

PRODUCT OVERVIEW

API Licenses:

- API 6D
- API 6DSS
- API 6A-PSL4

Size Range: 1" to 56"

Pressure Class:

ASME 150-2500
API 2000-15000

Service Type:

- Standard Temperature: -29°C to 220°C / -20°F to 428°F
- Low Temperature: -46°C to 150°C / -50°F to 302°F
- Cryogenic Temperature: -47°C to -196°C / -52°F to -320°F
- Subsea (Shallow & Deep Water)
- Underground
- High Temperature: Above 220°C / 428°F



MODEL F & FF
SIDE ENTRY BOLTED BODY

SERVICE	API 6D Size (in/mm) - Pressure Range				API 6A Size (in/mm) - Pressure Range		
	ASME 150-600	ASME 900	ASME 1500	ASME 2500	API 2000-5000	API 10000	API 15000
Standard	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Low Temperature	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Cryogenic	2"-36" 50-900	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*
Subsea	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Underground	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
High Temperature	2"-36" 50-900	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*



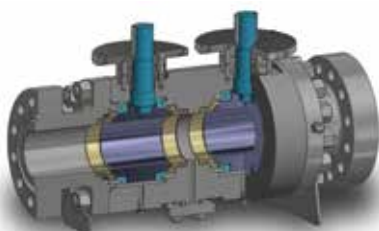
MODEL FW
SIDE ENTRY WELDED BODY

SERVICE	API 6D Size (in/mm) - Pressure Range				API 6A Size (in/mm) - Pressure Range		
	ASME 150-600	ASME 900	ASME 1500	ASME 2500	API 2000-5000	API 10000	API 15000
Standard	2"-56" 50-1400	2"-36" 50-900	2"-30" 50-750	*	*	*	*
Low Temperature	2"-56" 50-1400	2"-36" 50-900	2"-30" 50-750	*	*	*	*
Cryogenic	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Subsea	2"-56" 50-1400	2"-36" 50-900	2"-30" 50-750	*	*	*	*
Underground	2"-56" 50-1400	2"-36" 50-900	2"-30" 50-750	*	*	*	*
High Temperature	N/A	N/A	N/A	N/A	N/A	N/A	N/A



MODEL FT
TOP ENTRY BOLTED BONNET

SERVICE	API 6D Size (in/mm) - Pressure Range				API 6A Size (in/mm) - Pressure Range		
	ASME 150-600	ASME 900	ASME 1500	ASME 2500	API 2000-5000	API 10000	API 15000
Standard	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Low Temperature	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Cryogenic	2"-36" 50-900	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*
Subsea	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Underground	2"-56" 50-1400	2"-48" 50-1200	2"-42" 50-1050	2"-24" 50-600	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
High Temperature	2"-36" 50-900	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*



MODEL FC
COMPACT BODY (TWIN BALL)

SERVICE	API 6D Size (in/mm) - Pressure Range				API 6A Size (in/mm) - Pressure Range		
	ASME 150-600	ASME 900	ASME 1500	ASME 2500	API 2000-5000	API 10000	API 15000
Standard	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Low Temperature	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Cryogenic	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*
Subsea	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
Underground	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	1 13/16"-11" 46-280	1 13/16"-7 1/16" 46-179
High Temperature	2"-30" 50-750	2"-24" 50-600	2"-16" 50-400	2"-12" 50-300	1 13/16"-11" 46-280	*	*

* - Available upon request, please consult factory

ORDERING GUIDE

Example: 12" Figure # FF600-1-CF-E1-GO

FF
60
0
-
1
-
CF
-
E
1
-
GO

1. 2. 3. 4. 5. 6. 7. 8.

12" CLASS 600 TRUNNION BALL VALVE, FULL BORE, 3-PC, FLG-RF, SINGLE PISTON EFFECT, A105 BODY X A105 + (0.003) ENP TRIM, DEVLON SEAT INSERTS, HNBR AED O-RINGS, NACE, FIRESAFE, GEAR OP.

1. MODEL

F - TRUNNION BALL, 2 PIECE, SPLIT BODY, FULL BORE	GT - TRUNNION BALL, 1 PIECE, TOP ENTRY, REDUCED BORE
G - TRUNNION BALL, 2 PIECE, SPLIT BODY, REDUCED BORE	FW - TRUNNION BALL, FULLY WELDED BODY, FULL BORE
FF - TRUNNION BALL, 3 PIECE, SPLIT BODY, FULL BORE	GW - TRUNNION BALL, FULLY WELDED BODY, REDUCED BORE
GG - TRUNNION BALL, 3 PIECE, SPLIT BODY, REDUCED BORE	FC - TRUNNION TWIN BALL, COMPACT BODY, FULL BORE
FT - TRUNNION BALL, 1 PIECE, TOP ENTRY, FULL BORE	GC - TRUNNION TWIN BALL, COMPACT BODY, REDUCED BORE

2. RATING

15 - CLASS 150	90 - CLASS 900	200 - API 2000	1000- API 10000
30 - CLASS 300	150 - CLASS 1500	300 - API 3000	1500- API 15000
60 - CLASS 600	250 - CLASS 2500	500 - API 5000	

3. END CONNECTION

0 - RF FLANGED	8 - BUTTWELD X RF ENDS	X - SPECIAL
7 - BUTTWELD (SCHEDULE REQUIRED)	9 - RING JOINT	

4. TYPE

1 - SINGLE PISTON EFFECT (SPE)	3 - SINGLE X DOUBLE PISTON EFFECT (SPE x DPE)
2 - DOUBLE PISTON EFFECT (DPE)	

5. MATERIAL (BODY + TRIM)

AC - WCB + 304	GC - LCC + 316	NF - F316L + 316L
AF - A105 + 304	GF - LF2 + 316	OC - CN7M + A/20
BC - WCB + 316	HC - LCB + LF2/ENP (.003)	OF - A/20 + A/20
BF - A105 + 316	IC - LCB + F6A/13CR	PC - A890-4A + F51
CC - WCB + A105/ENP (.003)	JC - LCB + 316	PF - F51 + F51
CF - A105 + A105/ENP (.003)	KC - CF8 + 304	QC - A890-5A + F53
DC - WCB + F6A/13CR	KF - F304 + 304	QF - F53 + F53
DF - A105 + F6A/13CR	LC - CF8M + 316	RC - A890-6A + F55
EC - LCC + LF2/ENP (.003)	LF - F316 + 316	RF - F55 + F55
EF - LF2 + LF2/ENP (.003)	MC - CF3 + 304L	X - SPECIAL
FC - LCC + F6A/13CR	MF - F304L + 304L	
FF - LF2 + F6A/13CR	NC - CF3M + 316L	

6. MATERIAL (SEAT)

B - NYLON 12	F - VITON AED	U - PCTFE (KEL-F)®
C - NYLON 6	G - RTFE	V - PEEK
E - DEVLON	M - METAL TO METAL	X - SPECIAL

7. MATERIAL (O-RING SEAL)

1 - HNBR AED	3 - VITON GLT AED	5 - AFLAS	7 - PTFE + ELGILOY
2 - VITON AED	4 - EPDM	6 - HNBR AED (Low Temp)	X - SPECIAL

8. OPERATOR

L - LEVER	GO - GEAR	B - BARE STEM
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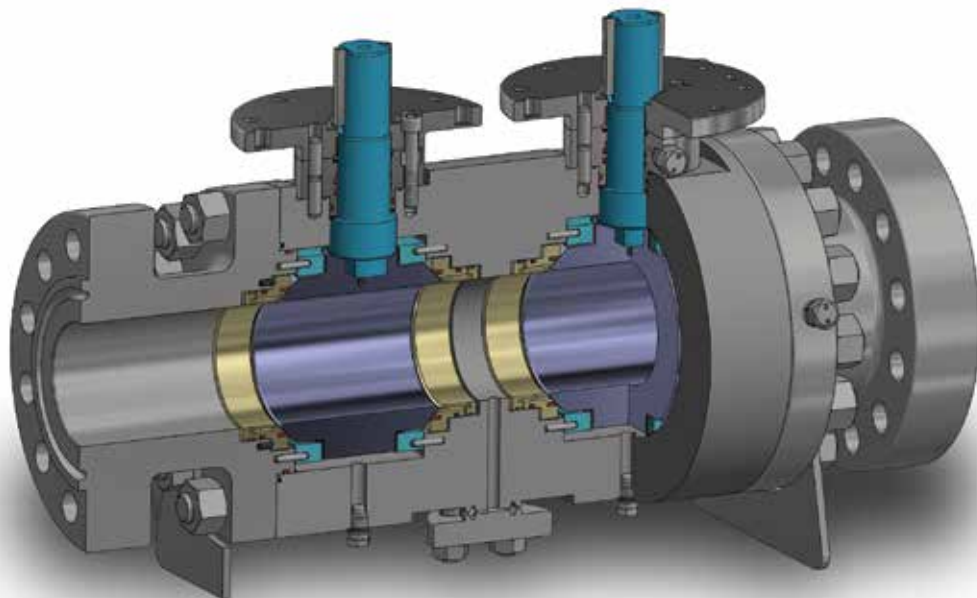
9. SPECIAL REQUIREMENTS

S - SUPPLY COMPLETE INFORMATION

NOTE: For Cryogenic application ordering guide, refer to GWC catalog #CTBV-1001
For Subsea application ordering guide, refer to GWC catalog #SSBV-1001

MODEL FC FORGED COMPACT BODY (DB&B)

- GWC ITALIA Twin ball design are used in pipelines, pumping and compression stations, offshore, onshore, subsea and cryogenic as well as abrasive and high temp applications.
- This ultimate trunnion mounted ball valve double block & bleed feature is achieved by two ball valves housed in a single body.
- This ultimate double block & bleed feature is achieved by two ball valves housed in a single body.
- Each valve maintains all the standard and optional features of a side entry valve with floating independent seat rings, SPE or DPE seat rings, soft or metal seats, Internal overlay and extended stem if required.
- The space between the two valves houses a drain valve, the upstream and down stream side of the valve are completely isolated.
- The two valves can be operated with any type of actuation.
- The main advantages of the twin ball valve are reduced face to face, weight, costs savings and increased line structure.



SIZE RANGE:	1" - 36"
PRESSURE CLASS:	ASME 150 - 2500
API:	DESIGN ACCORDING TO API 6D
ASME:	B16.34

FEATURES

- ▶ 1-3 PIECE BODY
- ▶ FULL AND REDUCED BORE
- ▶ TRUNNION MOUNTED
- ▶ DOUBLE BLOCK AND BLEED
- ▶ SINGLE OR DOUBLE PISTON EFFECT DESIGN
- ▶ ANTI-BLOW OUT STEM
- ▶ ANTI-STATIC DEVICE
- ▶ FIRESAFE TO API-607 / 6FA / ISO 10497
- ▶ SPRING LOADED SEATS
- ▶ SEALANT INJECTION ON REQUEST
- ▶ NACE MR-01-75