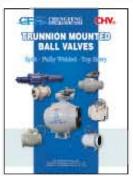
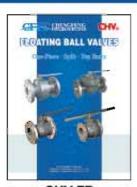
THE MOST COMPREHENSIVE INDUSTRIAL SOLUTION FOR FORGED STEEL AND CAST STEEL BALL, GATE, GLOBE, CHECK, PLUG, BUTTERFLY AND PIG VALVES

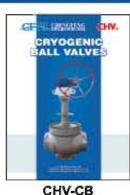
### **COMPLETE SOLUTIONS**

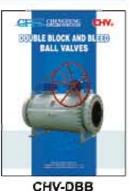
### YOU CAN TRUST



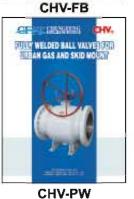






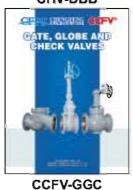


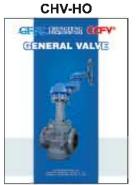


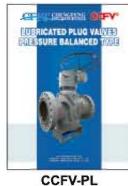


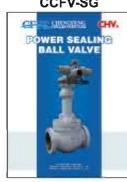


















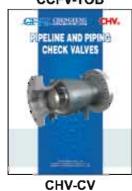
CHV-JV

E-mail: sales@china-cfft.com









CHENGFENG FLOW-TECH GROUP

www.china-cfft.com

China Headquarters No. 6, Guanghua Road Jinyuan Town, Dayi County, Chengdu City, Sichuan Province, China Tel: +86(28)87465186 Fax: +86(28)84847510

10700 Richmond Ave Ste 230 Houston, TX 77042 Tel: +1(832)831-2473 Fax: +1(832)831-2617 E-mail: international@china-cfft.com

USA Office

CHV-TB-1601





# TRUNNION MOUNTED **BALL VALVES**

Split · Fully Welded · Top Entry



CHENGDU CHENGFENG VALVE CO., LTD.

### **PROFILE**

### **CHENGFENG FLOW-TECH GROUP**

Chengfeng Flow-Tech Group, headquartered in Chengdu, China, is the leading flow technology company in China. Being a high-tech group specialized in R&D, manufacturing of industrial valves, and being one of the core suppliers to Petro-China, SINOPEC and CNOOC for decades, it has transformed into a multi-dimensional group that is committed to providing the most complete solutions to the oil&gas markets. With industry-leading facilities, innovative technical teams and highly professional engineers, its top-notch services cover various realms in the energy sector – valve manufacturing and maintenance, fluids equipment solutions, flow control solutions and industrial data analytics, etc.

Chengfeng's products have been widely used in the oil&gas pipelines, petrochemical industries, aerospace industry and power stations, etc. Chengfeng's top two brands, CHV and CCFV, have established the nationwide reputation for their quality and service. Now, Chengfeng Flow-Tech Group has begun its new adventure – serving the world market.

### CHENGDU CHENGGAO VALVE CO., LTD. (CHV)

CHV was founded in 1993, and has been specialized in the R&D and manufacturing of mid&high end ball valves ever since. CHV offers complete ball valve product lines. Among all the product lines, the High Pressure Large Diameter Fully Welded Ball Valves have captured more than half the domestic fully welded ball valve market. High Temperature Metal-Seated Oxygen Ball Valve and NACE Ball Valve are also leading the domestic market.

CONTENTS
PROFILE 1
PRODUCT RANGE 2
DESIGN FEATURES3~6
T10 SERIES PARTS LIST
(FORGED STEEL SPLIT-BODY) 7
T11 SERIES PARTS LIST
(CAST STEEL SPLIT-BODY) 8
T20 SERIES PARTS LIST
(FORGED STEEL FULLY WELDED) 9
T70 SERIES PARTS LIST
(CAST STEEL TOP-ENTRY)10
T71 SERIES PARTS LIST
(FORGED STEEL TOP-ENTRY)11
DIMENSIONS & WEIGHTS12~18
ENGINEERING DATA19
PRODUCT PHOTOS20
HOW TO ORDER21~22

### CHENGDU CHENGFENG VALVE CO., LTD. (CCFV)

CCFV was founded in 1966. Its main product lines include slab gate valves, expanding gate valves, tri-eccentric butterfly valves, check valves, globe valves and plug valves, etc. CCFV is leading the domestic slab gate valve market, taking up 70% of the oil transportation and storage sector.

### CHV INTERNATIONAL, INC.

CHV International, Inc. is the newest branch of Chengfeng Flow-Tech Group. Based in Houston, Texas, U.S.A, its mission is to shorten the distance between the Group and the international market by providing faster response and better service to our customers around the globe.

### CERTIFICATION

Chengfeng Flow-Tech Group's quality program is fully compliant with the industry's most stringent standards. The group holds all major certifications, including but not limited to API 6D, ISO 9001, ISO 14001, OHS 18001, CE, API 6FA, API 607 fire safety inspection certificate.



# PRODUCT RANGE

### **RANGE**

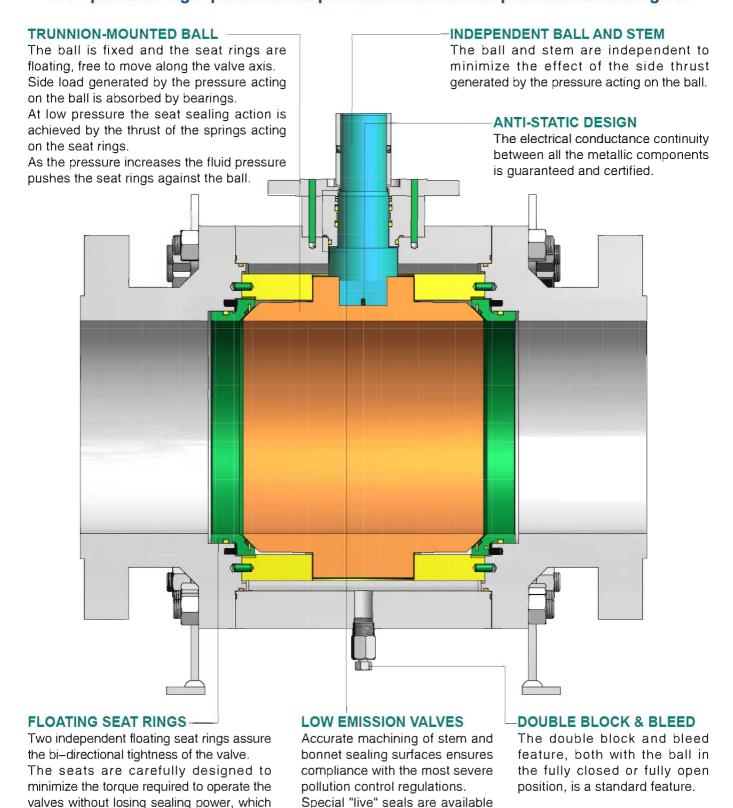
	Ĭ.	SIZE ( NPS/DN ) - I	PRESSURE RANGI	E.
SERVICE	ASME CLASS	ASME CLASS	ASME CLASS	ASME CLASS
	150-600	900	1500	2500
Forged Split (T10 Series)			ic.	
Standard	1–60	1–56	1–48	1–24
	25–1500	25–1400	25–1200	25–600
ow Temperature	1–60	1–56	1–48	1–24
46°C / -50°F	25–1500	25–1400	25–1200	25–600
Inderground	1–60	1–56	1–48	1–24
	25–1500	25–1400	25–1200	25–600
Inderground – Low Temperature	1–60	1-56	1–48	1–24
-46°C / -50°F	25–1500	25-1400	25–1200	25–600
Cast Split (T11 Series)				
Standard	1–48	1–36	1–24	1–12
	25–1200	25–900	25–600	25–300
ow Temperature	1-48	1-36	1–24	N/A
-46°C / -50°F	25-1200	25-900	25–600	
Inderground	1-48 25-1200	1–36 25–900	1–24 25–600	N/A
Inderground – Low Temperature	1-48	1–36	1–24	N/A
-46°C / –50°F	25-1200	25–900	25–600	
orged Fully Welded (T20 Series)				-
Standard	1/2–60 15–1500	1/2-56 15-1400	1/2-48 15-1200	N/A
ow Temperature	1/2–60	1/2-56	1/2-48	N/A
-46°C / –50°F	15–1500	15-1400	15-1200	
Jnderground	1/2–60 15–1500	1/2-56 15-1400	1/2-48 15-1200	N/A
Jnderground – Low Temperature	1/2–60	1/2-56	1/2-48	N/A
-46°C / -50°F	15–1500	15-1400	15-1200	
Cast Top Entry (T70 Series)		-		
Standard	2-48 50-1200	2–36 50–900	2-24 50-600	N/A
ow Temperature	2-48	2-36	2-24	N/A
-46°C / -50°F	50-1200	50-900	50-600	
Inderground	2-48 50-1200	2–36 50–900	2-24 50-600	N/A
Inderground – Low Temperature	2-48	2–36	2–24	N/A
46°C / –50°F	50-1200	50–900	50–600	
orged Top Entry (T71 Series)		**************************************		
Standard	2-48	2-36	2-24	2-6
	50-1200	50-900	50-600	50-150
ow Temperature	2-48	2-36	2-24	2-6
-46°C / -50°F	50-1200	50-900	50-600	50-150
Inderground	2-48	2-36	2-24	2-6
	50-1200	50-900	50-600	50-150
Jnderground – Low Temperature	2-48	2-36	2-24	2-6
-46°C / -50°F	50-1200	50-900	50-600	50-150

### **STANDARD & SPECIFICATIONS**

Design Standard	API 6D, ASME B16.34
Test Standard	API 6D, API 598
End Connection	ASME B16.5, ASME B16.47, MS SP-44, ASME B31.8, ASME B16.25, etc.
Face-to-Face	API 6D, ASME B16.10
Fire Test	API 6FA, API 607
Anti-Corrosion, Acid-Resisting*	NACE MR0103, NACE MR0175, ISO 15156

<sup>\*</sup>Optional, available upon request.

### CHV provides high-performance products with its own patented technologies.



Self-relieving seats are supplied as a standard feature.

is assured from zero differential pressure to

the valve's maximum rated pressure.

Double piston or combination seats (self-relieving/ upstream, double piston/downstream) can be supplied on request.

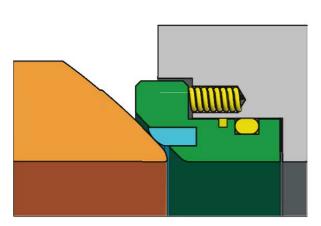
on request.

FEATURE	SPLIT	FULLY WELDED	TOP ENTRY
Trunnion Mounted	Standard	Standard	Standard
Independent Stem & Ball	Standard	Standard	Standard
Independent Floating Seats	Standard	Standard	Standard
Primary Metal Seat - Secondary Soft Seat	Standard	Standard	Standard
Primary Soft Seat - Secondary Metal Seat	On Request	On Request	On Request
Metal to Metal Seat	On Request	On Request	On Request
Self Relieving Seats	Standard	Standard	Standard
Single Piston Seat Effect	Standard	Standard	Standard
Double Piston Seat Effect	On Request	On Request	On Request
Combination (Self Relieving/Double Piston) Seats	On Request	On Request	On Request
API 6D Design and Construction	Standard	Standard	Standard
Face to Face Dimensions to API 6D and ASME B16.10	Standard	Standard	Standard
Fire Safe Design to API 6FA- API 607	Standard	Standard	Standard
Full, Reduced or Venturi Port	As Required	As Required	As Required
Flanged Ends - Welded Ends - Hub Ends	As Required	As Required	As Required
Transition Pups for Welded Ends Valves	On Request	On Request	On Request
Antistatic	Standard	Standard	Standard
Anti-Blowout Stem	Standard	Standard	Standard
Double Block and Bleed	Standard	Standard	Standard
Possibility to Check Seat Integrity In Line with Ball in Open or Closed Position	Standard	Standard	Standard
Double Body Seals	Standard	N/A	Standard
Triple Stem Seals	Standard	Standard	Standard
Drain Plug	Standard	Standard	Standard
Drain Valve	On Request	On Request	On Request
Vent Valve (on 6" & larger)	Standard	Standard	Standard
Emergency Sealant Injection on Stem and Seats From Valve Chamber(on 4" & Smaller)	Standard	Standard	Standard
Emergency Sealant Injection on Stem (on 6" & larger)	Standard	Standard	Standard
Emergency Sealant Injection on Seats (on 6" & larger)	Standard	Standard	Standard
Seat Pocket Overlay	On Request	On Request	On Request
Seals Area Overlay	On Request	On Request	On Request
Wetted Parts Overlay	On Request	On Request	On Request
Body Internal Lining	On Request	N/A	On Request
Extended Stem for Underground Installation	As Required	As Required	As Required
Extended Bonnet for Low or High Temperature	As Required	N/A	As Required
Locking Device	On Request	On Request	On Request
Lifting Lugs	S	t <mark>anda</mark> rd on 6" and La	rger
S <mark>upporting</mark> Feet	S	t <mark>anda</mark> rd on 6" and La	rger
M <mark>anual or Motorized Ope</mark> ration	As Required	As Required	As <b>Requ</b> ired
In-line Maint <mark>enance</mark>	N/A	N/A	Yes
On site Main <mark>tenance</mark>	Yes	N/A	Yes

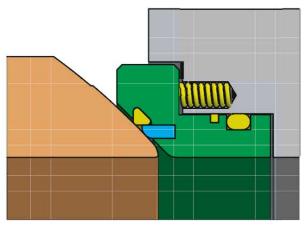
Note: Other features are available on request.

#### **SOFT-SEATED VALVES**

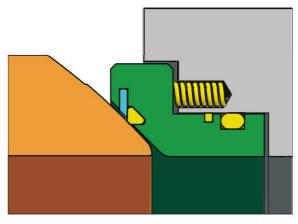
In valves designed for standard service, a resilient material is inserted into the metal seat holder to provide a soft seating action in addition to the metal to metal seating between the ball and the seat rings.



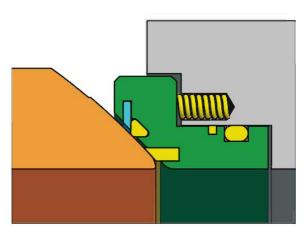
All sizes and pressure class



NPS 4 ASME Class 150-1500



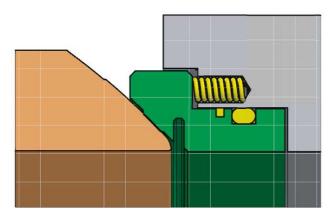
NPS 6-16 ASME Class150-600



NPS 18 and larger ASME Class 150–600 NPS 6 and larger ASME Class 900

#### **METAL-SEATED VALVES**

Valves designed for abrasive service or for operation in temperatures that prohibit the use of a resilient material have seating action provided by the metal to metal contact between the ball and the seat rings. Both the seat surface and the ball surface will be hardened by overlay, supersonic spray, and flame spray, etc., according to customer's requirements. The treatment will make a hardness difference between the two surfaces, to protect the ball in switching process.





#### VALVE POSITION INDICATOR-

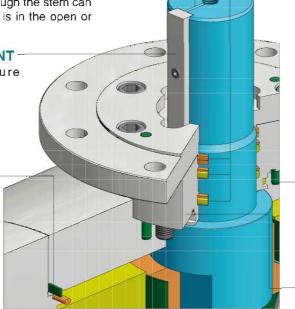
The stem's slotted direction is the same with the ball's bore direction, through the stem can clearly vision the ball which is in the open or closed position.

#### **BALL SEAT ALIGNMENT**

Mechanical stops ensure control over ball rotation.

#### **BODY SEALING** -

The double sealing action of O-rings and graphite gaskets in all the static joints of the body components, ensures zero leakage and the fire safe feature.



#### STEM SEALING

Two O-rings and one graphite gasket ensure the stem seal. The graphite gasket can be replaced while the valve is under pressure and with the ball in any position, by removing the adaptor plate, after having released any pressure that may exist between the upper O-ring and the graphite gasket, through the grease injection fitting hole.

The O-rings can be replaced with the valve in fully open or fully closed position by removing the stem cover after having released all the pressure in the body cavity.

#### **GLAND SEALING**

The double sealing action of O-rings and graphite gaskets in all the static joints of the body components, ensures zero leakage and the fire safe feature.

#### ANTI-BLOWOUT STEM

Stem is retained by the stem cover. Other designs available on request.

#### **EXTENDED STEM**

Valves installed underground or in remote locations can be operated with an optional extended stem.

All the drain, vent and emergency sealant connections can be operated using extended connecting pipes firmly attached to the stem protective cover.

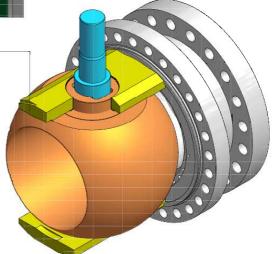


#### **EMERGENCY SEALANT INJECTION**

Each valve is supplied c/w emergency sealant injection feature located between the upper O-rings and the graphite gasket. And each of the injection valve will install with check valve. Emergency sealant injection feature on seats is available on request only, for 6" full port and larger. Emergency grease injection features are not available on low and high temperature valves.

#### **Trunnion Ball Valve**

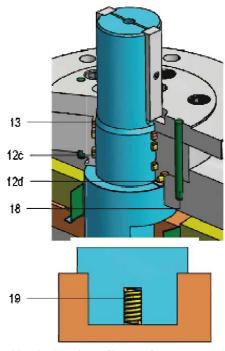
The balls of 6" and above trunnion mounted ball valves are innovatively mounted to the body by two trunnion plates. The fitting accuracy is greatly improved. Furthermore, the body will bear the axial load from the ball, to realize the pure torque operation of the stem, and hereby avoid the uneven wear on the stem seal.

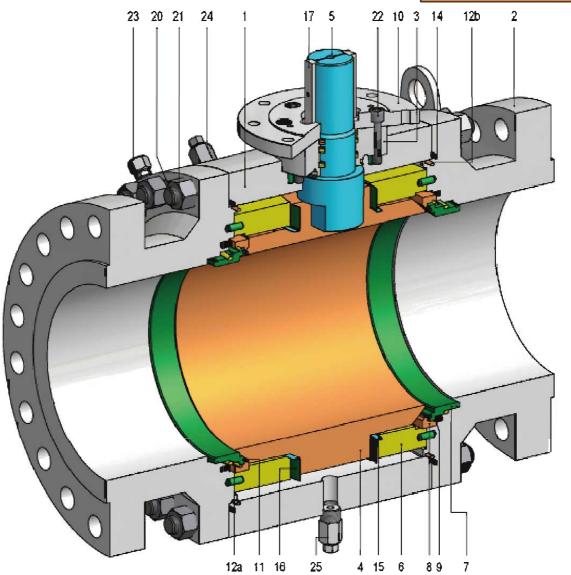


## **T10 SERIES PARTS LIST**

FORGE	D STEEL SPLIT-B	ODY PAR	TS LIST(6" & LARGER)
-1	Body	12d*	O-ring
2	End Cap	13*	Rectangular Packing
3	Gland	14*	Spiral Wound Gasket
4	Ball	15	Thrust Bearing
5	Stem	16	Sliding Bearing
6	Trunnion Plate	17	Key
7	Seat	18	Pin
8	Outer Seat Ring	19	Anti-static Device
9	Seat Lock Ring	20	Stud
10	Adapter Plate	21	Hexagon Nut
11	Seat Insert	22	Head Bolt
12a*	O-ring	23	Grease Injection Valve
12b*	O-ring	24	Vent Valve
12c*	O-ring	25	Drain Valve

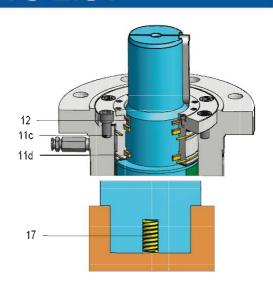
<sup>\*</sup> Recommended spare parts.



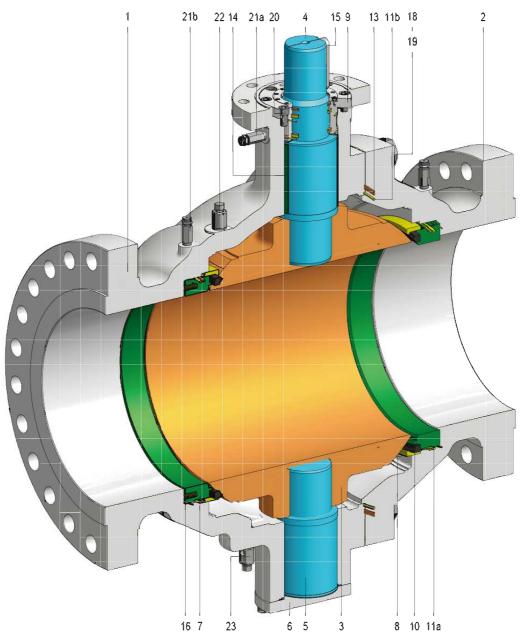


# **T11 SERIES PARTS LIST**

CAST	SPLIT PARTS LIST		
1	Body	12*	Rectangular Packing
2	End Cap	13*	Spiral Wound Gasket
3	Ball	14	Sliding Bearing
4	Stem	15	Key
5	Trunnion	16	Coil Spring
6	Lower Cover	17	Anti-static Device
7	Seat	18	Stud
8	Outer Seat Ring	19	Hexagon Nut
9	Gland	20	Head Bolt
10	Seat Insert	21a	Grease Injection Valve
11a*	O-ring	21b	Grease Injection Valve
11b*	O-ring	22	Vent Valve
11c*	O-ring	23	Drain Valve
11d*	O-ring		

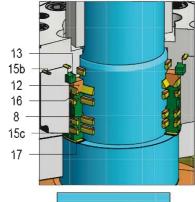


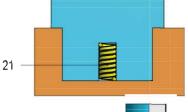
<sup>\*</sup> Recommended spare parts.

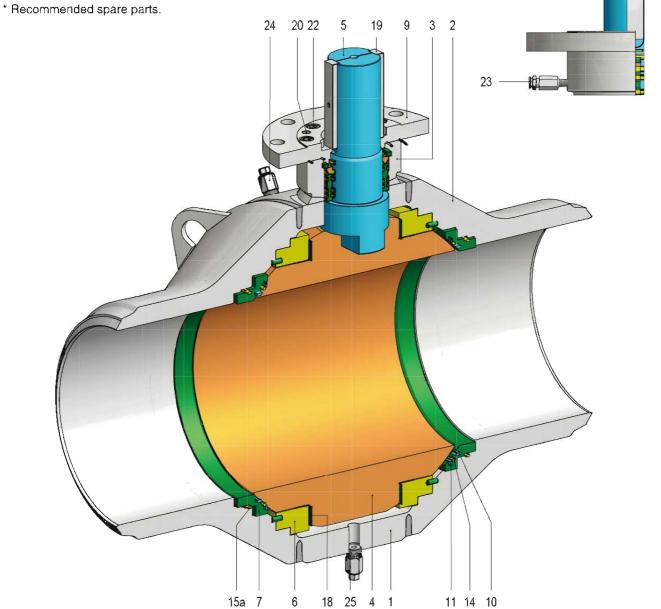


## **T20 SERIES PARTS LIST**

FORGE	DFULLY WELDED	PARTS L	IST(6" & LARGER)
1	Body	15a	O-ring
2	End Cap	15b*	O-ring
3	Gland	15c*	O-ring
4	Ball	16*	Triangle Packing
5	Stem	17	Thrust Bearing
6	Trunnion Plate	18	Sliding Bearing
7	Seat	19	Key
8	Sleeve	20	Pin
9	Adapter Plate	21	Anti-static Device
10	Scraper	22	Head Bolt
11	Seat Lock Ring	23	Grease Injection Valve
12	V-Type Packing Ring	24	Vent Valve
13	Four Piece Ring	25	Drain Valve
14	Seat Insert		



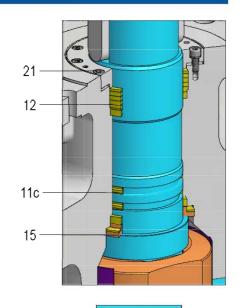


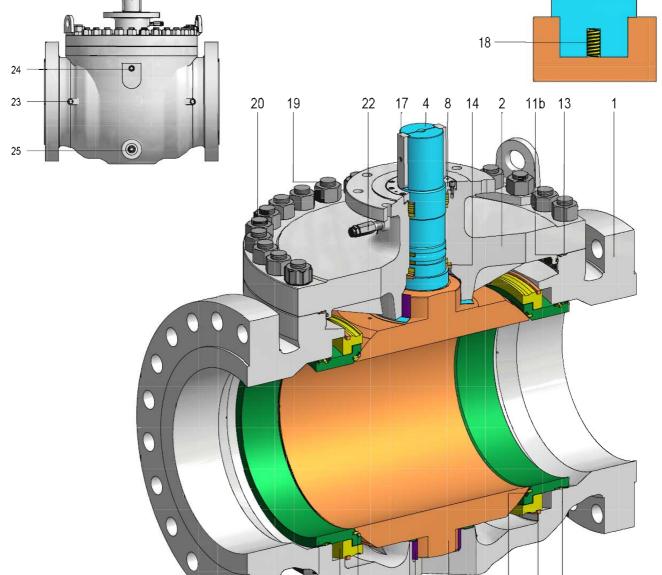


## **T70 SERIES PARTS LIST**

1	Body	13*	Spiral Wound Gasket
2	Bonnet	14	Thrust Bearing
3	Ball	15	Thrust Washer
4	Stem	16	Sliding Bearing
5	Seat	17	Key
6	Spring Retainer	18	Anti-static Device
7	Seat Lock Ring	19	Stud
8	Packing Ring	20	Hexagon Nut
9	Scraper	21	Head Bolt
10	Seat Insert	22	Grease Injection Valve
11a*	O-ring	23	Grease Injection Valve
11b*	O-ring	24	Vent Valve
11c*	O-ring	25	Drain Valve
12*	Rectangular Packing		

<sup>\*</sup> Recommended spare parts.





6 9

16

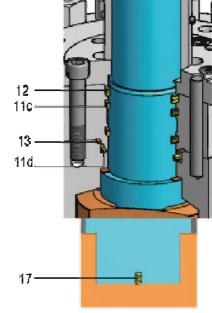
3

7 11a

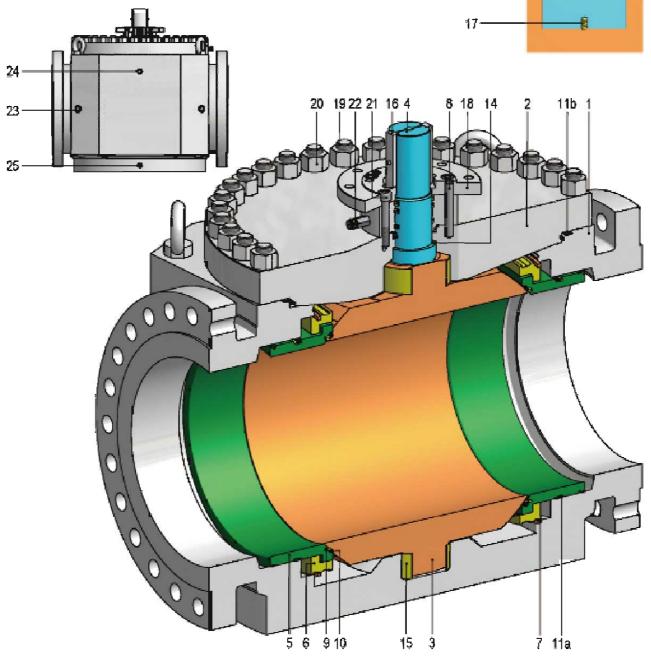
10

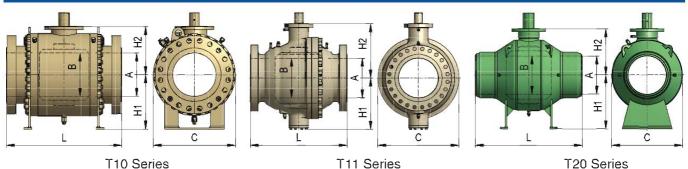
## **T71 SERIES PARTS LIST**

FORGE	ED TOP ENTRY PARTS	SLIST	
1	Body	12*	Rectangular Packing
2	Bonnet	13*	Spiral Wound Gasket
3	Ball	14	Thrust Bearing
4	Stem	15	Sliding Bearing
5	Seat	16	Key
6	Spring Retainer	17	Anti-static Device
7	Seat Lock Ring	18	Adapter Plate
8	Pin	19	Stud
9	Scraper	20	Hexagon Nut
10	Seat Insert	21	Head Bolt
11a*	O-ring	22	Grease Injection Valve
11b*	O-ring	23	Grease Injection Valve
11c*	O-ring	24	Vent Valve
11d*	O-ring	25	Drain Valve









#### T11 Series

T20 Series

#### ASME CLASS 150 FULL BORE

			150 FULL BORE T10 Series T11 Series												T00 C							
	LTYPE	5			r10 :	Series					T11	Series		T20 Series								
Size NPS/DN	A	В	L-RF	L-BW	H1	H2	С	Weight*	L-RF	L-BW	H1	H2	С	Weight*	L-RF	L-BW	H1	H2	С	Weight lb/kg		
1-1/2	1.5	1.5	6.5	7.48	3.39	2.99	5.63	20	6.5	7.48	2.89	2.99	5.28	20	6.5	7.48	2.40	2.56	4.80	18		
40	38	38	165	190	86	76	143	9	165	190	73.5	76	134	9	165	190	61	65	122	8		
2	1.94	1.94	7	8.5	3.82	3.31	6.22	26	7	8.5	3.92	3.31	6.30	26	7	8.5	4.06	2.66	6.02	29		
50	49	49	178	216	97	84	158	12	178	216	99.5	84	160	12	178	216	103	67.5	153	13		
3	2.94	2.94	8	11.13	4.09	4.41	7.83	65	8	11.13	4.09	4.86	7.72	55	8	11.13	3.68	3.43	7.36	56		
80	74	74	203	283	104	112	199	30	203	283	104	123.5	196	25	203	283	93.5	87	187	26		
4	3.94	3.94	9	12	5.12	5.43	9.37	76	9	12	5.22	5.94	8.86	71	9	12	6.10	5.04	8.43	67		
100	100	100	229	305	130	138	238	34	229	305	132.5	151	225	32	229	305	155	128	214	30		
6	5.94	5.94	15.5	18	10.16	7.95	12.01	315	15.5	18	8.50	8.46	13.46	115	15.5	18	10.00	9.27	12.13	403		
150	150	150	394	457	258	202	305	143	394	457	216	215	342	52	394	457	254	235.5	308	183		
8	7.94	7.94	18	20.5	12.07	9.82	16.30	579	18	20.5	10.79	10.81	16.30	227	18	20.5	12.26	10.87	14.65	425		
200	201	201	457	521	306.5	249.5	414	263	457	521	274	274.5	414	103	457	521	311.5	276	372	193		
10	9.94	9.94	21	22	13.76	11.36	18.78	888	21	22	13.09	14.31	20	601	21	22	14.17	12.42	17.80	571		
250	252	252	533	559	349.5	288.5	477	403	533	559	332.5	363.5	508	273	533	559	360	315.5	452	259		
12	11.94	11.94	24	25	15.33	13.41	21.85	1305	24	25	14.67	15.89	23.23	897	24	25	16.54	14.31	20.75	886		
300	303	303	610	635	389.5	340.5	555	592	610	635	372.5	403.5	590	407	610	635	420	363.5	527	402		
14	13.19	13.19	27	30	16.06	14.23	23.50	2253	27	30	15.87	17.19	25	1129	27	30	18.11	15.20	22.44	1347		
350	334	334	686	762	408	361.5	597	1022	686	762	403	436.5	635	512	686	762	460	386	570	611		
16	15.19	15.19	30	33	18.03	16.00	27.09	3408	30	33	17.60	18.54	28.94	1664	30	33	18.90	17.01	25.63	2037		
400	385	385	762	838	458	406.5	688	1545	762	839	447	471	735	755	762	838	480	432	651	924		
18	17.19	17.19	34	36	20.00	17.54	30.04	4090	34	36	20.35	21.10	32.40	2127	34	36	19.61	18.68	28.90	2837		
450	436	436	864	914	508	445.5	763	1855	864	914	517	536	823	965	864	914	498	474.5	734	1287		
20	19.19	19.19	36	39	21.18	18.92	32.91	4635	36	39	21.97	23.58	35.63	2607	36	39	22.05	20.73	32.01	3568		
500	487	487	914	991	538	480.5	836	2103	914	991	558	599	905	1182	914	991	560	526.5	813	1618		
22	21.19	21.19	40	43	23.03	20.71	36.14	5144	40	(D)	25.00	25.67	39.06	3554	00	(I)	<b>①</b>	(D)	00	(II)		
550	538	538	1016	1092	585	526	918	2334	1016	33.	635	652	992	1612	- 55				28			
24	23.19	23.19	42	45	24.78	22.72	39.33	7051	42	45	25.43	27.24	40.75	4524	42	45	25.35	24.17	38.19	6057		
800	589	589	1067	1143	629.5	577	999	3199	1067	1143	646	692	1035	2052	1067	1143	644	614	970	2748		
28	26.94	26.94	49	53	28.54	25.93	45.35	10877	49	53	29.65	31.20	45.47	6247	49	53	30.71	27.48	44.33	8749		
700	684	684	1245	1346	725	658.5	1152	4934	1245	1346	753	792.5	1155	2834	1245	1346	780	698	1128	3969		
30	28.94	28.94	51	55	29.57	27.48	48.62	12302	51	55	30.16	31.61	48.62	8611	51	55	31.61	29.65	47.44	10498		
750	735	735	1295	1397	751	698	1235	5580	1295	1397	766	803	1235	3906	1295	1397	803	753	1205	4762		
32	30.69	30.69	54	60	30.75	29.19	52.01	16041	54	60	33.70	34.69	52.56	11228	54	60	32.48	30.53	50.28	12265		
800	779	779	1372	1524	781	741.5	1321	7276	1372	1524	856	881	1335	5093	1372	1524	825	775.5	1277	5564		
36	34.44	34.44	60	68	33.86	31.57	57.48	20759	60	68	34.53	36.30	58.07	14531	60	68	34.88	33.46	55.51	16850		
900	874	874	1524	1727	860	802	1460	9416	1524	1727	877	922	1475	6591	1524	1727	886	850	1410	7643		
40	38.44	38.44	<b>①</b>	00	(1)	(1)	(D)	00	00	(0)	00	(D)	(T)	(D)	00	0	(0)	(D)	(10)	0		
1000	976	976			- Magazi										- Age-							
48	45.94	45.94	(0)	(D)	00	(10)	(T)	00	(10)	(0)	(0)	(D)	(3)	(T)	(D)	(1)	(1)	(D)	(D)	(D)		
1200	1166	1166	10000	7.5960	2,546	II Sec.	10000		2545	1946	1996	98	1946	Selen.	(980)	1,5546(1)	1996	1986	7 (846)	(3948)		
56	53.56	53.56	(D)	(0)	(30)	(D)	(1)	(0)	(D)	(0)	(0)	(D)	(0)	(T)	(T)	(D)	(D)	(D)	(10)	(D)		
1400	1360	1360			IA SAFE	1982	3000	11.75976	346	1966	1000		-		200	-60	17.00	-				

### **ASME CLASS 150 REDUCED BORE**

ALL	TYPES	3			T10 5	Series					T115	Series			T20 Series							
Size NPS/DN	А	В	L-RF	L-BW	H1	H2	С	Weight*	L-RF	L-BW	Hi	H2	С	Weight*	L-RF	L-BW	Hi	H2	С	Weight lb/kg		
$2 \times 1 - 1/2$	1.94	1.5	7	8.5	3.39	2.99	5.63	26	7	8.5	2.89	2.99	5.28	24	7	8.5	2.40	2.56	4.80	25		
50 × 40	49	38	178	216	86	76	143	12	178	216	73.5	76	134	11	178	216	61	65	122	12		
3×2	2.94	1.94	8	11.13	3.82	3.31	6.22	58	8	11.13	3.92	3.31	6.30	46	8	11.13	4.06	2.66	6.02	36		
80 × 50	74	49	203	283	97	84	158	26.3	203	283	99.5	84	160	21	203	283	103	67.5	153	16		
4×3	3.94	2.94	9	12	4.09	4.41	7.83	105	9	12	4.09	4.86	7.72	68	9	12	3.68	3.43	7.36	67		
100 × 80	100	74	229	305	104	112	199	47.5	229	305	104	123,5	196	31	229	305	93.5	87	187	31		
6×4	5.94	3.94	15.5	18	5.12	5.43	9.37	195	15.5	18	5.22	5.94	8.86	115	15.5	18	6.10	5.04	8.43	133		
150 × 100	150	100	394	457	130	138	238	88.3	394	457	132.5	151	225	52	394	457	155	128	214	60		
8×6	7.94	5.94	18	20.5	10.16	7.95	12.01	540	18	20.5	8.50	8.46	13,46	183	18	20.5	10.00	9.27	12.13	419		
200 × 150	201	150	457	521	258	202	305	245	457	521	216	215	342	83	457	521	254	235.5	308	190		
10×8	9.94	7.94	21	22	12.07	9.82	16.30	767	21	22	10.79	10.81	16.30	403	21	22	12.26	10.87	14.65	469		
$250 \times 200$	252	201	533	559	306.5	249.5	414	348	533	559	274	274.5	414	183	533	559	311.5	276	372	213		
12 × 10	11.94	9.94	24	25	13.76	11.36	18.78	1428	24	25	13.09	14.31	20.00	623	24	25	14.17	12.42	17.80	672		
$300 \times 250$	303	252	610	635	349.5	288.5	477	648	610	635	332.5	363.5	508	283	610	635	360	315.5	452	305		
14 × 12	13.19	11.94	27	30	15.33	13.41	21.85	1878	27	30	14.67	15.89	23.23	952	27	30	16.54	14.31	20.75	1025		
$350 \times 300$	334	303	686	762	389.5	340.5	555	852	686	762	372.5	403.5	590	432	686	762	420	363.5	527	465		
16×14	15.19	13.19	30	33	16.06	14.23	23.50	2562	30	33	15.87	17.19	25.00	1217	30	33	18.11	15.20	22.44	1565		
$400 \times 350$	385	334	762	838	408	361.5	597	1162	762	838	403	436.5	635	552	762	838	460	386	570	710		
20 × 16	19.19	15.19	36	39	18.03	16.00	27.09	3869	36	39	17.60	18.54	28.94	2028	36	39	18.90	17.01	25.63	2524		
500 × 400	487	385	914	991	458	406.5	688	1755	914	991	447	471	735	920	914	991	480	432	651	1145		
20 x 18	19.19	17.19	36	39	20.00	17.54	30.04	4574	36	39	20.35	21.10	32.40	2171	36	39	19.61	18.68	28.90	3084		
500 × 450	497	436	914	991	508	445.5	763	2075	914	991	517	536	823	985	914	991	498	474.5	734	1399		
$24 \times 20$	23.19	19.19	42	45	21.18	18.92	32.91	5186	42	45	21.97	23.58	35.63	3422	42	45	22.05	20.73	32.01	4315		
$600 \times 500$	589	487	1067	1143	538	480.5	836	2352	1067	1143	558	599	905	1552	1067	1143	560	526.5	813	1957		
$28 \times 24$	26.94	23.19	49	53	24.78	22.72	39.33	7735	49	53	25.43	27.24	40.75	5185	49	53	25.35	24.17	38.19	6974		
$700 \times 600$	684	589	1245	1346	629.5	577	999	3509	1245	1346	646	692	1035	2352	1245	1346	644	614	970	3164		
32 × 28	30.69	26.94	54	60	28.54	25.93	45.35	12346	54	60	29.65	31.20	45.47	7614	54	60	30.71	27.48	44.33	12484		
800 × 700	779	684	1372	1524	725	658.5	1152	5600	1372	1524	753	792.5	1155	3454	1372	1524	780	698	1126	5663		
36 × 30	34.44	28.94	60	68	29.57	27.48	48.62	14892	60	68	30.16	31.61	48.62	10423	60	68	31.61	29.65	47.44	14983		
$900 \times 750$	874	735	1524	1727	751	698	1235	6755	1524	1727	766	803	1235	4728	1524	1727	803	753	1205	6796		
36 × 32	34.44	30.69	60	68	30.75	29.19	52.01	19249	60	68	33.70	34.69	52.56	13472	60	68	32.48	30.53	50.28	16843		
900 × 800	874	779	1524	1727	781	741.5	1321	8731	1524	1727	856	881	1335	6111	1524	1727	825	775.5	1277	7640		
40 × 36	38.44	34.44	(D)	(P)	(1)	(10)	(ID)	(T)	ത	(T)	(10)	(T)	an a	(D)	(10)	(D)	(ID)	(10)	(45)	(D)		
1000 × 900	976	874	9			-	100	10.1.7	40	-	-		9	100	40	100	5-8-7	342		-		

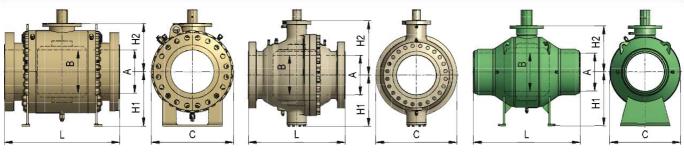
<sup>&#</sup>x27;Weight figures are relevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.





T10 Series

#### T11 Series

T20 Series

#### ASME CLASS 300 FULL BORE

ALL	TYPE	8			T10	Series					Tii:	Series			T20 Series						
Size		1100	y vos	TO 1200 VIII	757	44,000	f 1	Weight*			15.00	200	1	Weight*	Weight*						
NPS/DN	A	В	L-RF	L-BW	H1	H2	С	lb/kg	L-RF	L-BW	H1	H2	C	lb/kg	L-RF	L-BW	H1	H2	С	lb/kg	
1-1/2	1.5	15	7.48	7.48	3.39	2.99	5.63	25	7.48	7 48	2.89	2.99	5.28	24	7.48	7 48	2.40	2.56	4.80	20	
40	38	38	190	190	86	76	143	12	190	190	735	76	134	11	190	190	61	65	122	9	
2	1.94	1 94	8.5	8.5	3.82	3.31	6.22	27	8.5	8.5	3.92	3 31	6.30	24	8.5	8.5	3.01	2.66	6.02	34	
50	49	49	216	216	97	84	158	12	216	216	99.5	84	160	11	216	216	76.5	67.5	153	15	
3	2.94	2 94	11.13	11.13	4.09	4.41	7.83	65	11 13	11.13	4.39	4.07	7.72	55	11 13	11.13	3.68	3.43	7.36	69	
80	74	74	283	283	104	112	199	30	283	283	111.5	103.5	196	25	283	283	93.5	87	187	32	
4	3.94	3 94	12	12	5.12	5.43	9.37	144	12	12	5.22	5 94	8.86	115	12	12	6.10	5.04	8.43	153	
100	100	100	305	305	130	138	238	65	305	305	132.5	151	225	52	305	305	155	128	214	69	
6	5.94	5 94	15.88	18	10.16	7.95	12 01	309	15 98	18	8.50	8 46	13 46	209	15 88	18	10 00	9.27	12 13	428	
150	150	150	403	457	258	202	305	140	403	457	216	215	342	95	403	457	254	235.5	308	194	
8	7.94	7 94	19.75	20.5	11.89	9.82	16 30	822	10.75	20.5	10 79	10.81	16 54	337	19 /5	20.5	12 26	10 87	14 65	449	
200	201	201	502	521	302	249.5	414	373	502	521	274	274 5	420	153	502	521	311.5	276	372	204	
10	9.94	9 94	22.38	22	13.76	11 36	18 98	954	22 38	22	13 09	14.31	20 00	745	22 38	22	14 17	12 42	17 80	619	
250	252	252	568	559	349.5	288.5	482	433	568	559	332.5	363.5	508	338	568	559	360	315.5	452	281	
12	11.94	11 94	25.5	25	15.33	13.41	21 85	1459	25.5	25	14 67	15.89	23.23	1096	25.5	25	16 54	14 31	20 75	935	
300	303	303	648	635	389.5	340.5	555	662	648	635	372.5	4035	590	497	648	635	420	363.5	527	424	
14	13.19	13.19	30	30	16.06	14.23	23.50	2474	30	30	15.87	17.19	25.00	1548	30	30	18.11	15.20	22.44	1420	
350	334	334	762	762	408	361.5	597	1122	762	762	403	436.5	635	702	762	762	460	386	570	644	
16	15.19	15.19	33	33	18.03	16.00	27.09	3406	33	33	17.60	18.54	28.94	2149	33	33	18.90	17.01	25.63	2156	
400	385	385	838	838	458	406.5	688	1545	838	838	447	471	735	975	838	838	480	432	651	979	
18	17.19	17.19	36	36	20.00	17.54	30.04	5213	36	36	20.35	21.10	32.40	2700	36	36	19.61	18.68	28.90	2982	
450	436	436	914	914	508	445.5	763	2365	914	914	517	536	823	1225	914	914	498	474.5	734	1353	
20	19.19	19.19	39	39	21.18	18.92	33.35	5539	39	39	21.97	23.58	35.63	3180	39	39	22.05	20.73	32.01	3762	
500	487	487	991	991	538	480.5	847	2512	991	991	558	599	905	1442	991	991	560	526.5	813	1706	
22	21.19	21.19	43	43	23.03	20.71	36.14	5729	43	43	25.00	31.50	39.06	4193	43	43	7000	770	(D)	00	
550	538	538	1092	1092	565	526	918	2599	1092	1092	635	800	992	1902	1092	1092	(D)	(I)	(I)	G,	
24	23.19	23.19	45	45	24.78	22.72	39.33	10752	45	45	25.43	27.24	40.75	5406	45	45	25.35	24.17	38.19	6294	
600	589	589	1143	1143	629.5	577	999	4877	1143	1143	646	692	1035	2452	1143	1143	644	614	970	2855	
28	26.94	26.94	53	53	28.54	25.93	45.83	10810	53	53	29.65	31.20	45.47	8010	53	53	30.71	27.48	44.33	9234	
700	684	684	1346	1346	725	658.5	1164	4904	1346	1346	753	792.5	1155	3634	1346	1346	780	698	1126	4189	
30	28.94	28.94	55	55	29.57	27.48	48.62	15399	55	55	30.16	31.61	48.62	10781	55	55	31.61	29.65	47.44	11083	
750	735	735	1397	1397	751	698	1235	6985	1397	1397	766	803	1235	4890	1397	1397	803	753	1205	5027	
32	30.69	30.69	60	60	32.68	29.19	52.01	18711	60	60	33.70	34.69	52.56	13098	60	60	32.48	30.53	50.28	12920	
800	779	779	1524	1524	830	741.5	1321	8487	1524	1524	856	881	1335	5941	1524	1524	825	775.5	1277	5861	
36	34.44	34.44	68	68	33.86	31.57	57.48	23810	68	68	34.53	36.30	58.07	16667	68	68	34.88	33.46	55.51	17771	
900	874	874	1727	1727	860	802	1460	10800	1727	1727	877	922	1475	7560	1727	1727	886	850	1410	8061	
40	38.44	38.44	125	190	37.80	35.89	64.37	32494	1000	- (2)	1200	CTS	1995	2004	200	70.59	36.10	36.57	61.50	24707	
1000	976	976	(II)	O.	960	911.5	1635	14739	(D)	(D)	1	1	(I)	D.	00	1793	917	929	1562	11207	
48	45.94	45.94	102%	1000	200	1,000	27274	1999	2000	1000	0.0000	200	10000	NAME OF THE PARTY.	34457	-00	0.000	1/200	0.000	1997	
1200	1166	1166	D	00	Œ	(1)	0	€	1	00	1	00	10	(I)	(D)	œ	(D)	(D)	D	(D)	
56	53.56	53.56	VTV	1.00					4				100	CTV.	-			rev.	777	(1979)	
1400	1360	1360	D	0	10	0	0	(D)	(D)	<b>D</b>	1	00	Œ	(D)	00	<b>①</b>	1	(D)	D	1	

### **ASME CLASS 300 REDUCED BORE**

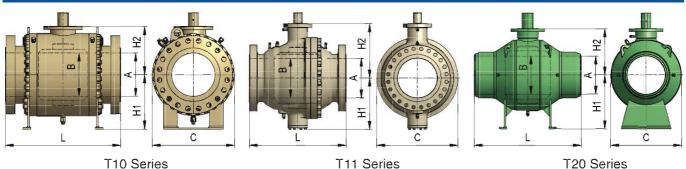
ALL	TYPES				T10 5	Series	25 15				T11	Series					T20	Series		
Size NPS/DN	А	В	L-RF	L-BW	H1	H2	С	Weight*	L-RF	L-BW	H1	H2	С	Weight*	L-RF	L-BW	Hi	H2	С	Weight*
2×1-1/2	1.94	1.5	8.5	8.5	3.39	2.99	5.63	30	8.5	8.5	2.89	2.99	5.28	24	8.5	8.5	2.40	2.56	4.80	25
50 × 40	49	38	216	216	86	76	143	14	216	216	73.5	76	134	11	216	216	61	65	122	12
3×2	2 94	1 94	11 13	11.13	3.82	3.31	6.22	67	11.13	11.13	3.92	3.31	6.30	46	11.13	11.13	3.01	2.66	6.02	45
80 × 50	74	49	283	283	97	84	158	30	283	283	99.5	84	160	21	k	283	76.5	67.5	153	20
4×3	3.94	2.94	12	12	4.09	4.41	7.83	105	12	12	4.39	4.07	7.72	79	12	12	3.68	3.43	7.38	98
100 × 80	100	74	305	305	104	112	199	48	305	305	111.5	103.5	196	36	305	305	93.5	87	187	45
6×4	5.94	3.94	15.88	18	5.12	5.43	9.37	219	15.88	18	5.22	5.94	8.86	154	15.88	18	6.10	5.04	8.43	201
150 × 100	150	100	403	457	130	138	238	99	403	457	132.5	151	225	70	403	457	155	128	214	91
8×6	7.94	5.94	19.75	20.5	10.16	7.95	12.01	595	19.75	20.5	8.50	8.46	13.46	287	19.75	20.5	10.00	9.27	12.13	443
200 × 150	201	150	502	521	258	202	305	270	502	521	216	215	342	130	502	521	254	235.5	308	201
10×8	9.94	7.94	22.38	22	11.89	9.82	16.30	800	22.38	22	10.79	10.81	16.54	568	22.38	22	12.26	10.87	14.65	500
250 × 200	252	201	568	559	302	249.5	414	363	568	559	274	274.5	420	258	568	559	311.5	276	372	227
12 × 10	11.94	9.94	25.5	25	13.76	11.36	18.98	1527	25.5	25	13.09	14.31	20.00	778	25.5	25	14.17	12.42	17.80	720
300 × 250	303	252	648	635	349.5	288.5	482	693	648	635	332.5	363.5	508	353	648	635	360	315.5	452	327
14 × 12	13.19	11.94	30	30	15.33	13.41	21.85	1911	30	30	14.67	15.89	23.23	1195	30	30	16.54	14.31	20.75	1080
350 × 300	334	303	762	762	389.5	340.5	555	867	762	762	372.5	403.5	590	542	762	762	420	363.5	527	490
16×14	15.19	13.19	33	33	16.06	14.23	23.50	2892	33	33	15.87	17.19	25.00	1636	33	33	18.11	15.20	22.44	1653
400 × 350	385	334	838	838	408	361.5	597	1312	838	838	403	436.5	635	742	838	838	460	386	570	750
20 × 16	19.19	15.19	36	36	18.03	16.00	27.09	4310	36	36	17.60	18.54	28.94	2802	36	36	18.90	17.01	25.63	2667
500 × 400	487	385	914	914	458	406.5	688	1955	914	914	447	471	735	1271	914	914	480	432	651	1210
20 × 18	19.19	17.19	39	39	20.00	17.54	30.04	5511	39	39	20.35	21.10	32.40	2877	39	39	19.61	18.68	28.90	3245
500 × 450	487	436	991	991	508	445.5	763	2500	991	991	517	536	823	1305	991	991	498	474.5	734	1472
24 × 20	23.19	19.19	45	45	21.18	18.92	33.35	6288	45	45	21.97	23.58	35.63	4084	45	45	22.05	20.73	32.01	4556
600 × 500	589	487	1143	1143	538	480.5	847	2852	1143	1143	558	599	905	1852	1143	1143	560	526.5	813	2066
28 × 24	26.94	23.19	53	53	24.78	22.72	39.33	9176	53	53	25.43	27.24	40.75	6508	53	53	25.35	24.17	38.19	7255
700 × 600	684	589	1346	1346	629.5	577	999	4162	1346	1346	646	692	1035	2952	1346	1346	644	614	970	3291
32 × 28	30.69	26.94	60	60	28.54	25.93	45.83	12562	60	60	29.65	31.20	45.47	8166	60	60	30.71	27.48	44.33	12181
800 × 700	779	684	1524	1524	725	658.5	1164	5698	1524	1524	753	792.5	1155	3704	1524	1524	780	698	1126	5525
36 × 30	34.44	28.94	88	68	29.57	27.48	48.62	16336	68	68	30.16	31.61	48.62	11435	68	68	31.61	29.65	47.44	14617
900 × 750	874	735	1727	1727	751	698	1235	7410	1727	1727	766	803	1235	5187	1727	1727	803	753	1205	6630
36 × 32	34.44	30.69	68	68	32.68	29.19	52.01	18093	68	68	33.70	34.69	52.56	12663	68	68	32.48	30.53	50.28	16702
900 × 800	874	779	1727	1727	830	741.5	1321	8207	1727	1727	856	881	1335	5744	1727	1727	825	775.5	1277	7576
40 × 36	38.44 976	34.44 874	00	(0)	(D)	(D)	∞	∞	⊕	(10)	(D)	0	(D)	⊕	(1)	00	(1)	∞	(D)	00
1000 × 900	976	8/4				10000														

Weight figures are relevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.



#### T11 Series

T20 Series

#### ASME CLASS 600 FULL BORE

ASIVIE		400	000	FUL	L D	UNE																	
ALL	TYPES	Š			1	10 Ser	ies						T11 Ser	ies						T20 Ser	ies		
Size NPS/DN	A	В	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*
1-1/2	1.5	1.5	9.49	9.49	9.49	3.41	3.98	6.14	40	9.49	9.49	9.49	3.41	3.98	5.31	29	9.49	9.49	9.49	3.27	2.42	5.51	24
40	38	38	241	241	241	86.5	101	156	18	241	241	241	86.5	101	135	13	241	241	241	83	61.5	140	11
2	1.94	1.94	11.5	115	11 63	378	372	6.30	69	115	115	11.63	4.15	4.72	5.98	43	11.5	11.5	11.63	3 23	4.29	5.04	39
50	49	49	292	292	295	96	94.5	160	32	292	292	295	105.5	120	152	20	292	292	295	82	109	128	18
3	2.94	2.94	14	14	14 13	488	4 82	7.87	85	14	14	14.13	5.59	6.46	8.86	95	14	14	14.13	4 45	6.08	6.89	106
80	74	74	356	356	359	124	122.5	200	39	356	356	359	142	164	225	43	356	356	359	113	154.5	175	48
4	3.94	3.94	17	17	17.13	7.28	6.87	9.76	298	17	17	17.13	7.09	7.42	10.63	143	17	17	17.13	7.09	7.17	9.41	198
100	100	100	432	432	435	185	174.5	248	135	432	432	435	180	188.5	270	65	432	432	435	180	182	239	90
6	5.94	5.94	22	22	22 13	10.43	8 35	12.95	558	22	22	22.13	9 80	10 35	14.65	425	22	22	22.13	10.16	9.70	12.56	522
150	150	150	559	559	562	265	212	329	253	559	559	562	249	263	372	193	559	559	562	258	246 5	319	237
8	7.94	7.94	26	26	26 13	12.40	10.39	16.06	1337	26	26	26.13	12.46	12.76	18.50	688	26	26	26.13	12.54	11.73	15.75	547
200	201	201	660	660	664	315	264	408	607	660	660	664	316.5	324	470	312	660	660	664	318.5	298	400	248
10	9.94	9.94	31	31	31 13	13 98	12.01	19.37	1425	31	31	31.13	14.65	14.74	20.67	1239	31	31	31.13	14.88	13.90	19.61	741
250	252	252	787	787	791	355	305	492	647	787	787	791	372	374.5	525	562	787	787	791	378	353	498	338
12	11.94	11.94	33	33	33 13	15.75	13.70	22.68	2083	33	33	33.13	15.49	16 67	24.02	1686	33	33	33.13	16.54	14.80	21.28	1139
300	303	303	838	838	841	400	348	576	945	838	838	841	393.5	423.5	610	765	838	838	841	420	376	540	517
14 350	13.19	13.19	35 889	35 889	35.13	16.54	14.63	24.92 833	3185 1445	35 889	35	35.13	17.52	18.07	25.67 652	2370	35	35	35.13	17.32	16.08	24.09	1746 792
16	15.19	15.19	39	39	892 39.13	19.09	371.5	28.27	4194	39	889	39.13	19.33	20.39	29.33	1075 3202	39	39	39.13	18.90	18.13	612 27.05	2466
400	385	385	991	991	994	485	416	718	1903	991	991	994	491	518	745	1452	991	991	994	480	460.5	687	1118
18	17.19	17.19	43	43	43.13	20.87	18.74	32.09	6214	43	43	43,13	22.62	23,88	33.82	4406	43	43	43,13	19.49	20.12	30.08	3608
450	436	436	1092	1092	1095	530	476	815	2819	1092	1092	1095	574.5	606.5	859	1999	1092	1092	1095	495	511	764	1637
20	19.19	19.19	47	47	47.25	22.64	20,43	35,28	6508	47	47	47.25	23.92	25.22	36.22	8220	47	47	47.25	21.89	21,85	33.46	4675
500	487	487	1194	1194	1200	575	519	396	2952	1194	1194	1200	607.5	640.5	920	3729	1194	1194	1200	556	555	850	2121
22	21.19	21,19	50.98	50.98	51.38	24.11	21.95	38.66	8338	50.98	50.98	51.38	24.84	26.77	39.06	5836	50.98	50.98	51.38	22.95	22.87	35.55	6173
550	538	538	1295	1295	1305	612.5	557.5	982	3782	1295	1295	1305	631	680	992	2647	1295	1295	1305	583	581	903	2800
24	23.19	23.19	55	55	55.38	25.89	23.96	42.17	9333	55	55	55.38	28.80	30.49	42.52	4483	55	55	55.38	27.17	25.35	39.96	7585
600	589	589	1397	1397	1407	657.5	608.5	1071	4234	1397	1397	1407	731.5	774.5	1080	2034	1397	1397	1407	690	644	1015	3441
28	26.94	26.94	61	61	61.5	28.86	26.99	48.43	17667	61	61	61.5	33.86	35.43	53.15	11758	61	61	61.5	30.71	28.70	46.93	11538
700	684	684	1549	1549	1562	733	685.5	1230	8014	1549	1549	1562	860	900	1350	5334	1549	1549	1562	780	729	1192	5234
30	28.94	28.94	65	65	65.5	30.91	28.74	51.18	19760	65	65	65.5	36.14	36.77	55.79	13832	65	65	65.5	31.89	30.47	49.88	13616
750	725	735	1651	1651	1664	785	730	1300	8963	1651	1651	1664	918	934	1417	6274	1651	1651	1664	810	774	1267	6176
32	30.69	30.69	70	70	70.63	37.01	31.00	56.10	23614	70	70	70.63	39.43	40.57	59.69	18499	70	70	70.63	33.86	32.03	52.52	15783
800	779	779	1778	1778	1794	940	787.5	1425	10711	1778	1778	1794	1001.5	1030.5	1516	8391	1778	1778	1794	860	813.5	1334	7159
36	34.44	34.44	82	82	82.63	39.37	35.20	61.97	31367	82	82	82.63	40.55	42.24	66.30	21958	82	82	82.63	36.22	35.28	58,19	21164
900	874	874	2083	2083	2099	1000	894	1574	14228	2083	2083	2099	1030	1073	1684	9960	2083	2083	2099	920	898	1478	9600
40	38.44	38.44	82.68	82.68	<b>①</b>	41.73	38.27	68.19	44463	0	0	00	0	<b>①</b>	00	(D)	0	70.59	00	37.80	38,50	64,65	29749
1000	976	976	2100	2100		1060	972	1732	20168	4	W.	•	1		-	w		1793	40	960	978	1642	13494
48	45.94	45.94	94.49	94.49	Œ	(D)	(D)	00	(I)	(II)	00	Œ	(1)	(T)	00	(D)	(D)	82	(D)	46.46	44.41	75.91	49053
1200	1166	1166	2400	2400	-		-	-				~		-			-	2100	4	1180	1128	1928	22250
56	53.56	53.56	0	00	0	0	<b>①</b>	00	00	(I)	(D)	(ID)	(D)	(D)	⊕	(D)	00	œ	(D)	1	00	00	(D)
1400	1360	1360		-			-			-	-	-				~~~	-	-	140		-01	-0.0	

### **ASME CLASS 600 REDUCED BORE**

ALL	TYPES					Γ10 Ser	ies						T11 Ser	ies						T20 Sei	ies		
Size NPS/DN	A	В	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	Н1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*
2 × 1-1/2	1.94	1.5	11.5	11.5	11.63	3.41	3,98	6.14	44	11.5	11.5	11.63	3.41	3.98	5.31	31	11.5	11.5	11.63	3.27	2.42	5.51	32
50 × 40	49	38	292	292	295	86.5	101	156	20	292	292	295	86.5	101	135	14	292	292	295	83	61.5	140	15
3×2	2,94	1.94	14	14	14.13	3.78	3.72	6.30	89	14	14	14.13	4.15	4.72	5.98	74	14	14	14.13	3.23	4.29	5.04	58
80 × 50	74	49	356	356	359	96	94.5	160	41	356	356	359	105.5	120	152	34	356	356	359	82	109	128	27
4×3	3.94	2.94	17	17	17.13	4.88	4.82	7.87	252	17	17	17.13	5.59	6.46	8.86	140	17	17	17.13	4.45	6.08	6.89	153
100 × 80	100	74	432	432	435	124	122.5	200	114	432	432	435	142	164	225	63	432	432	435	113	154.5	175	69
6×4	5 94	3.94	22	22	22.13	7 28	6 87	9.76	496	22	22	22.13	7.09	7.42	10.63	245	22	22	22.13	7.09	7.17	9.41	238
150 × 100	150	100	559	559	562	185	174.5	248	225	559	559	562	180	188.5	270	111	559	559	562	180	182	239	108
8×6	7 94	5.94	26	26	26.13	10.43	8 35	12 95	932	26	26	26.13	9.80	10.35	14.65	502	26	26	26.13	10.18	9.70	12 56	537
200 × 150	201	150	660	660	664	265	212	329	423	660	660	664	249	263	372	228	660	660	664	258	246.5	319	244
10×8	9.94	7.94	31	31	31.13	12.40	10.39	16.06	1636	31	31	31.13	12.46	12.76	18.50	886	31	31	31.13	12.54	11.73	15 75	604
250 × 200	252	201	787	787	791	315	264	408	742	787	787	791	316.5	324	470	402	787	787	791	318.5	298	400	274
12×10	11.94	9.94	33	33	33.13	13.98	12.01	19.37	2341	33	33	33,13	14.65	14.74	20.67	1371	33	33	33.13	14.88	13.90	19.61	871
300 × 250	303	252	838	838	841	355	305	492	1062	838	838	841	372	374.5	525	622	838	838	841	378	353	498	395
14 × 12	13.19	11.94	35	35	35.13	15.75	13.70	22.68	3957	35	35	35.13	15.49	16.67	24.02	2215	35	35	35.13	16.54	14.80	21.26	1322
350 × 300	334	303	889	889	892	400	348	576	1795	889	889	892	393.5	423.5	610	1005	889	889	892	420	376	540	600
16×14	15.19	13.19	39	39	39.13	16.54	14.63	24.92	4728	39	39	39.13	17.52	18.07	25.67	3053	39	39	39.13	17.32	16.06	24.09	1605
400 × 350	385	334	991	991	994	420	371.5	633	2145	991	991	994	445	459	652	1385	991	991	994	440	408	612	728
20 × 16	19.19	15.19	43	43	43.13	19.09	16.38	28.27	6068	43	43	43.13	19.65	20.39	29.33	4248	43	43	43.13	18.90	18.13	27.05	3224
500 × 400	487	385	1092	1092	1095	485	416	718	2752	1092	1092	1095	499	518	745	1927	1092	1092	1095	480	460.5	687	1462
20 × 18	19.19	17.19	47	47	47.25	20.87	18,74	32.09	6655	47	47	47.25	22,62	23.88	33.82	5067	47	47	47.25	19.49	20.12	30,08	3928
500 × 450	487	436	1194	1194	1200	530	476	815	3019	1194	1194	1200	574.5	606.5	859	2299	1194	1194	1200	495	511	764	1782
24 × 20	23.19	19.19	55	55	55.38	22.64	20.43	35.28	7889	55	55	55.38	23.92	25.22	36.22	8374	55	55	55.38	21.89	21.85	33.46	5658
600 × 500	589	487	1397	1397	1407	575	519	896	3579	1397	1397	1407	607.5	640.5	920	3799	1397	1397	1407	556	555	850	2567
28 × 24	26.94	23.19	61	61	61.5	25.89	23.96	42.17	15462	61	61	61.5	28.80	30.49	42.52	11758	61	61	61.5	27.17	25.35	39.96	8771
700 × 600	684	589	1549	1549	1562	657.5	608.5	1071	7014	1549	1549	1562	731.5	774.5	1080	5334	1549	1549	1562	690	644	1015	3979
32 × 28	30.69	26.94	70	70	70.63	28.86	26.99	48.43	17200	70	70	70.63	33.86	35.43	53.15	12039	70	70	70.63	30.71	28.70	46.93	12280
800 × 700	779	684	1778	1778	1794	733	685.5	1230	7802	1778	1778	1794	860	900	1350	5461	1778	1778	1794	780	729	1192	5570
36 × 30	34.44	28.94	82	82	82.63	30.91	28.74	51.18	21303	82	82	82.63	36.14	36.77	55.79	14912	82	82	82.63	31.89	30.47	49.88	14491
900 × 750	874	735	2083	2083	2099	785	730	1300	9663	2083	2083	2099	918	934	1417	6764	2083	2083	2099	810	774	1267	6573
36 × 32	34.44	30.69	82	82	82.63	37.01	31.00	56.10	22908	82	82	82.63	39.43	40.57	59.69	16036	82	82	82.63	33.86	32.03	52.52	17101
900 × 800	874	779	2083	2083	2099	940	787.5	1425	10391	2083	2083	2099	1001.5	1030.5	1516	7274	2083	2083	2099	860	813.5	1334	7757
40 × 36	38.44	34.44	82.68	82.68	on l	39.37	35.20	61.97	31597	(0)	(D)	(1)	(T)	(D)	an	(10)	(D)	70.59	(1)	36.22	35.28	58.19	23739
1000 × 900	976	874	2100	2100	9	1000	894	1574	14332	W.	(U)	T.	(U)	w		(1)	w	1793	(U)	920	896	1478	10768

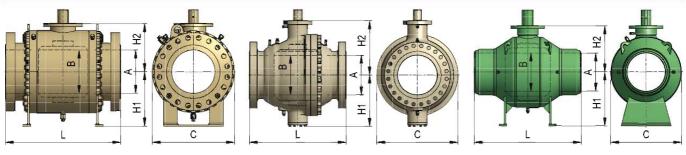
<sup>&#</sup>x27; Weight figures are relevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.





T10 Series

#### T11 Series

T20 Series

#### ASME CLASS 900 FULL BORE

ASIVIE	CL	455	900	FUL	L B	JKE																	
ALL	TYPE	S				10 Ser	ies						T11 Ser	ies						T20 Se	ries		
Size NPS/DN	A	В	L-RF	L-BW	L-RJ	Hi	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*
1-1/2	1.5	1.5	12	12	12	4.17	3.90	5.91	79	12	12	12	5.47	8.27	5.20	57	12	12	12	2.76	4.80	5.51	36
40	38	38	305	305	305	106	99	150	36	305	305	305	139	210	132	26	305	305	305	70	122	140	17
2	1.94	1.94	14.5	14.5	14.63	5.08	5.22	8.31	112	14.5	14.5	14.63	4.29	5.47	6.50	79	14.5	14.5	14.63	3.25	5.75	6.50	85
50	49	49	368	368	371	129	132.5	211	51	368	368	371	109	139	165	36	368	368	371	82.5	146	165	39
3	2.94	2.94	15	15	15.13	4.92	5.96	8.46	146	15	15	15.13	6.34	6.91	10.04	104	15	15	15.13	4.45	6.08	7.56	135
80	74	74	381	381	384	125	151.5	215	66	381	381	384	161	175.5	255	47	381	381	384	113	154.5	192	61
4	3.94	3.94	18	18	18.13	7.87	7 38	10 83	381	18	18	18.13	7 28	8 82	11.22	267	18	18	18.13	7.09	8.25	9.88	227
100	100	100	457	457	460	200	187.5	275	173	457	457	460	185	224	285	121	457	457	460	180	209.5	251	103
6	5.94	5.94	24	24	24.13	11.02	8 82	13 58	597	24	24	24.13	10.10	10.91	14.29	419	24	24	24.13	10.16	9.70	12.56	643
150	150	150	610	610	613	280	224	345	271	610	610	613	256.5	277	363	190	610	610	613	258	246.5	319	292
8	7.94	7.94	29	29	29.13	13.98	11.30	17.32	1239	29	29	29.13	12.68	13.19	19.29	866	29	29	29.13	12.40	11.73	16.06	681
200	201	201	737	737	740	355	287	440	562	737	737	740	322	335	490	393	737	737	740	315	298	408	309
10	9.94	9.94	33	33	33.13	15.55	12.93	20.55	2083	33	33	33.13	15.47	16.34	21.26	1459	33	33	33.13	14.96	13.68	19.53	913
250	252	252	838	838	841	395	328.5	522	945	838	838	841	393	415	540	662	838	838	841	380	347.5	496	414
12	11.94	11.94	38	38	38.13	17.72	15.04	24.49	3092	38	38	38.13	13.07	15.22	24.61	2165	38	38	38.13	16.73	15.94	22.64	1404
300	303	303	965	965	968	450	382	622	1403	965	965	968	332	386.5	625	982	965	965	968	425	405	575	637
14	12.69	12.69	40.5	40.5	40.88	18.90	16.14	26.85	3862	40.5	40.5	40.88	18.03	19.47	26.38	2703	40.5	40.5	40.88	18.11	16.87	24.49	2138
350	322	322	1029	1029	1038	480	410	682	1752	1029	1029	1038	458	494.5	670	1226	1029	1029	1038	460	428.5	622	970
16	14.69	14.69	44.5	44.5	44.88	20.47	17.91	30.12	5071	44.5	44.5	44.88	21.16	22.60	30.51	3549	44.5	44.5	44.88	19.17	18.78	27.68	3189
400	373	373	1130	1130	1140	520	455	765	2300	1130	1130	1140	537.5	574	775	1610	1130	1130	1140	487	477	703	1446
18	16.69	16.69	48	48	48.5	22.05	19.88	33.86	4634	48	48	48.5	23.09	24.43	34.06	3243	48	48	48.5	19.69	31.65	20.69	4413
450	423	423	1219	1219	1232	560	505	860	2102	1219	1219	1232	586.5	620.5	865	1471	1219	1219	1232	500	804	525.5	2002
20	18.56	18.56	52	52	52.5	24.41	22.11	37.99	9113	52	52	52.5	25.20	27.17	38.39	5924	52	52	52.5	23.35	22.58	34.65	5702
500	471	471	1321	1321	1334	620	561.5	965	4134	1321	1321	1334	640	690	975	2687	1321	1321	1334	593	573	880	2587
24	22.44	22.44	61	61	61.75	28.35	26.26	46.06	9328	61	61	61.75	29.21	31.50	46.54	6530	61	61	61.75	26.46	26.30	41.38	9302
600	570	570	1549	1549	1568	720	667	1170	4231	1549	1549	1568	742	800	1182	2962	1549	1549	1568	672	668	1051	4220
28	26.19	26.19	455	2 1	2.5	- 33	122	- 32	100	32	532	_0	225	2.2	-	4.0	1	223	122	22	122	250	
700	665	665	0	1	0	1	0	1	Œ	00	1	1	1	00	(II)	00	0	1	0	1	œ	Œ	0
30	28.06	28.06	74	-	74.88	33.62	31.89	55,51	28195	74		74.88	34.86	35.37	56.30	19736	74	en.	74.88	33.07	31.89	52.28	16621
750	712	712	1880	1	1902	854	810	1410	12789	1880	1	1902	885.5	898.5	1430	8952	1880	1	1902	840	810	1328	7539
32	29.94	29.94						7.00										69.29		34.65	33.23	54.33	19288
800	760	760	∞	0	00	Œ	0	Œ	Œ	00	1	0	1	00	(D)	1	0	1760	1	880	844	1380	8749
36	33.69	33.69	90	90	91.13	38.86	36.69	66.34	44584								90	90	91.13	37.01	36.40	60.31	26004
900	855	855	2286	2286	2315	987	932	1685	20223	⊕	1	1	00	0	T)	•	2286	2286	2315	940	924.5	1532	11795
40	37.63	37.63						11.71.75			1704	107.790.00		17.12.111	1.000.00	271207		70.59		40.94	39.04	64.92	36390
1000	956	956	(ID)	1	0	(I)	0	1	(I)	00	1	(D)	0	00	0	00	0	1793	0	1040	991.5	1649	16506
48	45.25	45.25																86.61	10000	46.06	46.12	78.94	50287
1200	1149	1149	(D)	T)	00	1	1	0	∞	00	1	D	0	(10)	(I)	1	0	2200	T)	1170	1171.5	2005	22810
56			2242		2000		NACO.	11.003000	-	-	NAME OF TAXABLE PARTY.		70,000.4	-	13.57.67.00		777777	94.49		54.72	54.51	90.75	70892
1400	1	Œ	(1)	Œ	1	1	1	1	(1)	(1)	1	1	1	(1)	(I)	<b>O</b>	(I)	2400	O	1390	1384.5	2305	32156

### **ASME CLASS 900 REDUCED BORE**

ALL	TYPES					10 Ser	ies					. 1	11 Ser	ies					1	120 Sei	ies		
Size NPS/DN	А	В	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight lb/kg
2×1-1/2	1.94	1.5	14.5	14.5	14.63	4.17	3.90	5.91	97	14.5	14.5	14.63	5.47	8.27	5.20	68	14.5	14.5	14.63	2.76	4.80	5.51	126
50 × 40	49	38	368	368	371	108	99	150	44	368	368	371	139	210	132	31	368	368	371	70	122	140	57
3×2	2.94	1.94	15	15	15.13	5.08	5.22	8.31	123	15	15	15.13	4.29	5.47	6.50	88	15	15	15.13	3.25	5.75	6.50	148
80 × 50	74	49	381	381	384	129	132.5	211	56	381	381	384	109	139	165	40	381	381	384	82.5	146	165	67
4×3	3.94	2.94	18	18	18.13	4.92	5.96	8.46	223	18	18	18.13	6.34	6.91	10.04	157	18	18	18.13	4.45	6.08	7.56	174
100 × 80	100	74	457	457	460	125	151.5	215	101	457	457	460	161	175.5	255	71	457	457	460	113	154.5	192	79
6×4	5.94	3.94	24	24	24 13	7.87	7 38	10.83	483	24	24	24.13	7.28	8 82	11.22	337	24	24	24.13	7.09	8.25	9.88	335
150 × 100	150	100	610	610	613	200	187.5	275	219	610	610	613	185	224	285	153	610	610	613	180	209.5	251	152
8×6	7.94	5.94	29	29	29 13	11.02	8 82	13 58	1036	29	29	29.13	10.10	10.91	14.29	725	29	29	29.13	10.16	9.70	12.56	661
200 × 150	201	150	737	737	740	280	224	345	470	737	737	740	256.5	277	363	329	737	737	740	258	246.5	319	300
10×8	9.94	7.94	33	33	33.13	13.98	11.30	17 32	1627	33	33	33.13	12.68	13 19	19.29	1140	33	33	33.13	12.40	11 73	16.06	692
$250 \times 200$	252	201	838	838	841	355	287	440	738	838	838	841	322	335	490	517	838	838	841	315	298	408	314
12×10	11.94	9.94	38	38	38.13	15.55	12.93	20.55	2725	38	38	38.13	15.47	16.34	21.26	1907	38	38	38.13	14.96	13.68	19.53	1071
$300 \times 250$	303	252	965	965	968	395	328.5	522	1236	965	965	968	393	415	540	865	965	965	968	380	347.5	496	486
14 × 12	12.69	11.94	40.5	40.5	40.88	17.72	15.04	24.49	3785	40.5	40.5	40.88	13.07	15.22	24.61	2650	40.5	40.5	40.88	16.73	15.94	22.64	1620
$350 \times 300$	322	303	1029	1029	1038	450	382	622	1717	1029	1029	1038	332	386.5	625	1202	1029	1029	1038	425	405	575	735
16×14	14.69	12.69	44.5	44.5	44.88	18.90	16.14	26.85	4010	44.5	44.5	44.88	18.03	19.47	26.38	2806	44.5	44.5	44.88	18.11	16.87	24.49	2482
400 × 350	373	322	1130	1130	1140	480	410	682	1819	1130	1130	1140	458	494.5	670	1273	1130	1130	1140	460	428.5	622	1126
20×16	16.69	14.69	48	48	48.5	20.47	17.91	30.12	6781	48	48	48.5	21.16	22.60	30.51	4747	48	48	48.5	19.17	18.78	27.68	3944
500 × 400	423	373	1219	1219	1232	520	455	765	3076	1219	1219	1232	537.5	574	775	2153	1219	1219	1232	487	477	703	1789
20 × 18	18.56	16.69	52	52	52.5	22.05	19.88	33.86	7668	52	52	52.5	23.09	24.43	34.06	5368	52	52	52.5	19.69	31.65	20.69	4799
500 × 450	471	423	1321	1321	1334	560	505	860	3478	1321	1321	1334	586.5	620.5	865	2435	1321	1321	1334	500	804	525.5	2177
24 × 20	22.44	18.56	61	61	61.75	24.41	22.11	37.99	9173	61	61	61.75	25.20	27.17	38.39	6422	61	61	61.75	23.35	22.56	34.65	6892
600 × 500	570	471	1549	1549	1568	620	561.5	965	4161	1549	1549	1568	640	690	975	2913	1549	1549	1568	593	573	880	3126
28 × 24	26.19	22.44	69.02	69.02	69.88	28.35	26.28	46.06	16023	(D)	(I)	(D)	(T)	(1)	(0)	(10)	(T)	<b>①</b>	0	00	(D)	(D)	(0)
700 × 600	665	570	1753	1753	1775	720	667	1170	7268	1.000	110000		Today .	114					- Table				-
32 × 28	29.94	26.19	00	00	(D)	(D)	00	(I)	1	00	(D)	00	(I)	(1)	00	00	(D)	58.27	(1)	30.71	29.65	47.95	12348
800 × 700	760	665				1.799								1.5	-		1799.	1480		780	753	1218	5601
36 × 30	33.69	28.06	90	(1)	91.13	33.62	31.89	55.51	36211	90	<b>(D)</b>	91.13	34.86	35.37	56.30	25349	90	00	91.13	33.07	31.89	52.28	14570
$900 \times 750$	855	712	2286		2315	854	810	1410	16425	2286		2315	885.5	898.5	1430	11498	2286	10000000	2315	840	810	1328	6609
36 × 32	33.69	29.94	90	90	91.13	(10)	(D)	(D)	(T)	90	90	91.13	(T)	(D)	00	(0)	90	90	91.13	34.65	33.23	54.33	17194
900 × 800	855	760	2286	2286	2315	297		1000	1997	2286	2286	2315	-	(0.00)		280	2286	2286	2315	880	844	1380	7799
40 × 36 1000 × 900	37.63 956	33.69 855	Œ	0	00	⊕	1	0	0	(I)	0	00	Œ	00	Œ	00	⊕	0	0	0	1	0	00

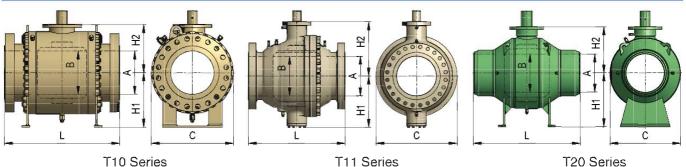
Weight figures are relevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.





#### T11 Series

T20 Series

#### ASME CLASS 1500 FULL BORE

ALL	TYPE	S				T10 Se	ries	r 23			***	v.	T11 Se	ries	-	,			,	T20 Sei	ries		
Size NPS/DN	А	В	L-RF	L-BW	L-RJ	н	H2	c	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*
1-1/2 40	1.5	1.5	1	<b>D</b>	D	4.17	3.90 99	5.91 150	Œ	10.04 255	10.04 255	10.04 255	5.18 131.5	5.41 137.5	7.87 200	79 36	Ф	0	(I)	0	OD	Œ	<b>©</b>
2	194	1.94	14.5	14.5	14.63	5.08	5.22	831	117	14.5	14.5	14.63	4 33	5.47	6.50	88	14.5	14.5	14.63	3.60	5.75	6.50	73
50	49	49	368	368	371	129	132.5	211	53	388	368	371	110	139	165	40	368	368	371	91 5	146	165	33
3	2 94	2.94	18.5	18.5	18.63	5.63	6.42	9 13	229	18.5	18.5	18.63	7 26	8.88	10.83	161	18.5	18.5	18.63	3.86	8.50	8.15	143
80	74	74	470	470	473	143	163	232	104	470	470	473	184.5	225.5	275	73	470	470	473	98	165	207	65
4	3 94	3.94	21.5	21.5	21.63	8.68	8.03	1161	487	21.5	21.5	21.63	8 50	9.80	12.99	326	21.5	21.5	21.63	7.09	8.50	10.67	293
100	100	100	546	546	549	220	204	295	212	546	546	549	216	249	330	148	546	546	549	180	216	271	133
6	5.69	5.69	27.75	27.75	28	10.24	10.51	1575	1133	27.75	27.75	28	11.22	11.48	15.75	794	27.75	27.75	28	10.16	10.39	13.54	708
150	144	144	705	705	711	260	267	400	514	705	705	711	285	291	400	360	705	705	711	258	264	344	321
8	7.56	7.56	32.75	32.75	33.13	11.42	12.09	18.50	1845	32.75	32.75	33.13	13.58	13.33	19.29	1292	32.75	32.75	33.13	12.40	12.99	17.32	1025
200	192	192	832	832	841	290	307	470	837	632	832	841	345	338.5	490	586	632	832	841	315	330	440	465
10	9.44	9.44	39	39	39.38	15.91	15.43	23.74	3538	39	39	39.38	17.01	17.83	24.80	2478	39	39	39.38	14.96	15.83	21.10	1962
250	239	239	991	991	1000	404	392	603	1605	991	991	1000	432	453	630	1124	991	991	1000	380	402	536	890
12	11.31	11.31	44.5	44.5	45.13	19.76	17.36	28.15	5357	44.5	44.5	45.13	45.13	45.13	45.13	3750	44.5	44.5	45.13	16.73	18.35	24.45	3150
300	287	287	1130	1130	1146	502	441	715	2430	1130	1130	1146	432.5	453	630	1701	1130	1130	1146	425	466	621	1429
14	12.44	12.44	49.5	49.5	50.25	20.08	18.39	31.02	6724	49.5	49.5	50.25	45.13	45.13	45.13	4707	49.5	49.5	50.25	(0)	00	(0)	(1)
350	315	315	1257	1257	1276	510	467	788	3050	1257	1257	1276	493	529	741	2135	1257	1257	1276		*		
16	14.19	14.19	54.5	54.5	55.38	22.32	20.08	34.06	9601	54.5	54.5	55.38	45.13	45.13	45.13	6722	54.5	54.5	55.38	(T)	(T)	(D)	•
400	360	360	1384	1384	1407	567	510	865	4355	1384	1384	1407	592	622	856	3049	1384	1384	1407	90	340	346	
18	16	16	60.5	(f)	61.38	25.63	23.70	37.40	14614	60.5	1	61.38	45.13	45.13	45.13	10229	(0)	0	(3)	(I)	<b>①</b>	(1)	0
450	406	406	1537	- 40	1559	651	602	950	6629	1537	200	1559	704	734	1000	4640	1000	10 246	1546/	544		40	- 94
20	17.88	17.88	65.5	(f)	66.38	29.21	26.69	40.75	21407	65.5	(T)	66.38	45.13	45.13	45.13	14985	(f)	(f)	(1)	(f)	(D)	(D)	0
500	454	454	1664		1686	742	678	1035	9710	1664		1686	757	827	1056	6797	1,580	900	1986			1.740)	-
24	21.5	21.5	(T)	(f)	77.63	32.48	29.13	49.21	33684	(1)	(D)	77.63	45.13	45.13	45.13	23578	(f)	(f)	(I)	(f)	(D)	(f)	00
600	546	546	1000		1972	825	740	1250	15279	11.50		1972	842	903	1263	10695	1111000	7850	1.00		-	19897	

#### **ASME CLASS 1500 REDUCED BORE**

ALL	TYPES	K)		,	. 9	T10 Se	ries		AND THE PARTY OF T	15.			Tii Se	ries				0		T20 Se	ries	0. 50	
Size NPS/DN	А	В	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	H1	H2	С	Weight*	L-RF	L-BW	L-RJ	н	H2	c	Weight*
2 × 1-1/2 50 × 40	1.94	1.5 38	Œ.	<i>3</i> 0	<b>①</b>	4.17	3 90	5 91 150	97 44	14 5 368	14 5	14.63 371	5.18 131 5	5.41 137.5	7.87 200	84 38	<b>(</b> D)	Œ	Œ	<b>①</b>	(i)	3D	<b>(</b> D)
3×2	2.94	1.94	18.5	18.5	18.63	5.08	5 22	831	161	18.5	185	18.63	4.33	5.47	6.50	112	18.5	18.5	18.63	3.60	5.75	6.50	101
80 × 50	74	49	470	470	473	129	132.5	211	73	470	470	473	110	139	165	51	470	470	473	91.5	146	165	46
4×3 100×80	3.94	2.94 74	21.5 546	21.5 546	21.63 549	5.83 143	6 42	9 (3	289	21 5 548	215 546	21.63 549	7.26 184 5	8.88	10.83	203 92	21.5 546	21.5 546	21.63	3 86 98	6.50 165	8.15	181
	5.69	3.94	_	27.75	-	8.66	8 03		672	27.75	27.75			9.80		472		27.75	549	7.09	8.50	10.67	
6×4 150×100	144	100	27.75 705	705	28 711	220	204	11.61	305	705	705	28 711	8.50 216	249	12.99	214	27.75 705	705	28	180	216	271	191
8×6	7.56	5.69	32.75	32.75	33,13	10.24	10.51	15.75	1336	32.75	32.75	33.13	11.22	11.46	15.75	935	32.75	32.75	33.13	10.16	10 39	13.54	836
200 × 150	192	144	632	832	841	260	267	400	606	832	832	841	285	291	400	424	832	832	841	258	264	344	379
10×8	9.44	7.56	39	39	39.38	11.42	12.09	18.50	2412	39	39	39.38	13.58	13.33	19.29	1689	39	39	39.38	12.40	12.99	17.32	1508
$250 \times 200$	239	192	991	991	1000	290	307	470	1094	991	991	1000	345	338.5	490	766	991	991	1000	315	330	440	684
12×10	11.31	9.44	44.5	44.5	45.13	15.91	15.43	23.74	4151	44.5	44.5	45.13	17.01	17.83	24.80	2906	44.5	44.5	45.13	14.96	15.83	21.10	2593
$300 \times 250$	287	239	1130	1130	1146	404	392	603	1883	1130	1130	1146	432	453	630	1318	1130	1130	1146	380	402	536	1176
14×12	12.44	11.31	49.5	49.5	50.25	19.76	17.36	28.15	5897	49.5	49.5	50.25	45.13	45.13	45.13	4129	49.5	49.5	50.25	16.73	18.35	24.45	3686
350 × 300	315	287	1257	1257	1276	502	441	715	2675	1257	1257	1276	432.5	453	630	1873	1257	1257	1276	425	466	621	1672
16 × 14 400 × 350	14.19	12.44	54.5 1384	54.5 1384	55.38 1407	20.08	18.39 467	31.02 788	7654 3472	54.5 1384	54.5 1384	55.38 1407	45.13 493	45.13 529	45.13 741	5357 2430	54.5 1384	54.5 1384	55.38 1407	<b>①</b>	<b>①</b>	<b>①</b>	<b>①</b>
20 × 16	17.88	14,19	65.5	1364	66.38	22.32	20.08	34.06	12112	65.5	1304	66,38	45.13	45.13	45.13	8479	65.5	1364	66.38				
500 × 400	454	360	1664	<b>①</b>	1686	567	510	865	5494	1664	1	1686	592	622	856	3846	1664	0	1686	<b>①</b>	Ð	Œ	(D)
20 × 18	17.88	16	65.5	<b>①</b>	66.38	25.63	23.70	37.40	17692	65.5	(T)	66.38	45.13	45.13	45.13	12386	65.5	1	66.38	(1)	(D)	<b>①</b>	<b>①</b>
$500 \times 450$	454	406	1664	MZ	1686	651	602	950	8025	1664	OE)	1686	704	734	1000	5618	1664	40	1686	1.00	100	540	40
24 × 20 600 × 500	21.5 546	17.88 454	•	1	77.63 1972	29.21 742	26.69 678	40.75 1035	25653 11636	1	1	77.63 1972	45.13 757	45.13 827	45.13 1056	17957 8145	1	0	77.63 1972	1	0	1	0

### **ASME CLASS 2500 FULL BORE**

AL	L TYPES	3				T10 Seri	68		
Size	A	В	L-RE	L-BW	L-RJ	HI	H2	С	Weight*
NPS/DN	-			L-D**		10.0	1.14		lb/kg
2	1.69	1.69	17.75	17.75	17.88	5.24	6.48	8.74	181
50	42	42	451	451	454	133	164.5	222	82
3	2.44	2.44	22.75	22.75	23	7.13	7 70	11.81	384
80	62	82	578	578	584	181	195.5	295	174
4	3.44	3.44	26.5	26.5	26.88	8.86	9.15	13.98	809
100	87	87	673	673	683	225	232.5	355	367
6	5.19	5.19	36.00	36.00	36.50	11.28	11.02	16.46	1647
150	131	131	914	914	927	286.5	280	418	747
8	7.06	7.06	40.25	40.25	40.88	13.78	12.99	20.47	2782
200	179	179	1022	1022	1038	350	330	520	1262
10	8.81	8.81	50.00	50.00	50.88	15,55	15.43	25.00	4491
250	223	223	1270	1270	1292	395	392	635	2037
12	10.44	10.44	56.00	56.00	56.88	18.35	18.03	29.92	6865
300	265	265	1422	1422	1445	466	458	760	3114

### **ASME CLASS 2500 REDUCED BORE**

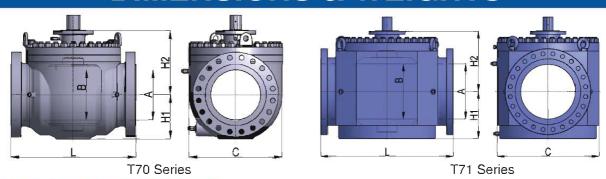
ALL	TYPES					T10 Seri	es		
Size NPS/DN	A	В	L-RF	L-BW	L-RJ	H1	H2	С	Weight
2 × 1-1/2	1.69	1.5	17,75	17,75	17.88	5.04	5.00	7.99	139
50 × 40	42	38	451	451	454	128	127	203	63
3×2	2.44	1.69	22 75	22 75	23	5 24	6.48	8.74	331
80 × 50	62	42	578	578	584	133	164.5	222	150
4×3	3.44	2.44	26.5	26.5	26.88	7.13	7.70	11.61	564
100×80	87	62	673	673	683	181	195.5	295	256
6×4	5.19	3.44	36.00	36.00	36.50	8.86	9.15	13.98	1091
150 × 100	131	87	914	914	927	225	232.5	355	495
8×6	7.06	5.19	40.25	40.25	40.88	11.28	11.02	16.46	2332
200 × 150	179	131	1022	1022	1038	286.5	280	418	1058
10×8	8.81	7.06	50,00	50,00	50.88	13.78	12.99	20.47	3556
250 × 200	223	179	1270	1270	1292	350	330	520	1613
12×10	10.44	8.81	56.00	56.00	56.88	15.55	15.43	25.00	5463
300 × 250	265	223	1422	1422	1445	395	392	635	2478

<sup>&#</sup>x27;Weight figures are refevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.



#### ASME CLASS 150 300 600 FULL BORE

	*1.	TYPE						ASME CI	LASS 1	50						ASME CI	LASS 3	00						ASME CL	ASS 6	00		
	ALL	TYPES	5			T70	Series	ř.		T71	Series			T70	Series	1		T71	Series	1		T70	Series			T71	Series	;
Size			L-RF	L-BW	Ή1	H2	_	Weight*	н	1110	~	Weight*	н	H2	С	Weight*	н	H2	С	Weight*	1114	H2	С	Weight*	CH1	H2	С	Weigh
NPS/DN	A	В	L-HF	L-BVV	111	n2	С	lb/kg	D.,	H2	С	lb/kg	1111	n2		lb/kg	п	nz	C	lb/kg	H1	n2		lb/kg	п	n2		lb/kg
2	1.94	1.94	11.5	11.5	4.37	4.74	5	71	4.37	4.74	6	90	4.37	4.74	5	84	4.37	4.74	6	107	4.84	4.96	5	95	4.84	4.96	7	121
50	49	49	292	292	115	120.5	119	32	111	120.5	150	41	111	120.5	119	38	311	120.5	150	49	123	126	130	43	123	126	168	55
3	2.94	2.94	14	14	5.18	5.71	6	132	5.18	5.71	8	171	5.18	5.71	6	148	5.18	5.71	8	191	5.81	6.14	7	157	5.81	6.14	8	202
80	74	74	356	356	131.5	145	159	60	131.5	145	195	77	131.5	145	159	67	131.5	145	195	86	147.5	156	173	71	147.5	156	210	92
4	3.94	3.94	17	17	6.08	6.57	8	234	6.08	6.57	9	299	6.08	6.57	8	247	6.08	6.57	9	316	6.99	7.56	8	258	6.99	7.56	10	330
100	100	100	432	432	154.5	167	199	106	154.5	167	235	136	154.5	167	199	112	154.5	167	235	143	177.5	192	210	117	177.5	192	255	150
6	5.94	5.94	22	22	7.85	8.54	11	503	7.85	8.54	12	653	7.85	8.54	11	516	7.85	8.54	12	671	9.53	10.67	11	529	9.53	10.67	14	688
150	150	150	559	559	199.5	217	280	228	199.5	217	312	296	199.5	217	280	234	199.5	217	312	304	242	271	292	240	242	271	350	312
8	7.94	7.94	26	26	10.06	10.98	14	950	10.06	10.98	16	1216	10.06	10.98	14	963	10.06	10.98	16	1233	12.20	12.76	15	974	12.20	12.76	17	1247
200	201	201	660	660	255.5	279	361	431	255.5	279	410	552	255.5	279	361	437	255.5	279	410	559	310	324	378	442	310	324	435	566
10	9.94	9.94	31	31	12.50	13.31	17	1310	12.50	13.31	19	1689	12.50	13.31	17	1323	12.50	13.31	19	1706	14.29	15.12	18	1332	14.29	15.12	21	1718
250	252	252	787	787	317.5	338	440	594	317.5	338	485	766	317.5	338	440	600	317.5	338	485	744	363	384	462	604	363	384	522	779
12	11.94	11.94	33	33	10.61	14.69	20	1660	10.61	14.69	22	2158	10.61	14.69	20	1671	10.61	14.69	22	2172	12.09	16.73	23	1682	12.09	16.73	24	218
300	303	303	838	838	269.5	373	508	753	269.5	373	558	979	269.5	373	508	758	269.5	373	558	985	307	425	594	763	307	425	605	992
14	13.19	13.19	35	35	13.07	16.67	24	1777	13.07	16.67	25	2292	13.07	16.67	24	1790	13.07	16.67	25	2309	13.07	16.67	24	1799	13.07	16.67	26	232
350	334	334	889	889	332	423.5	617	806	332	423.5	635	1040	332	423.5	617	812	332	423.5	635	1047	332	423.5	617	816	332	423.5	655	105
16	15.19	15.19	39	39	14	19.02	27	2571	14	19.02	28	3342	14	19.02	27	2584	14	19.02	28	3359	14.31	19.02	27	2599	14	18	29	337
400	385	385	991	991	343	483	698	1166	343	483	712	1516	343	483	698	1172	343	483	712	1524	363.5	483	698	1179	353	447	737	153
18	17.19	17.19	43	43	16.87	23.07	30	3534	16.87	23.07	31	4630	16.87	23.07	30	3549	16.87	23.07	31	4650	15.30	21.89	32	3558	15.30	21.89	32	466
450	436	436	1092	1092	428.5	586	773	1603	428.5	586	790	2100	428.5	586	773	1610	428.5	586	790	2109	388.5	556	811	1614	388.5	556	820	211
20	19.19	19.19	47	47	17.17	22.01	35	4511	17.17	22.01	36	5864	17,17	22.01	35	4524	17.17	22.01	36	5881	17.17	22.01	35	4533	17.17	22.01	36	589
500	487	487	1194	1194	436	559	884	2046	436	559	904	2660	436	559	884	2052	436	559	904	2668	436	559	884	2056	436	559	904	2673
22	21.19	21.19	50.98	50.98	18.11	22.52	37	6426	18.11	22.52	38	8354	18.11	22.52	37	6440	18.11	22.52	38	8372	18.11	23.23	40	6449	18	23	39	8383
550	538	538	1295	1295	460	572	937	2915	460	572	955	3790	460	572	937	2921	460	572	955	3797	460	590	1021	2925	460	590	996	380
24	23.19	23.19	55	55	23	26	39	7478	23	26	41	9759	23	26	39	7496	23	26	41	9782	21	27	42	7509	21	27	43	9799
600	589	589	1397	1397	582	660	990	3392	582	660	1050	4427	582	660	990	3400	582	660	1050	4437	539	685	1068	3406	539	685	1100	4445
28	26.94	26.94	61	61	22.80	27.36	45	10750	22.80	27.36	47	14028	22.80	27.36	45	10765	22.80	27.36	47	14049	24	32	47	10778	24	32	48	1406
700	684	684	1549	1549	579	695	1135	4876	579	695	1185	6363	579	695	1135	4883	579	695	1185	6372	609	804	1206	4889	609	804	1216	6386
30	30.69	30.69	70	70	29	30	49	13157	29	30	51	17170	29	30	49	13175	29	30	51	17193	25.39	35.18	50	13179	25,39	35.18	53	1719
750	735	735	1651	1651	725	771	1234	5968	725	771	1298	7788	725	771	1234	5976	725	771	1298	7799	645	893.5	1276	5978	645	893.5	1340	780
32	30.69	30.69	70	70	30	32	51	16557	30	32	52	21607	30	32	51	16572	30	32	52	21627	27	37	52	16599	27	37	53	2166
800	779	779	1778	1778	757	825	1287	7510	757	825	1310	9801	757	825	1287	7517	757	825	1310	9810	697	946	1324	7529	697	946	1352	982
36	34.44	34.44	82	82	33	35	56	21266	33	35	56	27752	33	35	56	21294	33	35	56	27789	32	42	60	21308	32	42	62	2780
900	874	874	2083	2083	849	881	1410	9646	849	881	1433	12588	849	881	1410	9659	849	881	1433	12605	803	1060	1526	9665	803	1060	1566	1261
40	38.44	38.44	82.68	82.68	36.8	37.4	62.4	22509	36.8	37.4	64.9	26059	36.8	37.4	66.3	29145	36,8	37.4	67.9	30424	38.6	38.8	70.3	31967	38.6	38.8	71.5	3273
1000	976	976	2100	2100	935	950	1585	10210	935	950	1600	11820	935	950	1685	13220	935	950	1725	13800	980	985	1785	14500	980	985	1815	1485
48	45.94	45.94	94.49	94,49	0	(1)	<b>①</b>	0	0	<b>①</b>	(I)	(1)	(I)	(I)	(f)	<b>①</b>	0	(1)	(3)	<b>①</b>	<b>①</b>	(I)	00	00	0	<b>(E)</b>	(f)	(D)
1200	1166	1166	2400	2400	1	W.	W	W.	W.	w	(D)	(3)	13	-	(ID)	(1)	100	130	C.	10	1	- OU	585	902	542		3	

#### ASME CLASS 150 300 600 REDUCED BORE

	ALL	TYPES	5					ASME C	LASS 1	50						ASME C	LASS 3	00						ASME C	LASS 6	00		
	ALL	HFES				T70	Series			T71	Series			T70	Series			T71	Series	1		T70	Series			T71	Series	
Size	A	В	L-RE	L-RW	H1	H2	С	Weight*	н	H2	С	Weight*	H1	H2	C	Weight*	H1	H2	5	Weight*	HI	H2	C	Weight*	н	H2	С	Weight
NPS/DN	A .	В	L-HF	L-BVV		nz	C	lb/kg	п.	m2	C	lb/kg		n.z		lb/kg	n.	n <sub>2</sub>	U	lb/kg	711	ri2		lb/kg		nz		lb/kg
3×2	2.94	1.94	14	14	4.37	4.74	5	79	4.37	4.74	6	102	4.37	4.74	5	99	4.37	4.74	6	127	4.84	4.96	5	108	4.84	4.98	7	138
80 × 50	74	49	356	356	111	120.5	119	36	111	120.5	150	46	115	120.5	119	45	111	120.5	150	58	123	126	130	49	123	126	168	63
4×3	3.94	2.94	17	17	5.18	5.71	6	163	5.18	5.71	8	210	5.18	5.71	6	192	5.18	5.71	8	247	5.81	6.14	7	220	5.81	6.14	8	284
100 × 80	100	74	432	432	131.5	145	159	74	131.5	145	195	95	131.5	145	159	87	131.5	145	195	112	147.5	156	173	100	147.5	156	210	129
6×4	5.94	3.94	22	22	6.08	6.57	8	304	6.08	6.57	9	389	6.08	6.57	8	377	6.08	6.57	9	483	6.99	7.56	8	357	6.99	7.58	10	457
150 × 100	150	100	559	559	154.5	167	199	138	154.5	167	235	177	154.5	167	199	171	154.5	167	235	219	177.5	192	210	162	177.5	192	255	207
8×6	7.94	5.94	26	26	7.85	8.54	11	584	7.85	8.54	12	759	7.85	8.54	11	666	7.85	8.54	12	866	9.53	10.67	11	743	9.53	10.67	14	966
200 × 150	201	150	660	660	199.5	217	280	265	199.5	217	312	345	199.5	217	280	302	199.5	217	312	393	242	271	292	337	242	271	350	438
10×8	9.94	7.94	31	31	10.06	10.98	14	1063	10.06	10.98	16	1360	10.06	10.98	14	1252	10.06	10.98	16	1603	12.20	12.76	15	1402	12.20	12.76	17	1795
250 × 200	252	201	787	787	255.5	279	361	482	255.5	279	410	617	255.5	279	361	568	255.5	279	410	727	310	324	378	638	310	324	435	814
12×10	11.94	9.94	33	33	12.50	13.31	17	1263	12.50	13.31	19	1630	12.50	13.31	17	1336	12.50	13.31	19	1710	14.29	15.12	18	1497	14.29	15.12	21	1916
300 × 250	303	252	838	838	317.5	338	440	573	317.5	338	485	739	317.5	338	440	606	317.5	338	485	776	363	384	462	679	363	384	522	869
14 × 12	13.19	11.94	35	35	10.61	14.69	20	1561	10.61	14.69	22	2029	10.61	14.69	20	2141	10.61	14.69	22	2761	12.09	16.73	23	2399	12.09	16.73	24	3070
$350 \times 300$	334	303	889	889	269.5	373	508	708	269.5	373	558	920	269.5	373	508	971	269.5	373	558	1253	307	425	594	1088	307	425	605	1393
16×14	15.19	13.19	39	39	13.07	16.67	24	2121	13.07	16.67	25	2736	13.07	16.67	24	2560	13.07	16.67	25	3276	13.07	16.67	24	2866	13.07	16.67	26	3697
400 × 350	385	334	991	991	332	423.5	617	962	332	423.5	635	1241	332	423.5	617	1161	332	423.5	635	1486	332	423.5	617	1300	332	423.5	655	1677
18×16	19,19	15.19	43	43	14	19.02	27	2917	14	19.02	28	3763	14	19.02	27	3417	14	19.02	28	4442	14.31	19.02	27	3827	14	18	29	4899
450 × 400	436	385	1092	1092	343	483	698	1323	343	483	712	1707	343	483	698	1550	343	483	712	2015	363.5	483	698	1736	353	447	737	2222
20 × 16	19,19	15.19	43	43	14	19.02	27	3605	14	19.02	28	4650	14	19.02	27	4228	14	19.02	28	5412	14.31	19.02	27	4736	14	18	29	6156
500 × 400	487	385	1194	1194	343	483	698	1635	343	483	712	2109	343	483	698	1918	343	483	712	2455	363.5	483	698	2148	353	447	737	2792
20 × 18	19,19	17.19	47	47	16.87	23.07	30	4065	16.87	23.07	31	5244	16.87	23.07	30	4727	16.87	23.07	31	6050	15.30	21.89	32	5293	15.30	21.89	32	6775
500 × 450	487	436	1194	1194	428.5	586	773	1844	428.5	586	790	2379	428.5	586	773	2144	428.5	586	790	2744	388.5	556	811	2401	388.5	556	820	3073
22 × 18	21.19	17.19	47	47	16.87	23.07	30	4528	16.87	23.07	31	5842	16.87	23.07	30	5624	16.87	23.07	31	7255	15.30	21.89	32	6299	15.30	21.89	32	8062
550 × 450	538	436	1295	1295	428.5	586	773	2054	428.5	586	790	2650	428.5	586	773	2551	428.5	586	790	3291	388.5	556	811	2857	388.5	556	820	3657
24 × 20	23.19	19.19	55	55	17.17	22.01	35	5558	17.17	22.01	36	7170	17.17	22.01	35	6482	17.17	22.01	36	8296	17.17	22.01	35	7260	17.17	22.01	36	9293
600 × 500	589	487	1397	1397	436	559	884	2521	436	559	904	3252	436	559	884	2940	436	559	904	3763	436	559	884	3293	436	559	904	4215
28 × 24	26.94	23.19	61	61	23	26	39	8285	23	26	41	10688	23	26	39	9074	23	26	41	11796	21	27	42	10163	21	27	43	13111
700 × 600	684	589	1549	1549	582	660	990	3758	582	660	1050	4848	582	660	990	4116	582	660	1050	5351	539	685	1068	4610	539	685	1100	5947
32 × 28	30.69	26.94	70	70	22,80	27.36	45	11378	22.80	27.36	47	14678	22.80	27.36	45	12703	22.80	27.36	47	12260	24	32	47	14226	24	32	48	18210
800 × 700	779	684	1778	1778	579	695	1135	5161	579	695	1185	6658	579	695	1135	5762	579	695	1185	7375	609	804	1206	6453	609	804	1216	8260
40 × 36	38.44	34.44	82.68	82.68	33	35	56	T)			· A	100	33	35	56	200	1	0	100	00	32	42	60	0	100	•	76	700
1000 × 900	976	874	2100	2100	849	881	1410	0	1	0	•	(D)	849	881	1410	0	T)	0	0	<b>1</b>	803	1060	1526	1	0	(I)	(1)	0

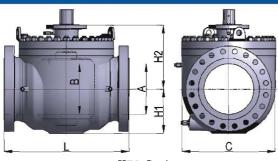
Weight figures are relevant to flanged end valves. ①Please consult the factory.

Note: For dimensions & weights in larger sizes consult the factory.

Dimensions and weights are subject to change without notice.

Face to face dimensions not listed in industry standards are subject to change without notice.





T70 Series

T71 Series

#### **ASME CLASS 900 FULL BORE**

		ALL TY	PES				T70	Series			T71	Series	
Size	A	В	L-RF	L-BW	L-RJ	H1	H2	c	Weight*	HI	H2	C	Weight*
NPS/DN	] A	В	L-RF	L-BAA	L-HJ	HI	H2	C	lb/kg	н	HZ	- 0	lb/kg
2	1.94	1 94	14.5	14.5	14 63	6 42	6.71	6	121	6.42	6.71	7.68	155
50	49	49	368	368	371	163	170 5	152	55	163	170 5	195	70
3	2.94	2 94	15	15	15 13	7	8	7	258	7	8	8.82	333
80	74	74	381	381	384	184	209	188	117	184	209	224	151
4	3.94	3.94	18	18	18.13	7.91	8.94	9	467	7.91	8.94	10.43	598
100	100	100	457	457	460	201	227	228	212	201	227	265	271
6	5.94	5.94	24	24	24.13	11.81	11.77	12	1005	11.81	11.77	13.70	1307
150	150	150	610	610	613	300	299	304	456	300	299	348	593
8	7.94	7.94	29	29	29.13	12.20	13.07	16	1870	12.20	13.07	17.72	2393
200	201	201	737	737	740	310	332	400	848	310	332	450	1085
10	9.94	9.94	33	33	33.13	12	16	19	2337	12	16	20.75	3015
250	252	252	838	838	841	312	406	487	1060	312	406	527	1367
12	11.94	11.94	38	38	38.13	13	18	21	3038	13	18	23.74	3949
300	303	303	965	965	968	322	446	535	1378	322	446	603	1791
14	12.69	12.69	40.5	40.5	40.88	12.91	17.72	24	3962	12.91	17.72	27.48	5111
350	322	322	1029	1029	1038	328	450	606	1797	328	450	698	2318
16	14.69	14.69	44.5	44.5	44.88	14.27	19.69	27	5983	14.27	19.69	30.12	7778
400	373	373	1130	1130	1140	362.5	500	696	2714	362.5	500	765	3528
18	16.69	16.69	48	48	48.5	15.81	21.10	31	7945	15.81	21.10	33.07	10409
450	423	423	1219	1219	1232	401.5	536	778	3604	401.5	536	840	4721
20	18.56	18.56	52	52	52.5	18	24	34	10282	16.91	20.77	35.43	13367
500	471	471	1321	1321	1334	450	622	872	4664	429.5	527.5	900	6063
22	22.44	22.44	61	(1)	(I)	21.06	26.69	41	13058	21.06	26.69	42.36	16975
550	522	522	1549	(D)	(1)	535	678	1035	5923	535	678	1076	7700
24	22.44	22.44	61	61	61.75	22	28	43	16826	22	28	44.21	21958
600	570	570	1549	1549	1568	562	718	1091	7632	562	718	1123	9960
28	26.19	26.19	①	1	(D)	1	D.	(I)	1	(D)	①	(D)	0
700	665	665	0)	d)	02	U	(D)	0	U		d)	10	(1)
32	29.94	29.94		.00	(f)	(1)	(1)	10	(1)	(f)	.00	1	<b>①</b>
800	760	760	1	•	0	0	0)	0	0	(0)	T)	1	0.
36	33.69	33.69	90	90	91.13	(1)	1	(1)	(1)	(1)	0	(1)	(1)
900	855	855	2286	2286	2315	w	42	0	U	0	U	0	U)

#### **ASME CLASS 1500 FULL BORE**

		ALL T	YPES			0	T70	Series			T71	Series	
Size	A	В	L-RF	L-BW	L-RJ	HI	H2	С	Weight	HI	H2	С	Weight
NPS/DN							50-33-		lb/kg				lb/kg
2	1.94	1.94	14.5	14.5	14.63	6.42	6.71	6	132	6.42	6.71	7.68	171
50	49	49	368	368	371	163	170.5	152	60	163	170.5	195	78
3	2.94	2.94	18.5	18.5	18.63	7.87	9.04	8	362	5	6	11	468
80	74	74	470	470	473	200	229.5	202	164	120	156	286	212
4	3.94	3.94	21.5	21.5	21.63	9.67	10.35	10	655	9.67	10.35	12	848
100	100	100	546	546	549	245.5	263	248	297	245.5	263	298	385
6	5.69	5.69	27.75	27.75	28	12.95	12.95	13	1415	12.95	12.95	15	1833
150	144	144	705	705	711	329	329	338	642	329	329	385	831
8	7.56	7.56	32.75	32.75	33.13	14	15	17	2595	14	15	17	3360
200	192	192	832	832	841	350	382	420	1177	350	382	431	1524
10	9.44	9.44	39	39	39.38	15	17	20	3393	15	17	21	4428
250	239	239	991	991	1000	392	424	509	1539	392	424	540	2008
12	11.31	11.31	44.5	44.5	45.13	16	18	24	4758	16	18	25.28	6209
300	287	287	1130	1130	1146	404	466	606	2158	404	466	642	2816
14	12.44	12.44	49.5	49.5	50.25	15	20	26	6162	15	20	28.54	8041
350	315	315	1257	1257	1276	385	503	654	2795	385	503	725	3647
16	14.19	14.19	54.5	54.5	55.38	16	22	29	9178	16	22	31.18	11977
400	360	360	1384	1384	1407	403	558	725	4163	403	556	792	5433
18	16	16	60.5	200	61.38	17	24	33	12031	17	24	34,69	15700
450	406	406	1537	1	1559	441	616	838	5457	441	616	881	7121
20	17.88	17.88	65.5	9500	66.38	19	26	35	15752	19	26	36.42	20635
500	454	454	1664	1	1686	475	659	883	7145	475	659	925	9360
24	21.5	21.5			77.63	23	32	45	27600	23	32	46.69	36018
600	546	546	1	1	1972	595	801	1154	12519	595	801	1186	16337

# Weight figures are relevant to flanged end valves. ①Please consult the factory. Note: For dimensions & weights in larger sizes consult the factory. Dimensions and weights are subject to change without notice. Face to face dimensions not listed in industry standards are subject to change without notice.

#### **ASME CLASS 900 REDUCED BORE**

		ALL TY	PES				T70	Series	,	T71 Series			
Size	- 1			i mil		776	112	12	Weight*	100			Weight*
NPS/DN	A	В	L-RF	L-BW	L-RJ	H1	H2	C	llb/kg	H1	H2	С	lb/kg
3×2	2.94	1.94	15	15	15.13	6 42	6.71	6	176	6.42	671	7.68	226
80 × 50	74	49	381	381	384	163	170 5	152	80	163	170.5	195	102
4×3	3.94	2.94	18	18	18.13	7	8	7	326	7	8	8.82	418
100 × 80	100	74	457	457	460	184	209	188	148	184	209	224	189
6×4	5.94	3.94	24	24	24.13	7.91	8.94	9	637	7.91	8.94	10.43	822
150 × 100	150	100	610	610	613	201	227	228	289	201	227	265	373
8×6	7.94	5.94	29	29	29.13	11.81	11.77	12	1281	11.81	11.77	13.70	1652
200 x 150	201	150	737	737	740	300	299	304	581	300	299	348	749
10×8	9.94	7.94	33	33	33.13	12.20	13.07	16	2116	12.20	13.07	17.72	2730
250 × 200	252	201	838	838	841	310	332	400	960	310	332	450	1238
12 × 10	11.94	9.94	38	38	36.13	12	16	19	2546	12	16	20.75	3285
300 × 250	303	252	965	965	968	312	406	487	1155	312	406	527	1490
14 x 12	12.69	11.94	40.5	40.5	40.88	13	18	21	4206	13	18	23.74	5468
350×300	322	303	1029	1029	1038	322	446	535	1908	322	446	603	2480
16 x 14	14.69	12.69	44.5	44.5	44.88	14.07	18.39	27	4674	12.91	17.72	27.48	6076
400 × 350	373	322	1130	1130	1140	357.5	467	691	2120	328	450	698	2756
20×16	16.69	14.69	48	48	48.5	14.27	19.69	27	8214	14.27	19.69	30.12	10679
500 × 400	423	373	1219	1219	1232	362.5	500	696	3726	362.5	500	765	4844
20×18	18.56	16.69	52	52	52.5	15.81	21.10	31	9057	15.81	21.10	33.07	11774
500 × 450	471	423	1321	1321	1334	401.5	536	778	4108	401.5	536	840	5340
24×20	22.44	18.56	61	61	61.75	18	24	34	12608	16.91	20.77	35.43	16391
600 × 500	570	471	1549	1549	1568	450	622	872	5719	429.5	527.5	900	7435
24×22	22.44	20.56	61	61	61.75	21.06	26.69	41	13898	21.06	26.69	42.36	18137
600 × 550	570	522	1549	1549	1568	535	678	1035	6304	535	678	1076	8227
28×24	26.19	22.44	-	_	22			-	-	22	28	44.21	-
700 × 600	665	570	1	1	1	1	1	1	1	562	718	1123	1
32 x 28	29.94	26.19	-		V.S.	-	-	100		-		72	
800 × 700	760	665	<b>①</b>	1)	1	1	1	1	0	1	1	1	1
36×32	33.69	29.94	90	90	91.13	(1)	(1)	(1)		(f)	(f)	(1)	(f)
900 × 800	855	760	2286	2286	2315	(I)	(I)	0)	1	(1)	(1)	(1)	0
40×36 1000×900	(f)	1	1	1	0	1	1	1	0	1	(1)	1	1

#### **ASME CLASS 1500 REDUCED BORE**

	. 1	ALL TY	PES				T70	Series			T71	Series	
Size	A	В	L-RE	I-BW	I-BJ	н	H2	C	Weight*	H1	H2	C	Weight
NPS/DN	A	В	L-RF	L-BW	L-RJ	н	H2	C	lb/kg	н	H2	C	lb/kg
3×2	2.94	1.94	18.5	18.5	18.63	6.42	6.71	6	231	6.42	6.71	7.68	300
80 × 50	74	49	470	470	473	163	170.5	152	105	163	170.5	195	136
4×3	3.94	2.94	21.5	21.5	21.63	7.87	9.04	8	478	5	6	11	620
100 × 80	100	74	546	546	549	200	229.5	202	217	120	156	286	281
6×4	5.59	3.94	27.75	27.75	28	9.67	10.35	10	886	9.67	10.35	12	1148
150 × 100	144	100	705	705	711	245.5	263	248	402	245.5	263	298	521
8×6	7.56	5.69	32.75	32.75	33.13	12.95	12.95	13	1658	12.95	12.95	15	2147
200 x 150	192	144	832	832	841	329	329	338	752	329	329	385	974
10×8	9.44	7.56	39	39	39.38	14	15	17	3003	14	15	17	3304
250 × 200	239	192	991	991	1000	350	382	420	1362	350	382	431	1771
12 x 10	11.31	9.44	44.5	44.5	45.13	15	17	20	3620	15	17	21	4706
300 × 250	287	239	1130	1130	1146	392	424	509	1642	392	424	540	2135
14 x 12	12.44	11.31	49.5	49.5	50.25	16	18	24	6365	16	18	25.28	8274
350 × 300	315	287	1257	1257	1276	404	466	606	2887	404	466	642	3753
16 x 14	14.19	12.44	54.5	54,5	55.38	15	20	26	7313	15	20	28.54	9543
400 × 350	360	315	1384	1384	1407	385	503	654	3317	385	503	725	4329
20×16	17.88	14.19	65.5	(D)	66.38	16	22	29	10615	16	22	31.18	13906
500 × 400	454	360	1664	W.	1686	403	558	725	4815	403	558	792	6308
20×18	17.88	16	65.5	(T)	66.38	17	24	33	13918	17	24	34.69	18232
500 × 450	454	406	1664	T)	1686	441	616	838	6313	441	616	881	8270
24 x 20	21.5	17.88	<b>①</b>	(1)	77.63	19	26	35	21702	19	26	36.42	28322
600 × 500	546	454	0	W.	1972	475	659	883	9844	475	659	925	12846

### **ENGINEERING DATA**

#### **BODY & TRIM MATERIAL**

CARBON	AUSTENITIC STAINLESS STEEL	NICKEL ALLOYS
A105N A216 WCB A216 WCC	A182 F304 A182 F316	Incoloy 825 ( UNS N08825 )
LOW TEMPERATURE STEEL	A182 F304L A182 F316L	Incoloy 925 ( UNS N09925 )
A350 LF2 A352 LCB A352 LCC	A182 F347 A182 FXM-19(Nitronic 50)	Inconel 625 ( UNS N06625 )
LOW ALLOY STEEL	A351 CF8M A351 CF3 A351 CF3M	Inconel 718 ( UNS N07718 )
AISI 4140 A694 F65 A694 F52	PRECIPITATION HARDENING STAINLESS STEEL	Inconel 750 ( UNS N07750 )
A694 F60 A350 LF3	A564 Gr.630 (UNS S17400)	Monel 400
MARTENSITIC STAINLESS STEEL	DUPLEX STAINLESS	Monel K500
A182 F6A A182 F6NM	A182 F51(UNS S31803) A182 F53 ( UNS S31750 )	
A217 CA15 A487 CA6NM	A182 F55(UNS S31760) A995 4A ( UNS J92205 )	
	A995 5A(UNS J93404)	

#### **VALVE TESTING**

All valves manufactured by CHV are tested in compliance of API 6D requirements prior to shipping.

#### LEAKAGE RATES

Standard	Soft Seated	Metal-Seated	Cryogenic	
API 6D	ISO 5208 Rate A	ISO 5208 Rate D	(1)	

<sup>(1)</sup> Please consult the factory.

#### STANDARD PERFORMANCE TESTS

- · Visual & dimensional check.
- · High pressure hydrostatic shell test.
- · High pressure hydrostatic seats test.
- · Low pressure air seats test.
- · Stem torque check.

#### RATING & TEST PRESSURES AT AMBIENT TEMPERATURE (ASME B16.34 GROUP 1.1 MATERIALS)

ASME				BODY TEST			H.I	P. SEAT TE	ST	AIR SEAT TEST		
CLASS	psi	bar	kgf/cm <sup>2</sup>	psi	bar	kgf/cm <sup>2</sup>	psi	bar	kgf/cm <sup>2</sup>	psi	bar	kgf/cm <sup>2</sup>
150	285	19.6	20	428	29.4	30	314	21.6	22	100	6.9	7
300	740	51.1	52	1110	76.7	78	814	56.2	57	100	6.9	7
600	1480	102.1	104	2220	153.2	156	1628	112.3	115	100	6.9	7
900	2220	153.2	156	3330	229.8	234	2442	168.5	172	100	6.9	7
1500	3705	255.3	261	5558	383.0	391	4076	280.8	287	100	6.9	7
2500	6170	425.5	434	9255	638.3	651	6787	468.1	477	100	6.9	7

(1) Typical only - Rating pressure may change for different materials

Conversion Factors 1 bar =14.50 psi 1 kgf/cm<sup>2</sup> = 0.981 bar 1 bar = 100 kpa 1 kgf/cm<sup>2</sup> = 14.22 psi

 $1 \,^{\circ}F = (1.8 \times ^{\circ}C) + 32 \,^{\circ}C = (^{\circ}F - 32) / 1.8$ 

#### SEAT SEAL & O-RING TEMPERATURE-PRESSURE RATINGS

#### Seat Seal O-Ring Upper Temperature Limit O-Ring Lower Temperature Limit

S-1: PEEK

S-2: Carbon Fiber+PTFE S-3: (1)Glass Fiber+PTFE

(2)Glass Fiber+PTFE+MoS2

S-4: Virgin PTFE S-5: Nylon+MoS2

S-6: PPL

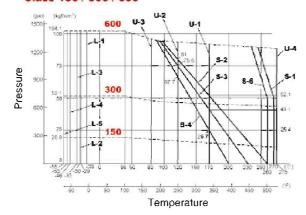
U-1: (1)FPM L-1: FPM

(2)FPM-LT U-2: (1)EPDM (2)ECO

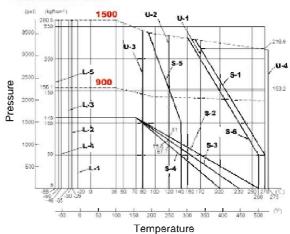
U-3: (1)NBR (2)NBR-LT L-4: ECO

U-4: Kalrez-6375 L-5: NBR-LT

#### Class 150 / 300 / 600



#### Class 900 / 1500



L-2: (1)EPDM (2)NBR

L-3: FPM-LT

### **PRODUCT PHOTOS**



32", 40" Class 600 Forged Split-body



12" Class 600 Cast Top-entry for Underground Service





56" Class 900 Forged Fully Welded



6" Class 2500 Forged Split-body



48" Class 600 Forged Fully Welded for Underground Service

20" Class 600 Cast Top-entry



24" Class 600 Forged Top-entry with Pipe Pups



### **HOW TO ORDER**

#### PLEASE PROVIDE FOLLOWING INFORMATION:

- 1. Max./Min. Operating Pressure, Max. /Min. Service Temp, Special Flow/Service Environment Requirements.
- 2. Design Standard (API6D, ASME B16.34, API 608 or Other).
- 3. Test Requirements (Standard Package, UT, PT, MT, RT, High Pressure (N2/Air), Low Emission, Low Temp. or other).
- 4. Other Requirements (Mating Flange, PUP, Third-party Inspection or other).



#### EXAMPLE: T10-20 × 16-150RF-G-C5VV0021B2-D

Forged steel split body trunnion ball valve, 20×16" reduced port, ASME 150, Flanged RF, Gear actuator, A105N body, VITON/VITON seals, A105N trim, ENP trim coating, B7/2H bolts&nuts, Double piston effect of seat.

А	MODEL		
CODE	TYPE	CODE	TYPE
T10	Forged Steel Split-Body Trunnion Ball Valve	T23	Forged Steel Direct-Buried Trunnion Ball Valve*
T11	Cast Steel Split-Body Trunnion Ball Valve	T70	Cast Steel Top-EntryTrunnion Ball Valve
T12	Forged Steel Split-Body Direct-Buried Trunnion Ball Valve*	T71	Forged Steel Top-Entry Trunnion Ball Valve
T13	Cast Steel Split-Body Direct-Buried Trunnion Ball Valve*	T72	Cast Steel Top-Entry Direct-Buried Trunnion Ball Valve*
T20	Forged Steel Fully Welded Trunnion Ball Valve	T73	Forged Steel Top-Entry Direct-Buried Trunnion Ball Valve*

\*Need to provide extended stem height

В	SIZE										
	FULL BC	RE		REDUCED BORE							
CODE	NPS (DN)	CODE	NPS (DN)	CODE	NPS (DN)	CODE	NPS (DN)	CODE	NPS (DN)		
1	1(25)	20	20(500)	1-1/2×1	1-1/2 × 1(40 × 25)	18×14	18 × 14(450 × 350)	32×30	32 × 30(800 × 750)		
1-1/2	1-1/2(40)	22	22(550)	2×1-1/2	2 × 1-1/2(50 × 40)	18×16	18 × 16(450 × 400)	36×30	36 × 30(900 × 750)		
2	2(50)	24	24(600)	3×2	3×2(80×50)	20×16	20 × 16(500 × 400)	36 × 32	36 × 32(900 × 800)		
3	3(80)	28	28(700)	4×3	4 × 3(100 × 80)	20 × 18	20 × 18(500 × 450)	40×36	40 × 36(1000 × 900)		
4	4(100)	30	30(750)	6×4	6×4(150×100)	22×18	22 × 18(550 × 450)	42×36	42 × 36(1050 × 900)		
6	6(150)	32	32(800)	8×6	8 × 6(200 × 150)	22×20	22 × 20(550 × 500)	42×40	42×40(1050×1000)		
8	8(200)	36	36(900)	10×8	10 × 8(250 × 200)	24 × 20	24 × 20(600 × 500)	48 × 40	48 × 40(1200 × 1000)		
10	10(250)	40	40(1000)	12×10	12 × 10(300 × 250)	24 × 22	24 × 22(600 × 550)	56 × 48	56 × 48(1400 × 1200)		
12	12(300)	48	48(1200)	14×10	14×10(350×250)	28 × 24	28 × 24(700 × 600)	60×56	60 × 56(1500 × 1400)		
14	14(350)	56	56(1400)	14×12	14 × 12(350 × 300)	30 × 24	30 × 24(750 × 600)				
16	16(400)	60	60(1500)	16×12	16 × 12(400 × 300)	30×28	30 × 28(750 × 700)				
18	18(450)			16×14	16 × 14(400 × 350)	32×28	32 × 28(800 × 700)				

С	PRESSUF	E RATI	NG	D	CONNECTION			
CODE	TYPE	CODE	TYPE	CODE	TYPE	CODE	TYPE	
150	ASME 150	1.6P	PN 16		Flanged RF-B16.5(NPS 1/2~NPS 24)	RFB	Flanged RF-B16.47(NPS 26~NPS 60) Series B	
300	ASME 300	3.2P	PN 32	RF	Flanged RF-MSS SP 44(NPS 22)	RJB	Flanged RJ-B16.47(NPS 26~NPS 60) Series B	
400	ASME 400	6.4P	PN 64		Flanged RF-B16.47(NPS 26~NPS 60) Series A	SW	Socket Weld-ASME B16.11	
600	ASME 600	8P	PN 80		Flanged RJ-B16.5(NPS 1/2~NPS 24)	ET	External Thread-ASME B1.20.1	
900	ASME 900	10P	PN 100	RJ	Flanged RJ-MSS SP 44(NPS 22)	BW	Butt Weld-ASME B31.8*	
1500	ASME 1500	16P	PN 160		Flanged RJ-B16.47(NPS 26~NPS 60) Series A	XX	Others	
2500	ASME 2500	25P	PN 250	*For w	eld end valves, specify ID or OD, wall thickness	and gra	ade of pipe.	
		32P	PN 320					

Е	ACTUATION	-		- 1935 - 1935
CODE	TYPE	CODE	TYPE	Type operator desired (electric, hydraulic, pneumatic), provide
В	Bare Stem	S	Pneumatic-Spring Return	following information:  1. Speed of opening and closing, probable frequency of operation.
W	Wrench	D	Pneumatic-Double Acting	2. Accessories and controls (limit switches, valving, instrumentation,
G	Worm Gear	М	Gas-Hydraulic	<ul> <li>tanks, pumps, etc).</li> <li>Information on operating medium. (If electric: voltage, frequency,</li> </ul>
E	Electric	N	Electro-Hydraulic	single-or three-phase, open-or explosion-proof motor, If hydraulic or pneumatic: operating medium and pressure, etc.)
Н	Hydraulic	X	Others	Tryal dalle of production operating medium and procedure, etc.)

F	BODY MATE	RIAL						
CODE	BODY	CLOSURES(SPLIT-BODY) BONNET(TOP ENTRY) END CONNECTION(FOR BW)	CODE	SODY	CLOSURES(SPLIT-BODY)  BONNET(TOP ENTRY)  END CONNECTION(FOR BW)	CODE	BODY	CLOSURES(SPLIT-BODY) BONNET(TOP ENTRY) END CONNECTICAN(FOR BW)
C1	A216 WCB	A216 WCB	S8	A182 F316L	A182 F316L	AA	A350 LF2	A350 LF6 CL1
C2	A216 WCC	A216 WCC	D0	A995 4A(UNS J92205)	A995 4A(UNS J92205)	AB	A350 LF2	A350 LF6 CL2
C5	A105N	A105N	D1	A995 5A(UNS J93404)	A995 5A(UNS J93404)	AC	A105N	A216 WCB
L1	A352 LCB	A352 LCB	D5	A182 F51(UNS S31803)	A182 F51(UNS S31803)	AD	A105N	A350 LF2
L2	A352 LCC	A352 LCC	D6	A182 F53(UNS S32750)	A182 F53(UNS S32750)	AE	A350 LF2	A352 LCB
L5	A350 LF2	A350 LF2	D7	A182 F55(UNS S32760)	A182 F55(UNS S32760)	AF	A350 LF2	A694 F60
SO	A351 CF8	A351 CF8	D8	A182 F60(UNS S32205)	A182 F60(UNS S32205)	AH	A105N	A350 LF6 CL2
S1	A351 CF3	A351 CF3	15	INCONEL 600(UNS N06600)	INCONEL 600(UNS N06600)	AL	A105N	A350 LF6 CL1
S2	A351 CF8M	A351 CF8M	16	INCONEL 625(UNS N06625)	INCONEL 625(UNS N06625)	AM	A216 WCB	A105N
S3	A351 CF3M	A351 CF3M	17	CW6MC(UNS N26625)	CW6MC(UNS N26625)	XX	Others	Others
S5	A182 F304	A182 F304	18	INCOLOY 825(UNS N08825)	INCOLOY 825(UNS N08825)			
S6	A182 F316	A182 F316	M6	MONEL K500(UNS N05500)	MONEL K500(UNS N05500)			
S7	A182 F304L	A182 F304L	H5	HASTELLOY C-276 (UNS N10276)	HASTELLOY C-276 (UNS N10276)			

G	SEALS(1)				2)				
CODE	SEAT INSERT	O-Ring	CODE	SEAT INSERT	O-Ring	CODE	SEAT INSERT	O-Ring	
VV	VITON-B(2)	VITON-B	DH	DEVLON	HNBR	KT	PEEK	VITON-GLT	
VH	VITON-B(2)	HN8R	DG	DEVLON	VITON-GF	KQ	PEEK	PTFE-Elgiloy Spring	
VT	VITON-B(2)	VITON-GLT	DT	DEVLON	VITON-GLT	YV	N/A(3)	VITON-B	
GG	VITON-GF(2)	VITON-GF	DQ	DEVLON	PTFE-Elgiloy Spring	YH	N/A(3)	HNBR	
TT	VITON-GLT(2)	VITON-GLT	NV	NYLON	VITOn-B	YG	N/A(3)	VITON-GF	
HH	HNBR(2)	HNBR	NH	NYLON	HNBR	YT	N/A(3)	VITON-GLT	
FV	RPTFE	VITON-B	NG	NYLON	VITON-GF	YQ	N/A(3)	PTFE-Elgiloy Spring	
FH	RPTFE	HNBR	NT	NYLON	VITON-GLT	PQ	PCTFE	PTFE-Elgiloy Spring	
FG	RPTFE	VITON-GF	NQ	NYLON	PTFE-Elgiloy Spring	XX	Others	Others	
FT	RPTFE	VITON-GLT	KV	PEEK	VITON-B	(1) All seals on gaskets are Graphite. (2) Delta Ring. (3) Metal-to-Metal.			
FQ	RPTFE	PTFE-Elgiloy Spring	KH	PEEK	HNBR				
DV	DEVLON	VITON-B	KG	PEEK	VITON-GF				

H	TRIM MATER	TRIM MATERIAL						
CODE	BALL	SEAT RINGS	STEM	CODE	BALL	SEAT RINGS	STEM	
002	A105N	A105N	AISI 4140	411	A182 F316	A182 F316	A182 FXM-19(UNSS20910)	
004	A105N	A182 F304	AISI 4140	502	A182 F304L	A182 F304L	A182 F51(UNS S31803)	
012	A105N	A182 F6A	AISI 4140	603	A182 F316L	A182 F316L	A182 F51(UNS S31803)	
020	A105N	A105N	A182 F6A	650	A182 FXM-19(UNS S20910)	A182 FXM-19(UNS S20910)	A182 FXM~19(UNS S20910)	
081	A694 F60	A105N	A694 F60	680	A564 GR.630(UNS S17400)	A564 GR.630(UNS S17400)	A564 GR.630(UNS S17400)	
101	A350 LF2	A350 LF2	A350 LF2	701	A182 F51(UNS S31803)	A182 F51(UNS S31803)	A182 F51(UNS S31803)	
102	A350 LF2	A350 LF2	AISI 4140	702	A182 F51(UNS S31803)	A182 F51(UNS S31803)	INCONEL 718(UNS N07718)	
104	A350 LF2	A182 F304	AISI 4140	751	A182 F53(UNS S32750)	A182 F53(UNS S32750)	A182 F53(UNS S32750)	
109	A350 LF2	A350 LF2	A564 GR.630(UNS S17400)	752	A182 F53(UNS S32750)	A182 F53(UNS S32750)	INCONEL 718(UNS N07718)	
122	A350 LF2	A350 LF2	A182 F6A	761	A182 F55(UNS S32760)	A182 F55(UNS S32760)	A182 F55(UNS S32760)	
278	A182 F6A	A182 F6A	A182 F6A	801	INCONEL 600(UNS N06600)	INCONEL 600(UNS N06600)	INCONEL 600(UNS N06600)	
279	A182 F6A	A182 F304	A564 GR.630(UNS S17400)	802	INCONEL 600(UNS N06600)	INCONEL 600(UNS N06600)	INCONEL 718(UNS N07718)	
280	A182 F6A	A182 F304	A182 F6A	805	INCONEL 625(UNS N06625)	INCONEL 625(UNS N06625)	INCONEL 625(UNS N06625)	
301	A182 F304	A182 F304	A182 F304	809	INCONEL 718(UNS N07718)	INCONEL 718(UNS N07718)	INCONEL 718(UNS N07718)	
303	A182 F304	A182 F304	A564 GR.630(UNS S17400)	821	INCOLOY 825(UNS N08825)	INCOLOY 825(UNS N08825)	INCONEL 718(UNS N07718)	
311	A182 F304	A182 F304	A182 F51(UNS S31803)	826	INCOLOY 925(UNS N09925)	INCOLOY 925(UNS N09925)	INCOLOY 925(UNS N09925)	
401	A182 F316	A182 F316	A182 F316	831	HASTELLOY C-276 (UNS N10276)	HASTELLOY C-276 (UNS N10276)	HASTELLOY C-276 (UNS N10276)	
403	A182 F316	A182 F316	A564 GR.630(UNS S17400)	841	MONEL K500(UNS N05500)	MONEL K500(UNS N05500)	MONEL K500(UNS N05500)	
405	A182 F316	A182 F316	A182 F51(UNS S31803)	XXX	Others	Others	Others	

1	TRIM COATING				BOLTS & NUTS				
CODE	SALL	SEAT RINGS	STEM/TRUNNION	CODE	BOLT	NUT	CODE	BOLT	NUT
0	N/A	N/A	N/A	B1	A193 87M	A194 2HM	N5	A320 B8M CL.2	A194 Gr.8M-S1
1	ENP	ENP	ENP	B2	A193 87	A194 2H	N6	A320 B8M CL.1	A194 Gr.8MA
В	Stellite*	Stellite*	ENP	B3	A320 L7M	A194 7M	XX	Others	Others
L	Chrome Carbide*	Chrome Carbide*	ENP	B4	A320 L7	A194 Gr.7			
M	Tungsten Carbide*	Tungsten Carbide*	ENP	B5	A193 B8M	A194 Gr.8M			
Р	NiCrMoCu*	NiCrMoCu*	ENP	B6	A193 B8	A194 Gr.8	Ï		
X	Others	Others	Others	B7	A193 B16	A194 Gr.7			
*Ball and	*Ball and seat rings sealing surface.			B8	A320 L7	A194 Gr.4			

K	SPECIAL REQUIREMENTS, Misc (Multiple Choice)
CODE	SPECIAL NOTES
E-	Specify distance from valve centerline to top of power operator mounting flange for direct-buried ball valve. Example, E2500 means the specify distance is 2500mm.
K	Anti-corrosion, acid-resisting regs are in compliance with NACE MR0103, NACE MR0175, ISO 15156. Please provide detailed medium composition.
D	Double piston effect (Single piston effect (self-release) seats are supplied as a standard feature).
SD	Single piston for upstream and double piston for downstream (self-release).
B-	Bolts&nuts coating, BE: ENP, BZ: Zinc Plating, BT: PTFE, BC: Cadmium+PTFE.
X	Others special requirements.

Notes: If you are uncertain about some categories, we will make suggestions based on your working conditions or your special requirement.

The item marked with default will be used if no item is selected in that category unless it doesn't meet the working requirements.