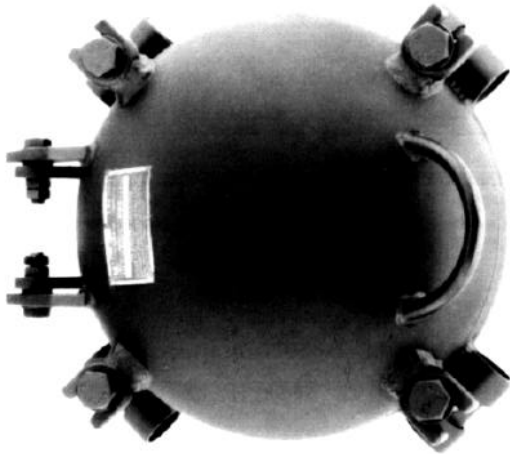


T-BOLT CLOSURES



Class 75-TB, 150-TB and 300-TB

U.S. Pat. No. 3,187,929

	Nom. Pipe Size	Nom.* Wall Thickness	Over-all A	O.D. at Welding Bevel B	Back to Face C	Hub Length D	Clear Hub* Length E	Center to Hinge End F	Swing Bolt Clearance J	Opening Clearance K	No. Bolts	Bolt Size	Approx. Weight Lbs
Class 75-TB T-Bolt Horizontal	10	.500	13 ³ / ₁₆	10 ³ / ₄	27 ¹ / ₁₆	2 ¹ / ₁₆	⁵ / ₁₆	7 ⁵ / ₁₆	18	12 ¹ / ₄	3	¹ / ₂	30
	12	.500	16 ¹ / ₁₆	12 ³ / ₄	21 ⁵ / ₁₆	2 ⁵ / ₁₆	³ / ₄	8 ¹⁵ / ₁₆	21	14 ¹ / ₄	4	⁵ / ₁₆	50
	14	.500	17 ³ / ₁₆	14	3 ¹ / ₄	27 ¹ / ₁₆	1	9 ⁹ / ₁₆	22	15 ¹ / ₂	4	⁵ / ₁₆	60
	16	.500	19 ³ / ₁₆	16	3 ³ / ₄	27 ¹ / ₁₆	1	10 ¹ / ₂	24	17 ¹ / ₂	4	⁵ / ₁₆	70
	18	.500	21 ³ / ₁₆	18	4 ¹ / ₄	3 ³ / ₁₆	1 ³ / ₁₆	11 ¹ / ₁₆	30	19 ¹ / ₂	4	³ / ₄	95
	20	.500	23 ³ / ₁₆	20	4 ³ / ₄	37 ¹ / ₁₆	1 ¹ / ₁₆	12 ¹⁵ / ₁₆	32	21 ¹ / ₁₆	4	³ / ₄	115
	22	.500	25 ³ / ₁₆	22	5 ¹ / ₄	4 ³ / ₁₆	2 ³ / ₁₆	13 ¹⁵ / ₁₆	34	23 ¹ / ₁₆	5	³ / ₄	140
	24	.500	27 ⁷ / ₁₆	24	5 ³ / ₄	4 ³ / ₁₆	1 ¹³ / ₁₆	15	38	25 ¹ / ₁₆	5	⁷ / ₁₆	165
	26	.500	29 ⁷ / ₁₆	26	6 ¹ / ₄	37 ¹ / ₁₆	1 ⁵ / ₁₆	16 ¹ / ₄	40	28	6	⁷ / ₁₆	180
	28	.500	31 ⁷ / ₁₆	28	6 ³ / ₄	3 ³ / ₁₆	1 ¹ / ₁₆	17 ¹ / ₄	42	30	6	⁷ / ₁₆	200
	30	.500	33 ⁷ / ₁₆	30	7 ¹ / ₄	3 ³ / ₁₆	⁷ / ₁₆	18 ⁵ / ₁₆	45	32	8	⁷ / ₁₆	230
	32	.500	35 ⁷ / ₁₆	32	7 ³ / ₄	4 ³ / ₁₆	2	19 ⁵ / ₁₆	47	34	9	⁷ / ₁₆	265
34	.625	38 ³ / ₄	34	8 ¹ / ₄	4 ³ / ₁₆	1 ⁵ / ₁₆	20 ⁵ / ₁₆	51	36	9	1 ¹ / ₁₆	325	
36	.625	40 ³ / ₄	36	8 ¹ / ₁₆	4 ¹ / ₂	1 ³ / ₁₆	21 ⁹ / ₁₆	53	38	9	1 ¹ / ₁₆	410	
38	.625	42 ³ / ₄	38	9 ³ / ₁₆	4 ¹ / ₂	1 ⁵ / ₁₆	22 ⁹ / ₁₆	55	40	10	1 ¹ / ₁₆	450	
40	.625	44 ³ / ₄	40	9 ¹ / ₁₆	4 ¹ / ₂	1 ⁵ / ₁₆	22 ³ / ₄	57	42	10	1 ¹ / ₁₆	480	
42	.625	46 ³ / ₄	42	10 ³ / ₁₆	4 ¹ / ₂	1 ⁵ / ₁₆	25 ⁵ / ₁₆	61	44 ³ / ₄	11	1 ¹ / ₁₆	550	
48	.750	52 ³ / ₄	48	11 ⁵ / ₁₆	6 ¹ / ₁₆	3 ¹ / ₄	28	67	50 ¹ / ₄	14	1 ¹ / ₁₆	830	

All dimensions are in inches. When ordering, please specify class, nominal size, bore, material and service conditions.

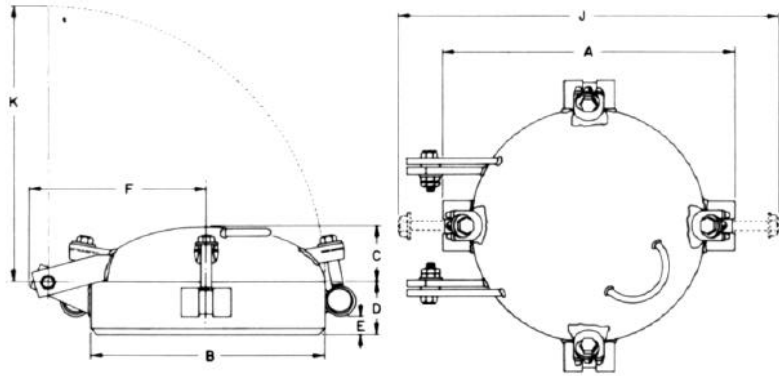
TUBE TURNS T-Bolt Hinged Closures are regularly furnished in carbon steel; however, they are available in stainless steel and other metals and alloys.

For Pressure Ratings, see page 25.

T-Bolt Closures with longer hubs; Closures made to I.D. dimensions; or Closures equipped with Sight Glasses, Break-Over Wrenches, Camlocks and other appurtenances are available on special order.

*Standard Closures are taper bored to match standard weight.

T-BOLT CLOSURES



	Nom. Pipe Size	Nom.* Wall Thickness	Over-all A	O.D. at Welding Bevel B	Back to Face C	Hub Length D	Clear Hub Length E	Center to Hinge End F	Swing Bolt Clearance J	Opening Clearance K	No. Bolts	Bolt Size	Approx. Weight Lbs
Class 150-TB T-Bolt Horizontal	6	.432	9 ¹ / ₄	6 ⁵ / ₈	1 ⁷ / ₈	1 ¹¹ / ₁₆	¹ / ₄	5 ¹ / ₂	13	8	3	¹ / ₂	15
	8	.500	11 ¹ / ₄	8 ⁵ / ₈	1 ¹⁵ / ₁₆	1 ⁵ / ₈	¹ / ₄	6 ⁵ / ₈	15	10 ¹ / ₈	3	¹ / ₂	20
	10	.500	14 ¹ / ₈	10 ³ / ₄	2 ⁷ / ₁₆	2 ⁷ / ₈	⁵ / ₁₆	7 ⁵ / ₈	19	12 ¹ / ₄	4	⁵ / ₈	35
	12	.500	16 ¹ / ₈	12 ³ / ₄	2 ¹⁵ / ₁₆	2 ⁵ / ₈	³ / ₄	9	23	14 ⁵ / ₁₆	4	³ / ₄	55
	14	.500	17 ³ / ₈	14	3 ¹ / ₄	2 ⁷ / ₈	1	9 ⁹ / ₁₆	24	15 ¹ / ₂	4	³ / ₄	65
	16	.500	19 ³ / ₈	16	3 ³ / ₄	2 ⁷ / ₈	1	10 ¹ / ₂	26	17 ¹ / ₂	7	⁵ / ₈	80
	18	.500	21 ³ / ₈	18	4 ¹ / ₄	3 ³ / ₈	1 ³ / ₈	11 ¹¹ / ₁₆	30	19 ¹ / ₂	6	³ / ₄	100
	20	.500	23 ³ / ₈	20	4 ³ / ₄	3 ⁷ / ₈	1 ¹¹ / ₁₆	12 ¹⁵ / ₁₆	32	21 ¹¹ / ₁₆	7	³ / ₄	125
	22	.500	25 ³ / ₄	22	5 ¹ / ₄	4 ³ / ₈	2	15 ¹ / ₂	36	25 ³ / ₁₆	7	⁷ / ₈	150
	24	.500	27 ⁷ / ₈	24	5 ³ / ₄	4 ³ / ₈	1 ¹³ / ₁₆	15	38	25 ¹¹ / ₁₆	8	⁷ / ₈	180
26	.500	29 ⁷ / ₈	26	6 ¹ / ₄	3 ⁷ / ₈	1 ⁵ / ₁₆	16 ¹ / ₄	40	28	9	⁷ / ₈	200	
28	.500	31 ⁷ / ₈	28	6 ³ / ₄	3 ³ / ₈	1 ¹ / ₈	17 ¹ / ₄	43	30	11	⁷ / ₈	225	
30	.500	33 ⁷ / ₈	30	7 ¹ / ₄	3 ³ / ₈	⁷ / ₈	18 ⁵ / ₁₆	45	32	12	⁷ / ₈	250	
32	.500	36 ³ / ₄	32	7 ³ / ₄	4 ³ / ₈	1 ⁵ / ₁₆	19 ⁵ / ₁₆	49	34	10	1 ¹ / ₈	310	
34	.625	38 ³ / ₄	34	8 ³ / ₁₆	4 ³ / ₈	1 ⁵ / ₁₆	20 ⁵ / ₈	53	36	10	1 ¹ / ₈	380	
36	.625	40 ³ / ₄	36	8 ¹¹ / ₁₆	4 ¹ / ₂	1 ³ / ₈	21 ⁹ / ₁₆	55	38	11	1 ¹ / ₈	460	
38	.625	42 ³ / ₄	38	9 ³ / ₁₆	4 ¹ / ₂	1 ⁵ / ₈	22 ¹¹ / ₁₆	57	40 ¹ / ₁₆	13	1 ¹ / ₈	500	
40	.625	44 ³ / ₄	40	9 ¹¹ / ₁₆	4 ¹ / ₂	1 ⁵ / ₈	23 ⁵ / ₁₆	59	41 ¹¹ / ₁₆	14	1 ¹ / ₈	550	
42	.625	46 ³ / ₄	42	10 ³ / ₁₆	4 ¹ / ₂	1 ⁵ / ₈	24 ¹¹ / ₁₆	61	44 ¹ / ₁₆	15	1 ¹ / ₈	600	
48	.750	52 ³ / ₄	48	11 ⁵ / ₈	6 ¹ / ₈	3 ¹ / ₄	32 ³ / ₈	67	52	16	1 ¹ / ₈	860	
Class 300-TB T-Bolt Horizontal	6	.432	9 ⁷ / ₈	6 ⁵ / ₈	1 ⁷ / ₈	2 ¹ / ₁₆	⁵ / ₁₆	5 ⁵ / ₈	16	8 ¹ / ₈	3	⁵ / ₈	18
	8	.500	11 ⁷ / ₈	8 ⁵ / ₈	1 ¹⁵ / ₁₆	2 ¹ / ₈	¹ / ₄	6 ⁹ / ₁₆	19	10 ¹ / ₈	4	⁵ / ₈	27
	10	.500	14	10 ³ / ₄	2 ⁷ / ₁₆	2 ¹ / ₂	³ / ₈	7 ⁵ / ₈	20	12 ¹ / ₄	4	³ / ₄	35
	12	.500	16	12 ³ / ₄	2 ¹⁵ / ₁₆	2 ⁵ / ₈	³ / ₄	8 ¹³ / ₁₆	23	14 ¹ / ₄	6	³ / ₄	55
	14	.500	17 ¹ / ₄	14	3 ¹ / ₄	2 ⁷ / ₈	1	9 ⁹ / ₁₆	25	15 ¹ / ₂	7	³ / ₄	70
	16	.500	19 ¹³ / ₁₆	16	3 ³ / ₄	2 ⁷ / ₈	⁹ / ₁₆	10 ¹ / ₂	29	17 ¹ / ₂	7	⁷ / ₈	85
	18	.500	22 ³ / ₄	18	4 ¹ / ₄	3 ³ / ₈	⁵ / ₈	12 ¹ / ₄	33	20 ¹ / ₁₆	6	1 ¹ / ₈	130
	20	.500	24 ³ / ₄	20	4 ³ / ₄	3 ⁷ / ₈	1	12 ¹⁵ / ₁₆	36	21 ¹¹ / ₁₆	7	1 ¹ / ₈	175
	22	.500	26 ³ / ₄	22	5 ¹ / ₄	4 ³ / ₈	1 ⁵ / ₈	13 ¹⁵ / ₁₆	38	23 ¹¹ / ₁₆	8	1 ¹ / ₈	200
	24	.500	28 ³ / ₄	24	5 ³ / ₄	4 ³ / ₈	1 ¹ / ₂	15	40	25 ¹¹ / ₁₆	9	1 ¹ / ₈	230
26	.500	30 ³ / ₄	26	6 ¹ / ₄	4 ³ / ₈	1 ¹ / ₄	16 ⁵ / ₈	42	28 ⁵ / ₈	9	1 ¹ / ₈	250	
28	.500	32 ³ / ₄	28	6 ³ / ₄	4 ³ / ₈	1 ⁵ / ₈	17 ⁵ / ₁₆	45	30	10	1 ¹ / ₈	275	
30	.500	34 ³ / ₄	30	7 ¹ / ₄	4 ³ / ₈	1 ¹¹ / ₁₆	18 ⁵ / ₁₆	47	32	11	1 ¹ / ₈	300	
32	.500	36 ³ / ₄	32	7 ³ / ₄	4 ³ / ₈	1 ⁵ / ₁₆	19 ¹¹ / ₁₆	49	34 ⁷ / ₁₆	11	1 ¹ / ₈	360	
34	.625	38 ³ / ₄	34	8 ¹ / ₄	4 ³ / ₈	1 ⁵ / ₁₆	20 ⁵ / ₈	53	36	12	1 ¹ / ₈	440	
36	.625	40 ³ / ₄	36	8 ¹¹ / ₁₆	4 ¹ / ₂	1 ³ / ₈	21 ⁹ / ₁₆	55	38	12	1 ¹ / ₈	510	

(Refer to page 26 for Notes applicable to Class 75, 150 and 300 T-Bolt Closures.)

For Pressure Ratings, see page 25.

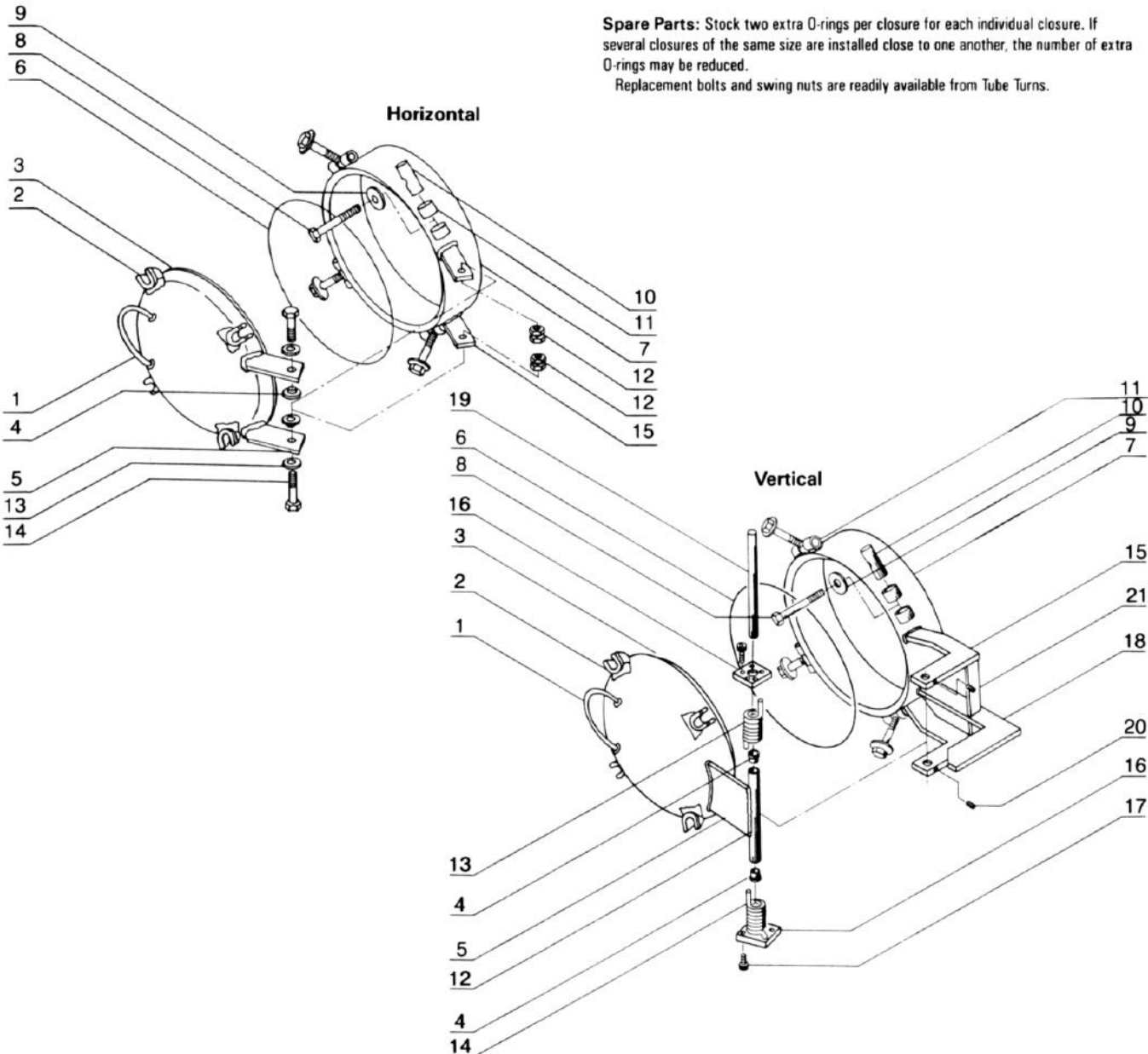
T-BOLT CLOSURES

T-Bolt Closure Horizontal Parts List

- | | | | |
|-------------------|-------------------|----------------------|-----------------------|
| 1. Head Handle | 5. Head Hinge Arm | 9. Head Bolt Washer | 13. Hinge Bolt Washer |
| 2. Head Bolt Lug | 6. O-ring | 10. Tapped Swing Nut | 14. Hinge Bolt |
| 3. Head | 7. Hub | 11. Hub Nut Mounts | 15. Hub Hinge Arms |
| 4. Hinge Bushings | 8. Head Bolt | 12. Hinge Bolt Nut | |

T-Bolt Closure Vertical Parts List

- | | | | |
|-------------------|----------------------|---------------------|-------------------------|
| 1. Head Handle | 7. Hub | 12. Hinge Tube | 17. Lock Screw |
| 2. Head Bolt | 8. Head Bolt | 13. Spring (R.H.) | 18. Head Stop |
| 3. Head | 9. Head Bolt Washer | 14. Spring (L.H.) | 19. Hinge Rod |
| 4. Hinge Bushing | 10. Tapped Swing Nut | 15. Hub Hinge Arms | 20. Hinge Rod Set Screw |
| 5. Head Hinge Arm | 11. Hub Nut Mounts | 16. Adjusting Plate | 21. Hinge Brace |
| 6. O-ring | | | |



Spare Parts: Stock two extra O-rings per closure for each individual closure. If several closures of the same size are installed close to one another, the number of extra O-rings may be reduced.

Replacement bolts and swing nuts are readily available from Tube Turns.