4	
			3			TYGON B-44-4X	65	60 / 4.1	50 / 3.4	
932	.188 - .250 / 4.8 - 6.4 (3/16 - 1/4)	.063 / 1.6 (1/16)	1	.250 6.4	.125 3.2	PHARMA 80	80	249 / 17.2	50 / 3.4	932QN-SABP5-060-0188 932QS-SABP5-060-0188* [80 - 125 / 3.4 - 8.6]
			2			POLYURETHANE	70 - 80	110 / 7.6	50 / 3.4	
			3			PVC	60 - 70	65 / 4.5	50 / 3.4	
			4			TYGON B-44-4X	65	60 / 4.1	50 / 3.4	
933	.250 - .375 / 6.4 - 9.5 (1/4 - 3/8)	.063 / 1.6 (1/16)	1	.375 / 9.5	.125 / 3.2	SILICONE, BRAID REINFORCED	60 - 65	175 / 12.1	50 / 3.4	933QN-SABP5-040-0375 [80 - 125 / 5.5 - 8.6]
			2	.375 / 9.5	.188 / 4.8	PHARMA 65	65	15 / 1.0	15 / 1.0	
			3	.375 9.5	.250 6.4	PHARMA 80	80	249 / 17.2	30 / 2.1	
			4			PVC	60 - 70	45 / 3.1	45 / 3.1	
			5			TYGON B-44-4X	65	34 / 2.3	34 / 2.3	
934	.500 - .750 / 12.7 - 19.1 (1/2 - 3/4)	.063 / 1.6 (1/16)	1	.500 12.7	.375 9.5	PHARMA 50	50	10 / .7	10 / .7	934QN-SABP5-094-0750 [80 - 125 / 5.5 - 8.6]
			2			POLYURETHANE	70 - 85	55 / 3.8	50 / 3.4	
			3			PVC	60 - 70	30 / 2.1	30 / 2.1	
			4			TYGON B-44-4X	65	25 / 1.7	25 / 1.7	
934	.500 - .750 / 12.7 - 19.1 (1/2 - 3/4)	.125 / 3.2 (1/8)	1	.500 12.7	.250 6.4	PHARMA 50	50	17 / 1.2	17 / 1.2	934QN-SABP5-160-0750 [80 - 125 / 5.5 - 8.6]
			2			SILICONE, BRAID REINFORCED	60 - 65	160 / 11.0	50 / 3.4	
			3			TYGON B-44-4X	65	60 / 4.1	50 / 3.4	
			4	.750 / 19.1	.500 / 12.7	PHARMA 65	65	11 / .8	11 / .8	
			5			PHARMA 80	80	200 / 13.8	50 / 3.4	
			6			PVC	60 - 70	40 / 2.8	40 / 2.8	
935	.750 - 1.000 / 19.1 - 25.4 (3/4 - 1)	.125 / 3.2 (1/8)	1	0.938 / 23.8	.625 / 15.9	TYGON B-44-4X	65	35 / 2.4	35 / 2.4	935QN-SABP5-160-1000 [80 - 125 / 5.5 - 8.6]
			2	1.000 / 25.4	.625 / 15.9	SILICONE, BRAID REINFORCED	60 - 65	100 / 6.9	50 / 3.4	
			3	1.000 25.4	.750 19.1	PHARMA 65	65	7 / .5	7 / .5	
			4			PVC	60 - 70	30 / 2.1	30 / 2.1	
936	1.125 - 1.625 / 28.6 - 41.3 (1 1/8 - 1 5/8)	.188 / 4.8 (3/16)	1	1.360 / 34.5	1.000 / 25.4	SILICONE, BRAID REINFORCED	60	65 / 4.5	65 / 4.5	936QS-SABP5-250-1500* [80 - 125 / 5.5 - 8.6]
			2	1.375 / 34.9	1.000 / 25.4	NORPRENE, BRAID REINFORCED	60	75 / 5.2	75 / 5.2	
			3	1.485 / 37.7	1.125 / 28.6	SILICONE, BRAID REINFORCED	60	55 / 3.8	55 / 3.8	
			4	1.625 / 41.3	1.250 / 31.8	PVC	60	20 / 1.4	20 / 1.4	
			5			PVC, BRAID REINFORCED	66	85 / 5.9	50 / 3.4	

*Valve model with position sensor.

†Maximum media pressure for reference only. User to verify performance. Shown manufacturer maximum rated pressure is for reference only and may change over time. Please consult tubing manufacturer for maximum rated working pressure and temperature.

**Tubing wall thickness can be calculated by the formula: wall thickness = (outer diameter - inner diameter)/2

††For any conditions not stated in the above Tubing Recommendation table please contact Acro Associates and we will gladly determine valve suitability with a complimentary tubing test.

OPTIONAL CONTROLLER KITS			
3-WAY	4-WAY	SUPPLY VOLTAGE	CORRESPONDING KIT P/N
√		24 VDC	K1003-24
√		110/120 VAC	K1003-110
√		230 VAC	K1003-230
	√	24 VDC	K1004-24
	√	110/120 VAC	K1004-110
	√	230 VAC	K1004-230

CONTROLLER KIT INCLUDED PARTS		
No.	DESCRIPTION	QTY
1	SELECTED CONTROLLER - TYPE & VOLTAGE	1
2	PUSH-IN FITTING, 10-32 TO 1/4" TUBE OD	2
3	PUSH-IN FITTING, 1/8 NPT TO 1/4" TUBE OD	4
4	TUBING, 1/4" OD, 18" LENGTH	2
5	ALL THREAD BRASS FITTING 1/8 NPT	1

About Acro and Bimba

Acro Associates is a leading innovator in pinch valves and fluid control componentry for medical, bioprocessing and industrial applications. As a wholly-owned subsidiary of Bimba Manufacturing, a global leader in actuation technologies, Acro is a part of a family of brands that includes Mead, MFD, Pneumadyne and TRD. Together, they provide industry-leading actuator based pneumatic, hydraulic, electric and automation solutions worldwide. Acro is based in Concord, CA and Bimba is headquartered in University Park, IL. For more information, visit **acroassociates.com** or **bimba.com**.

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