



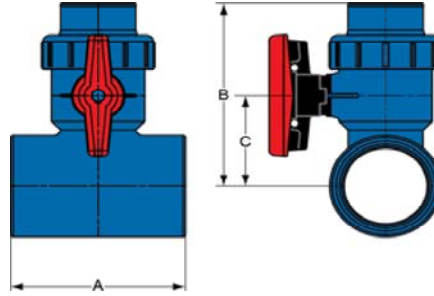
Low Extractable Technical
Low Extractable Technical Information

Tee-Style Ball Valves

Spears® low-extractable True Union Tee-Style Ball Valve design integrates valve and Tee-fitting for direct branch take-off laterals. The close proximity of the valve to mainline emulates a "zero deadleg" design to minimize any areas of fluid stagnation. Custom produced to specified Tee and Valve connection sizes.

True Union 2000 Industrial T-Style Ball Valve

EPDM
 Mainline Tee x Socket/Spigot
Safe-T-Block™ Design
 Dimensions Also Applicable to
 183901-XXXBL FKM O-Rings



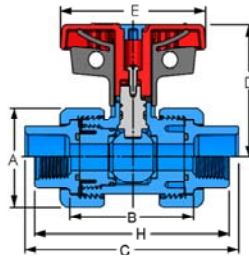
Part Number	Size	A	B	C	Approx. Wt. (Lbs.)
182901-005BL	1/2	2-5/16	3-3/4	1-5/8	.75
182901-007BL	3/4	3-7/16	4-1/4	1-7/8	1.11
182901-010BL	1	4	4-11/16	2-1/16	1.66
182901-012BL	1-1/4	4-1/4	5-5/16	2-7/16	1.65
182901-015BL	1-1/2	5-1/8	6-1/8	3	3.72
182901-020BL	2	5-7/8	7-5/16	3-7/16	5.86
182901-101BL	3/4X1/2	3-3/16	3-7/8	1-3/4	.71
182901-130BL	1X1/2	3-7/16	4	1-7/8	.62
182901-131BL	1X3/4	3-11/16	4-3/8	2	1.08
182901-166BL	1-1/4X1/2	4-1/4	4	1-7/8	1.11
182901-167BL	1-1/4X3/4	4-1/4	4-1/4	1-7/8	.92
182901-168BL	1-1/4X1	4-1/4	4-13/16	2-3/16	1.53
182901-209BL	1-1/2X1/2	4-3/8	4-1/4	2-1/8	.83
182901-210BL	1-1/2X3/4	4-1/8	4-5/8	2-3/16	1.12
182901-211BL	1-1/2X1	4-1/2	5	2-3/8	1.38
182901-247BL	2X1/2	4-3/16	4-9/16	2-7/16	1.12
182901-248BL	2X3/4	4-3/8	4-15/16	2-9/16	1.12
182901-249BL	2X1	4-3/4	5-1/4	2-5/8	1.63
182901-251BL	2X1-1/2	5-7/8	6-1/16	2-15/16	3.20
182901-333BL	3X1/2	5-1/2	5-1/8	3	1.65
182901-335BL	3X1	5-1/2	5-7/8	3-1/4	2.36
182901-337BL	3X1-1/2	7-1/4	6-9/16	3-7/16	3.73
182901-338BL	3X2	6-11/16	7-11/16	3-13/16	4.99
182901-417BL	4X1	7-7/16	6-5/16	3-11/16	3.12
182901-419BL	4X1-1/2	7-3/8	7-5/16	4-3/16	5.49
182901-420BL	4X2	7-3/4	8-5/16	4-7/16	6.65
182901-528BL	6X2	10-3/16	9-5/8	5-3/4	9.90
182901-578BL	8X2	15-5/8	12-5/8	8-3/4	20.96

Includes Plugged end with additional Socket and Threaded end connectors.

Low Extractable Technical
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True Union 2000 Industrial Ball Valves w/Handle Lockout & Safe-T-Block™ Design



EPDM O-ring

Dimensions Also Applicable to
 1839-XXXBL FKM O-Rings

Part Number	Size	A	B	C	D	E	H	Cv Values	Approx. Wt. (Lbs.)
1829-005BL	1/2	1-15/16	2-1/2	4-1/4	2- 9/16	2-7/8	3-7/8	29	.43
1829-007BL	3/4	2-3/8	2-13/16	4-13/16	2- 7/8	3- 3/8	4-1/4	63	.65
1829-010BL	1	2-5/8	2-15/16	5-3/16	3-1/16	3-1/2	4-3/4	120	.88
1829-012BL	1-1/4	3-3/16	3-5/16	5-13/16	3-9/16	3- 7/8	5-3/16	243	1.35
1829-015BL	1-1/2	3-9/16	3-9/16	6-5/16	4	4- 3/16	5-7/16	357	1.84
1829-020BL	2	4-5/16	4-13/16	7-13/16	4-7/16	5- 1/8	6-11/16	599	3.10

Needle Valves

Spears® low-extractable needle valves provide proportional opening to needle travel for more accurate metering and other fine-adjustment flow-control applications. Replaceable PTFE seat eliminates all elastomer seals. Available in Globe and Angle pattern configurations with socket or threaded end connections. Valves include built-in panel mounting nut and easy-grip polypropylene handles.

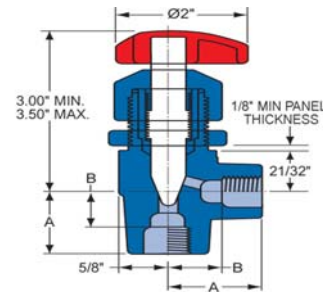
Replaceable PTFE Stem Seal - no elastomer or lubricants used. Needle valves carry a maximum internal pressure rating of 235 psi at 73°F (23°C).

Lab Fixtures (not shown)

See Low-Extractable High Purity PVC System section in the SPS-1 for additional information.

Needle Valve

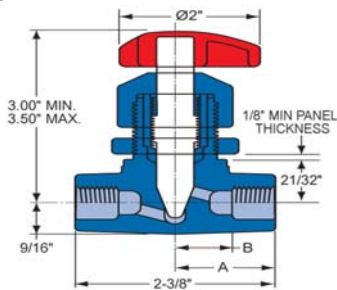
Angle Pattern - Fipt



Part Number	Size	A	B	Approx. Wt. (Lbs.)
5692-002BL	1/4	3	21/32	.24
5692-003BL	3/8	3	21/32	.23
5692-005BL	1/2	3	21/32	.25
5691-002BL	1/4	3	21/32	.24
5691-003BL	3/8	3	21/32	.23
5691-005BLSR	1/2	3	21/32	.27

Needle Valve

Globe Pattern - Fipt



Part Number	Size	A	B	Approx. Wt. (Lbs.)
5592-002BL	1/4	3	11/16	.23
5592-003BL	3/8	3	11/16	.23
5592-005BL	1/2	3	11/16	.25
5591-002BL	1/4	3	11/16	.23
5591-003BL	3/8	3	11/16	.22
5591-005BLSR	1/2	3	11/16	.26