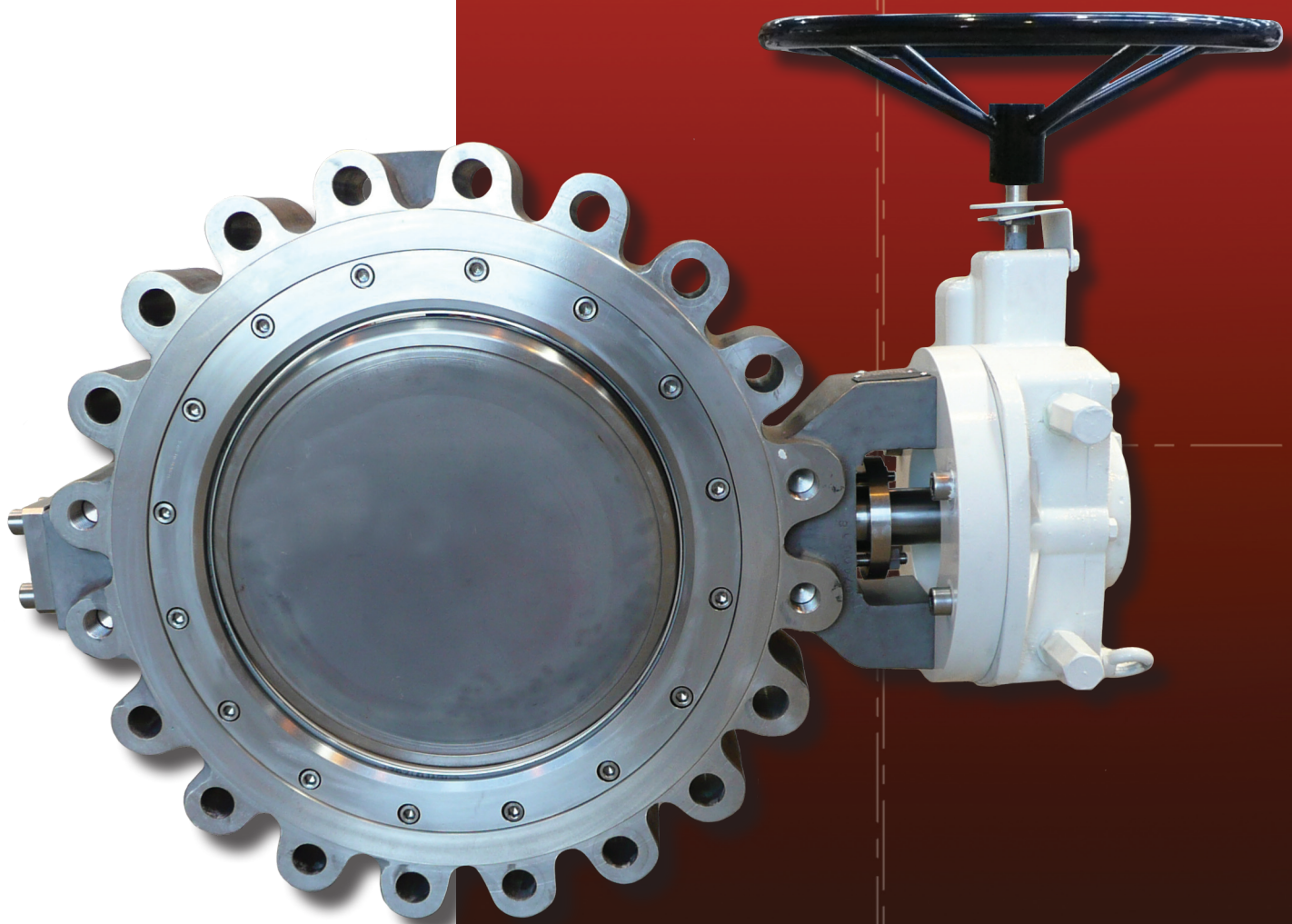


Solent & Pratt T-Series



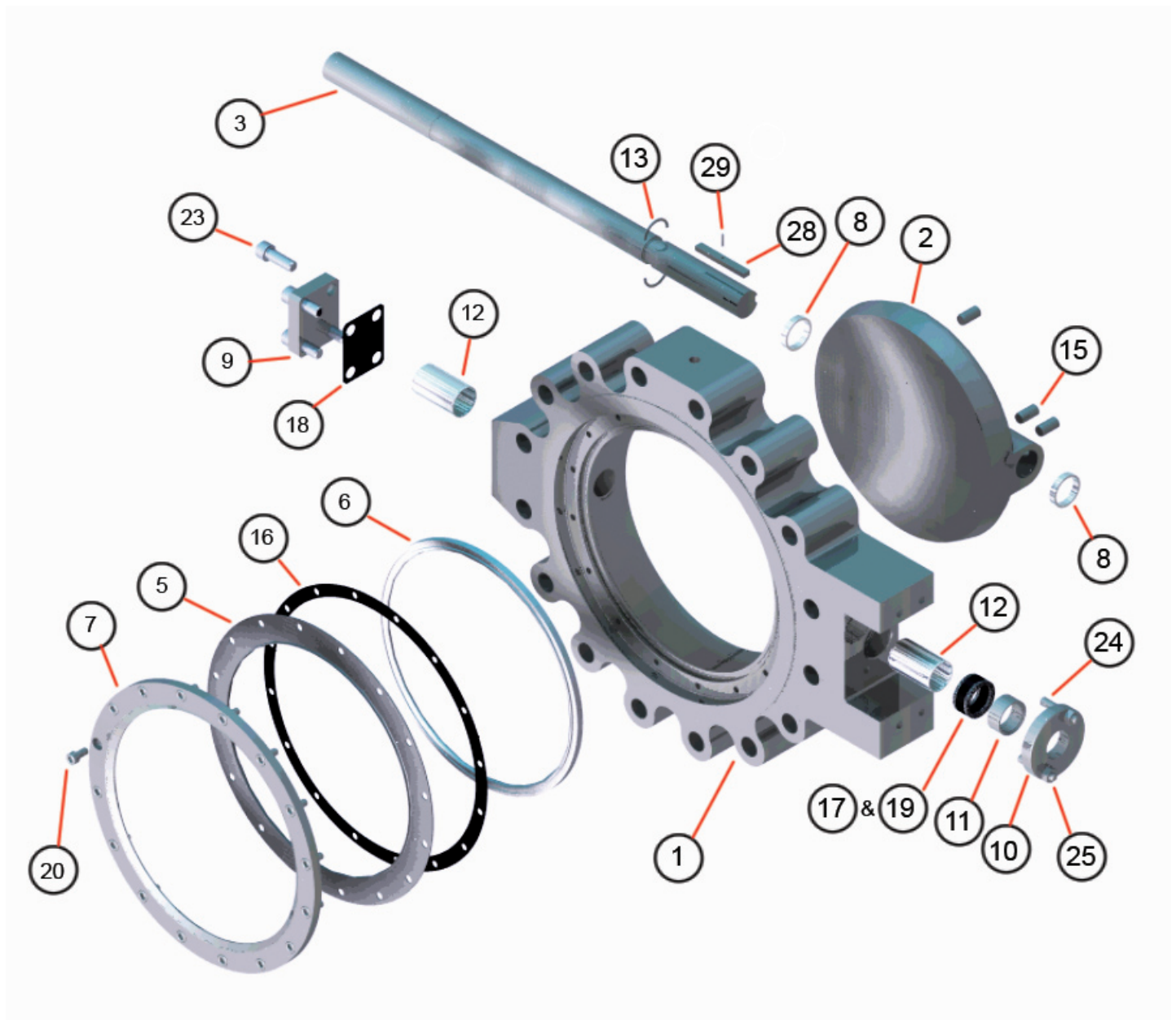
**CURTISS -
WRIGHT**

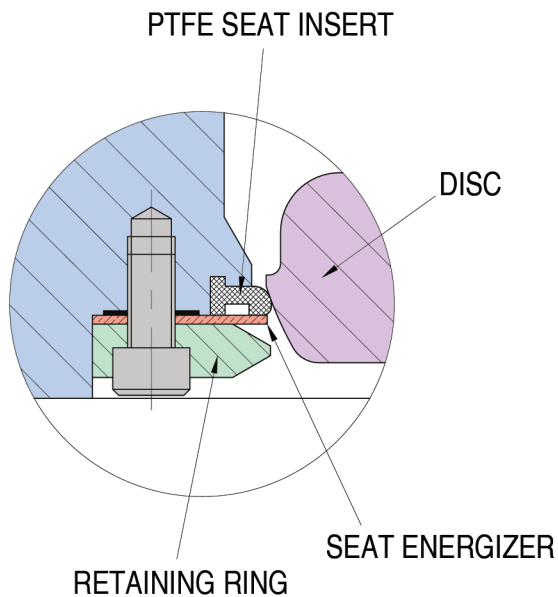
For 50 years Solent & Pratt has been at the forefront of the design, development and manufacture of high quality butterfly valves for engineering projects around the world. An absolute commitment to outstanding quality and reliability is the key of our success, particularly in environments such as the oil and gas, chemical, petro-chemical and power generation industries.

Certification	Firesafe To BS 6755 Part 2 & BS EN ISO 10497
Operation	Tight Shut Off In Both Directions To API 598.
Maintenance	Field Replaceable PTFE Insert and Secondary Metal Seat.
Pressure Rating	Ansi 150#, 300#. Pn 6, Pn 10, Pn 16, Pn 25. Others On Request.
Geometry	Double Offset Giving Low Unseating and Seating Torque.
Safety Feature	Electro-Less Nickel Plated Spherical Disc Periphery
Body Designs	Anti Blow Out Device To API 609
	Double Flanged
	Wafer Lugged
	Wafer Flangeless
Flange Designs	ANSI
	API
	MSS
	BS
	PN
	ISO
	DIN
Actuation	Manual Gearbox
	Pneumatic
	Electric
	Hydraulic
Body Materials	Standard; Carbon Steel (ASTM A216 WCB)
	Stainless Steel (ASTM A351 CF8M)
	Aluminium Bronze (BS1400 AB2)
Alternative Body Materials	Monel 400
	Zeron 100
	Duplex Stainless Steels
	Titanium
	Avesta 254 6 Mo
	Inconel
	Hastelloy

Materials of Construction

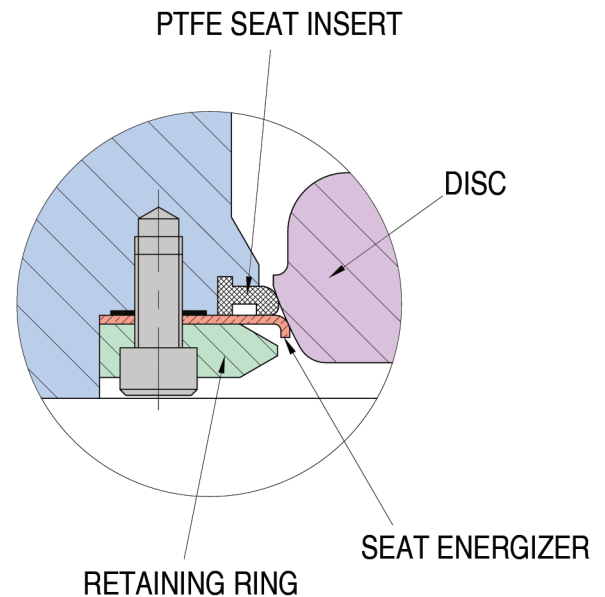
Item	Description	Qty	Material (Steel)	Material (Bronze)
1	Body	1	ASTM A216 WCB	ASTM B148 C95800 Aluminium Bronze
2	Disc	1	ASTM A216 WCB	ASTM B148 C95800 Aluminium Bronze
3	Drive Shaft	1	ASTM A.564 Type 630. H1150 + H1150	MONEL K500 BS 3076 NA18 (HW+PT)
5	Secondary Metal Seat	1	INCONEL 625 ASTM B.443 GR.1	INCONEL 625 ASTM B.443 GR.1
6	Insert	1	PTFE	PTFE
7	Retaining Ring	1	ASTM A.479 S31600	BSEN 12163 CW307G-R680 Ali-Bronze
8	Thrust Ring	2	ASTM A.479 S31600	BSEN 12163 CW307G-R680 Ali-Bronze
9	End Cover	1	ASTM A.479 S31600	BSEN 12163 CW307G-R680 Ali-Bronze
10	Gland Plate	1	ASTM A.479 S31600	BSEN 12163 CW307G-R680 Ali-Bronze
11	Gland Follower	1	ASTM A.479 S31600	BSEN 12163 CW307G-R680 Ali-Bronze
12	Bearing	2	INCONEL 625 PTFE FILLER CH 2	INCONEL 625 PTFE FILLER CH 2
13	Anti-Blow Out Ring	1	ASTM A.479 S31600	ASTM A.479 S31600
15	Shaft Pin	3	ASTM A.564 Type 630. H1150 + H1150	MONEL K500 BS 3076 NA18 (HW+PT)
16	Seat Ring Gasket	1	GRAPHITE	GRAPHITE
17	Gland Packing	3	GRAPHITE	GRAPHITE
18	End Cover Gasket	1	GRAPHITE	GRAPHITE
19	Gland Packing (braided)	2	GRAPHITE	GRAPHITE
20	Seat Ring Retaining Screw	4-24	BS.EN.ISO.3506-1 GRD. A4-70	MONEL K500 BS 3076 NA18 (HW+PT)
23	End Cover Retaining Screw	4-6	BS.EN.ISO.3506-1 GRD. A4-70	BS.EN.ISO.3506-1 GRD. A4-70
24	Gland Plate Stud	2	BS.EN.ISO.3506-1 GRD. A4-70	BS.EN.ISO.3506-1 GRD. A4-70
25	Gland Plate Retaining Nut	2	BS.EN.ISO.3506-1 GRD. A4-70	BS.EN.ISO.3506-1 GRD. A4-70
28	Key	1	ASTM A.564 Type 630. H1150 + H1150	ASTM A.564 Type 630. H1150 + H1150
29	Rollpin	1	STAIN.S 304SS	STAIN.S 304SS





Standard Design

The **PTFE** insert is rigidly held into the body and 'energised' onto the spherically machined disc by means of the secondary seat which is fixed into the body by a bolted-in retaining ring. This version is used in low temperature and ambient applications



Firesafe Design

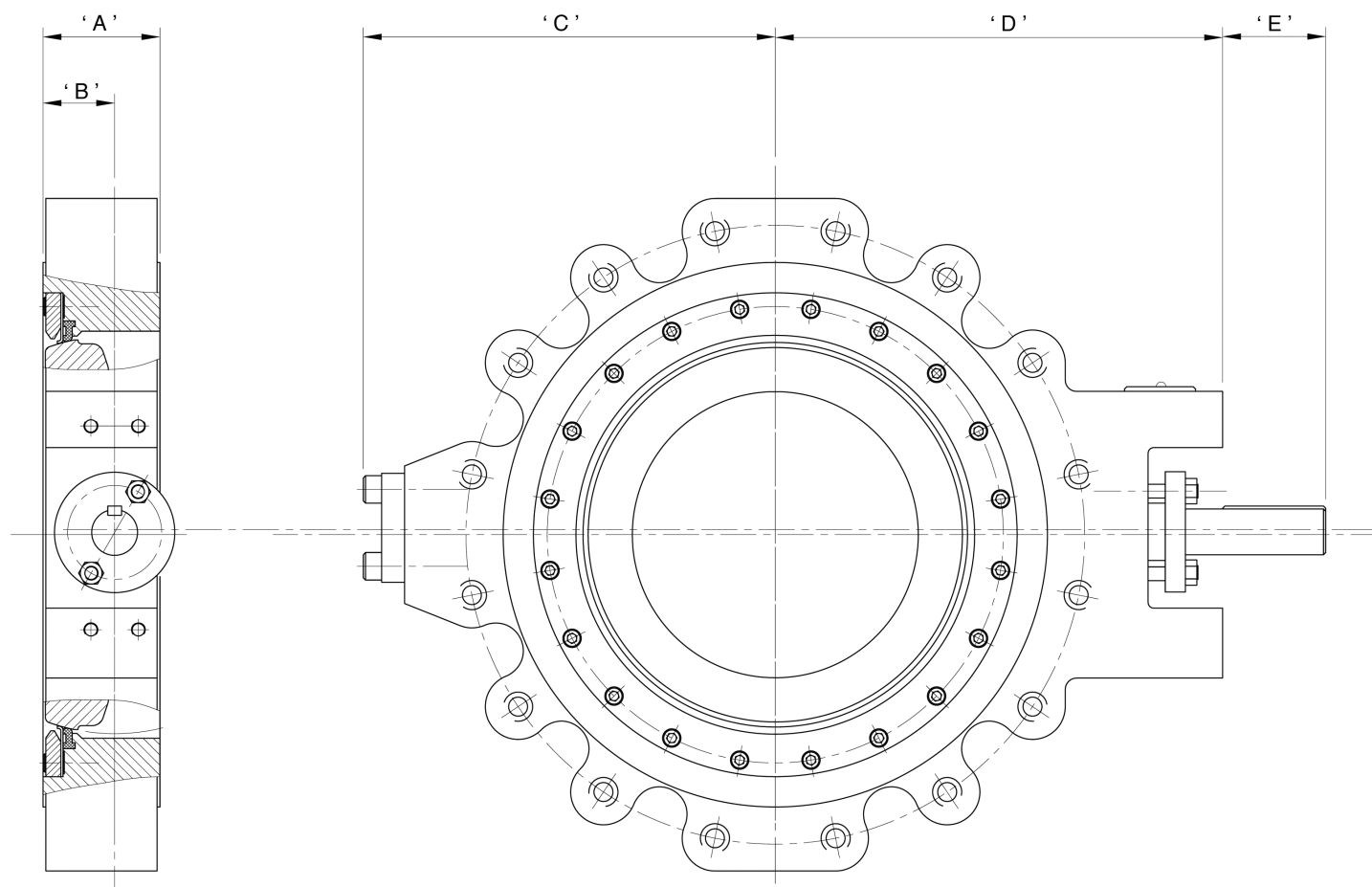
The **PTFE** insert is rigidly held into the body and 'energised' onto the spherically machined disc by means of the secondary seat which extends onto the disc periphery and fixed into the body by a bolted-in retaining seat. When the PTFE insert is burnt away during a fire, the secondary metal seat is designed to 'energise' onto the disc and form a seal in both directions.

Operators

Valves can be supplied with manual, electric, pneumatic or hydraulic actuators. Fail-safe systems for emergency operation are also available

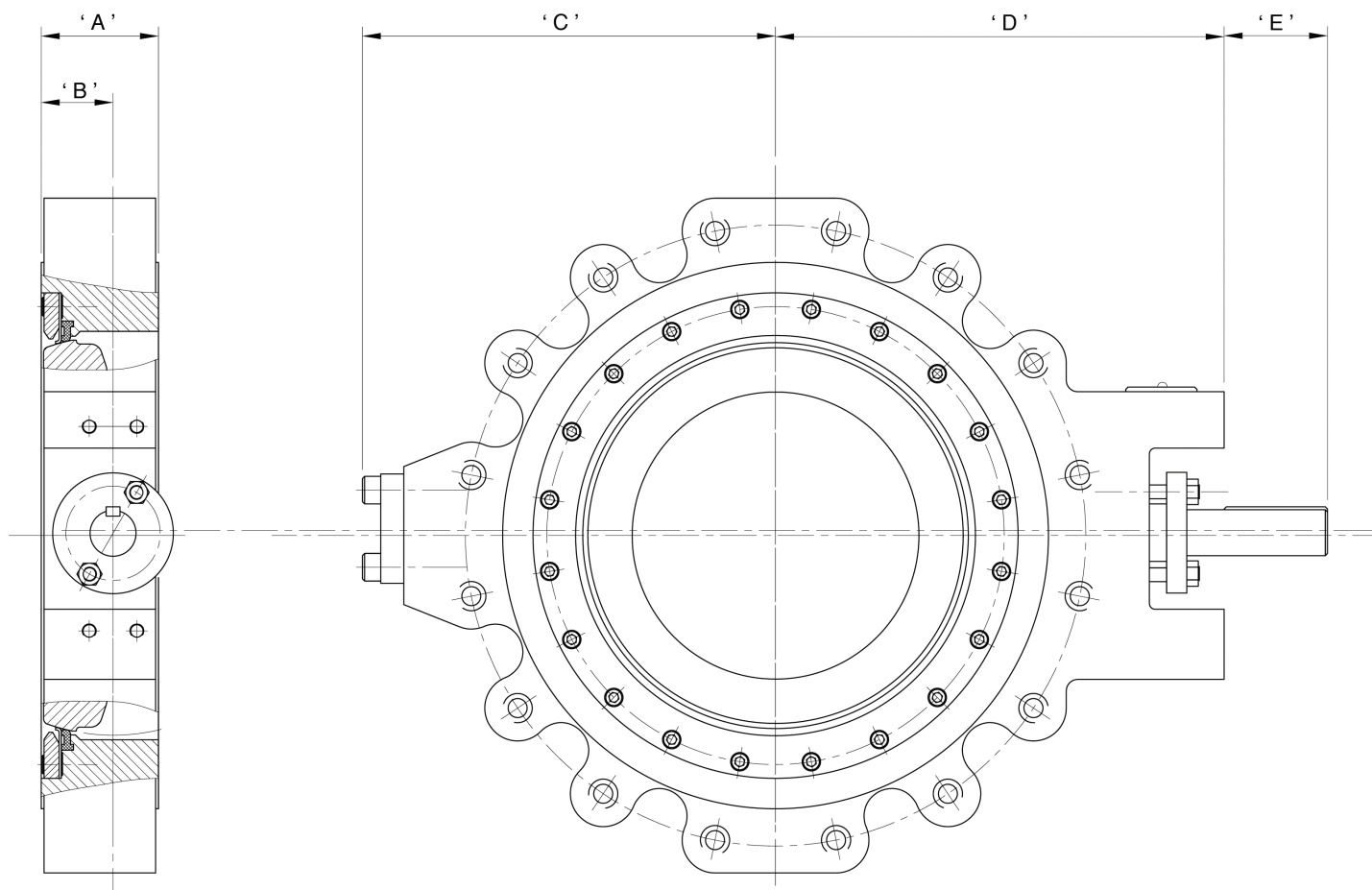
General Design

The shaft is of one-piece construction with an anti-blow out feature external to the pressure boundary on the drive side conforming to API 609. If failure of the shaft to disc connection or internal failure of the shaft occurs due to excessive torques, no portion of the shaft can be ejected from the valve as a result of internal pressure. This single piece construction also provides a rigid assembly when pinned to the disc via means of shaft pins (peened over and locked). This prevents excessive disc deflections, which maintains a constant disc/insert contact stress ensuring a bi-directional sealing valve at both low and high pressures. The valve has a double offset design providing a camming action. This eliminates excessive wear between the seat and disc sealing interface both during the opening and closing strokes extending the sealing life of the valve. Maintenance of the valve is quick and relatively simple. The **PTFE** insert, seat gasket and secondary seat can be replaced by simply un-bolting the retaining ring and assembling the new parts without removing any other parts. Gland packing is simply adjusted by tightening gland nuts, which are easily accessible between the mounting legs without having to remove the adaptor plate or actuator.



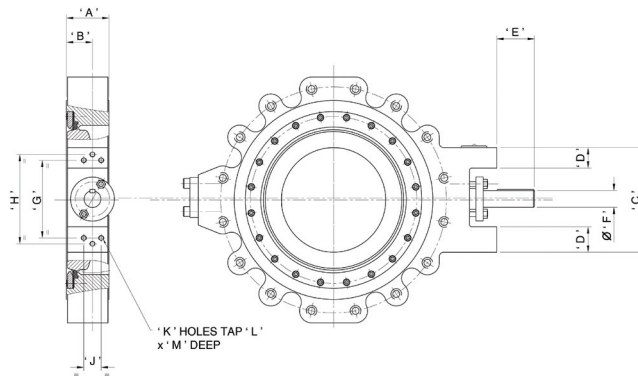
T-Series 150# range (dimensions in mm)

Valve Size Inches	mm	Dim A	Dim B	Dim C	Dim D	Dim E	Wt. Kg	Wt. Lbs
3	80	48	29	125	167	50	20	44
4	100	54	31.5	161	197	50	28	61.6
6	150	57	36.5	168	215	55	35	77
8	200	64	41.5	202	248	70	60	132
10	250	71	47.5	235	285	70	80	176
12	300	81	50	285	328	78	120	264
14	350	92	58.5	315	362	77	150	335
16	400	102	62.5	360	390	90	190	418
18	450	114	72	386	424	105	215	473
20	500	127	75.5	402	450	100	275	605
24	600	154	88.5	489	546	137	445	979
26	650	229	114.5	485	560	150	560	1232
28	700	229	114.5	515	600	150	650	1430
30	750	229	114.5	597	635	160	785	1727
32	800	229	114.5	636	690	160	845	1859
34	850	241	120.5	610	710	180	1050	2310
36	900	241	120.5	635	735	180	1150	2530
38	950	300	150	670	770	180	1340	2948
40	1000	300	150	695	795	200	1500	3300
42	1050	300	150	725	825	225	1605	3531
44	1100	300	150	750	840	250	1795	3949
46	1150	350	175	780	890	275	1995	4389
48	1200	350	175	815	925	300	2200	4862



T-Series 300# range (dimensions in mm)

Valve Size Inches	mm	Dim A	Dim B	Dim C	Dim D	Dim E	Wt. Kg	Wt. Lbs
3	80	48	29	125	167	50	23	50.6
4	100	54	31.5	161	197	50	33	72.6
6	150	59	36.5	167.5	215	55	54	118.8
8	200	73	41.5	202	270	80	84	184.8
10	250	83	47.5	235	309	85	125	275
12	300	92	50	385	360	90	158	347.6
14	350	117	58.5	287	407	109	278	611.6
16	400	133	66.5	360	435	105	355	781
18	450	149	73	386	482	130	410	902
20	500	159	79.5	402	515	135	46	1012
24	600	181	90.5	489	638	140	690	1518
26	650	229	114.5	520	645	150	930	2046
28	700	229	114.5	560	680	150	1000	2200
30	750	229	114.5	645	705	170	1300	2860
32	800	241	120.5	665	730	180	1425	3135
34	850	241	120.5	695	750	180	1595	3509
36	900	241	120.5	705	775	200	1800	3960
38	950	300	150	715	800	200	1885	4147
40	1000	300	150	720	825	210	2080	4576
42	1052	300	150	730	850	225	2495	5489
44	1100	300	150	750	875	250	2795	6146
46	1150	350	175	780	900	280	3050	6710
48	1200	350	175	815	925	300	3500	7700



Valve Size Inches mm	A	B	C	D	E	F	G	H	J	K	L	M
RANGE 150#												
3 80	48	29	120	30	50	15.984 15.947	79	-	16	4	M6	13
4 100	54	31.5	120	30	50	19.980 19.947	79	-	16	4	M6	13
6 150	57.5	36	120	28	55	24.980 24.947	95	-	16	4	M6	13
8 200	64	41	130	28	70	21.480 21.447	95	-	16	4	M8	18
10 250	71	47	152	22	70	25.980 25.947	95	-	16	4	M8	18
12 300	81	50	152	36	78	31.975 31.936	127	-	25.4	4	M10	18
14 350	92	58.5	178	35	77	34.975 34.936	127	-	25.4	4	M10	18
16 400	102	62.5	238	49	90	39.975 39.936	178	-	41	4	M12	25
18 450	114	72	240	51	105	44.975 44.936	197	-	51	4	M16	23
20 500	127	75.5	284	67	100	51.970 51.924	197	-	63.5	4	M20	323
24 600	154	88.5	282	50	137	61.970 61.924	241.3	-	76.2	4	M20	32

Valve Size Inches mm	A	B	C	D	E	F	G	H	J	K	L	M
RANGE 300#												
3 80	48	29	120	30	50	15.984 15.947	79	-	16	4	M6	13
4 100	54	31.5	120	30	50	19.980 19.947	79	-	16	4	M6	13
6 150	60	36	127	31.5	55	24.980 24.947	90	-	16	4	M8	18
8 200	73	41.5	150	35	80	31.975 31.936	127	-	25.4	4	M10	18
10 250	86.7	47	212	46	85	37.975 37.936	178	-	41	4	M12	21
12 300	95	50	208	34	90	44.975 44.936	178	-	41	4	M12	21
14 350	177	58.5	277	65	109	54.970 54.924	197	-	63.5	4	M16	26
16 400	133	66.5	238	44	105	59.970 59.924	198	-	63.5	4	M20	32
18 450	149	73	288	54	130	69.970 69.924	241.3	-	76.2	4	M20	32
20 500	159.5	80	344	74	135	74.970 74.924	285	305	110	6	M20	34
24 600	181	90.5	352	75	140	89.964 89.910	285	305	110	6	M20	30

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