

# **Delta Type 54/55**Side-Entry, Bolted-Body, Trunnion-Mounted Ball Valves









#### Part of the Valvitalia Group

VALVITALIA is a world-wide manufacturer of valves and related products to the oil, gas and power industries. As an innovative supplier, VALVITALIA offers an array of high-quality, competitively prices products and services.







QTR is the exclusive North American Master Distributor for VALVITALIA. We are a major supplier to most companies in the oil and gas industry. With over 40 years of experience, we offer our customers many advantages over our competitors, including:

- Three facilities: two in Ponca City, Oklahoma and one in Deer Park, Texas
- Large inventory providing exceptional delivery time
- Full fabrication and coating facilities for standard, below grade, and custom applications
- In-house automation and control packages to meet your requirements

We maintain a large inventory of over 2,500 2"-42" valves in stock for immediate delivery.

### **Standard Features**



#### **Fire-Safe Design And Test**

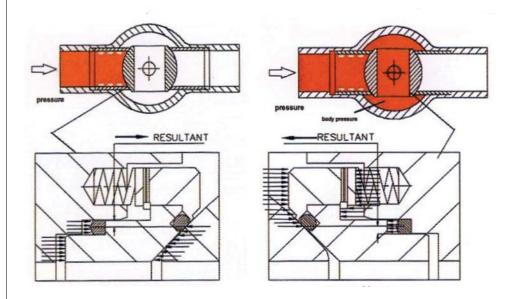
Fire-safe design is standard on all DELTA ball valves. Two O-rings and gland gasket prevent leak paths from the stem area. If fire deteriorates the O-ring seal, fluid or gas leakage is prevented by the gland gasket and the fire-safe stem packing. The DELTA ball valve has been witnesstested and certified to API 607, API 6FA and BS 6755 Pt.2.

#### **Double Block and Bleed**

As a standard feature, DELTA Trunnion Mounted Ball Valves have two seating surfaces between which the cavity can be vented through a bleed connection to confirm the seat integrity of the valve.

#### **Double Isolation and Bleed (DIB-1)**

The Double Piston Effect set configuration (DPE x DPE) creates a second barrier if leakage occurs in the upstream seat. Pressure bypassing the upstream seat enters the body cavity and pushes the downstream seat against the ball to create a second sealing surface.



### **Emergency Stem and Seat Sealant Injection**

In case of emergency, when seat or stem seals are damaged by fire or other accidental causes, emergency sealant injection points are provided. Stem seal injection is standard on all sizes. For Type 55 ball valves, seat sealant injection is standard. For Type 54 ball valves, seat sealant injection is optional.

#### **Valve Stem**

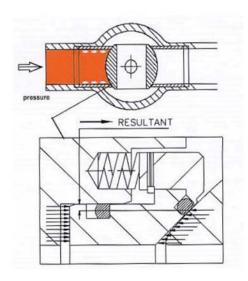
The stem is independent of the ball and designed to be blowout proof. Self-lubricated, low friction materials used for stem and trunnion bearings ensure predictable operating torques for the lifetime of the valve.

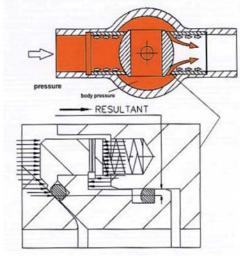
#### **Stem Seal**

Triple barrier stem sealing system features two static O-rings and a third graphite seal, which is retained by the adapter flange. Upper seal can be replaced with the valve in line and in the closed position (Type 55 standard).

#### Self-Relieving (SR) Seat

Type 54 ball valves come standard with Self-Relieving (SR) Seats. Self-Relieving Valves still provide the users with Double Block and Bleed function, but allow overpressure due to thermal expansion to equalize with the pipeline. SRxSR seats still meet DBB (Double-Block and Bleed feature).





#### **Seat Design**

Type 54 ball valve: Reinforced PTFE, spring energized.

Type 55: Primary metal-to-metal and secondary Viton seal, spring energized.

#### **Body Design**

Compact, streamlined, forged steel body for maximum strength and minimum weight; A350 LF2 material ensures uniform, fine grain structure with proven toughness.

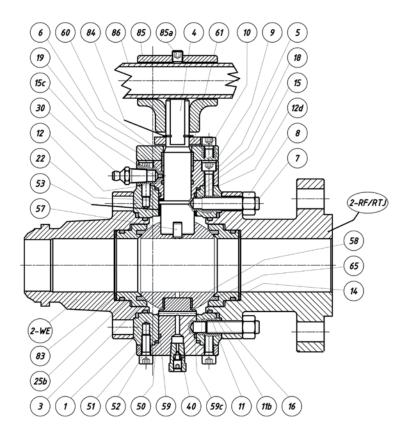
#### **Body Vent and Drain**

The drain and vent plug on the valve body enable checking the integrity of the seat ring. A bleed valve may replace the drain plug. The drain and vent opening on the valve body allows for the cavity of the valve to be vented and drained.





STANDARD FEATURES	TYPE 54
Size Range	2" thru 4" (other sizes available)
Pressure Class	ANSI 150 thru 2500
Two and Three Piece Body	Standard
Antistatic Device	Standard
Self-relieving Seats	Standard
Double Piston Effect Seats (DIB-1)	Option
Lubricated Stem	Standard
Lubricated Seats	Option
Double Block And Bleed	Standard
Metal to Metal Seats	Option
Trunnion Mounted Ball	Standard
Full Bore (Port) or Reduced Bore (Port) Option	Standard
Bidirectional	Standard
Forged Construction (A-350 LF2)	Standard
RF, WE or RTJ Flanges To ASME B16.5	Standard
ANSI and API-6D End to End	Standard
API-6D Manufactured, Tested And Monogrammed	Standard
Fire Safe Design To API-607 & API-6FA (BS 6755 Pt.2)	Standard
Standard Operating Temperature	-20 degrees F to 350 degrees F Option to -50 degrees F



## Type 54 Standard Materials of Construction

#### **Trunnion-Mounted Ball Valve**

When the ball is in fully closed position, two trunnions absorb the side thrust generated by lines pressures, preventing excess friction between ball and seats. With this system, even at full-rated working pressure, operating torque stays low. Generous sizing of the trunnions, which is standard on the Delta Trunnion Mounted Ball Value, is essential to the life and operation of the valve.

The spherical surface of the ball is machined and ground to close tolerance. To reduce torque and minimize wear, the ball is then Electroless Nickel Plated and polished to mirror finish.

Pos.	Description	Material	Notes				
86	Lever	FE 360					
85a	Set Screw	8,8					
85	Lever Head	A 536 65 45 12					
84	Circlip	C75					
83	Spring Washer	Inconel 750					
65	Seat Insert	PTFE+CCG 25%	3				
61	Stop Collar	Fe 360					
60	Bearing Housing	A350 LF2					
59c	Lower Trunnion Back Up Ring	Nylon	2				
59	Lower Trunnion O-Ring	Viton GLT 90 SH					
58	Lower Trunnion Bearing	CS+BR+PTFE					
57	Stem Pin	AISI 4140					
53	Stem Bearing	CS+BR+PTFE					
52	Lower Trunnion Capscrew	A-193-B7M					
51	Lower Trunnion	A-350-LF2	1				
50	Lower Trunnion F.S. Seal	Graphite					
40	Drain Valve	AISI 4140					
30	Grease Fitting	AISI 316					
25b	Seat Ring with Insert	A350 LF2	1				
22	Upper Thrust Washer	CS+BR+PTFE					
19	Stem F.S. Seal	Graphite					
18	Top Cover F.S. Seal	Graphite					
16	Closure F.S. Seal	Graphite					
15c	Top Cover Back Up Ring	Nylon	2				
15	Top Cover O-Ring	Viton GLT 90 SH					
14	Seat Gasket O-Ring	Viton GLT 90 SH					
12d	Stem Back Up Ring	Nylon	2				
12	Stem O-Ring	Viton GLT 90 SH					
11b	Closure Back Up Ring	Nylon	2				
11	Closure O-ring	Viton GLT 90 SH					
10	Bearing Housing Capscrew	A-193-B7M	5				
9	Top Cover Capscrew	A-193-B7M					
8	Body Stud Nut	A-194-2HM					
7	Body Stud	A-193-B7M					
6	Gland Bushing	FE 510	1				
5	Top Cover	A-350-LF2					
4	Stem	AISI 4140	1				
3	Ball	A-350-LF2	1				
2	Closure	A-350-LF2					
1	Body	A-350-LF2					



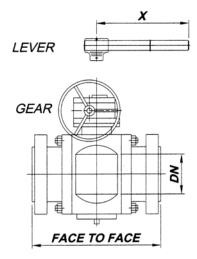
<sup>1)</sup> Electroless Nickel Plated 1 MIL 4) Only for 150 Class

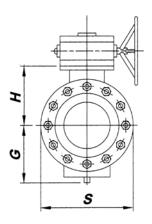
2) Only for 900 Class 3) Nylon for 900 Class

5) Only for 2" & 3" 900 Class

Carbon Steel + ENP Trim for Gas or Fluid Service, Fire Safe Design, Standard Temperature Range -20F (-29C) to 350F (175C)-(Option to -50F (-46C))







#### Type 54: ANSI Class 150 (PN20) Dimensions

Working Pressure 285PSI (19.6 Bar) - Hydrostatic Shell Test 450 PSI (30Bar)

SIZE	Thru Bore		FACE TO FA	CE	G	н	s	X LEVER	BARE VALVE V	
	(DN)	WE	RF	RTJ				LEVER	WE	RF/RTJ
2"	2"	8 1/2"	7"	7 1/2"	4 1/8"	4 3/4"	5 3/4"	12 5/8"	33	44
3"	3"	11 1/8"	8"	8 1/2"	5 1/8"	5 3/4"	7 7/8"	16 9/16"	77	88
4"	4"	12"	9"	9 1/2"	6 1/8"	6 11/16"	7 7/8"	20 1/2"	115	139

#### Type 54: ANSI Class 300 (PN50) Dimensions

Working Pressure 740PSI (51.1 Bar) - Hydrostatic Shell Test 1125 PSI (77 Bar)

SIZE	Thru Bore		FACE TO FA	CE	G	н	s	X LEVER	BARE VALVE V	
	(DN)	WE	RF	RTJ				LEVER	WE	RF/RTJ
2"	2"	8 1/2"	8.1/2"	9.1/8"	4 1/8"	4 3/4"	5 3/4"	14.9/16"	33	47
3"	3"	11 1/8"	11 1/8"	11 3/4"	5 1/8"	5 3/4"	7 7/8"	22 1/2"	84	113
4"	4"	12"	12"	12 5/8"	6 1/8"	6 11/16"	9 1/2"	26"	124	166

#### Type 54: ANSI Class 600 (PN100) Dimensions

Working Pressure 1480 PSI (102.1 Bar) - Hydrostatic Shell Test 2225 PSI (154 Bar)

	SIZE	Thru Bore		FACE TO FA	CE	G H		s	X LEVER	BARE VALVE V	
		(DN)	WE	RF	RTJ				LEVEN	WE	RF/RTJ
	2"	2"	11 1/2"	11 1/2"	11 5/8"	4 1/8"	4 3/4"	5 3/4"	16 15/16"	40	58
	3"	3"	14"	14"	14 1/8"	5 1/8"	5 3/4"	7 7/8"	26 3/8"	93	126
_	4"	4"	17"	17"	17 1/8"	6 1/8"	6 11/16"	9 1/2"	29 15/16"	159	223

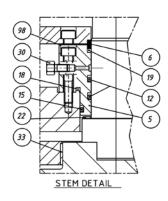
#### Type 54: ANSI Class 900 (PN100) Dimensions

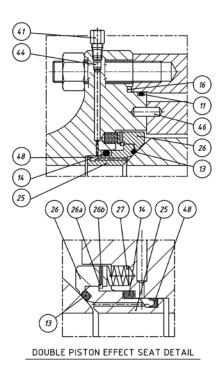
Working Pressure 2220 PSI (153.2 Bar) - Hydrostatic Shell Test 3350 PSI (230 Bar)

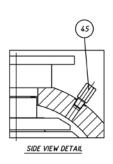
SIZE	Thru Bore		FACE TO FA	CE	G	н	s	X LEVER	BARE VALVE V	
	(DN)	WE	RF	RTJ				LEVER	WE	RF/RTJ
2"	2"	14 1/2"	14 1/2"	14 5/8"	4 17/32"	4 15/16"	5 5/16"	23 5/8"	75	128
3"	3"	15"	15"	15 1/8"	5 3/4"	6 1/8"	8 1/4"	35 1/2"	153	184
4"	4"	18"	18"	18 1/8"	6 7/8"	7 11/16"	10 1/4"	-	320	358



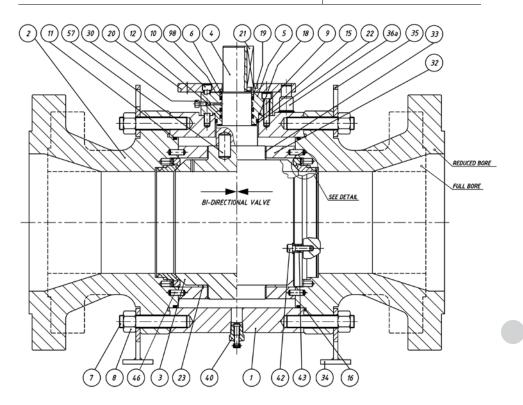








STANDARD FEATURES	TYPE 55
Size Range	6" thru 36" (other sizes available)
Pressure Class	ANSI 150 thru 2500
Three Piece Bolted Body	Standard
Antistatic Device	Standard
Self-relieving Seats	Option
Double Piston Effect Seats (DIB-1)	Standard
Lubricated Stem	Standard
Lubricated Seats	Standard
Double Block and Bleed	Standard
Metal to Metal Seats	Option
Trunnion Mounted Ball	Standard
Full Bore (Port) or Reduced Bore (Port) Option	Standard
Bidirectional	Standard
Forged Construction (A-350 LF2)	Standard
RF, BW or RTJ Flanges to ASME B16.5	Standard
ANSI and API-6D End to End	Standard
API-6D Manufactured, Tested and Monogrammed	Standard
Fire Safe Design to API-607 and API-6FA (BS 6755 Pt.2)	Standard
Standard Operating Temperature	-20 degrees F to 350 degrees F Option to -50 degrees F



## **Type 55** Standard Materials of Construction

#### **Trunnion-Mounted Ball Valve**

When the ball is in fully closed position, two trunnions absorb the side thrust generated by lines pressures, preventing excess friction between ball and seats. With this system, even at full-rated working pressure, operating torque stays low. Generous sizing of the trunnions, which is standard on the Delta Trunnion Mounted Ball Value, is essential to the life and operation of the valve.

The spherical surface of the ball is machined and ground to close tolerance. To reduce torque and minimize wear, the ball is then Electroless Nickel Plated and polished to mirror finish.

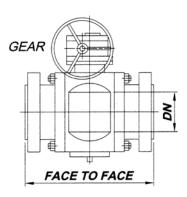
Number	Description	Material	Notes	
98	Top Cover Seal	Vellumoid		
57	Stem Pin	42CrMo4 (ANSI 4140)		
48	U-Cup Packing	Viton A75 SH A		
46	Bearing Retainer Pin	AISI 4140		
45	Relief Valve	AISI 316		
44	Check Valve	AISI 316		
41	Seat Grease Fitting	A-350 LF2		
40	Drain Valve	A-350 LF2 (AISI 4140)		
36a	Anchor Pin	C-25(AISI 1025)		
35	Lifting Lug	FE 360		
34	Support Leg	FE 360		
33	Bearing	CS + PTFE		
32	Bearing Retainer	Fe 510		
30	Stem Grease Fitting	A-350 LF2		
27	Seat Spring	Inconel X750		
26b	Elastic Pin	AISI 18.8		
26a	Stop Seat Ring	AISI 18.8		
26	External Seat Ring	A-350 LF2	1	
25	Internal Seat Ring	A-350 LF2	1	
23	Lower Thrust Washer	CS + PTFE		
22	Upper Thrust Washer	CS + PTFE		
21	Stem Key	42 CrMo 4 (ANSI 4140)		
20	Adaptor Plate	Fe 430 Grade B		
19	Stem F.S. Seal	Graphite		
18	Top Cover F.S. Seal	Graphite		
16	Closure F.S. Seal	Graphite		
15	Top Cover O-Ring	Viton GLT 90 SH A		
14	Seat Gasket O-Ring	Viton GLT 90 SH A		
13	Seal O-Ring	Viton GLT 90 SH A		
12	Stem O-Ring	Viton GLT 90 SH A		
11	Closure O-Ring	Viton GLT 90 SH A		
10	Adapter Plate Capscrew	A 193 B7M		
9	Top Cover Capscrew	A 193 B7M		
8	Body Stud Nut	A 194 2HM		
7	Body Stud	A 193 B7M		
6	Gland Bushing	FE 510	1	
5	Top Cover	A-350 LF2		
4	Stem	AISI 4140	1	
3	Ball	A-350 LF2	1	
2	Closure	A-350 LF2	2	
1	Body	A-350 LF2		

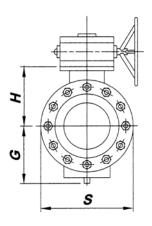




6D - 1652 6D - 1651

# Type 55 Dimensions





#### ANSI CLASS 150 (PN20)

Working Pressure 285 PSI (19.6 Bar) - Hydrostatic Shell Test 450 PSI (30 Bar)

Size	Thru Bore (DN)	WE	RF	RTJ	G	н	s	Weight lbs. WE	Weight lbs. RF/RTJ
6"	6"	18"	15 1/2"	16"	12"	8 1/2"	12"	364	386
8"	8"	20 1/2"	18"	18 1/2"	13 3/8"	10 1/16"	15 3/4"	629	684
10"	10"	22"	21"	21 1/2"	15"	11 5/8"	18 5/16"	805	871
12"	12"	25"	24"	24 1/2"	16 9/16"	13 9/16"	21 11/16"	1,312	1,401
14"	13.1/4"	30"	27"	27 1/2"	18 1/2"	14 3/4"	23 1/16"	1,535	1,645
16"	15 1/4"	33"	30"	30 1/2"	20 1/16"	16 3/8"	26 9/16"	1,976	2,086
20"	191/4"	39"	36"	36 1/2"	23 1/4"	19 1/2"	32 7/8"	3,864	4,040
24"	231/4"	45"	42"	42 1/2"	26 3/8"	22 5/8"	39"	6,655	7,934
30"	29"	55"	51"	-	31 3/4"	27 9/16"	48 5/8"	11,616	11,859
36"	341/2"	68"	60"	-	35 7/8"	32 1/2"	56 15/16"	18,081	18,522

#### **ANSI CLASS 300 (PN 50)**

Working Pressure 720 PSI (50 Bar) - Hydrostatic Shell Test 1080 PSI (75 Bar)

Size	Thru Bore (DN)	WE	RF	RTJ	G	н	s	Weight lbs. WE	Weight lbs. RF/RTJ
6"	6"	18"	15 7/8"	16 1/2""	12"	8 1/2"	12"	408	430
8"	8"	20 1/2"	19 3/4"	20 3/8"	13 3/8"	10 1/16"	16"	717	739
10"	10"	22"	22 3/8"	23"	15"	11 5/8"	18 1/2"	1048	1092
12"	12"	25"	25 1/2"	26 1/8"	16 9/16"	13 9/16"	21 7/8"	1337	1425
14"	13 1/4"	30"	30"	30 5/8"	18 1/2"	14 3/4"	23 7/16"	1791	1989
16"	15 1/4"	33"	33"	33 5/8"	20 1/16"	16 3/8"	26 3/4"	2067	2585
18"	171/4"	36"	36"	36 5/8"	21 1/2"	18 1/8"	30 3/8"	3154	3573
20"	191/4"	39"	39"	39 5/8"	23 1/4"	18 5/8"	331/4"	4318	4869
24"	231/4"	45"	45"	45 3/4"	26 3/8"	22 5/8"	39 7/16"	6743	7736
26"	25"	49"	49"	50"	28 3/8"	24 5/8"	45 3/16"	8931	9813
30"	29"	55"	55"	56"	31 3/4"	27 9/16"	49 1/4"	12569	13341
36"	34 1/2"	68"	68"	68 1/4"	35 7/8"	32 1/2"	57 1/2"	16648	17662

#### **ANSI Class 600 (PN 100)**

Working Pressure 1440 PSI (99 Bar) - Hydrostatic Shell Test 2160 PSI (149 Bar)

Size	Thru Bore (DN)	WE	RF	RTJ	G	н	s	Weight lbs. WE	Weight lbs. RF/RTJ
6"	6"	22"	22"	22 1/8""	12 1/4"	8 1/2"	14"	419	541
8"	8"	26"	26"	26 1/8"	13 3/4"	10"	16 9/16"	849	1004
10"	10"	31"	31"	31 1/8"	15 3/8"	11 5/8"	20"	951	1259
12"	12"	33"	33"	33 1/8"	16 15/16"	13 9/16"	22 1/4"	1586	1912
14"	13 1/4"	35"	35"	35 1/8"	18 15/16"	14 3/4"	23 13/16"	2033	2408
16"	15 1/4"	39"	39"	39 1/8"	20 11/16"	16 3/8"	27 3/8"	2602	3198
18"	17 1/4"	43"	43"	43 1/8"	22 1/4"	18 1/8"	30 15/16"	3789	5619
20"	19 1/4"	47"	47"	47 1/4"	23 13/16"	19 1/2"	337/8"	5442	5839
22"	21 1/4"	51"	51"	51 3/8"	25 5/8"	21 1/4"	37 7/16"	6086	6770
24"	23 1/4"	55"	55"	55 3/8"	27 3/16"	22 5/8"	40 3/16"	8049	8820
26"	25"	57"	57"	57 1/2"	29 1/8"	24 5/8"	43 1/8"	9239	11224
30"	29"	65"	65"	65 1/2"	32 3/4"	27 1/2"	50 1/4"	12657	15413
34"	32 3/4"	76"	76"	76 5/8"	35 1/2"	30 15/16"	55 1/8"	22050	26019
36"	34 1/2"	82"	82"	82 5/8"	37"	32 1/2"	58 3/4"	21550	24100

# Type 55 Dimensions

ANSI	Class	900	(PN	150)

Working Pressure 2220 PSI (149 Bar) - Hydrostatic Shell Test 3350 PSI (231Bar)

Size	Thru Bore (DN)	WE	RF	RTJ	G	н	s	Weight lbs. WE	Weight lbs. RF/RTJ
6"	6"	24"	24"	24 1/8""	9 7/8"	9 5/8"	15"	519	717
8"	8"	29"	29"	29 1/8"	11 7/16"	10 13/16"	18 1/2"	774	1054
10"	10"	33"	33"	33 1/8"	13 9/16"	12 5/8"	21 1/2"	1637	1967
12"	12"	38"	38"	38 1/8"	15 3/8"	14 3/8"	24"	2188	2519
14"	13 1/4"	40 1/2"	40 1/2"	40 7/8"	17 3/4"	15 3/8"	26 3/4"	2523	3284
16"	15 1/4"	44 1/2"	44 1/2"	44 7/8"	19 3/4"	16 15/16"	30 5/16"	3171	4097
20"	19 1/4"	52"	52"	52 1/2"	23 7/16"	20 7/8"	36 1/4"	5370	6968
24"	23 1/4"	61"	61"	61 3/4"	27 9/16"	24 7/16"	43 3/4"	8258	11224

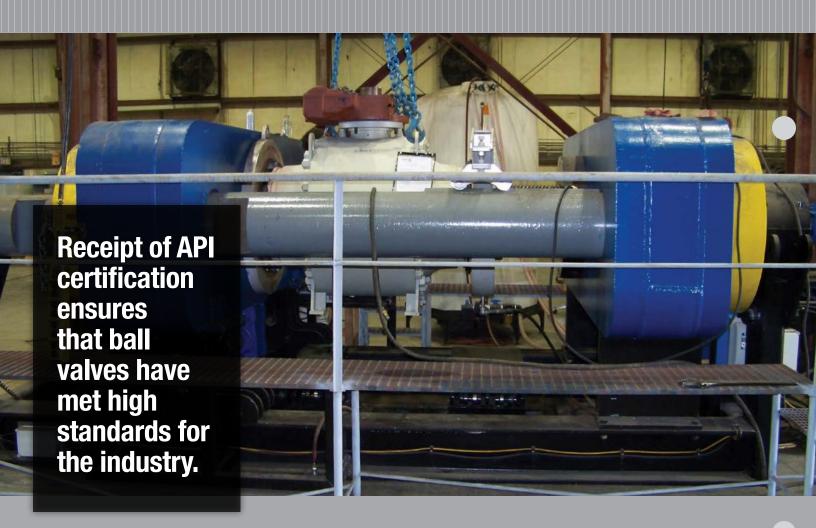
ANSI Class 1500 (PN 250) Working Pressure 3600 PSI (248 Bar) - Hydrostatic Shell Test 5400 PSI (372 Bar)

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Size	Thru Bore (DN)	WE	RF	RTJ	G	н	s	Weight lbs. WE	Weight lbs. RF/RTJ
6"	6"	27 3/4"	27 3/4"	28""	12 5/8"	11 1/16"	16 15/16"	829	1028
8"	8"	32 3/4"	32 3/4"	33 1/8"	14 3/4"	13"	21 1/4"	964	1482
10"	10"	39"	39"	39 3/8"	17 1/2"	15 9/16"	25 13/16"	1626	2408
12"	12"	44 1/2"	44 1/2"	45 1/8"	19 3/4"	16 3/4"	30 5/16"	2402	3385
16"	14 3/4"	54 1/2"	54 1/2"	55 3/8"	25 1/4"	22 1/16"	39"	7846	9919
18"	16 3/4"	60 1/2"	60 1/2"	61 7/16"	27 3 /4"	23 1/4"	42 15/16"	10584	13230
20"	18 5/8"	65 1/2"	65 1/2"	66 7/16"	29 15/16"	28 9/16"	46 1/2"	15987	18743
22"	20 5/8"	-	-	-	33 1/16"	30 3 /8"	52"	-	-
24"	22 1/2"	76 1/2"	76 1/2"	77 5/8"	35 1/4"	32 1/8"	56 1/8"	-	-











6D - 1652 6D - 1651 API certification involves stringent requirements for design, testing, documentation and safety of ball valves used in the petroleum and natural gas industries. Receipt of API certification ensures that ball valves have met high standards for the industry.

Quarter Turn Resources is a Certified API-6D and API Q1 company. Our facilities in Oklahoma and Texas have been evaluated and certified by API. We can custom build a valve to suit your needs. Every valve we deliver is tested to meet or exceed API Specifications or to your company's standards. With annual inspections by API to customer's inhouse or contract inspectors, a rigorous Quality Control Program, QTR strives to deliver to you the best quality valves and accessories to meet every specification.

API 6D Specification is the industry standard for pipeline and piping valves in the petroleum and natural gas industries. The specification covers the design and manufacture, testing and documentation standards.

- Quarter Turn Resources, Inc. 3505 W. North Avenue Ponca City, OK 74601
- Quarter Turn Resources, Inc.714 W. 13th StreetDeer Park, TX 77536



### Valve Accessories



- Custom or standard length stem extensions include piping and fittings to raise the body drain, body vent and emergency sealant injection fittings above ground level
- Custom and standard coatings available
- Customer-supplied or QTR-supplied pipe-pups welded by certified welders





# Value Automation

- Pneumatic, Gas over Oil and Electric Actuation Packages
- Custom-mounted controls
- Single source responsibility for complete automation package
- Custom control packages







# Additional Products

QTR also sells and stocks other valve types, including:

- **DELTA Lubricated Plug** Valves
- VITAS Full Open Swing Check Valves
- VITAS Expanding Gate Valves
- VITAS Slab Gate Valves











Quarter Turn Resources also provides Type 58 and 59 all-welded body, trunnion-mounted ball valves. With facilities in Oklahoma and Texas, we provide standard or custom products built to your specifications. Please see our extensive brochure, Type 58 and 59, or contact us for more information.

STANDARD FEATURES				
Size Range	6" thru 42" (other sizes available)			
Pressure Class	ANSI 150 thru 2500			
All Welded Design	Standard			
Antistatic Device	Standard			
Self-relieving Seats	Option			
Double Piston Effect Seats (DIB-1)	Standard			
Lubricated Stem	Standard			
Lubricated Seats	Standard			
Double Block and Bleed	Standard			
Metal to Metal Seats	Option			
Trunnion Mounted Ball	Standard			
Full Bore (Port) or Reduced Bore (Port) Option	Standard			
Bidirectional	Standard			
Forged Construction (A-350 Lf2)	Standard			
RF, WE or RTJ Flanges to ASME B16.5	Standard			
ANSI and API-6D End to End	Standard			
API-6D Manufactured, Tested and Monogrammed	Standard			
Fire Safe Design to API-607 and API-6FA (BS 6755 Pt.2)	Standard			
Standard Operating Temperature	-20 degrees F to 350 degrees F Option to -50 degrees F			

### Trunnion-Mounted Ball Valve

When the ball is in fully closed position, two trunnions absorb the side thrust generated by lines pressures, preventing excess friction between ball and seats. With this system, even at full-rated working pressure, operating torque stays low. Generous sizing of the trunnions, which is standard on the Delta Trunnion Mounted Ball Value, is essential to the life and operation of the valve.

The spherical surface of the ball is machined and ground to close tolerance. To reduce torque and minimize wear, the ball is then Electroless Nickel Plated and polished to mirror finish.



STANDARD FEATURES				
Size Range	2" thru 4"			
Pressure Class	ANSI 150 thru 2500			
All Welded Design	Standard			
Antistatic Device	Standard			
Self-relieving Seats	Option`			
Double Piston Effect Seats (DIB-1)	Standard			
Lubricated Stem	Standard			
Lubricated Seats	Option			
Double Block and Bleed	Standard			
Metal to Metal Seats	Option			
Trunnion Mounted Ball	Standard			
Full Bore (Port) or Reduced Bore (Port) Option	Standard			
Bidirectional	Standard			
Forged Construction (A-350 Lf2)	Standard			
RF, WE or RTJ Flanges to ASME B16.5	Standard			
ANSI and API-6D End to End	Standard			
API-6D Manufactured, Tested and Monogrammed	Standard			
Fire Safe Design to API-607 & API-6FA (BS 6755 Pt.2)	Standard			
Standard Operating Temperature	-20 F° to 350 F° (Option to -50 degrees F)			



When the ball is in fully closed position, two trunnions absorb the side thrust generated by lines pressures, preventing excess friction between ball and seats. With this system, even at full-rated working pressure, operating torque stays low. Generous sizing of the trunnions, which is standard on the Delta Trunnion Mounted Ball Value, is essential to the life and operation of the valve.

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