

# Sample Cylinders

## Cylinder Valves & Accessories

Spun End Cylinders, Constant Pressure Cylinders,  
Rupture Disc Couplers & Sample Valve Quick Connects



### The Solution for Gas Sample Storage:

Parker offers a full line of DOT\* (Department of Transportation) approved sample cylinders and cylinder accessories to provide a stable and secure storage and transportation environment for collected samples. Both spun end and constant pressure cylinders are available in a variety of sizes and valve configurations. Constructed of 316 SS, they are ideal for a wide variety of sample collection and analysis needs. Formed with double-ends of seamless tubing, the cylinders provide consistency in wall thickness and internal volume.

### Featured Products:

- Spun End Cylinders
- Ultra-Seal™ Constant Pressure Cylinders\* (not DOT approved)
- VP™ Series Cylinder Valves
- Rupture Disc Couplers
- Cylinder Cases
- Sample Valve Quick Connects
- Spare Parts



ENGINEERING YOUR SUCCESS.

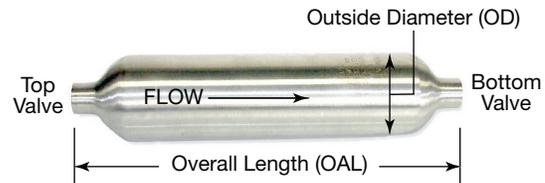
# Spun End Cylinders

## Product Features:

- 1800 PSI DOT-3E rating
- Seamless 316 stainless steel construction to NACE MR0175 / ISO 15156-3
- Heat code traceability
- Hydrostatic test certificates available



SE3-BSDT-ESDT18 shown



## Ordering Information:

Building a Part Number: *Example: SE3-BSDT-ESDT18*

Example Part Number:	TOP VALVE									BOTTOM VALVE	
	SE	3	-	B	S	D	T				-
Ordering Parameters/Options:	Base Model	Cylinder Size		Cylinder Body	Valve Material	Soft Seat Material	Stem Seal Material	Burst Disc Pressure	Options		Uses same Options/Codes as Top Valve to configure Bottom Valve
Table Reference: (see below)		A		B	C	D	E	F	G		See Sections B, C, D, E, F, G

A - Cylinder Size* (316 SS standard)	
1	150cc Spun End Cylinder
3	300cc Spun End Cylinder
5	500cc Spun End Cylinder

B - Cylinder Body * Must be used in Bottom valve position only	
B	VP-554: 1/4" M x M Straight, valve only (316 only, T-handle standard)
C	VP-555: 1/4" M x F Straight, valve only (316 only, T-handle standard)
D*	VP-590: 1/4" M x M Straight, valve & burst port less burst disc (316 only, T-handle standard)
E*	VP-591: 1/4" M x F Straight, valve & burst port less burst disc (316 only, T-handle standard)
F*	VP-592: 1/4" M x F Angle, valve & burst port less burst disc (316 only, T-handle standard)
H	V-554: 1/4" M x M Straight, valve only (available in 316 SS or CS), round phenolic handle standard)
J	V-556: 1/4" M x F Straight, valve only (available in 316 SS or CS), round phenolic handle standard)

PTFE Packed Valves

C - Valve Material	
S	316 SS (standard)

D - Soft Seat Material	
D	Acetal Resin (standard)
P	PEEK

E - Stem Seal Material	
T	PTFE Pressure-Core stem seal or PTFE packed stem seal (see Table B, Cylinder Body for more information)

F - Burst Disc Pressure	
	NON Dot above 1800 PSI
18	1800 PSI Burst Disc (Inconel standard)
	Consult factory for values above 1800 PSI

G - Options	
HA	Extruded Aluminum Round Handle (VP Series only)
H5	Carbon Steel Round handle (H, and J only)
H6	Stainless Steel round Handle (H, and J only)
L	316 SS Burst Disc (option adder "18" Burst Disc, i.e., 18L)
Q	Sample Bottle Quick Mount Adapter (for use with Parker Heated Enclosure valid with Top Valve only - see Page 7 for more information on "Q" Option)
W1	316 SS I.D. Tag

## Weight and Dimensions:

SIZE	OAL	OD	NPT	WEIGHT
150cc	8.25" (209.55 mm)	1.5" (38.1 mm)	1/4"	1.0 lbs. (0.45 kg)
200cc	9.25" (234.95 mm)	2" (50.8 mm)	1/4"	1.8 lbs. (0.81 kg)
500cc	13.88" (352.55 mm)	2" (50.8 mm)	1/4"	2.5 lbs. (1.13 kg)

Note: Overall Length (OAL) and Weight are less Valves

# Ultra-Seal™ Constant Pressure Cylinder

## Product Features:

- 316 SS shut-off valves on each end with Acetal Resin soft seats and PTFE Pressure-Core® stem seals — standard with 5-year no-leak warranty
- Mag-N-Tube™ volume indicator
- Suitable for gas and liquid sampling
- Patented piston with ceramic magnets and magnetic field intensifier to monitor the volume of sampled fluid
- Optional 80% fill switch provides additional safety



## Ordering Information:

Building a Part Number: *Example: CA3G30-18Y*

Example Part Number:	<b>C</b>	<b>A</b>	<b>3</b>	<b>G</b>	<b>30</b>	-	<b>18</b>	<b>Y</b>
Ordering Parameters/Options:	Base Model	Piston Options	Cylinder Body	Valve Options	Cylinder Capacity		Burst Disc Pressure	Options
Table Reference: (see below)		A	B	C	D		E	F

### A - Piston Options

<b>A</b>	Liquid Piston with Jet-Flo Liquid Mixer (The Jet Flo mixer is designed to mix the contents of the cylinder as a result of the mixer traveling through the product by gravity)
<b>E</b>	Piston - No Mixer (for gas only)

### B - Cylinder Body

<b>1</b>	Basic Cylinder
<b>2</b>	Basic Cylinder with Purge Valve on Product End (PEEK Purge Valve Seat only)
<b>3</b>	Basic Cylinder with Purge Valve on Both Ends (PEEK Purge Valve Seat only)

### C - Valve Options

<b>G</b>	VP 306 & 307 SDT Valves and 2,000 PSI Liquid Filled Gauges (no burst disc)
<b>V</b>	VP 306 & 307 SDT Valves (no burst disc or gauges)

### D - Cylinder Capacity

<b>30</b>	300cc
<b>50</b>	500cc
<b>1K</b>	1000cc

### F - Burst Disc Pressure

<b>18</b>	Inconel 1800 PSI Burst Disc (2 Disc)
	Consult factory for values above 1800 PSI

### G - Cylinder Options

<b>A1</b>	Co <sub>2</sub> Service O-Rings
<b>C</b>	Impreglon Coated Cylinder
<b>D</b>	Impreglon Coated Cylinder and Wetted Parts
<b>E</b>	Monel® Burst Disc (2)
<b>F</b>	316 SS Burst Disc (2) - Option adder to Burst Disc Pressure Option "18"
<b>M</b>	Gas Mixer (add to E gas piston only)
<b>PT</b>	PEEK Valve Seat (VP 306 & 307 SPT Valves)
<b>Y</b>	80% Fill Switch (interfaces with ESD) - includes 5' of cable

## Material of Construction:

Description	Material
Cylinder	316 Stainless Steel
Tie Rods and Nuts	304 Stainless Steel
End Caps	316 Stainless Steel
Purge Valve	316 Stainless Steel; PEEK Seats
Shut-Off Valves	316 Stainless Steel

## Weight and Dimensions:

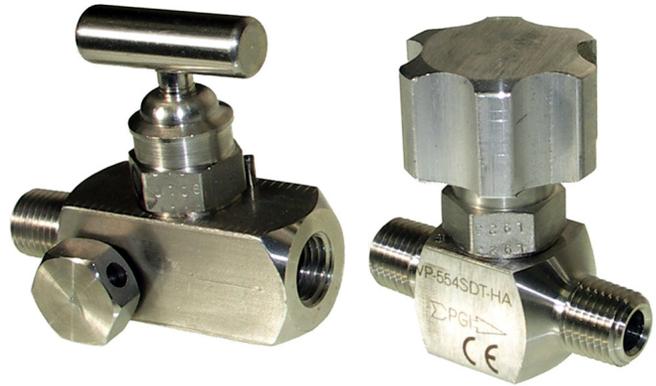
SIZE	OAL	WEIGHT
300cc	16.5" (419.1 mm)	10 lbs. (4.53 kg)
500cc	21.4" (543.6 mm)	13.5 lbs. (6.12 kg)
1000cc	33.7" (855.9 mm)	18 lbs. (8.16 kg)

Note: Overall Length (OAL) includes Gauges and Valves

# VP™ Series Cylinder Valves

## Product Features:

- Features patented Pressure-Core® stem seal technology — standard with 5-year no-leak warranty
- Meets the requirements of NACE MR0175/ISO 15156-3
- Provides 4 times the sealing area of a standard Mini Seat — 6,000 PSI @ 200° max
- CO<sub>2</sub> and H<sub>2</sub>S compatible materials standard
- Same C<sub>v</sub> rating (.22 max) as the conventional mini bonnet



## Ordering Information:

Building a Part Number: *Example: VP-306SDT-18*

Example Part Number:	VP	-	306		S		D		T	-	18	
Ordering Parameters/Options:	Valve Series		Model Number		Valve Material		Soft Seat Material		Stem Seal Material		Burst Disc Pressure	Options
Table Reference: (see below)			A		B		C		D		E	F

### A - Model Numbers

306	1/4" MNPT x 1/4" FNPT Straight RH (Product End) with Burst & Gauge Port (Less Disc)
307	1/4" MNPT x 1/4" FNPT Straight LH (Charge End) with Burst & Gauge Port (Less Disc)
552	1/4" MNPT x 1/4" FNPT Angle, Valve Only
554	1/4" MNPT x 1/4" MNPT Straight, Valve Only
556	1/4" MNPT x 1/4" FNPT Straight, Valve Only
590	1/4" MNPT x 1/4" MNPT Straight, Valve & Burst Port (less disc)
591	1/4" MNPT x 1/4" FNPT Straight, Valve & Burst Port (less disc)
592	1/4" MNPT x 1/4" FNPT Angle, Valve & Burst Port (less disc)

### B - Valve Material

S	316 SS standard
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### C - Soft Seat Material - 6,000 psig (413.7 bar) @ 200°F (93°C)

D	Acetal Resin (standard)
K	PCTFE (Polychlorotrifluoroethylene)
P	PEEK

### D - Stem Seal Material

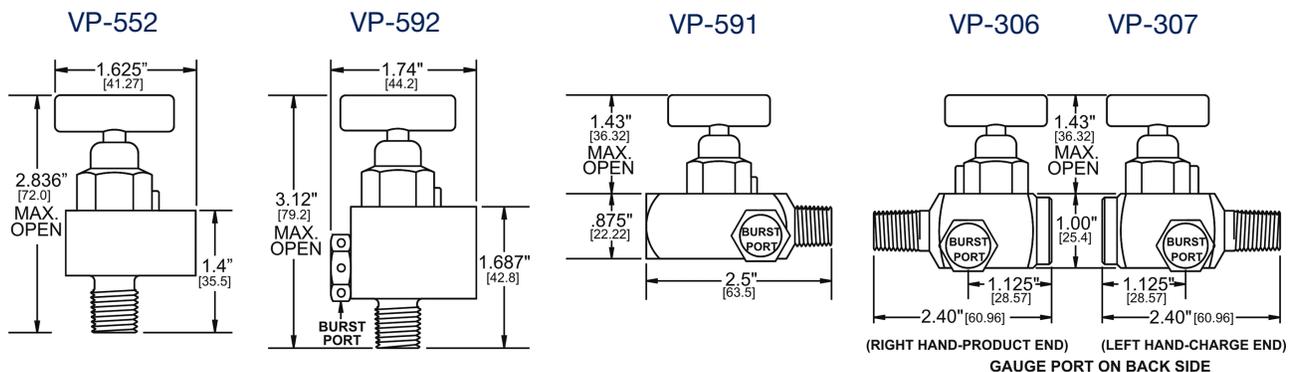
T	PTFE Pressure-Core® (standard)
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### E - Burst Disc Pressure

18	Inconel 1800 PSI Burst Disc (2 Disc)
	Consult factory for values above 1800 PSI

### F - Options

HA	Extruded Aluminum Round Handle
L	316 SS Burst Disc (Option adder to Burst Disc Pressure code "18")



# Cylinder Valves

## Product Features:

- Miniature Needle Valves valves with FKM O-ring stem seals or PTFE stem packing
- .22 C<sub>v</sub> Flow Capacity
- Angled or straight body styles
- Optional Round Handle



## Ordering Information:

Building a Part Number: *Example: V-554SDT-H6*

Example Part Number:	<b>V</b>	-	<b>554</b>		<b>S</b>		<b>D</b>		<b>T</b>	-	<b>H6</b>	
Ordering Parameters/Options:	Valve Series		Model Number		Valve Material		Soft Seat Material		Stem Seal Material		Handle Options	Options
Table Reference: (see below)			A		B		C		D		E	F

### A - Model Numbers

552	1/4" MNPT x 1/4" FNPT Angle
<b>554</b>	1/4" MNPT x 1/4" MNPT Straight
556	1/4" MNPT x 1/4" FNPT Straight

### B - Valve Material

<b>S</b>	316 SS standard
C	Carbon Steel

### C - Soft Seat Material - 6,000 psig (413 bar) @ 200°F (93°C)

<b>D</b>	Acetal Resin (standard)
K	PCTFE (Polychlorotrifluoroethylene)
P	PEEK

### D - Stem Seal Material

<b>T</b>	PTFE Pressure-Core® (standard)
V	FKM O-Ring

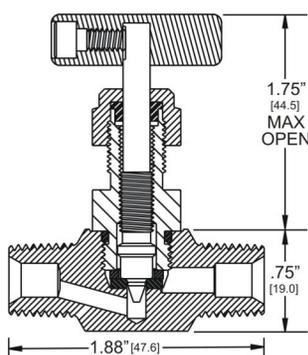
### E - Handle Options

<b>H5</b>	Carbon Steel Round Handle
<b>H6</b>	Stainless Steel Round Handle

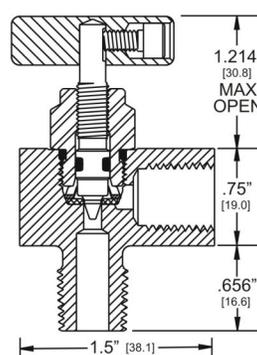
### F - Options

<b>Q</b>	Sample Bottle Quick Mount Adapter
<b>W1</b>	316 SS Tag

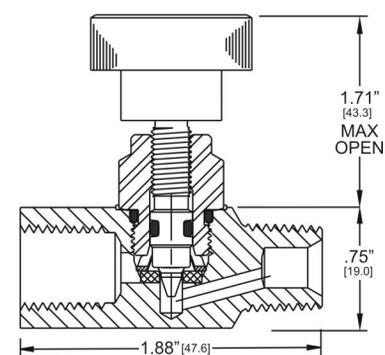
Packed Straight Style  
V-554



FKM Angle Style  
V-552



FKM Straight Style  
V-556



# Rupture Disc Couplers

## Product Features:

- Rupture disc couplers available with pipe away disc caps
- The rupture disc is a forward acting rupture disc
- Designed for working pressure not exceeding 70% stamped burst pressure
- Standard material for the rupture disc is Inconel® 600
- Angular seated design allows for safe venting to the atmosphere

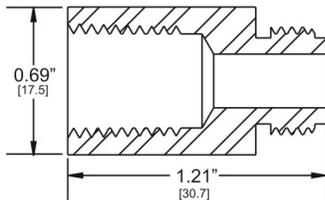


## Material of Construction:

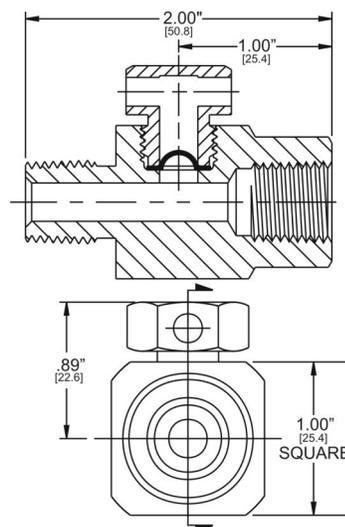
Part Number	Description
V-563S-18	316 SS 1/4" MNPT x 1/4" FNPT, Coupler and 1800# Inconel Rupture Disc
C1-006-CO	316 SS 1/4" Pipe Away Burst Disc Cap for Rupture Disc Vent Port

## Dimensions:

Pipe Away Burst Disc Cap  
C1-006-CO



Rupture Disc Coupler  
V-563



# Cylinder Cases

## Product Features:

- Solid foam insert
- Unbreakable, water-tight, dust-proof, chemical resistant and corrosion-proof design
- Black ultra high impact structure, ABS latches seal, O-ring seal
- Wheeled end for ease of transport



## Product Details:

Part Number	Capacity	Weight	Temperature Rating	Inside Dimensions	Outside Dimensions
PC-500	150cc, 300cc, 500cc (1) Cylinders	19 lbs (8.61 kg)	Minimum: -10°F (-23°C) Maximum: +210°F (+99°C)	35-3/4" x 13-13/16" x 5-1/4" (91 x 35.1 x 13.3 cm)	38-1/8" x 17-13/16" x 6-1/8" (96.8 x 45.2 x 15.5 cm)
PC-1000	1000cc (1) Cylinders	26 lbs (11.79 kg)		50-1/2" x 13-7/16" x 5-1/4" (128.3 x 34.1 x 13.3 cm)	53" x 17-7/16" x 6-1/16" (134.6 x 44.36 x 15.4 cm)

# Sample Valve Quick Connects

For use with Hot-Shot™ Natural Gas Sampling System Heated Enclosures

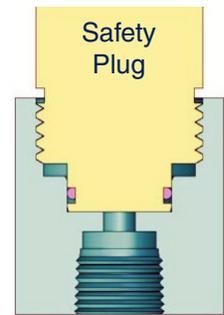
## Product Features:

- Adapts a sample bottle having a male or female shut-off valve outlet for use with the heated enclosure system
- Available with safety plug and O-ring for guaranteed sample retention in transit
- 1/4" male or female NPT inlet x sample bottle mount adapter outlet

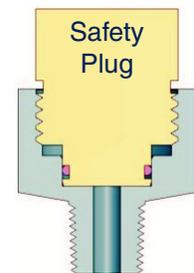
## Product Details:

Part Number	Inlet Configuration	Description
QA-M-14-S	Male	* 316 SS 1/4" (male or female) NPT inlet x "Q" adapter outlet includes safety plug and O-ring
QA-F-14-S	Female	
HE-037-C0	Male	*316 SS 1/4" (male or female) NPT inlet x "Q" adapter outlet
HE-080-C0	Female	

\* Parker PGI 316 SS products meet the requirements of NACE MR0175/ISO 15156-3



FEMALE NPT



MALE NPT

# Spare Parts

Part Number	Description
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## Ultra-Seal™ Constant Pressure Cylinder

SA-CY	80% Fill Switch (includes 5' cable)
SS-C9E-529-CL	Gauge 2-1/2" dial, 1/4" MNPT, 316 SS (0-2000 PSI)
SS-C9E-500-CL	Liquid Filled Gauge 2-1/2" dial, 1/4" MNPT, 316 SS (0-2000 PSI) Center Back Mount
SS-C9E-516-CL	Liquid Filled Gauge 2-1/2" dial, 1/4" MNPT, 316 SS (0-300 PSI) Center Back Mount
SS-C9E-517-CL	Liquid Filled Gauge 2-1/2" dial, 1/4" MNPT, 316 SS (0-600 PSI) Center Back Mount
SS-C9E-518-CL	Liquid Filled Gauge 2-1/2" dial, 1/4" MNPT, 316 SS (0-1000 PSI) Center Back Mount
SP7-031-G0-18	1/4" MNPT Inconel 1800 PSI Rupture Disc
SK-CYL-02	Liquid Mixer & Piston Kit – includes End Cap O-Rings, Piston & Jet-Flo
SK-CYL-03	Standard Cylinder O-Ring Kit
SK-CYL-04	Gas Mixture Kit
SK-CYL-05	Gas Piston Kit
SK-CYL-06	CO <sub>2</sub> Service O-Ring Kit

## VP™ Series Cylinder Valve Spare Parts - Pressure-Core® Stem Seal

SP3-010-R1	PCTFE Seats
SP3-010-R2	PTFE Seats
SP3-010-R3	Acetal Resin Seats
SP3-010-R4	PEEK Seats
SP7-031-G0-18	1/4" Inconel 1800 PSI Rupture Disc
SAV-004-A0	Tee Handle (std.)
SAV117S-T-H4	Bonnet Assembly 316 SS - Mini Pressure-Core® Stem Seal

## Miniature Valves (.136 Orifice) Spare Parts

P5-020-R0	Mini PTFE Seat
P5-020-R1	Mini PCTFE Seat
P5-020-R2	Mini Acetal Resin Seat
P5-020-R3	Mini PEEK Seat
P7-024-C0	Wavey Washer
P5-019-R0	Mini Packed PTFE Seal
P7-025-C0	Mini Packed PTFE Seal Stainless Backup Washer

## Miniature Valves Bonnet Assemblies

SAV107S-T	Stainless Steel with Packed PTFE
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## Miniature Valves Handles (Non-VP Style)

SAV-001-10	Carbon Steel Round Handle
SAV-001-A0	Stainless Steel Round Handle
SAV-002-10	Carbon Steel Bar Handle
SAV-002-A0	Stainless Steel Bar Handle





# Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further information call 1-800-C-Parker.

MARKET	KEY MARKETS	KEY PRODUCTS		
 <b>AEROSPACE</b>	Aircraft Engines Commercial Commerical Transports Military Aircraft Regional Transports	Business and General Aviation Land-Based Weapons Systems Missiles and Launch Vehicles Unmanned Aerial Vehicles	Flight Control Systems & Components Fluid Conveyance Systems Fluid Metering Delivery & Atomization Devices Fuel Systems & Components	Hydraulic Systems & Components Inert Nitrogen Generating Systems Pneumatic Systems & Components Wheels & Brakes
 <b>CLIMATE CONTROL</b>	Agriculture Food, Beverage and Dairy Precision Cooling Transportation	Air Conditioning Life Sciences & Medical Processing	Co2 Controls Electronic Controllers Filter Driers Hand Shut-Off Valves Hose & Fittings	Pressure Regulating Valves Refrigerant Distributors Safety Relief Valves Solenoid Valves Thermostatic Expansion Valves
 <b>ELECTRO-MECHANICAL</b>	Aerospace Life Science & Medical Packaging Machinery Plastics Machinery & Converting Semiconductor & Electronics Factory Automation	Machine Tools Paper Machinery Primary Metals Textile Wire & Cable	AC/DC Drives & Systems Electric Actuators, Gantry Robots & Slides Electrohydrostatic Actuation Systems Electromechanical Actuation Systems Human Machine Interface	Linear Motors Stepper Motors, Servo Motors Drives & Controls Structural Extrusions
 <b>FILTRATION</b>	Food & Beverage Life Sciences Mobile Equipment Power Generation Transportation	Industrial Machinery Marine Oil & Gas Process	Analytical Gas Generators Compressed Air & Gas Filters Condition Monitoring Engine Air, Fuel & Oil Filtration & Systems	Hydraulic, Lubrication & Coolant Filters Process, Chemical, Water Microfiltration Filters Nitrogen, Hydrogen & Zero Air Generators
 <b>FLUID and GAS HANDLING</b>	Aerospace Agriculture Bulk Chemical Handling Construction Machinery Food & Beverage Fuel & Gas Delivery	Industrial Machinery Mobile Oil & Gas Transportation Welding	Brass Fittings & Valves Diagnostic Equipment Fluid Conveyance Systems Industrial Hose	PTFE & PFA Hose, Tubing & Plastic Fittings Rubber & Thermoplastic Hose & Couplings Tube Fittings & Adapters Quick Disconnects
 <b>HYDRAULICS</b>	Aerospace Aerial lift Agriculture Construction Machinery Forestry	Industrial Machinery Mining Oil & Gas Power Generation & Energy Truck Hydraulics	Diagnostic Equipment Hydraulic Cylinders & Accumulators Hydraulic Motors & Pumps Hydraulic Systems Hydraulic Valves & Controls	Power Take-Offs Rubber & Thermoplastic Hose & Couplings Tube Fittings & Adapters Quick Disconnects
 <b>PNEUMATICS</b>	Aerospace Conveyor & Material Handling Factory Automation Life Science & Medical	Machine Tools Packaging Machinery Transportation & Automotive	Air Preparation Brass Fittings & Valves Manifolds Pneumatic Accessories Pneumatic Actuators & Grippers Pneumatic Valves & Controls	Quick Disconnects Rotary Actuators Rubber & Thermoplastic Hose & Couplings Structural Extrusions Thermoplastic Tubing & Fittings Vacuum Generators, Cups & Sensors
 <b>PROCESS CONTROL</b>	Chemical & Refining Food, Beverage & Dairy Medical & Dental	Microelectronics Oil & Gas Power Generation	Analytical Sample Conditioning Products & Systems Fluoropolymer Chemical Delivery Fittings, Valves & Pumps High Purity Gas Delivery Fittings, & Valves & Regulators	Instrumentation Fittings, Valves Regulators Medium Pressure Fittings & Valves Process Control Manifolds
 <b>SEALING and SHIELDING</b>	Aerospace Chemical Processing Consumer Energy, Oil & Gas Fluid Power General Industrial	Information Technology Life Sciences Military Semiconductor Transportation	Dynamic Seals Elastomeric O-Rings Emi Shielding Extruded & Precision-Cut, Fabricated Elastomeric Seals	Homogeneous & Inserted Elastomeric Shapes High Temperature Metal Seals Metal & Plastic Retained Composite Seals Thermal Management

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