



SHORTSTOPP® 3-WAY™ Tee

Sizes: 1-1/4- through 12-inch



T.D. Williamson, Inc.

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Supersedes: 2100.002.02 (10/02)



■ Threaded 3-WAY Tee Fitting
Sizes: 1-1/4" through 3"



■ Flanged 3-WAY Tee Fitting
Sizes: 4" through 12"

Description

TDW's 3-WAY™ Tee is designed for use with the TDW SHORTSTOPP® Plugging Machine Systems. It is used for main relocations, equipment tie-ins, lateral connections, line extensions and for making crossovers, all without shutdown.

The design of the 4" (DN 100) through 12" (DN 300) Type IIA 3-WAY Tee requires a reusable bolt-on flange adapter which adapts the tee to TDW SHORTCUTT® and SHORTSTOPP Valves.

When used with SHORTSTOPP Plugging

Features

Machines, the maximum recommended working pressure and temperature should be limited to that of the plugging equipment, but not exceeding that of the fitting itself.

All fittings are compatible with most ASME Class 150 applications. With the plugging equipment removed, the maximum working pressure is 285 psi (20 bar) at 100°F (38°C) or 245 psi (17 bar) at 180°F (82°C) per ASME B31.4. See chart on page 2 for MAOP per ASME B31.8.

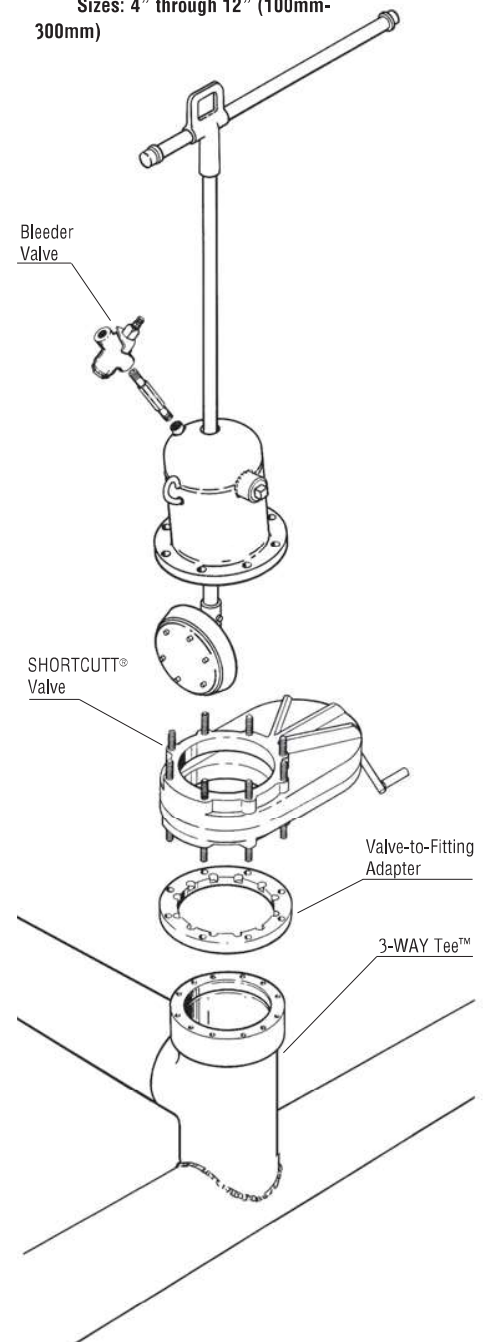
Sizes 1-1/4" (DN 32) and 2" (DN 50) tees are forged ASTM A-105. Size 3" (DN 80) tees are ASTM A-234 Grade WPB steel. Sizes 4" through 12" (DN 100 - 300) tees are either fabricated from ASTM A-106 Grade B or ASTM A-234 Grade WPB steel.

ISO 9001 Certified

Toll Free

1-888-TDWmSon (839-6766)

■ Typical Setup Sizes: 4" through 12" (100mm-300mm)





SHORTSTOPP® 3-WAY™ Tee

3-WAY™ Tee for SHORTSTOPP® 60 and SHORTSTOPP® 275

The 3-WAY Tee 1-1/4" through 3" includes: cap, completion plug, O-ring and tee.

The 3-WAY Tee 4" through 12" includes: cover flange with gasket, bolts and plastic caplugs, completion plug, O-Ring and tee.

Maximum allowable operating pressure (in psi) per ASME B31.8 at -20 to +100° F

Inches	Size	Weight		Design Factor				Part Number
	DN	Lbs.	Kg.	0.72	0.60	0.50	0.40	
1-1/4	32	4	2	285	285	285	285	06-6741-0000-00
1-1/2	38	4.5	2	285	285	285	285	26-0216-0000-00
2	50	5.5	2.5	285	285	285	285	26-0217-0000-00
3	80	11	5	285	285	285	285	26-0218-0000-00
4	100	36	16	285	285	285	285	06-7218-0000-00
6	150	51	23	285	285	285	285	06-7219-0000-00
8	200	92	42	285	285	285	285	06-7220-0000-00
10	250	162	74	285	285	285	225	06-7221-0000-00
12	300	240	109	285	265	220	175	06-7222-0000-00
3 x 4	80 x 100	11	5	285	285	285	285	26-0325-0304-01
4 x 6	100 x 150	35	16	285	285	285	285	06-7239-0406-01
6 x 8	150 x 200	50	23	285	285	285	285	06-7240-0608-01
8 x 10	200 x 250	125	57	285	285	285	285	06-7241-0810-01
8 x 12	200 x 300	125	57	285	285	285	285	06-7241-0812-01

Minimum Pipe Wall Thickness (Inches)

Size Inches	Header Pipe OD	Design Factor Min. Pipe Wall Thickness			
		0.72	0.60	0.50	0.40
1-1/4	1.660	0.019	0.023	0.027	0.034
1-1/2	1.900	0.021	0.026	0.031	0.039
2	2.375	0.027	0.032	0.039	0.048
3	3.500	0.040	0.048	0.057	0.071
4	4.500	0.051	0.061	0.073	0.092
6	6.625	0.075	0.090	0.108	0.135
8	8.625	0.098	0.117	0.140	0.176
10	10.750	0.122	0.146	0.175	0.219
12	12.750	0.144	0.173	0.208	0.260
3 x 4	4.500	0.051	0.061	0.073	0.092
4 x 6	6.625	0.075	0.090	0.108	0.135
6 x 8	8.625	0.098	0.117	0.140	0.176
8 x 10	10.750	0.122	0.146	0.175	0.219
8 x 12	12.750	0.144	0.173	0.208	0.260

Spare O-Rings & Gaskets

Size Inches	DN	Spare O-Rings Part Number	Spare Gaskets Part Number
1-1/2	38	00-0117-0010	--
2	50	00-0117-0010	--
3	80	00-0017-0013	--
4	100	00-1250-0001	00-5238-0004
6	150	00-1250-0002	00-5238-0006
8	200	00-1250-0003	00-5238-0008
10	250	00-1250-0004	00-5238-0010
12	300	00-1250-0005	00-5238-0012
3 x 4	80 x 100	00-0017-0013	--
4 x 6	100 x 150	00-1250-0001	00-5235-0004
6 x 8	150 x 200	00-1250-0002	00-5238-0006
8 x 10	200 x 250	00-1250-0003	00-5238-0008
8 x 12	200 x 300	00-1250-0003	00-5238-0008

Note: The TDW fitting provides sufficient material thickness for itself and in many cases reinforcement for the branch opening in the pipe. However, the chart above specifies minimum wall thickness of the pipe for self reinforcement. (Based on 35,000 PSI SMYS)

Flat-Bottomed Tees

Sizes: 1-1/4- to 12-inches



T.D. Williamson

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■ Threaded Flat-Bottomed Tee
Sizes 1-1/4- through 3-inch



■ Flanged Flat-Bottomed Tee
Sizes 4- through 12-inch

Description

Flat-Bottomed Tees are designed for hot tap tie-ins of lateral taps and crossover connections, eliminating need for a valve on the connection.

The Flat-Bottomed Tee is provided with a weld bevel. TDW recommends the review of approved welding procedures for the appropriate gaps between the flat-bottomed tee and the header pipe. For pre-scarfed 3-Way Tees, refer to bulletin 2100.002.

To isolate flow or pressure into connecting lines, the side outlet of the tee can be plugged with TDW SHORTSTOPP® 60 Plugging Machine equipment at pressures up to 60 psi or with SHORTSTOPP® II at pressures up to 150 psi.

For higher pressures up to 285 psi, special side outlet plugging equipment is available on special order. Consult the factory.

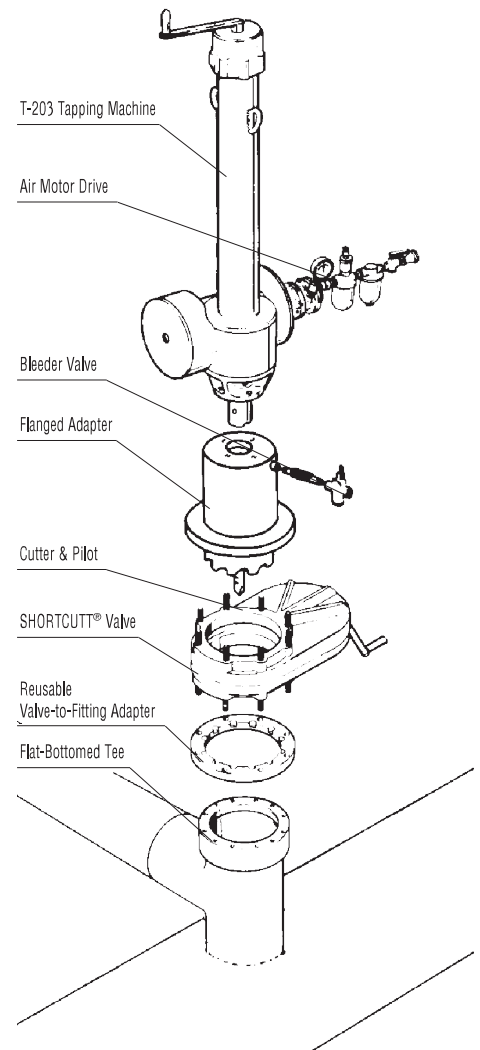
Features

The design of the 4 in., 6 in., 8 in., 10 in. and 12 in. Type IIa Flat-Bottomed Tee requires a reusable, bolt-on flange adapter which adapts the tee to valves with ASME Class 150 bolt patterns.

When used with SHORTSTOPP® Plugging Machines, the maximum recommended working pressure and temperature should be limited to that of the plugging equipment, but not exceeding that of the fitting itself.

All fittings are compatible with most ASME Class 150 applications. With the plugging equipment removed, the maximum working pressure is 285 psi (20 bar) at 100° F (38° C) or 245 psi (17 bar) at 180° F (82° C) per ASME B31.4. See chart on page 2 for MOAP per ASME B31.8.

■ Typical 4- through 12-in. Tapping Setup





Flat-Bottomed Tees



Threaded Flat-Bottomed Tees
Sizes 1-1/4- through 3-in. (DN 32 - 80)

Complete Threaded Flat-Bottomed Tee includes: cap, completion plug, O-ring and tee.



Flanged Flat-Bottomed Tees
Sizes 4- through 12-in. (DN 100 - 300)

Complete Flanged Flat-Bottomed Tee includes: cover flange, gasket, bolts, plastic capplugs, completion plug with O-ring and tee.

All Flat-Bottomed Tees are designed to meet ASME Class 150 service ratings and are for maximum operating pressures of 245 psi at 180° F or 285 psi (20 bar) at 100° F (38° C) after plugging equipment has been removed.

Flat-Bottomed Tees for Use with SHORTSTOPP® 60, SHORTSTOPP® II and SHORTSTOPP® 275 Plugging Machines

Size Inches DN	Part Number	Approx. Weight		Design Factor**				Nominal Wall Thickness Side Outlet
		Lb.	Kg.	0.72	0.60	0.50	0.40	
1-1/4 32	06-7313-0000	4	1.8	285	285	285	285	Schedule 40
1-1/4 32	06-8619-0000	4	1.8	285	285	285	285	Schedule 40
1-1/2 38	26-0219-0000	6	2.8	285	285	285	285	Schedule 40
2 50	26-0220-0000	7.5	3.5	285	285	285	285	Schedule 40
3 80	26-0221-0000	13	6	285	285	285	285	Schedule 40

* For thin wall pipe to side outlet.
** Maximum Allowable Operating Pressure (in psi). Per ASME B31.8 at -20 to +100° F
NOTE: Drilling and plug setting at pressures to 285 psi at 100° F using high pressure, full-opening (2-1/16 in. and 3-1/16 in.) tapping valve or new SHORTCUTT® 500 Valves.

Flat-Bottomed Tees for Use with SHORTSTOPP® 60, SHORTSTOPP® II and SHORTSTOPP® 275 Plugging Machines

Size Inches DN	Part Number	Weight		Design Factor**				Nominal Wall Thickness Side Outlet
		Lb.	Kg.	0.72	0.60	0.50	0.40	
4 100	06-7239-0400-01	35	16	285	285	285	285	Schedule 40
4* 100	06-7239-0400-02	35	16	285	285	285	285	.188"
6 150	06-7240-0600-01	50	23	285	285	285	285	Schedule 40
6* 150	06-7240-0600-02	50	23	285	285	285	285	.188"
8 200	06-7241-0800-01	125	57	285	285	285	285	Schedule 40
8* 200	06-7241-0800-02	125	57	285	285	285	285	.219"
10 250	06-7319-1000-01	160	72.5	285	285	285	285	Schedule 40
10* 250	06-7319-1000-02	160	72.5	285	285	285	285	.235"
12 300	06-7320-1200-01	230	104	285	270	225	180	.375"
12* 300	06-7320-1200-02	230	104	285	270	225	180	.250"

*For thin wall pipe to side outlet
**Maximum Allowable Operating Pressure (in psi). Per ASME B31.8 at -20 to +100° F
NOTE: Plug setting limited to 60 psi if using SHORTSTOPP® 60 equipment. Type II completion plugs are set at pressures up to 285 psi using SHORTSTOPP® 275/500 completion machines.

Minimum Pipe Thickness (Inch)

Size	Header Pipe OD	Design Factor			
		0.72	0.60	0.50	0.40
1-1/4	1.66	0.019	0.023	0.027	0.034
1-1/2	1.90	0.021	0.026	0.031	0.039
2	2.375	0.027	0.032	0.039	0.048
3	3.50	0.040	0.048	0.057	0.071
4	4.50	0.051	0.061	0.073	0.092
6	6.625	0.075	0.090	0.108	0.135
8	8.625	0.098	0.117	0.140	0.176
10	10.75	0.122	0.146	0.175	0.219
12	12.75	0.144	0.173	0.208	0.260

NOTE: The TDW Fitting provides sufficient material thickness for itself and in many cases reinforcement for the branch opening in the pipe. The chart above specifies the minimum required wall thickness of pipe needed for self-reinforcement. (Based on 35,000 PSI SMYS.) The thicknesses shown in the chart include the thickness required for hoop and area of reinforcement.