

TOV Bill of Materials
3 to 12 Inches Lug & Wafer
ASME Class 150 & 300
Per API 609

Part Description		Material		Specification
1	Body	TOXXCS48G3XX (Carbon Steel)	TOXXSS48G3XX (Stainless Steel)	
		Carbon Steel w/Stellite 21 Seat Overlay	Stainless Steel w/Stellite 21 Seat Overlay	ASTM A216, WCB ASTM A351, CF8M
2	Disc	Stainless Steel		ASTM A351, CF8M
3	Disc Seat Retainer	Stainless Steel		ASTM A276, TY. 316
4	Seal Ring*	Stainless Steel/Graphite Laminate		UNS S30408/GRAHPIE LAMINATE
5	Stem	17-4PH Stainless Steel		17-4PH
6	Stem Limit Block	Stainless Steel		ASTM A276, TY. 304 NITRIDED
7	Bottom Cap	Carbon Steel		ASTM A216, WCB
			Stainless Steel	ASTM A351, CF8M
8	Packing Gland	Carbon Steel		ASTM A216, WCB
			Stainless Steel	ASTM A351, CF8M
9	Adapter Bracket	Carbon Steel		AISI 1020
10	Bearing	Stainless Steel		ASTM A276, TY. 304 NITRIDED
11	Packing, Reinforced*	Reinforced Graphite		Commercial
12	Packing*	Graphite		Commercial
13	Seal*	Graphite/Stainless Steel TY. 304		Commercial
14	Seal, Bottom Cap*	Graphite/Stainless Steel TY. 304		Commercial
15	Wedge, Disc/Stem	17-4PH Stainless Steel		17-4PH
16	Set Screw, Disc	Stainless Steel		Commercial
17	SHCS, Retainer	Stainless Steel		ASTM A193, Gr. B8M or ISO 4762 A4-70
18	Hex Bolt, Bottom Cap	Carbon Steel		ASTM A193, Gr. B7
			Stainless Steel	ASTM A193, Gr. B8M or ISO 4762 A4-70
19	Lock Washer, Bottom Cap	Carbon Steel		AISI 1066
			Stainless Steel	ANSI B18.21.1
20	Stud, Packing Gland	Carbon Steel		ASTM A193, Gr. B7
			Stainless Steel	ASTM A193, Gr. B8M or ISO 4762 A4-70
21	Lock Washer, Packing Gland	Carbon Steel		AISI 1066
			Stainless Steel	ANSI B18.21.1
22	Nut, Packing Gland	Carbon Steel		ASTM A194, Gr. 2H
			Stainless Steel	ASTM A194, Gr. 8M
23	Stud, Adapter Bracket	Carbon Steel		ASTM A193, Gr. B7
24	Lock Washer, Adapter Bracket	Carbon Steel		AISI 1066
25	Nut, Adapter Bracket	Carbon Steel		ASTM A194, Gr. 2H
26	Key, Stem	Carbon Steel		Commercial
27	Key, Seat Alignment	Stainless Steel		Commercial
28	Key, Bracket Alignment	Carbon Steel		Commercial
29	Bolt, Gear Operator	Carbon Steel		ASTM A193, Gr. B7
30	Gear Operator	Ductile Iron		ASTM A536

*Included in repair part kits

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TOV Bill of Materials

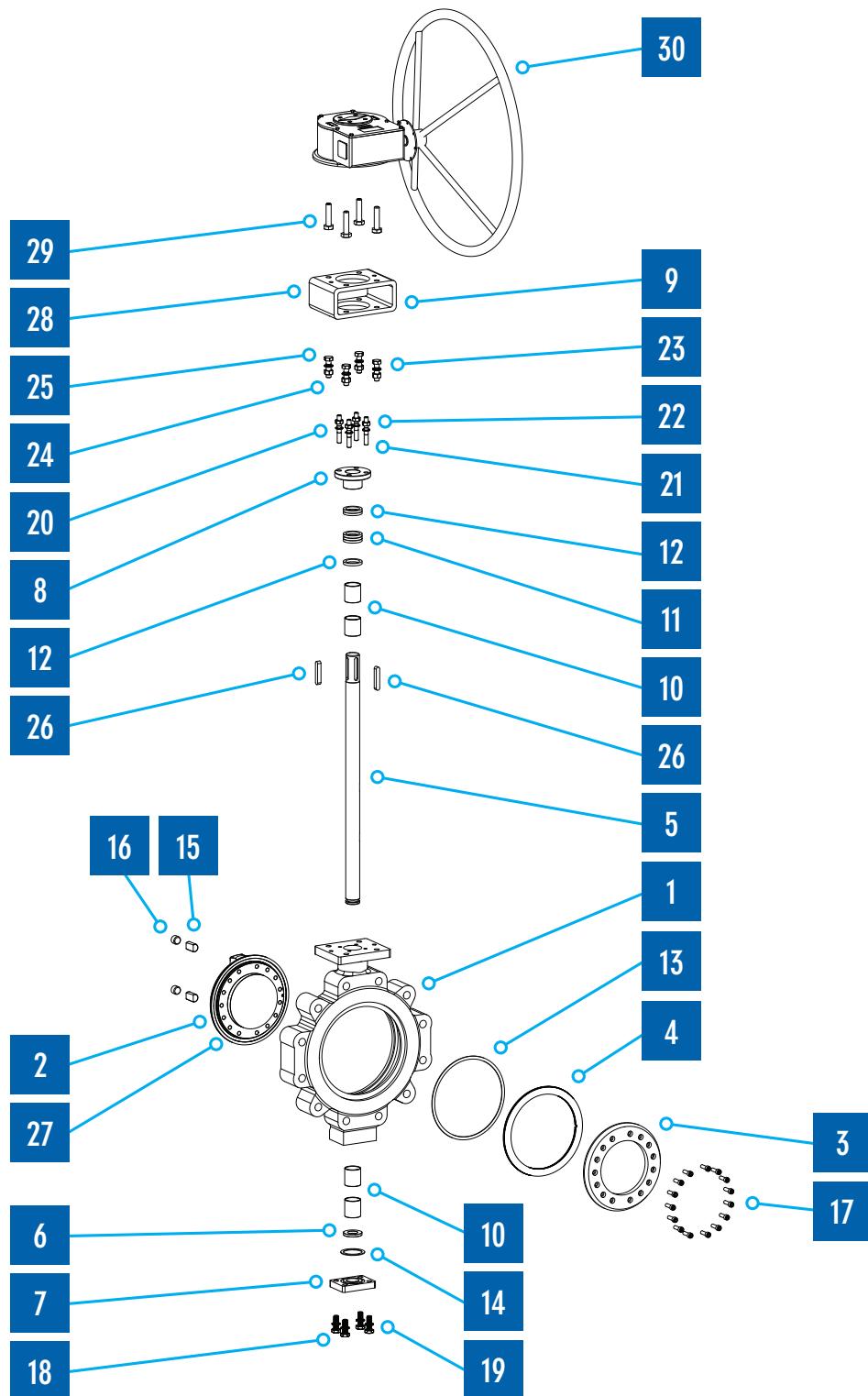
3 to 12 Inches Lug & Wafer

ASME Class 150 & 300

Per API 609

Part Description

- 1 Body
- 2 Disc
- 3 Disc Seat Retainer
- 4 Seal Ring*
- 5 Stem
- 6 Stem Limit Block
- 7 Bottom Cap
- 8 Packing Gland
- 9 Adapter Bracket
- 10 Bearing
- 11 Packing, Reinforced*
- 12 Packing*
- 13 Seal*
- 14 Seal, Bottom Cap*
- 15 Wedge, Disc/Stem
- 16 Set Screw, Disc
- 17 SHCS, Retainer
- 18 Hex Bolt, Bottom Cap
- 19 Lock Washer, Bottom Cap
- 20 Stud, Packing Gland
- 21 Lock Washer, Packing Gland
- 22 Nut, Packing Gland
- 23 Stud, Adapter Bracket
- 24 Lock Washer, Adapter Bracket
- 25 Nut, Adapter Bracket
- 26 Key, Stem
- 27 Key, Seat Alignment**
- 28 Key, Bracket Alignment**
- 29 Bolt, Gear Operator
- 30 Gear Operator



*Included in repair part kits

**Not shown

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TOV Dimensions – Lug 3 to 12 Inches
ASME Class 300
Per API 609

3"-12" CLASS 300 LUG								
Valve Size		Valve Dimensions						
		A	B	C	D	ØE B.C.	F Hole	G
3	in	9.53	10.98	5.83	2.07	6.62	8 x 3/4-10 UNC-2B	2.01
	mm	242.0	279.0	148.0	52.7	168.1		51.0
4	in	10.43	11.97	6.69	2.27	7.88	8 x 3/4-10 UNC-2B	2.24
	mm	265.0	304.0	170.0	57.7	200.2		57.0
6	in	13.39	15.31	8.03	2.86	10.62	12 x 3/4-10 UNC-2B	2.44
	mm	340.0	389.0	204.0	72.7	269.7		62.0
8	in	15.77	17.83	9.49	3.26	13.00	12 x 7/8-9 UNC-2B	2.99
	mm	400.5	453.0	241.0	82.7	330.2		76.0
10	in	17.32	19.80	10.87	3.65	15.25	16 x 1-8 UNC-2B	3.39
	mm	440.0	503.0	276.0	92.7	387.4		86.0
12	in	19.33	21.81	12.52	4.32	17.75	16 x 1-1/8-8 UN-2B	3.74
	mm	491.0	554.0	318.0	109.7	450.8		95.0
								53.0

3"-12" CLASS 300 LUG									
Valve Size		Disc Dimensions				Gear Dimensions			Weight (lbs.)
		J Intrusion	K Chord Diameter	L Intrusion	M Chord Diameter	N	P	ØQ	
3	in	0.03	0.56	0.70	2.30	2.05	6.57	11.81	40
	mm	0.8	14.2	17.8	58.4	52	167	300	
4	in	0.36	2.10	1.11	3.27	2.05	6.57	11.81	55
	mm	9.1	53.3	28.2	83.1	52	167	300	
6	in	1.06	4.28	2.04	5.22	3.11	9.06	19.69	103
	mm	26.9	108.7	51.8	132.6	79	230	500	
8	in	1.71	6.19	2.75	7.10	3.98	11.22	23.62	178
	mm	43.4	157.2	69.9	180.3	101	285	600	
10	in	2.42	8.07	3.51	8.92	2.09	15.35	19.69	269
	mm	61.5	205.0	89.2	226.6	53	390	500	
12	in	3.09	9.74	4.13	10.55	2.36	15.35	23.62	350
	mm	78.5	247.4	104.9	268.0	60	390	600	

NOTES:

1. Face-to-face dimensions are in strict accordance with ASME B16.10.
2. Flange/end connections are in strict accordance with ASME B16.5.

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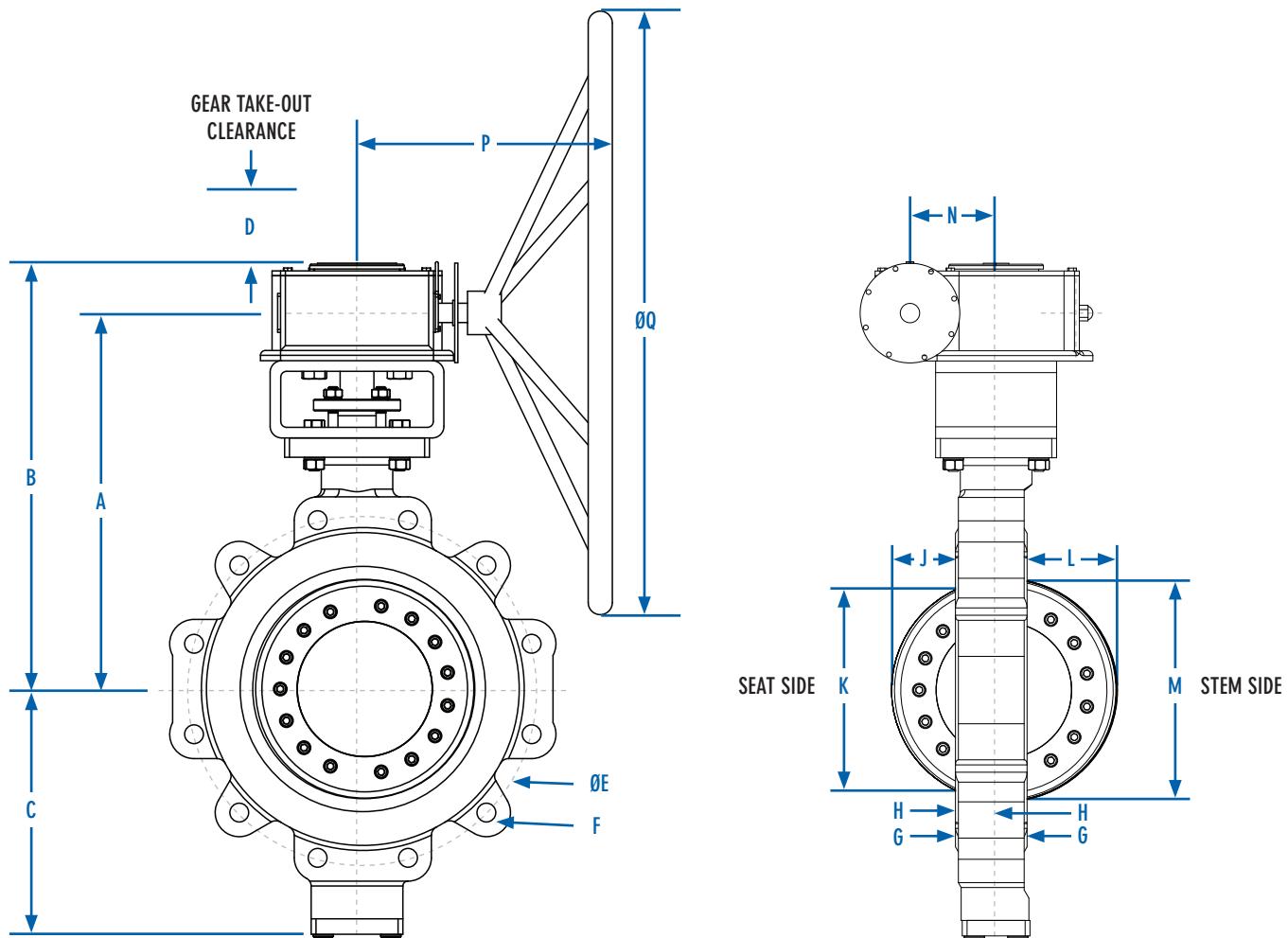
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