

# CHEMSUN高压球阀 型号 CSFB-H

## CHEMSUN High Pressure Ball Valve Type CSFB-H



应用冶金.采矿.化工.工程机械和燃气能源等行业的苛刻高压工况  
The high pressure ball valve applies to all kinds of demanding high pressure fields of Metallurgy, Mining, Chemical, Engineering machinery and Gas energy industries, etc.

阀门口径/Valve Size: DN 06...50 mm  
公称压力/Pressure rating: PN 250,315,350,400,500 Bar  
温度范围/Tem. range: -46...+450°C (-51...+842°F)  
认证证书/Certificate: CE; ATEX Ex I M2; Exd IICT4/5/6

### 标准规范

标准功能: 阀门防喷杆、防静电设计, 易更换的密封包, 防火安全和自调节轴密封。  
工作压力: 3/8"PN500;1/2"PN400;3/4"-2"PN350;  
一般规格: 按BS 5351标准,  
防火安全: 符合API607认证标准

### Applicable Standards

Standard features of the valve: anti blow-out shaft, antistatic device, easy replacement of the seal packages, fire safe and self-adjusting shaft sealing.  
Working pressure: 3/8" PN 500;1/2" PN 400; 3/4"-2"PN 350;  
General specifications: BS 5351 "FIRE SAFE" conforming to API607.

### 技术参数

阀体材质: F304, F316, F304L, F316L, WCB  
球体/阀杆: F304, F316, F304L, F316L  
密封材质: RPTFE, PTFE, PEEK, POM  
工作温度: 参见密封填料耐温标准  
压力等级: PN500(DN6-DN10), PN350(DN13-DN50)  
连接方式: G螺纹、NPT螺纹、焊接、卡套、法兰  
阀门口径: DN6-DN50  
产品测试: API598 & AVSIB16.34 & ISO5208

### 技术优势

- ◇ 阀体使用锻造材质, 阀芯做渗氮处理, 耐磨耐腐, 使用寿命长
- ◇ 阀杆双层填料密封, 易更换, 能自补偿
- ◇ 阀座及轴向密封极高加工精度, 阀门零泄露



图1: CSFB-H型 高压球阀

### Technology data

Body material: F304, F316, F304L, F316L, WCB  
Ball/Stem: F304, F316, F304L, F316L  
Seat material: RPTFE, PTFE, PEEK, POM  
Working temperature: See the sealing temperature standards  
Pressure rating: PN500(DN6-DN10), PN350(DN13-DN50)  
Type of end: G or NPT thread, BW, Clamp, RF  
Type of size: DN06-DN50  
Product testing: API598 & AVSIB16.34 & ISO5208 E

### Technology advantages

- ◇ The valve body is made of forged material, and Sphere nitriding treatment, Wear and corrosion resistance, longer operating life
- ◇ The double VITON packing of valve stems, easy replacement of the seal packages, and self-adjusting shaft sealing
- ◇ Ball valve seal ring and axial seal are all made with higher precision, and ensure the zero leakage of valve

## 控制方式

- ◇ 手柄驱动
- ◇ 气动双作用
- ◇ 气动单作用
- ◇ 电动执行器（可选故障安全位置FC/FO/FL）

## Control mode

- ◇ Hand lever actuator
- ◇ Pneumatic single-acting Actuator
- ◇ Pneumatic double-acting Actuator
- ◇ Electrical Actuator (Optional FC/FO/FL)

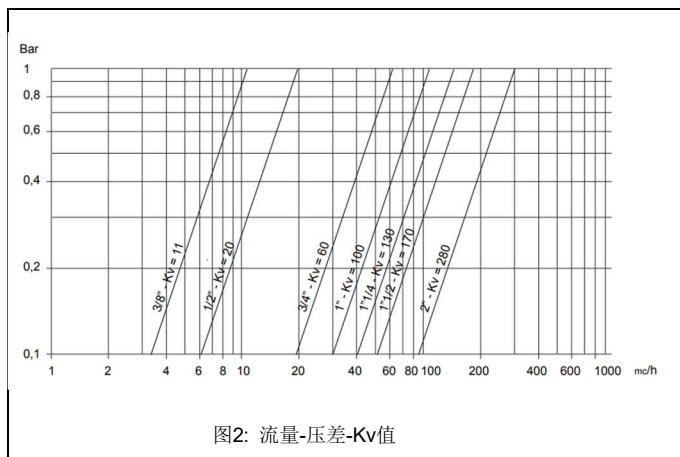
## 应用行业和领域

- ◇ 有色及冶金（液压系统）
- ◇ 采矿工业（高压选矿，挖掘控制）
- ◇ 化学工业和石油化工
- ◇ 工程机械（盾构机掘进机械，挖土机，起重机车等）
- ◇ 燃气能源（LNG/LPG燃气输送，城市气站）
- ◇ 工业设备配套（高压发泡机，聚氨酯机械设备）
- ◇ 海油工程（海底油管输送，海上石油开采，海底钻探等）
- ◇ 造船工业
- ◇ 动力发动机设备（天然气发动机，天然气压缩机）

## Application fields

- ◇ Metallurgy and Non-ferrous metal (Hydraulic system)
- ◇ Mining industry (High-pressure mineral separation, Digging control system)
- ◇ Chemical and petrochemical industries
- ◇ Engineering machinery (TBM, Excavators, cranes, etc.)
- ◇ Gas energy (LNG/LPG gas transmission, city gate stations, etc.)
- ◇ Industrial equipment supporting (High pressure foaming machine, polyurethane mechanical equipment)
- ◇ Offshore Oil Engineering (Undersea pipeline transport, offshore oil exploration, offshore drilling, etc.)
- ◇ Shipbuilding industry
- ◇ Power engine equipment (natural gas engines, natural gas compressors)

## 阀门流量系数Kv值 / Flow coefficient Kv



### 流量-压差-Kv值

Kv值流量系数，代表压力差为1bar的15°C水的流量值，单位为m<sup>3</sup>/h。

### Flow-pressure loss diagram and Kv nominal coefficient.

Kv is the coefficient, expressed in m<sup>3</sup> /h (with water at 15°C) causing a pressure loss of 1 bar

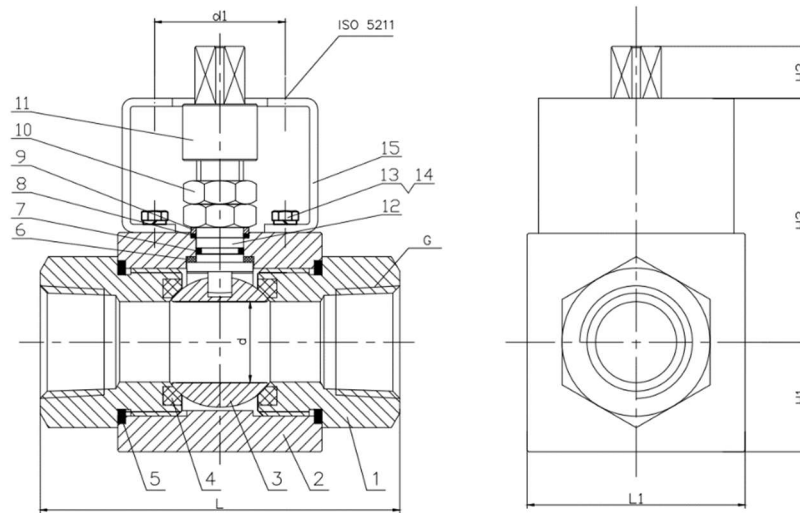
## PN350球阀开启扭力 / Initial Breakaway Torque (PN350 bar)

口径/Size: DN	DN06	DN08	DN10	DN13	DN20	DN25	DN32	DN40	DN50
Initial Breakaway Torque (PN350 bar)	28	28	35	52	75	98	128	148	195
Max. allowable Torque Shaft F316/316L	85	85	85	168	168	286	286	365	365

备注/Remark: 以上扭力已含15%的安全系数/ The Initial Breakaway Torque includes 15% security.

## 高压球阀外形尺寸图 (单位: mm)

### High pressure ball valve Dimensions (Unit: mm)



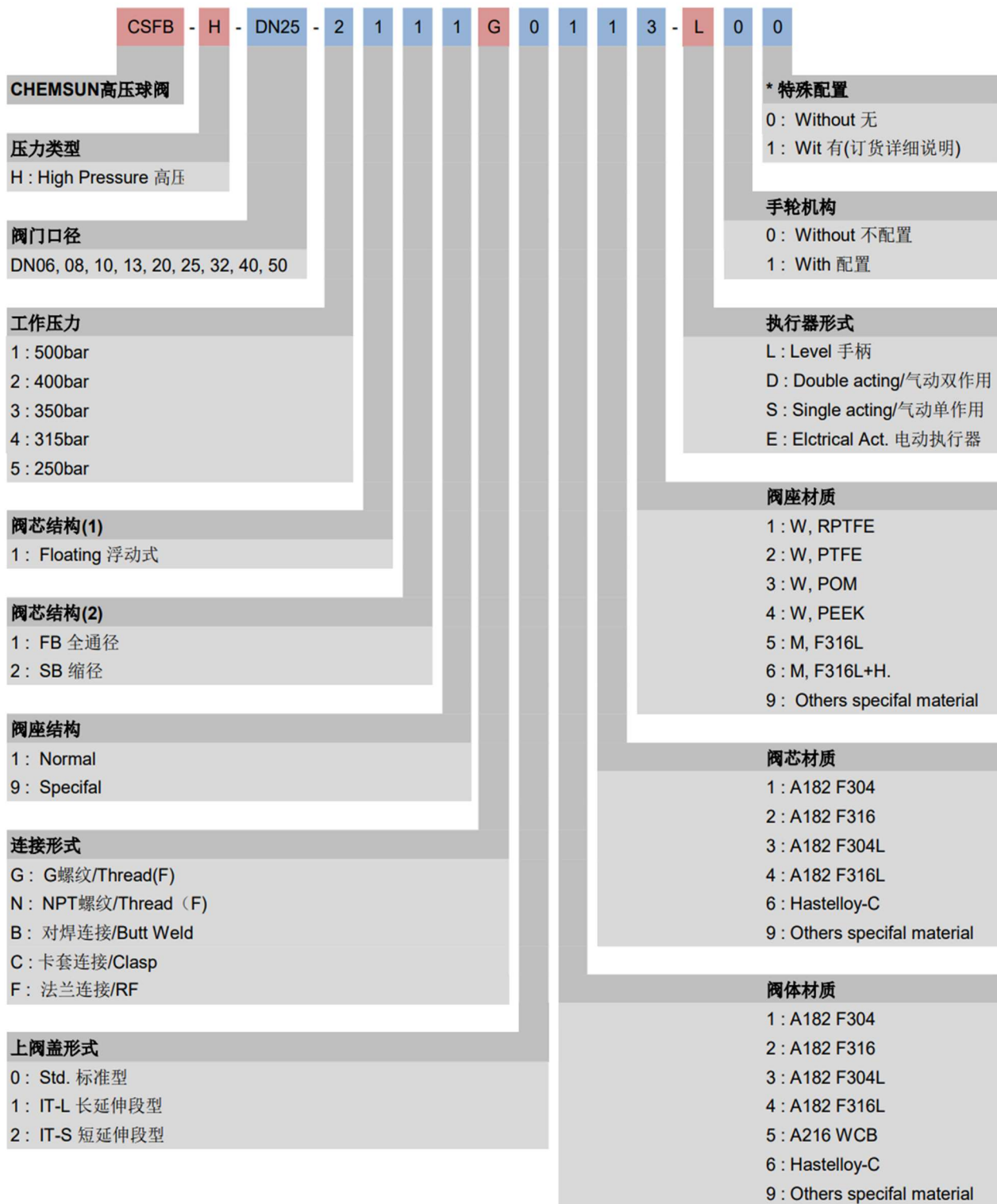
DN	G	L	L1	H1	H2	ISO5211	K	d1	H3	P
10	3/8"	72	32	20.5	88	F07	17	70	18	115
13	1/2"	83	35	21	89	F07	17	70	18	115
20	3/4"	95	49	32.5	95	F07	17	70	18	200
25	1"	113	58	35.5	99	F07	17	70	18	200
32	1 1/4"	111	81	45.5	111	F10	17	102	18	320
40	1 1/2"	130	100	53	120	F10	22	102	23	320
50	2"	140	118	50	129	F10	22	102	23	320

### 部件材料清单 / Parts material list

序号 / Item	部件名称	Parts name	材料 / Material		
01	连接端	Bonnet	A182 F304	A182F316	A182F316L
02	阀体	Body	A182 F304	A182F316	A182F316L
03	球芯	Plug	A182 F304	A182F316	A182F316L
04	阀座	Seat	RPTFE/PCTFE/PEEK		
05	垫片 01	Gasket01	PTFE		
06	垫片 02	Gasket02	PTFE		
07	O 型圈	O Ring	VITON		
08	填料	Packing	PTFE		
09	压母	Gland	A182 F316/F316L		
10	螺母	Nut	A194 410		
12	阀杆	Stem	A182 F316/F316L		
13	弹垫	Spring Washer	CF8		
14	螺栓	Screw	A193 B8		
15	支架	Yoke	A240 304		

# CSBF-H型高压球阀选型表

## Model Code of Type CSFB-H High pressure ball valve



### CSFB-H型 高压球阀可与下列执行器配用:

- ◇ Type PTS型 单作用气缸
- ◇ Type PTD型 双作用气缸
- ◇ Type CSR-G01 系列 电动执行器

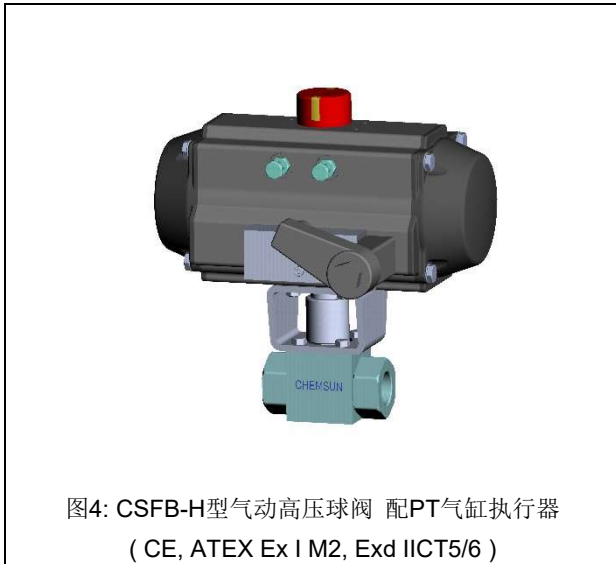


图4: CSFB-H型气动高压球阀 配PT气缸执行器  
( CE, ATEX Ex I M2, Exd IICT5/6 )

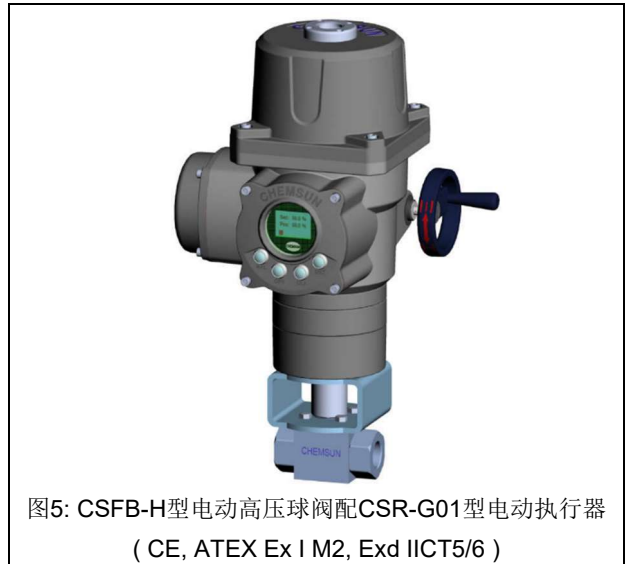


图5: CSFB-H型电动高压球阀配CSR-G01型电动执行器  
( CE, ATEX Ex I M2, Exd IICT5/6 )

## 订货数据/Order Data

### 阀体/Body

阀门口径/Valve Size	DN 06...50
压力等级/Pressure Class	PN 250/315/350/400/500 bar
阀体材质/Body material	According to Material List
球芯材质/Plug material	According to Material List
阀座材质/Seat material	Metal or Soft seal, According to Material List
连接方式/Connection tyoe	Thread(F), RF, BW

### 执行器/Actuator

电动执行器/Electric Actuator	Type CSR-G01
供电电源/Supply power	24VDC; 110/230/400VAC
输入/输出信号/Input and output signal	ON/OFF, 4-20mA ; 0-10V...
故障安全位置/Supply Fail safe position	FC/FO/FL/FA
防爆和防护/Explosion and Protection	ATEX Ex I M2, Exd II CT6; Exia II CT5/6; IP66/67/68.

气动执行器/Pneumatic Actuator	Type PTS / PTD
供气气源/Pneumatic supply	4-7bar
输入/输出信号/Input and output signal	ON/OFF, 4-20mA ; 0-10V...
故障安全位置/Supply Fail safe position	FC/FO
手轮配置/With handle	With or Without
阀门控制附件/Control accessories	Positioner / Solenoid / Limit switch / Air filter....
防爆和防护/Explosion and Protection	ATEX Ex I M2, Exd II CT6; Exia II CT5/6; IP66/67/68.

\*\*\* 数据变更 恕不另行通知, 请关注公司网站/ Data changes are not notified, Please follow CHEMSUN website.



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