

# Process Instrumentation Valve and Manifold Solutions

H Series Product Range



ENGINEERING YOUR SUCCESS.

# General Technical Information

## Design

All valves and manifolds are designed to meet the pressure and temperature ratings of ANSI B16.34 Class 2500/Class 4500 as applicable, limited only by selection of gland packing materials, Conformity to the recommendations of MSS SP-99 is also assured.

### Relevant codes, standards and specifications

Code/Specification	Description
DIN EN61518 / IEC 61518	Mating dimensions between differential pressure (type) measuring instruments
ASME B31.1	Power Piping Specification for Pipeline Valves
ASME B16.34	Valves - Flanged, Threaded and Welding End
ASME B16.5	Pipe Flanges and Flanged Fittings
NACE MR0175 / ISO 15156	Petroleum and Natural Gas Industries - Materials for use in H2S - containing Environments in Oil and Gas Production
API 598	Valves Inspection and Testing
ISO 5208	Industrial Valves - Pressure Testing of Metallic Valves
API 607 / ISO 10497	Fire Test of Soft-Seated Quarter Turn Valves
MSS SP-25	Fire type-testing requirements
MSS SP-61	Standard Marking Systems for Valves, Fittings, Flange and Unions
MSS SP-99	Pressure Testing of Valves
ISO 15848	Instrument Valves
TA Luft	Industrial valves— Measurement, test and qualification procedures for fugitive emissions
	TA-Luft 2002, Absatz 5.2,6.4 und VDI 2440 (Ausgabe Nov. 2000), Absatz 3.31,3

## Materials of construction

All materials are purchased from long standing reputable sources, conforming not only to recognised national/international standards, but also to additional requirements imposed by Parker to assure suitability/usability across the widest spectrum of user applications.  
A range of techniques and processes including PMI (Positive Material Identification) are used to validate all incoming material supplies, segregation, storage and maintenance of product quality.

### Body material options

Material Group	Material Designator	UNS No.	Werkstoff No.	Euronorm Equivalent	ASTM Material Grade
Carbon Steel*	A105	UNS 1.0482	19Mn5	K03504	A105
Austenitic Stainless Steel	316/316L Dual certified	UNS S31600	1.4401	X5CrNiMo17-12-2	A479 Gr 316
		UNS S31603	1.4404	X2CrNiMo17-12-2	A479 Gr 316L
Super Austenitic Stainless Steel	6Mo	UNS S31254	1.4547	X1CrNiMoCuN20-18-7	A479/A276
	Duplex 22Cr	UNS S31803	1.4462	X2CrNiMoN22 5 3	A479/A276
Austenitic-Ferritic Steel (Duplexes)	Duplex 25Cr	UNS S32750	1.4410	X2CrNiMoN25-7-4	A479/A276
		UNS S32760	1.4501	X2CrNiMoCuWN25-7-4	A479/A276
Copper-Nickel Alloy	Alloy M400	UNS N04400	2.436	NiCu30Fe	ASTM B164
Nickel Alloy	Alloy 825	UNS N08825	2.4858	NiCr21Mo	ASTM B425
Nickel Alloy	Alloy 625	UNS N06625	2.4856	NiCr22Mo9Nb	ASTM B446
Nickel Alloy	Alloy C276	UNS N10276	2.4819	NiMo16Cr15W	ASTM B574
Titanium	Titanium Grade 2	UNS R50400	3.7075	Ti-11	ASTM B348

All materials will meet (as applicable) the requirements of NACE MR0103/MR0175 and ISO 15156. They are further supplied as per NORSOK M650/M630 as required.

\* Carbon Steel may not be universally available, and if offered, may be restricted to body only. Other materials may be considered but any offer may also be restricted to body only. Please consult with your local Parker support.

### General information - materials of construction

Item	Material				
	SLSt.	CRA-NiCu	Duplex	Super Duplex	Titanium
Body	316 SLSt. / ASTM A479	Alloy M400	Duplex UNS S31803	Super Duplex UNS S32750/32760	Titanium GR-2
	17-4PH SLSt.	Alloy K500	Duplex UNS S32750/32760	Alloy 625	Titanium GR-5
Tip	316 SLSt. / ASTM A479	Alloy M400	6MO	Alloy 625	Alloy 825
Joint Seal	PTFE. / Graphite	PTFE. / Graphite	PTFE. / Graphite	PTFE. / Graphite	PTFE. / Graphite
Packing	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.
Thrust Bush	316 SLSt. / ASTM A479	Alloy M400	Duplex UNS 31803	Super Duplex UNS S32750/32760	Alloy C276
Stem	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.
Gland Adjuster	316 SLSt. / ASTM A479	ASTM A479	ASTM A479	ASTM A479	ASTM A479
Handle	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.
Grub Screw	A4-80 SLSt. / A4-80 SLSt.	A4-80 SLSt.	A4-80 SLSt.	A4-80 SLSt.	A4-80 SLSt.
Dust Cap	LDPE - Coloured	LDPE - Coloured	LDPE - Coloured	LDPE - Coloured	LDPE - Coloured
Lock Nut	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.	316 SLSt.
Bonnet	316 SLSt. / ASTM A479	Alloy M400	Duplex UNS 31803	Super Duplex UNS S32750/32760	Titanium GR-2

**Max. Working Pressure**  
**High Pressure Range**

6,000 psig (414 barg)  
10,000 psig (689 barg)

**Temperature Range:**  
• PTFE Packing  
• Graphite Packing

-54°C to 260°C (-65°F to 500°F)  
-54°C to 538°C (-65°F to 1000°F)

Notes:

- CRA-NiCu selection down-rates to 5,000 psig (345 barg)
- Titanium selection down-rates to 3,950 psig (272 barg)
- Other materials and option selections can also affect performance ratings. If in doubt, please consult your local Parker support.

## Standard and optional specification details

Standard Specification Details	Optional Specification Details
Seat orifice diameter: 4mm	Seat orifice diameter: up to 6mm in some configurations/styles. See page 14
Flow co-efficient (Cv): 0.35	6mm - Flow co-efficient (Cv): 0.5
Metal to metal valve seat and stem tip	Alternative soft tip and tip materials. See page 14
100% pressure test. All valves and manifolds are subjected to hydrostatic pressure at 1.1x maximum working pressure for the seat and 1.5x maximum working pressure for the shell	Alternative pressure test regimes applied to oxygen cleaned and/or low emission products. See page 17
All products supplied in a clean bur and grease free condition suitable for most liquid and gaseous applications	Your other pressure test requirements can be considered
Bodies and bonnets are fully traceable to original material source (certification with unique trace code applied to the bar stock material)	Cleaned suitable for oxygen service. Not every product option is suitable for oxygen service
Certification according to BS EN 10204 3.1 for material and pressure test is available	Alternative levels of traceability and certification are available. Your other requirements can be considered
All products are permanently marked. Manifolds include a line diagram describing the flow paths	Certification according to BS EN 10204 3.2 can be available at additional cost, please contact your local Parker support
Complementary to the marking, bonnet assemblies are all functionally colour coded by the dust caps	
Number of turns open to close: 3.5	6mm - Number of turns open to close: 3.3
Gauge valves and manifolds do not include plugs as standard	Various plugs are available to order. See page 61
Direct mount manifolds include applicable flange face seals and high tensile, zinc plated carbon steel mounting bolts	Stainless steel mounting bolts are available. See page 48
All manifolds include mounting holes suitable for brackets or enclosure mounting	A full range of mounting brackets and accessories are available. See pages 40, 48, 60
	Mounting for selected hand valves and gauge valves is available

# Connections

## Introduction

Parker valve and manifold products are available with a wide array of connection types and sizes. These products are manufactured at the highest quality to applicable standards, utilising state of the art machinery and processes backed by decades of expertise.

The following pages detail the standard connections available. Other connection types can be considered. If you can't find the best connection for your application, please contact your local Parker support. Please note – not all connection types and sizes will be universally possible across the entire product range.

## Integral tubing connections – A Parker Superior Advantage

For the ultimate in safety, reliability, speed and ease of installation all valves and manifolds can be specified with solutions offering integral tube connection utilising Parker A-LOK® (Two Ferrule) or CPI™ (Single Ferrule) compression fitting technologies.

For full details of the A-LOK® and CPI™ technologies, please see Catalogue ref. 4190-FMTG.

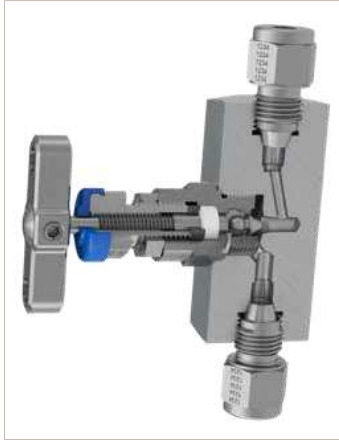
As standard, hand valves and gauge valves are offered with the traditional external thread and nut or inverted (internal thread) design to inlet and outlet connections. Other ports (such as vent) are offered with Parker unique PTFree connect™ solution (see p. 10).



HNV series hand valve with traditional type fully integrated tube fitting connection.



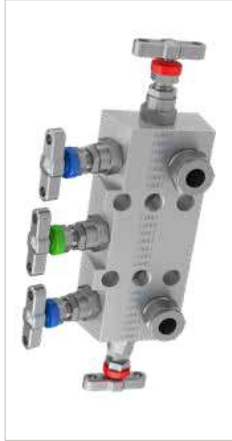
HNV series gauge vent hand valve with inverted tube fitting to inlet and outlet connections with Parker PTFree connect™ tube fitting connection to the vent.



HNV series hand valve with the unique Parker fully integrated inverted tube fitting connection.



5-valve direct mount manifold for differential pressure applications having inlet and vent connections provided through the use of PTFree connect™ tube fittings.



5-valve direct mount manifold having the Parker superior advantage input connections provided through inverted tube fitting connections. Vent can also be specified as threaded or PTFree connect™.

## Why the Superior Advantage of an integrated tube connection?

Consider the following simple example with a typical hand valve.

Example shown is the widely utilised normal specification of a valve and individual tube fittings to achieve the installation.



Component	Cost
Needle valve	1x
Fittings (2)	1.1x
Sealant/Tape	0.01x
Labour	0.15x
<b>TOTAL</b>	<b>2.26x</b>

Example shown is the Parker Superior Advantage fully integrated tube fitting connection.



Component	Cost
Needle valve	1.6x
Fittings (2)	0x
Sealant/Tape	0x
Labour	0.05x
<b>TOTAL</b>	<b>1.65x</b>

## Integrated tube connections deliver:

- Average 25% saving on installed cost
- Average 55% saving on installation time
- Zero rework
- Significantly improved safety and system integrity

# Connections

## Tube end dimensional data

Inches				Millimeters			
Size No.	Tube O.D.	Straight Thread	tC	H Hex	tC	H Hex	tD Tube Depth
1	1/16	10-32	.43	5/16	.052	.34	
2	1/8	5/16-20	.60	7/16	.093	.50	
3	3/8	3/8-20	.64	1 1/2	.125	.54	
4	1/4	7/16-20	.70	9/16	.187	.60	
5	5/16	1/2-20	.73	5/8	.250	.64	
6	3/8	9/16-20	.76	11/16	.281	.67	
8	1/2	3/4-20	.87	7/8	.406	.90	
10	5/8	7/8-20	.87	1	.500	.96	
12	3/4	1-20	.87	1-1/8	.625	.96	
14	7/8	1-1/8-20	.87	1-1/4	.750	1.03	
16	1	1-5/16-20	1.05	1-1/2	.875	1.24	
20	1-1/4	1-5/8-20	1.52	1-7/8	1.09	1.61	
24	1-1/2	1-15/16-20	1.77	2-1/4	1.34	1.96	
32	2	2-5/8-20	2.47	2-3/4	1.81	2.65	

Notes:

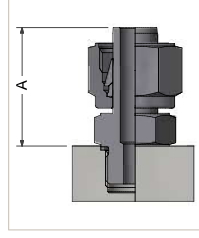
- Dimensions C and D are shown in the finger-tight position.
- † Average value
- Dimensions for reference only, subject to change.

## PTFFree connect™

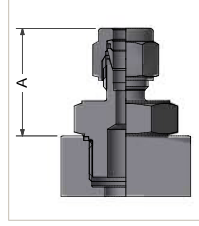


Manifolds can also be supplied with male connectors using the same thread form as the PTFFree connect™. They are provided factory fitted, pin locked and tested.

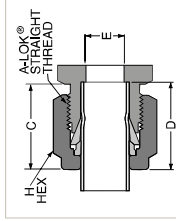
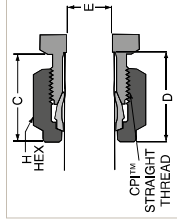
Some size restrictions may be necessary due to the close proximity of some connections and the across flat hexagon dimensions. As a guide, PTFFree connect™ for inlet and outlet can be up to 1/2" or 12mm o/d, drain/bleed connections should be restricted to 1/4" or 6mm. For PTFFree connect™ male connectors inlet and outlet should be restricted to 3/8" or 10mm and 1/4" or 6mm o/d for drain/bleed.



Tube size	Dimension (A)
6mm	22.26mm 0.88"
1/4"	24.80mm 0.98"
10mm/3/8"	26.40mm 1.04"
12mm/1/2"	32.10mm 1.26"



Tube size	Dimension (A)
6mm	26.90mm 0.95"
1/4"	24.10mm 0.84"
10mm/3/8"	27.70mm 1.09"
12mm/1/2"	30.30mm 1.20"



Size No.	Tube O.D.	Straight Thread	tC	H Hex	tC	H Hex	tD Tube Depth
2	2mm	5/16-20	15.3	12.0	1.7	12.9	
3	3mm	5/16-20	15.3	12.0	2.4	12.9	
4	4mm	3/8-20	16.1	12.0	2.4	13.7	
6	6mm	7/16-20	17.7	14.0	4.8	15.3	
8	8mm	1/2-20	18.6	15.0	6.4	16.2	
10	10mm	5/8-20	19.5	18.0	7.9	17.2	
12	12mm	3/4-20	22.0	22.0	9.5	22.8	
14	14mm	7/8-20	22.0	24.0	11.1	24.4	
15	15mm	7/8-20	22.0	24.0	11.9	24.4	
16	16mm	7/8-20	22.0	24.0	12.7	24.4	
18	18mm	1-20	22.0	27.0	15.1	24.4	
20	20mm	1-1/8-20	22.0	30.0	15.9	26.0	
22	22mm	1-1/8-20	22.0	30.0	18.3	26.0	
25	25mm	1-5/16-20	26.5	35.0	21.8	31.3	

Many users desire the elimination of taper threads and their associated sealant.

The PTFFree connect™ system enables users to assemble tube lines to any of the manifold ports without the need for PTFE tape or liquid sealant.

The PTFFree connect™ connection can be applied to any of the manifolds featured in this catalogue. These will be factory fitted, pin locked and pressure tested.

PTFFree connect™ enables angled tube connections to be swivelled to achieve optimum tube alignment. Assembly to the tube connector is achieved by tightening the standpipe nut one-quarter turn from the finger-tight position.

## Other connections

### Tapered Pipe Threads - Male and Female



**NPT Tapered Thread**  
NPT Tapered Thread conforming to ASME B1.20.1 with enhanced manufacturing tolerance for optimal assembly and inspected by three step gauging with Parker enhanced tolerancing to ANPT requirement per ASTM SAE AS71051.

### Parallel Pipe Threads - Male and Female



**BSP Parallel Thread - Default standard (Code R)**  
BSP Parallel Thread conforming to BS2779, ISO 228/1+2, DIN 3852. Not available on all product/model types, please consult with your local Parker support.

### Weld Connections



**Socket Weld (Code SW/MSW)**  
Female or male Socket Weld connection suitable for pipe conforming to ASME B16.11, EN12760.

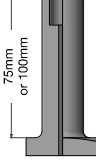
Notes:

- Valves with female socket weld connections will be of the same length as per the equivalent NPT pipe threaded variants.
- Valves with male socket weld connections will, as standard, have a stub length increase of 1/2" (13mm) when compared to the male pipe threaded equivalent variants.

Pipe size	Dimension (A)
4 (1/4" NB)	29
6 (3/8" NB)	29
8 (1/2" NB)	32
12 (3/4" NB)	35

Optional lengths:

If requested, male socket welds or butt welds can be offered with stub length of 75mm or 100mm.



### Flange Connections



**Process Flange**  
Flange connections can be considered if conforming to ANSI B16.5 and executed in various ways. Please consult your local Parker support.

**Instrument Flange (Code HK)**  
DIN/IEC 61518 compliant instrument (kidney/oval) flange connections.



**BSP Tapered Thread (Code K)**  
BSP Tapered Thread conforming to BS21, ISO7/1 (R 1/2 - Male, Rc 1/2 Female) with enhanced manufacturing tolerance for best optimal assembly and inspected using gauging system to BS21.



**BSP Parallel Gauge connection type - Optional (Code RD)**  
According to DIN 16284/16288/ DIN EN 837.  
Thread conforming to BS2779, ISO228/1+2, DIN 3852.  
Not available on all product/model types, please consult with your local Parker support.



**Butt Weld (Code BW)**

Butt Weld connection suitable for pipe conforming to ASME B16.25, EN12627.



Notes:

- Valves with butt weld connections will, as standard, be of the same length as per the equivalent male NPT pipe threaded variants.
- For valves with welded connections, special consideration must be given to the installation/welding process. Care must be taken to ensure that the central valve body and bonnet assembly sections are not harmed by the process itself and to further protect these elements from injurious heat transfer.

Other Notes:

- Connection ratings: Certain weld connections can impact published performance ratings of the manifold. Care should be taken in the selection of connections to ensure they meet application expectations for performance. For example: Butt weld or tube fitting connections with a thinner wall section, may result in a reduced pressure performance capability when compared to that of the published. Please consult relevant Parker publications or consult with your local Parker support.



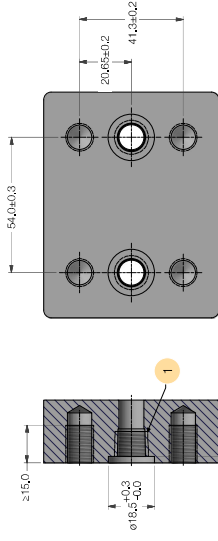
## Connections

## Transmitter flange connections - DIN/IEC 61518

As standard, Parker manifolds have inlet and outlet interface connections in full accordance with DIN/JEC 61518. For the Manifold to Transmitter interface, the type B connection is standard, type A is optionally available.

Within DIN/EN 61518 the manifold-transmitter interface is rated for maximum allowable working pressure of 413 bar (6,000 psi) and maximum allowable temperature of 120°C (248°F) for liquids

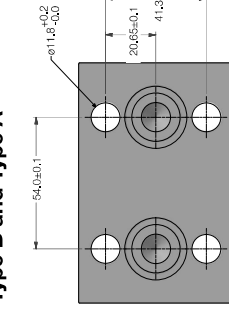
**Process inlet to manifold / transmitter interface DIN EN 61518 / IEC 61518**



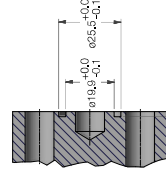
Reference	Description
1	Threaded option for transmitters - plug/vent valve

## Parker manifold outlet to transmitter interface DIN EN 61518 / IEC 61518

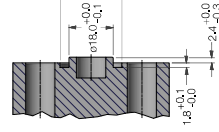
### Type B and Type A



## Type B



## Type A



	Type A (Optional)	Type B (Standard)	
Max. Allowable Working Pressure	413 bar (6,000 PSI)		
Temperature range	PTFE: -10°C to +80°C (14°F to 176°F)  Graphite: -15°C to +120°C (5°F to 248°F)	PTFE: -10°C to +80°C (14°F to 176°F)  Graphite: -40°C to +120°C (-40°F to 248°F)	
Seal ring	Flat Ring 25.4 x 20 x 2.7 Material: PTFE	Flat Ring 25.4 x 19.9 x 2.9 Material: Graphite	Flat Ring 25.1 x 18.0 x 2.9 Material: Graphite
Min. Thread Engagement	9mm		
Spare/Replacement Seal part No.	HIEC002-PTFE/1	HIEC001-PTFE/1	HIEC002-GRAPHITE/1

Connection at the manifold acc. to DIN/IEC 61518.

**Important Note** - there are some exceptions to the IEC 61518 standard:

1. Emerson Coolplan<sup>TM</sup> transmitter design, Parker offers a full range of specifically suitable manifolds for this type. See pages 55-60.
2. There is a limited range of other higher working pressure transmitters by some manufacturers, where the interface is proprietary by design (Example: Yokogawa EJX 440A/EJA 440E). Parker is able to provide manifold designs that are complementary to these products. Please consult your local Parker support.

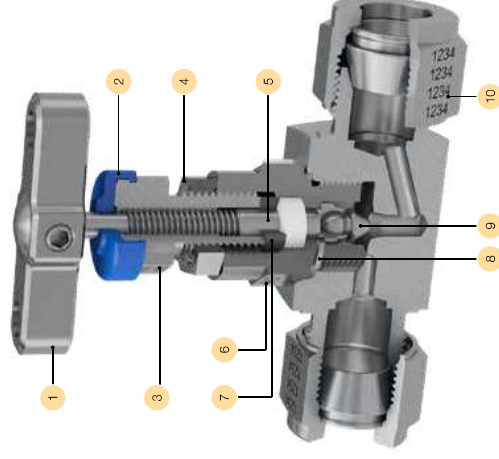
## 12

## Bonnet Assemblies

### Standard bonnet design

Class 2500 (6,000 PSI) and Class 4500 (10,000 PSI)

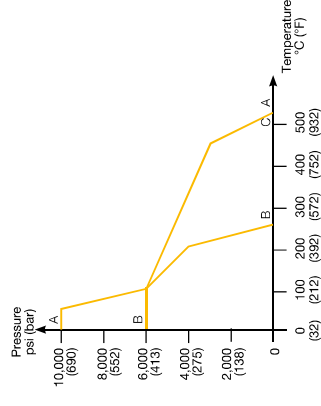
**For safe, reliable and repeatable performance**



Notes:

- As standard, all metallic parts are 316 Stainless Steel. Optional materials are available, please see page 6.
- For products specified in optional materials, non-wetted parts will be 316 Stainless Steel as standard.
- 6,000 PSI bonnet thread is M16; 10,000 PSI bonnet thread is M18.

## Pressure vs temperature



Notes:

- Pressure and temperature ratings shown are maximum possible values. Continuous operation at the maximum ratings will reduce life expectancy.
- Pressure and temperature ratings can be derated by certain connection types or materials of construction.

Reference	Description
A - A	Graphite packing
A - B	PTFE packing
B - B	6,000 PSI (414 bar) standard PTFE packing
B - C	6,000 PSI (414 bar) standard Graphite packing

# Bonnet Assemblies

Larger bore bonnet design  
Class 2500 (6,000 PSI) and Class 4500 (10,000 PSI)



## Features

- 6mm seat orifice size, allowing the provision of larger 5mm or 6mm flow passages
- Ideal for applications with dirtier/denser service media and/or those prone to blocking in small bore installations
- Can enhance other aspects of performance and measurement accuracy
- Will result in the use of larger body material sizes
- Not possible for all styles and types of product
- All other technical information remains unchanged from standard

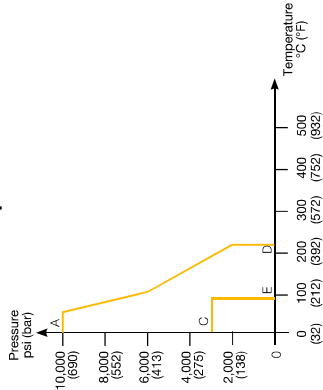
Soft seat tip bonnet design



## Features

- Available in the 4mm orifice size only, this PEEK seat tip option is available for all product styles and types
- Ideal for clean gaseous or other services where bubble-tight shut-off with minimum effort is required
- Suitable for temperatures up to 204°C and pressures up to 10,000 psi at reduced temperature, as per graph
- For larger bore requirements Parker recommends Rising Plug valve

## Pressure vs temperature



Fire safe bonnet design - Class 2500 (6,000 PSI)

## Features

- Specifically designed and developed to meet exacting industry requirements, products incorporating this Bonnet Design conform to BS 6755 Part 2, API 6FA / API607. For further details contact your local Parker support.
- 100% fire safe design certified, many typical actual third party test certificates are available for review
- Available for most product styles and types
- Some material selections are restricted



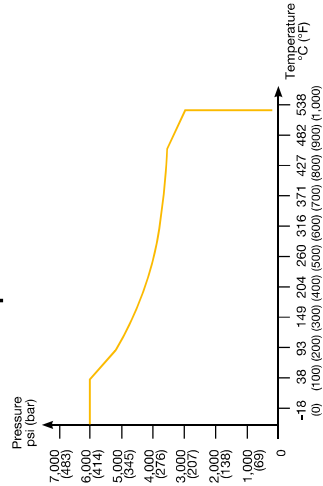
Power plant bonnet design  
Compliant to ANSI B31.1 – Class 2500 (6,000 PSI)



## Features

- Available in a select range of body styles and types. Please consult your local Parker support
- Designed specifically to meet the requirements of ANSI B31.1 (Power Plants) and B31.3 (Petrochemical Plants) including materials of construction, these bonnet assemblies are Graphite packed for higher temperature service
- Suitable for temperatures up to 538°C and pressures up to 6,000 psi at reduced temperature, as per graph
- Unique patented Tru-Loc® safety bonnet lock further enhances security in application

## Pressure vs temperature



To order valves and manifolds with power plant bonnet design, follow the part builder structures as on pages 26-27, 32-33, 46-47 and replace **H** in the series names with **HPP**. Consult your local Parker support for available options.

Examples:

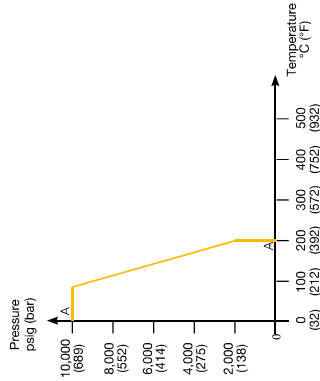
- HPPNV58FF3 - Hand valve
- HPPL52V3 - 2-valve remote mount flat barstock manifold
- HPPL55M3 - 5-valve remote mount flat barstock manifold
- HPPD55M3 - 5-valve direct mount flat barstock manifold

# Bonnet Assemblies

Rising plug bonnet design



Pressure vs temperature



## Tru-Loc® safety bonnet lock



Available as standard on ANSI/ASME B31.1 manifold versions, the unique Parker Tru-Loc® security locking system is applied to the body to bonnet interface but can also be applied to many other screwed component interfaces. Extensive tests have proven that threaded connection interfaces secured with Tru-Loc® guarantee 100% security in preventing movement between connected components. In the H series manifolds it prevents loosening or removal of the bonnet assembly by any means.

## Features

- HRPV valve is unique to Parker and is patent-protected
- Non-rotating plug/tip
- Dynamic response moulded seat insert with guaranteed alignment
- Standard straight through orifice size: 1/4" (6.4mm)
- Cv: 1.8
- Rolled spindle operating threads
- Straight through flow path
- Multi-port gauge style available as standard. Other styles can be considered - please consult the factory
- Bi-directional flow
- Backstop spindle for blowout prevention and minimal atmospheric leakage
- Low torque operating T bar handle
- Externally adjustable gland
- Full range of head options available
- Dust cap to prevent ingress of contamination to operating thread
- Bonnet locking pin fitted as standard
- Suitable for temperatures up to 204°C and pressures up to 10,000 psi at reduced temperature, as per graph

Reference	Description
A - A	PEEK Seat

## Low emission bonnet design

### TA-Luft compliant

As standard, products fitted with the Parker Instrumentation standard bonnet assembly are bubble tight in service and have been proven to meet the requirements of **TA-Luft 2002, Absatz 5.2.6.4 und VDI 2440 (Ausgabe Nov. 2000), Absatz 3.3.1.3.**

### ISO 15848 compliant

From 2007 EU's IPPC directive 96/61/EC legislates for the minimisation of pollution from industrial sources (Many other regions and countries have similar legislation). An important part of this legislation is reducing Ultra-Low emissions. According to the IPPS, all plants and factories which fail to comply with the standards set by the directive, may face closure.

The legislation introduced a concept of Best Available Technique (BAT), urging plants to find the best available solution for reducing Ultra-Low emissions throughout all processes. With respect to valves, ISO 15848 parts 1 and 2 were developed to aid companies to meet the legislation.

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 Instrumentation specifically developed an H series Bonnet Assembly design with class A approval to ISO 15848-1. Classed 'FE', products specified with these bonnet assemblies are certified as **ISO FE AH-C01-SSA1-t(RT,180°C)-ANSI2500-ISO 15848-1**. These products are further classified as meeting the ISO 15848-1 standard with the following criteria.

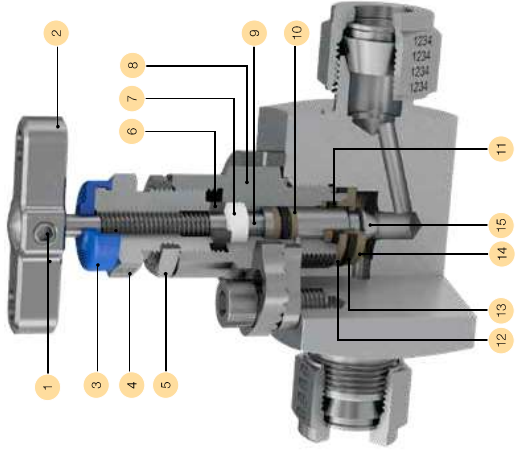
- Class A tested with Helium
- Endurance class C01 – a mechanical valve which has been tested throughout 500 mechanical actuations with two thermal cycles
- Temperature class RT-180°C – fully thermal cycled and tested from -29°C to +180°C pressure class ANSI 2500 – 6000 psi in 316 Stainless Steel.

Part 2 of the 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. Parker can offer production testing and certification to a sampling percentage specified by the purchaser. A third party witnesses can also be considered.

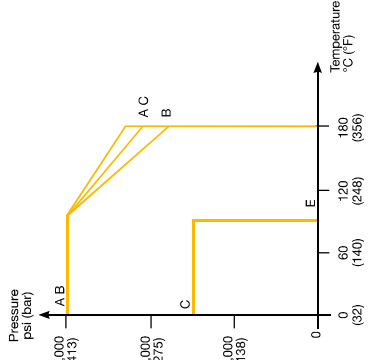


# Bonnet Assemblies

Low emission bonnet design



Pressure vs temperature



Reference	Description
A - A	Graphite packing
A - B	PTFE packing
B - B	6,000 PSI (414 bar) standard PTFE packing
B - C	6,000 PSI (414 bar) standard PTFE packing
A - D	PEEK tip
C - E	PCTFE tip

# Bonnet assembly options

Available as a factory fit or as retrofit, these useful bonnet assembly options are provided in all 316 Stainless Steel material. For locking options padlocks are not provided but the hole size in all cases is 6mm (0.24"). To obtain factory fit options, your specified product part number must be suffixed with the additional option part numbers as below. Some options can be combined.



T bar handle locking	
Retrofit Kit Part Number	KITTHL
Factory Fitted Suffix	HL



Handwheel	
Retrofit Kit Part Number	KITTHW
Factory Fitted Suffix	HW



Anti-tamper spindle	
Retrofit Kit Part Number	KITAK
Factory Fitted Suffix	ATK
With Key	Without Key
Without Key	AT



Lockable handwheel	
Retrofit Kit Part Number	KITLHW
Factory Fitted Suffix	LHW



Key	
Key only Part Number	ATHKEY



Anti-tamper handwheel	
Key only Part Number	ATHWKEY



Panel mounting	
Retrofit Kit Part Number	KITPM
Factory Fitted Suffix	PM
Hole Diameter	26mm (1.02")
Panel Thickness	Max. 5mm (0.20") Min. 2.3mm (0.09")
Min. distance for panel mount spacing	51mm (2.00")





# Mounting Brackets

Brackets for remote/line mount manifolds and gauge valves

It is essential to fully support impulse/pressure measurement tubing lines, manifolds and instruments. For this reason, all Parker manifolds are designed to accommodate bracket mounting and support.

A full range of bracket mounting kits can be supplied fully assembled to the manifolds, or supplied separately for on-site installation. Available in either all carbon or all stainless steel, they are specifically matched to Parker manifolds to ensure the clearance needed to offer all other items necessary to complete your installations, including the 2"NB pipe stands, tubing clamps, cable/tube trays, populated enclosure solutions and much more. For further information please contact your local Parker support.

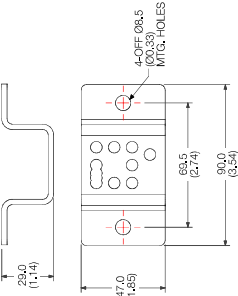
## Brackets for 2-valve remote mount manifolds - BKT1



Image shown: Part No.: HLS2VBK



Image shown: Part No.: BKT1SSB1



### How to order:

Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolt and manifold Bolt Kit (Nuts and washers: M5 x 45 Bolt (2-OFF))	BKT1CSB1		HL-2V
		BKT1SSB1	HL-2V/8MB4F
			HAL-2V
			HLLHV2V

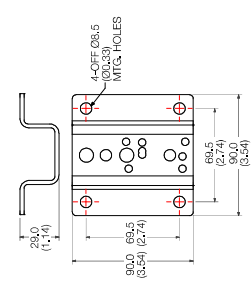
## Brackets for 2-valve remote mount manifolds and 3-valve DBB manifolds - BKT2



Image shown: Part No.: HLS3DBBK



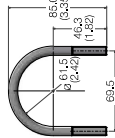
Image shown: Part No.: BKT2SSB2



### How to order:

Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M5 x 45 Bolt (2-OFF))	BKT2CSB1	BKT2SSB1	HAL-2V/HP HLTF-2V
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M10 x 12 Bolt (2-OFF))	BKT2CSB2	BKT2SSB2	HL-3DBB HL-3DBB1

## 'U' bolt with nuts and washers for 2" NB standpipe



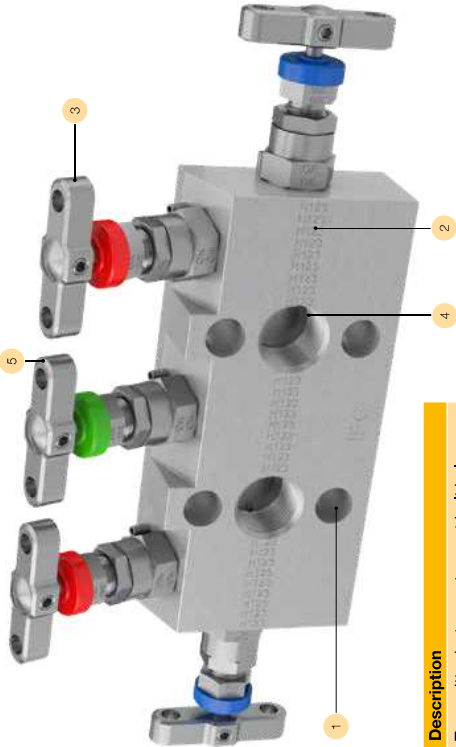
Bracket kits include U bolts with nuts and washers.

# 3 and 5-Valve Manifolds - H Series

## Introduction

Combining three or five bonnet assemblies into one block, this Parker 3 and 5-valve manifolds range is primarily used in applications requiring Differential Pressure Transmitters, Gauges and/or Chart Recorders mainly for the purpose of flow measurement. In some circumstances, differential pressure measurement will also be used in other applications, such as level or filtration.

In combination with Parker A-LOK® or CPI™ compression tube fittings and PTFree connect™ technologies, a superior advantage is gained allowing users to eliminate threaded connections and reduce leak paths, whilst offering superior installation and operational performance.



Reference	Description
1	Transmitter instrument mount bolt holes
2	Material heat code traceability
3	Ergonomic T-bar operator
4	Process inlet connection
5	Transmitter equalise valve

BLUE	Isolate/block
RED	Drain/vent/test
GREEN	Equalise

We are confident you will find a manifold style, type and connection option to suit your applications, but should you require something different or need assistance to make your selection, please contact your local Parker support.

These manifolds are widely used in situations where a differential pressure measurement device requires maintenance, offering safe isolation to allow venting/drainage and calibration of that device. They also provide the means for removal and re-installation of an instrument in a live process situation. They are used in every industry in a wide range of applications - everywhere where accurate and secure pressure measurement of steam, air, gas, oil, water or other non-viscous liquids is required.

These manifolds are available in a remote (or line) mount and in a direct mounting style for bolting directly to the face of Differential Pressure Transmitters with an array of input connection styles and types. The unique Parker superior advantage in this regard is being the ability to create a threadless leak-free hook up. Where additional operational security or functionality is required, a number of differing flow path configurations and additional ports are available to allow purging upstream or downstream of the isolation valves.



Example shown: 3-valve direct mount manifold with NPT connections and additional test/purge ports.

## 3-Valve Manifolds - H Series

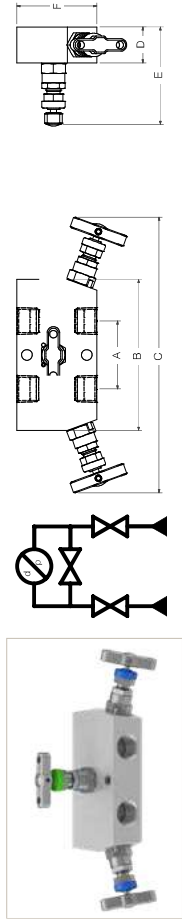
### Remote/line mount

These 3-valve remote mount manifolds combine three needle valves into one unitised block to create isolation for the instrument impulse lines and an Equalisation feature to assist in installation and maintenance of the remotely connected instrument(s). They are truly flexible having a multitude of available connection options.



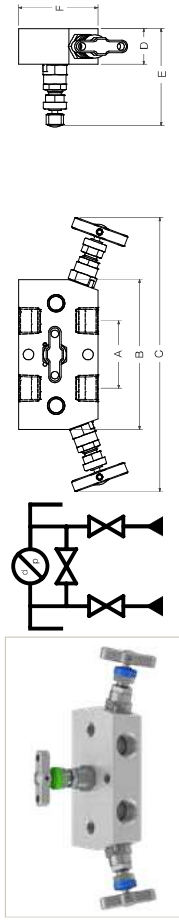
Example shown: 3-valve remote/line mount manifold featuring the Parker A-LOK® Superior Advantage inverted integral tube fitting connections.

**HL\*3M - Female x Female threaded - NPT**



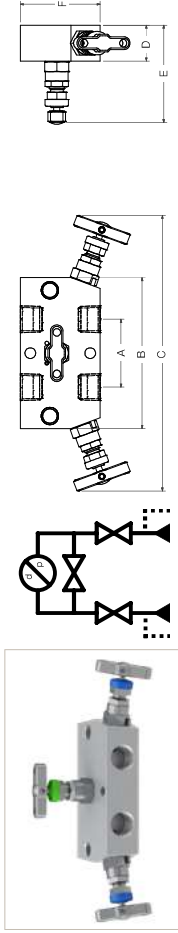
Pressure PSI	Inlet	Outlet	Dimension					
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)	F mm (inch)		
6,000	54.0 (2.125)	120.0 (4.72)	220.0 (8.66)	28.6 (1.13)	79.4 (3.13)	63.5 (2.50)		
10,000	54.0 (2.125)	132.0 (5.20)	232.0 (9.14)	31.8 (1.25)	82.6 (3.25)	63.5 (2.50)		

**HL\*3MDTP - Female x Female threaded - NPT with downstream test ports**



Pressure PSI	Inlet	Outlet	Drain/Bleed/ Test	Dimension					
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)	F mm (inch)			
6,000	54.0 (2.125)	120.0 (4.72)	1/4" NPT	220.0 (8.66)	28.6 (1.13)	79.4 (3.13)			

**HL\*3MUPP - Female x Female threaded - NPT with upstream purge ports**



Pressure PSI	Inlet	Outlet	Drain/Bleed/ Test	Dimension					
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)	F mm (inch)			
6,000	54.0 (2.125)	120.0 (4.72)	1/4" NPT	220.0 (8.66)	28.6 (1.13)	79.4 (3.13)			

## 5-Valve Manifolds - H Series

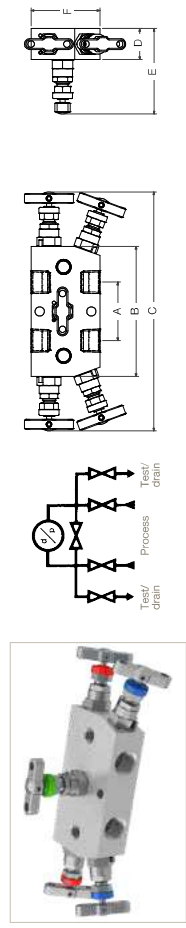
### Remote/line mount

These 5-valve remote mount manifolds combine five needle valves into one unitised block to create isolation for the instrument impulse lines and an Equalisation feature to assist in installation and maintenance of the remotely connected instrument(s). They also incorporate vent/drain or calibration valves and ports. These manifolds are truly flexible, having a multitude of available connection options and are suitable for use in many applications including those utilising Differential Pressure Gauges.



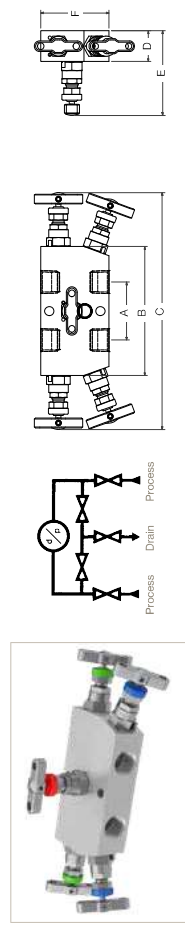
Example shown: 5-valve remote/line mount manifold featuring the Parker A-LOK® Superior Advantage inverted integral tube fitting connections for the impulse line and NPT ported connections for the vent/drain.

**HL\*5M - Female x Female threaded - NPT**



Pressure PSI	Inlet	Outlet	Bleed /Test	Dimension					
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)	F mm (inch)			
6,000	54.0 (2.125)	120.0 (4.72)	1/4" NPT	221.6 (8.72)	28.6 (1.13)	79.4 (3.13)			
10,000	54.0 (2.125)	132.0 (5.20)	1/4" NPT	233.6 (9.20)	31.8 (1.25)	82.6 (3.25)			

**HL\*5MCT - Female x Female threaded - NPT**



Pressure PSI	Inlet	Outlet	Bleed /Test	Dimension					
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)	F mm (inch)			
6,000	54.0 (2.125)	120.0 (4.72)	1/4" NPT	221.6 (8.72)	28.6 (1.13)	79.4 (3.13)			

# 3 and 5-Valve Manifolds – Remote/Line Mount

## Ordering information

- Example 1 (Default): HL55M  
Example 2: HL6MO3M4NHPATEBKSNK  
Example 3: HL6MO3MUPPPFA44PKPOX  
Example 4: HL55MSW83PATKVBKNC  
Example 5: HL55MCTPFCAM126ATKE  
Example 6: HL6MO5MIVAM12PFCAM6

HL	S	5M				HPATEBKSNK
HL	6MO	3M	4N			PKPOX
HL	6MO	3MUPP	PFA44			3PATKVBKNC
HL	S	5M	SW8			ATKE
HL	S	5MCT	PFCAM126			
HL	6MO	5M	IVAM12			PFCAM6

Series	Flat barstock remote/line mount/pipe to pipe/thread to thread manifolds					
Materials						
S	316/316L Stainless Steel	HC	Alloy C276			
6MO	6MO Sup. Aust. St. Steel	T	Titanium Gr. 2 <sup>1</sup>			
M	Alloy M400 <sup>1</sup>	825	Alloy 825			
D1	Duplex 22 Cr. Steel	825	Alloy 825			
D2	Super Duplex 25 Cr. Steel	C	Carbon Steel <sup>2</sup>			
<sup>1</sup> This material selection down-rates manifold. <sup>2</sup> For Carbon Steel consult your local Parker representation.						
Application Configuration						
3M	3-valve, isolate and equalise					
3MDTP	3-valve, isolate and equalise with downstream vent/drain/bleed/test ports					
3MUPP	3-valve, isolate and equalise with upstream purge ports					
5M	5-valve, isolate, equalise with vent/test/bleed					
5MCT	5-valve, isolate, equalise with vent/test/bleed suitable for Custody Transfer applications					
Connections - Standard Options						
	Inlet	Outlet	Vent			
*	1/2" NPT Fern.	1/2" NPT Fern.	1/4" NPT Fern.			
4N	1/4" NPT Fern.	1/4" NPT Fern.	1/4" NPT Fern.			
4K	1/4" BSPP Fern.	1/4" BSPT Fern.	1/4" BSPT Fern.			
4R	1/4" BSPP Fern.	1/4" BSPP Fern.	1/4" BSPT Fern.			
8K	1/2" BSPP Fern.	1/2" BSPT Fern.	1/4" BSPT Fern.			
8R	1/2" BSPP Fern.	1/2" BSPP Fern.	1/4" BSPT Fern.			
SW8	1/2" NB Fern. SW <sup>3</sup>	1/2" NB Fern. SW <sup>3</sup>	1/4" NPT Fern.			
Optional Connections						
Type	Fitting	Unit	Inlet/Outlet	Bleed/Vent/ Drain		
IV	Inverted Connection			6 6mm		
	Tube OD <sup>4</sup>			10 10mm		
PF	PTFree connect	A A-LOK	M Metric	12 12mm		
	tube stub <sup>5</sup>			4 1/4"		
PFC	PTFree connect	Z CFI	I Imperial	6 3/8"	4F	1/4" NPT <sup>5</sup>
	male union <sup>6</sup>			8 1/2"		

\* 1/4" NPT Fern. is default standard for bleed/vent/drain, some model types may be available with other connections.

\* Default connection, no designator required.  
Default standard manifolds require no additional designators. Example: 1/2" NPT Fern. inlet & 1/2" NPT Fern. outlet & 1/4" NPT Fern. vent = HL5M (as above)  
As connection choices vary, all connections must be designated. **Examples:**  
• 1/2" BSPP Fern. inlet & 1/2" BSPP Fern. outlet & 1/4" NPT Fern. vent = 8R4F  
• 1/2" BSPP Fern. inlet & 1/2" BSPP Fern. outlet & 1/4" BSPP Fern. vent = 8R4K

<sup>3</sup> As standard, valves with Female Socket Weld connections will be of the same length as per the equivalent NPT pipe threaded variants.

**\*Examples:**  
• 10mm A-LOK inverted inlet/outlet & 1/4" NPT Fern. vent/drain = IVAM104F  
• 12mm A-LOK inverted inlet/outlet & 1/4" NPT Fern. vent/drain = IVAM126  
• 1/2" A-LOK inverted inlet/outlet & 6mm vent/drain = IVAM126  
• 1/2" A-LOK inverted inlet/outlet & 1/4" vent/drain = IVAB4

**\* Examples:**  
• 10mm A-LOK tube stub con. inlet/outlet & 1/4" NPT Fern. vent/drain = PFCAM104F  
• 3/8" CFI male union con. inlet/outlet & 1/4" NPT Fern. vent/drain = PFCZB4F  
• 12mm A-LOK male union con. inlet/outlet & 6mm A-LOK vent/drain = PFCAM126

5-valve remote mount, thread to thread 6,000 PSI manifold, manufactured from 316 Stainless Steel material having 1/2" NPT Fern. connections to inlets and outlets with 1/4" NPT Fern. connections to vents. Gland packing is PTFE.  
3-valve remote mount, thread to thread 10,000 PSI manifold, manufactured from 6MO material having 1/4" NPT Fern. connections to inlets and outlets. Gland packing is PTFE. Manifold has Anti-Tamper operation to the equalise valve, is fitted to a stainless steel mounting bracket assembly and complies to NACE.  
5-valve remote mount, tube to tube manifold, manufactured from 6MO material having 1/4" A-LOK PTFree tube stub con. to inlets and outlets. There are 2 additional 1/4" NPT Fern. connections to vents. Gland packing is PTFE.  
5-valve remote mount, 6,000 PSI manifold manufactured from 316 SS material having 1/2" NB Fern. socket weld con. to inlets and outlets with 1/4" NPT Fern. vent ports. Gland packing is Graphite. Manifold also includes Anti-Tamper operation to the vent valves, is fitted with a Carbon S mounting bracket assembly, and complies to NACE. One Anti-Tamper Key and two 1/4" NPT Flanking plugs are also supplied.  
5-valve remote mount, tube to tube manifold, manufactured from 6MO Aust. Stainless Steel material having Parker Superior Advantage 12mm A-LOK PTFree male union con. to inlets and outlets with 6mm A-LOK PTFree male union con. to the vent/drain/bleeds. Gland packing is PTFE. Manifold is fitted with Anti-Tamper operation to the equalise valve and supplied with one Anti-Tamper Key.  
5-valve remote mount, tube to tube manifold, manufactured from 6MO Aust. Stainless Steel material having Parker Superior Advantage 12mm A-LOK inverted tube connections to inlets and outlets with 6mm A-LOK PTFree male union connections to the vents. Gland packing is PTFE.

OPTIONS	
High Pressure - 10,000 PSI (689 bar) option	
HP	High Pressure
Gland Packing Options	
3	Graphite <sup>7</sup>
FS	Fresafe design <sup>8</sup>
Sealing Options - Needle Valves only	
6S	6mm bore seat <sup>9</sup>
RT	Regulating/Metering Tip
ST	Sellite Tip
9	PCTFE Soft Tip <sup>10</sup>
PK	PEEK Soft Tip
Plug/Bleed Valve Options <sup>11</sup>	
P	Blank Plug
BV	Bleed Valve/Plug
PBV	Blank Plug and Bleed Valve/Plug
Operator Options <sup>12</sup>	
HW	Handwheel for all valves
LHW	Handwheel Locking for all valves
TLH	T Bar Locking for all valves
AT	Anti-Tamper for all valves <sup>13</sup>
ATK	Anti-Tamper for all valves with Key <sup>14</sup>
ATHKEY	Anti-Tamper Key <sup>14</sup>
Mounting Options	
BK	Assembled with Carbon Steel bracketry & bolts
BKS	Assembled with Stainless Steel bracketry & bolts
Other Options	
OX	Cleaned & lubricated for Oxygen use
NC	NACE MR-01-75 Compliant
M*	Assembly and Test of Free Issue Instrument

<sup>7</sup> Not required when Fresafe design option (FS) selected.  
<sup>8</sup> Not available for PCTFE Soft Tip (9) or Oxygen use (OX).  
<sup>9</sup> 6mm bore seat and other flow passages not available on all selections. Please consult your local Parker support.  
<sup>10</sup> 3,000 PSI/207 BAR only. See main catalogue page.  
<sup>11</sup> Plugs supplied loose in a packing box. See page 61.  
<sup>12</sup> These options can be specified to independent valves:  
Add **E** to specify assembly to Equalise valve only.  
Add **W** to specify assembly to Vent/Drain/Bleeds.  
Add **V** to specify assembly to Vents/Drains/Bleeds.  
Examples:  
• **HW** = Handwheel to Vents/Drains/Bleeds.  
• **ATE** = Anti-Tamper to Equalise valve.  
<sup>13</sup> Anti-Tamper operation and no Key.  
<sup>14</sup> Anti-Tamper operation and one Key supplied per manifold.  
<sup>15</sup> Specify quantity required as separate line item.

\* Specify assembly and test option - see page 71.

### IMPORTANT NOTES:

- For optimum results in integral tube connections on manifolds, the use of Parker pre-assembly tooling is highly recommended. For inverted style integral tube connections the use of Parker pre-assembly tooling is mandatory.
- Not all options/combinations are available in each single product model type.
- We reserve the right to review/revise this part number structure at any time. If necessary, we can refuse and/or recommend the most suitable alternative part number(s). We may also apply MOQ rules.
- Should your part number selection exceed 25 characters in length when completed, then it is likely to be incorrect, please consult your local Parker representation for assistance.
- If in any doubt, please consult your local Parker representation.

# Mounting Brackets

Brackets for remote/line mount manifolds and gauge valves

## Brackets for 3 and 5-valve remote mount manifolds - BKT2

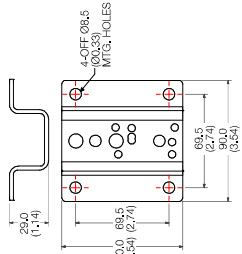
- Universal manifold mounting bracket, suitable for all remote mount manifolds
- Allows 90 degree positioning enabling total installation flexibility and prevents handle obstruction
- Can be wall, standpipe or base mounted



Image shown: Part No.: HLS5MBK



Image shown: Part No.: BKT2SSB5



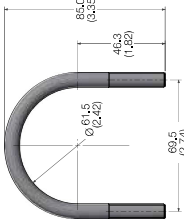
## How to order:

Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolt and manifold Bolt Kit (Nuts and washers: M8 x 45 Bolt (2-OFF))	BKT2CSB5	BKT2SSB5	HL*3M HL*3MDTP HL*5M HL*5MHP

## 'U' bolt with nuts and washers for 2" NB standpipe



Bracket kits include U bolts with nuts and washers.



# 2-Valve Manifolds - H Series

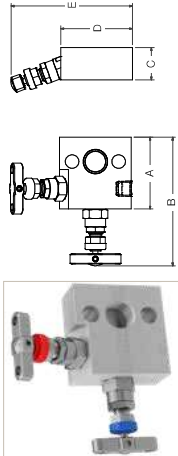
## Direct mount

Combining two needle valves into one unitised block, this 2-valve manifolds range is also referred to as a Block and Bleed. Isolate and Calibrate or even Isolate and Vent/Drain. These manifolds are specifically designed for direct connection to absolute/gauge pressure transmitters, having bolted interface conforming to DIN/IEC 61518 Type B as standard, and type A available by request. With additional mounting holes and a wide range of bracketry, these manifolds can also be utilised as support for the instrument within any installation.



Example shown: 2-valve manifold with inverted integral A-LOK® connections.

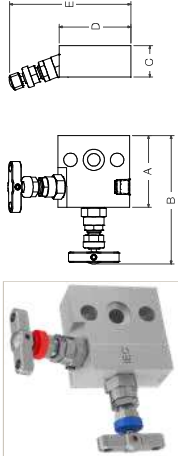
## HD\*2M - Female threaded - NPT x Flanged



Pressure (PSI)	Inlet	Outlet	Bleed /test	Dimension				
				A	B	C	D	E
6,000	1/2" NPT	Flanged	1/4" NPT	63.5 (2.50)	114.3 (4.50)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

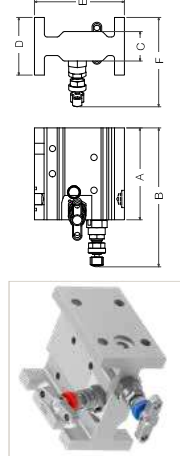
HD\*2MFD variant available with vent/bleed/drain connection on same face as process inlet.

## HD\*2MFF - Flanged x Flanged (straight through bolted flange)



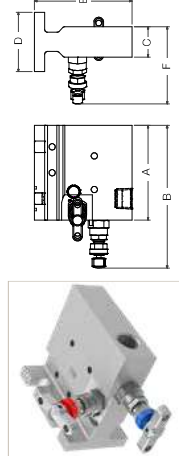
Pressure (PSI)	Inlet	Outlet	Bleed /test	Dimension				
				A	B	C	D	E
6,000	Flanged	Flanged	1/4" NPT	63.5 (2.50)	114.3 (4.50)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

## HEH\*2 - Flanged x Flanged



Pressure (PSI)	Inlet	Outlet	Bleed /test	Dimension				
				A	B	C	D	E
6,000	Flanged Flanged	Flanged	1/4" NPT	98.5 (3.88)	149.3 (5.88)	31.8 (1.25)	62.0 (2.44)	95.8 (3.77)

## HET\*2 - Female threaded - NPT x Flanged



Pressure (PSI)	Inlet	Outlet	Bleed /test	Dimension				
				A	B	C	D	E
6,000	1/2" NPT	Flanged	1/4" NPT	98.5 (3.88)	149.3 (5.88)	31.8 (1.25)	62.0 (2.44)	101.6 (4.00)



# 3-Valve Manifolds - H Series

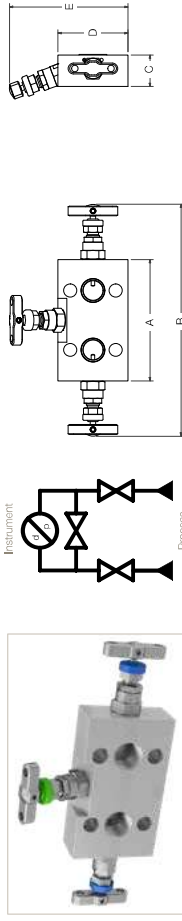
## Direct mount

These 3-valve direct mount to differential pressure transmitter manifolds combine three needle valves into one unitised block to create isolation for the instrument impulse lines and an Equalisation feature to assist in installation and maintenance. They comply fully with IEC 61518 and have a multitude of advantageous connection & application options.



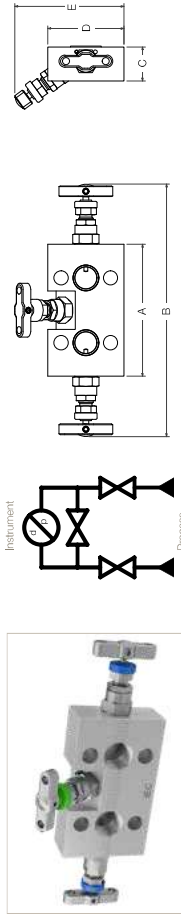
Example shown: 3-valve manifold with PTFree connect™ connection.

### HD\*3M - Female threaded - NPT x Flanged



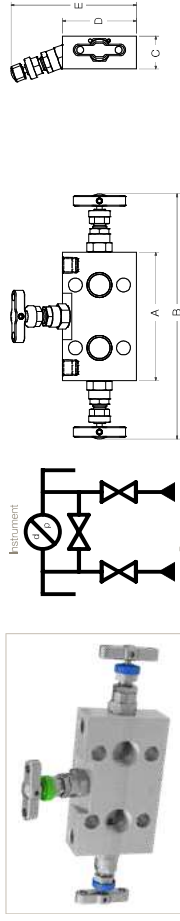
Inlet	Outlet	Dimension				
		A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)
1/2" NPT	Flanged	110.0 (4.33)	211.6 (8.33)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

### HD\*3MA - Female threaded - NPT x Flanged



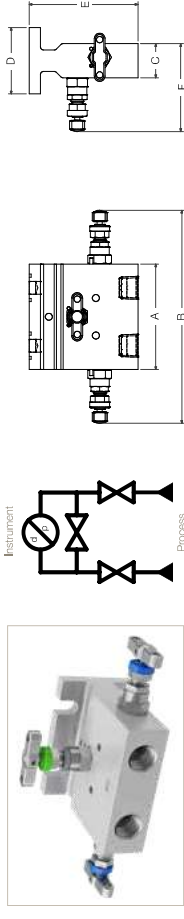
Inlet	Outlet	Dimension				
		A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	E mm (inch)
1/2" NPT	Flanged	110.0 (4.33)	211.6 (8.33)	28.6 (1.13)	63.5 (2.50)	91.0 (3.58)

### HD\*3MDTP - Female threaded - NPT x Flanged with downstream test ports



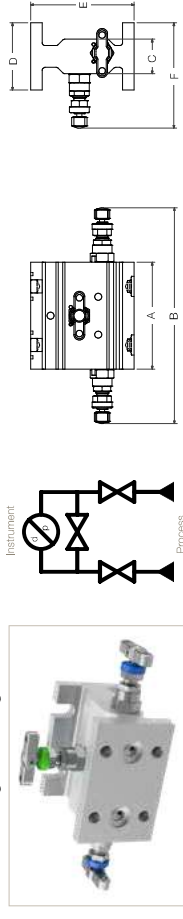
Inlet	Outlet	Dimension				
		A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	F mm (inch)
1/2" NPT	Flanged	33.0 (1.30)	110.0 (4.33)	211.6 (8.33)	28.6 (1.13)	107.6 (4.24)

### HET\*3 - Female threaded - NPT x Flanged



Inlet	Outlet	Dimension				
		A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	F mm (inch)
1/2" NPT	Flanged	98.5 (3.88")	200.1 (7.88")	31.8 (1.25")	62.0 (2.44")	82.6 (3.25")

### HEH\*3 - Flanged x Flanged



Inlet	Outlet	Dimension				
		A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)	F mm (inch)
Flanged	Flanged	98.5 (3.88")	200.1 (7.88")	31.8 (1.25")	62.0 (2.44")	97.7 (3.85")

## Recognising and understanding the direct mount transmitters\*



Typical installation

- Manifolds mount to this IEC compliant interface
- Pressure applications utilise 2-valve manifolds bolted with 2 bolts
  - Differential applications utilise 3 or 5-valve manifolds bolted with 4 bolts

7/16" UNF mounting holes

Connection centres are 2 1/8" (54mm)

Bolt hole centres are 2 1/8" (54mm) x 1 5/8" (41mm)

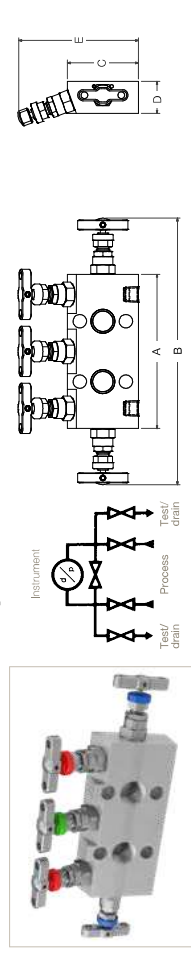
\* Not Emerson Coplanar™ types – For Coplanar™ please see page 55.

# 5-Valve Manifolds - H Series

## Direct mount

These 5-valve direct mount to differential pressure transmitter manifolds combine five valves into one block, creating isolation for the instrument impulse lines and an Equalisation feature to assist in installation & maintenance. They additionally offer independent vent/drain/bleed/calibration facilities with their own individual ports. These manifolds comply fully with IEC 61518. They also feature multitude of advantageous connection & application options.

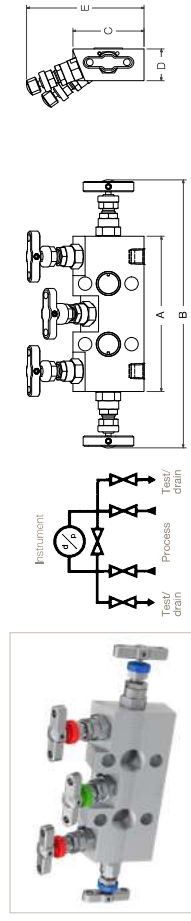
### HD\*5M - Female threaded - NPT x Flanged



Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2" NPT	Flanged	1/4" NPT	138.0 (5.43)	239.6 (9.43)	63.5 (2.50)	28.6 (1.13)	107.6 (4.24)

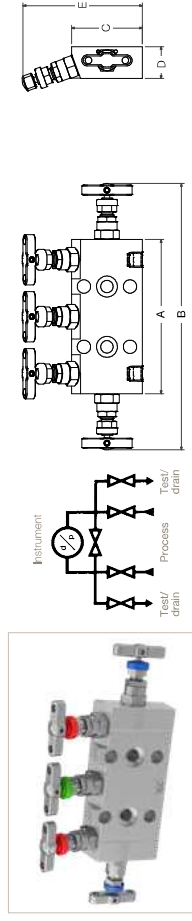
HD\*5MFD variant available with vent/bleed/drain connections on same face as process inlet.

### HD\*5MA - Female threaded - NPT x Flanged



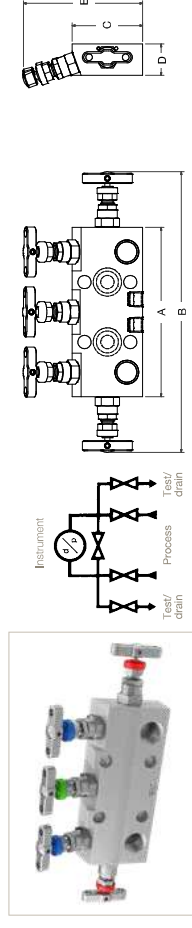
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2" NPT	Flanged	1/4" NPT	138.0 (5.43)	239.6 (9.43)	63.5 (2.50)	28.6 (1.13)	104.7 (4.12)

### HD\*5MFF - Flanged x Flanged (straight through bolted flange)



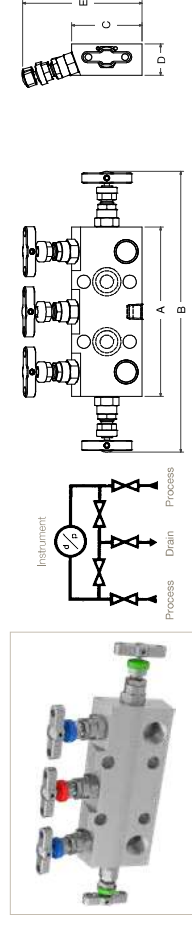
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
Flanged	Flanged	1/4" NPT	138.0 (5.43)	239.6 (9.43)	63.5 (2.50)	28.6 (1.13)	107.6 (4.24)

### HD\*5 - Female threaded - NPT x Flanged



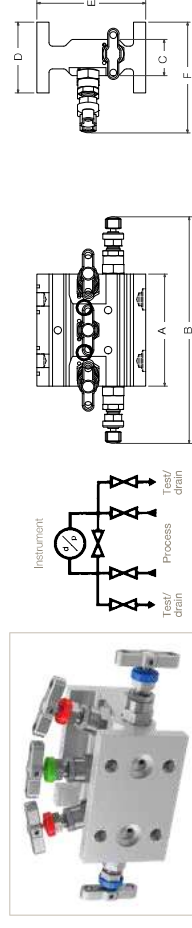
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2" NPT	Flanged	1/4" NPT	152.4 (6.00)	254.0 (10.00)	63.5 (2.50)	28.6 (1.13)	107.6 (4.24)

### HD\*5CT - Female threaded - NPT x Flanged



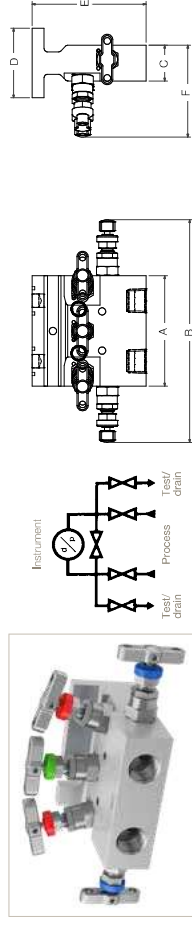
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2" NPT	Flanged	1/4" NPT	152.4 (6.00)	254.0 (10.00)	63.5 (2.50)	28.6 (1.13)	107.6 (4.24)

### HEH\*5 - Flanged x Flanged



Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	F
Flanged	Flanged	1/4" NPT	98.5 (3.88")	200.1 (7.88")	31.8 (1.25")	62.0 (2.44")	97.7 (3.85")

### HEH\*5 - Female threaded - NPT x Flanged



Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	F
1/2" NPT	Flanged	1/4" NPT	98.5 (3.88")	200.1 (7.88")	31.8 (1.25")	62.0 (2.44")	82.6 (3.25")

# 2, 3 and 5-Valve Manifolds – Direct Mount

## Ordering information

Example 1 (Default): HDS5M

Example 2: HDS5MASB3PBKSNC

Example 3: HDM5MADA

Example 4: HDS5M4ANDAATKVOXNC

Example 5: HEHS3DTP3ATE

Example 6: HETS5CTP

Example 7: HETS5DAIVAM104F3PBKS

Example 8: HDM5MADAPFCAM126PKNC

HD	S	5	M						
HD	S	5	M	A					SB3PBKS
HD	M	5	M	A			DA		
HD	S	5	M			4NDA			ATKVOXNC
HEH	S	3	DTP						3ATE
HET	S	5	CT						P
HET	S	5				DAIVAM104F			3PBKS
HD	M	5	M	A		DAPFCAM126			PKNC

Series										
HD <sup>1</sup>	Flat barstock direct mount, pipe to flange/thread to flange manifolds - Process connections 108.0 mm (4 1/4") CTRS									
HET <sup>1</sup>	Extruded T-section direct mount, pipe to flange/thread to flange manifolds									
HEH <sup>2</sup>	Extruded H-section direct mount, flange to flange manifolds									
<sup>1</sup> Default standard connections for pipe/thread to flange are: 1/2" NPT Fem. inlet with DIN IEC B outlet, 1/2" NPT Fem. vent/drain with 1/4" NPT Fem. vent/drain/bleeds/purge or test ports - where specified. <sup>2</sup> Default standard connections for flange to flange are: DIN IEC 61518 inlet to manifold/transmitter interface with DIN IEC B outlet with 1/4" NPT Fem. vents/drains/bleeds/purge or test ports - where specified.										
Materials										
S	316/316L Stainless Steel	HC	Alloy C276							
6MO	6MO Sup. Aust. St. Steel	T	Titanium Gr. 2 <sup>a</sup>							
M	Alloy M400 <sup>b</sup>	825	Alloy 825							
D1	Duplex 22 Cr. Steel	625	Alloy 625							
D2	Super Duplex 25 Cr. Steel	C	Carbon Steel <sup>c</sup>							
<sup>a</sup> Default standard connections for pipe/thread to flange are: 1/2" NPT Fem. inlet with DIN IEC B outlet, 1/2" NPT Fem. vent/drain with 1/4" NPT Fem. vent/drain/bleeds/purge or test ports - where specified. <sup>b</sup> Default standard connections for flange to flange are: DIN IEC 61518 inlet to manifold/transmitter interface with DIN IEC B outlet with 1/4" NPT Fem. vents/drains/bleeds/purge or test ports - where specified.										
<sup>c</sup> This material selection down-rates manifold.										
<sup>d</sup> For Carbon Steel consult your local Parker representation.										
Number of Valves/Configuration										
2	2-valve, block & bleed/isolate & calibrate/vent/drain									
3	3-valve, isolate & equalise for DP applications									
5	5-valve, isolate, equalise & calibrate/bleed/vent/drain for DP applications									
For Flat Barstock Manifolds only (HD Series)										
M	Process Connections 54.0 mm (2 1/4") CTRS									

<sup>a</sup> For flat barstock manifolds only.

<sup>g</sup> For 5-valve manifolds only.

<sup>h</sup> For 3-valve manifolds only.

Connections - Standard Options					Vent/Drain/Bleed/ Test/Purge	
Inlet	Outlet				Inlet	Outlet
**	1/2" NPT Fem.	DIN IEC B Flange Interface	1/4" NPT Fem.		6	6mm
**	DIN IEC	DIN IEC B Flange Interface	1/4" NPT Fem.		10	10mm
4N	1/4" NPT Fem.	DIN IEC B Flange Interface	1/4" NPT Fem.		12	12mm
4R	1/4" BSPT	DIN IEC B Flange Interface	1/4" BSPT Fem.		4F	1/4" NPT <sup>11</sup>
4K	1/4" BSPP Fem.	DIN IEC B Flange Interface	1/4" BSPP Fem.			
8K	1/2" BSPT	DIN IEC B Flange Interface	1/4" BSPP Fem.			
8R	1/2" BSPP	DIN IEC B Flange Interface	1/4" BSPP Fem.			
SW8	1/2" NB Fem. SW <sup>a</sup>	DIN IEC B Flange Interface	1/4" NPT Fem.			
#DA	# Select from above	DIN IEC A Flange Interface	1/4" NPT Fem.			

Optional Connections					Bleed/Vent/ Drain	
Type	Fitting	Unit			Inlet	Outlet
IV	Inverted Connection				6	6mm
PT	Tube OD				10	10mm
PF	PT/Fee connect tube sub <sup>a</sup>	A A-LOK			12	12mm
PFC	PT/Fee connect male union <sup>a</sup>	Z CPI			4	1/4"
		I Imperial			6	3/8"
					8	1/2"

HD	S	5	M						
HD	S	5	M	A					SB3PBKS
HD	M	5	M	A			DA		
HD	S	5	M			4NDA			ATKVOXNC
HEH	S	3	DTP						3ATE
HET	S	5	CT						P
HET	S	5				DAIVAM104F			3PBKS
HD	M	5	M	A		DAPFCAM126			PKNC

OPTIONS	
Instrument Bolt Options	
SB	316 Stainless Steel bolt <sup>11</sup>
CB	3" long Carbon Steel bolt <sup>12</sup>
CSB	3" long 316 Stainless Steel bolt <sup>12</sup>
Gland Packing Options	
3	Graphite <sup>13</sup>
Seating Options - Needle Valves only	
FS	Firesafe design <sup>14</sup>
RT	Regulating/Metering Tip
ST	Stellite Tip
9	PCTFE Soft Tip <sup>15</sup>
PK	PEEK Soft Tip
Plug/Bleed Valve Options <sup>16</sup>	
P	Blank Plug
BV	Bleed Valve/Plug
PBV	Blank Plug and Bleed Valve/Plug
Operator Options <sup>17</sup>	
HW	Handwheel
LHW	Handwheel Locking
THL	T Bar Locking
ATL*	Anti-Tamper <sup>a</sup>
ATK*	Anti-Tamper with Key <sup>18</sup>
ATKEY	Anti-Tamper Key <sup>19</sup>
Mounting Options	
BK	Assembled with Carbon Steel bracketry & bolts
BKS	Assembled with Stainless Steel bracketry & bolts
Other Options	
OX	Cleaned & lubricated for Oxygen use
NC	NACE MR-01-75 Compliant
M*	Assembly and Test of Free Issue Instrument

<sup>11</sup> Carbon Steel bolt as standard. No designator required.  
<sup>12</sup> Extra length bolts to be specified when utilising these manifolds with Emerson Coplanar<sup>TM</sup> type transmitter with the traditional adaptor flange.

<sup>13</sup> Not required when Firesafe design option (FS) selected.  
<sup>14</sup> Not available for PCTFE Soft Tip (9) or Oxygen use (OX).

<sup>15</sup> 3,000 PSI/207 BAR only. See catalogue page 14.

<sup>16</sup> Plugs supplied loose in a packing box. See page 61.

<sup>17</sup> These options can be specified to independent valves:  
Add E to specify assembly to Equalise valve only.  
Add V to specify assembly to Vent/Drain/Plug.  
Add B to specify assembly to Bleed Valve/Plug.  
Examples:  
• HWV = Handwheel to Vents/Drains/Bleeds.  
• HWB = Handwheel to Vents/Drains/Bleeds.  
• ATE = Anti-Tamper to Equalise valve.  
<sup>18</sup> Anti-Tamper operation and no Key.  
<sup>19</sup> Anti-Tamper operation and one Key supplied per manifold.  
<sup>20</sup> Specify quantity required as separate line item.

\* Specify assembly and test option - see page 71.

### IMPORTANT NOTES:

- For optimum results in integral tube connections on manifolds, the use of Parker pre-assembly tooling is highly recommended. For inverted style integral tube connections the use of Parker pre-assembly tooling is mandatory.
- Not all options/combinations are available in each single product model type.
- We reserve the right to review/revise this part number structure at any time. If necessary, we can refuse and/or recommend the most suitable alternative part number(s). We may also apply MOQ rules.
- Should your part number selection exceed 25 characters in length when completed, then it is likely to be incorrect, please consult your local Parker representation for assistance.
- If in any doubt, please consult your local Parker representation.

# Mounting Brackets

Brackets for direct mount manifolds

## Brackets for 2, 3 and 5-valve direct mount manifolds - BKT3

- Universal manifold mounting bracket, suitable for all direct mount manifolds
- This bracket design enables horizontal or vertical instrument positioning.



Image shown: Part No.: HDS2MBK



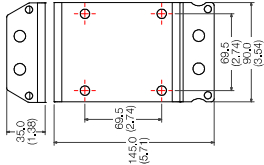
Image shown: Part No.: HDS3MBK



Image shown: Part No.: HDS5MBK



Image shown: Part No.: BKT3CSB2



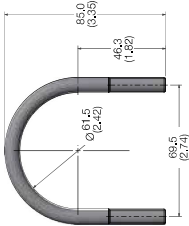
### How to order:

Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M10 x 12 Bolt (2-OFF))	BKT3CSB2	BKT3SSB2	2-valve 3 & 5-valve
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M10 x 12 Bolt (1-OFF))	BKT3CSB3	BKT3SSB3	HD'2M HD'2MFF

### 'U' bolt with nuts and washers for 2" NB standpipe



Bracket kits include U bolts with nuts and washers.



## Brackets for 5-valve direct mount HD\*5 style manifolds with increased process centres - BKT5

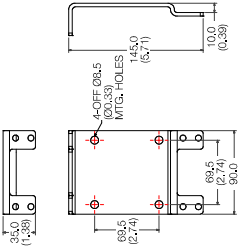
- Universal manifold mounting bracket, suitable for all direct mount manifolds
- This bracket design enables horizontal or vertical instrument positioning



Image shown: Part No.: HDS5BK



Image shown: Part No.: BKT5CSB6



### How to order:

Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M6 x 12 Bolt (4-OFF))	BKT5CSB6	BKT5SSB6	HD'5CT HD'5

## Brackets for 2, 3 and 5-valve direct mount extruded manifolds - BKT4

- Universal manifold mounting bracket, suitable for all direct mount extruded manifolds
- This bracket design enables horizontal or vertical instrument positioning.



Image shown: Part No.: HEHS2BK

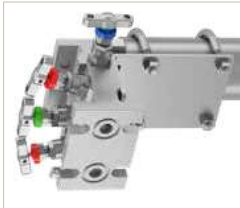
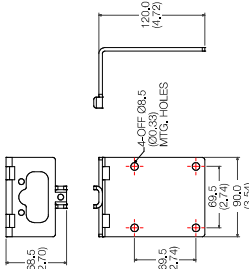


Image shown: Part No.: HEHS5BK



Image shown: Part No.: BKT4CSB4



### How to order:

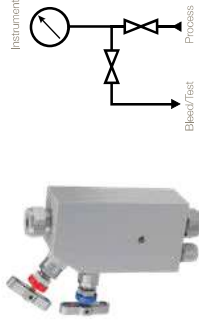
Item	Part Number		Suitable for Manifold Type
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	
Bracket with M8 'U' Bolt and manifold Bolt Kit (Nuts and washers: M6 x 45 Bolt (3-OFF))	BKT4CSB4	BKT4SSB4	2-valve 3 & 5-valve
			HEH'3 HEH'3 HEH'5 HEH'5CT HEH'5 HEH'5CT



# Base Connected Manifolds Especially Suited For Enclosure Mounting

## Introduction

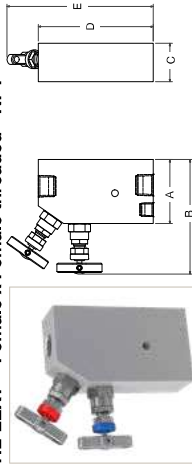
Suitable for vertical or horizontal installation, these base connection, base mounted manifolds can be utilised in stand-alone applications, but are especially suited for installation with transmitters within an instrument protection enclosure. They offer many benefits, including the ability to complete all connections outside of the enclosure itself. Combined with the Parker's own Instrument Advantage integral tube fitting connections, these represent the simplest, most efficient and reliable installation solutions available when protection is required.



Instrument

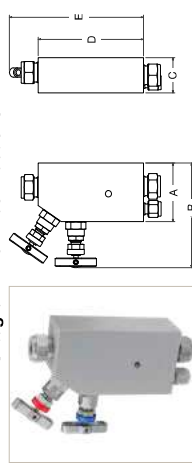
Example shown: 2-valve base connected manifold especially suited for use within enclosures, having Parker Superior Advantage fully integrated inverted style tube connections to inlet, outlet and vent/drain/bleed.

### HL\*2EXT - Female x Female threaded - NPT



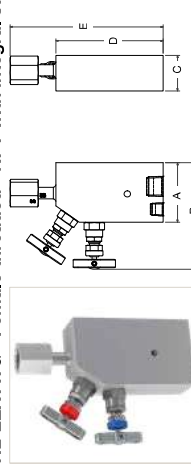
Pressure (PSI)	Inlet	Outlet	Bleed /Test	Dimension				
				A	B	C	D	E
6,000	NPT	NPT	NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
	1/2" F	1/2" F	1/4" F	63.5 (2.50)	114.3 (4.50)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

### HL\*2EXT - Integral A-LOK® connections



Pressure (PSI)	Inlet	Outlet	Bleed /Test	Dimension				
				A	B	C	D	E
6,000	A-LOK	A-LOK	A-LOK	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
	1/2"	1/2"	1/4"	63.5 (2.50)	114.3 (4.50)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

### HL\*2EXTWGW - Female threaded - NPT with integral swivel gauge adaptor

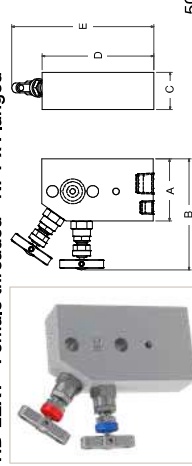


Pressure (PSI)	Inlet	Outlet	Bleed /Test	Dimension				
				A	B	C	D	E
6,000	NPT	BSPP*	NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
	1/2" F	1/2" F	1/4" F	63.5 (2.50)	114.3 (4.50)	38.1 (1.50)	114.3 (4.50)	162.8 (6.40)

\*In accordance with DIN 16284 - Swivel BSPP 1/2" Female

- Swivel adaptor to the outlet is provided through a socket weld, generally conforming to ANSI B16.11.
- Weld connection is a "commercial weld", completed by a qualified welder. Any specific qualification, certification, documentation or additional NDT, will require to be engineered and quoted extra – please consult your local Parker support.
- Union nut dimensions generally conform to DIN 16284 as it applies to the union of nipple and nut themselves.
- Union nut also conforms generally to DIN EN 837 for the gauge connection itself, as it applies to the union of nipple and nut themselves.

### HD\*2EXT - Female threaded - NPT x Flanged



Pressure (PSI)	Inlet	Outlet	Bleed /Test	Dimension				
				A	B	C	D	E
6,000	NPT	NPT	NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
	1/2" F	1/2" F	1/4" F	63.5 (2.50)	114.3 (4.50)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

### HD\*3EXT - Female threaded - NPT x Flanged



Process

Inlet	Outlet	Drain/Bleed/ Test	A	B	C	D	E
			mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
1/2" NPT	Flanged	Optional	114.3 (4.50)	215.9 (8.50)	88.9 (3.50)	38.1 (1.50)	114.3 (4.50)

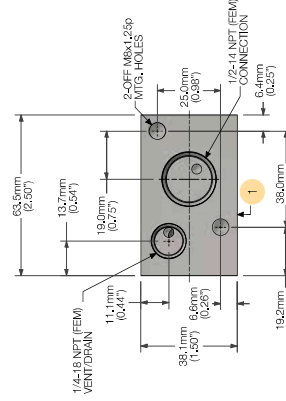
### HD\*5EXT - Female threaded - NPT x Flanged



Test/ drain

Inlet	Outlet	Drain/Bleed/ Test	A	B	C	D	E	F
			mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
1/2" NPT	Flanged	1/4" NPT	114.3 (4.50)	215.9 (8.50)	88.9 (3.50)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

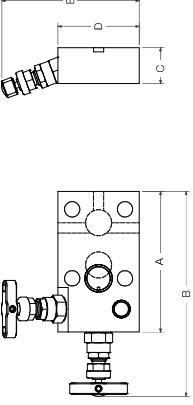
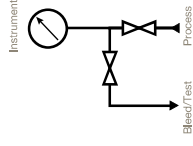
### Manifold base footprint dimensions





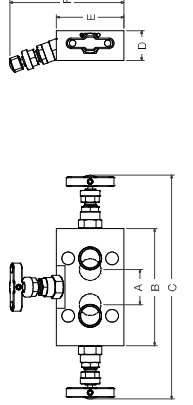
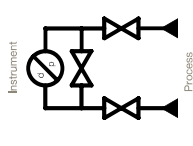
# Manifolds for 2051/3051 Coplanar™ Transmitters

HD\*2MCP - Female threaded - NPT x Flanged



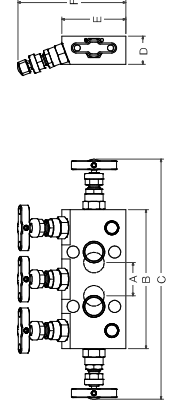
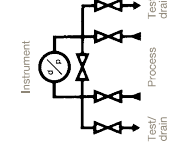
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2"NPT	Flanged	1/4" NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			110.0 (4.33)	160.8 (6.33)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

HD\*3MCP - Female threaded - NPT x Flanged



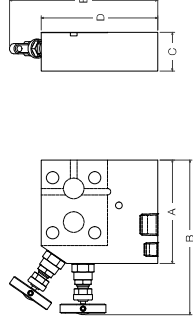
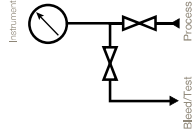
Inlet	Outlet	Bleed/Test	Dimension					
			A	B	C	D	E	F
1/2" NPT	For 3051	Optional	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			33.0 (1.30)	110.0 (4.33)	211.6 (8.33)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

HD\*5MCP - Female threaded - NPT x Flanged



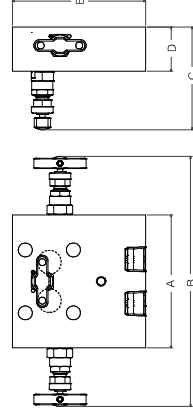
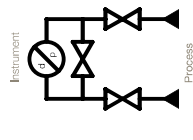
Inlet	Outlet	Bleed/Test	Dimension					
			A	B	C	D	E	F
1/2" NPT	Flanged	1/4" NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			33.0 (1.30)	138.0 (5.43)	239.6 (9.43)	28.6 (1.13)	63.5 (2.50)	107.6 (4.24)

HD\*2MCPEXT - Female threaded - NPT x Flanged



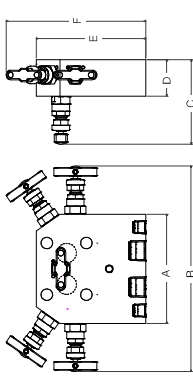
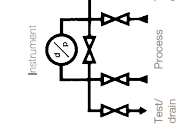
Inlet	Outlet	Bleed/Test	Dimension				
			A	B	C	D	E
1/2"NPT	Flanged	1/4" NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			101.6 (4.00)	151.8 (5.98)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

HD\*3MCPEXT - Female threaded - NPT x Flanged



Inlet	Outlet	Drain/Bleed/Test	Dimension				
			A	B	C	D	E
1/2" NPT	Flanged	Optional	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			114.3 (4.50)	215.9 (8.50)	88.9 (3.50)	38.1 (1.50)	114.3 (4.50)

HD\*5MCPEXT - Female threaded - NPT x Flanged



Inlet	Outlet	Drain/Bleed/Test	Dimension					
			A	B	C	D	E	F
1/2" NPT	Flanged	1/4" NPT	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
			114.3 (4.50)	215.9 (8.50)	88.9 (3.50)	38.1 (1.50)	114.3 (4.50)	145.5 (5.73)

# Manifolds for 2051/3051 Coplanar™ Transmitters

## Ordering information

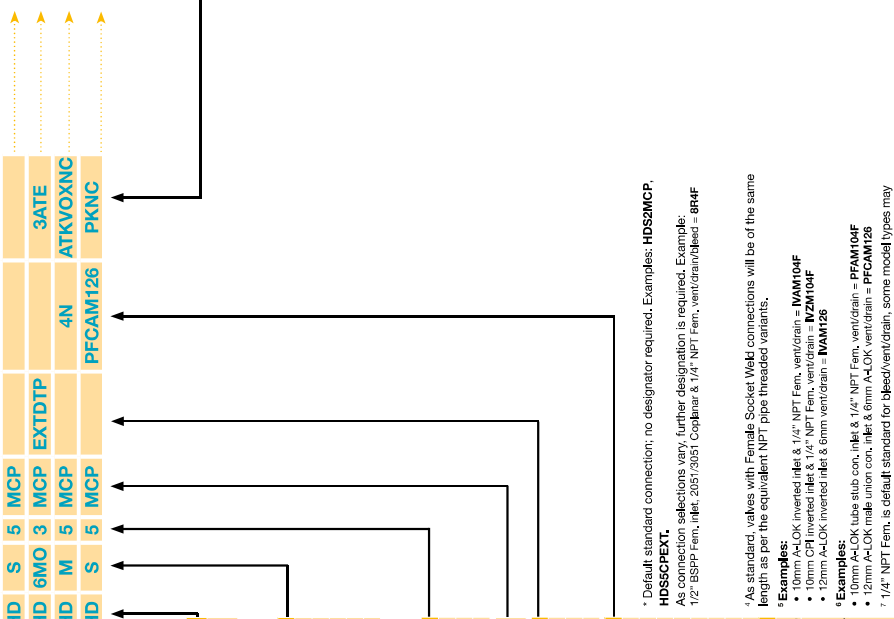
Example 1 (Default): HDS5MCP

Example 2: HD6MO3MCPEXTDTP3ATE

Example 3: HD5M5MCP4NATKVXNXC

Example 4: HDS5M5MCPPFCA126PKNC

Series											
HD	Flat barstock direct mount to instrument manifolds with 2051/3051 Coplanar™ style outlet flange <sup>1</sup>										
Defn	Default standard connections for pipe/thread to flange are: 1/2" NPT Fem. inlet with 2051/3051 Coplanar™ outlet flange and 1/4" NPT Fem. vents/drains/bleeds.										
Materials											
S	316/316L Stainless Steel	HC	Alloy C276								
6MO	6MO Sub. Aust. St. Steel	T	Titanium Gr. 2 <sup>2</sup>								
M	Alloy M400 <sup>3</sup>	825	Alloy 825								
D1	Durlex 22 Cr. Steel	625	Alloy 625								
D2	Super Duplex 25 Cr. Steel	C	Carbon Steel								
This material selection down-rates manifold. For Carbon Steel consult your local Parker representation.											
Number of Valves/Configuration											
2	2-valve, block & bleed/isolate & calibrate/vent/drain										
3	3-valve, isolate & equalise for DP applications										
5	5-valve, isolate, equalise & calibrate/bleed/vent/drain for DP applications										
MCP	Mandatory designator defining barstock manifold with traditional inlet centres and 2051/3051 Coplanar™ transmitter interface flange										
Application Configuration											
EXT	Extended body base mounting especially suitable for enclosures										
CT	Suitable for fiscal meter/in custody transfer applications, 5-valve versions only										
DTP	Downstream test ports, 3-valve versions only, 1/4" NPT only										
Connections - Standard Options											
Inlet		Outlet		Vent/Drain/Bleed/Test/Purge							
* 1/2" NPT Fem.	1/2" NPT Fem.	2051/3051	Coplanar	1/4" NPT Fem.							
4N 1/4" NPT Fem.	1/4" NPT Fem.	2051/3051	Coplanar	1/4" NPT Fem.							
4K 1/4" BSPP Fem.	1/4" BSPP Fem.	2051/3051	Coplanar	1/4" BSPP Fem.							
8K 1/2" BSPP Fem.	1/2" BSPP Fem.	2051/3051	Coplanar	1/4" BSPP Fem.							
8R 1/2" BSPP Fem.	1/2" BSPP Fem.	2051/3051	Coplanar	1/4" BSPP Fem.							
SW8 1/2" NB Fem. SW <sup>4</sup>	1/2" NB Fem. SW <sup>4</sup>	2051/3051	Coplanar	1/4" NPT Fem.							
Optional Connections											
Type	Fitting	Unit	Inlet	Outlet	Vent/Drain/ Bleed/Test/Purge						
IV Inverted Connection	A A-LOK	M Metric	6 6mm	10 10mm	2051/ 3051						
PF PTFree connect tube stub <sup>5</sup>	Z CPI	I Imperial	4 1/4"	4 1/4"	Coplanar						
PFC PTFree connect male union <sup>6</sup>			6 3/8"	8 1/2"							



OPTIONS	
Instrument Bolt Options	
SB	316 Stainless Steel bolt <sup>10</sup>
CB	3" long Carbon Steel bolt <sup>10</sup>
CSB	3" long 316 Stainless Steel bolt <sup>10</sup>
Gland Packing Options	
3	Graphite <sup>11</sup>
FS	Fresafe design <sup>11</sup>
Seating Options - Needle Valves only	
RT	Regulating/Metering Tip
ST	Stellite Tip
9	PCTFE Soft Tip <sup>12</sup>
PK	PEEK Soft Tip
Plug/Bleed Valve Options <sup>13</sup>	
P	Blank Plug
BV	Bleed Valve/Plug
PBV	Blank Plug and Bleed Valve/Plug
Operator Options <sup>14</sup>	
HW	Handwheel
LHW	Handwheel Locking
THL	T Bar Locking
AT*	Anti-Tamper <sup>15</sup>
ATK*	Anti-Tamper with Key <sup>16</sup>
ATHKEY	Anti-Tamper Key <sup>17</sup>
Mounting Options <sup>18</sup>	
BK	Assembled with Carbon Steel bracketry & bolts
BKS	Assembled with Stainless Steel bracketry & bolts
Other Options	
OX	Cleaned & Lubricated for Oxygen use
NC	NACE MR-01-75 Compliant
IN*	Assembly and Test of Free Issue Instrument

<sup>10</sup> Carbon Steel bolt as standard. No designator required.  
<sup>11</sup> Extra length bolts to be specified when utilising these manifolds with Enerson Coplanar™ type transmitter with the traditional adaptor flange.

<sup>12</sup> Not required when Fresafe design option (FS) selected.  
<sup>13</sup> Not available for PCTFE Soft Tip (9) or Oxygen use (OX).

<sup>14</sup> 3,000 PSI/207 BAR only. See main catalogue page.

<sup>15</sup> Plugs supplied loose in a packing box. See page 61.

<sup>16</sup> These options can be specified to independent valves:  
Add **HW** for assembly with handwheel only.  
Add **LHW** for assembly with handwheel locking only.  
Add **THL** to specify assembly to T-bar Locking.  
Add **V** to specify assembly to Vents/Drains/Bleeds.  
Examples:  
• **HWV** = Handwheel to Vents/Drains/Bleeds.  
• **ATE** = Anti-Tamper to Equalise valve.

<sup>17</sup> Anti-Tamper operation and no Key.  
<sup>18</sup> Anti-Tamper operation and one key supplied per manifold.  
<sup>19</sup> Suitable for use with Enerson Coplanar™ manifolds.  
<sup>20</sup> Mounting Options available on **EXT** option.

\* Specify assembly and test option - see page 71.

### IMPORTANT NOTES:

- For optimum results in integral tube connections on manifolds, the use of Parker pre-assembly tooling is highly recommended. For inverted style integral tube connections the use of Parker pre-assembly tooling is mandatory.
- Not all options/combinations are available in each single product model type.
- We reserve the right to review/revise this part number structure at any time. If necessary, we can refuse and/or recommend the most suitable alternative part number(s). We may also apply MOQ rules.
- Should your part number selection exceed 25 characters in length when completed, then it is likely to be incorrect, please consult your local Parker representation for assistance.
- If in any doubt, please consult your local Parker representation.



# Manifolds for 2051/3051 Coplanar™ Transmitters

Brackets for direct mount manifolds

## Brackets for 2, 3 and 5-valve direct mount manifolds - BKT3

- Universal manifold mounting bracket, suitable for all direct mount manifolds
- This bracket design enables horizontal or vertical instrument positioning.



Image shown: Part No.: HDS2MCPBK



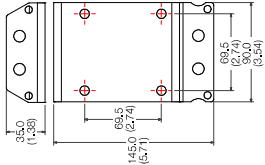
Image shown: Part No.: HDS3MCPBK



Image shown: Part No.: HDS5MCPBK



Image shown: Part No.: BKT3SSB2



### How to order:

Item	Part Number		Suitable for Manifold Type	
	Bracket material: Carbon Steel	Bracket material: Stainless Steel	2-valve	3 & 5-valve
Bracket with M8 'U' Bolts and manifold Bolt Kit (Nuts and washers: M10 x 12 Bolt (2-OFF))	BKT3CSB2	BKT3SSB2	HD'2MCP	HD'3MCP HD'5MCP

# Essential Manifold Accessories

## Introduction

To complement the entire manifold range and provide complete solutions for all applications, Parker offers the following accessory products. These are in addition to the wide range of brackets and mounting solutions found elsewhere in this catalogue (see pages 34, 40, 48, 49, 60).

Parker can also offer a diverse portfolio of tube fitting solutions and other products, all manufactured to the same exacting standards. Please consult your local Parker representative for further details and information.

## Pressure Blanking Plug (Code HPH)

Threaded high quality pressure blanking plug used in manifolds for the blanking off the vent/drain/bleed/test calibration ports, but also available separately for use where any female port requires to be closed off. Other thread type and sizes may be available.

### Ordering information:

Size	Part Number
1/4"	HPH'4M
1/2"	HPH'8M

\* Specify material

Materials				
S	316/316L Stainless Steel	HC	Alloy C276	
6MO	6MO Sup. Aust. St. Steel	T	Titanium Gr. 2	
M	Alloy M400	825	Alloy 825	
D1	Duplex 22 Cr. Steel	625	Alloy 625	
D2	Super Duplex 25 Cr. Steel			



## Pressure Bleed Plug (Code HBV)

Threaded high quality pressure blanking plug, incorporating bleed screw and directional spout; widely used directly in association with the manifolds for the closure of vent/drain/bleed/test calibration ports, but allows the safe & controlled bleed/vent of enclosed process media. These compact bleed plugs are also available separately for use where any female port requires to be closed off and enclosed media is required to be bled off or vented.

The bleed screw itself is captive within the plug, cannot be removed and cannot be ejected in proper use. Other thread type and sizes may be available.

### Ordering information:

Size	Part Number
1/4"	HBV'4M
1/2"	HBV'8M

\* Specify material

Materials				
S	316/316L Stainless Steel	HC	Alloy C276	
6MO	6MO Sup. Aust. St. Steel	T	Titanium Gr. 2	
M	Alloy M400	825	Alloy 825	
D1	Duplex 22 Cr. Steel	625	Alloy 625	
D2	Super Duplex 25 Cr. Steel			



## Compact Gauge Syphon

A discrete range of compact gauge syphons available in 1/2" NPS only - please consult your local Parker support.



# Essential Manifold Accessories

## Swivel Gauge Adaptors

Parker's range of swivel gauge adaptors has been designed to provide 360° rotational movement enabling maximum positional orientation of installed gauges and measuring instruments. A fully contained sealing mechanism ensures total system integrity and offers the user up to 10,000 psig (690 barg) working pressure. Silver plated swivel nut thread and bearing area prevent threat galling of stainless steel threads and allow trouble free repeatable re-assembly.

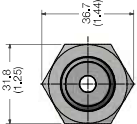
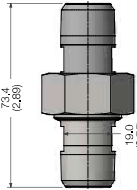
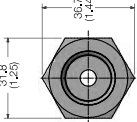
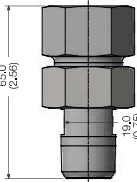


### Features

- Silver plated swivel thread and bearing surface to prevent thread galling and maximising re-make opportunities
- Variety of thread options
- Compact design
- Fully contained and retained sealing mechanism

### Specification

- Available in materials listed below. The nut as standard is 316 Stainless Steel.
- Maximum pressure rating: 10,000 psig (690 barg)
- Maximum temperature rating: 538°C (1000°F)
- Fully heat code traceable



### Ordering information:

Example 1: SGS8M8F3HP

Example 2: SGS8RDM8RFNC

Series		SG		Swivel gauge adaptor	
Materials		S		316/316L Stainless Steel	
		6MO		6MO Sup, Aust. St. Steel	
		M		Alloy M400	
		D1		Duplex 22 Cr. Steel	
		D2		Super Duplex 25 Cr. Steel	
Connections - Standard		Inlet		Outlet	
		4M		1/4" NPT Fem.	
		6M		3/8" NPT Male	
		8M		1/2" NPT Fem.	
		4M		1/4" NPT Male	
		6M		3/8" NPT Male	
		8M		1/2" NPT Male	
Other Connection Options		•VF		Fem. connection	
		•MM		Male connection	
		R		BSPT BS21 ISO7/1 - British Standard Taper Pipe Thread	
		RD		BSPP BS21/9 British Standard Parallel Pipe thread	
				DN 1628/1628EN637 BSPP gauge connection type	
Options		3		Graphite Seal option <sup>1</sup>	
		HP		High Pressure 10,000 PSI option	
		NC		NACE option	

<sup>1</sup> Insert size designator.

<sup>#</sup> Insert specification designator (K/R/RD).

<sup>\*</sup> Interface seal material PTFE as standard. Graphite seal optional.

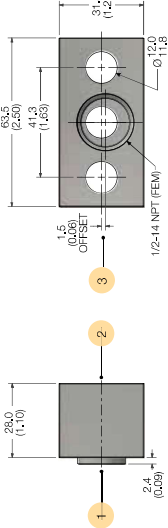
## Instrument Flange Adaptors (Kidney/Oval Flanges)



Example shown with traditional 1/2" NPT Fem. connection.



Example shown with integral A-LOK® connection.



Example of the instrument flange adaptor with 1.5mm offset connection (Code OS) which accommodates variation of impulse line centres between 51-57mm.

### Ordering information:

Example 1: HKSM12ASB3

Example 2: HK6MOIM12ASB3

Example 3: HKD18FOSSB

Example 4: HKSBW83

Example 5: HK625BW8AXSB3

Series		HK		Kidney/oval flange	
Materials		S		316/316L Stainless Steel	
		6MO		6MO Sup, Aust. St. Steel	
		M		Alloy M400	
		D1		Duplex 22 Cr. Steel <sup>1</sup>	
		D2		Super Duplex 25 Cr. Steel <sup>1</sup>	
Connections		4F		1/4" NPT Fem.	
		6F		3/8" NPT Fem.	
		8F		1/2" NPT Fem.	
		4A		1/4" A-LOK <sup>2</sup>	
		6A		3/8" A-LOK <sup>2</sup>	
		8A		1/2" A-LOK <sup>2</sup>	
		M6A		6mm A-LOK <sup>2</sup>	
		M10A		10mm A-LOK <sup>2</sup>	
		M12A		12mm A-LOK <sup>2</sup>	
Burr Weld - Pipe		Type		Size	
				4 1/4" NB	
				6 3/8" NB	
				8 1/2" NB	
				12 3/4" NB	
Options		OS		Offset 1.5mm option <sup>3</sup>	
		SB		Stainless Steel Bolt option <sup>4</sup>	
		3		Graphite Seal option <sup>5</sup>	
		NC		NACE option	

<sup>1</sup> Not available with tube connections.

<sup>2</sup> For CPT<sup>TM</sup> change A to Z, example: M10Z.

<sup>\*</sup> No designator required.

<sup>3</sup> Offset option only available on Fem. threaded connection; accommodates variation of impulse line centres between 51-57mm. See diagram above.

<sup>4</sup> Bolt material as standard HT Carbon Steel, Stainless Steel optional. Both in accordance with IEC 61518.

<sup>5</sup> Interface seal material PTFE as standard. Graphite seal optional. Both in accordance with DIN IEC 61518 Type A.

### OTHER NOTES:

- Tube connection selection as per Parker recommended tube guides.
- Flange interface connection to DIN IEC 61518 Type A.
- Inverted A-LOK® connections supplied with Socket Cap Head bolts. All other connections supplied with Hex Head bolts.
- Not all options/combinations are necessarily available in each single product model type. Care should be taken to consult the main catalogue. If in doubt, please consult your local Parker representation.

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