## 3 Valve Manifolds

## P3M3H™ and P6M3H™

3/16" and 3/8" Bore 3-Valve Hard Seat Manifolds Solutions for Oil, Gas, and Petrochemical Processing



### Principle of Operation:

The 3-valve hard seat manifold designed for instrument calibration incorporates two shut-off valves and an equalizing valve in a single body. The manifold features a valve body manufactured from extruded solid bar, robust stems and bonnets pinned for safety. Two standard mount holes are provided for bracket support. The manifold's globe-pattern provides maximum shut-off. Parker offers the manifold with a variety of special tips, materials and configurations that meet most application requirements.

#### Features and Benefits:

- Pressure component materials sourced from the US, Canada or Europe
  Reliable material traceability. MTR's provided with every order for pressure containing components.
- 100% Gas tested
   Complies with MSS SP-99 testing procedures as standard. Ensures structural integrity of valve.
- Packing below stem thread
   Prevents corrosion of critical stem threads
- Metal body-to-bonnet seals are in compression, not tension Mitigates risk of stress cracking
- Stem threads are rolled, not cut Higher quality stem for longer service life
- 8 RMS stem finish Extended packing life
- V-Style PTFE packing
   30-40% less operational torque and less frequent packing adjustments than traditional PTFE packed valve



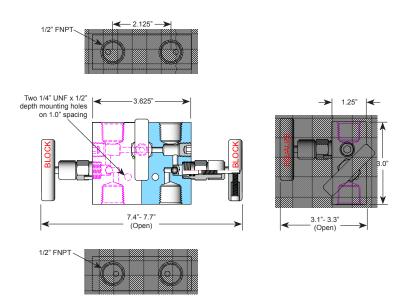


Parker Hannifin acquired PGI in 2012 and Phoenix Precision Ltd in 2014. The enclosed offering combines the best product features of the acquisitions and is the best available, safest technology to better serve customers.



# P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Pipe x Pipe Technical Specifications

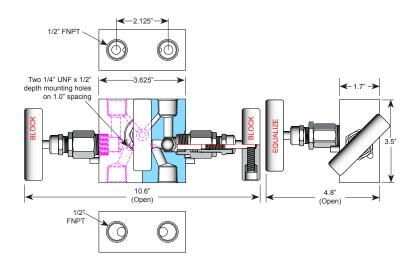
### 3/16" Bore Configuration



#### Specifications:

Feature	Description			
Type:	P3M3H, 3-Valve Manifold, Globe Pattern			
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)			
Stem:	Ball tip			
Packing:	FKM O-ring, PTFE or Graphite			
Seat:	Integral			
Handle:	Removable			
Bore Size:	3/16"			
Inlet Connections:	FNPT			
Outlet Connections:	FNPT			
Bonnet Lock:	Pin or Plate			
Body Stock:	3.625" x 3.00" x 1.25"			
Weight:	4.5 - 5.1 lbs			
Special Service:	O <sub>2</sub> or Cl cleaning available*			
Notes: *Other specification	Notes: *Other specifications or services may be available.			

## 3/8" Bore Configuration

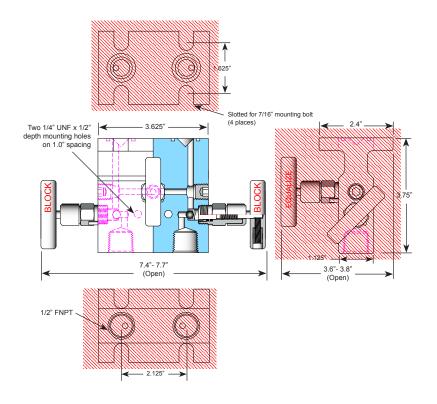


#### Specifications:

Feature	Description
Type:	PG6M3H, 3-Valve Manifold, Globe Pattern
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)
Stem:	Ball tip
Packing:	FKM O-ring, PTFE or Graphite
Seat:	Integral
Handle:	Removable
Bore Size:	3/8"
Inlet Connections:	FNPT
Outlet Connections:	FNPT
Bonnet Lock:	Pin or Plate
Body Stock:	3.625" x 3.5" x 1.7"
Weight:	7.0 - 7.2 lbs
Special Service:	O <sub>2</sub> or Cl cleaning available*
Notes: *Other specification	ons or services may be available.

# P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Pipe x Flange Technical Specifications

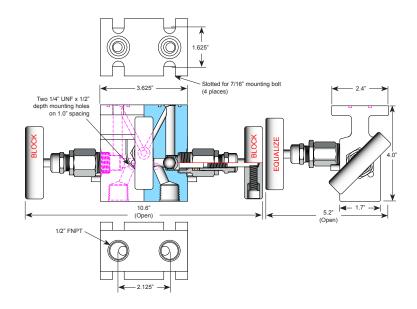
## 3/16" Bore Configuration



#### Specifications:

Feature	Description		
Type:	P3M3H, 3-Valve Manifold, Globe Pattern		
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)		
Stem:	Ball tip		
Packing:	FKM O-ring, PTFE or Graphite		
Seat:	Integral		
Handle:	Removable		
Bore Size:	3/16"		
Inlet Connections:	FNPT		
Outlet Connections:	Flange		
Bonnet Lock:	Pin or Plate		
Body Stock:	3.625" x 3.75" x 2.4" x 1.125"		
Weight:	4.5 - 5.1 lbs		
Special Service:	O <sub>2</sub> or Cl cleaning available*		
Notes: *Other specifications or services may be available.			

## 3/8" Bore Configuration

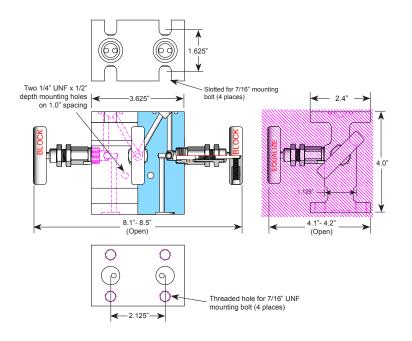


#### Specifications:

Feature	Description
Type:	P6M3H, 3-Valve Manifold, Globe Pattern
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)
Stem:	Ball tip
Packing:	FKM O-ring, PTFE or Graphite
Seat:	Integral
Handle:	Removable
Bore Size:	3/8"
Inlet Connections:	FNPT
Outlet Connections:	Flange
Bonnet Lock:	Pin or Plate
Body Stock:	3.625" x 4.0" x 2.45" x 1.7"
Weight:	7.5 - 7.7 lbs
Special Service:	O <sub>2</sub> or Cl cleaning available*
Notes: *Other specification	ons or services may be available.

# P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Flange x Flange Technical Specifications

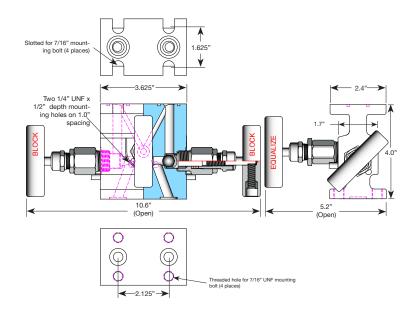
## 3/16" Bore Configuration



#### Specifications:

Feature	Description		
Type:	P3M3H, 3-Valve Manifold, Globe Pattern		
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)		
Stem:	Ball tip		
Packing:	FKM O-ring, PTFE or Graphite		
Seat:	Integral		
Handle:	Removable		
Bore Size:	3/16"		
Inlet Connections:	FNPT		
Outlet Connections:	Flange		
Bonnet Lock:	Pin or Plate		
Body Stock:	3.625" x 4.0" x 2.4" x 1.125"		
Weight:	4.5 - 5.1 lbs		
Special Service:	O <sub>2</sub> or Cl cleaning available*		
Notes: *Other specifications or services may be available.			

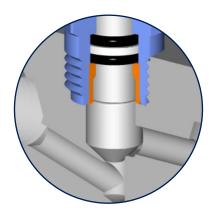
## 3/8" Bore Configuration



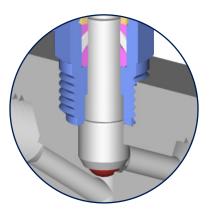
#### Specifications:

Feature	Description		
Type:	P6M3H, 3-Valve Manifold, Globe Pattern		
Rating:	Up to 6000 psi @ 100°F (41370 kPa @ 38°C)		
Stem:	Ball tip		
Packing:	FKM O-ring, PTFE or Graphite		
Seat:	Integral		
Handle:	Removable		
Bore Size:	3/8"		
Inlet Connections:	Flange		
Outlet Connections:	Flange		
Bonnet Lock:	Pin or Plate		
Body Stock:	3.625" x 4.0" x 2.4" x 1.7"		
Weight:	7.6 - 7.8 lbs		
Special Service:	O <sub>2</sub> or Cl cleaning available*		
Notes: *Other specifications or services may be available.			

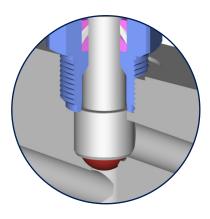
# P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Stem and Seat Characteristics



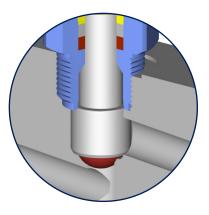
3/16" Bore O-ring Configuration



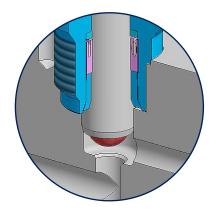
3/16" Bore Packed Configuration



3/8" PTFE Packed Configuration



3/8" Graphite Packed Configuration



Pressure Core

## P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Pressure-Core<sup>®</sup> Seal - Advanced Stem Seal System

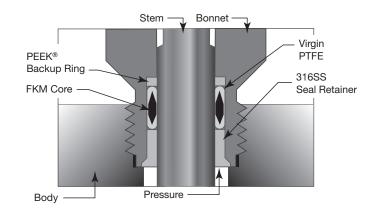
### A Superior Design for Better Performance:

Parker's patented Pressure-Core® Stem Seal System was tested by an independent laboratory in accordance with EPA Method 21, and the results indicate that the Pressure-Core® Stem Seal is a reliable, affordable, virtually leak-free bonnet requiring no costly, time consuming maintenance.

After years of field experience and millions of valves in service, Parker takes great pride in extending a five-year limited warranty on our Pressure-Core® Stem Seal, far exceeding the industry standard.

#### **Product Features:**

- Virtually Leak-Free Performance
- No Adjustments or Maintenance Requirements
- Unmatched 5 Year Warranty
- No Fugitive Emissions



### Fugitive Emissions Test Results:

See for yourself how our Pressure-Core® not only outperforms the competition, but sets a new industry standard...

#### **Test Procedure**

Valves mechanically cycled 50 times (full open to full close) at 1,000 PSI methane, then heated to 400°F and air cooled to ambient. Procedure repeated until failure.

#### Failure Criteria

100 PPM leak\*

\*Competition's Emission Seal Warranty

#### **Test Results:**

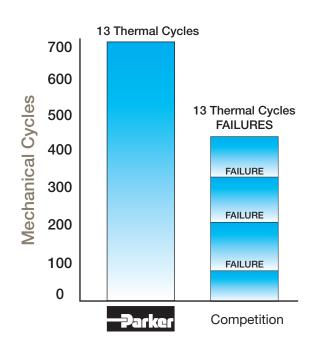
#### Parker:

The Pressure-Core Seal successfully completed 694 mechanical cycles and 13 thermal cycles. Maximum leakage throughout testing was 40 PPM.

#### Competition:

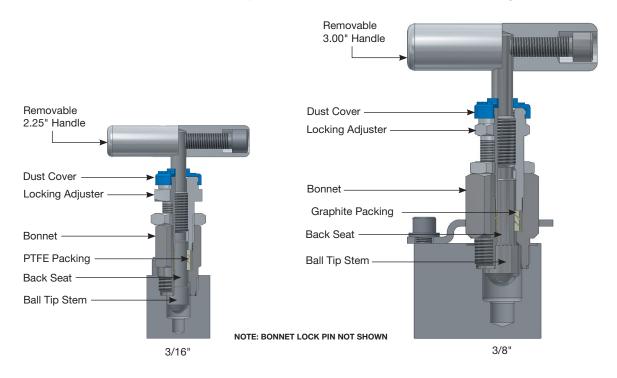
The competition's "low emissions" graphite design failed on the 89th mechanical cycle and on average every 125 cycles throughout the testing.

Repeated maintenance was required between each failure to readjust the valve packing.

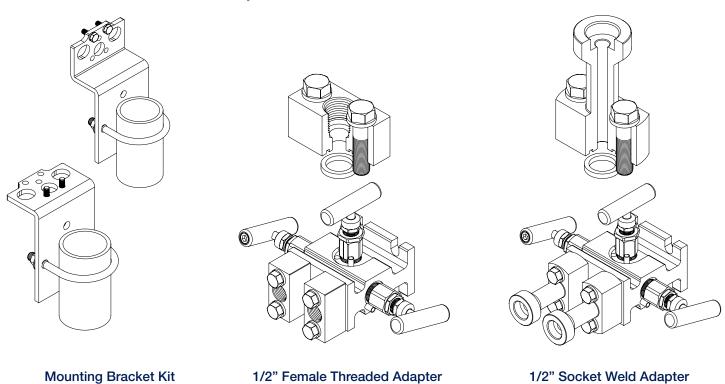


# P3M3H<sup>TM</sup>/P6M3H<sup>TM</sup>: Block Bonnet Characteristics and Accessories

### PTFE and Graphite Packed Bonnet Assembly



### **Optional Manifold Accessories**



## P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Additional Technical Information

### Meets the Following Specifications as required:

- ASME B31.1 Power Piping
- ASME B31.3 Process Piping
- ASME B16.34 Valves Flanged, Thread, and Welding End
- API 598 Valve Inspection and Testing
- MSS SP-25 Standard Marking Systems for Valves, Fittings, and Flange Unions
- MSS SP-99 Instrument Valves
- MSS SP-105 Instrument Valves for Code Applications
- NACE MR0175 for all 316SS valves and A105CS body/316SS bonnet (SC Material Code)
- ISO 9001:2015 certified quality system
- Canadian Registration Number (CRN)
- ASME/ANSI B1.20.1 general pipe threads

### Material of Construction:

Code	SS	SC	CS
Body	ASTM A182 316SS	ASTM A105 CS	ASTM A108 CS
Bonnet	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Stem	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS
Adjuster	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS
Insert	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Handle	ASTM A182 303SS	ASTM A182 303SS	ASTM A108 CS

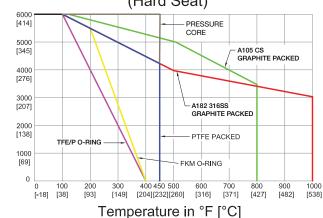
### Seal and Seat Temperature Rating:

Code	Description	Min. Temperature	Max. Temperature
А	TFE/P	15°F (-10°C)	400°F (204°C)
V	FKM	-20°F (-29°C)	400°F (204°C)
Р	Pressure Core	-40°F (-40°C)	450°F (232°C)
Т	PTFE	-65°F (-54°C)	450°F (232°C)
G	Graphite	-70°F (-56°C)	1000°F (537°C)
G	CS Body	-70°F (-56°C)	800°F (427°C)

Note: Grafoil™ is suitable for services in excess of 1000°F in a non-oxidizing environment.

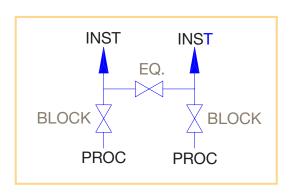
### Pressure vs. Temperature:

# Pressure vs. Temperature Chart 6000 psi (Hard Seat)



Note: Body material specifications based on ASME B16.34 - 2013. Packing material ratings based on manufacturer's specifications. Approximations only. Parker does not represent these values as finite. They are provided only as representative values.

### Flow Diagram for all Manifolds:



Pressure in psi [bar]

# P3M3H<sup>™</sup>/P6M3H<sup>™</sup>: Model Numbering System

Parker	Orifice Size	Туре	Inlet S	ize & Type	Outlet	Size & Type	Material	Packing	Seat	Stem Tip
Р	3=3/16"	МЗН	8F = 1	/2" FNPT	8F = 1	1/2" FNPT	SS=ASTM A182 316/316L	A=TFE/P	Integral (leave blank)	B=316SS Ball Tip
	6=3/8"		FL =	- Flange	FL:	= Flange	SC=ASTM A105 CS*	V=FKM		BC=Ceramic Ball Tip
			4PT = 1	/4" PTFree	4PT = 1	1/4" PTFree	CS=ASTM A108 CS*	T=PTFE		BM=Monel™ Ball Tip
			6PT = 3	3/8" PTFree	6PT = 3	3/8" PTFree	C5=ASTM A350 LF2	G=Graphite		
			8PT = 1	/2" PTFree	8PT = 1	1/2" PTFree	N4=Monel™ 400	P=Pressure Core		
							N6=Inconel™ 625			
							N8=Inconel™ 825			
							N2=Hastelloy™ C276			
EXAMPL	EXAMPLE: P3M3H8F8FSSTB = 3/16" Orifice, 3-Valve Manifold, 1/2" FNPT Inlet, 1/2" FNPT Outlet, 316 SS Body, PTFE Packing, Integral Seat, Ball Tip Stem									
Р	3	МЗН	8	F	8	F	SS	Т		В
	*For code applications, A105 CS must be selected for CS valves. Code grade bolts must be specified for code applications. Note: Standard Bolting Options, CS - carbon steel, Gr.8, zinc plated bolts; SS - stainless steel, 18.8 (304SS) bolts.									

Option Codes	Description
LB	Bonnet Lock
ос	Oxygen/Chlorine Clean
TG	SS Tag
SGI	Sour Gas ISO NACE Latest Rev.
N4	Monel <sup>™</sup> 400 Stem
N5	Monel <sup>™</sup> 500 Stem
N6	Inconel <sup>™</sup> 625 Stem
N8	Inconel™825 Stem
N2	Hastelloy™ C276 Stem
H(V)MB	Horizontal (Vertical) Mounting Bracket
H(V)MBS	SS Horizontal (Vertical) Mounting Bracket
S6	316 SS Bolts
225CS	2.25" CS Bolts
225\$4	2.25" 304 SS Bolts
225\$6	2.25" 316 SS Bolts
ТВ	1/4" FNPT Test Ports Bottom
РВ	1/4" FNPT Purge Ports Bottom
В7	AISI 4140/4142 QT
B8MC1	Class 1, 316SS, ST
B8MC2	Class 2, 316SS, ST, SH

#### Code Bolting Information

- 1. B7, B8C1, B8MC1, B8C2, B8MC2 are code grades to ASTM A193;
- To specify code grade bolting, example: 225B7 indicates 2.25" bolt length; B7 grade, alloy steel, AISI 4140/4142
- QT-Quenched & Tempered; ST-Carbide Solution Treated; SH-Strain Hardened

BOLT OPTIONS				ERIAL DESIGNATION	ON
Application	Description Le		CS	304 SS	316 SS
DP Transmitter	Bi-planar Design: Rosemount™ 1151, Honeywell™ 900 etc.	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
Coplanar Design: Rosemount™ 3051, 3095, 2024 with coplanar flange.		2 1/4"	-225CS	-225\$4	-225S6
Flow Computer	ABB Total Flow, Thermo Fisher™ (with Honeywell™ Transducer Module), Barton Scanner, Bristol Teleflow & TeleTrans	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
Flow Computer -	Fisher™, Flow Automation™ (with Rosemount™ transducer module), Daniel, Dynamic Fluid	2 1/4"	-225CS	-225S4	-225\$6
DP Transmitter with	DP Bi-planar design used in combination with DP to GP Adapter (DPG6S)	2"	-200CS	-200S4	-200S6
DP to GP Adapter	DP Coplanar design used in combination with DP to GP Adapter (DPG6S)	3 1/4"	-325CS	325\$4	-325S6
Note: For manifolds with dielectric option add 1/4" to bolt length.					

NOTES:	

# 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	
	AEROSPACE	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
	CLIMATE CONTROL	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
	ELECTRO- MECHANICAL	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
UCC	FILTRATION	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
	FLUID and GAS HANDLING	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
	HYDRAULICS	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
	PNEUMATICS	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
	PROCESS CONTROL	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
	SEALING and SHIELDING	Aerospace Chemical Processing Consumer Energy, Oil & Gas Fluid Power General Industrial	Information Technology Life Sciences Military Semiconductor Transportation	Dynamic Seals Elastomeric 0-Rings Emi Shielding Extruded & Precision-Cut, Fabricated Elastomeric Seals	Homogeneous & Inserted Elastomeric Shapes High Temperature Metal Seals Metal & Plastic Retained Composite Seals Thermal Management

#### Parker Worldwide

AE - UAE, Dubai Tel: +971 4 8875600 parker.me@parker.com

AR - Argentina, Buenos Aires Tel: +54 3327 44 4129 falecom@parker.com

AT - Austria, Wiener Neustadt Tel: +43 (0)2622 23501-0 parker.austria@parker.com

AT - Eastern Europe, Wiener Neustadt Tel: +43 (0)2622 23501 970 parker.easteurope@parker.com

AU - Australia, Dandenong Tel: +61 (0)3 9768 5555 customer.service.au@parker.com

AZ - Azerbaijan, Baku Tel: +994 50 2233 458 parker.azerbaijan@parker.com

BE/LX - Belgium, Nivelles Tel: +32 (0)67 280 900 parker.belgium@parker.com

BR - Brazil, Sao Jose dos Campos Tel: +55 12 4009 3504 falecom@parker.com

BY - Belarus, Minsk Tel: +375 17 209 9399 parker.belarus@parker.com

CA - Canada, Grimsby, Ontario Tel +1 905-945-2274 ipd\_canada@parker.com

CH - Switzerland, Etoy Tel: +41 (0) 21 821 02 30 parker.switzerland@parker.com CL - Chile, Santiago Tel: +56 (0) 2 2303 9640 falecom@parker.com

CN - China, Shanghai Tel: +86 21 2899 5000 INGtechnical.china@parker.com

CZ - Czech Republic, Klecany Tel: +420 284 083 111 parker.czechrepublic@parker.com

DE - Germany, Kaarst Tel: +49 (0)2131 4016 0 parker.germany@parker.com

DK - Denmark, Ballerup Tel: +45 43 56 04 00 parker.denmark@parker.com

ES - Spain, Madrid Tel: +34 902 33 00 01 parker.spain@parker.com

FI - Finland, Vantaa Tel: +358 (0)20 753 2500 parker.finland@parker.com

FR - France, Contamine s/Arve Tel: +33 (0)4 50 25 80 25 parker.france@parker.com

GR - Greece, Athens Tel: +30 210 933 6450 parker.greece@parker.com

HU - Hungary, Budapest Tel: +36 1 220 4155 parker.hungary@parker.com

ID - Indonesia, Tangerang Tel: +62 (0)21 7588 1906 parker.id@parker.com

IE - Ireland, Dublin Tel: +353 (0)1 466 6370 parker.ireland@parker.com

IN - India, Mumbai Tel: +91 22 6513 7081-85

IT - Italy, Corsico (MI) Tel: +39 02 45 19 21 parker.italy@parker.com

JP - Japan, Tokyo Tel: +(81) 3 6408 3900 infophj@parker.com

KR - South Korea, Seoul Tel: +82 2 559 0400 parkerkr@parker.com

KZ - Kazakhstan, Almaty Tel: +7 7272 505 800 parker.easteurope@parker.com

LV - Latvia, Riga Tel: +371 6 745 2601 parker.latvia@parker.com

MX - Mexico, Toluca Tel: +52 722 275 4200 contacto@parker.com

MY - Malaysia, Selangor Tel: +603 784 90 800 parkermy@parker.com

NL - The Netherlands, Oldenzaal Tel: +31 (0)541 585 000 parker.nl@parker.com

NO - Norway, Stavanger Tel: +47 (0)51 826 300 parker.norway@parker.com NZ - New Zealand, Mt Wellington Tel: +64 9 574 1744

PL - Poland, Warsaw Tel: +48 (0)22 573 24 00 parker.poland@parker.com

PT - Portugal, Leca da Palmeira Tel: +351 22 999 7360 parker.portugal@parker.com

RO - Romania, Bucharest Tel: +40 21 252 1382 parker.romania@parker.com

RU - Russia, Moscow Tel: +7 495 645-2156 parker.russia@parker.com

SE - Sweden, Spånga Tel: +46 (0)8 59 79 50 00 parker.sweden@parker.com

SG - Singapore, Tel: +65 6887 6300 parkersg@parker.com

SK - Slovakia, Banská Bystrica Tel: +421 484 162 252 parker.slovakia@parker.com

SL - Slovenia, Novo Mesto Tel: +386 7 337 6650 parker.slovenia@parker.com

TH - Thailand, Bangkok Tel: +66 2 186 7000 phthailand@parker.com

TR - Turkey, Istanbul Tel: +90 216 4997081 parker.turkev@parker.com TW - Taiwan, Taipei Tel: +886 2 2298 8987 enquiry.taiwan@parker.com

UA - Ukraine, Kiev Tel: +380 44 494 2731 parker.ukraine@parker.com

UK - United Kingdom, Warwick Tel: +44 (0)1926 317878 parker.uk@parker.com

USA - IPD, Huntsville Tel: +1 256 881 2040 ipdcct@parker.com

USA - Autoclave Engineers, Erie Tel: +1 814 860 5700 ipdaecct@parker.com

VN - Vietnam, Hochi Minh City Tel: +84 (0)8337 546 51 parker\_viet@parker.com

**ZA** - South Africa, Kempton Park Tel: +27 (0)11 961 0700 parker.southafrica@parker.com

#### ! CAUTION!

Do not mix or interchange component parts or tubing with those of other manufacturers. Doing so is unsafe and will void warranty.

Parker Autoclave Engineers Valves, Fittings, and Tools are not designed to interface with common commercial instrument tubing and are designed to only connect with tubing manufactured to Parker Autoclave Engineers AES specifications. Failure to do so is unsafe and will void warranty.

#### WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH,

PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

#### Offer of Sale

The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request)

© 2018 by Parker Hannifin Corporation. All rights reserved. Material in this brochure or catalogue may not be reproduced in whole or in part, in any form, without written permission from the publisher







Parker Hannifin Corporation Instrumentation Products Division 16101 Vallen Drive Houston, TX 77041 USA Phone:(713) 466-0056 • Fax: (713) 744-9892 pgi-sales@parker.com | www.parker.com • www.pgiint.com







Parker provides the information herein in good faith but makes no representation as to its comprehensiveness or accuracy. The information contained herein is intended only as a guide to its products and services. Individuals using information must exercise independent judgment in evaluating product selection and determining product appropriateness for their particular purpose and system requirements. PARKER MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT(S) TO WHICH THE INFORMATION REFERS. ACCORDINGLY, PARKER WILL NOT BE RESPONSIBLE FOR DAMAGES (OF ANY KIND OR NATURE, INCLUDING INCIDENTIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES) RESULTING FROM THE USE OF OR RELIANCE UPON THIS INFORMATION. Patents and Patents Pending in the U.S. and foreign countries. Parker reserves the right to change product designs and specifications without notice.

PEEK is a registered TM of Whitford Wordwide Company and Whitford B.V. KEL-F is a registered TM of M.W. Kellogg Company. MONEL and INCONEL are registered TMs of Huntington Alloys Corporation. HASTELLOY is a registered TM of Haynes International,