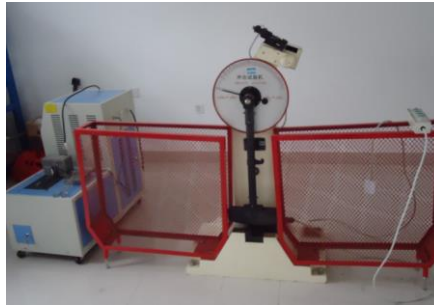


API 6A Product Catalog



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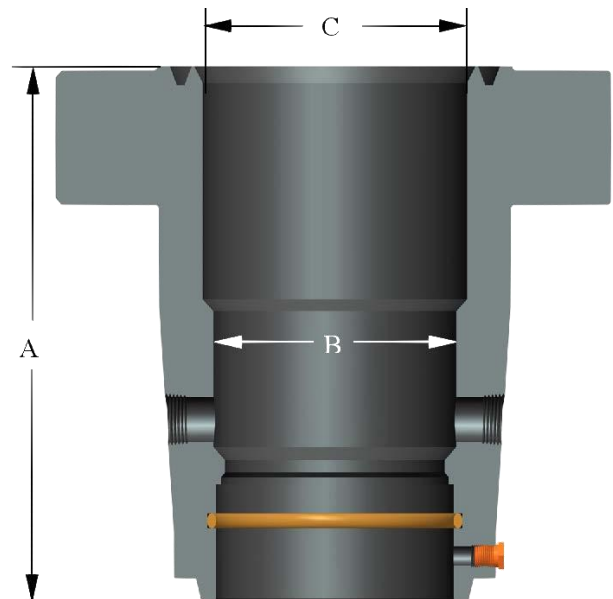


C-22/C-29 Casing Heads

The C-22 / C-29 Casing Heads have a straight bore bowl with 45° landing shoulder design which avoids damage to sealing areas by drilling tools and prevents test plug and bowl protector wedging problems when pressure is applied.

C-22 / C-29 Casing Heads are normally furnished with threaded outlets and studded outlets are available upon request. Bottom connections can be furnished threaded or slip-on for welding.

C-29 Casing Heads are based on the same reliable design as the C-22 with exception that the bowl is longer, C-22 which permits the acceptance of the C-29 casing hanger with larger load capacity for deeper drilling.



◆Product Information

- Versatile straight-bore design, uses a 45° landing shoulder
 - Accepts a wide variety of slip and mandrel casing hangers
 - C-22-BP/C-29-BP has a additional lock screws for Bowl protection.
 - C-22-L/C-29-L allows use of lock screws to retain hanger
 - 3 different types of outlets: Line pipe, Flanged (Studded) Padded and Extended flanged outlets.
- Multiple bottom connections, such as: Slip-on weld Slip-on weld with O-ring, Threaded and Sure Lock

◆C-22 Casing Heads Dimensions

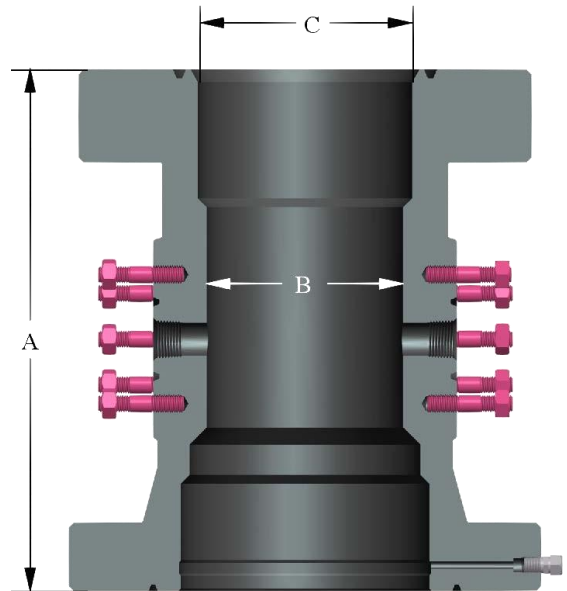
Casing Size	Top Flange	Working Pressure	Dimensions			Weight Lbs/Kg
			A, inch / mm	B, inch / mm	C, inch / mm	
8-5/8"	11"	2,000	17.25/438.2	8.00/203.2	10.88/276.4	340/154
		3,000	17.25/438.2	8.00/203.2	10.88/276.4	460/209
		5,000	17.50/444.5	8.00/203.2	10.88/276.4	710/322
9-5/8"	11"	2,000	17.25/438.2	9.00/228.6	10.88/276.4	320/145
		3,000	17.25/438.2	9.00/228.6	10.88/276.4	430/195
		5,000	17.50/444.5	9.00/228.6	10.88/276.4	680/308
10-3/4"	11"	2,000	17.25/438.2	10.00/254.0	10.88/276.4	300/136
		3,000	17.25/438.2	10.00/254.0	10.88/276.4	410/186
		5,000	17.50/444.5	10.00/254.0	10.88/276.4	560/254
11-3/4"	13-5/8"	2,000	17.50/444.5	11.00/279.4	13.50/342.9	469/213
		3,000	17.50/444.5	11.00/279.4	13.50/342.9	587/266
		5,000	17.50/444.5	11.00/279.4	13.50/342.9	
	16-3/4"	3,000	17.50/444.5	11.00/279.4	16.62/422.1	
		5,000	18.00/457.2	11.00/279.4	16.62/422.1	
13-3/8"	13-5/8"	2,000	17.50/444.5	12.56/319.0	13.50/342.9	380/172
		3,000	17.50/444.5	12.56/319.0	13.50/342.9	500/227
		5,000	17.50/444.5	12.56/319.0	13.50/342.9	750/340
	16-3/4"	3,000	17.50/444.5	12.56/319.0	16.62/422.1	
		5,000	18.00/457.2	12.56/319.0	16.62/422.1	
16"	16-3/4"	2,000	17.50/444.5	15.37/390.4	16.62/422.1	980/444.5
		3,000	17.50/444.5	15.37/390.4	16.62/422.1	995/451
		5,000	18.00/457.2	15.37/390.4	16.62/422.1	
20"	21-1/4"	2,000	19.00/482.6	19.12/485.6	20.12/511.0	1210/549
	20-3/4"	3,000	19.00/482.6	19.12/485.6	20.12/511.0	1331/604

◆C-29 Casing Heads Dimensions

Casing Size	Top Flange	Working Pressure	Dimensions			Weight Lbs/Kg
			A, inch / mm	B, inch / mm	C, inch / mm	
8-5/8"	11"	2,000	19.25/489.0	8.00/203.2	10.88/276.4	
		3,000	19.25/489.0	8.00/203.2	10.88/276.4	565/256
		5,000	19.50/495.3	8.00/203.2	10.88/276.4	780/354
9-5/8"	11"	2,000	19.25/489.0	9.00/228.6	10.88/276.4	
		3,000	19.25/489.0	9.00/228.6	10.88/276.4	545/247
		5,000	19.50/495.3	9.00/228.6	10.88/276.4	760/345
10-3/4"	11"	2,000	19.25/489.0	10.00/254.0	10.88/276.4	
		3,000	19.25/489.0	10.00/254.0	10.88/276.4	520/236
		5,000	19.50/495.3	10.00/254.0	10.88/276.4	745/338
11-3/4"	13-5/8"	2,000	19.50/495.3	11.00/279.4	13.50/342.9	
		3,000	19.50/495.3	11.00/279.4	13.50/342.9	
		5,000	19.50/495.3	11.00/279.4	13.50/342.9	
	16-3/4"	3,000	19.50/495.3	11.00/279.4	16.62/422.1	
		5,000	20.00/508.0	11.00/279.4	16.62/422.1	
13-3/8"	13-5/8"	2,000	19.50/495.3	12.56/319.0	13.50/342.9	
		3,000	19.50/495.3	12.56/319.0	13.50/342.9	800/363
		5,000	19.50/495.3	12.56/319.0	13.50/342.9	1500/680
	16-3/4"	3,000	19.50/495.3	12.56/319.0	16.62/422.1	
		5,000	20.00/508.0	12.56/319.0	16.62/422.1	
16"	16-3/4"	2,000	19.50/495.3	15.37/390.4	16.62/422.1	
		3,000	19.50/495.3	15.37/390.4	16.62/422.1	1306/592
		5,000	20.00/508.0	15.37/390.4	16.62/422.1	
20"	21-1/4"	2,000	24.00/609.6	19.12/485.6	20.12/511.0	
	20-3/4"	3,000	24.00/609.6	19.12/485.6	20.12/511.0	1772/804

C-22 / C-29 Casing Spools

The C-22 / C-29 Casing Spool are a straight bore bowl with 45° landing shoulder design. Bottom preparation can be the PE/BG as in the picture, “OO” bottom (for below 5000 psi application) or double “P” seal bottom. The BG preparation allows the use of reducer bushings “PE” (Pressure Energized). Outlets are normally threaded; optional studded / flanged outlets are available. C-29 Casing Spools are based on the same reliable design as the C-22 with exception that the bowl is longer. This permits the acceptance of the C-29 casing hanger with larger load capacity for deeper drilling.



◆Product Information

- Versatile straight-bore design, uses a 45° landing shoulder
- Accepts a wide variety of slip and mandrel casing hangers
- C-22-BP / C-29-BP has a additional lock screws for Bowl protection.
- C-22-L/C-29-L allows use of lock screws to retain hanger
- 3 different types of outlets: Line pipe, Flanged (Studded) Padded and Extended flanged outlets.
- Multiple bottom sealing type, such as: PE/BG bottom, OO bottom and double “P” seal bottom.

C-22 / C-29 Casing Spools Dimensions

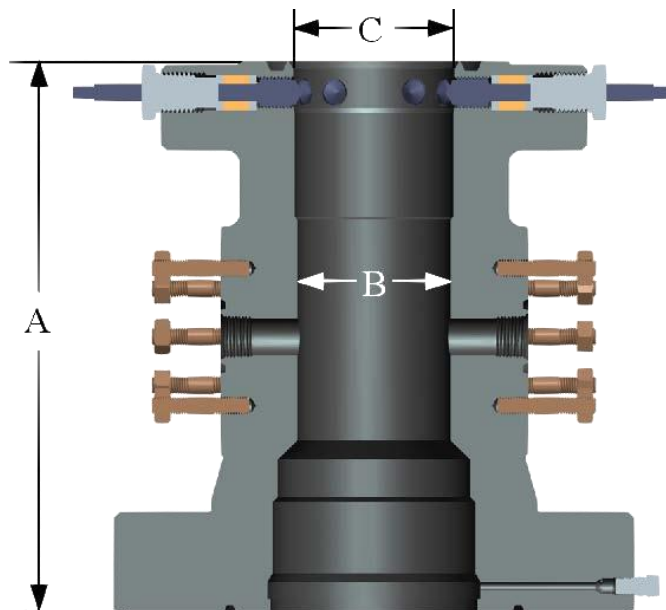
Bottom Flange		Top Flange		Dimensions			Weight Lbs/Kg
				A, inch / mm	B, inch / mm	C, inch / mm	
11"	2,000	11"	2,000	23.12/587.2	10.00/254.0	10.88/276.4	570/259
			3,000	23.12/587.2	10.00/254.0	10.88/276.4	600/272
	3,000	11"	3,000	23.12/587.2	10.00/254.0	10.88/276.4	710/322
			5,000	26.25/666.8	10.00/254.0	10.88/276.4	
	5,000	11"	5,000	26.25/666.8	10.00/254.0	10.88/276.4	
			10,000	31.25/793.8	10.00/254.0	10.88/276.4	
13-5/8"	2,000	11"	2,000	23.12/587.2	10.00/254.0	10.88/276.4	
			3,000	23.12/587.2	10.00/254.0	10.88/276.4	740/336
		13-5/8"	2,000	23.12/587.2	12.50/317.5	13.50/342.9	
			3,000	23.12/587.2	12.50/317.5	13.50/342.9	
	3,000	11"	3,000	26.25/679.5	10.00/254.0	10.88/276.4	785/356
			5,000	26.25/679.5	10.00/254.0	10.88/276.4	1175/533
		13-5/8"	3,000	26.75/679.5	12.50/317.5	13.50/342.9	
			5,000	26.75/679.5	12.50/317.5	13.50/342.9	
	5,000	11"	5,000	29.38/746.3	10.00/254.0	10.88/276.4	1595/723
			10,000	30.25/768.4	10.00/254.0	10.88/276.4	1948/884
		13-5/8"	5,000	30.25/768.4	12.50/317.5	13.50/342.9	
			10,000	30.25/768.4	12.50/317.5	13.50/342.9	
	10,000	11"	10,000	30.88/784.4	10.00/254.0	10.88/276.4	2950/1338
		13-5/8"	10,000	32.62/828.5	12.50/317.5	13.50/342.9	3900/1769
16-3/4"	2,000	11"	2,000	23.12/587.2	10.00/254.0	10.88/276.4	
			3,000	23.12/587.2	10.00/254.0	10.88/276.4	
		13-5/8"	2,000	23.12/587.2	12.50/317.5	13.50/342.9	
			3,000	23.12/587.2	12.50/317.5	13.50/342.9	
	3,000	11"	3,000	23.12/587.2	10.00/254.0	10.88/276.4	1200/544
			5,000	24.12/612.6	10.00/254.0	10.88/276.4	1518/689
		13-5/8"	3,000	24.12/612.6	12.50/317.5	13.50/342.9	1725/782
			5,000	25.00/635.0	12.50/317.5	13.50/342.9	1950/885
	5,000	11"	5,000	30.50/774.7	10.00/254.0	10.88/276.4	
			10,000	29.75/755.7	10.00/254.0	10.88/276.4	3235/1467
		13-5/8"	5,000	29.75/755.7	12.50/317.5	13.50/342.9	
			10,000	30.50/774.7	12.50/317.5	13.50/342.9	3243/1471
	10,000	13-5/8"	10,000	32.62/828.5	12.50/317.5	13.50/342.9	
		16-3/4"	10,000	33.00/838.2	15.37/390.4	16.62/422.1	
21-1/4"	2,000	13-5/8"	2,000	25.25/641.4	12.50/317.5	13.50/342.9	
			3,000	25.25/641.4	12.50/317.5	13.50/342.9	2063/936
		16-3/4"	2,000	25.25/641.4	15.37/390.4	16.62/422.1	
			3,000	25.25/641.4	15.37/390.4	16.62/422.1	
20-3/4"	3,000	13-5/8"	3,000	25.25/641.4	12.50/317.5	13.50/342.9	1960/889
			5,000	27.00/685.8	12.50/317.5	13.50/342.9	2450/1111
		20-3/4"	3,000	27.00/685.8	19.12/485.6	20.12/511.0	
21-1/4"	5,000	13-5/8"	5,000	29.25/743.0	19.12/485.6	20.12/511.0	
			10,000	29.25/743.0	19.12/485.6	20.12/511.0	
		16-3/4"	5,000	27.00/685.8	12.50/317.5	13.50/342.9	
			10,000	30.75/718.1	15.37/390.4	16.62/422.1	
			10,000	32.25/819.2	15.37/390.4	16.62/422.1	

TC and TCM Tubing Heads

TC and TCM Tubing Heads are a straight bore bowl with 45° landing shoulder design which avoids damage to sealing areas by drilling tools, and prevents wedging of the tubing hangers, bowl protectors and test plugs. the secondary seal for the last casing pipe can be an integrated “OO” seal type or the plastic injection type, but also accepts reducer bushings “4-O” and “PE” (Pressure Energized).

The upper flange is supplied with lockdown screws for pack off re-energization and tubing hanger retention. The lower flange includes a grease fitting and orifice for testing of the secondary seal.

TCM Tubing Head can use for single completions and model TC for dual completions.

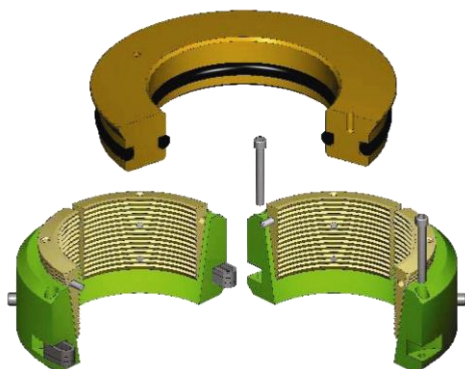


◆Product Information

- Versatile straight-bore design, uses a 45° landing shoulder can safety support maximum loads
- Bodies can be made from materials suitable for many severe service environments
- Two different types of outlets: Line pipe outlets and flanged padded (studded) outlets

Bottom Flange		Top Flange		Dimensions			Weight Lbs/Kg
				A, inch / mm	B, inch / mm	C, inch / mm	
11"	2,000	7-1/16"	3,000	23.12/587.2	6.76/171.7	7.00/177.8	550/249
	3,000	7-1/16"	3,000	23.12/587.2	6.76/171.7	7.00/177.8	600/272
			5,000	26.25/666.8	6.76/171.7	7.00/177.8	670/304
		9"	3,000	26.25/666.8	8.25/209.6	8.75/222.3	750/340
			5,000	26.25/666.8	8.25/209.6	8.75/222.3	800/363
	5,000	7-1/16"	5,000	26.25/666.8	6.76/171.7	7.00/177.8	880/399
			10,000	31.25/793.8	6.76/171.7	7.00/177.8	856/388
		9"	10,000	31.25/793.8	8.25/209.6	8.75/222.3	1249/567
	10,000	7-1/16"	10,000	32.62/828.5	6.76/171.7	7.00/177.8	1318/598
			15,000	33.25/844.6	6.76/171.7	7.00/177.8	-----
9"		10,000	32.62/828.5	8.25/209.6	8.75/222.3	1700/771	
13-5/8"	2,000	7-1/16"	3,000	23.12/587.2	6.76/171.7	7.00/177.8	445/202
		9"	3,000	23.12/587.2	8.25/209.6	8.75/222.3	655/297
	3,000	7-1/16"	3,000	26.25/666.8	6.76/171.7	7.00/177.8	670/304
			5,000	26.25/666.8	6.76/171.7	7.00/177.8	805/365
		9"	3,000	26.25/666.8	8.25/209.6	8.75/222.3	705/320
			5,000	26.75/679.5	8.25/209.6	8.75/222.3	715/324
	5,000	11"	10,000	30.25/768.4	10.00/254.0	10.88/276.4	1754/796

Casing Hanger

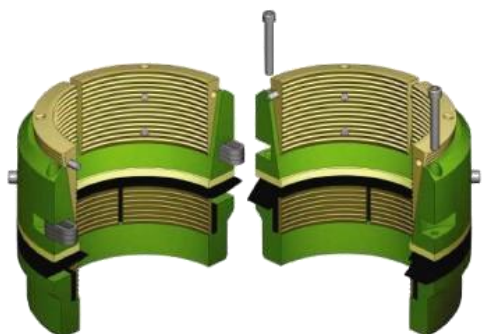
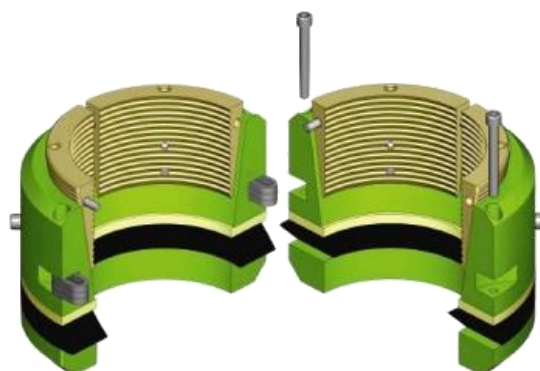


◆C-21 Casing Hanger

Slips, slip bowl and a type H pack off seal ring are all combined in the C-21. The Type "H" pack off provides a positive annulus pack off after the casing has been suspended and cut off.

◆C-22 Casing Hanger

Combined in a single unit, the C-22 wrap around Casing Hanger incorporates pack off, slip bowl and slips. when the casing load is suspended, the pack off automatically seals the casing annulus below the slips. The C-22 Hanger's controlled friction reduces casing deflection, can be easily installed and is economical



◆C-29 Casing Hanger

The C-29 Casing Hanger provides high hanging capacity with minimum casing deflection. When the upper slips move down and energize the pack off, the C-29's non-tapered lower slips engage automatically and apply controlled compression. The lower slips do not move down the pipe, thus they do not create the high compressive forces, as do conventional tapered slips. The C-29 offers far less casing deflection and much greater hanging capacity than other conventional hangers.

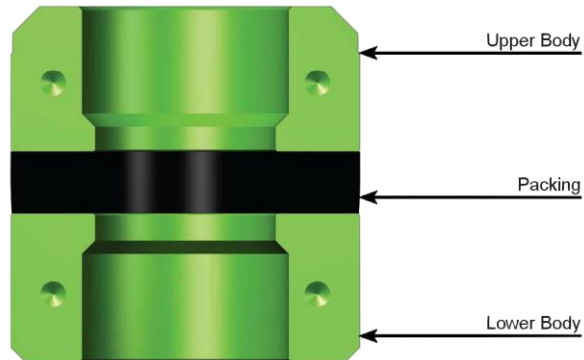
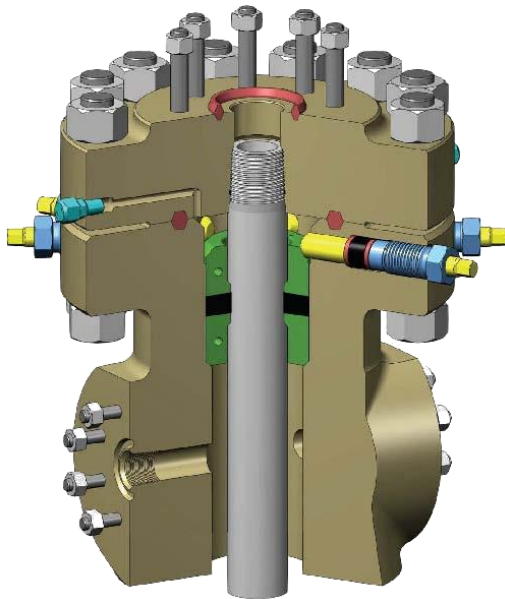
Casing Size	Nominal Bowl Size			
	11”	13-5/8”	16-3/4”	20”
4-1/2”	1,3			
5”	1,2,3			
5-1/2”	1,2,3,4	3		
6-5/8”	1,2,3,4			
7”	1,2,3,4	1,2,3,4		
7-5/8”	2,3,4	1,2,3,4		
8-5/8”		1,2,3,4		
9-5/8”		1,2,3,4	2,3,4	
10-3/4”		2,3	2,3,4	2
11-3/4”			2,3,4	2
13-3/8”			2,3,4,	2,3
16”				2,3
C-21=1, C-21-P=2, C-22=3, C-29=4				

TG Tubing Hanger

◆TG-2W Tubing Hanger

Description

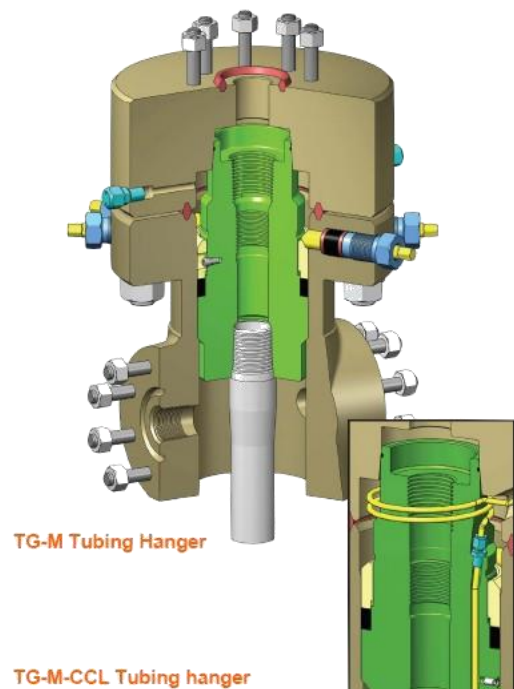
The T-2W Wrap-Around Tubing Hanger is designed to maintain control of the tubing/casing annulus while allowing reciprocation of the tubing.



◆TG-M Tubing Hanger

Description

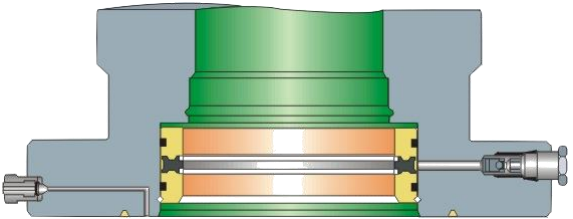
The TG-M tubing hanger is a high capacity, mandrel tubing hanger pressure rated to 15,000 psi. The design of the tubing hanger must be compatible with the bowl it lands in and the adapter to which it attaches. The tubing hangers and the tubing head adapters have been linked by nomenclature to make pairing them together easier. For the TG-M model, the 'T' represents the tubing head bowl design and the 'M' represents the tubing hanger.



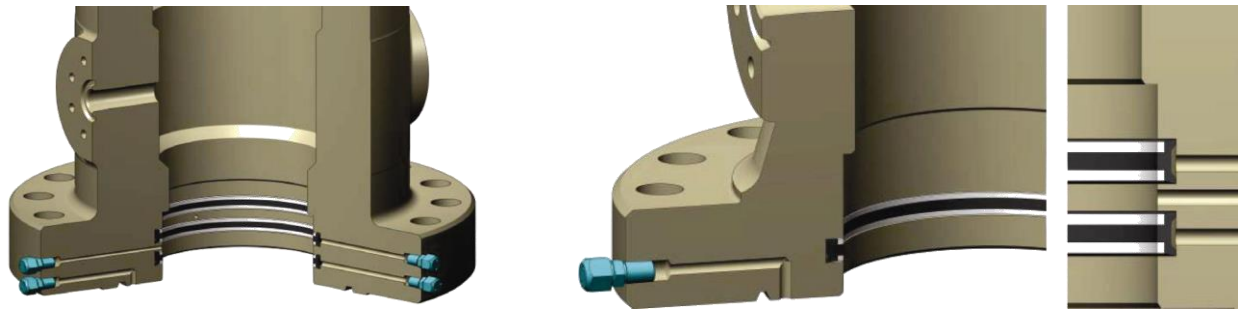
Secondary Seal

◆PE Secondary Seal

PE secondary seal is inserted in the bottom bowl of a casing spool or tubing spool and retained with a snap wire. The seal is energized when the spool is installed over the casing stub and the flange connection is made up. It is available in standard API casing sizes, as well as nonstandard casing sizes, and is built to provide safe, dependable service in pressure applications through 5000 psi.

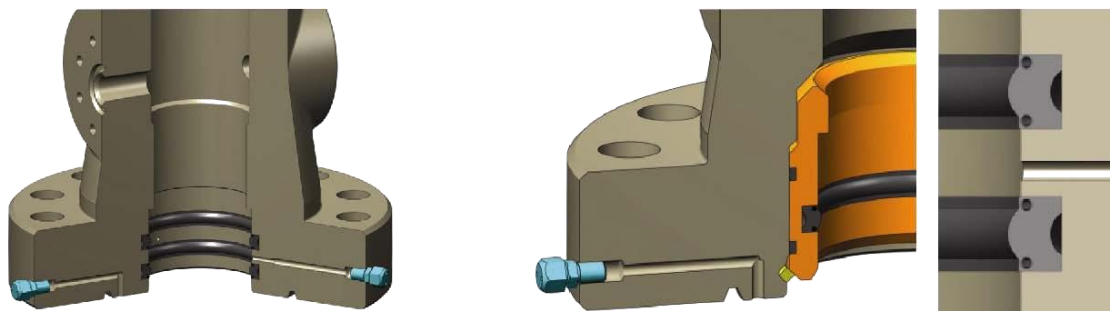
	Casing Size	Spool Nominal Bottom Prep.		
		7"	9"	10-3/4"
	4-1/2"	5,000psi	5,000psi	
	5"	5,000psi	5,000psi	
	5-1/2"	5,000psi	5,000psi	
	6-5/8"		5,000psi	
	7"		5,000psi	
	7-5/8"		5,000psi	
	8-5/8"			5,000psi
	9-5/8"			5,000psi

◆“P” secondary seal




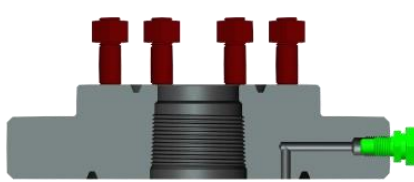
◆“EBS” Reducer Bushing

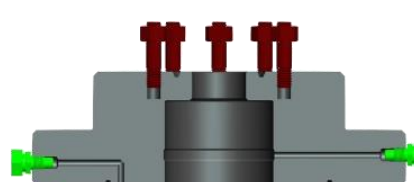
The “EBS” reducer bushing is a secondary seal that uses self-energized elastomer ring to seal the casing head spools and tubing head spools, the bushing is rated up to 10000 psi.

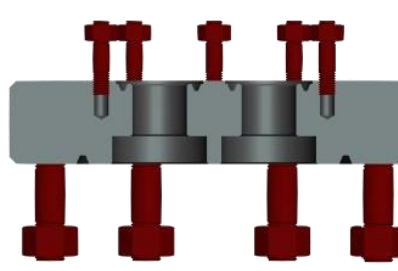


Tubing Head Adapter Flanges

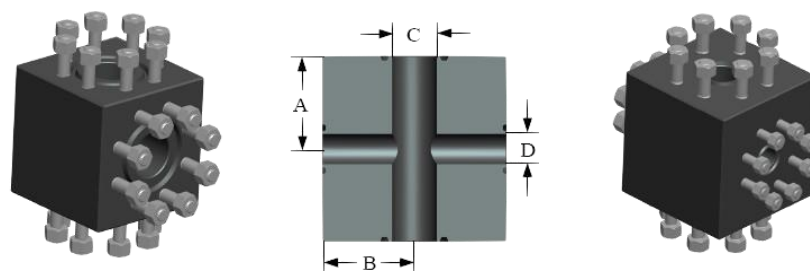
 <p>THA-B1 Threaded Adapters</p>	Flange Size	Threaded Top	Bottom Thread	Weight Lbs/Kg.
	7-1/16" 2,000	2-3/8" UPTBG	2-3/8" UPTBG	117/53
	7-1/16" 2,000	2-7/8" UPTBG	2-7/8" UPTBG	110/50
	7-1/16" 3,000	2-3/8" UPTBG	2-3/8" UPTBG	142/64
	7-1/16" 3,000	2-7/8" UPTBG	2-7/8" UPTBG	135/61
	7-1/16" 3,000	3-1/2" UPTBG	3-1/2" UPTBG	145/66
	7-1/16" 5,000	2-3/8" UPTBG	2-3/8" UPTBG	210/95
	7-1/16" 5,000	2-7/8" UPTBG	2-7/8" UPTBG	195/88
	7-1/16" 5,000	3-1/2" UPTBG	3-1/2" UPTBG	175/79

 <p>THA-B2 Studded Adapters</p>	Flange Size	Studded Top	Bottom Thread	Weight Lbs/Kg.
	7-1/16" 2,000	2-1/16" 2,000	2-3/8" UPTBG	107/49
	7-1/16" 3,000	2-1/16" 5,000	2-3/8" UPTBG	114/52
	7-1/16" 3,000	2-9/16" 5,000	2-7/8" UPTBG	170/77
	7-1/16" 3,000	3-1/8" 5,000	3-1/2" UPTBG	225/102
	7-1/16" 5,000	2-1/16" 5,000	2-3/8" UPTBG	160/73
	7-1/16" 5,000	2-9/16" 5,000	2-7/8" UPTBG	230/104
	7-1/16" 5,000	3-1/8" 5,000	3-1/2" UPTBG	330/150

 <p>THA-A5-P Studded Adapters</p>	Flange Size	Studded Top	Bottom Pocket	Weight Lbs/Kg.
	7-1/16" 3,000	2-1/16" 5,000	2"	124/56
	7-1/16" 3,000	2-9/16" 5,000	2-1/2"	117/53
	7-1/16" 5,000	2-1/16" 5,000	2"	178/81
	7-1/16" 5,000	2-9/16" 5,000	2-1/2"	175/79
	7-1/16" 10,000	2-1/16" 10,000	2"	318/144
	7-1/16" 10,000	2-9/16" 10,000	2-1/2"	316/143

 <p>THA-A4-D Multiple Completion Adapters</p>	Bottom Flange Size	Studded Top	Weight Lbs/Kg.
	7-1/16" 2,000	2-1/16"×2-1/16" 5,000	172/78
	7-1/16" 3,000	2-1/16"×2-1/16" 5,000	201/91
	7-1/16" 5,000	2-1/16"×2-1/16" 5,000	280/127
	11" 2,000	2-1/16"×2-9/16" 5,000	342/155
	11" 2,000	2-9/16"×2-9/16" 5,000	337/153
	11" 3,000	2-1/16"×2-9/16" 5,000	428/194
	11" 3,000	2-9/16"×2-9/16" 5,000	421/191
	11" 5,000	2-1/16"×2-9/16" 5,000	467/212
	11" 5,000	2-9/16"×2-9/16" 5,000	461/209

Studded Crosses and Tees

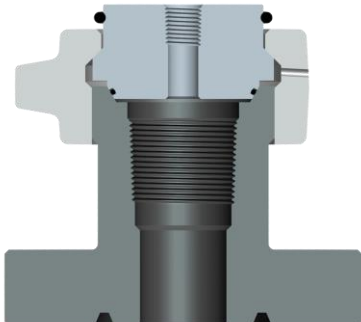


RUN	OUTLETS	Dimensions				WEIGHT Lbs/Kg.	
		A, inch/mm	B, inch/mm	C, inch/mm	D, inch/mm	TEE	CROSS
2-1/16" 2,000	2-1/16" 2,000	3.50/88.9	3.50/88.9	2.06/52.3	2.06/52.3	95/43	85/39
2-1/16" 5,000	2-1/16" 5,000	4.50/114.3	4.50/114.3	2.06/52.3	2.06/52.3	160/73	161/73
2-9/16" 2,000	2-9/16" 2,000	4.50/114.3	4.50/114.3	2.56/65.0	2.56/65.0	125/57	119/54
2-9/16" 5,000	2-1/16" 5,000	4.50/114.3	5.00/127.0	2.56/65.0	2.06/52.3	375/170	255/116
2-9/16" 5,000	2-9/16" 5,000	5.00/127.0	5.00/127.0	2.56/65.0	2.56/65.0	350/159	225/102
3-1/8" 2,000	3-1/8" 2,000	4.50/114.3	4.50/114.3	3.12/79.2	3.12/79.2	198/90	185/84
3-1/8" 3,000	2-1/16" 5,000	4.50/114.3	5.00/127.0	3.12/79.2	2.06/52.3	264/120	231/105
3-1/8" 3,000	2-9/16" 5,000	5.00/127.0	5.00/127.0	3.12/79.2	2.56/65.0	350/159	275/125
3-1/8" 3,000	3-1/8" 3,000	5.00/127.0	5.00/127.0	3.12/79.2	3.12/79.2	264/120	271/123
3-1/8" 5,000	2-1/16" 5,000	4.50/114.3	5.50/139.7	3.12/79.2	2.06/52.3	264/120	295/134
3-1/8" 5,000	2-9/16" 5,000	5.50/139.7	5.50/139.7	3.12/79.2	2.56/65.0	364/165	310/141
3-1/8" 5,000	3-1/8" 5,000	5.50/139.7	5.50/139.7	3.12/79.2	3.12/79.2	414/188	321/146
4-1/16" 2,000	4-1/16" 2,000	5.50/139.7	5.50/139.7	4.06/103.1	4.06/103.1	405/184	354/161
4-1/16" 3,000	3-1/8" 3,000	5.00/127.0	6.12/155.4	4.06/103.1	3.12/79.2	451/205	435/197
4-1/16" 3,000	4-1/16" 3,000	6.12/155.4	6.12/155.4	4.06/103.1	4.06/103.1	495/225	451/205
4-1/16" 5,000	2-9/16" 5,000	5.00/127.0	6.50/165.1	4.06/103.1	2.56/65.0	447/203	425/193
4-1/16" 5,000	3-1/8" 5,000	5.50/139.7	6.50/165.1	4.06/103.1	3.12/79.2	488/221	425/193
4-1/16" 5,000	4-1/16" 5,000	6.50/165.1	6.50/165.1	4.06/103.1	2.56/65.0	565/256	486/220
1-13/16" 10,000	1-13/16" 10,000	4.38/111.3	4.38/111.3	1.81/46.0	1.81/46.0	191/87	187/85
1-13/16" 15,000	1-13/16" 15,000	5.00/127.0	5.00/127.0	1.81/46.0	1.81/46.0	257/117	253/115
2-1/16" 10,000	1-13/16" 10,000	4.38/111.3	4.38/111.3	2.06/52.3	1.81/46.0	191/87	187/85
2-1/16" 10,000	2-1/16" 10,000	4.38/111.3	4.38/111.3	2.06/52.3	2.06/52.3	191/87	187/85
2-1/16" 15,000	1-13/16" 15,000	5.00/127.0	5.00/127.0	2.06/52.3	1.81/46.0	257/117	253/115
2-1/16" 15,000	2-1/16" 15,000	5.00/127.0	5.00/127.0	2.06/52.3	2.06/52.3	257/117	253/115
2-9/16" 10,000	1-13/16" 10,000	4.50/114.3	5.12/130.0	2.56/65.0	1.81/46.0	246/112	241/109
2-9/16" 10,000	2-1/16" 10,000	4.50/114.3	5.12/130.0	2.56/65.0	2.06/52.3	246/112	241/109
2-9/16" 10,000	2-9/16" 10,000	5.12/130.0	5.12/130.0	2.56/65.0	2.56/65.0	286/130	280/127
2-9/16" 15,000	1-13/16" 15,000	5.50/139.7	5.50/139.7	2.56/65.0	1.81/46.0	386/175	307/139
2-9/16" 15,000	2-1/16" 15,000	5.50/139.7	5.50/139.7	2.56/65.0	2.06/52.3	389/176	350/159
2-9/16" 15,000	2-9/16" 15,000	5.50/139.7	5.50/139.7	2.56/65.0	2.56/65.0	375/170	335/152
3-1/16" 10,000	1-13/16" 10,000	4.50/114.3	5.88/149.4	3.06/77.7	1.81/46.0	370/168	350/159
3-1/16" 10,000	2-1/16" 10,000	4.50/114.3	5.88/149.4	3.06/77.7	2.06/52.3	370/168	350/159
3-1/16" 10,000	2-9/16" 10,000	5.12/130.0	5.88/149.4	3.06/77.7	2.56/65.0	407/185	433/196
3-1/16" 10,000	3-1/16" 10,000	5.88/149.4	5.88/149.4	3.06/77.7	3.06/77.7	480/218	464/210
3-1/16" 15,000	1-13/16" 15,000	6.31/160.3	6.31/160.3	3.06/77.7	1.81/46.0	486/220	470/213
3-1/16" 15,000	2-1/16" 15,000	6.31/160.3	6.31/160.3	3.06/77.7	2.06/52.3	470/213	440/200
3-1/16" 15,000	2-9/16" 15,000	6.31/160.3	6.31/160.3	3.06/77.7	2.56/65.0	440/200	432/196
3-1/16" 15,000	3-1/16" 15,000	6.31/160.3	6.31/160.3	3.06/77.7	3.06/77.7	430/195	422/191

Bottom Hole Test Adapters

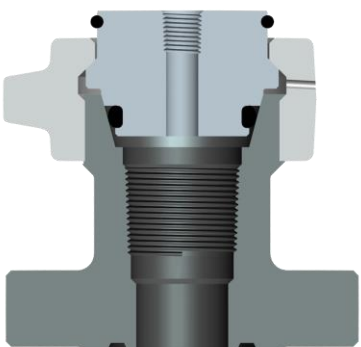
Bottom Hole Test Adapters allow a flexible means of entry into the tubing bore. BA-15A Bottom Hole test adapters are used where an integral flanged is preferred. This adapters are furnished in various sizes and working pressure to 10000 psi.

◆BA-15A Adapters

	Flange Size	Bore	Lift Thread	Weight Lbs/Kg
	2-1/16-2,000	2-1/16	2-3/8 EUE	36/16
	2-1/16-5,000	2-1/16	2-3/8 EUE	52/24
	2-9/16-2,000	2-9/16	2-7/8 EUE	40/18
	2-9/16-5,000	2.9/16	2-7/8 EUE	60/27
	2-1/16-10,000	2.1/16	2-3/8 EUE	43/20
	2-9/16-10,000	2-9/16	2-7/8 EUE	60/27

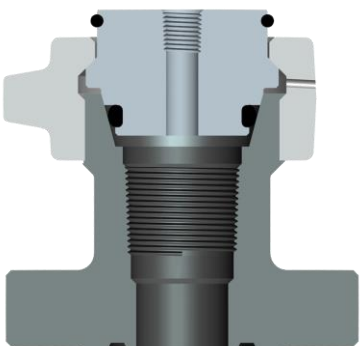
◆BA-11-AO Adapters

BA-11-AO Bottom Hole adapters are furnished in various sizes and working pressure to 5000 psi.

	Flange Size	Bore	Lift Thread	Weight Lbs/Kg
	3-1/8-2,000	3-1/8	3-1/2 EUE	95/43
	3-1/8-3,000	3-1/8	3-1/2 EUE	95/43
	3-1/8-2,000	3-1/8	3-1/2 EUE	95/43
	3-1/16-5,000	3-1/16	3-1/2 EUE	95/43

◆BA-11-AH Adapters

BA-11-AH Bottom Hole Adapters feature a metal-to-metal seal and are manufactured in various sizes and working pressure in the 10000 and 15000 psi range.

	Flange Size	Bore	Lift Thread	Weight Lbs/Kg
	2-1/16-15,000	2-1/16	2-3/8 EUE	88/40
	2-9/16-15,000	2-9/16	2-7/8 EUE	95/43
	3-1/16-15,000	3-1/16	3-1/2 EUE	103/47

API 6A Gate Valves

◆ Material Specification for API 6A Valves

MATERIAL CLASS	SERVICE CONDITION DESCRIPTION	FORGING BODY MATERIAL	TEMPERATURE	CASTING BODY MATERIAL	TEMPERATURE	BONNET	BONNET SEAL RING	GATE	STEM	SEAT	STEM SEAL	STEM SEAL
AA	GENERAL SERVICE STANDARD TRIM NON-CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL	API TEMP L-Y	API 60K ASTM A487-4C ALLOY STEEL	API TEMP L-Y	API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 1018/1020 LOW CARBON STEEL	API 60K OR 75K AISI 4130 NITRIDED	API 60K OR 75K AISI 4130 NITRIDED	API 60K OR 75K AISI 4130 NITRIDED	PTFE+NBR PTFE+FKM PTFE+FKM PTFE+FKM PTFE+FKM PTFE+NBR PTFE+NBR PTFE+NBR PTFE+NBR	PTFE+NBR
BB	GENERAL SERVICE STAINLESS TRIM SLIGHTLY CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL		API 60K ASTM A487-4C ALLOY STEEL		API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	ASTM A564 630(17-4PH) STAINLESS STEEL AISI 410 NITRIDED	AISI 410 STAINLESS STEEL NITRIDED		PTFE+FKM
CC	GENERAL SERVICE FULL STAINLESS MODERATELY CORROSIVE	API 75K AISI 410 STAINLESS STEEL		API 75K ASTM A217 CA-15 STAINLESS STEEL		API 75K AISI 410 STAINLESS STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	ASTM A564 630(17-4PH) STAINLESS STEEL AISI 410 NITRIDED	AISI 410 STAINLESS STEEL NITRIDED		PTFE+FKM
DD-NL	SOUR SERVICE STANDARD TRIM NON-CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL		API 60K ASTM A487-4C ALLOY STEEL		API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 304 OR 316 STAINLESS STEEL	API 60K OR 75K AISI 4130 NITRIDED	API 60K OR 75K AISI 4130 NITRIDED	API 60K OR 75K AISI 4130 NITRIDED		PTFE+FKM
EE-0.5	SOUR SERVICE STAINLESS TRIM MODERATELY-CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL		API 60K ASTM A487-4C ALLOY STEEL		API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	ASTM A564 630(17-4PH) STAINLESS STEEL AISI 410 NITRIDED	AISI 410 STAINLESS STEEL NITRIDED		PTFE+FKM
EE-1.5	SOUR SERVICE STAINLESS TRIM MODERATELY-CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL		API 60K ASTM A487-4C ALLOY STEEL		API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	INCON EL 718/625	AISI 410 STAINLESS STEEL NITRIDED		PTFE+FKM
EE-NL	SOUR SERVICE STAINLESS TRIM MODERATELY-CORROSIVE	API 60K OR 75K AISI 4130 ALLOY STEEL		API 60K ASTM A487-4C ALLOY STEEL		API 60K OR 75K AISI 4130 ALLOY STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	INCON EL 718/625	AISI 410 STAINLESS STEEL NITRIDED		PTFE+FKM
FF-0.5	SOUR SERVICE FULL STAINLESS HIGHLY CORROSIVE	API 75K AISI 410 STAINLESS STEEL		API 75K ASTM A217 CA-15 STAINLESS STEEL		API 75K AISI 410 STAINLESS STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	ASTM A564 630(17-4PH) STAINLESS STEEL AISI 410 NITRIDED	AISI 410 STAINLESS STEEL NITRIDED		PTFE+NBR
FF-1.5	SOUR SERVICE FULL STAINLESS HIGHLY CORROSIVE	API 75K AISI 410 STAINLESS STEEL		API 75K ASTM A217 CA-15 STAINLESS STEEL		API 75K AISI 410 STAINLESS STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	INCON EL 718/625	AISI 410 STAINLESS STEEL NITRIDED		PTFE+NBR
FF-NL	SOUR SERVICE FULL STAINLESS HIGHLY CORROSIVE	API 75K AISI 410 STAINLESS STEEL		API 75K ASTM A217 CA-15 STAINLESS STEEL		API 75K AISI 410 STAINLESS STEEL	AISI 304 OR 316 STAINLESS STEEL	AISI 410 STAINLESS STEEL NITRIDED	INCON EL 718/625	AISI 410 STAINLESS STEEL NITRIDED		PTFE+NBR
HH	SOUR SERVICE FULL STAINLESS HIGHLY CORROSIVE	API 75K AISI 4130 ALLOY STEEL W/625 CLADED		—	—	API 75K AISI 4130 ALLOY STEEL W/625 CLADED	INCONEL 825 RESISTANT ALLOY PER NACE	INCONEL 718/625 W/HARD FACING	INCON EL 718/625	INCONEL 718/625 W/HARD FACING		PTFE+NBR

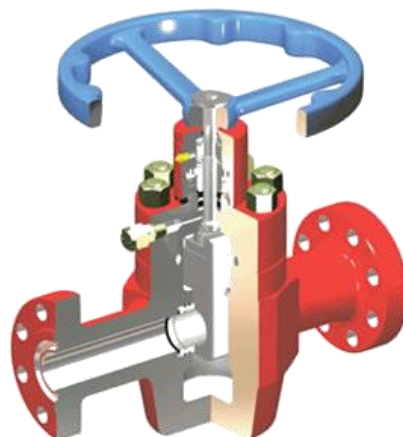
Slab Gate Valve

This high performance, bi-directional slab gate valve is ideal for high pressure, critical service application 3000 through 20000 psi on well-heads, production trees and manifolds.

◆ Specification

Slab gate valve meet the requirements of the latest edition of API 6A and / or API 6D SSV by replacing the expanding gate with a slab gate.

Material for H2S service in accordance with NACE MR-01-75, latest edition.



◆ Reliable Performance

- ◆ Forged body & bonnet
- ◆ Low operation torque
- ◆ Metal-to-metal body/bonnet seal
- ◆ Metal-to-metal back seal can be energized regardless of gate position
- ◆ Lubrication fittings for easy maintenance
- ◆ Gate guides retain body lubricants and protect gate surface
- ◆ Manual or actuated operation
- ◆ Simple design assures low cost
- ◆ Flanged or screwed outlets

◆ Availability Sizes

SIZE	2000 psi	3000 psi	5000 psi	10000 psi	15000 psi
1-13/16"	√	√	√	√	√
2-1/16"	√	√	√	√	√
2-9/16"	√	√	√	√	√
3-1/16"	—	—	—	√	√
3-1/8"	√	√	√	—	—
4-1/16"	√	√	√	√	√
5-1/8"	√	√	√	√	√
7-1/16"x 6-3/8"	√	√	√	√	√
7-1/16"	√	√	√	√	√

Expanding Gate Valve



The expanding gate valve is a bi-directional, with a preferred sealing side, valve for application on wellheads, production trees and manifolds with working pressure at and below 5000 psi.

◆ Specification

The expanding gate valve meet the requirements of the latest edition of API 6A and / or API 6A SSV by replacing the expanding gate with a slab gate. Material for H2S service in accordance with NACE MR-01-75, latest edition

◆ Reliable Performance

- ◆ Forged bonnet
- ◆ Low operation torque
- ◆ Metal-to-metal body/bonnet seal
- ◆ Lubrication fittings for easy maintenance
- ◆ Gate guides retain body lubricants and protect gate surface
- ◆ Manual or actuated operation
- ◆ Simple design assures low cost
- ◆ Flanged or screwed outlets

◆ Availability Sizes



SIZE	2000 psi	3000 psi	5000 psi
2-1/16"	√	√	√
2-9/16"	√	√	√
3-1/8"	√	√	√
4-1/16"	√	√	√

Balanced Stem and Ball-screwed Gate Valve

This high performance, bi-directional slab gate valve is ideal for high pressure, critical service application 10000 through 20000 psi on well-heads, production trees and manifolds.

◆ Specification

Slab gate valve meet the requirements of the latest edition of API 6A and / or API 6D SSV by replacing the expanding gate with a slab gate.

Material for H2S service in accordance with NACE MR-01-75, latest edition.



◆ Reliable Performance

- ◆ Forged body & bonnet
- ◆ Low operation torque
- ◆ Metal-to-metal body/bonnet seal
- ◆ Metal-to-metal back seal can be energized regardless of gate position
- ◆ Lubrication fittings for easy maintenance
- ◆ Gate guides retain body lubricants and protect gate surface
- ◆ Manual or actuated operation
- ◆ Simple design assures low cost
- ◆ Flanged or screwed outlets

◆ Availability Sizes

SIZE	10000 psi	15000 psi	20000 psi
1-13/16"	---	---	√
2-1/16"	---	---	√
2-9/16"	---	---	√
3-1/16"	---	√	√
4-1/16"	√	√	√
5-1/8"	√	√	√
7-1/16"x 6-3/8"	√	√	√
7-1/16"	√	√	√

Choke Valve

The valve is a kind of multistage pressure reduction and high-pressure difference regulating valve and can be applied to control the high temperature, high pressure and high pressure difference as well as the flow and pressure of fluid containing solid particles. It adopts nozzle, labyrinth throttle to form the front and back multistage throttle; the valve spool and valve seat adopt hard and soft seal pairs to separate the sealing face and the throttling face, which has improved the throttling ability and sealing reliability of the valve and has the merits of reliable sealing, low noise, little vibration, throttle and cut-off pressure reduction, portable and flexible on and off, etc. The valve is especially suitable for the throttle and cut-off under high pressure. On the condition of high pressure, it possesses the function of pressure reduction and had a long service life.



◆ Specification

Choke valve meet the requirements of the latest edition of API 6A by replacing the expanding gate with a slab gate.

Material for H2S service in accordance with NACE MR-01-75, latest edition.

Reliable Performance

- ◆ Forged body & bonnet
- ◆ Low operation torque
- ◆ Metal-to-metal body/bonnet seal
- ◆ Metal-to-metal back seal seal can be energized regardless of gate position
- ◆ Lubrication fittings for easy maintenance
- ◆ Gate guides retain body lubricants and protect gate surface
- ◆ Manual or actuated operation
- ◆ Simple design assures low cost
- ◆ Flanged or screwed outlets

◆ Availability Sizes

SIZE	2000 psi	3000 psi	5000 psi	10000 psi	15000 psi
1-13/16"	√	√	√	√	√
2-1/16"	√	√	√	√	√
2-9/16"	√	√	√	√	√
3-1/8"	√	√	√	√	√
4-1/16"	√	√	√	√	√
5-1/8"	√	√	√	√	√

Flange Dates For API 6A

2000 PSI WP – 4000 PSI TEST									
API NOM. Size	Max. Size		Dimensions					Seal Ring	
	Nom LP. Size	Tbg. Or CSG. OD.	Dia.	Thk.	NO. Bolts	Bolt Sizes	Bolt Cir. Dia.	API No.	Ring PD.
2-1/16	2	1.66~23/8	6-1/2	1-5/16	8	5/8×4-1/2	5	23	3-1/4
2-9/16	2-1/2	2-7/8	7-1/2	1-7/16	8	3/4×5	5-7/8	26	4
3-1/8	3	3-1/2	8-1/4	1-9/16	8	3/4×5-1/4	6-5/8	31	4-7/8
4-1/16	4	4~4-1/2	10-3/4	1-13/16	8	7/8×6	8-1/2	37	5-7/8
7-1/16	6	4-1/2~7	14	2-3/16	12	1×7	11-1/2	45	8-5/16
9	8	7-5/8~8-5/8	16-1/2	2-1/2	12	1-1/8×8	13-3/4	49	10-5/8
11	10	9-5/8~10-3/4	20	2-13/16	16	1-1/4×8-3/4	17	53	12-3/4
13-5/8	12	11-3/4~13-3/8	22	2-15/16	20	1-1/4×9	19-1/4	57	15
16-3/4	16	16	27	3-5/16	20	1-1/2×10-1/4	23-3/4	65	18-1/2
21-1/4	20	20	32	3-7/8	24	1-5/8×11-3/4	28-1/2	73	23

3000 PSI WP – 6000 PSI TEST									
API NOM. Size	Max. Size		Dimensions					Seal Ring	
	Nom LP. Size	Tbg. Or CSG. OD.	Dia.	Thk.	NO. Bolts	Bolt Sizes	Bolt Cir. Dia.	API No.	Ring PD.
2-1/16	2	1.66~23/8	8-1/2	1-13/16	8	7/8×6	6-1/2	24	3-3/4
2-9/16	2-1/2	2-7/8	9-5/8	1-15/16	8	1×7-1/2	7-1/2	27	4-1/4
3-1/8	3	3-1/2	9-1/2	1-13/16	8	7/8×6	7-1/2	31	4-7/8
4-1/16	4	4~4-1/2	11-1/2	2-1/16	8	1-1/8×7	9-1/4	37	5-7/8
7-1/16	6	4-1/2~7	15	2-1/2	12	1-1/8×8	12-1/2	45	8-5/16
9	8	7-5/8~8-5/8	18-1/2	2-13/16	12	1-3/8×9	15-1/2	49	10-5/8
11	10	9-5/8~10-3/4	21-1/2	3-1/16	16	1-3/8×9-1/2	18-1/2	53	12-3/4
13-5/8	12	11-3/4~13-3/8	24	3-7/16	20	1-3/8×10-1/4	21	57	15
16-3/4	16	16	27-3/4	3-15/16	20	1-5/8×11-3/4	24-1/4	66	18-1/2
24-1/4	20	20	33-3/4	4-3/4	20	2×14-1/2	29-1/2	74	23

5000 PSI WP – 10000 PSI TEST									
API NOM. Size	Max. Size		Dimensions					Seal Ring	
	Nom LP. Size	Tbg. Or CSG. OD.	Dia.	Thk.	NO. Bolts	Bolt Sizes	Bolt Cir. Dia.	API No.	Ring PD.
2-1/16	2	1.66~23/8	8-1/2	1-13/16	8	7/8×6	6-1/2	24	3-3/4
2-9/16	2-1/2	2-7/8	9-5/8	1-15/16	8	1×6-1/2	7-1/2	27	4-1/4
3-1/8	3	3-1/2	10-1/2	2-3/16	8	1-1/8×7-1/4	8	35	5-3/8
4-1/16	4	4~4-1/2	12-1/4	2-7/16	8	1-1/4×8	9-1/2	39	6-3/8
7-1/16	6	4-1/2~7	15-1/2	3-5/8	12	1-3/8×10-3/4	12-1/2	46	8-5/16
9	8	7-5/8~8-5/8	19	4-1/16	12	1-5/8×12	15-1/2	50	10-5/8
11	10	9-5/8~10-3/4	23	4-11/16	12	1-7/8×13-3/4	19	54	12-3/4
13-5/8	12	11-3/4~13-3/8	26-1/2	5-7/16	16	2×15-3/4	22-1/2	58	15
16-3/4	---	11-3/4~13-3/8	26-1/2	4-7/16	16	1-5/8×12-1/2	23-1/4	160	---

10000 PSI WP – 15000 PSI TEST										
API NOM. Size	Max. Size Tbg. Or Csg. OD.	Dimensions					Seal Ring			
		Dia.	Thk.	NO. Bolts	Bolt Sizes	Bolt Cir. Dia.	API No.	Ring Groove		
1-11/16	1.900	7-3/16	1-21/32	8	3/4×5	5-9/16	BX150	2.893	0.450	7/32
1-13/16	2.063	7-3/8	1-21/32	8	3/4×5	5-3/4	BX151	3.062	0.466	7/32
2-1/16	2-3/8	7-7/8	1-47/64	8	3/4×5-1/4	6-1/4	BX152	3.395	0.498	15/64
2-9/16	2-7/8	9-1/8	2-1/64	8	7/8×6	7-1/4	BX153	4.046	0.554	17/64
3-1/16	3-1/2	10-5/8	2-19/64	8	1×6-3/4	8-1/2	BX154	4.685	0.606	19/64
4-1/16	4~4-1/2	12-7/16	2-49/64	8	1-1/8×8	10-3/16	BX155	5.930	0.698	21/64
7-1/16	4-1/2~7	18-7/8	4-1/16	12	1-1/2×11-1/4	15-7/8	BX156	9.521	0.921	7/16
9	7-5/8~8-5/8	21-3/4	4-7/8	16	1-1/2×13	18-3/4	BX157	11.774	1.039	1/2
11	8-5/8~9-5/8	25-3/4	5-9/16	16	1-3/4×15	22-1/4	BX158	14.064	1.149	9/16
13-5/8	10-3/4~11-3/4	30-1/4	6-5/8	20	1-7/8×17-1/4	26-1/2	BX159	17.033	1.279	5/8