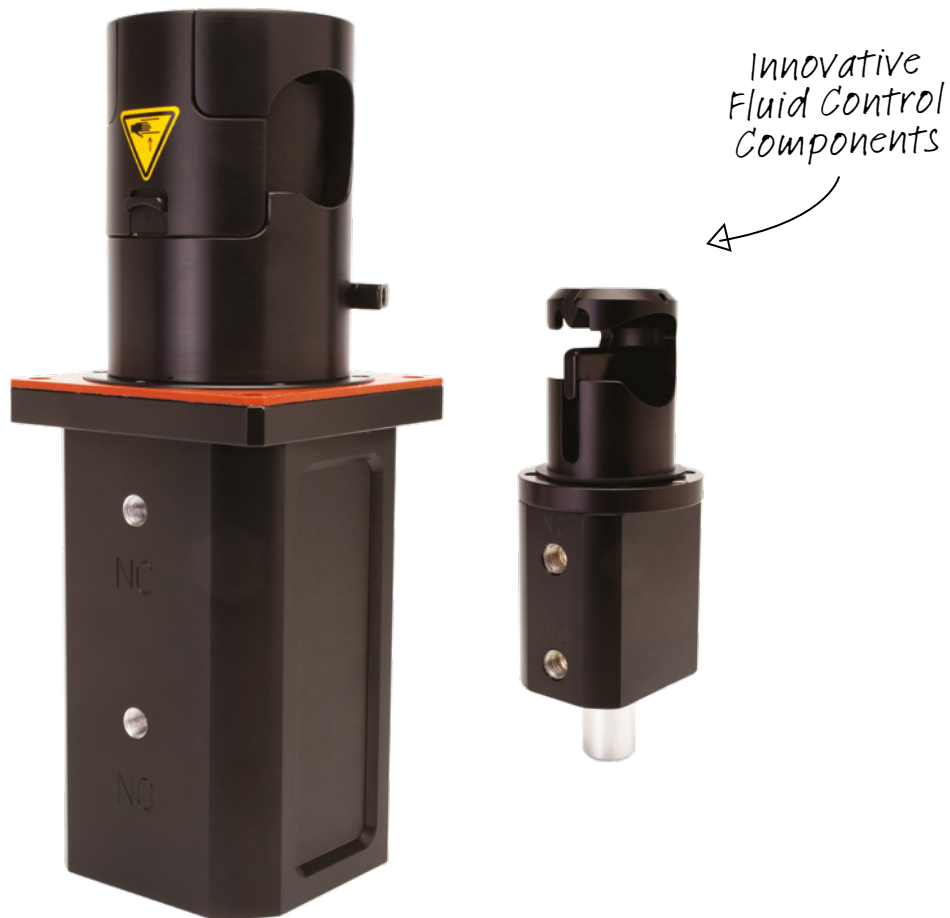


Acro 900 Series

Pneumatic Pinch Valves



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Breakthrough Engineering
for a Better World

Norgren is part of global engineering organisation IMI plc. IMI is at the forefront of delivering the solutions we need in a changing world and is focused on **creating tremendous value by solving key industry problems** in attractive markets and employing the best.

Norgren has a proud history of creating innovative engineering solutions in precise motion control and fluid technology, and we collaborate with our customers across more than 50 countries in critical areas such as Factory Automation, Material Handling, Rail, Energy, Process Control, Life Science and Commercial Vehicles.

From improving speed, productivity, reliability and efficiency of equipment, to generating significant energy and cost savings, or lowering total cost of ownership across many industries, Norgren’s high-quality solutions are designed to help customers pursue progress, achieve new goals and overcome problems.

With market-leading industry expertise, we offer the capability, resources, engineering intelligence and global support infrastructure to tackle the largest project demands.

Our world-class portfolio of fluid and motion control products include Norgren, Bimba, Buschjost, FAS, Herion, Kloehn and Maxseal. Supplied either individually or combined into powerful customised solutions to meet customer needs.

Breakthrough engineering you can count on.

Pneumatic Pinch Valves

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

- » Purchase Orders / Changesz
- » 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.



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 (RECOMMEND SUPPLY PRESSURE, PSI/ BAR)
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 AVAILABLE²								
			NO.	TUBING O.D. (IN./MM)	TUBING I.D. (IN./MM)	MATERIAL	DUROMETER (SHORE A)	MANUFACTURER MAX PRESSURE (PSI/ BAR)¹	MAX TESTED MEDIA PRESSURE (PSI/ BAR)¹	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 / 2.1¹		
			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	.125 / 3.2 12.7 3	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			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-SABP5-160-0750 935CS-SABP5-160-0750* (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 ¹	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 ¹		
936	1.125 - 1.625 / 28.6 - 41.3 (11/8 - 15/8)	.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-SABP5-250-1500 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	30 / 2.1 ¹		

* Valve model with position sensor.

¹ 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

² For any conditions not stated in the above Tubing Recommendation table please contact Aero 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 AVAILABLE²								
			NO.	TUBING O.D. (IN./MM)	TUBING I.D. (IN./MM)	MATERIAL	DUROMETER (SHORE A)	MANUFACTURER MAX PRESSURE (PSI/ BAR)¹	MAX TESTED MEDIA PRESSURE (PSI/ BAR)¹	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-SABP5-040-01B8* (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-SABP5-060-01B8* (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 8-44-4X	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 (11/8 - 15/8)	.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.

¹ Maximum media pressure for reference only. User 10 verify performance. Shown manufacturer maximum rated pressure is for reference only and may change over time. Please consult tubing manufacturer maximum rated working pressure and temperature.

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

² For any conditions not seated in the above Tubing Recommendation table please contact Acro Associates and we will gladly determine valve suitability with a complimentary tubing test.

How to Order

932

933

934

935

936

NORMAL STATE

C - Normally Closed

Q - Normally Open

SENSOR OPTION

N - No Sensor

S - Position Sensor

TUBE SLOT

N -None

S - Single

D - Double

T - Triple

MATERIAL/COLOR

AB - Aluminum Black

SS - Stainless Steel

934CN-SABP5-040-0750

TOTAL OPENING

Total length from pinch ridge or pinch pin to top of piston when valve is fully opened. Units-Thousandth of an inch/mil

MAX PINCH GAP

Units-Thousandth of an inch/mil

FORCE SPEC

1

2 - Low

3

4

5 - Standard

6

7

8 - High

9

OPERATING POWER

P - Pneumatic

SHELVING MODELS	LIST PRICE	STANDARD NON-SHELVING MODELS	LIST PRICE
932CN-SABP5-040-0188	\$235	932CS-SABP5-040-0188	\$265.00
932QN-SABP5-040-0188	\$235	932QS-SABP5-040-0188	265.00
932CN-SABP5-060-0188	\$235	932CS-SABP5-060-0188	265.00
932QN-SABP5-060-0188	\$235	932QS-SABP5-060-0188	265.00
933CN-SABP5-040-0375	\$303	933CS-SABP5-040-0375	370.00
933QN-SABP5-040-0375	\$303	934CS-SABP5-094-0750	435.00
934CN-SABP5-094-0750	\$414	934CS-SABP5-160-0750	435.00
934CN-SABP5-160-0750	\$414	935CS-SABP5-160-1000	550.00
934QN-SABP5-094-0750	\$414	935CS-SABP8-160-1000	680.00
934QN-SABP5-160-0750	\$414	936CS-SABP5-250-1500	1650.00
935CN-SABP5-160-1000	\$546	936CS-SABP8-250-1500	1650.00
935CN-SABP8-160-1000	\$679	936QS-SABP5-250-1500	1650.00
935QN-SABP5-160-1000	\$546		

Accessories

PNEUMATIC CONTROLLER (SHELVING)	PART NUMBER	LIST PRICE	PNEUMATIC CONTROLLER - STANDARD (NON-SHELVING)	PART NUMBER	LIST PRICE
3-way 24 VDC Controller	K1003-24	\$58.00	3-way 12 VDC Controller	K1003-12	\$58.00
3-way 110/120 VAC Controller	K1003-110	\$58.00	3-way 220 VAC Controller	K1003-230	\$58.00
4-way 24 VDC Controller	K1004-24	\$58.00	4-way 12 VDC Controller	K1004-12	\$58.00
4-way 120 VAC Controller	K1004-110	\$58.00	4-way 220 VAC Controller	K1004-230	\$58.00

Controller Kit Parts -- Selected Controller, Push-In Fittings; 2 pcs. 10-31 to 1/4" Tube O.D., 4 pcs. 1/8 NPT to 1/4" Tube O.D., 2 pcs. 1/4" O.D. Tubing 18" Length, 1 pc. Brass Fitting 1/8 NPT

SAFETY CAP	PART NUMBER	INVENTORY	LIST PRICE
Model 934 - 0.5" Tube Slot	A5650	Non-Shelving	\$48.00
Model 934 - 0.75" Tube Slot	A5651	Shelving	\$48.00
Model 935 - 0.75" Tube Slot	A5652	Shelving	\$48.00
Model 935 - 1.0" Tube Slot	A5653	Shelving	\$48.00
Model 934/935 - No Tube Slot	A5654	Shelving	\$48.00

*935 HF comes standard with safety cap and mounting leash provided



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 9001:2015 compliant company, Acro consistently delivers high-quality solutions.

» 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.

Warranty

The products manufactured by Acro Associates Inc. are warranted to be free from defects in workmanship and material at the time of shipment from the place of manufacture. Unless otherwise stated in writing, Acro Associates Inc. will repair or replace, at its option, any part of our product that fails to conform to this warranty for a period of 15 months from the date of manufacture. Acro Associates Inc. obligation under this warranty is limited to the repairs or replacement of defective product returned to us on an F.O.B. destination basis, provided that our examination discloses that such part or parts were defective.

The warranty described above is the exclusive Acro Associates Inc. warranty and is in lieu of all other warranties expressed or implied, including any warranty of merchantability or fitness for a particular use or any previously issued warranty. We neither assume nor authorize any person(s) to assume for us any other liability in connection with the sale or use of our products. No warranty of any kind is made or shall be imposed with respect to any product, valve or parts (1) which have not been properly installed and tested in operation, (2) which have been subject to misuse, negligence, acts of God, or the elements, or any other form of casualty, or (3) which have been altered or repaired outside of our plant in a way so as, in our judgment, to affect performance or reliability.

The parties agree that the buyer's sole and exclusive remedy against Acro Associates Inc. shall be for repair or replacement of the defective parts under the conditions stated above. The buyer further agrees that no other remedy (including but not limited to incidental or consequential damages for lost profits, lost sales, loss of use, injury to person or property, or any other incidental or consequential loss) shall be available to them. This warranty shall not apply to prototype valves or products or experimental valves or products. Materials and / or outsourced components used in the manufacturing process are subject to their supplier's warranty. Copies of supplier's warranties are available on request. The adjustment or replacement of defective parts made under this warranty will not extend the original warranty period.

Product Return and Credit:

Seller is under no obligation to take back material for credit or exchange when the reason for the return was anything other than the Seller's error. At Seller's sole discretion, should a return of this nature be authorized, the items returned must be of current manufacture and be in resalable condition. A minimum 25% restocking charge will apply as well as any additional charges necessary to restore items to resalable condition.

Norgren operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in Brazil, China, Czech Republic, Germany, India, Mexico, UK and the USA.

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Supported by distributors worldwide.

For further information, scan this QR code or visit
www.norgren.com



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Incorporating



IMI