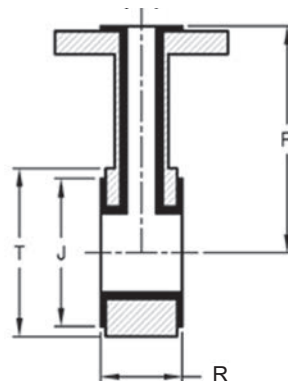


1" Branch Instrument Tees - Cast Bodies, PTFE-Lined

Instrument tees are rated for full vacuum to 450 °F
 A395 Cast Ductile Iron available in 1" - 8", only.
 A216 WCB Cast Steel and 395 Cast Ductile Iron have the same weight,
 J and T dimensions, and ATL availability.
 Weights are approximate



ASME B16.5 Class 150 Flanged - A216 WCB Cast Steel and A395 Cast Ductile Iron												
Size (NPS)	Size (DN)	Dimensions									Weight	
		P				J		T		ATL		
		A216 WCB Cast Steel		A395 Cast Ductile Iron		Inch	mm	Inch	mm		Inch	mm
		Inch	mm							lbs.		
1 x 1	25 x 25	3 1/2	89	3 1/2	89	2	51	2 5/8	67	●	3.7	1.7
1 1/2 x 1	40 x 25	4	102	4	102	2 7/8	73	3 3/8	86	●	5.1	2.3
2 x 1	50 x 25	4 1/2	114	5 9/16	141	3 5/8	92	4 1/8	105	●	6.6	3
3 x 1	80 x 25	5 1/2	140	6 5/16	160	5	127	5 3/8	137	●	9.2	4.2
4 x 1	100 x 25	6 1/2	165	7 1/16	179	6 3/16	157	6 3/4	171	●	13.3	6
6 x 1	150 x 25	8	203	8 1/16	205	8 1/2	216	8 3/4	222	●	17.4	7.9
8 x 1	200 x 25	9	229	9 5/16	237	10 5/8	270	11	279	●	23.6	10.7
10 x 1	250 x 25	11	279	N/A		12 3/4	324	13 3/8	340	●	38.1	17.3
12 x 1	300 x 25	12	305			15	381	16 1/8	410	●	50.8	23.1

ASME B16.5 Class 300 Flanged												
Size (NPS)	Size (DN)	Dimensions								Weight		
		P		J		T		ATL				
		Inch	mm	Inch	mm	Inch	mm		lbs.	kg		
1 x 1	25 x 25	4	102	2	51	2 7/8	73	●	4.6	2.1		
1 1/2 x 1	40 x 25	4 1/2	114	2 7/8	73	3 3/4	95	●	6	2.7		
2 x 1	50 x 25	5	127	3 5/8	92	4 3/8	111	●	7.5	3.4		
3 x 1	80 x 25	6	152	5	127	5 7/8	149	●	10.1	4.6		
4 x 1	100 x 25	7	178	6 3/16	157	7 1/8	181	●	14.2	6.5		
6 x 1	150 x 25	8 1/2	216	8 1/2	216	9 7/8	251	●	18.3	8.3		
8 x 1	200 x 25	10	254	10 5/8	270	12 1/8	308	●	24.5	11.1		

1" Branch Instrument Tees - Fabricated Bodies, PTFE-Lined

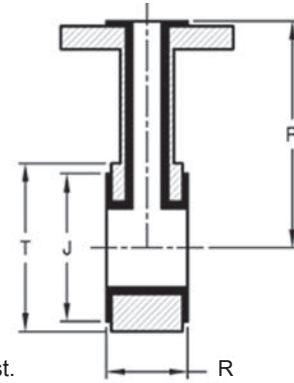
Notes for Class 150 Flanged Instrument Tees

1" - 12" instrument tees are rated for full vacuum to 450 °F.
 Consult factory or vacuum rating of 14" - 24" instrument tees.
 14" - 24" instrument tees are multipiece construction - See Page 18.

Notes for Class 300 Flanged Instrument Tees

1" - 8" instrument tees are rated for full vacuum to 450 °F.
 Consult factory for 14" - 24" sizes

Also available in stainless steel
 Weights are approximate



Note: 1" - 8" Instrument tees can be supplied with two branches, 180 degrees apart, on request.

ASME B16.5 Class 150 Flanged															
Size (NPS)	Size (DN)	Dimensions											Weight		
		P				R		J		T		ATL			
		With Rotating Branch Flange		With Fixed Branch Flange											
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs.	kg
1 x 1	25 x 25	3 1/2	89	3 1/2	89	2	51	2	51	2 5/8	67	●	3.7	1.7	
1 1/2 x 1	40 x 25	4	102	4	102	2	51	2 7/8	73	3 3/8	86	●	5.1	2.3	
2 x 1	50 x 25	4 1/2	114	5 9/16	141	2	51	3 5/8	92	4 1/8	105	●	6.6	3	
3 x 1	80 x 25	5 1/2	140	6 5/16	160	2	51	5	127	5 3/8	137	●	9.2	4.2	
4 x 1	100 x 25	6 1/2	165	7 1/16	179	2	51	6 3/16	157	6 3/4	171	●	13.3	6	
6 x 1	150 x 25	8	203	8 1/16	205	2	51	8 1/2	216	8 3/4	222	●	17.4	7.9	
8 x 1	200 x 25	9	229	9 5/16	237	2	51	10 5/8	270	11	279	●	23.6	10.7	
10 x 1	250 x 25	11	279	10 3/8	264	2	51	12 3/4	324	13 3/8	340	●	38.1	17.3	
12 x 1	300 x 25	12	305	11 7/8	302	2	51	15	381	16 1/8	410	●	50.8	23.1	
14 x 1	350 x 25	N/A		14 3/4	375	3 1/2	90	16 1/4	412	17 1/4	438		116.8	53.1	
16 x 1	400 x 25			15 3/8	390	3 1/2	90	18 1/2	470	19 7/8	505			130	59.1
18 x 1	450 x 25			17 3/4	450	3 1/2	90	21	534	21 1/4	540			150.7	68.5
20 x 1	500 x 25			19 5/8	500	3 1/2	90	23	585	23 1/2	597			158.6	72.1
24 x 1	600 x 25			20	510	3 1/2	90	27 1/4	692	27 3/4	705			174	79.1
ASME B16.5 Class 300 Flanged															
Size (NPS)	Size (DN)	Dimensions											Weight		
		P				R		J		T		ATL			
		With Rotating Branch Flange		With Fixed Branch Flange											
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs.	kg
1 x 1	25 x 25	4	102	4	102	2	51	2	51	2 7/8	73	●	4.6	2.1	
1 1/2 x 1	40 x 25	4 1/2	114	4 1/2	114	2	51	2 7/8	73	3 3/4	95	●	6	2.7	
2 x 1	50 x 25	5	127	5 9/16	141	2	51	3 5/8	92	4 3/8	111	●	7.5	3.4	
3 x 1	80 x 25	6	152	6 5/16	160	2	51	5	127	5 7/8	149	●	10.1	4.6	
4 x 1	100 x 25	7	178	7 1/16	179	2	51	6 3/16	157	7 1/8	181	●	14.2	6.5	
6 x 1	150 x 25	8 1/2	216	8 1/16	205	2	51	8 1/2	216	9 7/8	251	●	18.3	8.3	
8 x 1	200 x 25	10	254	9 5/16	235	2	51	10 5/8	270	12 1/8	308	●	24.5	11.1	

1 1/2" Branch Instrument Tees - Fabricated Bodies, PTFE-Lined

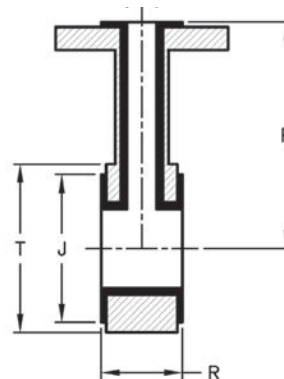
Notes for Class 150 Flanged Instrument Tees

1" - 12" instrument tees are rated for full vacuum to 450 °F.
 Consult factory or vacuum rating of 14" - 24" instrument tees.
 14" - 24" instrument tees are multipiece construction - See Page 18.

Notes for Class 300 Flanged Instrument Tees

1" - 8" instrument tees are rated for full vacuum to 450 °F.
 1" flanged is fixed.
 Consult factory for 14" - 24" sizes

Also available in stainless steel
 Weights are approximate

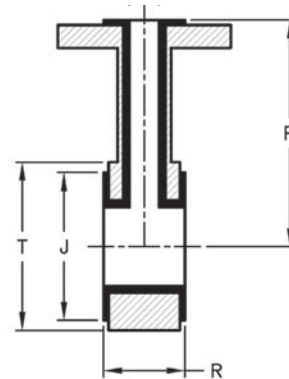


ASME B16.5 Class 150 Flanged																
Size (NPS)	Size (DN)	Dimensions													Weight	
		With Rotating Branch Flange				With Fixed Branch Flange				J		T		ATL		
		P		R		P		R								
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs.	kg	
1 1/2 x 1 1/2	40 x 40	4	102	4	102	4	102	3	76	2 7/8	73	3 3/8	86	●	8.3	3.8
2 x 1 1/2	50 x 40	4 1/2	114	4	102	5 9/16	141	3	76	3 5/8	92	4 1/8	105	●	10.8	4.9
3 x 1 1/2	80 x 40	5 1/2	140	4	102	6 5/16	160	3	76	5	127	5 3/8	137	●	15	6.8
4 x 1 1/2	100 x 40	6 1/2	165	4	102	7 1/16	179	3	76	6 3/16	157	6 3/4	171	●	21.7	9.9
6 x 1 1/2	150 x 40	8	203	4	102	8 1/16	205	3	76	8 1/2	216	8 3/4	222	●	28.1	12.8
8 x 1 1/2	200 x 40	9	229	4	102	9 5/16	237	3	76	10 5/8	270	11	279	●	38.1	17.3
10 x 1 1/2	250 x 40	11	279	4	102	10 3/8	264	3	76	12 3/4	324	13 3/8	340	●	52.6	23.9
12 x 1 1/2	300 x 40	12	305	4	102	11 7/8	302	3	76	15	381	16 1/8	410	●	65.2	29.6
14 x 1 1/2	350 x 40	N/A				14 3/4	375	3 5/16	110	16 1/4	412	17 1/4	438		145.6	66.2
16 x 1 1/2	400 x 40					15 3/8	390	3 5/16	110	18 1/2	470	19 7/8	505		163.9	74.5
18 x 1 1/2	450 x 40					17 3/4	450	3 5/16	110	21	534	21 1/4	540		199.1	90.5
20 x 1 1/2	500 x 40					19 5/8	500	3 5/16	110	23	585	23 1/2	597		199.1	90.5
24 x 1 1/2	600 x 40					20	510	3 5/16	110	27 1/4	692	27 3/4	705		207.9	94.5

ASME B16.5 Class 150 Flanged																
Size (NPS)	Size (DN)	Dimensions													Weight	
		With Rotating Branch Flange				With Fixed Branch Flange				J		T		ATL		
		P		R		P		R								
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs.	kg	
1 1/2 x 1 1/2	40 x 40	4	102	4	102	4 1/2	114	3	76	2 7/8	73	3 3/8	86	●	8.3	3.8
2 x 1 1/2	50 x 40	4 1/2	114	4	102	5 9/16	141	3	76	3 5/8	92	4 1/8	105	●	10.8	4.9
3 x 1 1/2	80 x 40	5 1/2	140	4	102	6 5/16	160	3	76	5	127	5 3/8	137	●	15	6.8
4 x 1 1/2	100 x 40	6 1/2	165	4	102	7 1/16	179	3	76	6 3/16	157	6 3/4	171	●	21.7	9.9
6 x 1 1/2	150 x 40	8	203	4	102	8 1/16	205	3	76	8 1/2	216	8 3/4	222	●	28.1	12.8
8 x 1 1/2	200 x 40	9	229	4	102	9 5/16	235	3	76	10 5/8	270	11	279	●	38.1	17.3

2" Branch Instrument Tees - Fabricated Bodies, PTFE-Lined

1" - 12" instrument tees with fixed flange are rated for full vacuum to 450 °F.
 1" - 8" instrument tees with rotating flange are rated for full vacuum to 450 °F.
 10" - 12" instrument tees with rotating flange are non-vacuum rated.
 Consult factory or vacuum rating of 14" - 24" instrument tees.
 14" - 24" instrument tees are multipiece construction - See Page 18.
 Also available in stainless steel
 Weights are approximate

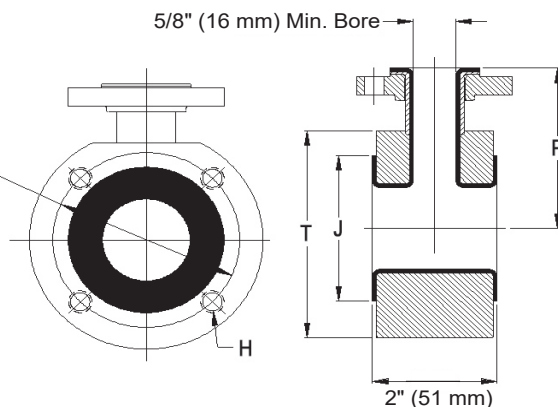


ASME B16.5 Class 150 Flanged														
Size (NPS)	Size (DN)	Dimensions											Weight	
		P				R		J		T		ATL		
		With Rotating Branch Flange		With Fixed Branch Flange										
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	lbs.
2 x 2	50 x 50	4 1/2	114	5 9/16	141	4	102	3 5/8	92	4 1/8	105	●	7	3.2
3 x 2	80 x 50	5 1/2	140	6 5/16	160	4	102	5	127	5 3/8	137	●	24	10.9
4 x 2	100 x 50	6 1/2	165	7 1/16	179	4	102	6 3/16	157	6 3/4	171	●	33	15
6 x 2	150 x 50	8	203	8 1/16	205	4	102	8 1/2	216	8 3/4	222	●	43	19.5
8 x 2	200 x 50	9	229	9 5/16	237	4	102	10 5/8	270	11	279	●	62	28.2
10 x 2	250 x 50	11	279	10 3/8	264	4	102	12 3/4	324	13 3/8	340	●	79	35.9
12 x 2	300 x 50	12	305	11 7/8	302	4	102	15	381	16 1/8	410	●	108	49.1
14 x 2	350 x 50	N/A		14 3/4	375	4 3/4	120	16 1/4	412	17 1/4	438		162	73.7
16 x 2	400 x 50			15 3/8	390	4 3/4	120	18 1/2	470	19 7/8	505		184	83.7
18 x 2	450 x 50			17 3/4	450	4 3/4	120	21	534	21 1/4	540		206	93.7
20 x 2	500 x 50			19 5/8	500	4 3/4	120	23	585	23 1/2	597		222	100.7
24 x 2	600 x 50			20	510	4 3/4	120	27 1/4	692	27 3/4	705		237	107.7

Consult factory for availability of Class 300 flanged instrument tees with 2" branch.

1" Branch Lug Body Instrument Tees PTFE, PP, and PVDF-Lined

1" - 12" instrument tees with fixed flange are rated for full vacuum to 450 °F.
 1" - 8" sizes are rated for full vacuum at liner maximum operating temperature.
 10" - 12" sizes are non-vacuum rated.
 Also available in stainless steel
 Weights are approximate



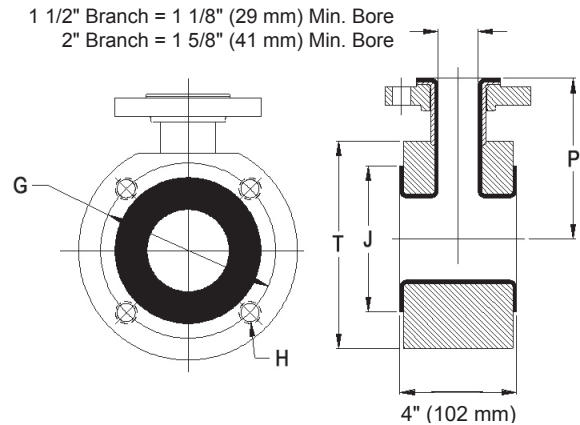
ASME B16.5 Class 150 Flanged														
Size (NPS)	Size (DN)	Dimensions											Weight	
		P		J		T		G		H Holes No. and Size	Liner Availability			
		Inch	mm	Inch	mm	Inch	mm	Inch	mm		PTFE/ATL	PP/PVDF	lbs.	kg
1 x 1	25 x 25	3 1/2	89	2	51	4 1/4	108	3 1/8	79	(4) 1/2 - 13	●	●	6	2.7
1 1/2 x 1	40 x 25	4	102	2 7/8	73	5	127	3 7/8	98	(4) 1/2 - 13	●	●	8	3.6
2 x 1	50 x 25	4 1/2	114	3 5/8	92	6	152	4 3/4	121	(4) 5/8 - 11	●	●	10	4.5
3 x 1	80 x 25	5 1/2	140	5	127	7 1/2	191	6	152	(4) 5/8 - 11	●	●	12	5.5
4 x 1	100 x 25	6 1/2	165	6 3/16	157	9	229	7 1/2	191	(8) 5/8 - 11	●	●	18	8.2
6 x 1	150 x 25	8	203	8 1/2	216	11	279	9 1/2	241	(8) 3/4 - 10	●	●	22	10
8 x 1	200 x 25	9	229	10 5/8	270	13 1/2	343	11 3/4	298	(8) 3/4 - 10	●	●	30	13.6
10 x 1	250 x 25	11	279	12 3/4	324	16	406	14 1/4	362	(12) 7/8 - 9	●		55	25
12 x 1	300 x 25	12	305	15	381	19	483	17	432	(12) 7/8 - 9	●		69	31.4

Consult factory for availability of Class 300 lug body instrument tees.

1 1/2" and 2" Branch Lug Body Instrument Tees

PTFE, PP, and PVDF-Lined

1" - 12" instrument tees with fixed flange are rated for full vacuum to 450 °F.
 1" - 8" sizes are rated for full vacuum at liner maximum operating temperature.
 10" - 12" sizes are non-vacuum rated.
 Also available in stainless steel
 Weights are approximate



ASME B16.5 Class 150 Flanged, 1 1/2" Branch																
Size (NPS)	Size (DN)	Dimensions										Liner Availability			Weight	
		P		J		T		G		H Holes No. and Size						
		Inch	mm	Inch	mm	Inch	mm	Inch	mm		PTFE/ATL	PP/PVDF	lbs.	kg		
1 1/2 x 1 1/2	40 x 40	4	102	2 7/8	73	5	127	3 7/8	98	(4) 1/2 - 13	●	●	12	5.5		
2 x 1 1/2	50 x 40	4 1/2	114	3 5/8	92	6	152	4 3/4	121	(4) 5/8 - 11	●	●	16	7.3		
3 x 1 1/2	80 x 40	5 1/2	140	5	127	7 1/2	191	6	152	(4) 5/8 - 11	●	●	27	12.3		
4 x 1 1/2	100 x 40	6 1/2	165	6 3/16	157	9	229	7 1/2	191	(8) 5/8 - 11	●	●	41	18.6		
6 x 1 1/2	150 x 40	8	203	8 1/2	216	11	279	9 1/2	241	(8) 3/4 - 10	●	●	52	23.6		
8 x 1 1/2	200 x 40	9	229	10 5/8	270	13 1/2	343	11 3/4	298	(8) 3/4 - 10	●	●	60	27.3		
10 x 1 1/2	400 x 40	11	279	12 3/4	324	16	406	14 1/4	362	(12) 7/8 - 9	●		77	35		
12 x 1 1/2	300 x 40	12	305	15	381	19	483	17	432	(12) 7/8 - 9	●		104	47.3		

ASME B16.5 Class 150 Flanged, 2" Branch																
Size (NPS)	Size (DN)	Dimensions										Liner Availability			Weight	
		P		J		T		G		H Holes No. and Size						
		Inch	mm	Inch	mm	Inch	mm	Inch	mm		PTFE/ATL	PP/PVDF	lbs.	kg		
2 x 2	50 x 50	4 1/2	114	3 5/8	92	6	152	4 3/4	121	(4) 5/8 - 11	●	●	18	8.2		
3 x 2	80 x 50	5 1/2	140	5	127	7 1/2	191	6	152	(4) 5/8 - 11	●	●	29	13.2		
4 x 2	100 x 50	6 1/2	165	6 3/16	157	9	229	7 1/2	191	(8) 5/8 - 11	●	●	43	19.5		
6 x 2	150 x 50	8	203	8 1/2	216	11	279	9 1/2	241	(8) 3/4 - 10	●	●	54	24.5		
8 x 2	200 x 50	9	229	10 5/8	270	13 1/2	343	11 3/4	298	(8) 3/4 - 10	●	●	62	28.2		
10 x 2	500 x 50	11	279	12 3/4	324	16	406	14 1/4	362	(12) 7/8 - 9	●		79	35.9		
12 x 2	300 x 50	12	305	15	381	19	483	17	432	(12) 7/8 - 9	●		106	48.2		

Consult factory for availability of Class 300 lug body instrument tees.