

# SSP

## Trunnion Ball Valves



# SSP

## TB Series

- ✓ Working Pressure: up to 10,000 psig (689 bar)
- ✓ Temperature Range: -40 to 450°F (-40 to 232°C)
- ✓ Flow Coefficient: up to 1.6
- ✓ End Connections: 1/8 to 3/4 in. (6 to 12 mm)
- ✓ 2-way and 3-way valves
- ✓ Wide variety of end connection types and sizes

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# TB Series Trunnion Ball Valves

The TB Series trunnion ball valve family provides positive shut-off and directional flow control for systems with working pressures up to 10,000 psig (689 bar) and temperatures from -40 to 450°F (-40 to 232°C).

Common features for all TB Series valves include:

- Trunnion ball design which stabilizes the ball to ensure consistent alignment of the ball with the seats and promotes lower actuation torque especially at high differential pressures.
- Spring-loaded seats provide a leak-tight seal independent of system pressure. Valves seal well at both high and low pressures.
- Springs compensate for seat wear.
- Seat carrier fully supports the seat to prevent extrusion of the seat material at higher pressures and temperatures.
- Bottom-loaded, blowout-proof ball and stem for safety, reliability and easy maintenance.

### **TB Series Ball Valves**

TB Series valves are used in systems with working pressures up to 6,000 psig (413 bar) and temperatures from 0 to 450°F (-17 to 232°C).

### **HTB Series Ball Valves for High-Pressure Service**

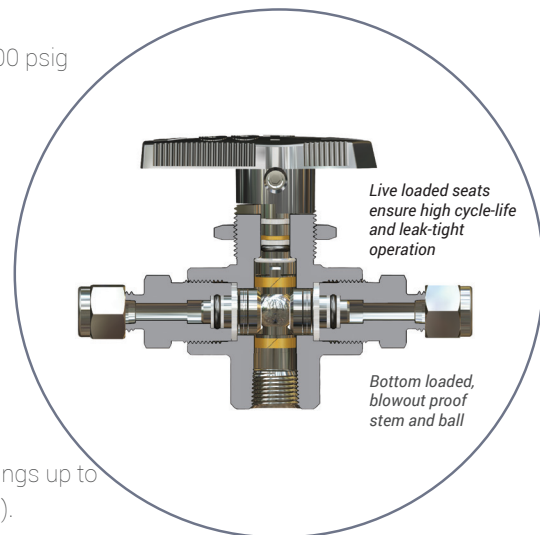
HTB Series valves are used in systems with working pressures up to 10,000 psig (689 bar) and temperatures from 0 to 450°F (-17 to 232°C).

### **LTB Series Ball Valves for Low-Temperature Service**

LTB Series low-temperature ball valves can be used in systems from -40 to 200°F (-40 to 93° C) and pressures up to 6000 psig (413 bar).

### **LHTB Series for High-Pressure, Low Temperature Service**

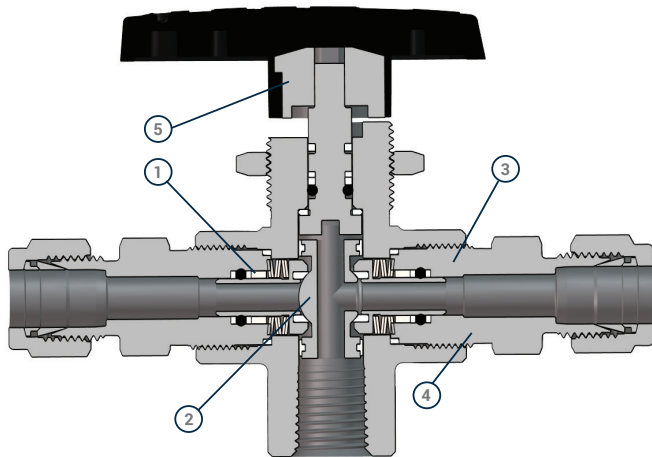
LHTB Series valves are designed for applications requiring pressure ratings up to 10,000 psig (689 bar) and temperatures from -40 to 200°F (-40 to 93° C).



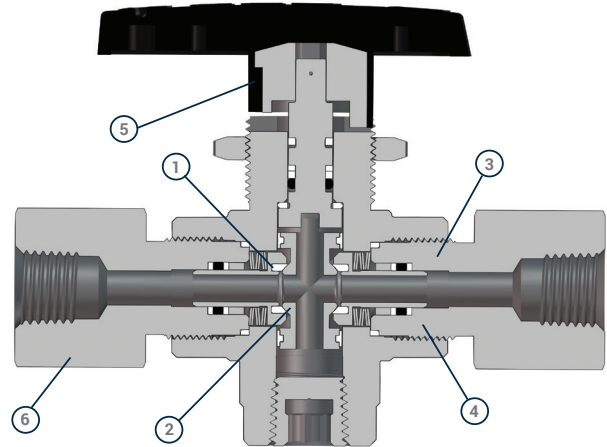
## Applications

TB Series ball valves are suitable for a wide variety of control and instrumentation applications. The trunnion ball and spring loaded seats enable them to perform in systems having dynamic pressure, flow and temperature requirements. TB Series valves are used in high-cycle low-temperature applications such as CNG fueling, and as isolation and switching valves in valve control panels and test stands. Their compact size makes them a good choice for panels and other applications where space is limited. End screw construction allows a wide variety of end connection size and type combinations.

# Product Design



[ TB/LTB Series ]  
[ 3-WAY ]



[ HTB/HLTB Series ]  
[ 2-WAY ]

## 1 SPRING-LOADED SEATS AND CARRIERS

- Leak-tight seal in high and low pressure applications
- Compensate for seat wear
- Fully supported seats for higher cycle-life

## 2 BOTTOM-LOADED TRUNNION BALL

- Blowout-proof ball and stem for safety and reliability
- Ensures proper alignment of the ball with the seat
- Lower actuation torque at high differential pressures
- Easy maintenance

## 3 END SCREW CONSTRUCTION

- Wide variety of end connection types and size combinations

## 4 THREE TUBE FITTING DESIGNS

- Double and single ferrule designs
- Interchangeable with Swagelok®, Hoke Gyrolok® and Parker CPI™ tube fittings

## 5 DURABLE DIRECTIONAL HANDLE

- Nylon handle with 316 stainless steel insert enhances strength and compatibility
- Handle and stem flats indicate orifice position

## 6 10,000 PSIG END CONNECTIONS AVAILABLE

- NPT
- Tube Fitting

# Series Comparison

Series	TB	HTB	LTB	LHTB
<i>Maximum Working Pressure</i>				
316 SS	6000 (413 bar)	10,000 (689 bar)	6000 (413 bar)	10,000 (689 bar)
Alloy 400	5000 (344 bar)	-	5000 (344 bar)	-
Temperature Range	0 to 450°F (-17 to 232°C)	0 to 450°F (-17 to 232°C)	-40 to 200°F (-40 to 93°C)	-40 to 200°F (-40 to 93°C)
<i>Maximum Cv</i>				
Two-way	1.0 to 1.6*	1.0 to 1.6*	1.0 to 1.6*	1.0 to 1.6*
Three-way	0.75	0.75	0.75	0.75
Flow Patterns	2-way, 3-way	2-way, 3-way	2-way, 3-way	2-way, 3-way
Seat Material	PCTFE, PEEK	PEEK	PCTFE, PEEK	PEEK
O-rings	FKM	FKM	Low-Temp. Nitrile	Low-Temp. Nitrile
End Connection Types	Tube Fittings, NPT, BSP, SAE, ORFS	Tube fittings, FNPT	Tube Fittings, NPT, BSP, SAE, ORFS	Tube fittings, FNPT
Tube Fittings Sizes	1/4 to 1/2 in. (6 to 12 mm)	1/4 to 1/2 in. (6 to 12 mm)	1/4 to 1/2 in. (6 to 12 mm)	1/4 to 1/2 in. (6 to 12 mm)
Pipe Sizes	1/8, 1/4 and 1/2 in.	1/8 and 1/4 in.	1/8, 1/4 and 1/2 in.	1/8 and 1/4 in.
O-ring Face Seal (ORFS)	1/4 and 3/8	-	1/4 and 3/8	-
SAE Straight Thread	#4 to #8	-	#4 to #8	-

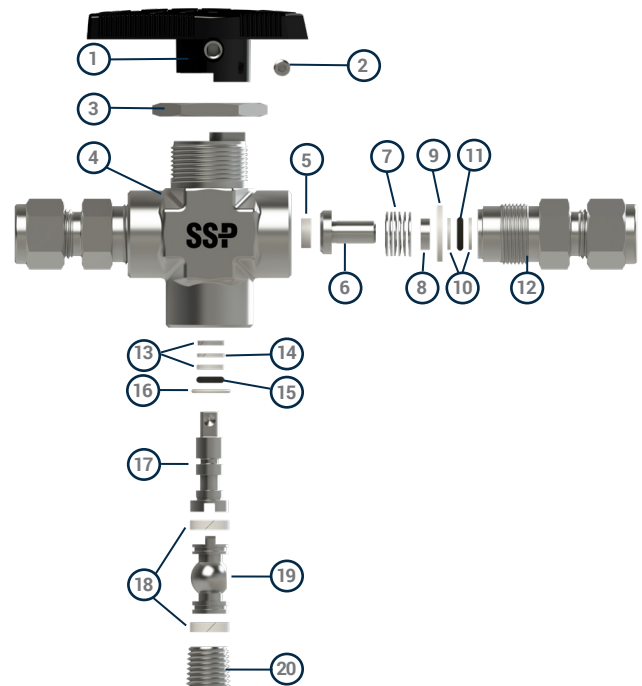
\*Depending on end connection size and type.

# Materials of Construction

ID	Component	Material <sup>3</sup>	Specification
1	Handle	Nylon with SS insert	-
2	Set Screw	Stainless Steel	A276
3	Panel Nut	316 SS	A276
4*	Body	316 SS / Alloy 400 <sup>2</sup>	A182 (TB), A479 (HTB)/B164
5*	Seat	PCTFE/PEEK	-
6*	Seat Carrier	316 SS / Alloy 400 <sup>2</sup>	A276/B164
7*	Seat Springs	Alloy X-750	AMS 5542
8*	Carrier Gland	316 SS / Alloy 400 <sup>2</sup>	A276/B164
9*	End Screw Seal	PCTFE (TB), PEEK (HTB)	D1710
10*	Carrier Back-Up Ring	Reinforced PTFE	-
11*	Seat Carrier O-Ring	FKM / Low-Temp Nitrile	-
12*	End Screw	316 SS / Alloy 400 <sup>2</sup>	A479/B164
13	Stem Secondary Back-Up Ring	PTFE	D1710
14	Stem Back-Up Ring	PEEK	-
15*	Stem O-Ring	FKM / Low-Temp Nitrile	-
16	Stem Bearing	PEEK	-
17*	Stem	316 SS / Alloy 400 <sup>2</sup>	A276/B164
18*	Trunnion Bearing	PEEK	-
19*	Ball	316 SS / Alloy 400 <sup>2</sup>	A276/B164
20 <sup>1*</sup>	1/4" Countersunk Pipe Plug	316 SS / Alloy 400 <sup>2</sup>	A276/B164
	Wetted Lubricant	PTFE-Based	-
	Nonwetted Lubricant	Molybdenum disulfide	-

<sup>1</sup> Two-way valves only. <sup>2</sup> Alloy 400 is available in TB Series valves only.

<sup>3</sup> Standard Materials. See page 8 for other materials. \* Wetted components



# Temperature Pressure Tables

## TB Series

Material	316 SS		Alloy 400	
Seat Material	PCTFE	PEEK	PCTFE	PEEK
Temperature °F (°C)	Working Pressure, psig (bar)			
0 to 100 (-17 to 37)	6000 (413)	6000 (413)	5000 (344)	5000 (344)
150 (65)	3000 (206)	5800 (399)	3000 (206)	4690 (323)
200 (93)	2000 (137)	5000 (344)	2000 (137)	4390 (302)
250 (121)	1000 (68)	4100 (282)	1000 (68)	4100 (282)
300 (148)	-	3200 (220)	-	3200 (220)
350 (176)	-	2300 (158)	-	2300 (158)
400 (204)	-	1400 (96)	-	1400 (96)
450 (232)	-	500 (34)	-	500 (34)

## HTB Series

Material	316 SS					
End Connections	2PF, 4PF, D4, DM6	DM10	D6	DM8	D8	DM12
Temperature °F (°C)	Working Pressure, psig (bar)					
0 to 100 (-17 to 37)	10,000 (689)	8400 (579)	6550 (451)	7500 (517)	6700 (461)	6600 (455)
150 (65)	7500 (517)	7500 (517)	6550 (451)	7500 (517)	6700 (461)	6600 (455)
200 (93)	5000 (344)	5000 (344)	5000 (344)	5000 (344)	5000 (344)	5000 (344)
250 (121)	4100 (282)	4100 (282)	4100 (282)	4100 (282)	4100 (282)	4100 (282)
300 (148)	3200 (220)	3200 (220)	3200 (220)	3200 (220)	3200 (220)	3200 (220)
350 (176)	2300 (158)	2300 (158)	2300 (158)	2300 (158)	2300 (158)	2300 (158)
400 (204)	1400 (96)	1400 (96)	1400 (96)	1400 (96)	1400 (96)	1400 (96)
450 (232)	500 (34)	500 (34)	500 (34)	500 (34)	500 (34)	500 (34)

## LTB Series

Material	316 SS		Alloy 400	
Seat Material	PCTFE	PEEK	PCTFE	PEEK
Temperature °F (°C)	Working Pressure, psig (bar)			
-40 to 100 (-40 to 37)	6000 (413)	6000 (413)	5000 (344)	5000 (344)
150 (65)	3000 (206)	5800 (399)	3000 (206)	4690 (323)
200 (93)	2000 (137)	5000 (344)	2000 (137)	4390 (302)

## LHTB Series

Material	316 SS					
End Connections	2PF, 4PF, D4, DM6	DM10	D6	DM8	D8	DM12
Temperature °F (°C)	Working Pressure, psig (bar)					
-40 to 100 (-40 to 37)	10,000 (689)	8400 (578)	6550 (451)	7500 (516)	6700 (461)	6600 (454)
150 (65)	7500 (516)	7500 (516)	6550 (451)	7500 (516)	6700 (461)	6600 (454)
200 (93)	5000 (344)	5000 (344)	5000 (344)	5000 (344)	5000 (344)	5000 (344)

# Ordering Instructions

### Ordering TB Series valves requires the following steps:

- ① In the Basic Part Number and Dimensions tables, select the Basic Part Number for the required valve series, flow pattern and end connections. *Examples: 83XKD4 or H83P4PF*  
*Note: For tube fitting end connections the Basic Part Number designates the Duolok two-ferrule design. To specify other tube fitting designs, see the tube fitting end connections table on page 8. Mixed end connection types and sizes are available. For configurations that are not in the catalog, see the Special Order Instructions on page 10.*
- ② To specify low-temperature valves add "L" in front of the basic part number. *Examples: L83KD4 or LH83P4PF*
- ③ PCTFE seats are standard for TB and LTB series ball valves. To specify PEEK seats replace the "K" in the basic part number with "P". *Example: 83XPD4* *Note: HTB and LHTB series valves are only available with PEEK seats.*
- ④ Add the Body Material Designator to the part number. Use -316 for 316 Stainless Steel or -M for Alloy 400. *Example: 83XKD4-316*  
*Note: HTB and LHTB series valves are only available in 316 SS.*
- ⑤ FKM O-rings are standard on TB and HTB series valves. To select other materials, please select the designator from the O-ring Material table on page 8, then add it after the body material indicator. *Example: 83XKD4-316-FFKM*  
*Note: LTB and LHTB series valves are only offered with low-temperature Nitrile O-rings.*
- ⑥ Add designators for other options in alphabetical order (see page 10). *Example: 83XKD4-316-FFKM-LD-RD*

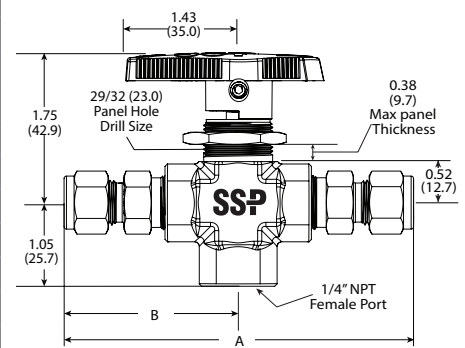
# Ordering Information

**Note:** The Part Numbers and Dimensions tables contain the most common valve configurations. Use the Special Order table on page 10 to specify the end connection type and size combinations and options to meet the requirements of your applications. Dimensions are subject to change.

## Part Numbers and Dimensions

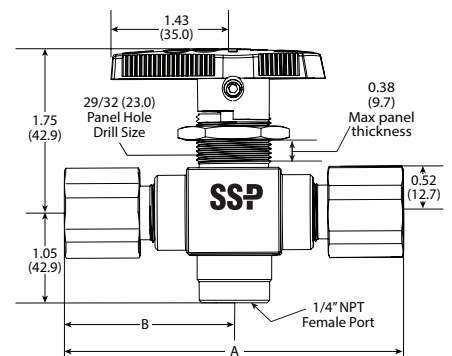
Two-Way							
End Connection		Basic Part Number		Cv	Orifice in. (mm)	Dimensions in. (mm)	
Type <sup>1</sup>	Size	TB / LTB	HTB / LHTB			A	B
Female NPT	1/8	83K2PF	H83P2PF	1.2	0.187 (4.8)	2.94 (74.7)	1.47 (37.3)
	1/4	83K4PF	-	1.0		3.93 (99.8)	1.97 (50.0)
		-	H83P4PF			3.72 (94.5)	1.86 (47.2)
	3/8	83K6PF	-	1.4		4.25 (108.0)	2.13 (54.1)
1/2 <sup>2</sup>	83K8PF	-	1.2	4.14 (105.0)		2.07 (52.6)	
Fractional Tube Fitting	1/4	83KD4	H83PD4	1.6		4.39 (111.5)	2.19 (55.6)
	3/8	83KD6	H83PD6	1.4		4.60 (117.0)	2.30 (58.4)
	1/2 <sup>2</sup>	83KD8	H83PD8	1.0		4.15 (105.0)	2.07 (52.6)
Metric Tube Fitting	6	83KDM6	H83PDM6	1.6		4.15 (105.0)	2.07 (52.6)
	8	83KDM8	H83PDM8	1.5		4.15 (105.0)	2.07 (52.6)
	10	83KDM10	H83PDM10	1.3		4.41 (111.5)	2.20 (55.9)
	12 <sup>2</sup>	83KDM12	H83PDM12	1.0		4.60 (117.0)	2.30 (58.4)

**TB Series**



Three-Way							
Type <sup>1</sup>	Size	TBX / LTBX	HTBX / LHTBX	Cv	Orifice in. (mm)	A	B
Female NPT	1/8	83XK2PF	H83XP2PF	0.75	0.187 (4.8)	2.94 (74.7)	1.47 (37.3)
	1/4	83XK4PF	-			3.93 (99.8)	1.97 (50.0)
		-	H83XP4PF			3.72 (94.5)	1.86 (47.2)
	3/8	83XK6PF	-			4.25 (108.0)	2.13 (54.1)
1/2	83XK8PF	-	4.14 (105.0)			2.07 (62.6)	
Fractional Tube Fitting	1/4	83XKD4	H83XPD4			4.39 (111.5)	2.19 (55.6)
	3/8	83XKD6	H83XPD6			4.60 (117.0)	2.30 (58.4)
	1/2 <sup>2</sup>	83XKD8	H83XPD8			4.15 (105.0)	2.07 (52.6)
Metric Tube Fitting	6	83XKDM6	H83XPDM6			4.15 (105.0)	2.07 (52.6)
	8	83XKDM8	H83XPDM8			4.15 (105.0)	2.07 (52.6)
	10	83XKDM10	H83XPDM10			4.41 (112.0)	2.20 (55.9)
	12 <sup>2</sup>	83XKDM12	H83XPDM12			4.60 (117.0)	2.30 (58.4)

**HTB Series**



**<sup>1</sup>End Connections Options**

- Male and female SAE and BSP straight thread fittings, O-ring face seal (ORFS) are available on request. To order, see the special order table on page 10. Duolok 2-ferrule tube ends are standard.
- For Unilok single-ferrule and Griplok dual-ferrule ends, see the options on page 8.
- 1/4 in. female NPT bottom ports are standard on all 3-way valves. Optional #6 Female SAE straight thread bottom ports are available on TB Series only. To order the optional bottom ports, see the special ordering table on page 10. Note: The maximum pressure for this port is 4000 psig.

<sup>2</sup> Not recommended for panel mounting.

# Options & Accessories

## Tube Fitting End Connections

SSP provides three tube fitting designs for all TB series valves. Use the designators below to indicate the required design. For more information about SSP tube fitting end connections see our tube fitting catalogs.

*Example: 83PU4-316 for Unilok tube fitting end connections.*

Design	Description	Designator
Duolok	2-Ferrule	D
Unilok	1-Ferrule	U
Griplok	2-Ferrule	G

## Seat Material

TB and LTB Series valves include a standard PCTFE seat material. To order valves with PEEK seat material, replace the **K** in the basic part number with a material designator **P**. *Example: 83PD6* **Note: HTB and LHTB Series valves are only available with PEEK seats.**

Material	Designator
PCTFE (Standard)	K
PEEK	P

## Body Material

Select the valve body material required and add the designator to the valve basic part number. *Example: 83XKD6-316* **Note: LTB and LHTB series valves are only available with 316 stainless steel.**

Material	Designator
316 Stainless Steel	-316
Alloy 400	-M

## O-Ring Material

Standard O-ring materials for each series are listed in the Series Comparison table on page 5. To specify a non-standard O-ring material add the material designator from the table below to the part number. *Example: 83XKD4-316-FFKM.*

**Note: LTB and LHTB series valves are available with low-temperature nitrile O-rings only.**

Material	Designator
Nitrile	-BN
Perfluoroelastomer FFKM (Generic)	-FFKM
Perfluoroelastomer FFKM (Kalrez®)	-KZ

## Handle Colors

Stainless steel reinforced black nylon handles are standard on TB series valves. To select a different color handle, add the designator from the table below.

*Example: 83PD4-316-RD*

Handle color	Designator
Black	None
Green	-GR
Red	-RD
Blue	-BL
Yellow	-YW
Orange	-OG
No Handle	-NH

## Replacement Handles

Replacement handles are shipped with the stainless steel insert and set screw installed. To order replacement handles substitute the color designator from the Handle Colors table in the replacement handle part number - NY-7K-83-XX. **Note: the designator for black replacement handles is -BK.**

*Examples: NY-7K-83-BK for black handles.*

*NY-7K-83-RD for red handles.*

## Locking Devices

To specify factory-installed locking devices add -LD to the part number. *Example: 83PD4-316-LD*

Use part number 83-LDK-316 to order locking device kits for field installation.

## Special Cleaning

TB Series valves are available cleaned in compliance with ASTM G93 Level C and CGA G-4.1, *Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments*. To specify, add -XP98 to the part number. *Example: 83PD4-316-XP98*

For more information about other types of special cleaning, please contact your local SSP distributor or SSP Customer Service.

## Rebuild Kits

Valve rebuild kits contain seats, seat carriers, seat springs, carrier gland, carrier backup rings, carrier O-rings, end screw seals, stem bearing, stem secondary back up rings, stem O-ring, trunnion ball, trunnion bearing, lube, MSDS and instructions. Select the rebuild kit part number from the table below that matches the valve size and seat designator in the part number on your valve then add the valve material designator.

Size/Sat	83K	83P/H83P	L83K	L83P/LH83P
<b>2-way</b>				
Kit Part Number	83K-RK	83P-RK	L83K-RK	L83P-RK
Seat Material	PCTFE	PEEK	PCTFE	PEEK
O-ring Material	FKM	FKM	Low-Temp Nitrile	Low-Temp Nitrile
<b>3-way</b>				
Part Number	83XK-RK	83XP-RK	L83XK-RK	L83XP-RK
Seat Material	PCTFE	PEEK	PCTFE	PEEK
O-ring Material	FKM	FKM	Low-Temp Nitrile	Low-Temp Nitrile

Example: Valve Part Number **83XKD4-316** requires the **83XK-RK** kit. For valves with special O-rings add the O-ring designator to the kit part number.

Example: **83XK-RK-KZ**

## Actuated Ball Valve Assemblies

TB Series valves are available with a wide range of actuators, solenoids, and limit switches selected specifically for each valve's requirements. For more information, see the SSP Actuated Ball Valve Assemblies Catalog, contact SSP Customer Service, or visit [www.mySSP.com](http://www.mySSP.com).



## Actuator Brackets & Couplings

Actuator brackets and couplings are available for ISO 5211 complaint actuators. Actuator kits contain the actuator bracket, coupling and fasteners.



**⚠** Actuated assemblies must be properly aligned and supported. Improper alignment or inadequate support of the actuated assembly may result in leakage or premature valve failure.

Valve Size	ISO 5211 Flange Size	Coupling Size	Cap Screw Size	Part Number
83	F03	9 mm ISO	Metric	83-MB-F03-9ISO-M
			Fractional	83-MB-F03-9ISO-F
		9 mm DIN	Metric	83-MB-F03-9DIN-M
			Fractional	83-MB-F03-9DIN-F
	F04	9 mm ISO	Metric	83-MB-F04-9ISO-M
			Fractional	83-MB-F04-9ISO-F
		9 mm DIN	Metric	83-MB-F04-9DIN-M
			Fractional	83-MB-F04-9DIN-F
		11 mm ISO	Metric	83-MB-F04-11ISO-M
			Fractional	83-MB-F04-11ISO-F
	11 mm DIN	Metric	83-MB-F04-11DIN-M	
		Fractional	83-MB-F04-11DIN-F	
F05	11 mm ISO	Metric	83-MB-F05-11ISO-M	
		Fractional	83-MB-F05-11ISO-F	
	11 mm DIN	Metric	83-MB-F05-11DIN-M	
		Fractional	83-MB-F05-11DIN-F	
	14 mm ISO	Metric	83-MB-F05-14ISO-M	
		Fractional	83-MB-F05-14ISO-F	
	14 mm DIN	Metric	83-MB-F05-14DIN-M	
		Fractional	83-MB-F05-14DIN-F	

## Actuation Torque

Use the table below to select the correct actuator for the valve and application. Listed is minimum required actuator torque at maximum system pressure.

Valve Series	System Pressure psig (bar)									
	0		1500 (103)		3000 (206)		6000 (413)		10000 (689)	
	Start	End	Start	End	Start	End	Start	End	Start	End
TB 2-way	15 (1.7)	15 (1.7)	15 (1.7)	15 (1.7)	17 (2.0)	17 (2.0)	20 (2.3)	20 (2.3)	-	-
TBX 3-way	25 (2.9)	15 (1.7)	25 (2.9)	15 (1.7)	27 (3.1)	17 (2.0)	30 (3.4)	20 (2.3)	-	-
ALL HTB	25 (2.9)	15 (1.7)	25 (2.9)	15 (1.7)	27 (3.1)	17 (2.0)	30 (3.4)	20 (2.3)	35 (4.0)	20 (2.3)

# Special Orders

The Basic Ordering Numbers and Dimensions tables (pages 7-9) contain only the most popular valve configurations; many more are available. If the required valve configuration is not in the Basic Ordering Numbers and Dimensions tables, use the chart below to build part numbers for quotation purposes.

**A B C D E F G**  
**H83 X P D6 6PF -316 -BN -GR -XP98**

**A VALVE DESIGN**  
 83 Standard  
 H83 High-Pressure  
 L83 Low-Temperature  
 LH83 Low-Temperature, High-Pressure

**B BODY TYPE**  
 (Blank) 2-Way  
 X 3-Way

**C SEAT MATERIAL<sup>4</sup>**  
 P PEEK  
 K PCTFE

**D INLET TYPE<sup>2</sup> + OUTLET TYPE<sup>2</sup>**

D	Duolok® Tube Fitting	Fractional Sizes:	Metric Sizes:
U	Unilok® Tube Fitting	1 1/16 in.	M6 6 mm
G	Griplok® Tube Fitting	2 1/8 in.	M8 8 mm
PF	Female NPT	4 1/4 in.	M10 10 mm
PM	Male NPT	6 3/8 in.	M12 12 mm
MRT	Male ISO Tapered	8 1/2 in.	
FRT	Female ISO Tapered	12 3/4 in.	
MST	Male SAE Straight		
FST	Female SAE Straight		
S	Male O-ring Face Seal (SAE J1453)		
SS	Female O-ring Face Seal (SAE J1453)		

**G OPTIONS<sup>1</sup>**

**HANDLES**  
 (Blank) Black  
 -GR Green  
 -RD Red  
 -BL Blue  
 -YW Yellow  
 -OG Orange  
 -NH No Handle

**O-RINGS<sup>3</sup>**  
 (Blank) Fluorocarbon FKM  
 -BN Buna-N Nitrile  
 -FFKM Perfluoroelastomer FFKM (Generic)  
 -KZ Kalrez®

**OTHER OPTIONS**  
 -LD Locking Hardware  
 -6FP #6 SAE Female Bottom Port

**SPECIAL CLEANING**  
 -XP98 Oxygen compatible lubricant, per ASTM G93, Level C and CGA G-4.1

**F BODY MATERIAL**  
 -316 316 Stainless Steel  
 -M Alloy 400

**Important Information**

**IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE PERSONAL INJURY AND PROPERTY DAMAGE.** It is the sole responsibility of the system designers and users to properly select and use products for their specific applications. This document has been provided to users with technical expertise as a reference for further investigation to determine specific product needs relative to their design requirements.

TB series ball valves should only be used in the full on or full off position. Throttling may damage the valve.

**Testing**  
 All TB Series valves are factory tested with Nitrogen to 1000 psig (68 bar) at 70°F (21°C).

**Warranty**  
 SSP valves are backed by the SSP Limited Life Time Warranty. This warranty is available from your local distributor or at [www.mySSP.com](http://www.mySSP.com).

<sup>1</sup> Add options designators to the end of the Base Part Number in alphabetical order.  
<sup>2</sup> Tube end and O-ring face seal connection part numbers are formatted "Type" followed by "Size." Example: D6 or SS6. Pipe end connections are formatted "Size" followed by "Type." Example: 6PF  
<sup>3</sup> Low temperature Nitrile O-rings are standard on LTB and LHTB series valves.  
<sup>4</sup> HTB and LHTB series valves are only available with PEEK seats.

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# More SSP Products



## Tube Fittings

*Duolok® and Griplok® (two-ferrule) and Unilok® (single-ferrule) tube fittings ensure leak-tight installation when intermixed with Swagelok®, Hoke® Gyrolok®, and Parker® CPI™ fittings, provided they are used in accordance with SSP Fittings' published installation and service recommendations.*



## Valves

*The SSP valve offering includes ball, check, metering, needle, toggle, plug, bleed, and purge valves for pressures up to 10,000 psig.*



## Quick Connects

*SSP offers single-end shutoff, double-end shut off, and full-flow quick connects for instrumentation and process applications.*



## Pipe Fittings

*TruFit and TruFit 10K pipe fittings are available in a wide range of weld, threaded and flared connections.*



## Filters

*SSP in-line and tee-type filters trap particles to clean sample fluids and protect sensitive process and analytical instrumentation components and equipment.*



## Tools & Accessories

*SSP TurnPro professional hand tools, power tools and installation training make quality tube system installation faster and easier.*



# SSP

Founded 1926

Privately owned, third generation business

Modern single-site vertically integrated manufacturing facility

DFARS-compliant raw material

ISO 9001 quality management system

Limited Lifetime Warranty



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