Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Double Block and Bleed with Ultra-Low Emission options

Catalog 4190-FP

aerospace
climate control
electromechnical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Parker

ENGINEERING YOUR SUCCESS.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Introduction

Parker Hannifin's response to the demand for reduction in leakage paths has been the combination of primary and secondary valves into one compact unit. The combining of piping and instrument valves into a single unit has benefitted various markets. We now offer a range of Ultra-Low Emission products which meet class 'A' or class 'B' levels of ISO 15848 standard for Ultra-Low emissions, as required.

Parker Hannifin can offer the unique combination of double block and bleed valve systems together with integral fittings, both being designed and produced by one company. Selection of this combination results in the elimination of taper thread connections and the need for thread sealant. For more information on leak path reductions and how to combine connections and valves into one unit, please contact us.

Contents

Page 2 Introduction.

Page 3 Application illustrations.

Page 4 Ball valve specification.

Page 5 Outside screw and yoke (O.S.&Y.) valve specification.

Page 6 Globe style needle valve specification.

Page 7 Bolted bonnet.

Page 8/11 Monoflange (MF) manifolds.

Page 12/15 ANSI/ASME B31.1 Monoflange manifolds.

Page 16/22 Pro-Bloc® (PB) manifolds.

Page 23/24 Meeting the ISO Standard

Page 25/31 Ultra-Low Emission solutions

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Primary, secondary and vent valve applications and installations

Solutions

Parker Hannifin offers the unique solution by incorporating primary and secondary valve systems into one complete block. In addition traditional instrument taper thread connections can be totally eliminated resulting in systems being free of thread sealant contamination.

Conventional Installation [1]

- A welded flange, connected to a primary ANSI class isolating valve .The primary valve will be connected to a secondary instrument valve. A pressure gauge or transmitter will then be installed downstream of the instrument valve.

Parker Pro-Bloc® [2]

- A one-piece integral forging incorporating up to 3 ball valves or mixture of ball and needle design.
- Improved safety: leak paths reduced by up to 60%
- Reduced costs: installation and component costs reduced by up to 70%
- Reduced weight: by up to 80%
- Reduced susceptibility to problems caused by vibration.

See pages 23-31 for standard and Ultra-Low Emission products.

Parker Monoflange [3]

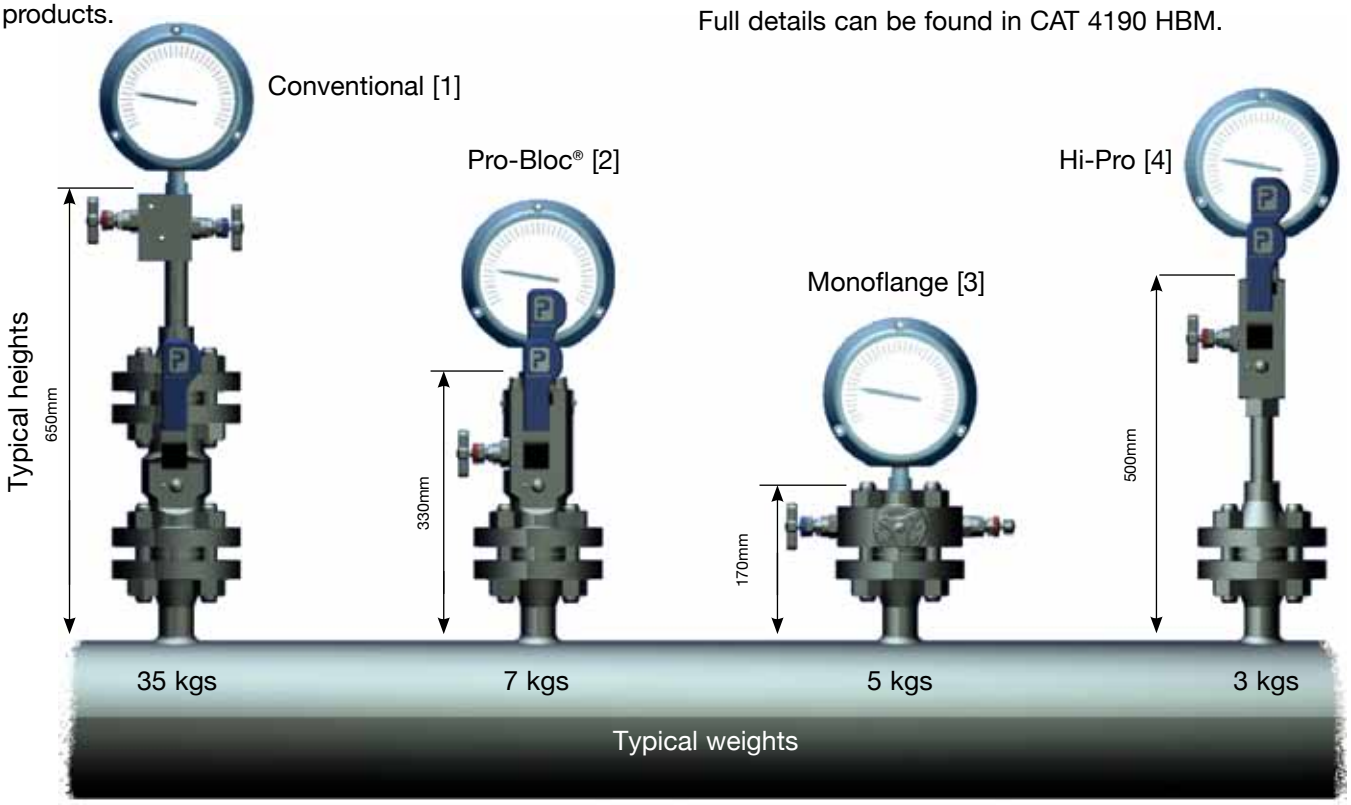
- More compact than Pro-Bloc®, adding further space and weight saving possibilities.
- Improved safety: leak paths reduced by up to 60%, less susceptibility to vibration
- Reduced costs: installation and component costs reduced by up to 80%
- Reduced weight: by up to 85%

See pages 11-16 for standard and pages 23-31 for Ultra-Low Emission products.

Parker Hi-Pro Manifolds [4]

- Enables the user to continue to use traditional NPT threaded connections and at the same time utilise the double block and bleed principals Available in several combinations of ball and needle valves.

Full details can be found in CAT 4190 HBM.



Design codes

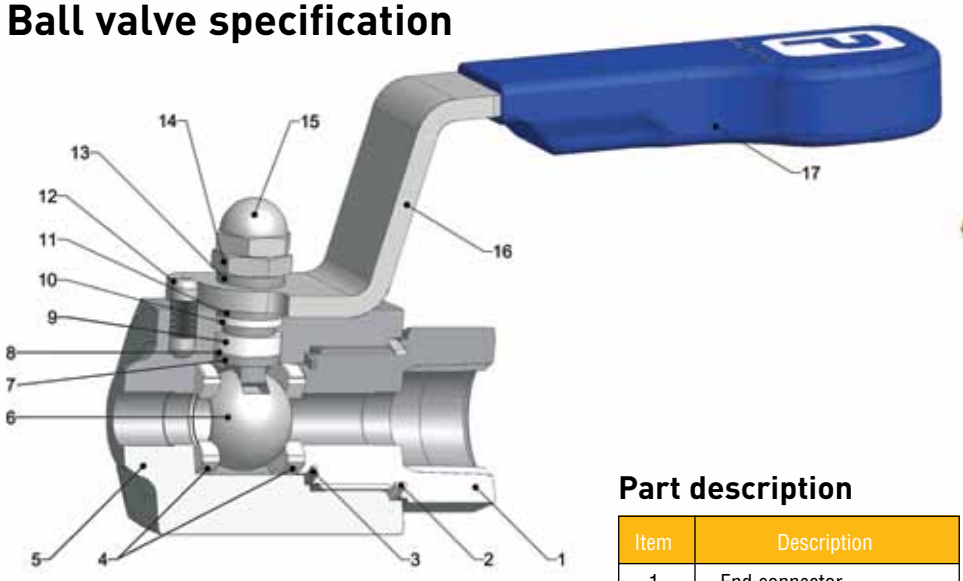
- All Parker Hannifin Double block and bleed designs comply with the following codes.
- ANSI/ASME B16.34 (Designed to meet the pressure and temperature requirements)
- ANSI/ASME B1.20.1 (Threads)
- ANSI/ASME B16.5 (Dimensions)
- BS6755 PART 2/API 607 (Fire safe designed to meet the requirements and verified by internal testing)
- ISO 15848 for Ultra-Low emissions.
- B31.1

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Ball valve specification



Handle locking

Specifications

- 316 Stainless steel construction.
- Maximum cold working pressure rating 6,000 psig (414 barg) with P.T.F.E. seats.*
- Temperature rating PTFE seats -54˚C to +204˚C (-65˚F to +400˚F).*
- Maximum cold working pressure rating 10,000 psig (689 barg) with PEEK seats.*
- Temperature rating PEEK seats -54˚C to +232˚C (-65˚F to +450˚F).*

*always refer to P/T graph

Part description

Item	Description
1	End connector
2	E-seal™
3	Sealing washer
4	Seats
5	Body
6	Ball
7	Anti blowout stem
8	Thrust Seal
9	Gland packing
10	Upper gland packing
11	Thrust bush
12	Stop pin
13	Thrust bush
14	Lock nut
15	Locking dome nut
16	Handle
17	Handle grip

Optional bolted end connector

Spanner actuation

Features

- Two piece body design - minimal leakage paths.
- 4:1 Pressure boundary designed safety factor.
- Designed to comply with requirements of ANSI/ASME B16.34 where applicable.
- Bi-directional.
- PEEK and PTFE standard ball seat materials.
- PTFE and Graphoil gland packings.
- Bubble tight shutoff.
- Floating ball principal with dynamic response seats featuring inherent self relief.
- Anti blowout stem.
- Integral compression ends available eliminating taper threads and thread sealants.
- Low torque operation.
- Quarter turn positive stop handle with ergonomically designed protective sleeve.
- Full hydrostatic and low pressure air tested.
- Connector thread environmentally sealed.
- Anti static.
- Firesafe designed to meet BS6755 Part 2/ API 607, (optional).

Performance Data Pressure vs temperature

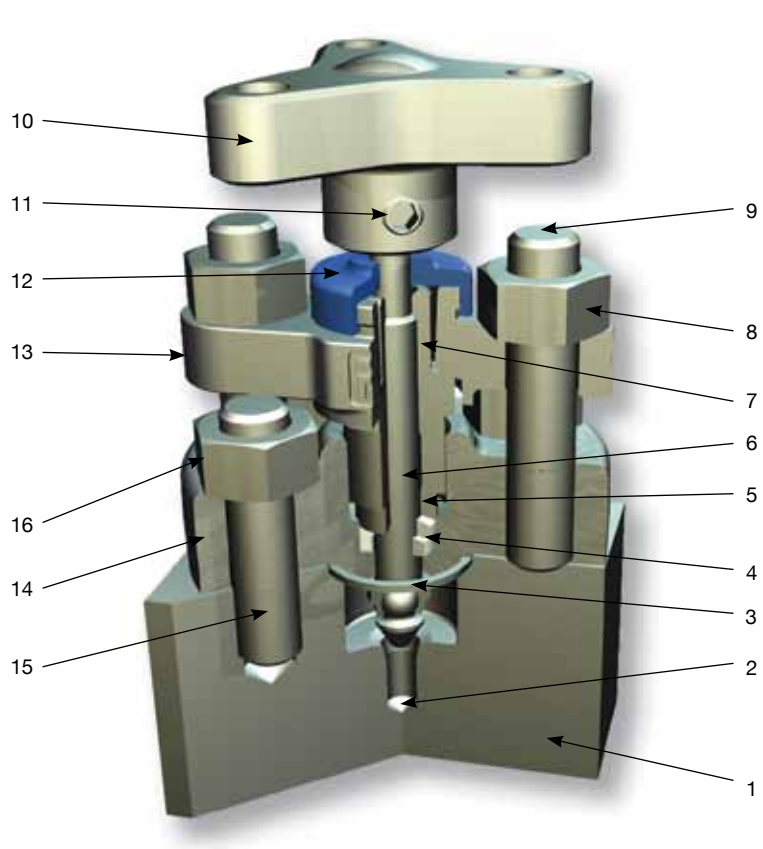
* See catalogue 4190-HBV Hi-Pro Ball Valve for High Performance Process Isolation.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

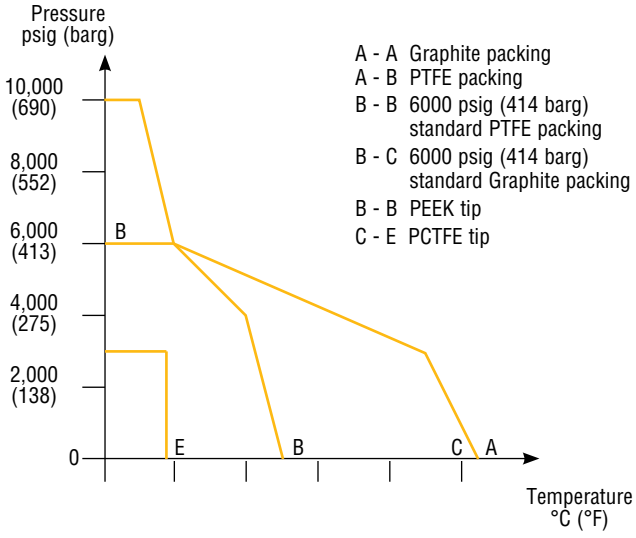
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Outside screw and yoke (O.S.&Y.) needle valve



Pressure vs temperature



⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

Features

- Externally adjustable gland.
- P.T.F.E. or Graphite packing for bubble tight sealing.
- Self centering crimped needle tip for bubble tight shut off and repeatability.
- Available in 316, Monel, Duplex, Super Duplex, Hasteloy, Inconel, Incoloy, 6Mo, Carbon Steel, other materials on application.
- Stainless steel as standard.
- Optional wetted parts in a variety of exotic materials.
- Firesafe certified to BS6755 part 2/ API 607.
- Pressure rating up to 10,000 psig (690 barg).
- Temperature -54°C to 538°C (-65°F to 1000°F).
- Body to bonnet flange gasket for 100% atmospheric seal.
- Back stopped spindle for blow out prevention, and minimum atmospheric leakage.
- Rolled spindle operating threads.
- Independent spindle thread bush with maximum female thread interface.
- Colour coded close contact dust cap and function label for easy identification.
- Optional: NACE compliance, heat code trace certification, oxygen clean.

Part description

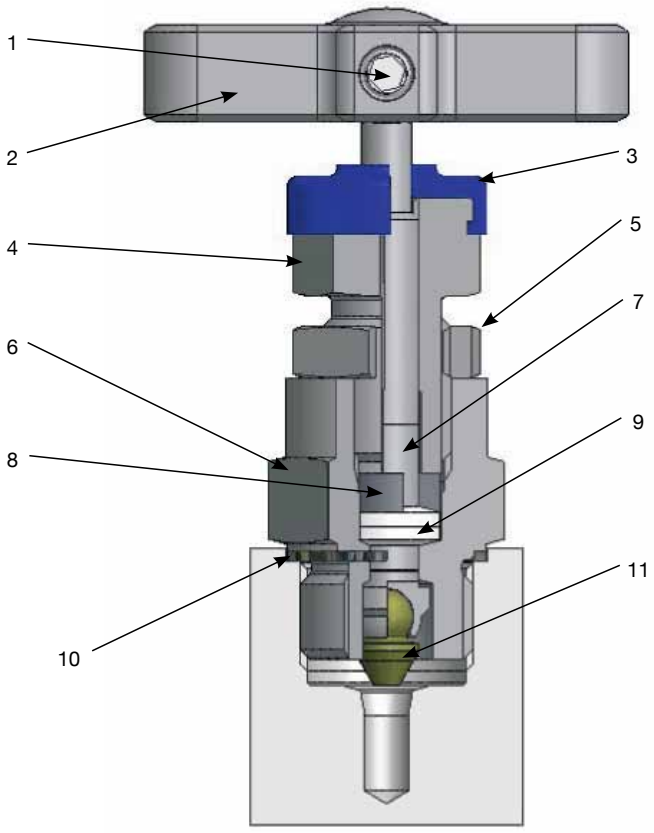
Item	Description
1	Body
2	Tip
3	Joint seal
4	Packing
5	Thrust bush
6	Stem
7	Gland adjuster
8	Bridge nuts
9	Bonnet-bridge studding
10	Handle
11	Grub screw
12	Dust cap
13	Bridge
14	Bonnet
15	Body-bonnet studding
16	Stud nuts

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

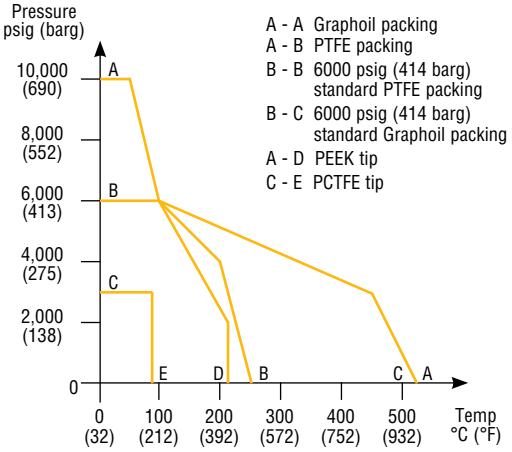
Flanged Products

'H' Series globe style needle valve



Note: For ANSI/ASME B31.1 compliant products please see pages 12-15.

Pressure vs temperature



⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

For safe, reliable and repeatable performance

Part description

Item	Description
1	Positive handle retention
2	"T" bar
3	Dust Cap
4	Gland packing adjuster
5	Gland adjuster lock nut
6	Valve Bonnet
7	Anti blowout spindle
8	Thrust Bush
9	Gland packing (adjustable)
10	Bonnet/body washer
11	Spindle tip

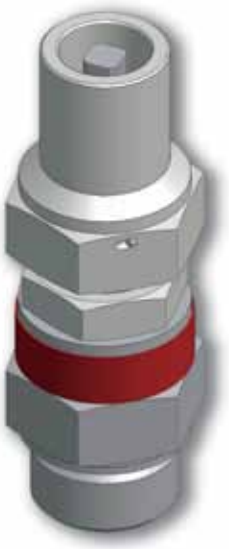
Features

- Rolled spindle operating threads for low torque operation.
- Gland packing in PTFE or Graphite for bubble tight sealing.
- Colour coded close contact dust cap and function label for easy identification.
- Available in 316L, Monel, Duplex, Super Duplex, Hasteloy, Inconel, Incoloy, 6Mo, Titanium, other materials on application.
- T-bar operating handle for low torque function.
- Self centering crimped needle tip for bubble tight seat sealing.
- Close contact dust cap for operating thread protection.
- Back seated spindle for blow out prevention and minimum atmospheric leakage.
- Adjustable gland with easy access.
- Gland lock nut for vibration protection.
- Pressure rating up to 10,000 psig (690 barg).
- Temperature rating -54°C to -538°C (-65°F to 1000°F)
- Optional bolted bonnet design available, firesafe certified.
- Optional: NACE compliance, heat code trace certification, oxygen clean.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Anti-tamper spindle



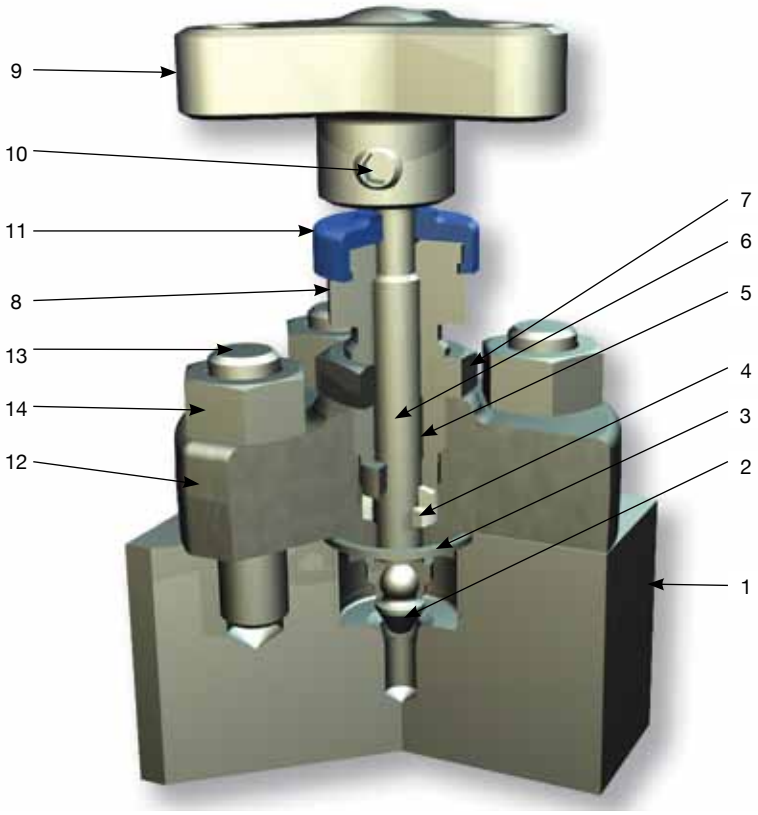
For key only - part no. ATHKEY/1

Retro-fit kit part number
KITAT without key
KITATK with key

T bar handle locking

Retro-fit kit part number KITTHL

Bolted bonnet inside screw



Not available on Low Emission valves

Part description

Item	Description
1	Body
2	Tip
3	Joint seal
4	Packing
5	Thrust bush
6	Stem
7	Nut
8	Gland adjuster
9	Handle
10	Grub screw
11	Dust cap
12	Bonnet
13	Body-bonnet studding
14	Stud nuts

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

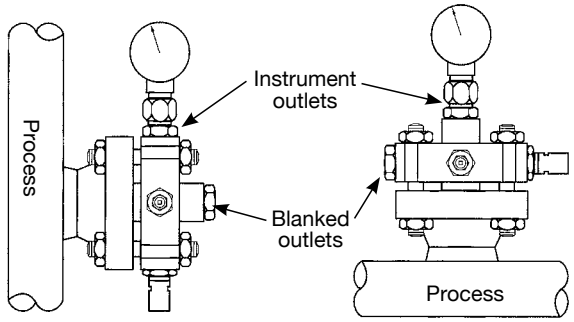
Monoflange (MF) manifolds

Purpose

This manifold range is designed to replace conventional multiple-valve installations currently in use for interface with pressure measuring systems. By combining customer specified valves into a single manifold, the number of leak paths is considerably reduced and the mass of the system is lowered reducing the stresses from loading and vibration. The result of which substantially improves installation and operational safety factors. Reduction in leakage path connections together with a one-piece solution also provides positive installation cost savings. Suitable for Ultra-Low Emission requirements.

Key advantages of Parker Monoflanges

- Strong construction produced from one piece grain flow controlled forged body.
- Various flow and valve configurations available allowing true flexibility to meet all customer requirements.
- Variety of flange sizes and outlet connections.
- Standard materials of Carbon Steel A105,
  Low Temperature Carbon Steel A350 LF2,
  Stainless Steel A182-F316 and
  Duplex Stainless Steel A182-F51.
- Optional materials include Super Duplex, Monel, Hastelloy, 6Mo, Incoloy 625.
- Incorporation of standard ‘H’ series needle valve technology and state of the art O.S.&Y. design.
- 4mm Needle valve orifice.
- Ergonomically designed operating handles with low torque function.
- Full range of customer retro fit handle options.
- User friendly part number and specification construction system.
- Customised designs welcome.
- Available to meet ISO 15848, Class A.



Vertical option
(only available with twin outlet)

Horizontal

Instrument outlet connections

One of the unique features Parker can offer users which can further enhance safety factors is the incorporation of single or twin ferrule compression fittings as an integral part of the outlet connection.

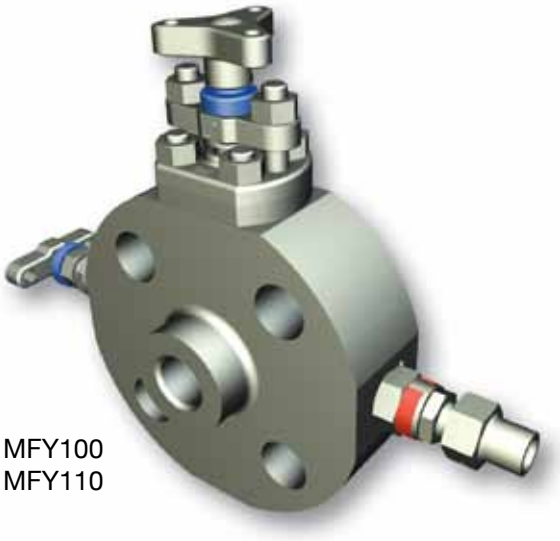
Installation of the instrument which require remote positioning will be interconnected using conventional tube and fittings, whilst NPT taper threads are accepted as a standard their use involves some form of thread sealant which adds to the complication of instrument performance through contamination within the system.

Avoiding these taper thread connections wherever possible reduces this contaminant risk and Parker, being a leading manufacturer of compression type of fittings (which requires no sealant mediums), can incorporate them in the outlet connection, totally eliminating the contamination risk.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

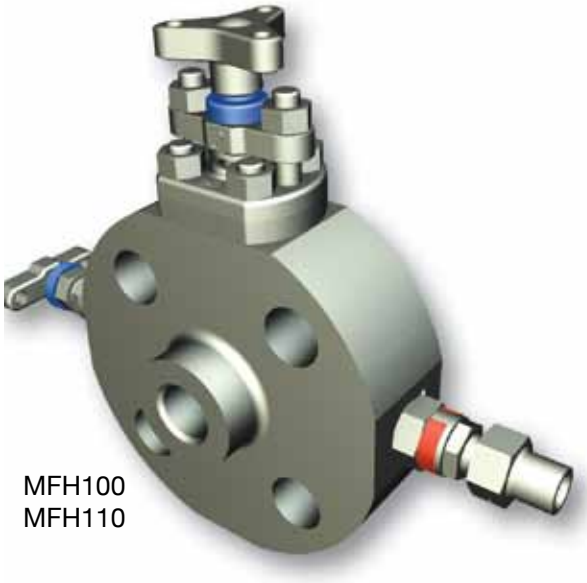
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products



MFY100
MFY110

MFY140



MFH100
MFH110

Monoflange features

- 1/2” to 2” N.B. Flanges (15 to 50 DN).
- ANSI B16.5 150 to 2500 flange class and API 10,000.
- 1/2-14 NPT (female) standard outlet.
- 1/4-18 NPT (female) standard vent.
- Variety of optional end connection sizes and thread forms including tube connections 1/2”/12mm diameter.
- Standard materials of construction: Stainless steel ASTM A182 F316/F316L, Carbon steel ASTM A350 LF2/A105, Duplex ASTM A182 F51.
- Optional materials include Super Duplex, Monel, Hastelloy, 6Mo, Incoloy.
- Combined needle and O.S.&Y. valves available.
- Instrument connections A-LOK® inverted available.
- Raised face and ring type joint flange face styles.
- One-piece forged construction flange as standard.
- H needle design with retro fit handle options.
- Optional fire safe designed (and tested) to meet BS6755 part 2/API 607.
- Pressure boundary designs calculated to ASME VIII Div. 1 and verified by testing.
- 4:1 Factor of Safety.
- Heat code traceable material to EN10204.3.1.
- Bubble tight shut off valve seats 17-4 PH tips standard.
- Optional PEEK tips available.
- Colour coded functional valves.
- Optional locking and anti tamper devices for all valve types available.
- NACE MR 0175/ISO 15156 compliant material available on request.
- Permanent marked body with full order and specification details.
- Available with various non-threaded connections, please contact us.

Standard specification:
Outlet - 1/2” FNPT
Vent - plugged 1/4” FNPT
Seat - metal to metal
Packing - PTFE

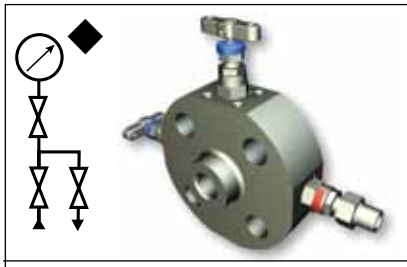
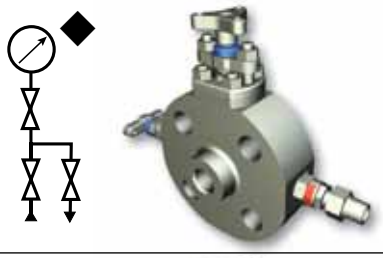
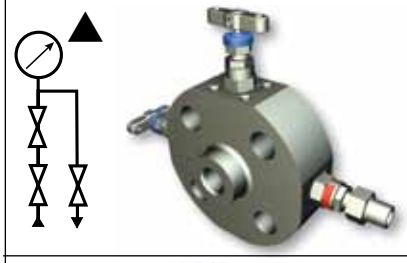
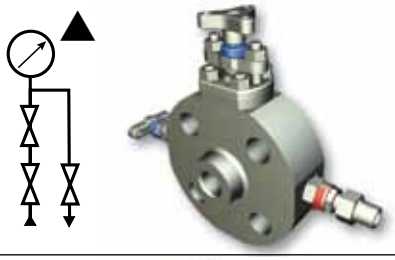
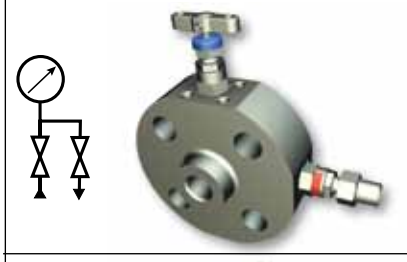
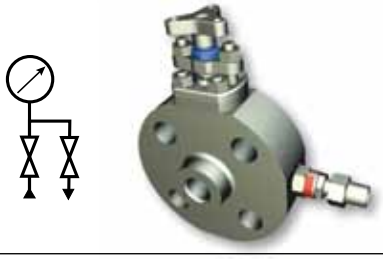
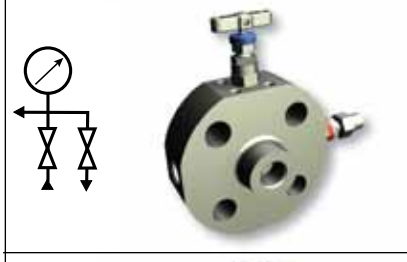
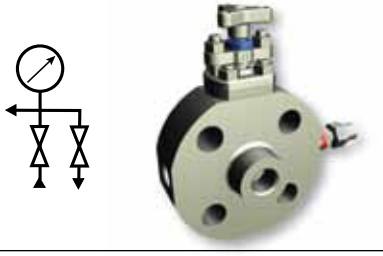
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Monoflange (MF) manifold selection and part number construction - made easy

Select the style of Monoflange from the choice of arrangements below noting the complete **MF reference**.
If the style or arrangement is not shown below please provide full description and specification.

 **Block bleed block** 1st Isolate: Needle 2nd Isolate: Needle Vent: Needle **MFH100**	 **Block bleed block** 1st Isolate: O.S.&Y. 2nd Isolate: Needle Vent: Needle **MFY100**
 **Block block bleed** 1st Isolate: Needle 2nd Isolate: Needle Vent: Needle **MFH110**	 **Block block bleed** 1st Isolate: O.S.&Y. 2nd Isolate: Needle Vent: Needle **MFY110**
 **Block & bleed** 1st Isolate: Needle Vent: Needle **MFH120**	 **Block & bleed** 1st Isolate: O.S.&Y. Vent: Needle **MFY120**
 **Block & bleed** 1st Isolate: Needle Vent: Needle **MFH130**	 **Block & bleed** 1st Isolate: O.S.&Y. Vent: Needle **MFY130**
Double block 1st Isolate: Needle 2nd Isolate: Needle **MFH140**	**Double block** 1st Isolate: O.S.&Y. 2nd Isolate: Needle. **MFY140**
Single block 1st Isolate: Needle **MFH150**	**Single block** 1st Isolate: O.S.&Y. **MFY150**

◆ For dual outlets specify MF*105. ▲ For dual outlets specify MF*115.
For flange to flange variants replace MF*1** with MF*2**.
For bleed port only specify MF*160.
Please note vent valve is not anti-tamper as standard.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Example **MFY100** **B** **32T2500** **A3** **F**

1. Monoflange part number
Insert from page 10

2. Material
- **A** Carbon Steel ASTM A105
- **B** Stainless Steel ASTM A182-F316
- **D** Monel M400
- **E** Duplex ASTM A182-F51
- **F** Super Duplex ASTM A182-F53/F55
- **G** Hastelloy C-276
- **H** Low Temp. C. St. ASTM A350 LF2
- **K** 6Mo
- **M** Inconel 625

3. Flange details

Flange Size	Flange Face Style	Flange Class
8 = 1/2”	**F** = Raised Face Spiral	150 = 150
12 = 3/4”	**T** = Ring Type Joint	300 = 300
16 = 1”		600 = 600
24 = 1 1/2”		900 = 900
32 = 2”		1500 = 1500
API } specify separately		2500 = 2500
DIN } see page 20		***136** = 150/300/600
*1/2” flange size only		

4. Outlet style (1/2” FNPT is standard NO part designator needed)

Size	Connection Style
4 = 1/4”	**F** = Female NPT Thread
6 = 3/8”	**M** = Male NPT Thread
8 = 1/2”	**A** = A-LOK® (inverted only)
M6 = 6mm	**G** = Swivel gauge adaptor 1/2” NPTF (fitted)
M10 = 10mm	
M12 = 12mm	

5. Plugged vent (1/4” FNPT is standard NO part designator needed)

Size
V6 = 3/8” FNPT
V8 = 1/2” FNPT

6. Valve packing and seat materials
- * PTFE Packing
- * Needle tip 17-4PH St. St.
- **3** Graphoil (fitted as standard when fire safe design is specified)
- **PN** PEEK Needle tip all valves (non fire safe only)

* fitted as standard no part NO designator required.

7. Valve handle operating options
- **A*** Anti tamper
- **L*** Padlock handle locking
- **R*** Regulating tip (“H” series needle valve only)
- **Y*** O.S.&Y. valves

* Insert valve number 1 = primary, 2 = secondary, 3 = vent, 4 = all. Padlocks not supplied

8. Condition
- **F** Firesafe design (primary only - O.S.&Y. needle valve)
- **N** NACE

Combine designators as required

Please Note:
Certification requirements and customer specifications MUST be provided at enquiry and order stage.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 27.

IMPORTANT NOTES

All non wetted parts will be supplied in standard stainless steel for exotic materials. For carbon steel construction trim materials will be supplied in stainless steel.

Ring type joints (T) CANNOT be supplied for 1/2” & 3/4” class 150 flanges.

St. St. grades 302 and 304 are NOT used in the construction of any of these products.

For customer specific options not covered here engineering will allocate a part number at quotation stage.

Certification requirements and customer specifications MUST be provided at enquiry and order stage.

For API flange requirements full details must be specified separately.

Part number example MFY100B32T2500A3F Monoflange - Double Block and Bleed - Block (O.S.&Y.) Bleed (Needle) Block (Needle) (MFY100) - 316 St. St. construction (B) - 2” Pipe flange, Ring type joint, class 2500 (32T2500) - 1/2” female NPT outlet - 1/4” Female NPT vent - Anti-tamper vent (A3) - Firesafe design and certified (F), valves fitted with PTFE packing, metal seated 17-4PH st.st. tips.

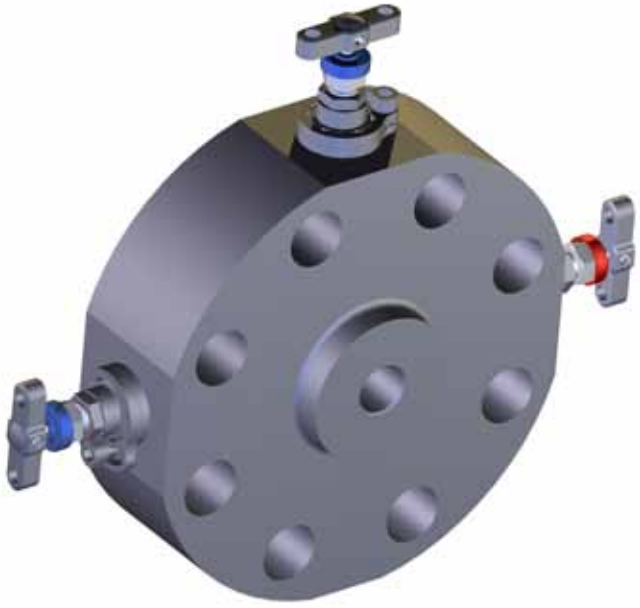
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Monoflange manifolds compliant with ANSI B31.1

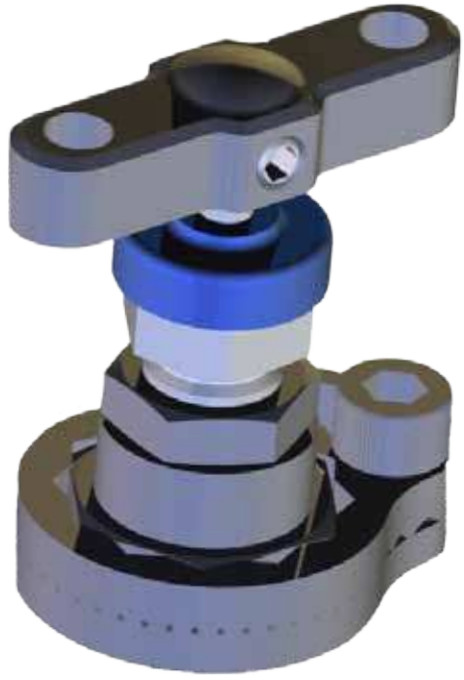
Purpose

This manifold range is designed to replace conventional multiple-valve installations currently in use for interface with pressure measuring systems. By combining customer specified valves into a single manifold, the number of leak paths is considerably reduced and the mass of the system is lowered reducing the stresses from loading and vibration. The result of which substantially improves installation and operational safety factors. Reduction in leakage path connections together with a one-piece solution also provides positive installation cost savings.



Key advantages of Parker Monoflanges

- Strong construction produced from one piece grain flow controlled forged body.
- Various flow and valve configurations available allowing true flexibility to meet all customer requirements.
- Variety of flange sizes and outlet connections.
- Incorporation of ‘HPP’ series needle valve technology
- 4mm Needle valve orifice.
- Ergonomically designed operating handles with low torque function.
- Full range of customer retro fit handle options.
- User friendly part number and specification construction system.
- Customised designs welcome.



Instrument outlet connections

One of the unique features Parker can offer users which can further enhance safety factors is the incorporation of single or twin ferrule compression fittings as an integral part of the outlet connection.

Installation of the instrument which require remote positioning will be interconnected using conventional tube and fittings, whilst NPT taper threads are accepted as a standard their use involves some form of thread sealant which adds to the complication of instrument performance through contamination within the system.

Avoiding these taper thread connections wherever possible reduces this contaminant risk and Parker, being a leading manufacturer of compression type of fittings (which requires no sealant mediums), can incorporate them in the outlet connection, totally eliminating the contamination risk.

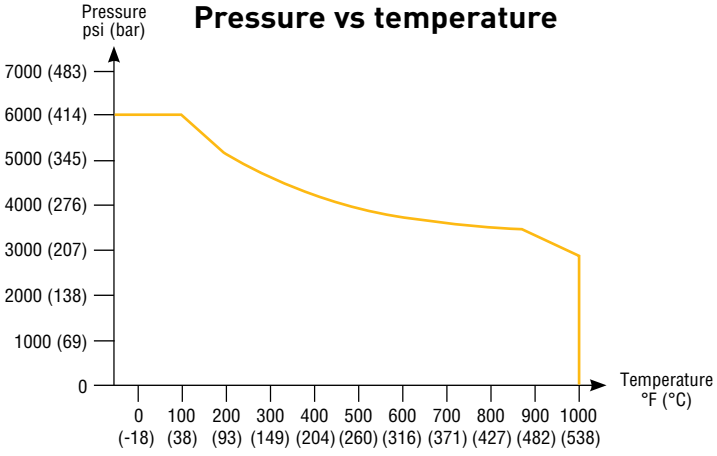
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Monoflange features

- 1/2” to 2” N.B. Flanges (15 to 50 DN).
- ANSI B16.5 150 to 2500 flange class
- 1/2-14 NPT (female) standard outlet.
- 1/4-18 NPT (female) standard vent.
- Variety of optional end connection sizes and thread forms including tube connections 1/2”/12mm diameter.
- Standard materials of construction: Stainless steel ASTM A182 F316/F316L, Carbon steel ASTM A350 LF2/A105.
- Instrument connections A-LOK® inverted available.
- Raised face and ring type joint flange face styles.
- One-piece forged construction flange as standard.
- Graphite packing to meet full pressure/temperature requirements of ANSI B31.1 materials
- Pressure boundary designs calculated to ANSI B31.1
- 4:1 Factor of Safety.

Pressure vs temperature



⚠ When selecting products for specific applications users should refer to our notice below.

- Heat code traceable material to EN10204.3.1.
- Bubble tight shut off valve seats 17-4 PH tips standard.
- Colour coded functional valves.
- Optional locking and anti tamper devices for all valve types available.
- NACE MR 0175/ISO 15156 compliant material available on request.
- Permanent marked body with full order and specification details.
- Available with various non-threaded connections, please contact us.

Standard specification:
Outlet - 1/2” FNPT
Vent - plugged 1/4” FNPT
Seat - metal to metal
Packing - PTFE

Features

- All valves are graphite packed for high temperature service.
- Non rotating, hard stem tip with metal to metal seating for bubble tight shut-off.
- Back seat design.
- Blow-out proof stem.
- Pressures & temperatures in accordance with ASME class 2500.
- Patented Tru-Lok® safety bonnet locking device prevents accidental removal.
- Standard orifice 4mm (Cv 0.35).

Specific pressure / temperature performance

316 SS	6000 psig @ 100°F (414 bar @ 38°C) 2915 psig @ 1000°F (201 bar @ 538°C)

⚠ 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 hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any Order accepted by Parker Hannifin will be subject to our terms and conditions of sale, copy available on request.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

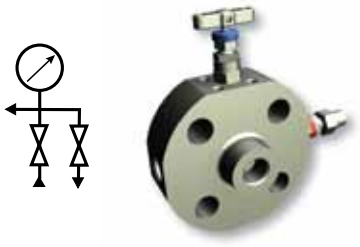
Flanged Products

ANSI B31.1 compliant manifold selection and part number construction - made easy

Select the style of Monoflange from the choice of arrangements below noting the complete reference.
If the style or arrangement is not shown below please provide full description and specification.

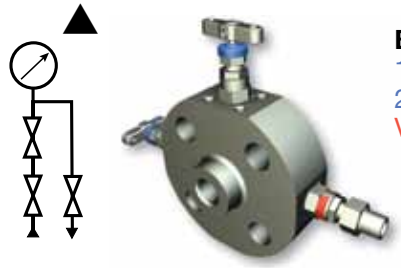
Block bleed block
1st Isolate: Needle
2nd Isolate: Needle
Vent: Needle

PPMFH100



Block & bleed
1st Isolate: Needle
Vent: Needle

PPMFH130



Block block bleed
1st Isolate: Needle
2nd Isolate: Needle
Vent: Needle

PPMFH110

Double block
1st Isolate: Needle
2nd Isolate: Needle

PPMFH140

Block & bleed
1st Isolate: Needle
Vent: Needle

PPMFH120

Single block
1st Isolate: Needle

PPMFH150

◆ For dual outlets specify PPMFH105. ▲ For dual outlets specify PPMFH115.
For flange to flange variants replace PPMFH1** with PPMFH2**.
For bleed port only specify PPMFH160.
Please note vent valve is not anti-tamper as standard.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Example **PPMFH100** **B** **32T2500** **3** **A3** **N**

1. Monoflange part number
Insert from page 14

2. Material
- **A** Carbon Steel ASTM A105
- **B** Stainless Steel ASTM A182-F316
- **G** Hastelloy C-276
- **H** Low Temp. C. St. ASTM A350 LF2

3. Flange details

Flange Size	Flange Face Style	Flange Class
8 = 1/2”	**F** = Raised Face Spiral	150 = 150
12 = 3/4”	**T** = Ring Type Joint	300 = 300
16 = 1”		600 = 600
24 = 1 1/2”		900 = 900
32 = 2”		1500 = 1500
API } specify separately		2500 = 2500
DIN } see page 20		136 = 150/300/600

*1/2” flange size only

4. Outlet style (1/2” FNPT is standard NO part designator needed)

Size	Connection Style
4 = 1/4”	**F** = Female NPT Thread
6 = 3/8”	**M** = Male NPT Thread
8 = 1/2”	**A** = A-LOK® (inverted only)
M6 = 6mm	**G** = Swivel gauge adaptor 1/2” NPTF (fitted)
M10 = 10mm	
M12 = 12mm	

5. Plugged vent (1/4” FNPT is standard NO part designator needed)

Size
V6 = 3/8” FNPT
V8 = 1/2” FNPT

6. Valve packing
- **3** Graphoil (standard)

7. Valve handle operating options
- **A*** Anti tamper
- **L*** Padlock handle locking
- **R*** Regulating tip (“H” series needle valve only)

* Insert valve number 1 = primary, 2 = secondary, 3 = vent, 4 = all. Padlocks not supplied

8. Condition
- **N** NACE

Combine designators as required

Please Note:
Certification requirements and customer specifications MUST be provided at enquiry and order stage.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 27.

IMPORTANT NOTES

All non wetted parts will be supplied in standard stainless steel for exotic materials. For carbon steel construction trim materials will be supplied in stainless steel.

Ring type joints (T) CANNOT be supplied for 1/2” & 3/4” class 150 flanges.

St. St. grades 302 and 304 are NOT used in the construction of any of these products.

For customer specific options not covered here engineering will allocate a part number at quotation stage.

Certification requirements and customer specifications MUST be provided at enquiry and order stage.

Part number example PPMFH100B32T25003A3 Monoflange - Double Block and Bleed - Block (Needle) Bleed (Needle) Block (Needle) (PPMFH100) - 316 St. St. construction (B) - 2” Pipe flange, Ring type joint, class 2500 (32T2500) - 1/2” female NPT outlet - 1/4” Female NPT vent - Graphite Packing (3) Anti-tamper vent (A3) metal seated 17-4PH st.st. tips.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Pro-Bloc® (PB) Manifolds

Purpose

This manifold range is designed to replace conventional multiple-valve installations currently in use for interface with pressure measuring systems. By combining customer specified valves into a single manifold, the number of leak paths is considerably reduced and the mass of the system is lowered reducing the stresses from loading and vibration. The result of which substantially improves installation and operational safety factors. Reduction in leakage path connections together with a one-piece solution also provides positive installation cost savings.

Key advantages of Parker Pro-Bloc®

- Strong construction produced from one piece grain flow controlled forged body.
- Various flow and valve configurations available allowing true flexibility to meet all customer requirements.
- Single flange, double flange or triple flange configurations available.
- Standard materials of Carbon Steel A105,
  Low Temperature Carbon Steel A350 LF2,
  Stainless Steel A182-F316 and
  Duplex Stainless Steel A182-F51.
- Optional materials include Super Duplex, Monel, Hastelloy, 6Mo, Incoloy 625.
- Incorporation of standard Hi-Pro ball valve and “H” series needle valve technology.
- 10mm/15mm/20mm/25mm full bore valve design.
- Ergonomically designed operating handles with low torque function.
- User friendly part number and specification construction system.
- Optional integral A-LOK®/CPI™ outlet connection.
- Parker Tru-loc™ (patent pending) safety system.

Tru-Loc

Mechanical Sealed End Connection

Designed specifically for Pro-Bloc end connection security. Extensive tests have proved that end connections locked with the Tru-Loc (PP) end connector locking mechanism give 100% security and prevent end connector movement when disconnecting instruments or connectors. This ensures that the Ball Seat is securely positioned at all times.

Instrument outlet connections

One of the unique features Parker can offer users which can further enhance safety factors is the incorporation of single or twin ferrule compression fittings as an integral part of the outlet connection.
Installation of the instrument which require remote positioning will be interconnected using conventional tube and compression fittings, whilst NPT taper threads are accepted as a standard their use involves some form of thread sealant which adds to the complication of instrument performance through contamination within the system.
Avoiding these taper thread connections wherever possible reduces this contaminant risk and Parker, being a leading manufacturer of compression type of fittings (which requires no sealant mediums), can incorporate them in the outlet connection, totally eliminating the contamination risk.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

PB*100

PB*120

PB*160

PB*220

Pro-Bloc® features

- 1/2” to 3” N.B. Flanges (15 to 50 DN).
- ANSI B16.5 150 to 2500 flange class and API 10,000.
- 10mm/15mm/20mm/25mm full bore valve design.
- 1/2”-14 to 1”-11.5 NPT (female) standard outlet (depending on bore size).
- 1/2” NPT (female) standard vent.
- Variety of optional end connection sizes and thread forms including tube connections up to 1”/25mm diameter (depending on bore size).
- Standard materials of construction: Stainless steel ASTM A182 F316/F316L, Carbon steel ASTM A350 LF2/A105, Duplex ASTM A182 F51.
- Optional materials on request.
- Instrument connections A-LOK®/CPI™ available.
- Raised face and ring type joint flange face styles.
- One-piece forged construction flange as standard.
- Optional fire safe designed (and tested) to meet BS 6755 Part 2/API 607.
- 316 stainless steel handles and trim as standard to reduce the risk of corrosion.
- Designed to meet the pressure and temperature requirements of ASME/ANSI B16.34/B16.5.
- Pressure boundary designs calculated to ASME VIII Div 1 and verified by testing.
- 4:1 Factor of Safety.
- Heat code traceable material to EN10204.3.1.
- Bubble tight shut off.
- Colour coded functional valves.
- Optional locking and anti tamper devices for all valve types available.
- Positive lever stop.
- NACE MR 0175/ISO 15156 compliance available on request.
- Large user friendly handles.
- Permanent affixed reference label.
- O.S.&Y. and “H” series needle valves can be combined with ball valves.

Standard specification flange x screw:
Outlet - FNPT; Vent - 1/2” FNPT plugged;
Ball seats. P.T.F.E.; Needle seats, metal/metal
17-4 PH St. St.; P.T.F.E. packing all valves.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Pro-Bloc® (PB) manifold selection and part number construction - made easy

Select the style of Pro-Bloc from the choice of arrangements below noting the complete **PB reference**.

Style

Single piece forging flange x screw

PB*1**

Single piece forging flange x flange

PB*2**

Modular construction flange x screw

PB*5**

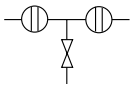
Modular construction flange x flange

PB*6**

Arrangement

Block bleed block

1st Isolate: Ball
2nd Isolate: Ball
Vent: Needle

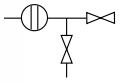


PB00**

●

Block bleed block

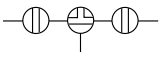
1st Isolate: Ball
2nd Isolate: Needle
Vent: Needle



PBY*10

Block bleed block

1st Isolate: Ball
2nd Isolate: Ball
Vent: Ball



PB20**

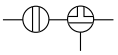
Block & bleed

1st Isolate: Ball
Vent: Needle

PB30**

Block & bleed

1st Isolate: Ball
Vent: Ball

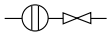


PB40**

●

Double block

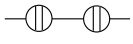
1st Isolate: Ball
2nd Isolate: Needle



PBY*50

Double block

1st Isolate: Ball
2nd Isolate: Ball



PB60**

● Only available with 10mm bore ball valve.

Single isolate. specify PB*165, PB*265.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

Example **PB Y 1 00 B 32T2500 F**

1. Ball valve bore size
- **Y** = 10mm
- **X** = 15mm
- **W** = 20mm
- **V** = 25mm

For style see page 18 section 'Style'

For arrangement see page 18 section 'Arrangement'

2. Material
- **A** Carbon Steel ASTM A105
- **B** Stainless Steel ASTM A182-F316
- **D** Monel M400
- **E** Duplex ASTM A182-F51
- **F** Super Duplex ASTM A182-F53/F55
- **G** Hastelloy C-276
- **H** Low Temp. C. St. ASTM A350 LF2
- **K** 6Mo
- **L** 825
- **M** Inconel 625

3. Flange details

Flange Size	Flange Face Style	Flange Class
‡**8** = 1/2"	**F** = Raised Face Spiral	**150** = 150
‡**12** = 3/4"	**T** = Ring Type Joint	**300** = 300
‡**16** = 1"		**600** = 600
24 = 1 1/2"		**900** = 900
32 = 2"		**1500** = 1500
48 = 3" (25mm bore only)		**2500** = 2500
API } specify separately		
DIN } See page 20		

‡ Certain flange/bore size combinations not available - consult factory

4. Outlet style (each bore size has its own standard size female NPT outlet - the standard does not require this field to be completed)

Standard outlets (female NPT)
10mm bore = 1/2"
15mm bore = 1/2"
20mm bore = 3/4"
25mm bore = 1"
For optional outlets see page 20

5. Plugged vent (1/2" NPTF as standard NO part designator needed)

6. Packing, seat and construction options
- * PTFE Packing
- * PTFE Ball seats
- * Needle tip 17-4PH St. St.
- **PK** PEEK Ball and needle seating
- **PB** PEEK Ball seats
- **PN** PEEK Needle tip (non firesafe only)
- **BC** Bolted construction connection

* fitted as standard no part NO designator required.

7. Valve handle operating options
- **A*** Anti tamper (Needle Valve only)
- **L*** Padlock handle locking
- **R*** Regulating tip ("H" series Needle Valve only)
- **S*** Spanner actuated (Ball Valve only)
- **Y*** O.S.&Y. Needle Valve

* Insert valve number 1 = primary, 2 = secondary, 3 = vent, 4 = all. Padlocks not supplied
Note: Firesafe needle valve with locking device NOT available

8. Condition
- **F** Firesafe design
- **N** NACE
- Combine designators as required

Please Note:
Certification requirements and customer specifications MUST be provided at enquiry and order stage.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Other flange detail options (reference Box 3 flange details pages 11, 15, 19, 29 & 31)

3. Flange details API 6A / ISO 10423* (Dimensionally compliant only)

Flange Size	Flange Rating
29 = 1 13/16”	**2K** = 2000 psig
33 = 2 1/16”	**3K** = 3000 psig
41 = 2 9/16”	**5K** = 5000 psig
	10K = 10000 psig (not available for Ultra-Low emission products).

* Only available with 10mm bore (PBY) and Monoflange products.

3. Flange details DIN

Flange Size	Flange Class
DN10	PN6
DN15	PN10
DN20	PN16
DN25	PN40
DN32	PN100
DN40	
DN50	

Other outlet options (reference Box 4 outlet style pages 11, 15, 19, 29 & 31)

4. Optional outlets

Size	Connection Style
4 = 1/4”	F = Female NPT
6 = 3/8”	M = Male NPT
8 = 1/2”	A = A-LOK®
10 = 5/8”	Z = CPI™
12 = 3/4”	G = Swivel gauge adaptor 1/2” Female NPT (fitted)
14 = 7/8”	
16 = 1”	
M6 = 6mm	
M10 = 10mm	
M12 = 12mm	
M14 = 14mm	
M15 = 15mm	
M16 = 16mm	
M18 = 18mm	
M20 = 20mm	
M22 = 22mm	
M25 = 25mm	

Note: Contact factory for bore size/outlet connection combinations

When selecting products for specific applications users should refer to our notice at the bottom of page 19.

IMPORTANT NOTES

All non wetted parts will be supplied in standard stainless steel for exotic materials. For carbon steel construction trim materials will be supplied in stainless steel.

For flange to flange construction when the required flanges are different sizes then specify both sizes in section 3 example: 1st flange 1” pipe (16), raised face (F), class 900 (900), 2nd flange 1/2” (8), raised face (F), class 900 (900) insert: 16F9008F900. Consult factory for available combinations.

Ring type joints (T) CANNOT be supplied for 1/2” & 3/4” class 150 flanges.

St. St. grades 302 and 304 are NOT used in the construction of any of these products.

For customer specific options not covered here engineering will allocate a part number at quotation stage.

Certification requirements and customer specifications MUST be provided at enquiry and order stage.

For API flange requirements full details must be specified separately.

Part number example FEPBY100B32T2500F Ultra-Low Emission Pro-Bloc - Flange by screw - Double Block and Bleed - Block (Ball) Bleed (Needle) Block (Ball) (FEPBY100) - 316 St. St. construction (B) - 2” Pipe flange, Ring type joint, class 2500 (32T2500) - 1/2” female NPT outlet - 1/2” Female NPT vent - Firesafe design and certified (F), all valves PTFE packed, ball seats PTFE, needle valve metal seated 17-4PH st.st. tips.

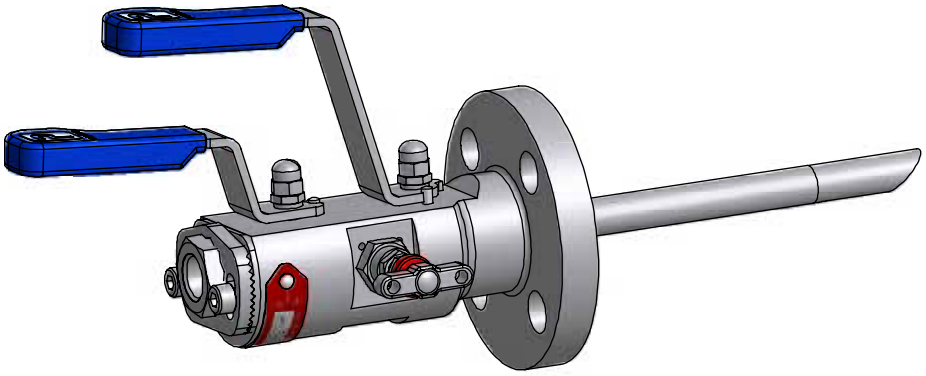
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Pro-Bloc® (PB) Manifolds

Pro-Bloc® for sampling applications (10mm + 15mm bore only)

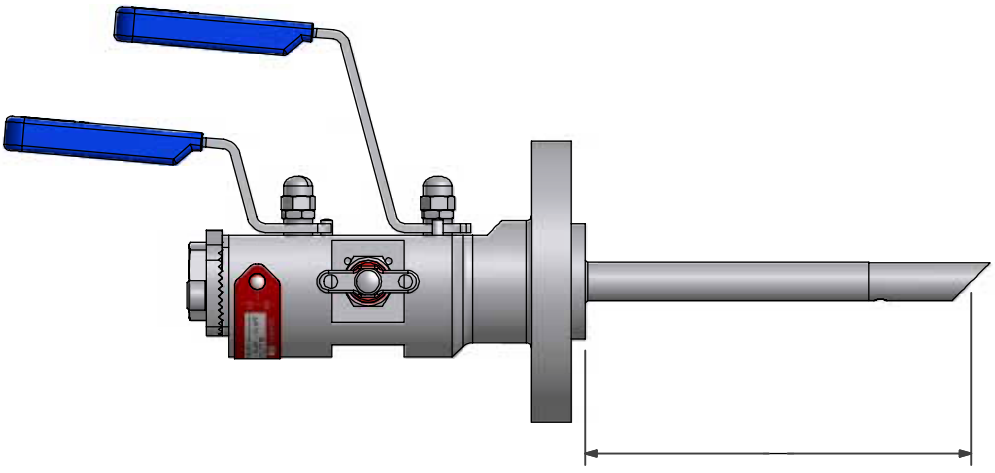
This manifold range is designed to replace conventional multiple-valve installations where sampling of the process stream is required. This design has been developed to remove a sample directly from the process stream at full system pressure. All of the options and configurations shown within the standard Pro-Bloc range can be offered for sampling service by the addition of a customised sampling probe which extends from the pipe flange into the process stream. Also available to suit ISO15848 Class 'A' Ultra-Low emission standard.



Pro-Bloc® for sampling applications - part numbering

In order to specify the addition of a sampling probe to your Pro-Bloc simply add an "S" to the beginning of the part number i.e. SPB or FESPB… The probe length in "mm" must be added to the end of the part number, see below. Due to the internal bore size of standard ASME flanges probes can only be installed on a range of flanges - please see the attached table.

Bore	Flange range
10mm	Size 1" and above, ASME flanges up to class 2500.
15mm	Size 1 1/2" and above, ASME flanges up to class 2500.
20mm	Not available
25mm	Not available



The probe length must be specified from the raised face to the end of the probe in mm, to the nearest mm.
Probes are supplied to suit the insertion length required by the pipeline and thus must be specified by the customer.
A wide variety of end preparations and support collars are available on request.
Probe strength wake frequency calculations can be carried out against pipeline flow rates on request.
In the event of the required valve configuration not be shown please do not hesitate to contact the factory as Parker Hannifin IPD offer bespoke customer solutions.

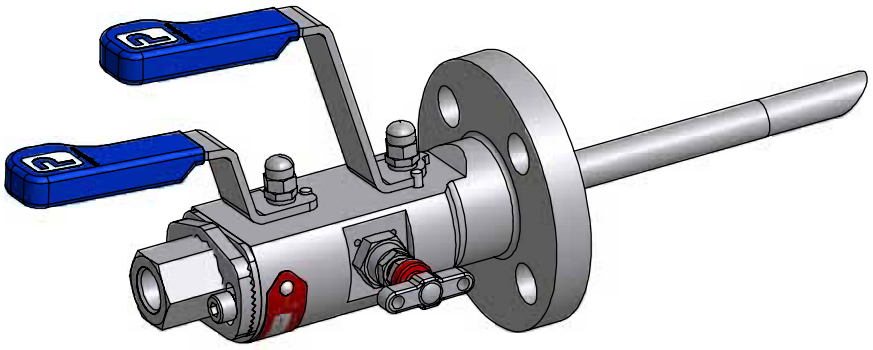
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Pro-Bloc® (PB) Manifolds

Pro-Bloc® for injection applications (10mm + 15mm bore only)

This manifold range is designed to replace conventional multiple-valve installations where injection into the process stream is required. This design has been developed to inject directly into the process stream at full system pressure. All of the options and configurations shown within the standard Pro-Bloc range can be offered for injection service by the addition of a customised injection probe which extends from the pipe flange into the process stream. Pro-Bloc's for injection applications include an injection probe which enables the fluid to be injected directly into the process stream and a high integrity full bore non-return valve to eliminate the risk of back flow out of the process stream. Also available to meet ISO15848 Class 'A' Ultra-Low emission standard.



Pro-Bloc® for injection applications - part numbering

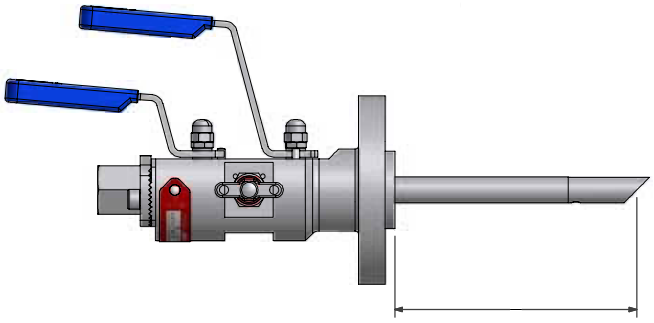
In order to specify the addition of an injection probe and non-return valve to your Pro-Bloc simply add a 'J' to the beginning of the part number i.e. JPB or FEJPB… The probe length in "mm" must be added to the end of the part number, see below. Due to the internal bore size of standard ASME flanges probes can only be installed on a range of flanges - please see the table in the sampling Pro-Bloc section (previous page).

The probe length must be specified from the raised face to the end of the probe in mm, to the nearest mm.

Probes are supplied to suit the insertion length required by the pipeline and thus must be specified by the customer.

A wide variety of end preparations and support collars are available on request.

Probe strength wake frequency calculations can be carried out against pipeline flow rates on request.

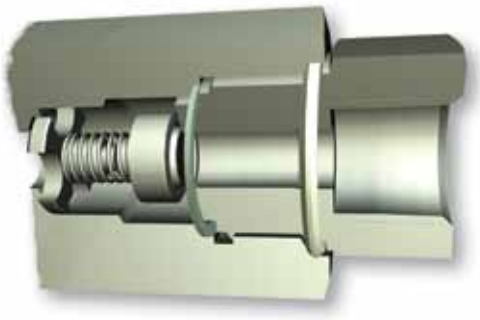


Hi-Check non-return valve

This high integrity full bore non-return valve eliminates the risk of back flow out of the process stream. The design utilises a spring loaded poppet to ensure leak proof performance. The Hi-Check Non Return Valve is designed for higher flow and low pressure drop across the valve - having a larger through bore than most other manufacturers equivalent product.

As standard a viton seal will be supplied with a 'crack' pressure of 10 psig. A wide variety of seat materials and crack pressures are available on request.

In the event of the required valve configuration not being shown please do not hesitate to contact the factory as Parker Hannifin IPD offer bespoke customer solutions. See Catalogue 4190-CV for more details.



Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Meeting the ISO Standard

From October 2007 all UK processing plants and power stations will have to comply with the EU's IPPC directive 96/61/EC. In essence, the IPPC Directive is about minimising pollution from various industrial sources throughout the European Union. An important part of this legislation is reducing Ultra-Low emissions, which will have significant consequences for all processes. According to the IPPS all plants and factories which fail to comply with the standards set by the directive may be closed from this point.

To put the scale of the challenge into perspective, a typical European refinery loses between 600 and 10,000 tonnes of emissions per annum. Around 70% of these losses are estimated to be caused by plant equipment such as pipe flanges, pumps, valves and vessels. Leakage from valves is often the biggest culprit, reportedly accounting for around 50% of the Ultra-Low emissions within the chemical and petrochemical industries.

Irrespective of the environmental impact, there is a tremendous financial burden on industry because it represents a huge loss of product, and cause of plant inefficiency. However, the true costs to industry are not always appreciated, as many of the costs associated with Ultra-Low emissions are hidden. Such as labour and materials to repair leaks, wasted energy, environmental fines and clean up costs, lost sales due to a poor green image, claims for personal injury and more. In this way, reducing Ultra-Low emissions not only protects the environment, but can save companies time and money.

With the above in mind, the legislation introduces a concept of Best Available Technique (BAT), urging plants to find the best available solution for reducing Ultra-Low emissions throughout the process, from areas such as design, product selection, fitting and fitter training, to maintenance, site monitoring, and so on.

With regard to the design and site monitoring of Ultra-Low emissions ISO 15848 parts 1 and 2 have been developed respectively.

Part 1 covers the classification system and qualification procedure for type testing of valves. The standard specifies three tightness classes of leakage with respect to stem sealing diameter. These classes are class A, B and C. Class A having the smallest environmental leakage. Each class level is one hundred fold lower than the class above i.e. a class B product may have a leakage of 100 times that of a class A product. The standard also specifies the duty that the valve has been tested to.

Parker Hannifin is now able to offer our full range of flanged products with a class A approval to ISO 15848-1. These products are identified as the Ultra-Low Emissions range and are certified as ISO FE AH-C01-SSA1-t(RT,180°C)-ANSI2500-ISO 15848-1. This states that the product has been classified as meeting the ISO 15848-1 standard with the following criteria;

- Class A tested with Helium
- Endurance class C01 – a mechanical valve which has been tested throughout 500 mechanical actuations with two thermal cycles
- Temperature class RT-180°C – Fully thermal cycled and tested from -29°C to +180°C Pressure class ANSI 2500 – 6000 psi in 316 st.st.

Part 2 of the international standard covers production acceptance testing of valves. This production testing can only be carried out to product which has already been approved to part 1 of the standard. Production testing can be carried out to and sampling percentage specified by the purchaser with a minimum of one per lot. The production testing is a simpler helium sniffer test which is carried out at room temperature with no mechanical actuations.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Meeting the ISO Standard

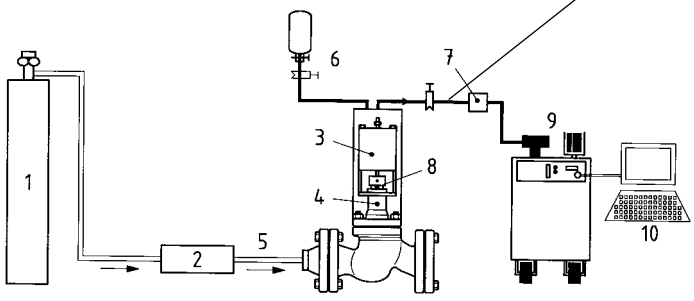
Parker is now able to offer it's range of Pro-Bloc Double Block and bleed valves and Monoflanges to meet the new ISO 15848 standard for Ultra-low Emissions. The new designs provide process instrument interfaces of outstanding integrity to help processing organisations dramatically enhance their LDAR (leak detection and repair) programmes.

ISO 15848 standard

ISO 15848 parts 1&2 (defining a classification system and qualification procedures, and production acceptance test of industrial valves, respectively) specify new Ultra-Low standards for emissions. This standard is becoming the requirement for oil and gas and petrochemical organisations worldwide. The standard was originally created for process valves and control valves but is now being applied to Instrumentation valves which include primary isolation valves, especially on environmentally sensitive projects.
Meeting these low levels is a challenge, which Parker Instrumentation has solved with the new ball and needle valve designs used in these Double Block and Bleed valves and monoflanges. These designs meet the highest class 'A' level over the temperature range -29°C to +180°C celsius, alongside the standard instrumentation manifold pressure ranges.
Production testing and certification is available upon request. Please specify sample quantity required for production testing with your order.
O-ring material grade is a fluoroelastomer FKM tetrapolymer, specially formulated for explosive decompression (ED) resistance. The seals are qualified to the stringent Norsok M-170 standard that covers both ED resistance and sour gas (H_2S) ageing tests.

Features

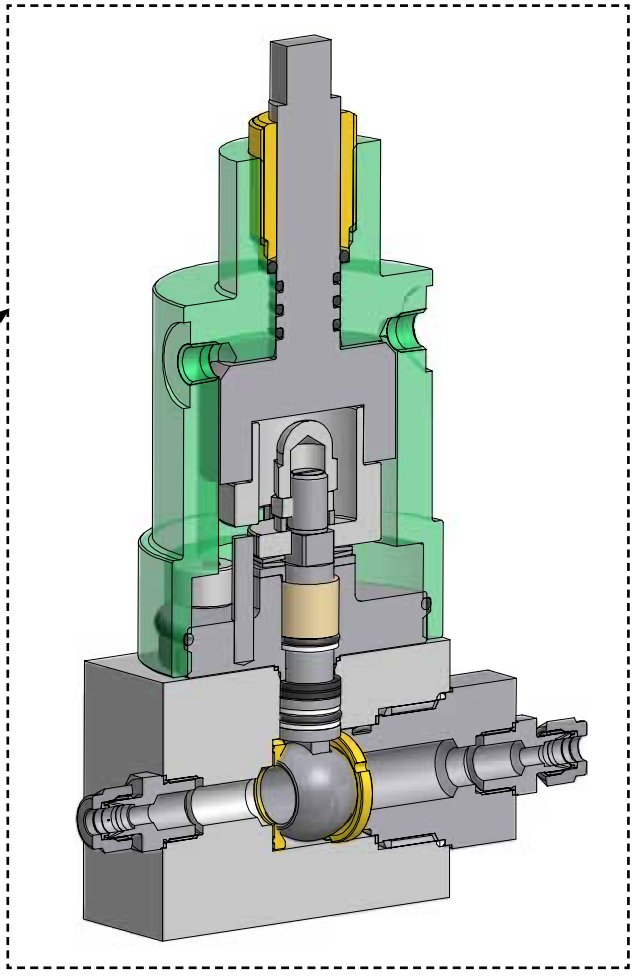
- Class 'A' leakage rates achieved.
- Bolted ball valve bonnet assembly.
- All threads sealed from the media
- All ball valves are bi-directional.
- Firesafe design available.



Key

1	helium at 97% purity	6	standard calibrated leak
2	pressure control	7	vacuum safety
3	actuator	8	tested stem sealing
4	vacuum	9	helium mass spectrometer
5	helium	10	data acquisition

Prototype testing schematic
as per ISO 15848-1

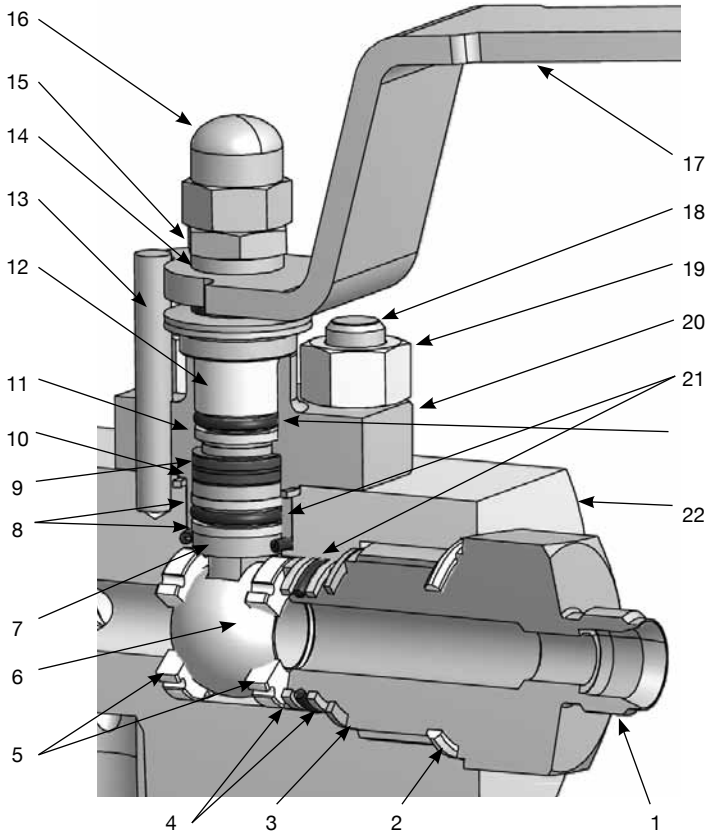


Ball valve ISO 15848-1
Prototype testing assembly

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Ultra-Low Emissions flange product ball valve specification



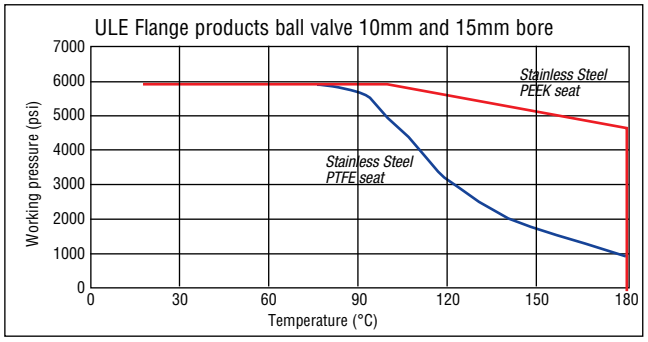
Handle options on page 4

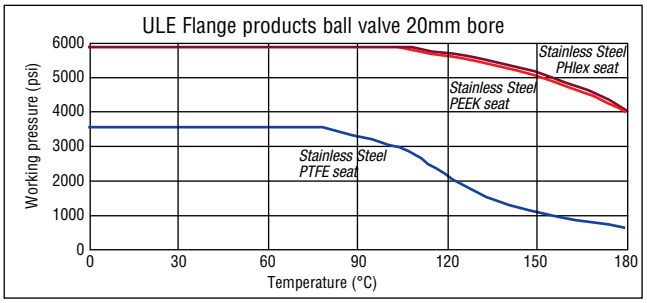
Part description

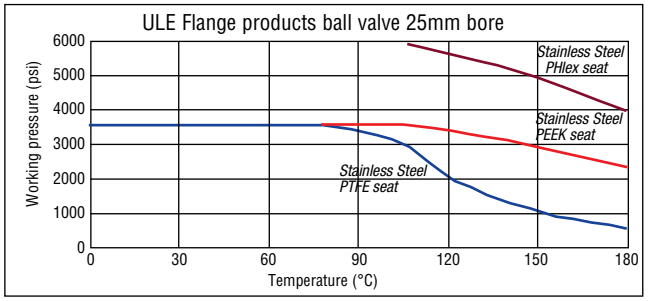
Item	Description
1	End Connector
2	E-seal™
3	Sealing washer
4	Antiextrution rings
5	Seats
6	Ball
7	Anti blowout stem
8	Antiextrution rings
9	Gland packing
10	Sealing washer
11	Antiextrution rings
12	Peek thrust bush
13	Stop pin
14	Thrust bush
15	Locknut
16	Locking dome nut
17	Handle
18	Bonnet strud
19	Lock nut
20	Bolted bonnet
21	Elastomeric o-ring
22	Body

Specifications

- Tightness class A ≯1 x 10^{-6} mg.s^{-1}.m^{-1}.
- Maximum cold working pressure rating 6,000 psig.
- Temperature rating -29˚C to 180˚C (-20˚F to 356˚F).
- ISO15848-1 prototype tested using global helium vacuum method.
- Performance class – ISO FE AH-C01-SSA1-t(RT,180°C)-ANSI2500-ISO 15848-1
- Production testing and certification available on request.
- Other specifications as per standard Hi-Pro, see page 4.





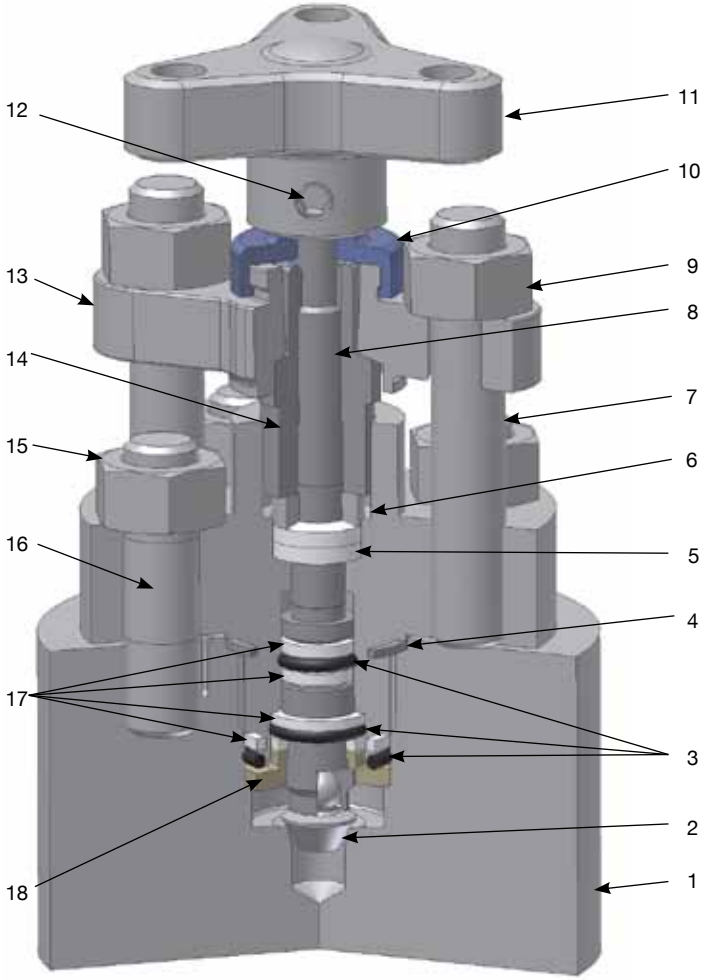


⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

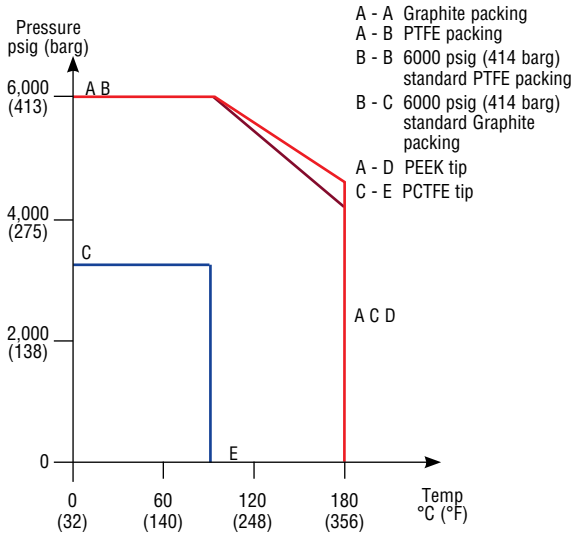
Ultra-Low Emission outside screw and yoke (OS&Y) needle valve



Part description

Item	Description
1	Body
2	Spindle Tip
3	Elastomeric o-ring (body seal)
4	Body joint seal
5	Gland packing (adjustable)
6	Thrust bush
7	Bonnet bridge studding
8	Anti blow-out spindle
9	Bridge nuts
10	Dust cap
11	Handle
12	Positive handle retention
13	Bridge
14	Gland adjuster
15	Stud nuts
16	Body bonnet studding
17	Anti extrusion rings
18	Bonnet end cap

Pressure vs temperature



Specifications

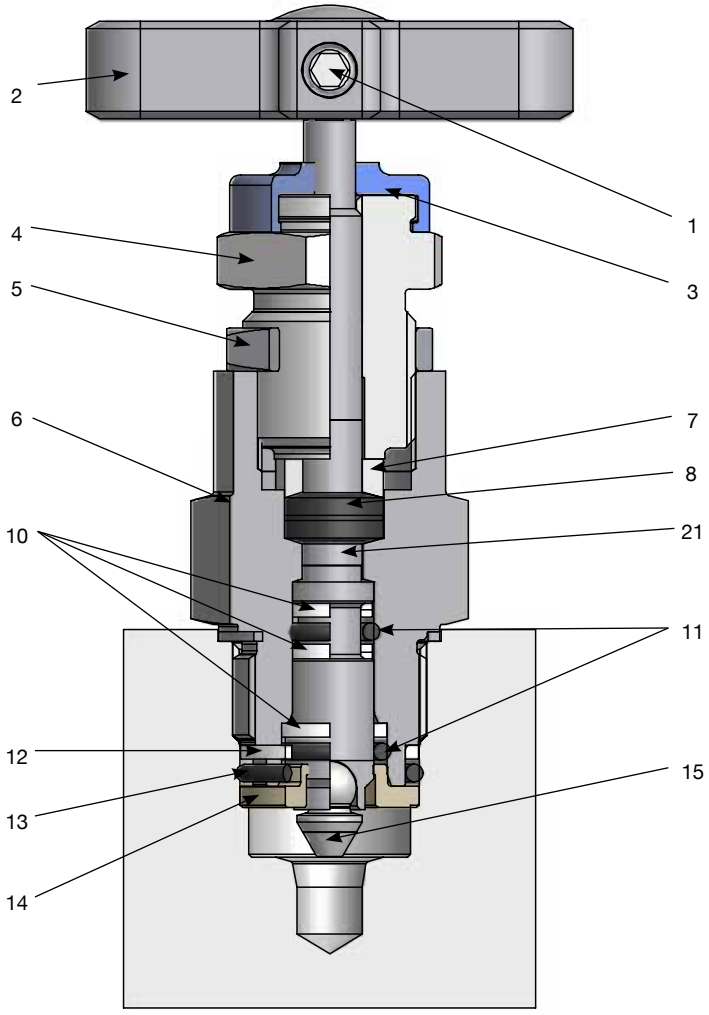
- Tightness class A ⩾1 x 10^{-6} mg.s^{-1}.m^{-1}.
- Maximum cold working pressure rating 6,000 psig (414barg).
- Temperature rating -29°C to 180°C (-20°F to 356°F).
- ISO15848-1 prototype tested using global helium vacuum method.
- Performance class – ISO FE AH-C01-SSA1-t(RT,180°C)-ANSI2500-ISO 15848-1
- Production testing and certification available on request.
- Other specifications as per standard OS&Y, see page 5.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

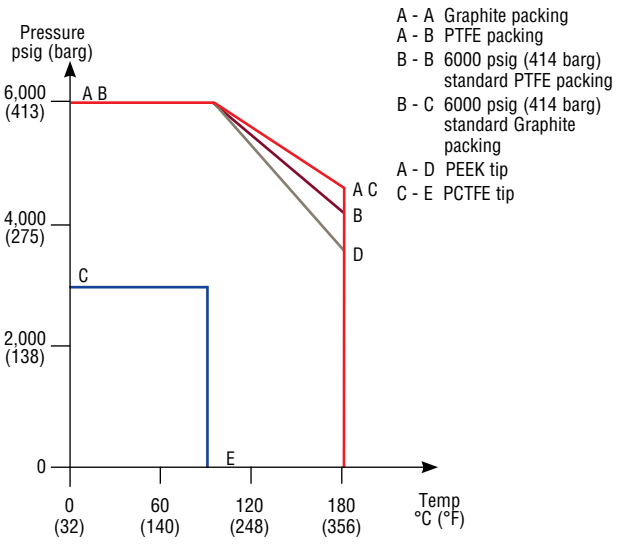
Ultra-Low Emissions “H” Series globe style needle valve



Part description

Item	Description
1	Positive handle retention
2	“T” bar
3	Dust cap
4	Gland packing adjuster
5	Gland adjuster lock nut
6	Valve bonnet
7	Thrust bush
8	Gland packing (adjustable)
9	Anti blow-out spindle
10	Anti extrusion ring
11	Elastomeric o-ring (stem seal)
12	Anti extrusion ring
13	Elastomeric o-ring (body seal)
14	Bonnet end cap
15	Spindle tip

Pressure vs temperature



Specifications

- Tightness class A = ⩾1 x 10^{-6} mg.s^{-1}.m^{-1}.
- Maximum cold working pressure rating 6,000 psig (414barg).
- Temperature rating -29˚C to 180˚C (-20˚F to 356˚F).
- ISO15848-1 prototype tested using global helium vacuum method.
- Performance class – ISO FE AH-C01-SSA1-t(RT,180°C)-ANSI2500-ISO 15848-1
- Production testing and certification available on request.
- Other specifications as per standard needle valve, see page 6.

⚠ When selecting products for specific applications users should refer to our notice at the bottom of page 13.

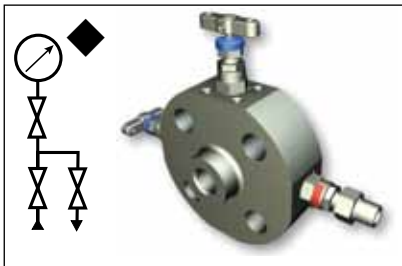
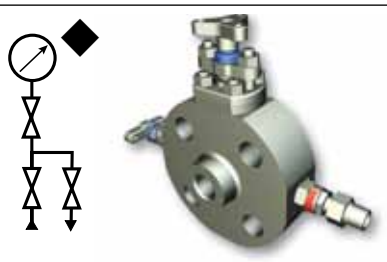
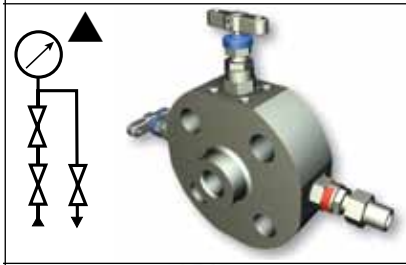
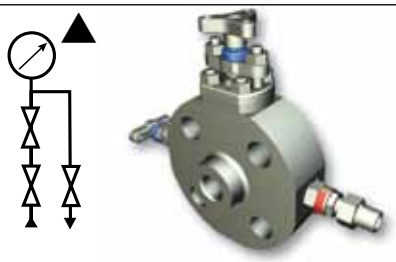
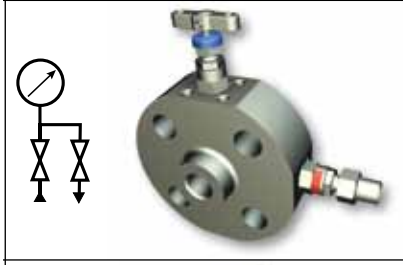
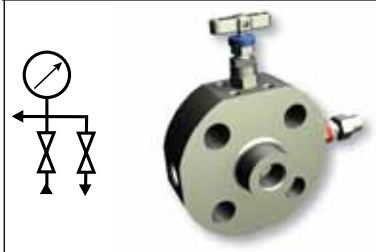
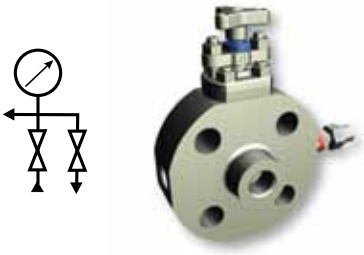
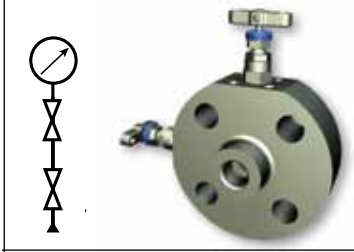
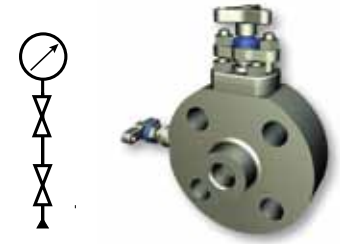
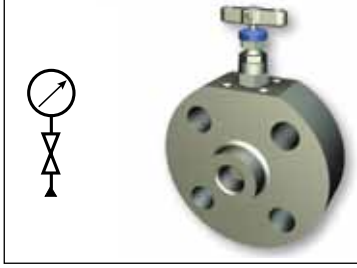
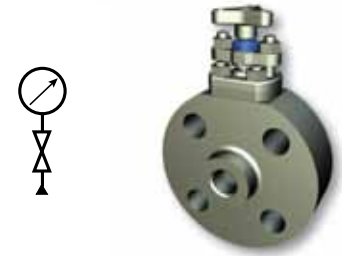
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

ISO15848 Class 'A' Ultra-Low Emission monoflanges - made easy

Select the style of Monoflange from the choice of arrangements below noting the complete **FEMF reference**.
If the style or arrangement is not shown below please provide full description and specification.

 **Block bleed block** 1st Isolate: Needle 2nd Isolate: Needle Vent: Needle **FEMFH100**	 **Block bleed block** 1st Isolate: O.S.&Y. 2nd Isolate: Needle Vent: Needle **FEMFY100**
 **Block block bleed** 1st Isolate: Needle 2nd Isolate: Needle Vent: Needle **FEMFH110**	 **Block block bleed** 1st Isolate: O.S.&Y. 2nd Isolate: Needle Vent: Needle **FEMFY110**
 **Block & bleed** 1st Isolate: Needle Vent: Needle **FEMFH120**	**Block & bleed** 1st Isolate: O.S.&Y. Vent: Needle **FEMFY120**
 **Block & bleed** 1st Isolate: Needle Vent: Needle **FEMFH130**	 **Block & bleed** 1st Isolate: O.S.&Y. Vent: Needle **FEMFY130**
 **Double block** 1st Isolate: Needle 2nd Isolate: Needle **FEMFH140**	 **Double block** 1st Isolate: O.S.&Y. 2nd Isolate: Needle. **FEMFY140**
 **Single block** 1st Isolate: Needle **FEMFH150**	 **Single block** 1st Isolate: O.S.&Y. **FEMFY150**

◆ For dual outlets specify FEMF*105. ▲ For dual outlets specify FEMF*115.
For flange to flange variants replace FEMF*1** with FEMF*2**.
For bleed port only specify FEMF*160.
Please note vent valve is not anti-tamper as standard.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

ISO15848 Class 'A' Ultra-Low Emission Monoflanges

Example FEMFY100 B 32T2500 A3 F

1. Monoflange part number
Insert from page 28

2. Material

A	Carbon Steel ASTM A105
B	Stainless Steel ASTM A182-F316
D	Monel M400
E	Duplex ASTM A182-F51
F	Super Duplex ASTM A182-F53/F55
G	Hastelloy C-276
H	Low Temp. C. St. ASTM A350 LF2
K	6Mo
M	Inconel 625

3. Flange details

Flange Size	Flange Face Style	Flange Class
8 = 1/2"	**F** = Raised Face Spiral	**150** = 150
12 = 3/4"	**T** = Ring Type Joint	**300** = 300
16 = 1"		**600** = 600
24 = 1 1/2"		**900** = 900
32 = 2"		**1500** = 1500
API specify separately		**2500** = 2500
DIN see page 20		**136** = 150/300/600
*1/2" flange size only		

4. Outlet style (1/2" FNPT is standard NO part designator needed)

Size	Connection Style
4 = 1/4"	**F** = Female NPT Thread
6 = 3/8"	**M** = Male NPT Thread
8 = 1/2"	**A** = A-LOK® (inverted only)
M6 = 6mm	**G** = Swivel gauge adaptor 1/2" NPTF (fitted)
M10 = 10mm	
M12 = 12mm	

5. Plugged vent (1/4" FNPT is standard NO part designator needed)

Size
V6 = 3/8" FNPT
V8 = 1/2" FNPT

6. Valve packing and seat materials

*	PTFE Packing
*	Needle tip 17-4PH St. St.
3	Graphoil (fitted as standard when fire safe design is specified)
PN	PEEK Needle tip all valves (non fire safe only)

* fitted as standard no part NO designator required.

7. Valve handle operating options

A*	Anti tamper
L*	Padlock handle locking
R*	Regulating tip ("H" series needle valve only)
Y*	O.S.&Y. valves

* Insert valve number 1 = primary, 2 = secondary, 3 = vent, 4 = all. Padlocks not supplied

8. Condition

F	Firesafe design (primary only - O.S.&Y. needle valve)
N	NACE

Combine designators as required

Ultra-low Emission production testing available on request

Please Note:
Certification requirements and customer specifications MUST be provided at enquiry and order stage.

When selecting products for specific applications users should refer to our notice at the bottom of page 19.

IMPORTANT NOTES

All non wetted parts will be supplied in standard stainless steel for exotic materials. For carbon steel construction trim materials will be supplied in stainless steel.

Ring type joints (T) CANNOT be supplied for 1/2" & 3/4" class 150 flanges.

St. St. grades 302 and 304 are NOT used in the construction of any of these products.

For customer specific options not covered here engineering will allocate a part number at quotation stage.

Certification requirements and customer specifications MUST be provided at enquiry and order stage.

For API flange requirements full details must be specified separately.

Part number example FEMFY100B32T2500A3F Ultra-Low Emission Monoflange - Double Block and Bleed - Block (O.S.&Y.) Bleed (Needle) Block (Needle) (FEMFY100) - 316 St. St. construction (B) - 2" Pipe flange, Ring type joint, class 2500 (32T2500) - 1/2" female NPT outlet - 1/4" Female NPT vent - Anti-tamper vent (A3) - Firesafe design and certified (F), valves fitted with PTFE packing, metal seated 17-4PH st.st. tips.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Flanged Products

ISO15848 Class 'A' Ultra-Low Emission Pro-Blocs

Select the style of Pro-Bloc from the choice of arrangements below noting the complete **FEPB reference**.

Style

Single piece forging flange x screw

FEPB*1**

Single piece forging flange x flange

FEPB*2**

Modular construction flange x screw

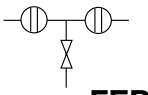
FEPB*5**

Modular construction flange x flange

FEPB*6**

Arrangement

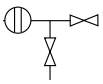
Block bleed block
Flange x screw
1st Isolate: Ball
2nd Isolate: Ball
Vent: Needle



FEPB00**

●

Block bleed block
Flange x screw
1st Isolate: Ball
2nd Isolate: Needle
Vent: Needle



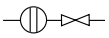
FEPBY*10

Block & bleed
Flange x screw
1st Isolate: Ball
Vent: Needle

FEPB30**

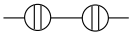
●

Double block
Flange x screw
1st Isolate: Ball
2nd Isolate: Needle



FEPBY*50

Double block
Flange x screw
1st Isolate: Ball
2nd Isolate: Ball



FEPBt60**

● Only available with 10mm bore ball valve.

Single isolate. specify FEPB*165, FEPB*265.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

ISO15848 Class 'A' Ultra-Low Emission Pro-Blocs

Example FEPBY 1 00 B 32T2500 F

1. Ball valve bore size
- **Y** = 10mm
- **X** = 15mm
- **W** = 20mm
- **V** = 25mm

For style see page 30 section 'Style'

For arrangement see page 30 section 'Arrangement'

2. Material
- **A** Carbon Steel ASTM A105
- **B** Stainless Steel ASTM A182-F316
- **D** Monel M400
- **E** Duplex ASTM A182-F51
- **F** Super Duplex ASTM A182-F53/F55
- **G** Hastelloy C-276
- **H** Low Temp. C. St. ASTM A350 LF2
- **K** 6Mo
- **L** 825
- **M** Inconel 625

3. Flange details

Flange Size	Flange Face Style	Flange Class
‡8 = 1/2"	F = Raised Face Spiral	150 = 150
‡12 = 3/4"	T = Ring Type Joint	300 = 300
‡16 = 1"		600 = 600
24 = 1 1/2"		900 = 900
32 = 2"		1500 = 1500
48 = 3" (25mm bore only)		2500 = 2500
API } specify separately		
DIN } See page 20		

‡ Certain flange/bore size combinations not available - consult factory

4. Outlet style (each bore size has its own standard size female NPT outlet - the standard does not require this field to be completed)

Standard outlets (female NPT)

10mm bore = 1/2"
15mm bore = 1/2"
20mm bore = 3/4"
25mm bore = 1"
For optional outlets see page 20

5. Plugged vent (1/2" NPTF is standard NO part designator needed)

6. Packing, seat and construction options
- * PTFE Packing
- * PTFE Ball seats
- * Needle tip 17-4PH St. St.
- **PK** PEEK Ball and needle seating
- **PB** PEEK Ball seats
- **PN** PEEK Needle tip (non firesafe only)
- **BC** Bolted construction connection

* fitted as standard no part NO designator required.

7. Valve handle operating options
- **A*** Anti tamper (Needle Valve only)
- **L*** Padlock handle locking
- **R*** Regulating tip ("H" series Needle Valve only)
- **S*** Spanner actuated (Ball Valve only)
- **Y*** O.S.&Y. Needle Valve

* Insert valve number 1 = primary, 2 = secondary, 3 = vent, 4 = all.
Padlocks not supplied
Note: Firesafe needle valve with locking device NOT available

8. Certification & condition
- **F** Firesafe design and certified
- **H** Heat code certificates to EN10204.3.1.B
- **N** NACE

Combine designators as required
Ultra-Low Emission production testing available on request

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

Parker Worldwide

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

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

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, Castle Hill
Tel: +61 (0)2-9634 7777

AZ – Azerbaian, 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, Cachoeirinha RS
Tel: +55 51 3470 9144

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

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

CH – Switzerland, Etoy
Tel: +41 (0) 21 821 02 30
parker.switzerland@parker.com

CN – China, Shanghai
Tel: +86 21 5031 2525

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

HK – Hong Kong
Tel: +852 2428 8008

HU – Hungary, Budapest
Tel: +36 1 220 4155
parker.hungary@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, Fujisawa
Tel: +(81) 4 6635 3050

KR – South Korea, Seoul
Tel: +82 2 559 0400

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, Apodaca
Tel: +52 81 8156 6000

MY – Malaysia, Shah Alam
Tel: +603-78490800

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

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: +662 717 8140

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

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

UK – United Kingdom,
Barnstaple
Tel: +44 (0)1271 313131
parker.uk@parker.com

US – USA, Cleveland
Tel: +1 216 896 3000

VE – Venezuela, Caracas
Tel: +58 212 238 5422

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

European Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, EI, ES, FI, FR, IT, NL, NO, PL, RU, SE, SK, UK, ZA)

© 2008 Parker Hannifin Corporation. All rights reserved

Parker Hannifin Ltd
Instrumentation Products Division Europe,
Riverside Road,
Pottington Business Park,
Barnstaple, Devon, EX31 1NP
United Kingdom
Tel.: +44 (0) 1271 313131
Fax: +44 (0) 1271 373636
www.parker.com/ipd

Parker Hannifin Corporation
Instrumentation Products Division
1005 A Cleaner Way
Huntsville, AL 35805
Tel: + 1 (256) 881-2040
Fax: + 1 (256) 881-5072
www.parker.com/ipdus

Catalogue 4190-FP

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it