

High Performance Butterfly Valve

STHW

STHL

Size : 3" ~ 12"

Type: Wafer , Lug

Pressure Rating: Class 150, 300

Body Material: Cast Steel and Stainless Steel

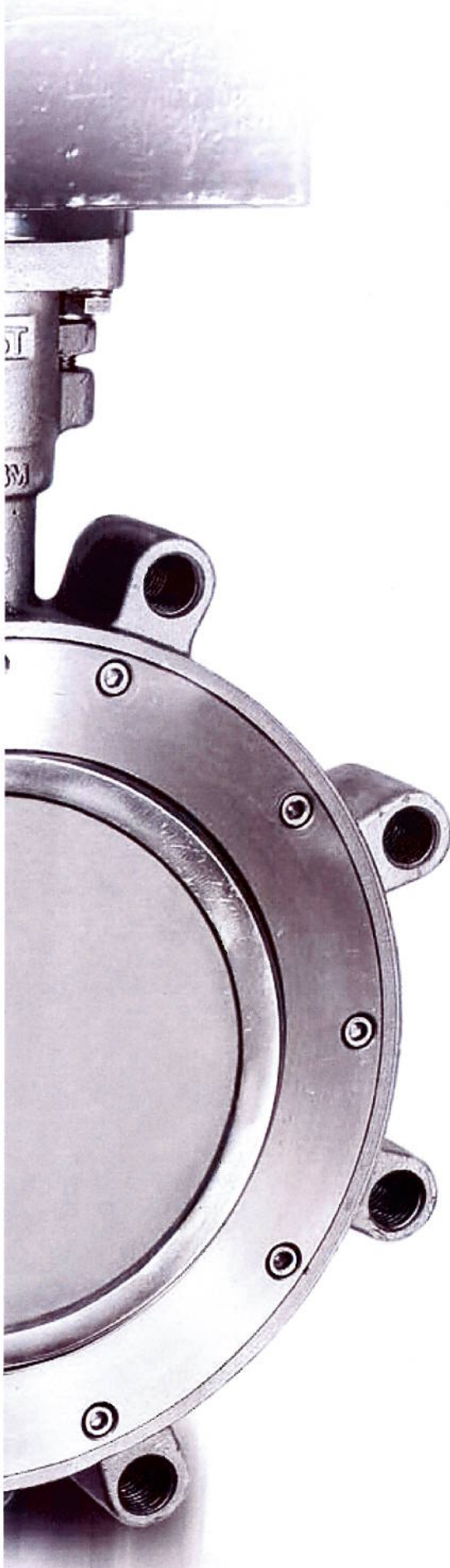
Seat Material: Soft Seat (PTFE / RTFE) , Metal Seat (A240 Tp 316 / 304)

Operation: Lever , Gear

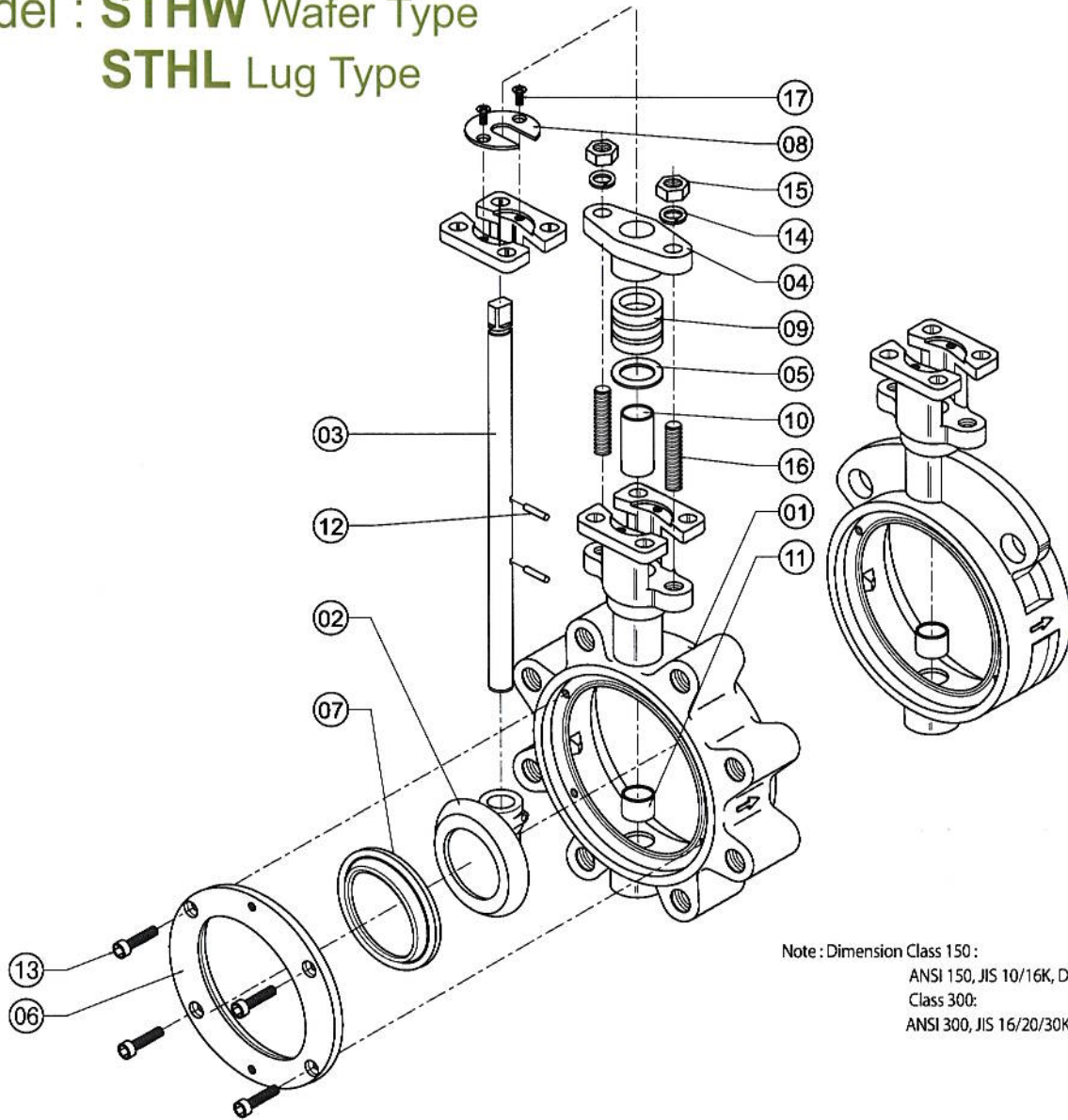
Drilling: ANSI 150, JIS 10/16K, DIN PN 10/16

ANSI 300, JIS 20/ 30K, DIN PN 25/ 40.

- Tight shut-off design.
- One - piece body materials are either cast steel or stainless steel for excellent corrosion resistance.
- High strength one-piece stem in A564 Gr.630 materials.
- ISO 5211 mounting pad with square shaft permits direct mount actuation for both Manual (Lever & gear), pneumatic and electric actuators.
- Double off-set configuration with conical angled disc design. Maximize flow and minimize resistance providing high Cv.
- Seat available in either Soft (PTFE / RTFE) or Metal (A240 Tp 316 / 304). Both soft seats and Metal seats are interchangeable.
- Gland Flange preventing uneven load distribution against packing.
- Internal travel stop design to prevent over travel of the disc. Minimizing possible seat damage.
- Retainer ring surface finish is 125 to 200 AARH and is compatible with both standard gasket and spiral wound gasket designs. Outside diameter is recessed within gasket sealing surface to prevent external leakage.
- The heavy duty handle and 10 position notch plates allow for positioning the valve disc to precise angle stops.
- Valve Rating:
 - Top flange mounting pad: ISO 5211
 - Basic Design: API 609, MSS-SP-68, BS 5155, ISO 5752
 - Shell/Seat Test: API 598, MSS-SP-61
 - Seat Hydro: Class 150 (360 psig)
 - Class 300 (740 psig)



Model : **STHW** Wafer Type
STHL Lug Type

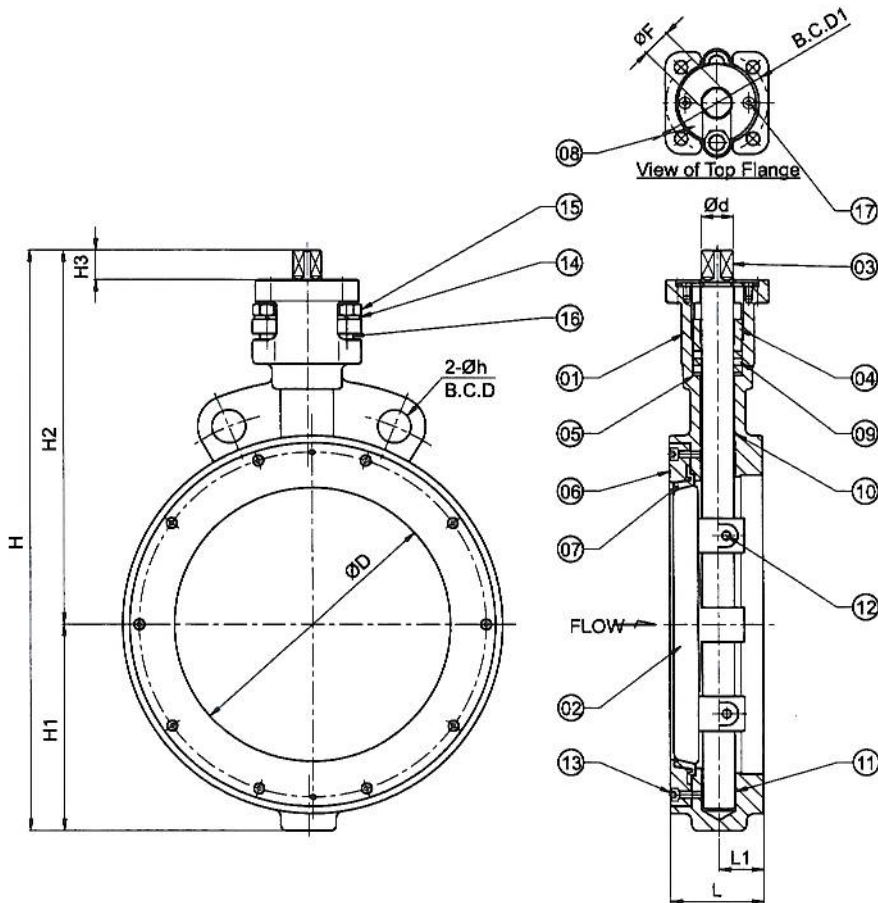


Note : Dimension Class 150 :
 ANSI 150, JIS 10/16K, DIN PN 10/16
 Class 300:
 ANSI 300, JIS 16/20/30K, DIN PN 25/40

No.	Description	Material	Q'ty
1	Body	A216 WCB / A351 CF8M	1
2	Disc	A351 CF8M	1
3	Stem	A 564 Gr. 630	1
4	Gland Flange	A216 WCB / A351 CF8M	1
5	Packing Retainer	A276 Tp 316	1
6	Retainer Ring	A351 CF8M	1
7	Seat	PTFE / RTFE / A240 Tp 316 / 304	1
8	Top Retainer	A283D - A36 / A276 Tp 316	1
9	Gland Packing	Graphite	3
10	Upper Bearing	R.TFE + 316SS	1
11	Lower Bearing	R.TFE + 316SS	1
12	Disc Pin	A276 Tp 316	2
13	Hex Socket Bolt	A283D - A36 / A276 316SS	4 ~ 14
14	Spring Washer	A283D - A36 / A276 316SS	2
15	Hex Nut	A283D - A36 / A276 316SS	2
16	Stud Bolt	A283D - A36 / A276 316SS	2
17	Flat Head Screw	A283D - A36 / A276 316SS	2

Model : STHW

Wafer Type, Class 150



No.	Description
1	Body
2	Disc
3	Stem
4	Gland Flange
5	Packing Retainer
6	Retainer Ring
7	Seat
8	Top Retainer
9	Grand Packing
10	Upper Bearing
11	Lower Bearing
12	Disc Pin
13	Hex Socket Bolt
14	Hex Nut & S/W
15	Stud Bolt
16	Flat Head Screw

Dimension

(unit : mm)

SIZE (mm)	H	H1	H2	H3	d	F	D	B.C.D1	L	L1
80	250.2	76.5	173.7	15.2	16	14	74.0	70	48.0	22.5
100	281.2	90.0	191.2	17.7	16	14	94.0	70	54.0	26.5
125	318.7	104.0	214.7	17.7	19	14	118.0	70	57.0	28.0
150	346.0	115.0	231.0	19.0	22	17	140.0	70	58.0	27.5
200	404.0	143.0	260.5	20.5	22	17	188.0	70	64.0	30.5
250	468.5	170.0	298.5	20.5	28	22	238.5	102	71.5	34.5
300	520.1	193.0	327.1	24.1	28	22	280.0	102	81.0	39.5

(unit : inch)

SIZE (inch)	H	H1	H2	H3	d	F	D	B.C.D1	L	L1
3"	9.85	3.01	6.84	0.60	0.63	0.55	2.91	2.76	1.89	0.89
4"	11.07	3.54	7.53	0.70	0.63	0.55	3.70	2.76	2.13	1.04
5"	12.55	4.09	8.45	0.70	0.75	0.55	4.65	2.76	2.24	1.10
6"	13.62	4.53	9.09	0.75	0.87	0.67	5.51	2.76	2.28	1.08
8"	15.91	5.65	10.26	0.81	0.87	0.67	7.40	2.76	2.52	1.20
10"	18.44	6.69	11.75	0.81	1.10	0.87	9.39	4.02	2.81	1.36
12"	20.48	7.60	12.88	0.95	1.10	0.87	11.02	4.02	3.19	1.56

Model : STHW

Wafer Type Class 150

Material Selection & Drilling

Material Selection

No.	Description	#150 CS-STHW		#150 SS-STHW		Q'ty
		SOFT SEAT	METAL SEAT	SOFT SEAT	METAL SEAT	
1	Body	A 216 WCB		A 351 CF8M		1
2	Disc	A 351 CF8M				1
3	Stem	A 564 Gr. 630				1
4	Gland Flange	A 216 WCB		A351 CF8M		1
5	Packing Retainer	A276 Tp 316				1
6	Retainer Ring	A351 CF8M				1
7	Seat	PTFE / RTFE	A240 Tp 316	PTFE / RTFE	A240 Tp 316	1
			A240 Tp 304		A240 Tp 304	
8	Top Retainer	A283D-A36		A276 Tp 316		1
9	Grand Packing	GRAPHITE				3
10	Upper Bearing	R.TFE+316SS				1
11	Lower Bearing	R.TFE+316SS				1
12	Disc Pin	A 276 Tp 316				2
13	Hex Socket Bolt	A283D-A36		A276 316SS		4 ~ 14
14	Spring Washer	A283D-A36		A276 316SS		2
15	Hex Nut	A283D-A36		A276 316SS		2
16	Stud Bolt	A283D-A36		A276 316SS		2
17	Flat Head Screw	A283D-A36		A276 316SS		2

Drilling

(unit : mm)

SIZE	ANSI 150			JIS 10K			JIS 16K			PN 10			PN 16		
	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h
80	152.4	4	19	150	8	19	160	8	23	160	8	19	160	8	19
100	190.5	8	19	175	8	19	185	8	23	180	8	19	180	8	19
125	215.9	8	23	210	8	23	225	8	25	210	8	19	210	8	19
150	241.3	8	23	240	8	23	260	12	25	240	8	23	240	8	23
200	298.5	8	23	290	12	23	305	12	25	295	8	23	295	12	23
250	362.0	12	25	355	12	25	380	12	27	350	12	23	355	12	27
300	431.8	12	25	400	16	25	430	16	27	400	12	23	410	12	27

(unit : inch)

SIZE	ANSI 150			JIS 10K			JIS 16K			PN 10			PN 16		
	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h
3"	6	4	0.75	5.91	8	0.75	6.3	8	0.91	6.3	8	0.75	6.3	8	0.75
4"	7.5	8	0.75	6.89	8	0.75	7.28	8	0.91	7.09	8	0.75	7.09	8	0.75
5"	8.5	8	0.91	8.27	8	0.91	8.86	8	0.98	8.27	8	0.75	8.27	8	0.75
6"	9.5	8	0.91	9.45	8	0.91	10.24	12	0.98	9.45	8	0.91	9.45	8	0.91
8"	11.75	8	0.91	11.42	12	0.91	12.01	12	0.98	11.61	8	0.91	11.61	12	0.91
10"	14.25	12	0.98	13.98	12	0.98	14.96	12	1.06	13.78	12	0.91	13.98	12	1.06
12"	17	12	0.98	15.75	16	0.98	16.93	16	1.06	15.75	12	0.91	16.14	12	1.06

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Pressure Rating: Class 150, 300

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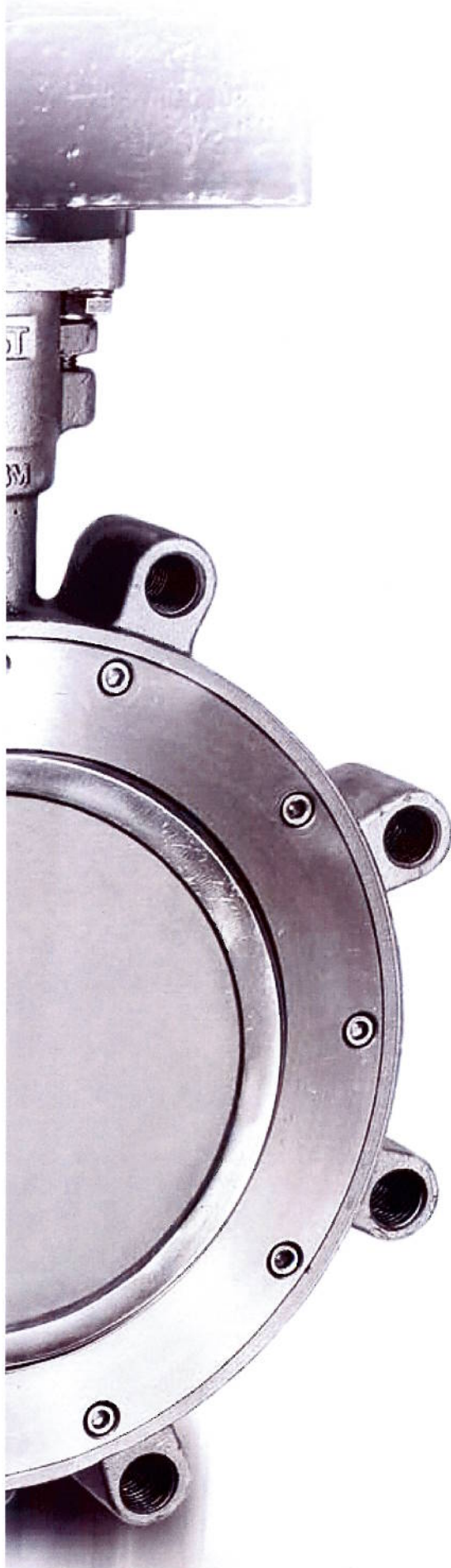
Seat Material: Soft Seat (PTFE / RTFE) , Metal Seat (A240 Tp 316 / 304)

Operation: Lever , Gear

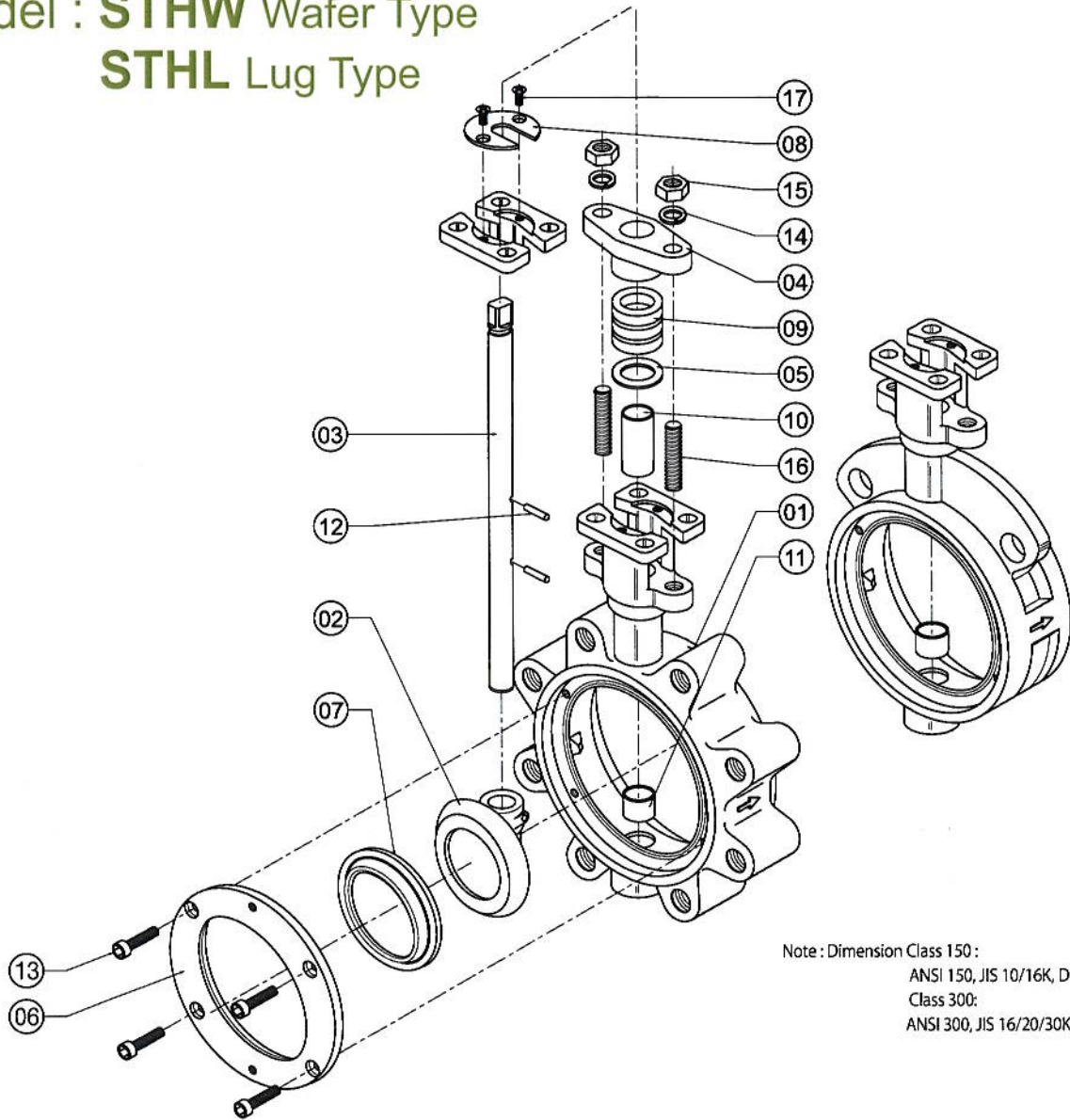
Drilling: ANSI 150, JIS 10/16K, DIN PN 10/16

ANSI 300, JIS 20/ 30K, DIN PN 25/ 40.

- Tight shut-off design.
- One - piece body materials are either cast steel or stainless steel for excellent corrosion resistance.
- High strength one-piece stem in A564 Gr.630 materials.
- ISO 5211 mounting pad with square shaft permits direct mount actuation for both Manual (Lever & gear), pneumatic and electric actuators.
- Double off-set configuration with conical angled disc design. Maximize flow and minimize resistance providing high Cv.
- Seat available in either Soft (PTFE / RTFE) or Metal (A240 Tp 316 / 304). Both soft seats and Metal seats are interchangeable.
- Gland Flange preventing uneven load distribution against packing.
- Internal travel stop design to prevent over travel of the disc. Minimizing possible seat damage.
- Retainer ring surface finish is 125 to 200 AARH and is compatible with both standard gasket and spiral wound gasket designs. Outside diameter is recessed within gasket sealing surface to prevent external leakage.
- The heavy duty handle and 10 position notch plates allow for positioning the valve disc to precise angle stops.
- Valve Rating:
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 - Basic Design: API 609, MSS-SP-68, BS 5155, ISO 5752
 - Shell/Seat Test: API 598, MSS-SP-61
 - Seat Hydro: Class 150 (360 psig)
 - Class 300 (740 psig)



Model : **STHW** Wafer Type
STHL Lug Type

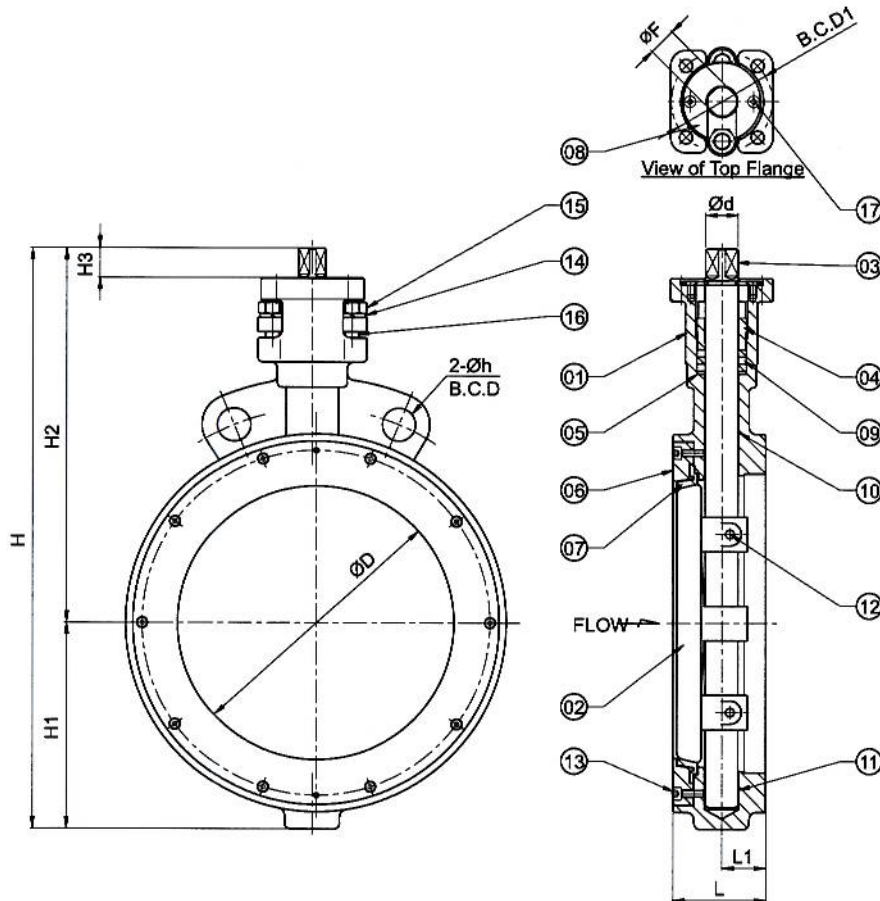


Note : Dimension Class 150 :
 ANSI 150, JIS 10/16K, DIN PN 10/16
 Class 300:
 ANSI 300, JIS 16/20/30K, DIN PN 25/40

No.	Description	Material	Q'ty
1	Body	A216 WCB / A351 CF8M	1
2	Disc	A351 CF8M	1
3	Stem	A 564 Gr. 630	1
4	Gland Flange	A216 WCB / A351 CF8M	1
5	Packing Retainer	A276 Tp 316	1
6	Retainer Ring	A351 CF8M	1
7	Seat	PTFE / RTFE / A240 Tp 316 / 304	1
8	Top Retainer	A283D - A36 / A276 Tp 316	1
9	Grand Packing	Graphite	3
10	Upper Bearing	R.TFE + 316SS	1
11	Lower Bearing	R.TFE + 316SS	1
12	Disc Pin	A276 Tp 316	2
13	Hex Socket Bolt	A283D - A36 / A276 316SS	4 ~ 14
14	Spring Washer	A283D - A36 / A276 316SS	2
15	Hex Nut	A283D - A36 / A276 316SS	2
16	Stud Bolt	A283D - A36 / A276 316SS	2
17	Flat Head Screw	A283D - A36 / A276 316SS	2

Model : STHW

Wafer Type, Class 300



No.	Description
1	Body
2	Disc
3	Stem
4	Gland Flange
5	Packing Retainer
6	Retainer Ring
7	Seat
8	Top Retainer
9	Grand Packing
10	Upper Bearing
11	Lower Bearing
12	Disc Pin
13	Hex Socket Bolt
14	Hex Nut & S/W
15	Stud Bolt
16	Flat Head Screw

Dimension

(unit : mm)

SIZE (mm)	H	H1	H2	H3	d	F	D	B.C.D1	L	L1
80	250.2	76.5	173.7	15.2	16	14	74.0	70	48.0	22.5
100	281.2	90.0	191.2	17.7	16	14	94.0	70	54.0	26.5
125	318.7	104.0	214.7	17.7	19	14	118.0	70	57.0	28.0
150	346.0	115.0	231.0	19.0	22	17	140.0	70	58.0	27.5
200	404.0	143.5	260.5	20.5	22	17	188.0	70	73.0	36.5
250	468.5	170.0	298.5	20.5	28	22	238.5	102	82.5	42.5
300	520.1	193.0	327.1	24.1	28	22	280.0	102	92.0	48.0

(unit : inch)

SIZE (inch)	H	H1	H2	H3	d	F	D	B.C.D1	L	L1
3"	9.85	3.01	6.84	0.60	0.63	0.55	2.91	2.76	1.89	0.89
4"	11.07	3.54	7.53	0.70	0.63	0.55	3.70	2.76	2.13	1.04
5"	12.55	4.09	8.45	0.70	0.75	0.55	4.65	2.76	2.24	1.10
6"	13.62	4.53	9.09	0.75	0.87	0.67	5.51	2.76	2.28	1.08
8"	15.91	5.65	10.26	0.81	0.87	0.67	7.40	2.76	2.87	1.48
10"	18.44	6.69	11.75	0.81	1.10	0.87	9.39	4.02	3.25	1.67
12"	20.48	7.60	12.88	0.95	1.10	0.87	11.02	4.02	3.62	1.89

Model : STHW

Wafer Type Class 300

Material Selection & Drilling

Material Selection

No.	Description	#300 CS-STHW		#300 SS-STHW		Q'ty
		SOFT SEAT	METAL SEAT	SOFT SEAT	METAL SEAT	
1	Body	A 216 WCB		A 351 CF8M		1
2	Disc	A 351 CF8M				1
3	Stem	A 564 Gr. 630				1
4	Gland Flange	A 216 WCB		A351 CF8M		1
5	Packing Retainer	A276 Tp 316				1
6	Retainer Ring	A351 CF8M				1
7	Seat	PTFE / RTFE	A240 Tp 316	PTFE / RTFE	A240 Tp 316	1
			A240 Tp 304		A240 Tp 304	
8	Top Retainer	A283D-A36		A276 Tp 316		1
9	Grand Packing	GRAPHITE				3
10	Upper Bearing	R.TFE+316SS				1
11	Lower Bearing	R.TFE+316SS				1
12	Disc Pin	A 276 Tp 316				2
13	Hex Socket Bolt	A283D-A36		A276 316SS		4~ 14
14	Spring Washer	A283D-A36		A276 316SS		2
15	Hex Nut	A283D-A36		A276 316SS		2
16	Stud Bolt	A283D-A36		A276 316SS		2
17	Flat Head Screw	A283D-A36		A276 316SS		2

Drilling

(unit : mm)

SIZE	ANSI 300			JIS 16K/20K			JIS 30K			PN 25			PN 40		
	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h
80	168.1	8	22.4	160	8	23	170	8	23	160	8	19	160	8	19
100	200.2	8	22.4	185	8	23	195	8	23	190	8	23	190	8	23
125	235.0	8	22.4	225	8	25	230	8	25	220	8	27	220	8	27
150	269.7	12	22.4	260	12	25	275	12	25	250	8	27	250	8	27
200	330.2	12	25.4	305	12	25	320	12	25	310	12	27	320	12	30
250	387.4	16	28.5	380	12	27	390	12	33	370	12	30	385	12	33
300	450.9	16	31.8	430	16	27	450	16	33	430	16	30	450	16	33

(unit : inch)

SIZE	ANSI 300			JIS 16K/20K			JIS 30K			PN 25			PN 40		
	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h	B.C.D	n	h
3"	6.62	8	0.88	6.30	8	0.91	6.69	8	0.91	6.30	8	0.75	6.30	8	0.75
4"	7.88	8	0.88	7.28	8	0.91	7.68	8	0.91	7.48	8	0.91	7.48	8	0.91
5"	9.25	8	0.88	8.86	8	0.98	9.06	8	0.98	8.66	8	1.06	8.66	8	1.06
6"	10.62	12	0.88	10.24	12	0.98	10.83	12	0.98	9.84	8	1.06	9.84	8	1.06
8"	13.00	12	1.00	12.01	12	0.98	12.60	12	0.98	12.20	12	1.06	12.60	12	1.18
10"	15.25	16	1.12	14.96	12	1.06	15.35	12	1.06	14.57	12	1.18	15.16	12	1.30
12"	17.75	16	1.25	16.93	16	1.06	17.72	16	1.06	16.93	16	1.18	17.72	16	1.30