API 6D ISO9001认证企业
ISO14001 OHSAS18001认证企业
特种设备制造许可认证企业
（压力管道类）
API 6D ISO9001 ISO14001 OHSAS18001
CERTIFIED ENTERPRISE
SPECIAL EQUIPMENT MANUFACTURE
LICENSE CERTIFIED ENTERPRISE

CHV®

FWTB型锻钢全焊接球阀

FWTB Series of Forging Steel Full-welded Ball Valve

ASME CLASS 150Lb、300Lb、400Lb、600Lb、900Lb

GB PN 16、20、25、40、50、63、100、(110)、150、(160)bar

DN 25～1500mm (1"～60")

成 都 成 高 阀 门 有 限 公 司
CHENGDU CHENGGAO VALVE CO., LTD.

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DN 25~1500mm (1"~60")

随着长输管线和城市燃气管线的进一步发展，以及管线球阀国产化进程的加快，对国产长输管线球阀提出了更高的要求，要求管线阀门具有更高的可靠性、更高的密封性、更高的强度、更长的使用寿命、更广的产品参数，以确保长输管线和城市燃气管线安全可靠运行。FWTB-DR型锻钢全焊接固定式球阀以其独有的性能和优点被有效应用于高可靠性高密封性的场合，阀门大量使用在石油、天然气开采和输送系统上，它不仅用于油、气开采的井口装置、分离计量设备、集输站场上，也用于长输管道上。阀门的作用是隔离设备，切断或打开管道，使介质流动或停止，改变介质流向，调节介质流量大小，防止介质倒流，以及排污和放空等。

With the further development of long-distance pipe line transportation of petroleum and natural gas and gas pipe line system in cities, and with the process of the pipel line valve to localization, which make higher demand on the domestic long-distance pipe line ball valve. It requires that pipe line valves have abilities, such as higher reliability, higher sealing, higher strength, longer life, broader product parameters to ensure that the long-distance pipe line and city gas pipe line operate safely and reliably. FWTB-DR type forged steel full-welded ball valve with its unique characteristics and advantages can be used in service of high-reliability sealing. Valves are mainly applied to the oil, gas production and the delivery system, which not only for oil and gas exploitation in the wellhead, separation metering outfit, Oil-gas gathering and transportation station, but also for long-distance pipeline. The effect of valve is that to isolate equipment, cut or open the pipe so as to make media flow or stop, change the medium flow, prevent the media flow back, drain and empty ,etc.

● 主要功能特征：
Major function feature:

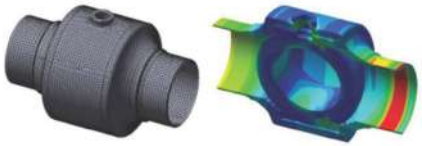
1. 截断和排放
   Double Block & Bleed
2. 安全解压
   Safe release
3. 可靠密封
   Reliable seal
4. 火灾安全
   Fire Safe
5. 清扫管道
   Cleaning pipe
6. 紧急密封
   Emergency seal
7. 特殊阀座
   Special seat
8. 阀盖组合密封
   Bonnet combined seal
9. 排污
   Draining
10. 加长阀杆
    Extended stem
11. 各类驱动方式
    Various driving methods
12. 连接方式多样
    Various end connections
13. 阀体材质多样
    Diversity of body materials
14. 阀座材质多样
    Diversity of seat materials
15. 各类控制系统
    Various kinds of control systems
16. 可靠的操作
    Reliable operation
17. 承受管道应力安全
    Bearing pipe stress safety

结构特点：
Structure characteristics:

锻钢结构
Forging steel structure

CHV FWTB系列球阀，阀体采用锻钢材料，材料的选用充分保证了与相应管道、管件之间的适配性和可焊性，在最大的额定工作压力下能保证其有足够的强度和刚度，没有铸件所固有的缺陷。阀门的阀体为全焊接结构，焊缝为两道对称分布的环焊缝，焊缝最小有效厚度设计严格按照API 6D、ASME B16.34、ASME Section Ⅷ卷《压力容器建造规则》的规定，并经过3D有限元分析,具有足够的强度，因此可完全杜绝阀体的泄漏，并足以承受管道的应力。

In CHV FWTBseries ball valve, forging steel material is used for body, which can ensure sufficient rigidity and strength under maximum rated operation pressure without inherent flaw of cast. The internal parts of valve are carefully designed and selected to ensure reliability under all kinds of work condition. Enough wall thickness of separate body and adaptation of high strength tie bolts are convenient for valve maintenance and sufficient to bear the stress of pipe.



操作扭矩低
Low torque in operation

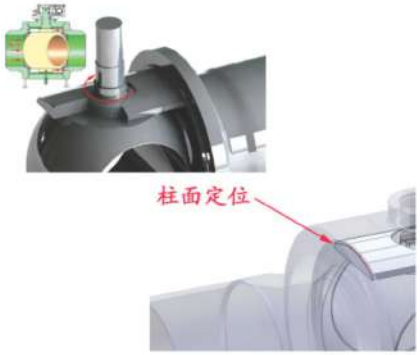
FWTB系列球阀，球体为固定球，球面经包络线磨球工艺进行磨削抛光硬化处理，与阀杆分离；阀杆为细长轴，表面经硬化处理；球体的轴向载荷经两个较大的自润滑滑动轴承传递给阀体，因而耐磨损，并且操作灵活、扭矩低。

In FWTB series ball valve, the structure of the ball is trunnoin mounted, whose surface is ground, polished with envelope ball milling process and hard face treated. The ball is separated from valve stem that is a slender shaft, whose surface is hard treated. The axial load of ball is transmitted to body by means of two large self lubricated bearings, resulting in wear resistance, flexibility of operation and low torque.

先进的球体固定方式
Advanced fixing method of ball

球体是通过上下对称的两个柱面定位轴承座固定在阀体上，由阀体承受球体的轴向载荷，因此与球体分离的阀杆不承受弯曲载荷，实现纯扭矩操作；同时，球体的轴向载荷更接近中心，作用力半径减小，轴承座位置靠近管道外径，因此受力状况得到改善，使用寿命更持久，密封更可靠。

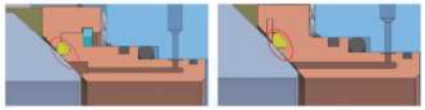
The ball is fixed on the body by two up-and-down symmetric bearing blocks. The axial load of ball is carried by body; therefore, valve stem separated from ball will not bear curve load to realize pure torque operation. At the same time, the axial load of ball is more near to the center and the radius effort is reduced. The location of bearing seat is near to the pipe external diameter; therefore, force bearing condition is improved, life time is longer and sealing more reliable.



可靠的密封
Reliable sealing

阀座密封是由软密封材料与金属支承圈的组件完成；FWTB–DR型球阀的阀座密封是由橡胶软密封加金属的组合密封结构，特别适用于含粉尘天然气和含砂原油的恶劣工况。阀座支承圈是轴向浮动的，通过弹簧预压实现阀座的低压密封，并且合理设计阀座的活塞效应，依靠介质自身的压力实现高压密封，从而达到切断介质的目的。同时设计防火密封环实现失火状态下的密封。

The sealing of valve seat is formed by soft sealing material and metal retainer. The seat seal of FWTB-DR type ball valve is a combined sealing structure composed of rubber soft seal and metal, which is quite applicable in formidable work conditions of natural gas with dust and crude oil with sand. The seat retainer floats axially and low pressure sealing of valve seat is reached by pre-pressure of spring. In addition, the piston effect of valve seat is designed reasonably, which realizes high pressure sealing by the pressure of transmitter substance and cut off the flow medium. At the same time, fire safe ring is designed to realize sealing under fire condition.



双重密封阀座结构
Double-sealing seat structure

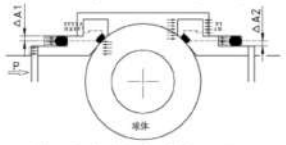
阀座活塞效应的原理

Principle of seat piston effect

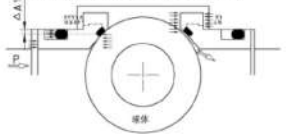
球阀的密封原理（非强制密封）是依靠介质自身的压力来实现密封，采用的方式通常是利用活塞效应的原理；阀座密封结构有单活塞效应和双活塞效应之分，当上下游阀座都是单活塞效应时，球阀是上游密封，下游自泄压；当上下游阀座都是双活塞效应时，球阀为上下游阀座同时密封，密封可靠性大大提高，但如用于液体介质则须在阀体上加装自动泄压阀；为了实现上下游同时密封又不安装自动泄压阀，则可采用上游为单活塞（上游自泄压），下游为双活塞的密封结构，此时阀门具有主安装方向的要求。

The principle of ball valve seal (not forced sealing) is realized by self pressure of transmitter substance and the method used is generally application of piston effect principle. The seat sealing structure is divided into single piston effect and double piston effect. If both upper and lower valve seats are single piston effects, the upper reach of ball valve is sealed and lower reach of ball valve self-discharges. If both upper and lower valve seats are double piston effects, upper and lower seats of ball valve is sealed at the same time and the reliability of sealing is improved greatly. But when it is used in transmitting liquid medium, an automatic release valve is required on the body. In order to realize the sealing of upper and lower reaches at the same time without installation of automatic release valve, the sealing structure of that single piston can be used for upper reach (upper reach automatic discharge) and double piston for lower reach. At the time, there will be a main installation direction requirement.

双活塞效应阀座密封(DPE)
Double piston effeet(DPE)



单活塞效应阀座密封(SPE)
Single piston effeet(SPE)

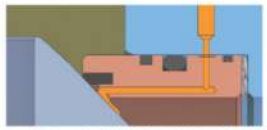


紧急密封

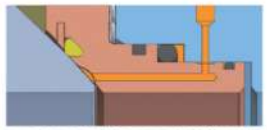
Emergency sealing

阀杆／压盖部位和侧阀体阀座支承部位都设计有注脂孔，安装有注脂阀，如果阀杆和／阀座密封有所损伤而引起泄漏，可使用密封脂实现二次密封。每个注脂阀内都装有一个内藏式止回阀，防止密封脂在介质的作用下外溢，注脂端部为注脂枪快速连接的接头。

Compound injection holes are designed and compound injection valves are installed at locations of stem/cap and body support of side valve. When sealing of stem and/or seat is damaged to induce leakage, the compound can be used to do the second time sealing. A concealed check-valve is installed in side of each compound injection valve to prevent compound from out flowing due to the action of transmitter substance. The top of the compound injection valve is the connector for fast connection with compound injection gun.



（a）普通（塑料阀座）球阀注脂密封效果差
Common(plastic seat)ball valve with poor sealing performance



（b）CHV全焊球阀真正有效的注脂密封结构
Full-welded ball valve of CHV with effective sealing performance

双截断和泄放（DBB）

Double Block & Bleed (DBB)

当球体处于全开或全关位置时，阀体中腔介质可以通过排污和放空装置排放。同时阀门中腔的超压可由自卸压式阀座将其排放到低压端。

When ball is full open or close position, the transmitter substance in center cavity of body can be released by drainage and emptying devices. In addition, the over load pressure in the center cavity of valve can be released to low pressure end by self relief seat.

放空装置

Emptying device

在阀体上部加工有NPT放空孔，放空孔在阀体试压后安装放空阀，阀门运行中可对阀体中腔进行放空和清洗。

NPT emptying hole is made on the body and the emptying valve will be installed in the hole after the body pressure test. This emptying device can empty and clean the center cavity of the body during the operation of valve.

防火设计

Fire Safe

阀门设计符合API 6FA/API 607标准的要求，并通过了防火测试，试验证明是符合要求的。

The design of valve meets the requirement in API 6FA/API 607 Standard, passes fire safe test that certifies the design is in compliance with the requirement.

防静电设计
Anti-static design

由于金属与塑料或橡胶间的摩擦而产生的静电，对于输送易燃、易爆介质是非常危险的。因此，对被塑料或橡胶密封件隔绝了的金属部件（如阀体、球体、阀座支承圈、阀杆）之间的导电性，用不锈钢弹簧来保证符合BS 5351的规定。

The electrostatic produced by friction between metal and plastic or rubber is very hazard to inflammable and explosive transmitter substance transmitted. The conductivity of metal parts (such as body, ball, seat retainer and stem) enclosed by plastic or rubber sealing parts is ensured by stainless steel spring to conform to regulations in BS5351.

材料选用
Selection of material

阀门零件的材料选用符合API 6D、ASTM、ASME等规范的要求，对零件的表面处理根据工况不一采用不同的方式，要求抗硫化应力腐蚀则按NACE MR 0175的要求进行。

The selection of valve part material conforms to the requirements in regulations of API 6D, ASTM, ASME and etc. Different methods are used for surface treatment of the parts depending upon different work conditions. If anti sulfureted hydrogen stress corrosion is required, the treatment will be done according to the requirement of NACE MR 01-75.

接长阀杆
Extension stem

对于直埋式安装阀门，可将阀杆接长，并将相应的注脂排污延伸到阀顶部，便于操作。

For the underground installed valve, the stem can be lengthened and for the convenience of operation the corresponding compound injection nozzle and drainage valve can be extended to the top of valve.

操作方式多样
Various driving types

阀门与驱动器的连接盘符合ISO 5211的规定，便于各类驱动器的连接和互换，常用驱动方式有手动、电动、气动、气液联动等。

The top pad of valve designed according to ISO 5211, which is convenient for connection and exchange of various drivers. The common driving types are manual, electrical, pneumatic and pneumatic / hydraulic.

设计标准与规范：
Design codes and regulations:

我公司主要按API6D进行设计、检测，也可按其它标准要求来设计制造，除非客户特殊要求，我公司球阀遵照以下标准。

API：

6D	管线阀门规范
Q1	质量大纲规范
607	软密封和90° 转向阀门的耐火试验
6FA	阀门耐火测试
598	阀门检测和试验
5L	管道规范

ANSI/ASME：

ASME	锅炉和压力容器规范第-section Ⅴ、Ⅷ、Ⅸ
B16.5	管法兰和法兰管件连接
B16.10	阀门结构长度
B16.25	焊接端
B16.34	法兰和焊接端阀门
B16.47	大口径钢制法兰
B31.8	气体输送及配气管线系统

MSS-SP：

SP-6	管法兰和连接端法兰接触面标准粗糙度
SP-25	阀门及法兰标识
SP-44	钢制管线法兰
SP-45	旁通及排污连接

NACE：

MR0175	油田设备抗硫应力裂纹材料
TM0177	H_2S环境中抗特殊形式的环境开裂材料的实验室试验

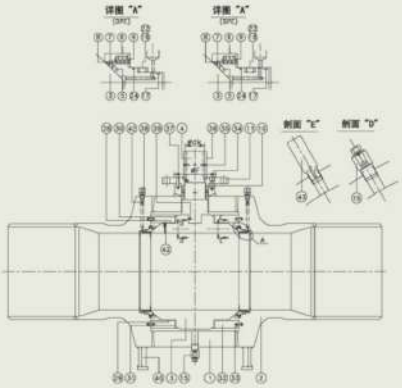
BS 5351	石油、石化及相关工业用钢制球阀
ISO 5211	部份回转型阀门驱动装置连接规范

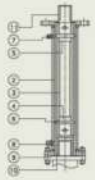
材料规范：
Material regulations:

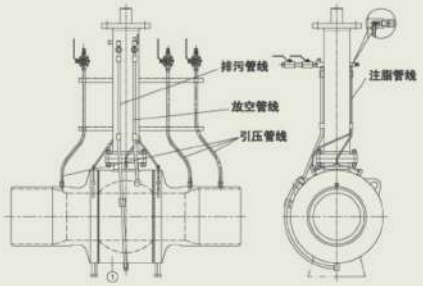
ASTM:

A193/A193M	高温用合金钢和不锈钢螺栓材料
A194/A194M	高压和高温用碳钢和合金钢螺母材料
A313/A313M	铬镍不锈钢和耐热钢弹簧钢丝
A322	标准级合金钢棒材
A105	管道用碳素钢锻件
A350/A350M	要求冲击韧性试验的管件用碳钢及低合金钢锻件标准规范
A694/A694M	高压管路用锻造碳钢和合金钢法兰、管件、阀门及其它部件

阀门主要部件清单
Details for parts of valve







序号 No.	零件名称 Part name	序号 No.	零件名称 Part name
1	阀体 Body	28	止推轴承 Thrust bearing
2	侧阀体 Cap	29	止推轴承 Thrust bearing
3	球体 Ball	30	滑动轴承 Stem bearing
4	阀杆 Stem	31	滑动轴承 Stem bearing
5	阀座 Seat	32	轴承座 Bearing Holder
6	阀座支承圈 Seat retainer	33	销 Pin
7	阀座压环 Seat ring	34	内六角螺钉 Head bolt
8	固定销 Pin	35	内六角螺钉 Head bolt
9	弹簧 Spring	36	键 Pin
10	压盖 Gland	37	定位销 Dowel pin
11	联接盘 terminal area	38	注脂阀 Sealant fitting
15	排污&阀空阀 Body	39	防静电装置 Anti-static equipment
16	O型密封圈 O-ring	40	脚架 Foot stand
17	O型密封圈 O-ring	41	吊耳 Lifting lug
22	挡圈 Back ring	42	止回阀 Check-valve
24	填料 Packing	43	泄压阀（仅针对DPE） Relief valve(Only applicable to DPE)

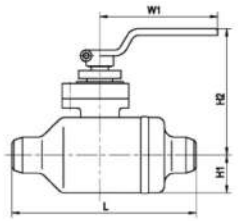
序号 No.	零件名称 Part name
1	球阀 Ball Valve
2	加长支架 Extension Bracket
3	加长阀杆 Extension stem
4	轴 Shaft
5	轴 Shaft
6	销 Shaft
7	阀位观察孔 Valve position Observation port
8	堵塞 Blocking
9	防火密封 Fire-proof seal
10	止推垫 Thrust washer
11	键 pin

阀门主要零部件材质 Material for main parts of valve

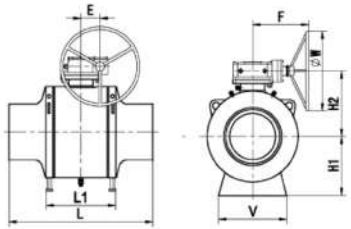
类别 Category	CHV 标准（常用材料） CHV standard(general material)
阀体 Bady	ASTM A350 LF2、ASTM A350 LF6Class1、ASTM A350 LF6Class2、ASTM A694 F52、ASTM A694 F60
侧阀体 Cap	ASTM A350 LF2、ASTM A350 LF6Class1、ASTM A350 LF6Class2、ASTM A694 F52、ASTM A694 F60
球体 Ball	ASTM A105、ASTM A350 LF2、ASTM A182 F316、ASTM A276 410、17-4PH
阀杆 Stem	AISI 4140、ASTM A276 410、AISI 1040
阀座 Seat	VITON、NYLON
阀座支承圈 Seat retainer	ASTM A105、ASTM A350 LF2、ASTM A182 F316、ASTM A276 410

阀门尺寸表

Valve dimension list



WFTB



GFWTB

ASME CLASS 150Lb GB 16, 20, 25 bar

mm

通 径 size DN	INCH	L BW	L1	V	W1	H1	H2	E	F	ØW	TYPE NO.	Wt. kg
40	1½"	190	—	—	280			—	—	—	WFTB	10
50×40	2"×1½"	216	—	—	280			—	—	—	WFTB	12
50	2"	216	—	—	280			—	—	—	WFTB	19
80×50	3"×2"	283	—	—	280			—	—	—	WFTB	22
80	3"	283	—	—	400			—	—	—	WFTB	31
100×80	4"×3"	305	—	—	400			—	—	—	WFTB	36
100	4"	305	—	—	650	107	230	—	—	—	WFTB	55
150×100	6"×4"	457	—	—	650	107	230	—	—	—	WFTB	66
150	6"	457			—			85	294	450	GFTB	198
200×150	8"×6"	521			—			85	294	450	GFTB	205
200	8"	521	384	300	—	315	341	116	350	600	GFTB	220
250×200	10"×8"	559	384	300	—	315	341	116	350	600	GFTB	240
250	10"	559			—			116	350	600	GFTB	286
300×250	12"×10"	635			—			116	350	600	GFTB	332
300	12"	635			—			145	517	600	GFTB	440
350×300	14"×12"	762			—			145	517	600	GFTB	503
350	14"	762			—			145	517	600	GFTB	649
400×300	16"×12"	838			—			145	517	600	GFTB	602
400×350	16"×14"	838			—			145	517	600	GFTB	748
400	16"	838			—			169	573	700	GFTB	979
450×350	18"×14"	914			—			145	517	600	GFTB	857
450×400	18"×16"	914			—			169	573	700	GFTB	1088
450	18"	914	670	500	—	500	552	169	573	700	GFTB	1342
500×400	20"×16"	991			—			169	573	700	GFTB	1200
500×450	20"×18"	991	670	500	—	500	552	169	573	700	GFTB	1454
500	20"	991			—			169	573	700	GFTB	1716
550×450	22"×18"	1092	670	500	—	500	552	169	573	700	GFTB	1619
550×500	22"×20"	1092			—			169	573	700	GFTB	1889
550	22"	1092			—			42	696	700	GFTB	2266
600×500	24"×20"	1143			—			169	573	700	GFTB	2055
600×550	24"×22"	1143			—			42	696	700	GFTB	2441
600	24"	1143	890	760	—	650	753	42	696	700	GFTB	2849
700×600	28"×24"	1346	890	760	—	650	753	42	696	700	GFTB	3265
700	28"	1346			—			72	745	700	GFTB	4235
800	32"	1524			—			72	745	700	GFTB	5830
900	36"	1727			—			91	830	700	GFTB	8052
1000×900	40"×36"	①			—			91	830	700	GFTB	8950
1000	40"	①			—			91	830	700	GFTB	11044
1200	48"	①			—			85	887	700	GFTB	18216

注①：L尺寸根据用户要求(下同)。

Notes:L-dimension will be according to user request(the same below).

ASME CLASS 300Lb　GB 40, 50 bar　　mm

通　径 size		L	L1	V	W1	H1	H2	E	F	ØW	TYPE	Wt.
DN	INCH	BW									NO.	kg
40	1½"	190	—	—	280			—	—	—	WFTB	11
50×40	2"×1½"	216	—	—	280			—	—	—	WFTB	14
50	2"	216	—	—	280			—	—	—	WFTB	21
80×50	3"×2"	283	—	—	280			—	—	—	WFTB	26
80	3"	283	—	—	400			—	—	—	WFTB	37
100×80	4"×3"	305	—	—	400			—	—	—	WFTB	50
100	4"	305	—	—	650	107	230	—	—	—	WFTB	75
150×100	6"×4"	457	—	—	650	107	230	—	—	—	WFTB	97
150	6"	457			—			85	294	450	GFTB	209
200×150	8"×6"	521			—			85	294	450	GFTB	216
200	8"	521	384	300	—	315	341	116	350	600	GFTB	231
250×200	10"×8"	559	384	300	—	315	341	116	350	600	GFTB	254
250	10"	559			—			116	350	600	GFTB	308
300×250	12"×10"	635			—			116	350	600	GFTB	354
300	12"	635			—			145	517	600	GFTB	462
350×300	14"×12"	762			—			145	517	600	GFTB	528
350	14"	762			—			145	517	600	GFTB	682
400×300	16"×12"	838			—			145	517	600	GFTB	634
400×350	16"×14"	838			—			145	517	600	GFTB	788
400	16"	838			—			169	573	700	GFTB	1034
450×350	18"×14"	914			—			145	517	600	GFTB	900
450×400	18"×16"	914			—			169	573	700	GFTB	1146
450	18"	914	670	500	—	500	552	169	573	700	GFTB	1408
500×400	20"×16"	991			—			169	573	700	GFTB	1265
500×450	20"×18"	991	670	500	—	500	552	169	573	700	GFTB	1527
500	20"	991			—			169	573	700	GFTB	1804
550×450	22"×18"	1092	670	500	—	500	552	169	573	700	GFTB	1702
550×500	22"×20"	1092			—			169	573	700	GFTB	1979
550	22"	1092			—			42	696	700	GFTB	2387
600×500	24"×20"	1143			—			169	573	700	GFTB	2164
600×550	24"×22"	1143			—			42	696	700	GFTB	2572
600	24"	1143	890	760	—	650	753	42	696	700	GFTB	3003
700×600	28"×24"	1346	890	760	—	650	753	42	696	700	GFTB	3439
700	28"	1346			—			72	745	700	GFTB	4455
800	32"	1524			—			72	745	700	GFTB	6127
900	36"	1727			—			91	830	700	GFTB	8470
1000×900	40"×36"	Ⓓ			—			91	830	700	GFTB	9414
1000	40"	Ⓓ			—			91	830	700	GFTB	11616
1200	48"	Ⓓ			—			85	887	700	GFTB	19162

ASME CLASS 400Lb　GB 63 bar　　mm

通　径 size		L	L1	V	W1	H1	H2	E	F	ØW	TYPE	Wt.
DN	INCH	BW									NO.	kg
25	1"	216	—	—	280	44	121	—	—	—	WFTB	10
40	1½"	241	—	—	400	52	140	—	—	—	WFTB	12
50×40	2"×1½"	292	—	—	400	52	140	—	—	—	WFTB	15
50	2"	292	—	—	400	64	157	—	—	—	WFTB	22
80×50	3"×2"	356	—	—	400	64	157	—	—	—	WFTB	28
80	3"	356	—	—	650	88	236	—	—	—	WFTB	46
100×80	4"×3"	406	—	—	650	88	236	—	—	—	WFTB	53
100	4"	406	250	220	—	180	286	85	294	450	GFTB	84
150×100	6"×4"	495	250	220	—	180	286	85	294	450	GFTB	106
150	6"	495	330	240	—	258	312	116	350	600	GFTB	242
200×150	8"×6"	597	330	240	—	258	312	116	350	600	GFTB	249
200	8"	597	400	300	—	320	361	145	517	600	GFTB	264
250×200	10"×8"	673	400	300	—	320	361	145	517	600	GFTB	290
250	10"	673	440	320	—	380	400	145	517	600	GFTB	352
300×250	12"×10"	762	440	320	—	380	400	145	517	600	GFTB	405
300	12"	762	500	400	—	420	461	169	573	700	GFTB	528
350×300	14"×12"	826	500	400	—	420	461	169	573	700	GFTB	607
350	14"	826	530	400	—	440	485	169	573	700	GFTB	792
400×300	16"×12"	902	500	400	—	420	461	169	573	700	GFTB	726
400×350	16"×14"	902	530	400	—	440	485	169	573	700	GFTB	911
400	16"	902	600	450	—	480	538	169	573	700	GFTB	1188
450×350	18"×14"	978	530	400	—	485	485	169	573	700	GFTB	1040
450×400	18"×16"	978	600	450	—	480	538	169	573	700	GFTB	1317
450	18"	978	670	500	—	500	646	42	696	700	GFTB	1617
500×400	20"×16"	1054	600	450	—	480	538	169	573	700	GFTB	1452
500×450	20"×18"	1054	670	500	—	500	646	42	696	700	GFTB	1752
500	20"	1054	730	580	—	560	690	42	696	700	GFTB	2068
550×450	22"×18"	1143	670	500	—	500	646	42	696	700	GFTB	1954
550×500	22"×20"	1143	730	580	—	560	690	42	696	700	GFTB	2269
550	22"	1143			—			72	745	700	GFTB	2739
600×500	24"×20"	1232	730	580	—	560	690	42	696	700	GFTB	2450
600×550	24"×22"	1232			—			72	745	700	GFTB	2950
600	24"	1232	880	760	—	690	798	72	745	700	GFTB	3443
700×600	28"×24"	1397	880	760	—	690	798	72	745	700	GFTB	3945
700	28"	1397	1000	810	—	780	879	72	745	700	GFTB	5115
800	32"	1651	1100	810	—	860	1003	91	830	700	GFTB	7040
900	36"	2880	1050	900	—	880	1128	85	887	700	GFTB	9724
1000×900	40"×36"	Ⓓ	1050	900	—	880	1128	85	887	700	GFTB	10810
1000	40"	Ⓓ	1070	960	—	960	1211	85	887	700	GFTB	13343
1200	48"	Ⓓ	1145	1240	—	1140	1405	97	903	700	GFTB	22000

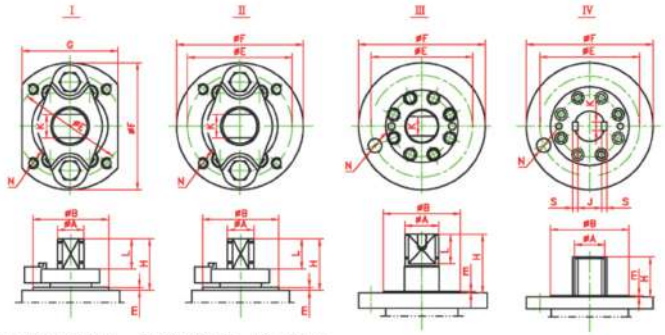
ASME CLASS 600Lb　GB 100, (110) bar　　mm

通　径 size		L	L1	V	W1	H1	H2	E	F	ØW	TYPE	Wt.
DN	INCH	BW									NO.	kg
25	1"	216	—	—	280	44	121	—	—	—	WFTB	11
40	1 1/4"	241	—	—	400	52	140	—	—	—	WFTB	14
50×40	2"×1 1/4"	292	—	—	400	52	140	—	—	—	WFTB	17
50	2"	292	—	—	400	64	157	—	—	—	WFTB	23
80×50	3"×2"	356	—	—	400	64	157	—	—	—	WFTB	32
80	3"	356	—	—	650	88	236	—	—	—	WFTB	54
100×80	4"×3"	432	—	—	650	88	236	—	—	—	WFTB	75
100	4"	432	250	220	—	180	286	85	294	450	GFTB	105
150×100	6"×4"	559	250	220	—	180	286	85	294	450	GFTB	123
150	6"	559	330	240	—	258	312	116	350	600	GFTB	264
200×150	8"×6"	660	330	240	—	258	312	116	350	600	GFTB	271
200	8"	660	400	300	—	320	361	145	517	600	GFTB	286
250×200	10"×8"	787	400	300	—	320	361	145	517	600	GFTB	312
250	10"	787	440	320	—	380	400	145	517	600	GFTB	374
300×250	12"×10"	838	440	320	—	380	400	145	517	600	GFTB	433
300	12"	838	500	400	—	420	461	169	573	700	GFTB	572
350×300	14"×12"	889	500	400	—	420	461	169	573	700	GFTB	655
350	14"	889	530	400	—	440	485	169	573	700	GFTB	847
400×300	16"×12"	991	500	400	—	420	461	169	573	700	GFTB	783
400×350	16"×14"	991	530	400	—	440	485	169	573	700	GFTB	976
400	16"	991	600	450	—	480	538	169	573	700	GFTB	1216
450×350	18"×14"	1092	530	400	—	485	485	169	573	700	GFTB	1114
450×400	18"×16"	1092	600	450	—	480	538	169	573	700	GFTB	1415
450	18"	1092	670	500	—	500	646	42	696	700	GFTB	1738
500×400	20"×16"	1194	600	450	—	480	538	169	573	700	GFTB	1560
500×450	20"×18"	1194	670	500	—	500	646	42	696	700	GFTB	1883
500	20"	1194	730	580	—	560	690	42	696	700	GFTB	2222
550×450	22"×18"	1295	670	500	—	500	646	42	696	700	GFTB	2101
550×500	22"×20"	1295	730	580	—	560	690	42	696	700	GFTB	2440
550	22"	1295			—			72	745	700	GFTB	2948
600×500	24"×20"	1397	730	580	—	560	690	42	696	700	GFTB	2668
600×550	24"×22"	1397			—			72	745	700	GFTB	3176
600	24"	1397	880	760	—	690	798	72	745	700	GFTB	3707
700×600	28"×24"	1549	880	760	—	690	798	72	745	700	GFTB	4245
700	28"	1549	1000	810	—	780	879	72	745	700	GFTB	5500
800	32"	1778	1100	810	—	860	1003	91	830	700	GFTB	7568
900	36"	2083	1050	900	—	880	1128	85	887	700	GFTB	10450
1000×900	40"×36"	Φ	1050	900	—	880	1128	85	887	700	GFTB	11618
1000	40"	Φ	1070	960	—	960	1211	85	887	700	GFTB	14344
1200	48"	Φ	1145	1240	—	1140	1405	97	903	700	GFTB	23650

ASME CLASS 900Lb　GB 150, (160) bar　　mm

通　径 size		L	L1	V	W1	H1	H2	E	F	ØW	TYPE	Wt.
DN	INCH	BW									NO.	kg
25	1"	255	—	—	280	53	162	—	—	—	WFTB	15
40	1 1/4"	305	—	—				—	—	—	WFTB	21
50×40	2"×1 1/4"	368	—	—				—	—	—	WFTB	28
50	2"	368	—	—				—	—	—	WFTB	44
80×50	3"×2"	381	—	—				—	—	—	WFTB	53
80	3"	381	—	—	—			85	294	450	GFTB	67
100×80	4"×3"	457	—	—	—			85	294	450	GFTB	85
100	4"	457	—	—	—			116	350	600	GFTB	118
150×100	6"×4"	610		—	—			116	350	600	GFTB	167
150	6"	610	360	240	—	258	312	116	350	600	GFTB	319
200×150	8"×6"	737	360	240	—	258	312	116	350	600	GFTB	327
200	8"	737	420	300	—	315	361	145	517	600	GFTB	347
250×200	10"×8"	838	420	300	—	315	361	145	517	600	GFTB	379
250	10"	838	300	320	—	380	425	169	573	700	GFTB	452
300×250	12"×10"	965	300	320	—	380	425	169	573	700	GFTB	524
300	12"	965	284	380	—	425	483	169	573	700	GFTB	692
350×300	14"×12"	1029	284	380	—	425	483	169	573	700	GFTB	790
350	14"	1029			—			169	573	700	GFTB	1025
400×300	16"×12"	1130	284	380	—	425	483	169	573	700	GFTB	948
400×350	16"×14"	1130			—			169	573	700	GFTB	1181
400	16"	1130			—			42	696	700	GFTB	1544
450×350	18"×14"	1219			—			169	573	700	GFTB	1348
450×400	18"×16"	1219			—			42	696	700	GFTB	1712
450	18"	1219	550	500	—	500	661	47	696	700	GFTB	2103
500×400	20"×16"	1321			—			42	696	700	GFTB	1887
500×450	20"×18"	1321	550	500	—	500	661	42	696	700	GFTB	2279
500	20"	1321	800	650	—	593	725	72	745	700	GFTB	2688
600×500	24"×20"	1549	800	650	—	593	725	72	745	700	GFTB	3227
600×550	24"×22"	1549			—			91	830	700	GFTB	3843
600	24"	1549	900	760	—	672	864	91	830	700	GFTB	4486
700×600	28"×24"	Φ	900	760	—	672	864	91	830	700	GFTB	5137
700	28"	Φ			—			91	830	700	GFTB	6655
800	32"	Φ			—			91	830	700	GFTB	9158
900	36"	Φ			—			97	903	700	GFTB	12645
1000×900	40"×36"	Φ			—			97	903	700	GFTB	14058
1000	40"	Φ			—			97	903	700	GFTB	17356
1200	48"	Φ	1380	1280	—	1170	1465	72	1080	800	GFTB	28620

接盘连接尺寸 Dimensions of Top Connection



ASME CLASS 150Lb 300Lb GB16, 20, 25, 40, 50 bar

缩径 reduced bore	全径 full bore	类型 type	ØA	ØB	H	m	L	J	K	S	ØE	ØF	G	N	ISO5211
2"×1 1/2"	1 1/2"		20	55	38	2	22	-	12	-	70	92	70	4-M8	F07
3"×2"	2"		20	55	38	2	22	-	12	-	70	92	70	4-M8	F07
4"×3"	3"	I	26	55	48	2	32	-	17	-	70	92	70	4-M8	F07
6"×4"	4"		34	70	48	2	32	-	22	-	102	125	95	4-M10	F10
8"×6"	6"	III	44	100	84	2	38	-	27	-	140	175	-	4-Ø19	F14
10"×8"	8"		50	130	66	2	-	39	14	9.0	165	210	-	4-Ø23	F16
12"×10"	10"		50	130	66	2	-	39	14	9.0	165	210	-	4-Ø23	F16
14"×12"	12"		64	200	83	3	-	52	18	11.6	254	300	-	8-Ø19	F25
16"×14"	14"		64	200	83	3	-	52	18	11.6	254	300	-	8-Ø19	F25
18"×16"	16"		75	200	108	3	-	61	20	12.6	254	300	-	8-Ø19	F25
20"×18"	18"	IV	75	200	108	3	-	61	20	12.6	254	300	-	8-Ø19	F25
24"×20"	20"		85	200	108	3	-	69	24	15.6	254	300	-	8-Ø19	F25
28"×24"	24"		100	230	138	3	-	82	28	17.6	298	350	-	8-Ø23	F30
32"×28"	28"		120	260	190	3	-	100	32	19.6	356	415	-	8-Ø33	F35
36"×30"	30"		120	260	190	3	-	100	32	19.6	356	415	-	8-Ø33	F35
36"×32"	32"		120	260	190	3	-	100	32	19.6	356	415	-	8-Ø33	F35
40"×36"	36"		140	300	190	3	-	118	35	22.6	406	475	-	8-Ø39	F40
48"×40"	40"		140	300	190	3	-	118	35	22.6	406	475	-	8-Ø39	F40
-	48"		150	300	248	3	-	110	36	36	406	475	-	8-Ø39	F40

ASME CLASS 400Lb 600Lb GB63 100, (110) bar

缩径 reduced bore	全径 full bore	类型 type	ØA	ØB	H	m	L	J	K	S	ØE	ØF	G	N	ISO5211
2"×1 1/2"	1 1/2"		20	55	38	2	22	-	12	-	70	92	70	4-M8	F07
3"×2"	2"	II	26	55	48	2	33	-	17	-	70	90	-	4-M8	F07
4"×3"	3"		34	70	48	2	34	-	22	-	102	118	-	4-M10	F10
6"×4"	4"	III	44	100	85	2	38	-	27	-	140	175	-	4-Ø19	F14
8"×6"	6"		50	130	66	2	-	39	14	9.0	165	210	-	4-Ø23	F16
10"×8"	8"		64	200	85	3	-	52	18	11.6	254	300	-	8-Ø19	F25
12"×10"	10"		64	200	85	3	-	52	18	11.6	254	300	-	8-Ø19	F25
14"×12"	12"		75	200	108	3	-	61	20	12.6	254	300	-	8-Ø19	F25
16"×14"	14"		75	200	108	3	-	61	20	12.6	254	300	-	8-Ø19	F25
18"×16"	16"		85	200	108	3	-	69	24	15.6	254	300	-	8-Ø19	F25
20"×18"	18"	IV	100	230	138	3	-	82	28	17.6	298	350	-	8-Ø23	F30
24"×20"	20"		100	230	138	3	-	82	28	17.6	298	350	-	8-Ø23	F30
28"×24"	24"		120	260	190	3	-	100	32	19.6	356	415	-	8-Ø33	F35
32"×28"	28"		120	260	190	3	-	100	32	19.6	356	415	-	8-Ø33	F35
36"×30"	30"		140	300	190	3	-	118	35	22.6	406	475	-	8-Ø39	F40
36"×32"	32"		140	300	190	3	-	118	35	22.6	406	475	-	8-Ø39	F40
40"×36"	36"		150	300	248	3	-	110	36	36	406	475	-	8-Ø39	F40
48"×40"	40"		150	300	248	3	-	110	36	36	406	475	-	8-Ø39	F40
-	48"		175	370	283	3	-	133	38	38	483	560	-	12-Ø39	F48