

# TØV Bill of Materials

## 14 to 24 Inches Lug & Wafer

### ASME Class 150 & 300

#### Per API 609

Part Description		Material		Specification
		TOXXCS48G3XX (Carbon Steel)	TOXXSS48G3XX (Stainless Steel)	
1	Body	Carbon Steel w/Stellite 21 Seat Overlay		ASTM A216, WCB
			Stainless Steel w/Stellite 21 Seat Overlay	ASTM A351, CF8M
2	Disc	Stainless Steel		ASTM A351, CF8M
3	Disc Seat Retainer	Stainless Steel		ASTM A182, F316
4	Seal Ring*	Stainless Steel/Graphite Laminate		ASTM A182, F51/GRAPHITE LAMINATE
5	Stem	Stainless Steel		17-4PH
6	Stem Limit Block	Stainless Steel		ASTM A276, TY. 316, NITRIDED
7	Bottom Cap	Carbon Steel		ASTM A105
			Stainless Steel	ASTM A182, F316
8	Packing Gland	Stainless Steel		ASTM A276, TY. 316
9	Adapter Bracket	Carbon Steel		AISI 1020
10	Top Bearing	Stainless Steel		ASTM A276, TY. 316 NITRIDED
11	Bottom Bearing	Stainless Steel		ASTM A276, TY. 316 NITRIDED
12	Packing*	Graphite		Commercial
13	Packing Washer	Stainless Steel		ASTM A276, TY. 316
14	Bearing Seal	Graphite		Commercial
15	Packing Gland Retainer	Carbon Steel		ASTM A216, WCB
			Stainless Steel	ASTM A351, CF8M
16	Nut, Packing Gland	Carbon Steel		ASTM A194, Gr. 2HM
			Stainless Steel	ASTM A453, 660
17	Stud, Packing Gland	Carbon Steel		ASTM A193, Gr. B7M
			Stainless Steel	ASTM A453, 660
18	Seal*	Graphite/Stainless Steel TY. 304		Commercial
19	Seal, Bottom Cap*	Graphite/Stainless Steel TY. 304		Commercial
20	Wedge, Disc/Stem	Stainless Steel		17-4PH
21	Key, Disc	Stainless Steel		Commercial
22	SHCS, Retainer	Stainless Steel		ASTM A453, 660
23	SHCS, Bottom Cap	Carbon Steel		ASTM A193, Gr. B7M
			Stainless Steel	ASTM A453, 660
24	Thrust Ring	Inconel		Inconel X-750
25	Key, Stem	Carbon Steel		Commercial
26	Key, Seat Alignment	Stainless Steel		Commercial
27	Key, Bracket Alignment	Stainless Steel		Commercial
28	Stud, Adapter Bracket	Carbon Steel		ASTM A193, Gr. B7M
			Stainless Steel	ASTM A453, 660
29	Nut, Adapter Bracket	Carbon Steel		ASTM A194, Gr. 2HM
			Stainless Steel	ASTM A453, 660
30	Lock Washer, Gear Operator	Stainless Steel		Commercial
31	SHCS, Gear Operator	Carbon Steel		ASTM A193, Gr. B7M
			Stainless Steel	ASTM A453, 660
32	Gear Operator	Ductile Iron		ASTM A536

\*Included in repair part kits

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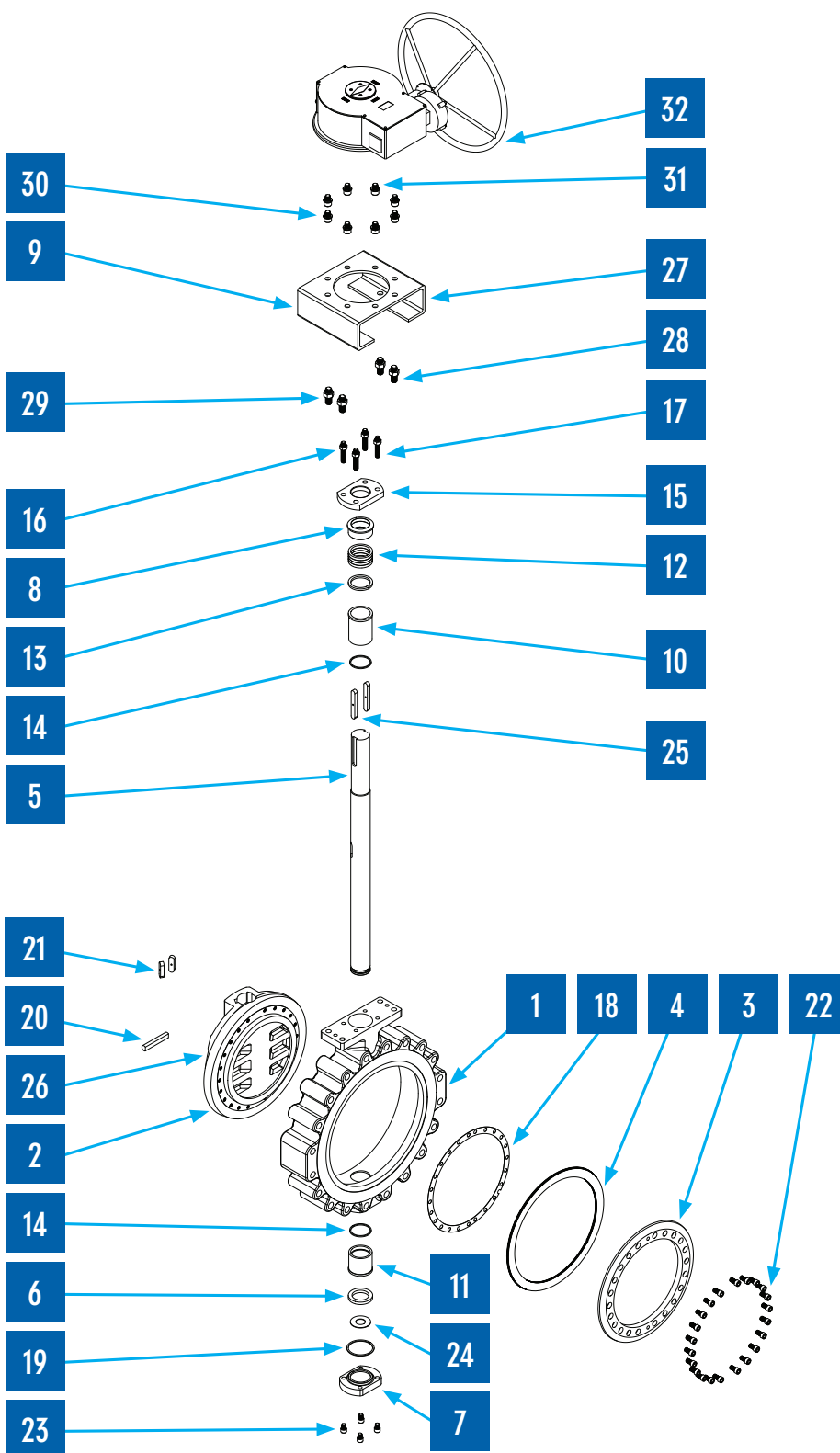
**TØV Bill of Materials**  
**14 to 24 Inches Lug & Wafer**  
**ASME Class 150 & 300**  
**Per API 609**

**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 Top Bearing
- 11 Bottom Bearing
- 12 Packing\*
- 13 Packing Washer
- 14 Bearing Seal
- 15 Packing Gland Retainer
- 16 Nut, Packing Gland
- 17 Stud, Packing Gland
- 18 Seal\*
- 19 Seal, Bottom Cap\*
- 20 Wedge, Disc/Stem
- 21 Key, Disc
- 22 SHCS, Retainer
- 23 SHCS, Bottom Cap
- 24 Thrust Ring
- 25 Key, Stem
- 26 Key, Seat Alignment\*\*
- 27 Key, Bracket Alignment\*\*
- 28 Stud, Adapter Bracket
- 29 Nut, Adapter Bracket
- 30 Lock Washer, Gear Operator
- 31 SHCS, Gear Operator
- 32 Gear Operator

\*Included in repair part kits

\*\*Not shown



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## TØV Dimensions – Wafer 14 to 24 Inches

### ASME Class 300

### Per API 609

14"-24" CLASS 300 WAFER									
Valve Size		Valve Dimensions							
		A	B	C	D	ØE B.C.	F Hole	G	H
14	in	21.46	25.00	12.60	3.77	20.25	4 x 1-1/8-8 UN-2B	4.62	2.52
	mm	545.0	635.0	320.0	95.8	514.4		117.0	64.0
16	in	23.66	27.36	13.98	4.16	22.50	4 x 1-1/4-8 UN-2B	5.25	2.80
	mm	601.0	695.0	355.0	105.7	571.5		133.0	71.0
18	in	25.67	29.70	15.12	4.95	24.75	4 x 1-1/4-8 UN-2B	5.88	3.13
	mm	652.0	754.5	384.0	125.7	628.6		149.0	79.5
20	in	29.41	33.44	17.01	6.13	27.00	4 x 1-1/4-8 UN-2B	6.25	3.37
	mm	747.0	849.5	432.0	155.7	685.8		159.0	85.5
24	in	32.28	37.68	19.57	7.70	32.00	4 x 1-1/2-8 UN-2B	7.12	3.92
	mm	820.0	957.0	497.0	195.6	812.8		181.0	99.5

14"-24" CLASS 300 WAFER									
Valve Size		Disc Dimensions				Gear Dimensions			Weight (lbs.)
		J Intrusion	K Chord Diameter	L Intrusion	M Chord Diameter	N	P	ØQ	
14	in	3.62	11.20	3.98	11.49	5.91	19.29	23.62	523
	mm	92.0	284.5	101.0	292.0	150.0	490.0	600.0	
16	in	4.39	13.24	4.67	13.46	6.89	19.29	23.62	772
	mm	111.5	336.3	118.5	341.8	175.0	490.0	600.0	
18	in	5.10	15.22	5.41	15.46	6.89	22.05	31.50	902
	mm	129.5	386.6	137.5	392.8	175.0	560.0	800.0	
20	in	5.65	16.73	6.04	17.02	8.17	22.05	31.50	1237
	mm	143.5	424.9	153.5	432.4	207.5	560.0	800.0	
24	in	7.15	20.69	7.78	21.13	8.17	24.61	31.50	1740
	mm	181.5	525.6	197.5	536.6	207.5	625.0	800.0	

#### NOTES:

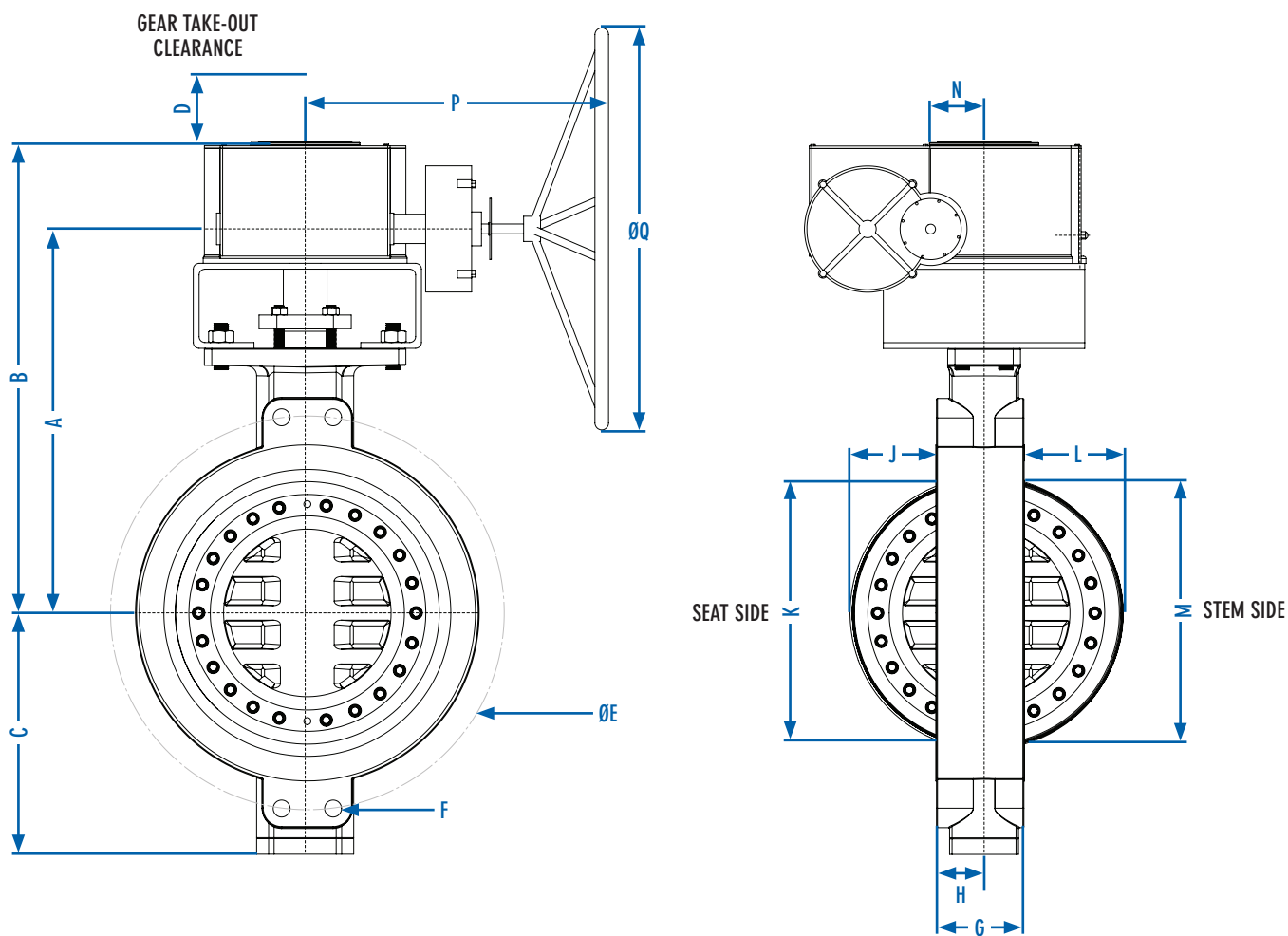
1. Face-to-face dimensions are in strict accordance with ASME B16.10.
2. Flange/end connections are in strict accordance with ASME B16.5.

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