

Process to Instrument And Piping Valves

Modular Valves - Pro-Bloc[®] FP and TP Series



ENGINEERING YOUR SUCCESS.

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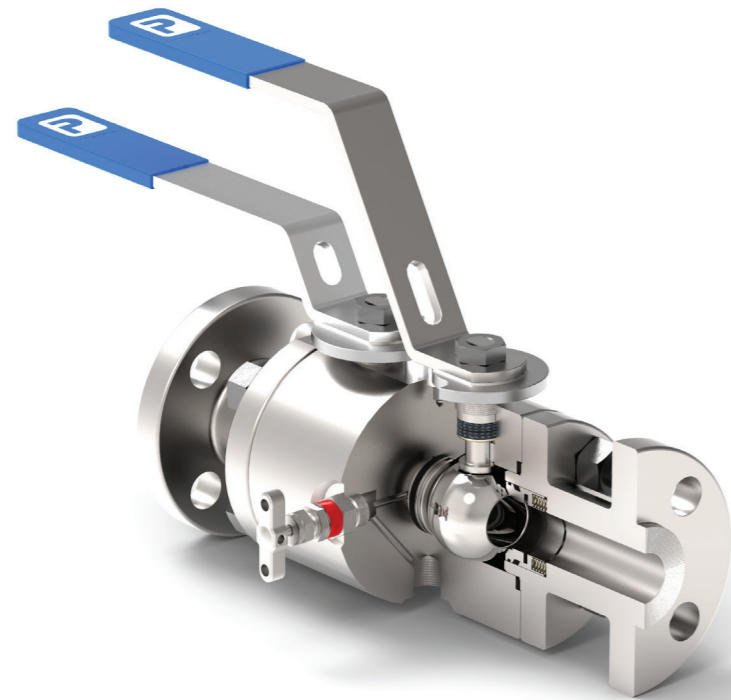
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Pro-Bloc® FP Series

Floating Ball Double Block and Bleed (DBB) Technical Information

Parker's Pro-Bloc® FP series valve with floating ball design utilising both soft seats or metal seats for bubble-tight sealing at a wide range of pressures and temperatures.

The valve has double block and bleed function and consists of two separate isolating balls and one vent in a single unit. This three-piece construction offers space and weight saving benefits over the traditional method of using three separate valves in process piping applications. These valves are supplied to the API 6D standards (excluding 15 mm bore).



Features, Benefits and Values

Feature	Benefit	Value
Three-piece design	Suitable for various piping configurations	Flexibility
Anti-blow-out stem	Valve integrity	Safety
Double D drive on stems	Facilitates correct lever realignment if removed	Ease of assembly
Cavity relief on seats	Over-pressure protection of ball cavity	Safety
Lockable handles option	Prevent accidental operation	Safety
Graphite packing to API 622	Low emission to atmosphere	Safety, performance and reliability
Fire safe design	Conforms to industry codes	Safety

Markets / Applications:

- Petrochemical
- Low temperature and LNG (tankers, terminals, platforms, plants, air separation)
- Chemical
- Oil and Gas

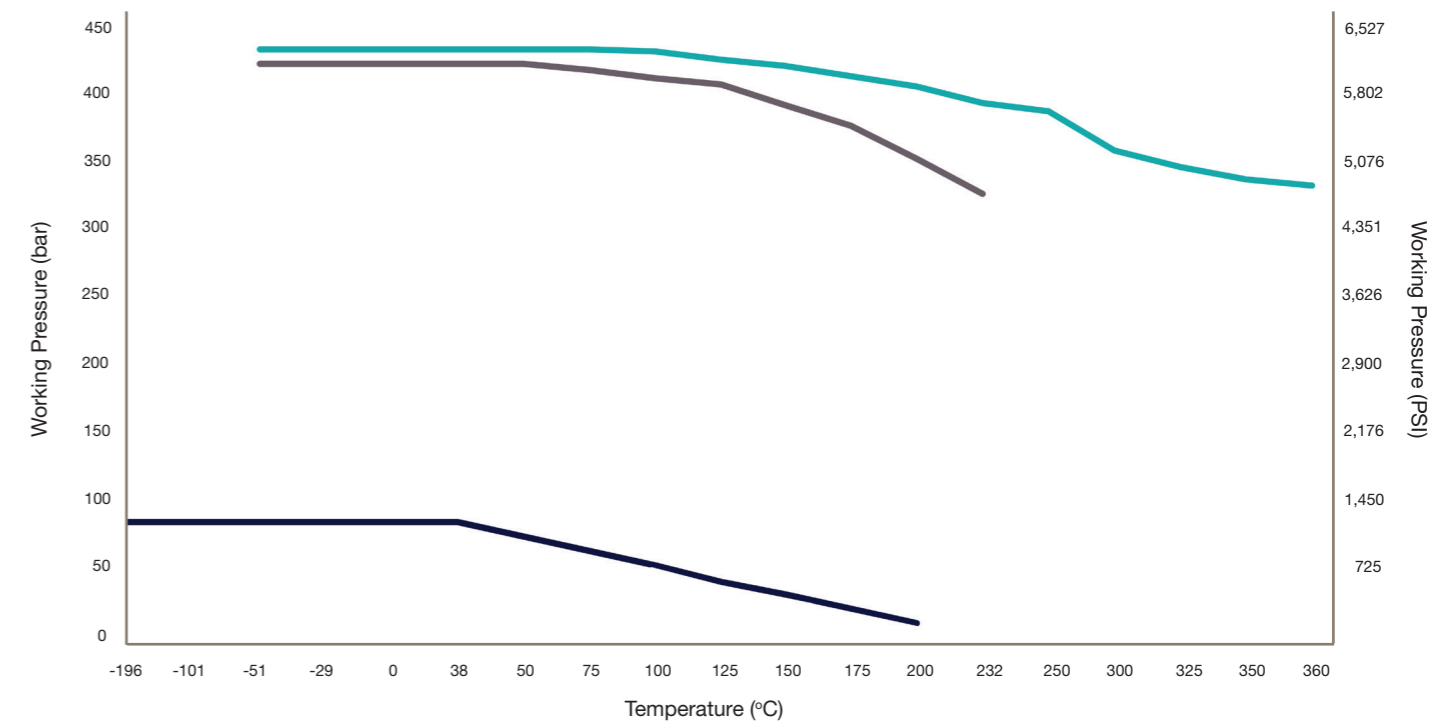
Design Standards:

- Design: ASME B16.34, EEMUA 182
- Design pressure: ASME B16.34
- Body wall thickness: ASME B16.34, ASME VIII Div. I
- Fire safe: API 6FA and API 607

Technical Specifications:

Bore sizes	15 mm, 25 mm, 38 mm, 50 mm
Seat materials	TFM, PEEK, Metal
Body materials	316 Stainless Steel ASTM A182-F316/UNS S31600 Duplex ASTM A182-F51 / UNS S31803 Super Duplex ASTM A182-F53/F55 Low Temp Carbon Steel ASTM A350 LF2 Alloy 625 UNS N06625 Alloy 825 UNS N08825
Valve configurations	Flange x screw Flange x flange
Max. Working Temperature	360° C
Min. Working Temperature	-196° C
Max. Working Pressure	6,250 PSI (431 bar)

Pressure vs. Temperature



TFM seat
 PEEK seat
 Metal seat

Pro-Bloc® FP Series

Floating Ball Double Block and Bleed (DBB) Ordering Information

Series		Ball Valve Bore Size		Style		Material		
Probloc® FP	FP	15 mm	X	15, 25 mm Bore	Flange x Screw	5	316 Stainless Steel	
		25 mm	V	15 - 50 mm Bore	Flange x Flange	6	Duplex	
		38 mm	U				Super Duplex	F
		50 mm	T				Low Temp Carbon Steel	H
							Alloy 625	
							Alloy 825	

Arrangement	
Block-Bleed-Block 1st Isolate: Ball 2nd Isolate: Ball Vent: Needle	

* No part number designator required

Standard Offering

Arrangement	Block-Bleed-Block
Outlet	<ul style="list-style-type: none"> 1/2" NPT (F) - standard for 15 mm bore 1" NPT (F) - standard for 25 mm bore
Vent	1/2" NPT Female
Packing Material (Ball and Needle Valve)	Graphite API 622 standard with Fire safe design

Notes:

- All non-wetted parts will be supplied in standard stainless steel for corrosion resistant alloys. For carbon steel construction trim materials will be supplied in stainless steel.
- For flange x flange construction when the required flanges are different sizes, specify flange 1 details (flange size, flange style and flange class) followed by flange 2 details (flange size, flange style and flange class). For example: for flange 1 (flange size 1", Raised Face Spiral, Class 900) and flange 2 (flange size 1 1/2", Raised Face Spiral, Class 900) insert 16F0924F09.
- 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.

Flange Details			Outlet Connection		Ball Valve Seats		Condition			
Flange Size	Flange Style	Flange Class	15 mm Bore	25 mm Bore	15, 25 mm Bore	38, 50 mm Bore	Fire Safe Graphite packing	NACE		
15 mm Bore	1/2"	8	Raised Face Spiral Ring Type Joint	F T	150	01	1/2" NPT (F)	*		
	3/4"	12			300	03	12 mm A-LOK®	M12A	Fire Safe	F
	1"	16			600	06	12 mm CPI™	M12Z	NACE	N
	1 1/2"	24			900	09	1/2" A-LOK®	8A	Fire Safe & NACE	FN
	2"	32			1500	15	1/2" CPI™	8Z		
25 mm Bore	1"	16	2500	25	1"	*	1" NPT (F)	*		
	1 1/2"	24			25 mm A-LOK®	M25A	TFM	T		
	2"	32			25 mm CPI™	M25Z	PEEK	PB		
38 mm Bore	1 1/2"	24			1"		1" A-LOK®	16A		
	2"	32			1" CPI™	16Z	Metal	M		
50 mm Bore	2"	32			3"	48				
	3"	48			4"	64				

Valve Handle Options	
Anti-tamper (Needle valve only)	A*
Padlock handle locking	L*
Anti-tamper & Padlock handle locking	A*L*

* No part number designator required

* Insert valve number:
1 - Primary, 2 - Secondary, 3 - Vent, 4 - All.
Padlocks not supplied.
Fire Safe needle valve with locking device not available.

Example Part Numbers

Example 1 - FPX5E32T258AMA3L12F

Pro-Bloc® FP Series
15 mm Bore
Flange x Screw
Block-Bleed-Block
Duplex
Process Flange: 2", Ring Type Joint, Class 2500
Outlet: 1/2" A-LOK®
Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: Metal
Anti-tamper vent; lockable primary and secondary
Fire safe design

Example 2 - FPT6B48F15MF

Pro-Bloc® FP Series
50 mm Bore
Flange x Flange
Block-Bleed-Block
Stainless Steel
Flange: 3" Raised Face Spiral, Class 1500
Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: Metal
Fire safe design

Example 3 - FPU6B32F0948F09PBF

Pro-Bloc® FP Series
38 mm Bore
Flange x Flange
Block-Bleed-Block
Stainless Steel
Process Flange:

- 1st flange: 2" Raised Face Spiral, Class 900,
- 2nd flange: 3" Raised Face Spiral, Class 900

 Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: PEEK
Fire safe design

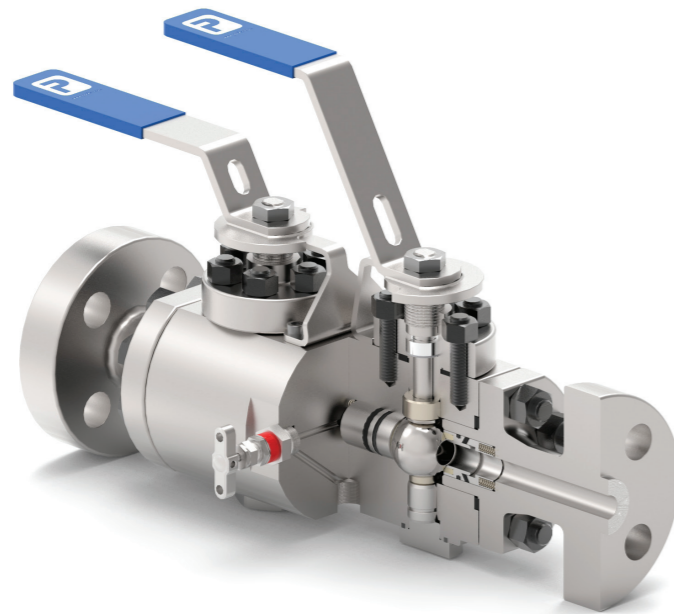
Pro-Bloc® TP Series

Trunnion Mount Ball Double Block and Bleed (DBB)

Technical Information

Parker's Pro-Bloc® TP series trunnion mounted valve with a low operating torque is available with either soft or metal seat options for bubble-tight sealing, spanning a wide range of pressures and temperatures.

The valve has double block and bleed function and consists of two separate isolating balls and one vent in a single unit. This three-piece construction offers space and weight saving benefits over the traditional method of using three separate valves in process piping applications. These valves are supplied to the API 6D standards (excluding 15 mm bore).



Features, Benefits and Values

Feature	Benefit	Value
Trunnion mount ball	Low operating torque Minimises seat wear and improves performance and service life	Ease of operation Performance and reliability
Three piece design	Suitable for various piping configurations	Flexibility
Anti-blow out stem	Valve integrity	Safety
Double D drive on stems	Facilitates correct lever realignment if removed	Ease of assembly
Cavity relief on seats	Over-pressure protection of ball cavity	Safety
Lockable handles option	Prevents accidental operation	Safety
Graphite packing to API 622	Low emission to atmosphere	Safety, performance and reliability
Fire safe design	Conforms to industry codes	Safety

Markets / Applications:

- Petrochemical
- Low temperature and LNG (tankers, terminals, platforms, plants, air separation)
- Chemical
- Oil and Gas

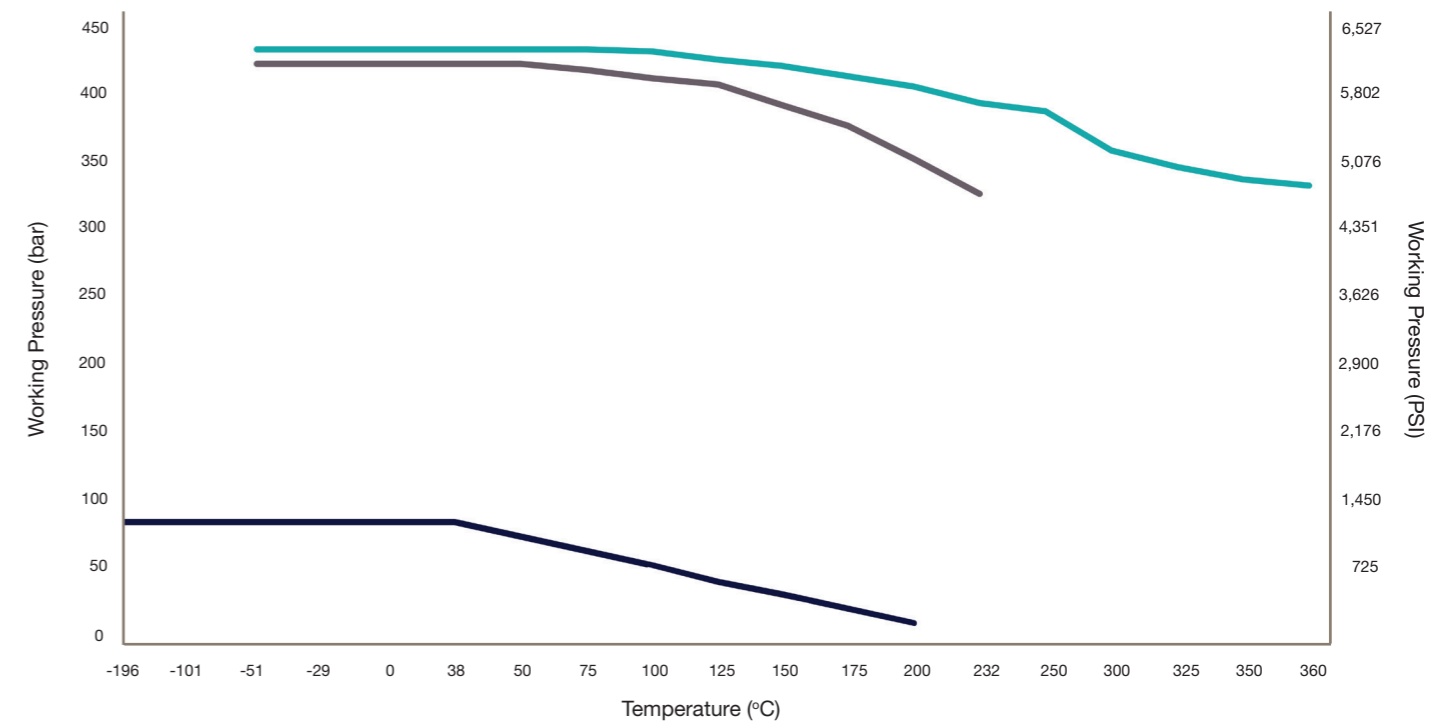
Design Standards:

- Design: ASME B16.34, EEMUA 182
- Design pressure: ASME B16.34
- Body wall thickness: ASME B16.34, ASME VIII Div. I
- Fire safe: API 6FA and API 607

Technical Specifications:

Bore sizes	15 mm, 25 mm, 38 mm, 50 mm
Seat materials	TFM, PEEK, Metal
Body materials	316 Stainless Steel ASTM A182-F316/ UNS S31600 Duplex ASTM A182-F51 / UNS S31803 Super Duplex ASTM A182-F53/F55 Low Temp Carbon Steel ASTM A350 LF2 Alloy 625 UNS N06625 Alloy 825 UNS N08825
Valve configurations	Flange x screw Flange x flange
Max. Working Temperature	360° C
Min. Working Temperature	-196° C
Max. Working Pressure	6,250 PSI (431 bar)

Pressure vs. Temperature



- TFM seat
- PEEK seat
- Metal seat

Pro-Bloc® TP Series

Trunnion Mount Ball Double Block and Bleed (DBB)
Ordering Information

Series		Ball Valve Bore Size		Style		Material	
Probloc® TP	TP	15 mm	X	15 - 25 mm Bore	Flange x Screw	5	316 Stainless Steel
		25 mm	V	15 - 50 mm Bore	Flange x Flange	6	Duplex
		38 mm	U				Super Duplex
		50 mm	T				Low Temp Carbon Steel
							Alloy 625
							Alloy 825

Arrangement	
Block-Bleed-Block 1st Isolate: Ball 2nd Isolate: Ball Vent: Needle	

* No part number designator required

Standard Offering

Arrangement	Block-Bleed-Block
Outlet	<ul style="list-style-type: none"> 1/2" NPT (F) - standard for 15 mm bore 1" NPT (F) - standard for 25 mm bore
Vent	1/2" NPT Female
Packing Material (Ball and Needle Valve)	Graphite API 622 standard with Fire safe design

Notes:

- All non-wetted parts will be supplied in standard stainless steel for corrosion resistant alloys. For carbon steel construction trim materials will be supplied in stainless steel.
- For flange x flange construction when the required flanges are different sizes, specify flange 1 details (flange size, flange style and flange class) followed by flange 2 details (flange size, flange style and flange class). For example: for flange 1 (flange size 1", Raised Face Spiral, Class 900) and flange 2 (flange size 1 1/2", Raised Face Spiral, Class 900) insert 16F0924F09.
- 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.

Flange Details			Outlet Connection		Ball Valve Seats		Condition	
Flange Size	Flange Style	Flange Class	15 mm Bore	25 mm Bore	TFM	PEEK	Metal	Fire Safe Graphite packing
1/2"	8	Raised Face Spiral	1/2" NPT (F)	1" NPT (F)	T			F
3/4"	12	Ring Type Joint	12 mm A-LOK®	25 mm A-LOK®	PB			N
1"	16		12 mm CPI™	1" A-LOK®	M			FN
1 1/2"	24		1/2" A-LOK®	1" CPI™				
2"	32		1/2" CPI™					
2 1/2"	40							
3"	48							
3 1/2"	56							
4"	64							

Valve Handle Options	
Anti-tamper (Needle valve only)	A*
Padlock handle locking	L*
Anti-tamper & Padlock handle locking	A*L*

* No part number designator required

* Insert valve number:
1 - Primary, 2 - Secondary, 3 - Vent, 4 - All.
Padlocks not supplied.
Fire Safe needle valve with locking device not available.

Example Part Numbers

Example 1 - TPX5E32T258ATA3L12F

Pro-Bloc® TP Series
15 mm Bore
Flange x Screw
Block-Bleed-Block
Duplex
Process Flange: 2", Ring Type Joint, Class 2500
Outlet: 1/2" A-LOK®
Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: TFM
Anti-tamper vent; lockable primary and secondary
Fire safe design

Example 2 - TPT6B48F15MF

Pro-Bloc® TP Series
50 mm Bore
Flange x Flange
Block-Bleed-Block
Stainless Steel
Flange: 3" Raised Face Spiral, Class 1500
Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: Metal
Fire safe design

Example 3 - TPU6B32F0948F09PBF

Pro-Bloc® TP Series
38 mm Bore
Flange x Flange
Block-Bleed-Block
Stainless Steel
Process Flange:

- 1st flange: 2" Raised Face Spiral, Class 900,
- 2nd flange: 3" Raised Face Spiral, Class 900

 Vent: 1/2" NPT (F)
Graphite packing
Ball valve seats: PEEK
Fire safe design

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