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# 工艺流程 *Manufacturing Process*

## 材料冶炼 *Material Melting*



## 锻造 *Forging*



## 毛坯检验 *Chemical Analysis*



## 粗加工 *Rough-Machining*



## 热处理 *Heat-treatment*





硬度测试,力学性能试验 *Hardness test & Mechanical test*



精加工 *Finish-Machining*



尺寸检验,产品硬度检验 *Examination (Dimension and Hardness)*



标识 *Marking*



清洗 *Washing* → 装箱,发运 *Package & Shipping*



装配 *Assembly*



压力试验 *pressure Test*



喷漆 *Spray-paint*

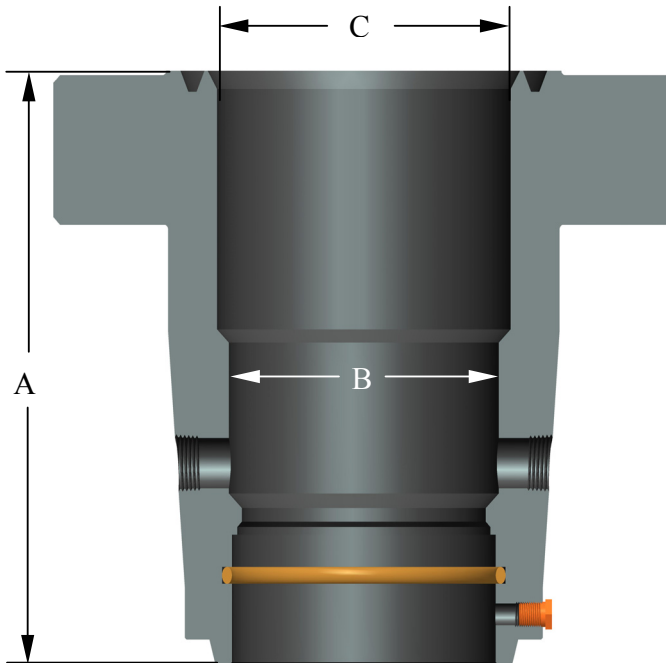


装箱,发运 *Package & Shipping*





## CH-22/CH-29 套管头 CH-22/CH-29 Casing Heads



CH-22

### Product Information

- ◆ Versatile straight-bore design, Uses a 45° landing shoulder
- ◆ Accepts a wide variety of slip and mandrel casing hangers
- ◆ CH-22-BP/CH-29-BP has a additional lockscrews for Bowl protection.
- ◆ CH-22-L/CH-29-L allows use of lockscrews 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

### 产品信息

- ◆ 多功能型直通设计，带有 45°主承载台肩；
- ◆ 可与多种卡瓦式或芯轴式套管悬挂器匹配；
- ◆ CH-22-BP / CH-29-BP 型套管头具有附加的螺栓锁紧装置；
- ◆ CH-22-L / CH-29-L 型套管头具有悬挂器定位锁紧装置；
- ◆ 三种不同的侧面出口连接：管螺纹、法兰（螺栓）及加长法兰；
- ◆ 多种底部连接，如：承插式焊接、承插式焊接+O 型密封圈 螺纹、及卡瓦锁紧等。

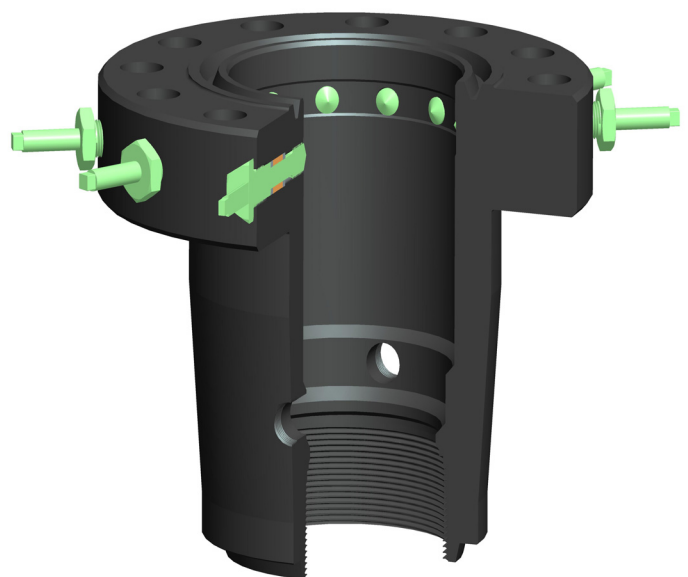
CH-22 / CH-29 套管头设计有 45°的主承载台肩，支承由套管悬挂器传递的套管柱重量，这种设计可避免钻井工具对密封面的损害，并防止防磨套、试压塞的楔入。侧出口为螺纹式，但可根据需要提供螺栓式连接。底部可以焊接或螺纹连接套管。

CH-29 套管头与 CH-22 具有同样可靠的设计，但 CH-29 套管头的承载台肩深度比 CH-22 大；与 CG-29 型套管悬挂器装配后适用于钻深井。

The CH-22 / CH-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.

CH-22 / CH-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.

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



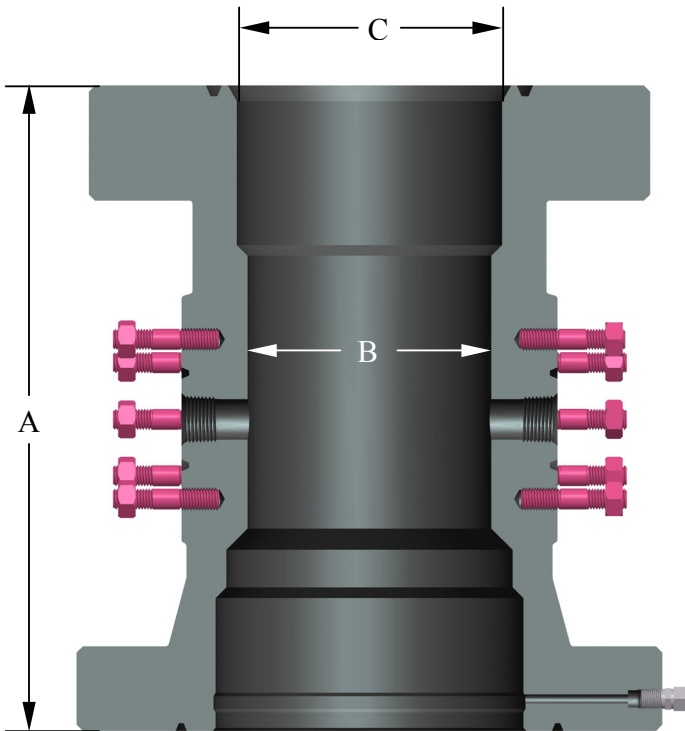
**CH-22 套管头尺寸 CH-22 Casing Heads Dimensions**

套管尺寸 Casing Size	法兰 Top Flange	工作压力 Working Pressure	尺寸 Dimensions			重量 Weight
			A, inch / mm	B, inch / mm	C, inch / mm	Lbs/Kg.
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

**CH-29 套管头尺寸 CH-29 Casing Heads Dimensions**

套管尺寸 Casing Size	法兰 Top Flange	工作压力 Working Pressure	尺寸 Dimensions			重量 Weight
			A, inch / mm	B, inch / mm	C, inch / mm	Lbs/Kg.
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

## CS-22 / CS-29 套管四通 *CS-22 / CS-29 Casing Spools*



CS—22

### Product Information

- ◆ Versatile straight-bore design, Uses a 45° landing shoulder
- ◆ Accepts a wide variety of slip and mandrel casing hangers
- ◆ CS-22-BP / CS-29-BP has a additional lockscrews for Bowl protection.
- ◆ CS-22-L/CS-29-L allows use of lockscrews 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.

### 产品信息

- ◆ 万能型直通道设计，具有 45°主承载台肩；
- ◆ 可与多种卡瓦式或芯轴式套管悬挂器匹配；
- ◆ CS-22-BP / CS-29-BP 型套管头具有附加的螺栓锁紧装置；
- ◆ CS-22-L / CS-29-L 型套管头具有悬挂器定位锁紧装置；
- ◆ 三种不同的侧面出口连接：管螺纹、法兰平台（螺栓）及加长法兰；
- ◆ 多种底部密封形式，如：PE/BG 型密封、OO 型密封及双“P”型密封圈密封。

The CS-22 / CS-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.

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

CS-22 / CS-29 套管四通有 45°的主承载台肩设计。底部密封有 PE/BG 密封（采用压力增强型衬套）、"OO"型密封（适用于压力≤5000 磅）和双"P"型密封圈密封。侧出口为螺纹式，可根据需要提供螺栓（法兰）式连接。

CS-29 套管头与 CS-22 套管头具有同样可靠的设计，但 CS-29 套管头的承载台肩深度比 CS-22 大；与 CG-29 型套管悬挂器装配后更适合于钻深井。

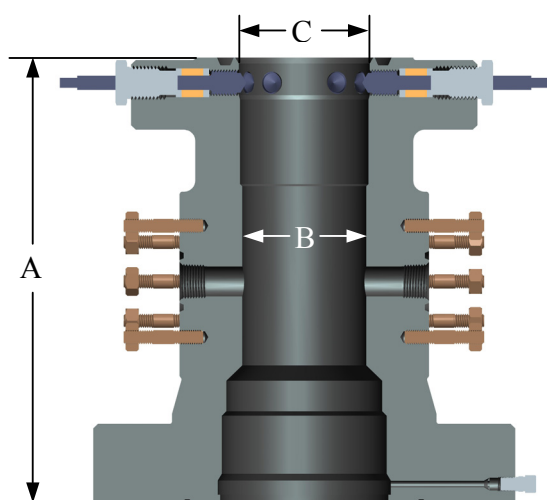


**CS-22 / C-29 套管四通尺寸 CS-22 / C-29 Casing Spools Dimensions**

底部法兰 Bottom Flange		顶部法兰 Top Flange		尺寸 Dimensions			重量 Weight
				A, inch / mm	B, inch / mm	C, inch / mm	Lbs/Kg.
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	12.50/317.5	13.50/342.9	-----
		16-3/4"	5,000	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 / TCM 油管头 *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 packoff 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 be used for single completions and model TC for dual completions.

### Product Information

- ◆ Versatile straight-bore design, Uses a 45° landing shoulder can safely 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

TC 和 TCM 油管头采用有 45°主承载台肩的直通设计，这种设计可避免钻井工具对密封面的损害，并防止防磨套、试压塞的楔入。套管密封可采用整体“OO”型密封或注脂密封，也可采用“4-O”型和“PE”型二次密封衬套。

顶部法兰具有螺栓锁紧装置，实现对封隔器和油管悬挂器的定位和锁紧。底部法兰有注脂端口和二次密封试验端口。

TCM 型油管头适用于单管完井装置，TC 型油管头适用于双管完井装置。

### 产品信息

- ◆ 万能型直通设计，具有 45°主承载台肩，能安全承受最大载荷；
- ◆ 采用多种材料制造以适应各种使用环境的需要；
- ◆ 有两种侧面出口连接：管螺纹、法兰平台（螺栓）；

	底部法兰 Bottom Flange	顶部法兰 Top Flange	尺寸 Dimensions			重量 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
			5,000	26.25/666.8	6.76/171.7	7.00/177.8	600/272
	3,000	9"	3,000	26.25/666.8	8.25/209.6	8.75/222.3	670/304
			5,000	26.25/666.8	8.25/209.6	8.75/222.3	750/340
		7-1/16"	5,000	26.25/666.8	6.76/171.7	7.00/177.8	800/363
			10,000	31.25/793.8	6.76/171.7	7.00/177.8	880/399
	5,000	9"	10,000	31.25/793.8	8.25/209.6	8.75/222.3	856/388
			10,000	31.25/793.8	8.25/209.6	8.75/222.3	1249/567
		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	-----
13-5/8"	2,000	7-1/16"	3,000	26.25/666.8	6.76/171.7	7.00/177.8	1700/771
			3,000	26.25/666.8	8.25/209.6	8.75/222.3	445/202
	3,000	9"	3,000	23.12/587.2	8.25/209.6	8.75/222.3	655/297
			5,000	26.25/666.8	6.76/171.7	7.00/177.8	670/304
		7-1/16"	3,000	26.25/666.8	6.76/171.7	7.00/177.8	805/365
			5,000	26.25/666.8	6.76/171.7	7.00/177.8	805/365
	5,000	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
		11"	10,000	30.25/768.4	10.00/254.0	10.88/276.4	1754/796
			10,000	30.25/768.4	10.00/254.0	10.88/276.4	1754/796

## 套管悬挂器 *Casing Hanger*



CG-22 Casing Hanger



CG-29 Casing Hanger

### CG-29 Casing Hanger

The CG-29 Casing Hanger provides high hanging capacity with minimum casing deflection. When the upper slips move down and energize the pack off, the CG-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 CG-29 offers far less casing deflection and much greater hanging capacity than other conventional hangers.

CG-29 型套管悬挂器与常规悬挂器相比，其承载能力大，且套管偏斜小。当上端卡瓦向下移动并对封隔密封圈施加压力时，悬挂器下端卡瓦能自动啮合并控制压缩量。由于下端卡瓦不随套管移动，因此，不会像常规锥型卡瓦那样产生很大的压缩力。

### Casing Hanger Availability

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		
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

CG-21=1, CG-21-P=2, CG-22=3, CG-29=4

### CG-21 Casing Hanger

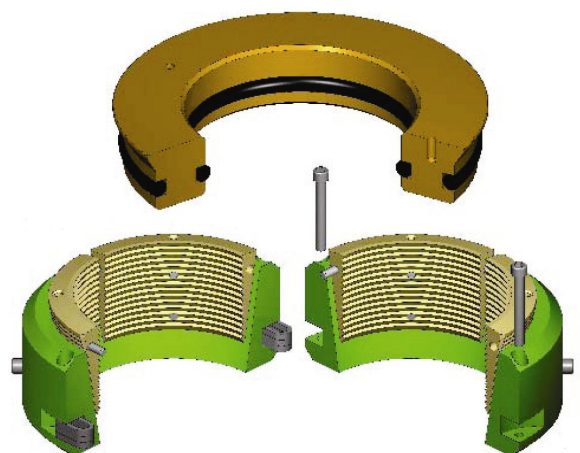
Slips, slip bowl and a type H pack off seal ring are all combined in the CG-21. The Type "H" pack off provides a positive annulus pack off after the casing has been suspended and cut off.

CG-21 型套管悬挂器为卡瓦悬挂器,可以分开,并带有"H"型封隔密封圈,实现对套管处于悬挂或切断状态时的可靠密封。

### CG-22 Casing Hanger

Combined in a single unit, the CG-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 CG-22 Hanger's controlled friction reduces casing deflection, can be easily installed and is economical

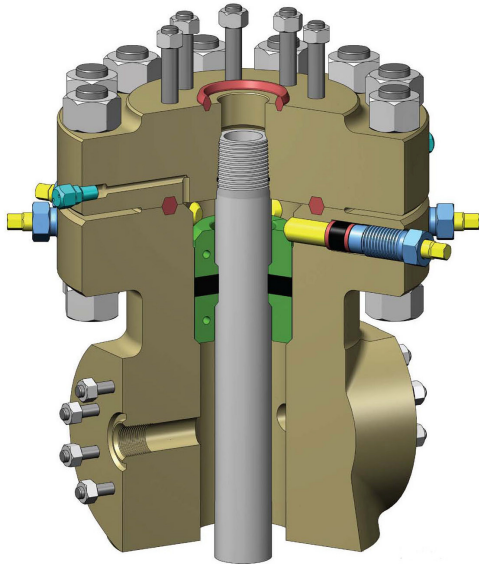
CG-22 型套管悬挂器是由封隔密封圈、卡瓦及支承碗组成的环形悬挂器,可以分开。当悬挂套管后,在卡瓦下方的封隔圈由于重力的作用对套管自动实现密封,可通过控制摩擦力减少套管的偏斜,安装方便,经济。



CG-21 Casing Hanger

## 油管悬挂器 *TG Tubing Hanger*

### TG-2W Tubing Hanger TG-2W 型油管悬挂器

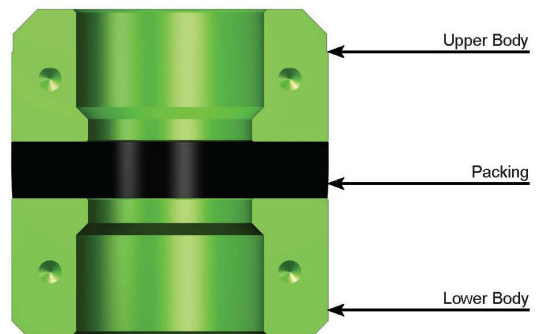


TG-2W Wrap-Around Tubing Hanger

#### Description 描述

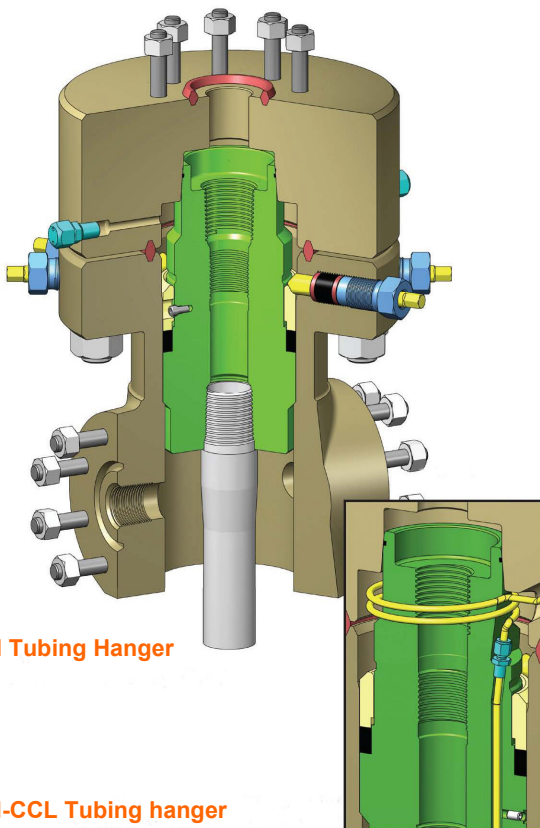
The T-2W Wrap-Around Tubing Hanger is designed to maintain control of the tubing/casing annulus while allowing reciprocation of the tubing.

T-2W 型油管头悬挂器主要是用来在允许油管互换的情况下对油管头/套管头环面进行密封控制。



TG-2W Wrap-Around Tubing Hanger

### TG-M Tubing Hanger TG-M 型油管头悬挂器



TG-M Tubing Hanger

TG-M-CCL Tubing hanger

#### Description 描述

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 TG-M 型油管头悬挂器是一种高承载力的心轴型悬挂器.悬挂器压力等级达到 15000psi.该油管头悬挂器的设计必须与其所处的碗状部分及连接的异形连接装置保持一致。

油管头悬挂器和油管头异径连接装置是按照一定的匹配规则连接的,从而使这两部分更易于配对。在此,T代表的是油管头碗状设计型式而M代表的是油管悬挂器的型式。



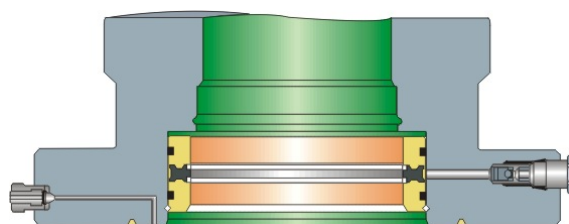
## 二次密封装置 *Secondary Seal*

### PE Secondary Seal PE 二次密封装置

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.

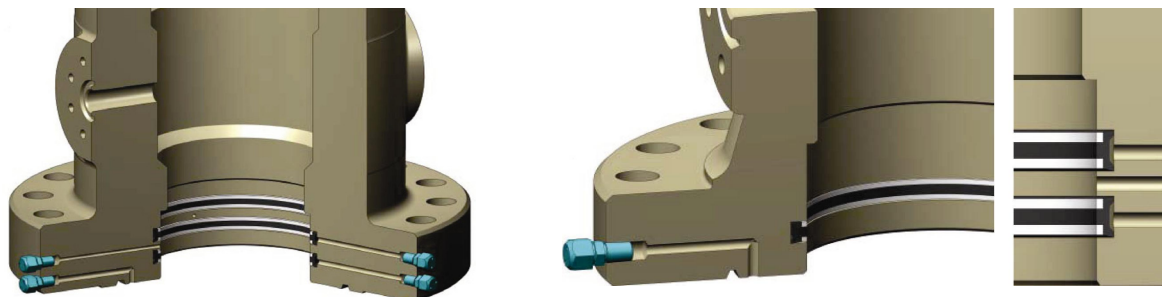
PE 型二次密封装置安装在套管头四通或油管头四通的底部并插入定位金属环。当四通安装于套管头的轴端且法兰连接已经完毕后，密封装置将自动开始工作。它不仅适用于 API 标准的套管尺寸，也适用于非标准的套管尺寸，并且在 5000psi 压力应用下可安全可靠的运行。

套管尺寸 Casing Size	底部公称规格 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

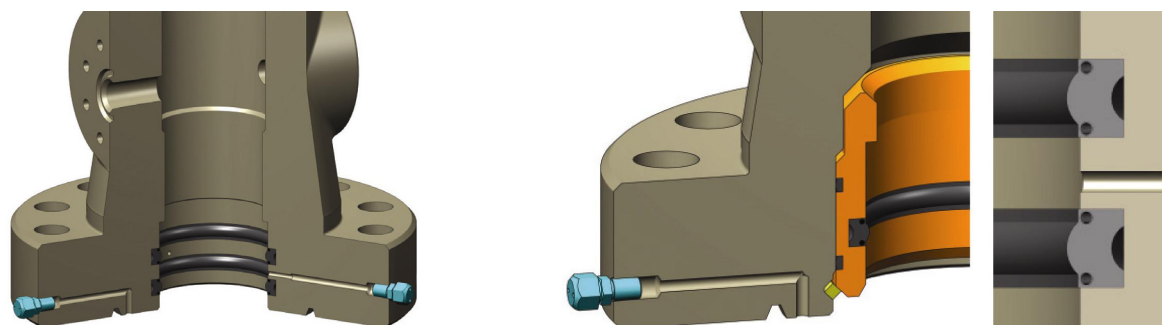
“P” 型二次密封装置



### “EBS” Reducer Bushing “EBS”缩径衬套

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.

“EBS” 型缩径衬套是一种适用于油管四通和套管四通，带橡胶圈的自增强型密封装置，最高使用压力达 10000Psi。



## 油管头异径连接法兰 *Tubing Head Adapter Flanges*

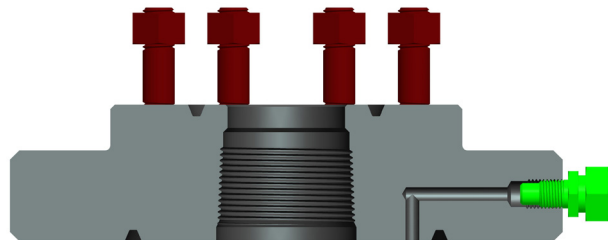
### THA-B1 Threaded Adapters

法兰尺寸 Flange Size	顶部螺纹 Threaded Top	底部螺纹 Bottom Thread	重量 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



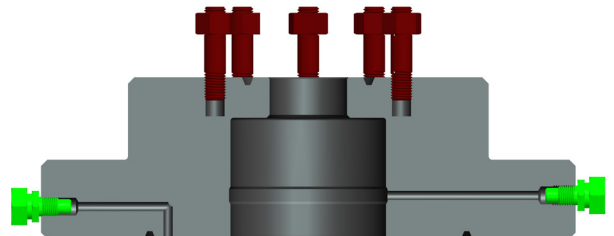
### THA-B2 Studded Adapters

法兰尺寸 Flange Size	顶部螺栓 Studded Top	底部螺纹 Bottom Thread	重量 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



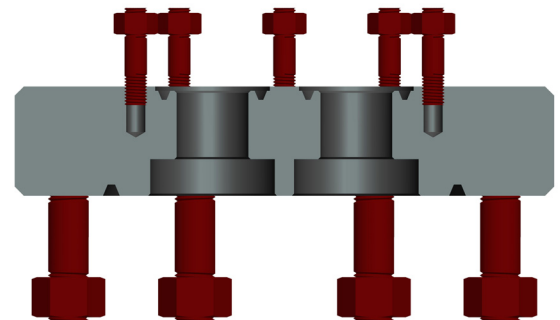
### THA-A5-P Studded Adapters

法兰尺寸 Flange Size	顶部螺栓 Studded Top	底部口径 Bottom Pocket	重量 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

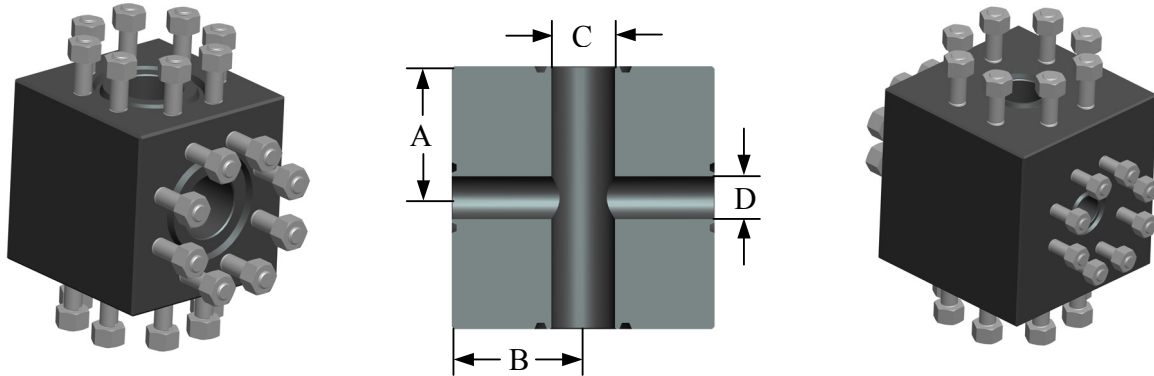


### THA-A4-D Multiple Completion Adapters

底部法兰尺寸 Bottom Flange Size	顶部螺栓 Studded Top	重量 Weight Lbs/Kg.
7-1/16" 2,000	2-1/16" x 2-1/16" 5,000	172/78
7-1/16" 3,000	2-1/16" x 2-1/16" 5,000	201/91
7-1/16" 5,000	2-1/16" x 2-1/16" 5,000	280/127
11" 2,000	2-1/16" x 2-9/16" 5,000	342/155
11" 2,000	2-9/16" x 2-9/16" 5,000	337/153
11" 3,000	2-1/16" x 2-9/16" 5,000	428/194
11" 3,000	2-9/16" x 2-9/16" 5,000	421/191
11" 5,000	2-1/16" x 2-9/16" 5,000	467/212
11" 5,000	2-9/16" x 2-9/16" 5,000	461/209



## 三通和四通 *Studded Crosses and Tees*



通道规格 RUN	出口规格 OUTLETS	尺寸 Dimensions				重量 WEIGHT, Lbs/Kg.	
		A, inch / mm	B, inch / mm	C, inch / mm	D, inch / mm	三通 TEE	四通 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



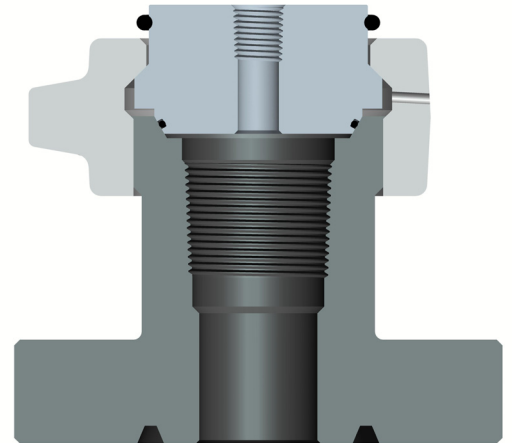
## 底部连接装置 *Bottom Hole Test Adapters*

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.

底部连接装置允许与油管通道进行弹性接入。BA-15A 型底部连接装置采用整体法兰，具有多种规格，工作压力达 10000 psi。

### BA-15A Adapters

法兰尺寸 Flange Size	通道 Bore	提升螺纹 Lift Thread	重量 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

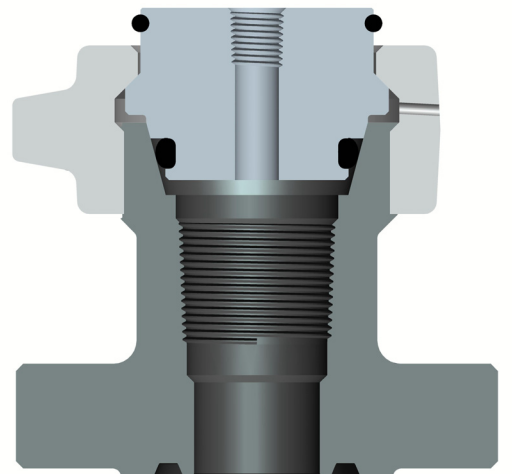


### BA-11-AO Adapters

BA-11-AO Bottom Hole adapters are furnished in various sizes and working pressure to 15000 psi.

BA-11-AO 型底部连接装置具有多种规格，工作压力范围达 15000 psi。

法兰尺寸 Flange Size	通道 Bore	提升螺纹 Lift Thread	重量 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.

BA-11-AH 型底部连接装置为金属对金属密封，具有多种规格，

工作压力范围达 10000~15000 psi。

法兰尺寸 Flange Size	通道 Bore	提升螺纹 Lift Thread	重量 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

## DOUSON — API 6A 平板闸阀 *Gate Valve Feature:*



The DOUSON Gate Valve was developed to satisfy the need for a high quality reliable valve which is reasonably priced. All DOUSON Gate valve makes full use of modern materials and manufacturing techniques. It is easy to maintain, conforms to international design requirements and Quality Assurance Programme. All DOUSON Gate Valve are manufactured to API 6A Specification as a basic minimum, in a Plant that is API Q1 and ISO9001 approved and Certified.

DOUSON 闸阀是为满足顾客对高质量高可靠性能且价格适中的阀门需求而设计的。DOUSON 所有的闸阀都是充分利用现代的原料和加工工艺制造而成。它易于维护，完全依照国际设计要求和质量保证。DOUSON 所有的闸阀都是依照 API6A 规范为基本参量，在 APIQ1 和 ISO9001 批准及认证的车间加工制造完成的。

### ◆ Forged or Cast Body & Bonnet

All type gate valve bodies and bonnets are manufactured from forged or cast AISI 4130/4140 low alloy or AISI 410 SS steel. Other materials for extreme service, such as Inconel or Duplex stainless steel are available to order.

#### 铸造或锻造阀体和阀盖

所有的阀体和阀盖都是由铸造或锻造的 AISI4130/4140 低合金钢或 AISI410 不锈钢加工而成。其他特殊用途的材料，如 Inconel 不锈钢或者双相不锈钢也能够使用。

### ◆ Metal-to-Metal Seat to Body Interface

Precision lapped faces between the gate and seat ensure a metal-to-metal pressure tight seal is maintained. Seat is lapped on both surface to give a true metal to metal seal between the body and seat. This seal is further reinforced and protected by a Teflon or Viton lip seal, giving bubble tight sealing performance at pressure below 10 psi.

#### 金属对金属阀座阀体密封

闸板和阀座之间的精密研磨面确保了金属对金属的可靠密封。阀座两面都研磨以保证阀体和阀座之间金属对金属密封性能。在低于 10psi 压力下，聚四氟乙烯或 Viton 唇缘密封的进一步加强和保护能达到气泡级密封。

### ◆ Gate & Seat Design for Slab Gate

The seat in the gate valve are fully floating, this combined with a solid slab gate gives a true downstream seal resulting in exceptionally low operating forces.

为刚性平板闸阀而设计的闸板和阀座

闸阀的阀座是完全浮动的，与刚性平闸板相配合，能使平板闸阀实现真正的下游密封，且操作力较低。

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◆ **Gate & Seat Design for Expanding Gate**

The expanding gate creates a positive mechanical seal across the seats with or without line pressure. Floating seals with resilient seals allow the seats to be tightly wedged into the seats pockets in the open or closed position.

为弹性平板闸阀而设计的闸板和阀座

膨胀式平板闸阀在阀座上设计了一个拥有/或没有线压的机械密封面。弹性密封面配合流动密封确保阀座在开启或关闭情况下紧密地楔入阀座口。

◆ **Bi-directional Sealing**

All Douson Gate Valve is a true bi-directional valve. Being fully symmetrical, it will effectively seal pressure from either direction without the risk of pressure lock. If the valve is used in uni-directional application, the gate and seats can be reversed to give a extra service life.

双向密封

DOUSON 所有的闸阀都是真正的双向阀门。由于完全的均衡性，该阀门没有压力泄露的风险，它对各个方向的压力都有着良好的密封性能。若该阀门被用于单向应用，其闸板和阀座能够调换方向以延长寿命。

◆ **Gate Guided**

The gate is guided positively by the valve body and close fitting stainless steel skirts. The skirts minimize the ingress of well fluid mud and sand into the body cavity.

闸板导向：闸板导向是通过阀体和相配的不锈钢衬套来完成的。不锈钢衬套可最小限度的使介质中的泥浆回流到阀体腔内。

◆ **Body to Bonnet Seal**

A metal-to-metal seal is achieved between the body and bonnet using Douson metal-to-metal sealing technology. The seal ring is re-useable.

阀体阀盖密封

使用 DOUSON 金属对金属密封技术可以达到阀体和阀盖的金属对金属密封。密封圈可重复使用。

◆ **Non-rising Stem with Backseat**

The stem used in the Douson gate valve is manufactured from Alloy-Nitrided or 17-4 stainless steel. Being of the non-rising design, valve operation will not increase the pressure in the body cavity. Seal against the bonnet, providing means to replace the valve stem packing with the valve is under pressure.

带有倒密封的非升降式阀杆

DOUSON 闸阀的阀杆采用合金钢+氮化或 17-4 不锈钢材料制成。由于是非升降式设计，阀门的操作不会加大阀体腔内的压力。阀盖倒密封有利于在压力条件下更换阀杆。

◆ **Stem Seal**

All stem seals are non-elastomeric and are inert to most known liquids and gases. Being made from PTFE/R-PTFE stem frictional resistance is minimized resulting in lower operating torque. The stem seal design is suitable for all temperature range and services. Graphite stem packing is option on user request.

阀杆密封

所有的阀杆密封都是非弹性密封，且适用于大多数的流体和气体。使用 PTFE/R-PTFE 密封装置的阀杆因其摩擦阻力降至最小而操作扭矩小。阀杆密封设计适用于所有的温度和环境。根据需要可选择石墨阀杆密封。

◆ **Bearing**

Heavy duty thrust bearing are used to absorb stem thrust and reduce operating torque. A grease fitting is located on the bearing cap to allow for lubrication to ensure continued trouble-free operation.

轴承

重型轴承有利于承受阀杆的推力，并减小操作扭矩。轴承盖上放置油嘴可便于润滑油的进入，以确保操作的顺利和连续。



## API 6A 阀门材料规范 *Material Specification for API 6A Valve*

Service Condition 使用环境	Valve Body Description 零件描述							
	Body 阀体	Bonnet 阀盖	Stem 阀杆	Gate 闸板	Seat 阀座	Stem Seal 阀杆密封	Seat Seal 阀座密封	Bonnet Seal 阀盖密封
API Class AA (Trim A) General Non-corrosive 无腐蚀	Alloy Steel Forging or casting	Alloy Steel Forging	Alloy Nitrided	Alloy Nitrided	Alloy Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class BB (Trim B) General Slightly Corrosive 轻微腐蚀	Alloy Steel Forging or casting	Alloy Steel Forging	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class CC (Trim C) General, Moderately Corrosive, CO <sub>2</sub> 中等腐蚀	410 Stainless steel	410 Stainless steel	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class DD (Trim D) Sour Non-corrosive 酸性-无腐蚀	Alloy Steel Forging or casting	Alloy Steel Forging	Alloy Nitrided	Alloy Nitrided	Alloy Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class EE (Trim E) Sour Slightly Corrosive 酸性-轻微腐蚀	Alloy Steel Forging or casting	Alloy Steel Forging	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class EE-1 (Trim E1) Sour Highly Corrosive CO <sub>2</sub> 酸性-高腐蚀 CO <sub>2</sub>	Alloy Steel Forging or casting	Alloy Steel Forging	Inconel 718	410 SS w/Hard facing	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class FF (Trim F) Sour, Moderately Corrosive, H <sub>2</sub> S 酸性-中等腐蚀 H <sub>2</sub> S	410 Stainless steel	410 Stainless steel	A564 Type. 630 (17-4PH)	410 SS Nitrided	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class FF-1 (Trim F1) Sour Highly Corrosive H <sub>2</sub> S and CO <sub>2</sub> 酸性-高腐蚀 H <sub>2</sub> S 和 CO <sub>2</sub>	410 Stainless steel	410 Stainless steel	Inconel 718	410 SS w/Hard facing	410 SS Nitrided	Teflon FKM Graphite PEEK	Viton	304or 316SS
API Class HH (Trim H) High Corrosion 酸性-高腐蚀	Alloy Steel w/625 Claded	Alloy Steel w/625 Claded	Inconel 718	Inconel 718/625 w/Hard facing	Inconel 718/625 w/Hard facing	Teflon FKM Graphite PEEK	Viton	Inconel 718

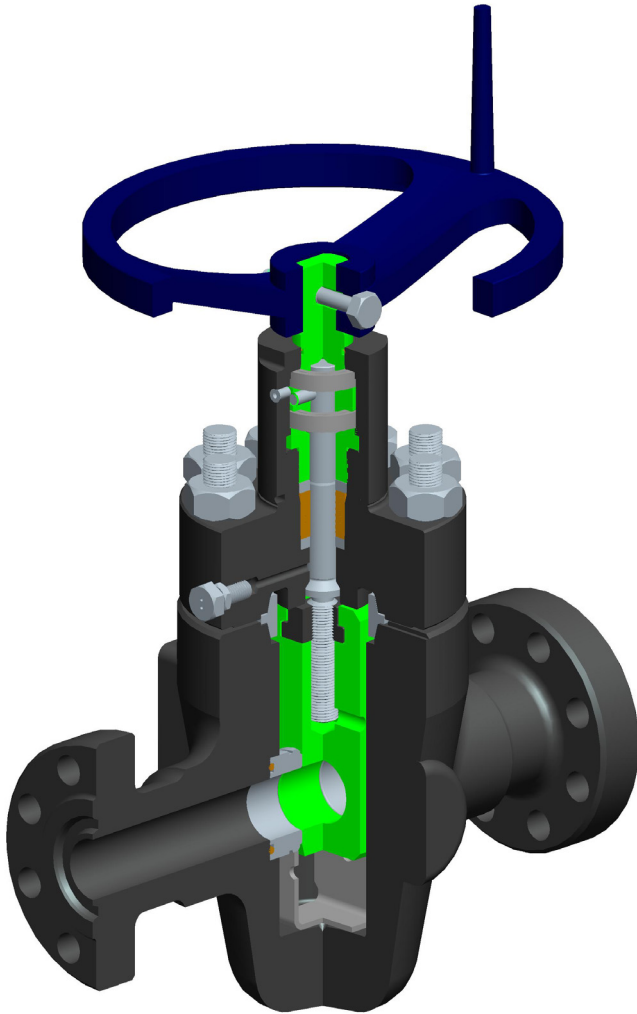
Other trims are available upon request.

其他内件若有需要也可提供

## Model SG-22 Slab Gate Valve **SG-22 型刚性平板阀**

The Model SG-22 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.

SG-22 型高性能，双向，密封平板闸阀在高压时性能良好，可应用于 3000 至 20000psi 的油田井口、采油树及管汇系统。



### Specification

Standard Model SG-22 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 H<sub>2</sub>S service in accordance with NACE MR-01-75, latest edition

### 设计规范

标准的 SG-22 型闸阀符合最新版的 API 6A 和/或 API 6D SSV 的要求，刚性平板可以替换为膨胀闸板。依据最新版的 NACE MR-01-75 规范选择适用 H<sub>2</sub>S 介质的材料。

### Reliable Performance

- ◆ Forged body & bonnet
- ◆ Low operation torque
- ◆ Metal-to-metal body/bonnet seal
- ◆ Metal-to-metal backseat 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

### 性能

- ◆ 锻造阀体/阀盖
- ◆ 低操作扭矩
- ◆ 金属对金属阀体/阀盖密封
- ◆ 对于任意位置闸板都可加压的金属对金属后密封
- ◆ 为易于维护而加入的润滑油嘴
- ◆ 保证阀体润滑和保护闸板表面的闸板导向
- ◆ 手动或自动操作
- ◆ 设计简单确保低花费
- ◆ 法兰或螺纹出口

### ◆ Availability Sizes 可适用的规格

SIZE	3000 psi	5000 psi	10000 psi
1-13/16"			✓
2-1/16"	✓	✓	✓
2-9/16"	✓	✓	✓
3-1/16"			✓
3-1/8"	✓	✓	
4-1/16"	✓	✓	✓

## Model SG-10 Slab Gate Valve **SG-10 型刚性平板阀**

The Model SG-10 slab 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.

SG-10 型平板式闸阀是一种优异密封性能的双向性阀门，适用于工作压力在或低于 5000psi 油田井口、采油树及管汇系统。

### Specification

Standard Model SG-10 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 H<sub>2</sub>S service in accordance with NACE MR-01-75, latest edition

### 设计规范

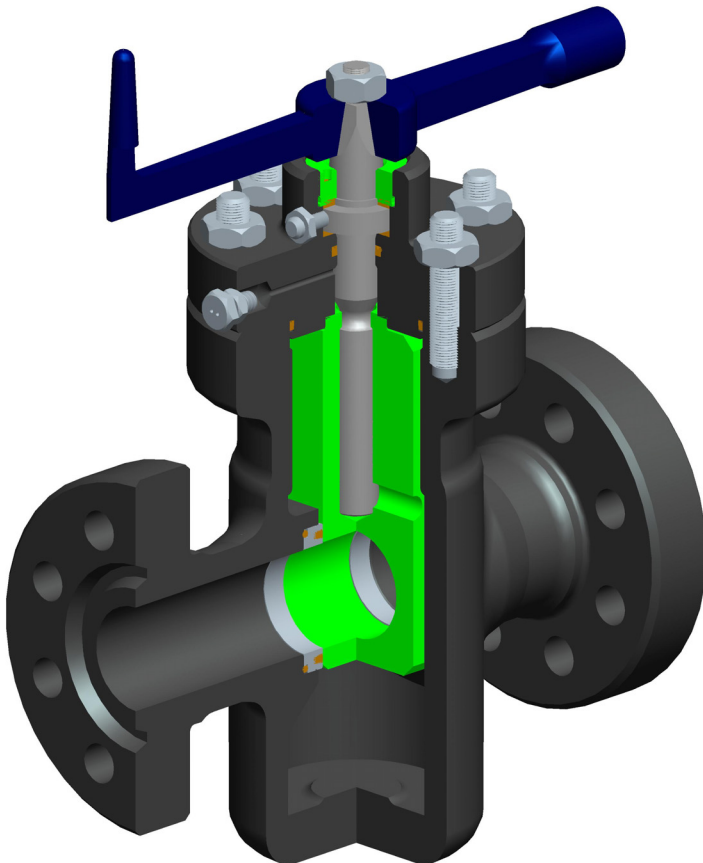
标准的 SG-10 型闸阀符合最新版的 API 6A 和/或 API 6D SSV 的要求，刚性平闸板可以替换为膨胀闸板。依据最新版的 NACE MR-01-75 规范选择适用 H<sub>2</sub>S 介质的材料。

### Reliable Performance

- ◆ Forged bonnet
- ◆ Low operation torque
- ◆ O-ring body/bonnet seal
- ◆ Lubrication fittings for easy maintenance
- ◆ Manual or actuated operation
- ◆ Simple design assures low cost
- ◆ Flanged or screwed outlets

### 性能

- ◆ 锻造阀盖
- ◆ 低操作扭矩
- ◆ 阀体/阀盖密封采用 O 型圈
- ◆ 为易于维护而加入的润滑油嘴
- ◆ 手动/自动操作
- ◆ 设计简单确保低花费
- ◆ 法兰或螺纹出口



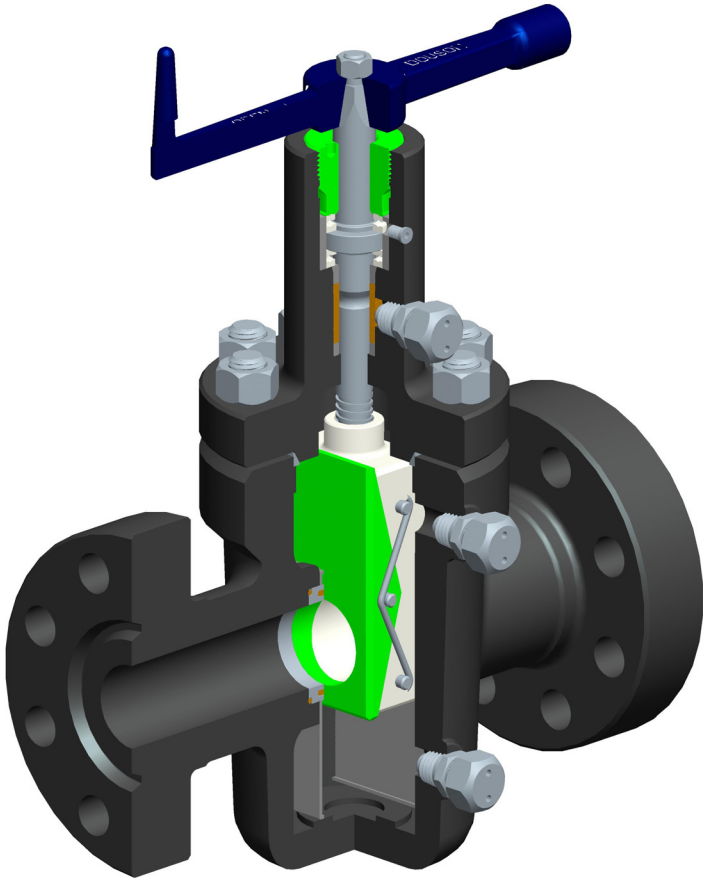
### ◆ Availability Sizes 可适用的规格

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

## Model EG-20 Expanding Gate Valve EG-20 型膨胀式平板阀

The Model EG-20 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.

EG-20 型膨胀式闸阀的最高工作压力为 5000psi，适用于油田井口，采油树和管汇系统，双向具有优异的密封性能。



### Specification

Standard Model EG-20 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 H<sub>2</sub>S service in accordance with NACE MR-01-75, latest edition

### 设计规范

标准的 EG-20 型闸阀符合最新版的 API 6A 和/或 API 6D SSV 的要求，膨胀闸板可以替换为刚性平闸板。依据最新版的 NACE MR-01-75 规范选择适用 H<sub>2</sub>S 介质的材料。

### 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

### 性能

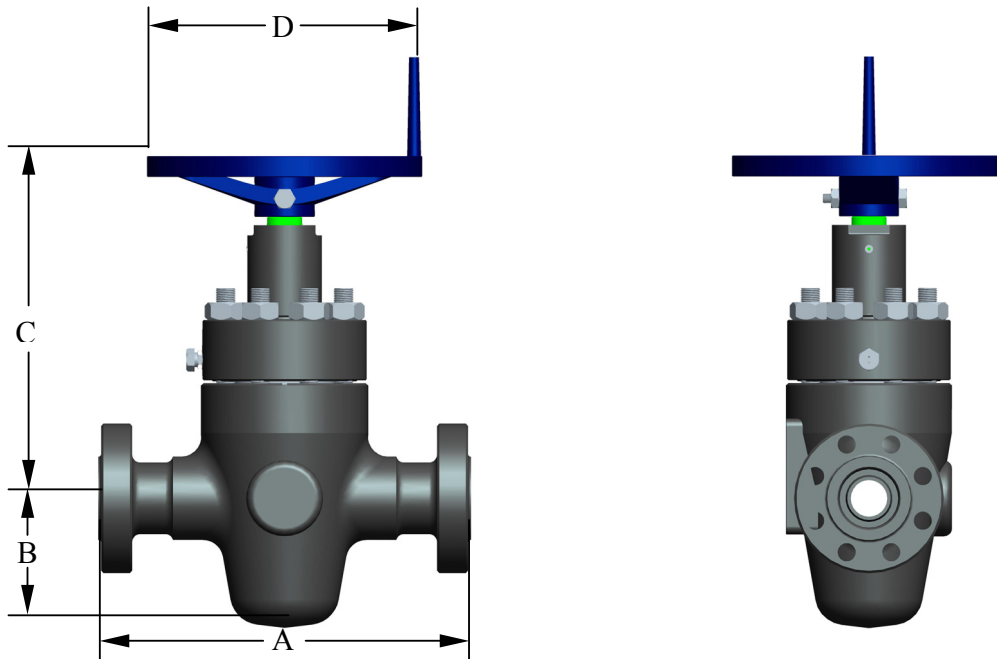
- ◆ 锻造阀盖
- ◆ 低操作扭矩
- ◆ 金属型阀体/阀盖密封
- ◆ 保证阀体润滑和保护闸板表面的闸板导向
- ◆ 手动或自动操作
- ◆ 简单设计保证降低成本
- ◆ 法兰或螺纹出口

### ◆ Availability Sizes 可适用的规格

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



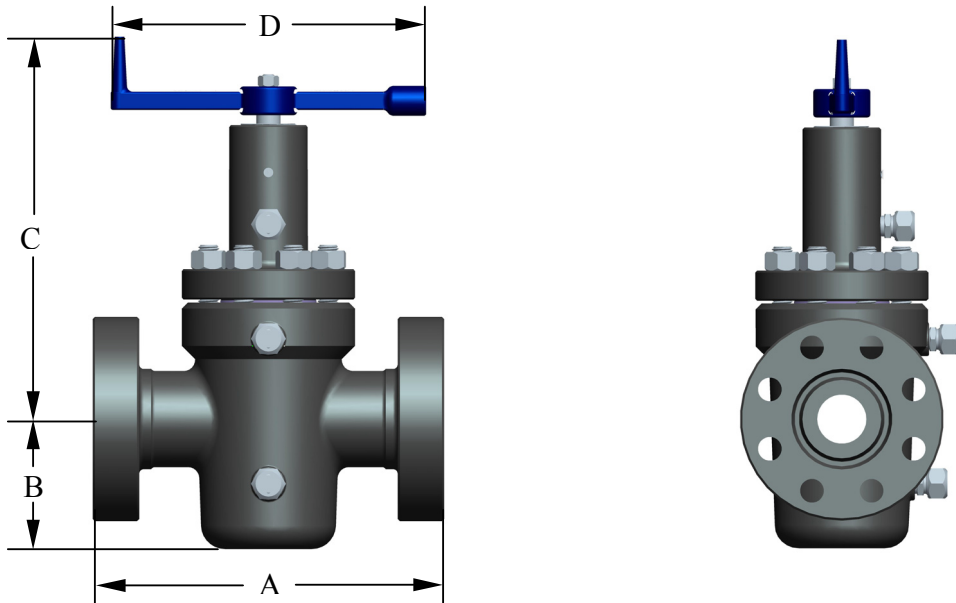
**6A Gate Valve Dimension Data ---Model SG-22 6A 闸阀尺寸数据—SG-22 型**



Flanged Valve 法兰端

Bore Size 内径尺寸	PSI 压力	Dimensions 尺寸				API Ring	WT. lbs / kg 重量
		A, inch / mm	B, inch / mm	C, inch / mm	D, inch / mm		
<b>3000 PSI Working Pressure 3000 PSI 工作压力</b>							
2-1/16"	3,000	14.63/371.6	6.45/163.8	16.41/416.8	13.5/342.9	R-24	222/101
2-9/16"	3,000	16.62/422.1	7.91/200.9	17.28/438.9	13.5/342.9	R-27	299/136
3-1/8"	3,000	17.12/434.8	8.15/207.0	18.43/468.1	17/431.8	R-31	396/180
4-1/16"	3,000	20.12/511.0	9.67/245.6	20.26/514.6	18.75/476.3	R-37	655/297
<b>5000 PSI Working Pressure 5000 PSI 工作压力</b>							
2-1/16"	5,000	14.63/371.6	6.45/163.8	16.41/416.8	13.5/342.9	R-24	222/101
2-9/16"	5,000	16.62/422.1	7.91/200.9	17.28/438.9	13.5/342.9	R-27	299/136
3-1/8"	5,000	18.62/472.9	8.15/207.0	18.43/468.1	17/431.8	R-35	428/194
4-1/16"	5,000	21.62/549.1	9.67/245.6	20.26/514.6	18.75/476.3	R-39	697/316
<b>10000 PSI Working Pressure 10000 PSI 工作压力</b>							
1-13/16"	10,000	18.26/463.8	6.44/163.6	16.25/412.8	17/431.8	BX-151	308/140
2-9/16"	10,000	22.25/565.2	8.08/205.2	18.03/458.0	18.75/476.3	BX-153	456/207
3-1/16"	10,000	24.4/619.8	10.1/256.5	18.86/479.0	18.75/476.3	BX-154	602/273.1
4-1/16"	10,000	26.38/670.1	12.99/329.9	25.12/638.0	24/609.6	BX-155	1229/557.5

**6A Gate Valve Dimension Data ---Model EG-20 6A 闸阀尺寸数据---EG-20 型**



**Flanged Valve 法兰端**

Bore Size	PSI	Dimensions				Number of Turns	WT. lbs / kg
		A, inch / mm	B, inch / mm	C, inch / mm	D, inch / mm		
2-1/16"	2000	11.62/295.1	5.06/128.5	19.62/498.3	10.00/254.0	13	96/44
	3000, 5000	14.62/371.3	5.25/133.4	19.62/498.3	13.00/330.2	13	176/80
2-9/16"	2000	13.12/333.2	5.81/147.6	20.62/523.7	13.00/330.2	15-1/2	140/64
	3000, 5000	16.62/422.1	6.12/155.4	20.62/523.7	13.00/330.2	15-1/2	224/102
3-1/8"	2000	14.12/358.6	7.06/179.3	22.75/577.9	13.00/330.2	20	218/99
	3000	17.12/434.8	7.31/185.7	22.75/577.9	16.00/406.4	20	300/136
	5000	18.62/472.9	7.62/193.5	22.75/577.9	16.00/406.4	20	334/151
4-1/16"	2000	17.12/434.8	9.12/231.6	25.88/657.4	16.00/406.4	24-1/2	406/184
	3000	20.12/511.0	9.12/231.6	25.88/657.4	16.00/406.4	24-1/2	558/253
	5000	21.62/549.1	9.44/239.8	25.88/657.4	16.00/406.4	24-1/2	614/279

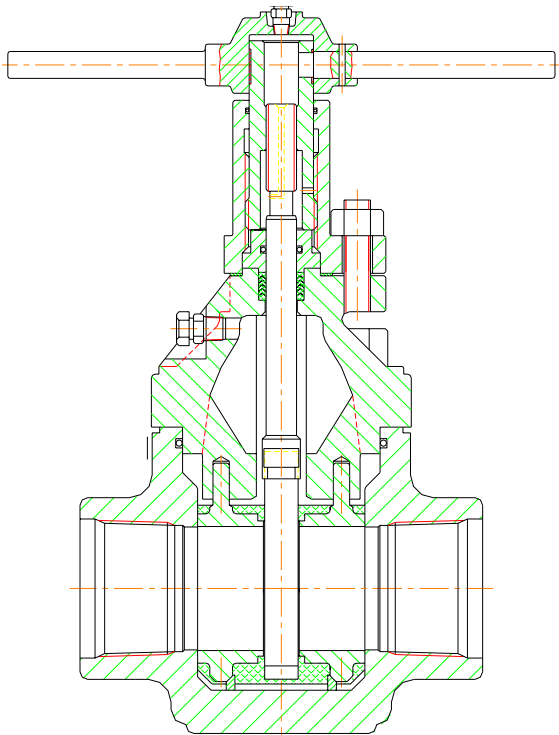
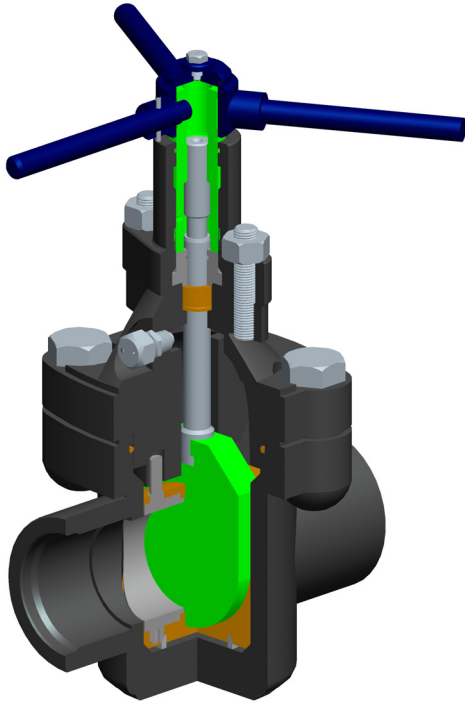
**Threaded Valve 螺纹端**

Bore Size 内径尺寸	PSI 压力等级	Dimensions 尺寸				Number of Turns	WT. lbs / kg
		A, inch / mm	B, inch / mm	C, inch / mm	D, inch / mm		
2-1/16"	2000	9.25/235.0	5.06/128.5	19.62/498.3	10.00/254.0	13	86/39
	3000, 5000	9.62/244.3	5.25/133.4	19.62/498.3	13.00/330.2	13	126/57
2-9/16"	2000	10.25/260.4	5.81/147.6	20.62/523.7	13.00/330.2	15-1/2	108/49
	3000, 5000	10.25/260.4	6.12/155.4	20.62/523.7	13.00/330.2	15-1/2	142/64
3-1/8"	2000	11.38/289.1	7.06/179.3	22.75/577.9	13.00/330.2	20	181/82
	3000, 5000	11.38/289.1	7.62/193.5	22.75/577.9	16.00/406.4	20	236/107
4-1/16"	2000	13.00/330.2	9.12/231.6	25.88/657.4	16.00/406.4	24-1/2	318/144
	3000, 5000	13.00/330.2	9.44/239.8	25.88/657.4	16.00/406.4	24-1/2	454/206

## Mud Valves 泥浆阀

**DOUSON DMV Mud Valves** are solid gate, rising stem, gate valves with resilient seals. They are purpose made for mud, cement, fracturing and water service and are easy to operation and simple to maintain.

DOUSON DMV 型泥浆阀是一种刚性闸板、升降阀杆、弹性密封闸阀。该阀门主要用于泥浆、水泥、压裂和供水服务，易于操作且维护简单。



Type 1

### Application

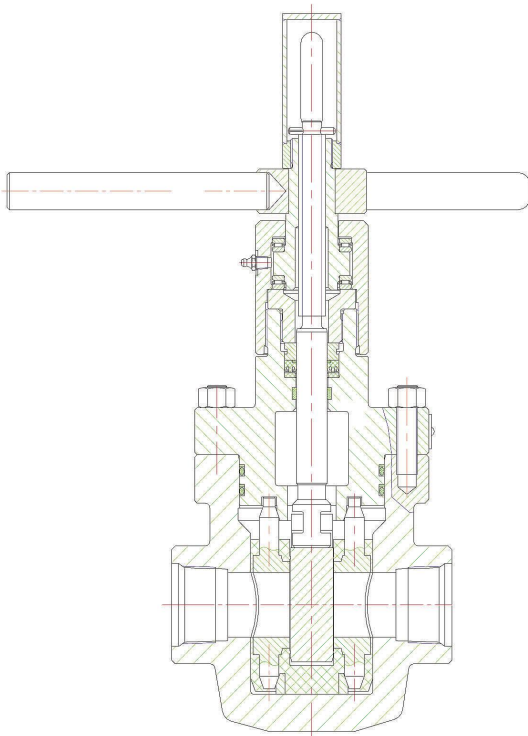
- ◆ Oil and Gas lines
- ◆ Wellheads
- ◆ Manifolds and Pipelines
- ◆ Crude Oil and Sour Gas
- ◆ Well Treating Chemicals
- ◆ Drilling Chemicals
- ◆ Water Flood Lines
- ◆ Abrasive Drilling Mud

### 适用范围

石油天然气管道  
井口  
管汇和管线  
原油和酸性气体  
油田化学介质  
钻井化学介质  
泄洪（水）管线  
钻井泥浆

### Design Specification

- ◆ Design specifically for Abrasive and Erosive use
- ◆ All Valves have 17-4 PH Stainless Steel Stems
- ◆ API 6A PSL1, 2 and 3 available
- ◆ Gate can be supplied in Nickel-plated Carbon Steel, Monel, Aluminum Bronze or Stainless Steel.
- ◆ Stainless or Carbon Steel Inserts with Nitrile or HNBR Elastomer
- ◆ Pressure Tested in Accordance with API 6A or API 6D
- ◆ Sour Service Models to NACR MR-01-75
- ◆ Available with Pressure Ratings up to 5000 psi in 2", 3", 4", 5"×4" and 6"×4" Valves Sizes
- ◆ 75000 psi Valves To Cater for High Pressure Demands Placed open Modern Drilling Mud Systems in Sizes 2", 3", 4", 5" and 6"



Type 2

### 设计规范

- ◆ 耐磨损和抗腐蚀设计
- ◆ 所有阀门采用 17-4PH 不锈钢阀杆
- ◆ 具有 API 6A PSL1,2,和 3 三个级别
- ◆ 闸阀材质采用碳钢镀镍, 蒙乃尔, 铝青铜或不锈钢
- ◆ 嵌入不锈钢、碳钢的丁腈或 HNBR 橡胶阀座
- ◆ 压力试验按照 API6A 或 API6D 规范
- ◆ 抗酸性设计按照 NACR MR-01-75
- ◆ 压力等级超过 5000psi、尺寸为 3",4", 5"×4"和 6"×4"
- ◆ 专门适用于高压力要求的钻探泥浆系统, 尺寸范围为 2", 3", 4", 5" 和 6", 压力等级为 75000psi。

### Outlets

- ◆ Flanged Ends
- ◆ Hammer Union or Hub Ends
- ◆ Threaded Connection
- ◆ Butt-Weld Ends

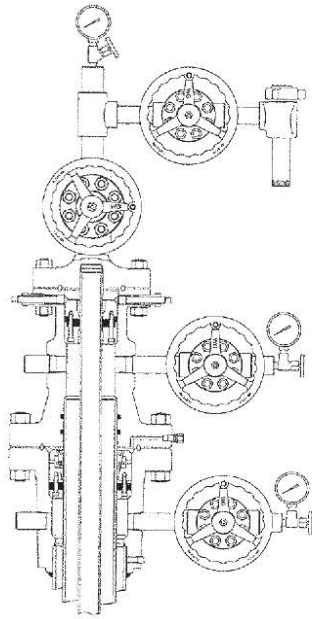
### 出口

- ◆ 法兰连接
- ◆ 套管连接
- ◆ 螺纹连接
- ◆ 对接焊连接

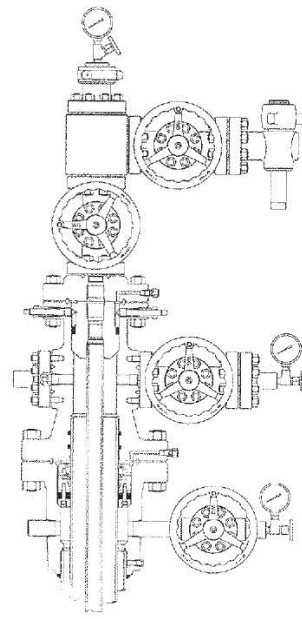


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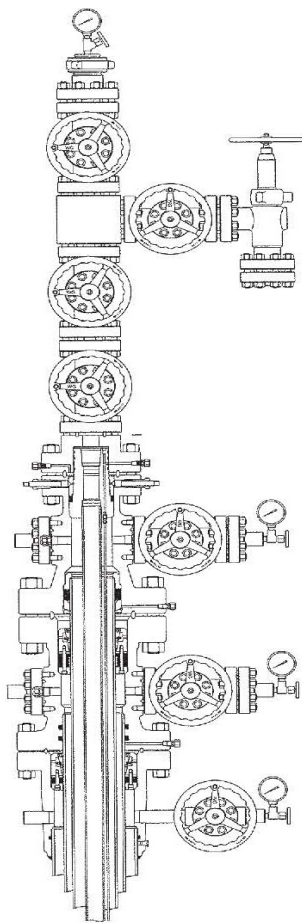
Single Completion 单孔完井 2,000 Psi



Single Completion 单孔完井 3,000 Psi



Single Completion 单孔完井 5,000 or 10,000 Psi



## API 6A 法兰数据表 FLANGE DATAS 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		
								OD. "A"	Width "W"	Depth "D"
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