

Tank Accessories

Code Elliptical Handholes and Manways

ASME code elliptical handholes and manways are used to provide access to ASME code pressure vessels. They are pressure rated and come with a Certificate of Conformance to ASME code, and are produced in accordance with ASME Section VIII Division 1 UG 11. Manways and handholes are made from carbon and stainless steel. **A wide variety of sizes are stocked in our 4 conveniently located distribution centers.** [Click here](#) to view a list of stock parts.



Handhole Assemblies Elliptical ASME Code (Carbon)

Description	Estimated Weight (lbs.)	PSI @ 650° F	Stock Set Number
3 x 4 x 5/16 x 1-1/4	4.5	920	#4
4 x 6 x 1/4 x 1-5/8	7.0	1360	#104
4 x 6 x 1/2 x 2	12.5	1360	#116
4 x 6 x 3/4 x 3	17.5	1360	#128
6 x 8 x 1/2 x 2	16.0	540	#210
6 x 8 x 3/4 x 3	24.0	540	#222

Description	Estimated Weight (lbs.)		PSI @ 650° F		Stock Set Number
	1/4" Cover	3/8" Cover	1/4" Cover	3/8" Cover	1/4" Cover / 3/8" Cover
*11 x 15 x 3/4 x 3	57.0	66.0	600	640	#501 / #540
*11 x 15 x 3/4 x 4	66.0	75.0	600	640	#504 / #543
*11 x 15 x 3/4 x 5	75.0	84.0	600	640	#507 / #546
*11 x 15 x 3/4 x 6	84.0	93.0	600	640	#516 / #555
*11 x 15 x 1 x 3	60.0	77.0	600	640	#522 / #525
*11 x 15 x 1 x 4	77.0	89.0	600	640	#510 / #549
*11 x 15 x 1 x 5	90.0	100.0	600	640	#513 / #552
*11 x 15 x 1 x 6	104.0	113.0	600	640	#519 / #555

Covers SA516-70; Rings SA-106C seamless pipe

Manway Assemblies Elliptical (Carbon) ASME Code

Description	Estimated Weight (lbs.)		PSI @ 650° F		Stock Set Number
	1/4" Cover	3/8" Cover	1/4" Cover	3/8" Cover	1/4" Cover / 3/8" Cover
12 x 16 x 3/4 x 3	63.0	78.0	360	700	#604 / #643
12 x 16 x 3/4 x 4	73.0	88.0	360	700	#613 / #652
12 x 16 x 3/4 x 5	83.0	111.0	360	700	#616 / #660
12 x 16 x 1 x 4	86.0	101.0	360	700	#619 / #667

14 x 18 x 3/4 x 4		105.0		480	#716
14 x 18 x 1 x 4		111.0		480	#731

Covers SA516-70; Rings SA-106C seamless pipe
 These sets are registered for use in Canada. See the [Canadian Registration Numbers](#).

Handhole and Manway Assemblies Elliptical ASME Code (Stainless)

Description	Material	Est. Wt. (lbs.)	PSI@ 100° F	Stock Set Number
4 x 6 x 1/4 x 1-5/8	304L / 316L	7.0	640	#170 / #176
6 x 8 x 1/4 x 2	304L / 316L	16.0	360	#261 / #270
6 x 8 x 1/2 x 3	304L / 316L	22.5	360	#279 / #285
11 x 15 x 3/4 x 3	304L	65.0	460	#589
11 x 15 x 3/4 x 4	304L / 316L	69.0	460 / 350	#583 / #586
12 x 16 x 3/4 x 3	316L	72.0	400	#691
12 x 16 x 3/4 x 4	304L / 316L	83.0	400	#685 / #688
14 x 18 x 3/4 x 4	304L / 316L	115.0	440 / 510	#761 / #767

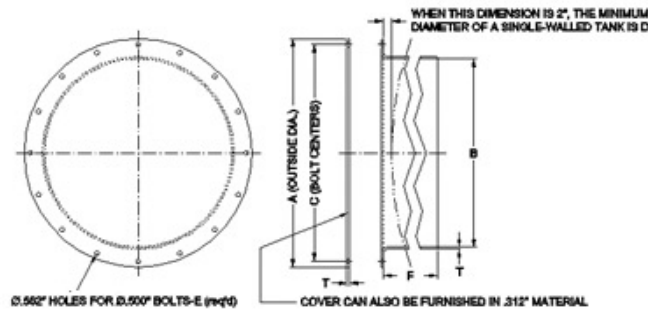
Covers and rings from SA 240 Plate. All stainless covers are 1/4" thick except the 14" x 18" which is 3/8" thick

Sizes are derived from the nominal ID of the handhole or manway ring.

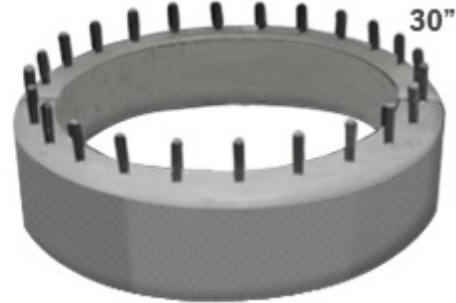
- Complete sets consist of a cover, a ring, a gasket, yoke(s), nut(s), and bolt(s).
- Sets listed include a neoprene rubber gasket. Sets with Blue Max® Gaskets, other gasket or sets without gaskets are available upon request.
- Neoprene gaskets are not recommended for temperatures exceeding 200deg F
- Individual component parts are also available upon request.

Non-Pressure Manhole Frames and Covers

Non-pressure manhole frames and covers are primarily used for access to large non- pressure storage vessels. Commercial's frames are stamped and holes are gang-pierced to provide the needed consistency required by most tank manufacturers. Frames are either 3 ½" or 7" (Longneck) deep depending on customer requirements. Because the frames are stamped, there are no weld seams to be concerned about. Frames and covers are made in carbon and stainless steel. **In addition, they are stocked in our Ohio and California distribution centers.** [Click here](#) to view the list of stock sizes.



	16"	18"	20"	24"
A (in)	20.50	22.50	25.00	28.50
B (in)	16.00	18.00	19.50	23.50
C (in)	19.00	21.00	23.00	27.00
D (in)	52.50	66.00	77.00	116.50
E	16 / 32	18 / 36	24 / 48	24 / 48
F (in)	3.50	3.50 / 7.00	3.50 / 7.00	3.63 / 7.00



Reversed Flange Manhole Frame and Cover

Commercial also makes 30" and 36" reverse flange manholes. The 30" diameter manhole allows for more room to install plumbing. The inverted flange and smooth corner radius make it much easier to apply protective coating and virtually eliminate the possibility of uncoated, unprotected areas. The 36" diameter frame comes with 2 rows of studs for mounting sumps or isolation kits. **These parts are stocked in our Ohio distribution center.** For more information on these products contact your Commercial customer service or sales representative or [click here](#) to view the stocked size.

Gaskets, nuts and bolts are available for all Commercial's manholes frames and covers. [Click here](#) to view the list of stocked parts.

Phoenix Drop-Forged Weld Flanges

Phoenix Drop-Forged Weld Flanges are manufactured in accordance with UL, ASTM, and ASME specifications. They are in accordance with appropriate specifications and have been manufactured from material that has been subjected to the metallurgical tests specified and conform to ASTM A105-80 and/or ASTM A181-80. All flanges are stocked with NPTF threads. [Click here](#) to view a list of the stock parts.



Series 100



Series 150



Series 250



Series 300



Series 380

T-Bolt Closures available in stainless and carbon steel

We are an authorized distributor of t-bolt style hinged closures. Vertical T-bolt and Horizontal closures are available.

Carbon specifications:

- Head: 2:1 Elliptical, SA516-70 PVQ
- Hub: SA516-70 PVQ PLATE or SA105 or S106 GR B/C Pipe
- Stainless Steel Specifications: SA240 type 304L or 316L w/carbon or stainless externals

Closures are available from 6" and up in 3 classes (Class 75, 150 & 300) according to pressure ratings needed.



Vertical T-Bolt Closures

T-Bolt Closures with a spring loaded head for vertical applications are furnished in sizes 10" - 42". The need for spring loading can be determined by reference to the table below. The tabulated "Force to Lift Head" is the force to lift the head **without** the springs.

Closure Size	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42
Weight of Head (lbs)	7	12	19	22	32	41	53	67	74	100	112	125	139	169	184	269	295	322	346
Force to Lift Head (lbs)	4	9	12	15	20	26	32	40	44	58	62	71	76	90	106	149	168	186	231

T-BOLT RATINGS

Closure Size	Class 75		Class 150		Class 300	
	Carbon Steel	Stainless Steel**	Carbon Steel	Stainless Steel**	Carbon Steel	Stainless Steel**
6	-	-	320	320	510	510
8	-	-	185	185	390	390
10	115	115	245	245	365	365
12	170	170	255	255	380	380
14	140	140	210	210	365	365
16	105	105	185	185	385	380
18	125	125	185	185	375	365
20	100	100	175	175	355	345
22	100	100	200	195	330	320
24	115	105	190	190	310	305
26	115	105	180	180	285	255
28	110	100	190	190	255	245
30	105	95	180	180	240	235
32	100	90	175	160	210	190
34	150	135	170	165	205	200
36	120	110	165	160	185	180
38	125	115	175	170	-	-
40	105	95	170	165	-	-
42	110	100	165	160	-	-
48	120	120	135	130	-	-

** Ratings apply to stainless steel closures with carbon steel bolts and attachments. Closures of all stainless steel are rated lower. For temperatures higher than 450F, consult Tube Turns stating temperature, pressure, fluid and type of o-ring required. Ratings apply for closures with ASME SA325 bolts. Slightly higher ratings are available in some sizes upon application by using ASME SA193 Grade B7 bolts, resulting in a slightly higher price.

Accessories:

Accessories can be ordered for an additional cost and include Break-Over Wrench and Camlock Assemblies. Both provide extra convenience, ease and speed in tightening the bolts and eliminate the need for a wrench.



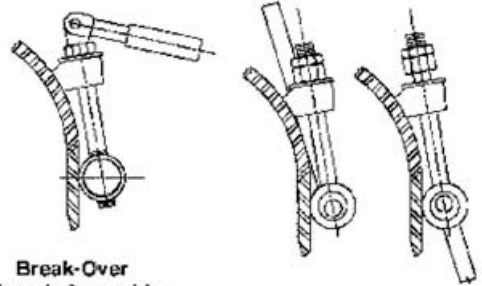
Break-Over Wrench Assembly



Camlock Assembly Aka flip over handles

T-BOLT CLOSURE OPTIONS

Break-Over Wrenches and Camlocks are optional attachments and accessories adding further to the versatility and utility of our T-Bolt Closures. Attachment of either of these options to the closure's T-Bolts provides extra convenience, speed and ease in tightening the bolts. These attachments eliminate the need for separate wrenches.



Break-Over Wrench Assembly

Tightened Loosened Camlock Assembly