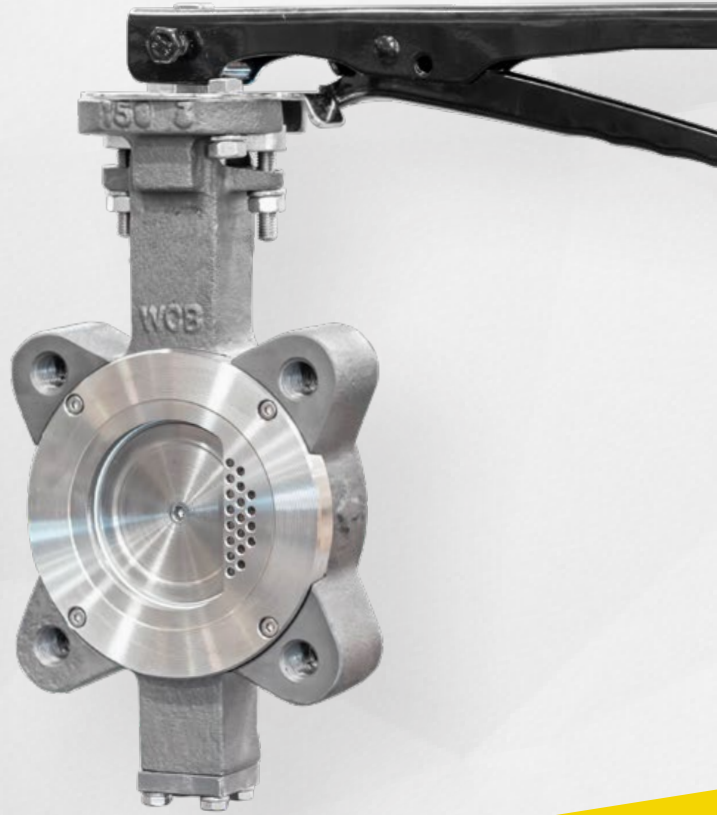
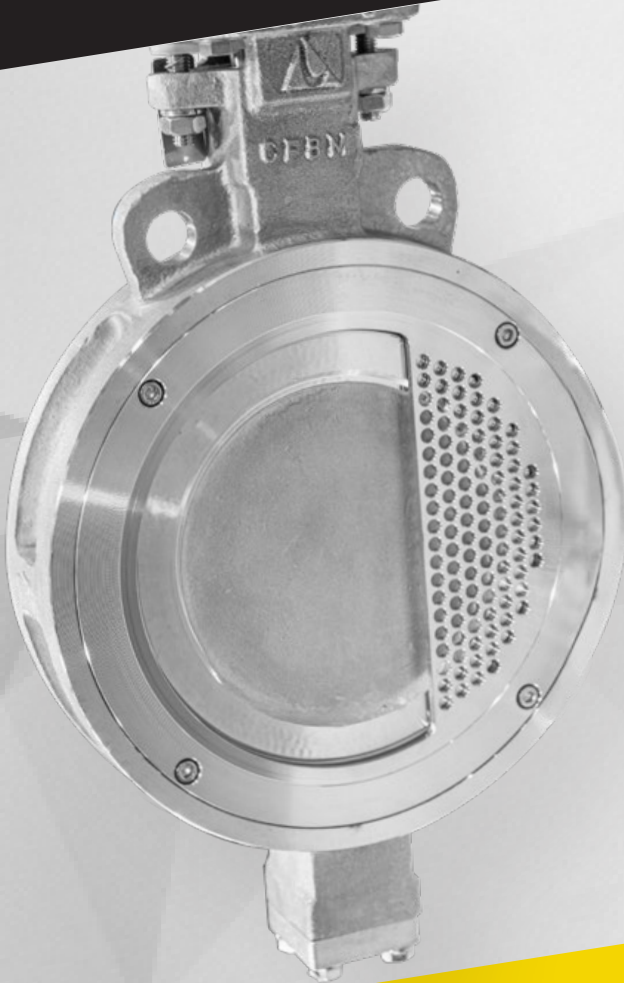




Rev: 07/09/24

Direct Mount



C50 & C60 Series

DIFFUSER-PLATE CONTROL BUTTERFLY VALVE

3" Through 48" Sizes & Larger, Class 150 & 300 High Performance Double Offset Valves



3-Year Limited Warranty

Max-Air Technology, Inc., hereinafter referred to as "MAX-AIR", provides the following limited 3-year manufacturer's warranty regarding all Delta T brand labeled quarter turn valve products manufactured by MAX-AIR. This warranty includes all valves which are manufactured by MAX-AIR and only applies to those items which are clearly identified as Delta T brand labeled products. The warranty stated herein is expressly in lieu of all other warranties and representations, expressed or implied, or statutory, including, without limitation, the implied warranty of fitness for a particular purpose.

MAX-AIR warrants its products to be free from defects in materials and workmanship when these products are used for the purpose for which they were designed and manufactured. MAX-AIR does not warrant its products against chemical or stress corrosion or against any other failure other than from defects in materials or workmanship. The warranty period is for thirty-six months from the delivery date by MAX-AIR to its customers. Any claims regarding this warranty must be in writing and received by MAX-AIR before the last effective date of the warranty period.

Upon receipt of a warranty claim, MAX-AIR reserves the right to inspect the product(s) in question at either the field location or at a MAX-AIR designated facility. If, after the inspection of the product(s) in question, MAX-AIR determines that the purchaser's claim is covered by this warranty, MAX-AIR's sole liability and the purchaser's sole remedy under this warranty is limited to the refunding of the purchase price or repair or replacement thereof, at the sole discretion of MAX-AIR.

MAX-AIR will not be liable for any repairs, labor, material, or other expenses that are not specifically authorized in writing by MAX-AIR, and in no event shall MAX-AIR be liable for any direct or consequential damages arising out of any defect from any cause whatsoever. If any Delta T brand labeled products are modified or altered in any way, without the expressed written consent of MAX-AIR, the products will not be covered by this warranty.

MAX-AIR shall not be liable for any incidental, consequential or other damages, costs, or economic losses, including, without limitation, any resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material damage from adverse flow conditions, chemicals, or acts of God, or circumstances that are not controllable or reasonably foreseeable by MAX-AIR.

This warranty shall be invalidated in all circumstances where MAX-AIR, acting reasonably, determines that the product(s) was subject to abuse, misuse, neglect, or improper application, installation, alteration or modification not authorized in writing by MAX-AIR. All claims received by MAX-AIR beyond the warranty period are invalid and shall not be accepted.

Except for the express written warranty contained herein, MAX-AIR does not make any other warranty, condition, guarantee, or indemnity, express or implied, statutory or otherwise, regarding the products including without limitation, to the extent permitted by law, any warranty or merchantability or fitness for a particular purpose. All other warranties, conditions, guarantees and indemnities regarding any products are hereby disclaimed, excluded and overwritten.



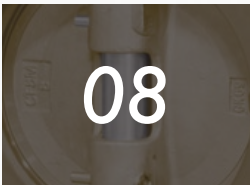
Contents



04

Features & Materials

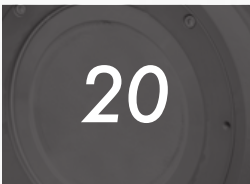
Features, Benefits, Exploded View, & Materials



08

Dimensions

*Wafer, Lug, & Flanged Body Styles
Class 150 & 300 Dimensions*



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Technical Data & Part Builder

*Torques, Cv Values, Pressure Temperature
Chart, & Part Number Builder*



23

Part Builder & Crossover

Ordering Guideline & Crossover

C50 & C60 High Performance Butterfly Valve

Features, Benefits, Callouts, Cutaway, & Series Designations

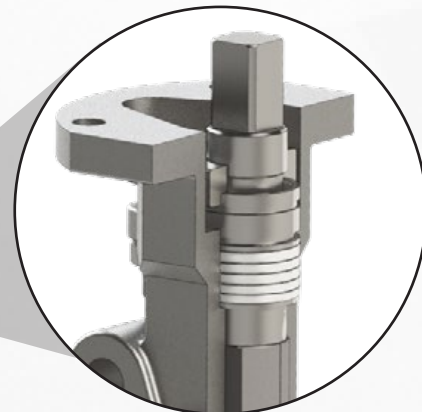
Exotic Alloys Are Our Specialty

Our C50 & C60 Valves are available in special materials including Aluminum Bronze, Duplex SS, Super Duplex, Inconels, Incolloys, etc.



ISO Bracket Mount
Included for 14" - 60"

ISO Direct Mount
for 3" - 12"



**EASY-ADJUST
PACKING GLAND**
Accessible with
actuator mounted
in place.

PACKING

SELF-ENERGIZED SEAT

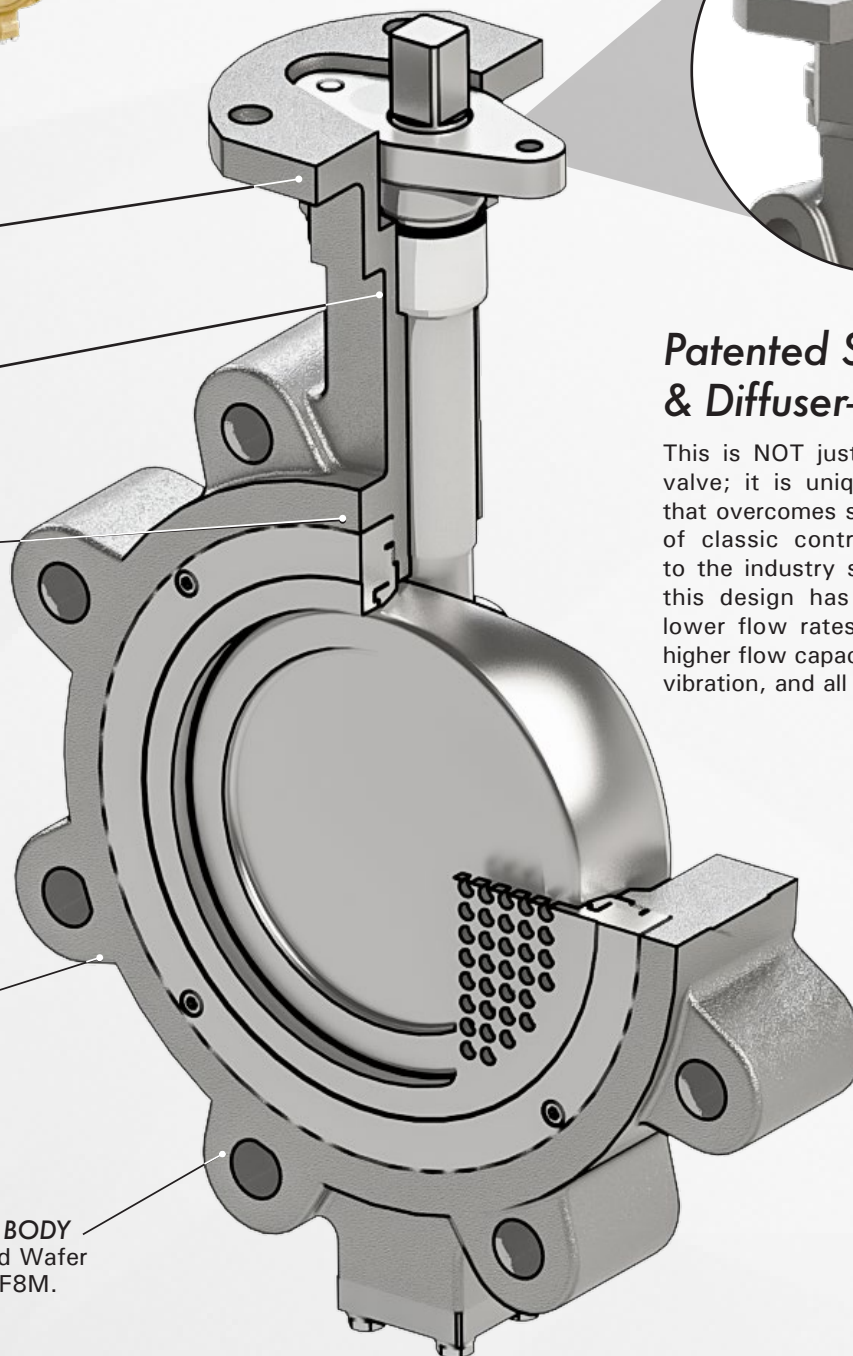
One-piece design energizes without secondary components such as o-rings, springs or wires, resulting in longer life and reduced maintenance.

SEAT INSERT
Supports the
seat and allows
for easy changeout.

PRECISION CAST BODY
Available in Lug and Wafer
Style, WCB or CF8M.

Patented Spherical-Disc & Diffuser-Plate Design

This is NOT just a modified butterfly valve; it is uniquely patented design that overcomes some of the limitations of classic control valves. Compared to the industry standard Globe Valve, this design has improved control at lower flow rates, better range-ability, higher flow capacity, reduced noise and vibration, and all at a lower cost.



Diffuser-Plate Control Valves

Diffuser is defined as "A device for reducing the velocity and increasing the static pressure of a fluid passing through a system". Delta T's unique diffuser plate butterfly valve does that by incorporating a spherical edged disc with the diffuser plate to direct and diffuse the flowstream. This optimizes the ability to control flow and minimizes noise, cavitation and damaging high velocity jets of fluid. In the first 30° of rotation, when pressure drop is the highest, the spherical edged disc constrains the flow, directing it through the diffuser to minimize the potential for damaging flow conditions. ability, higher flow capacity, reduced noise and vibration, and all at a lower cost.

Features & Benefits

- ANSI Class 150 and 300 in Wafer, Lugged, and Flanged body styles
- Available in a broad selection of materials
- WCB and CF8M bodies standard
- CF8M Stainless Steel disc and stem standard
- Soft, fire safe, & metal seats available
- Metal seats (high temperature, corrosive services, metallurgical-sensitive applications) w/ Class IV shutoff
- ISO 5211 actuator mounting is standard, direct mounting on 12 inch and smaller
- Control & anti-cavitation trim plate provides a high level of control and noise reduction within the first 30° of rotation
- Soft seated trims offer bi-directional class VI shutoff
- Clean, field repairable design

Series Designations

C50 – CLASS 150 – ANSI/DIN WAFER

C51 – CLASS 150 – ANSI LUG

C52 – CLASS 150 – DIN LUG

C53 – CLASS 150 – ISO 5752 FLANGED (SHORT)

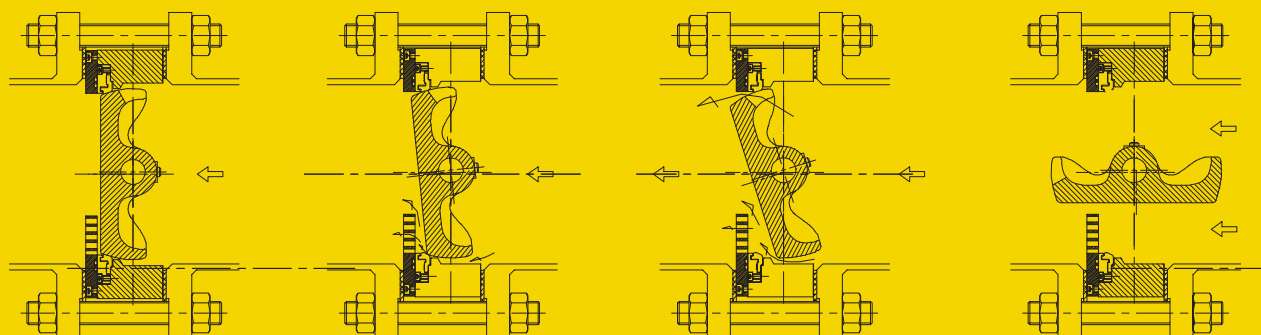
C60 – CLASS 300 – ANSI/DIN WAFER

C61 – CLASS 300 – ANSI LUG

C62 – CLASS 300 – DIN LUG

C63 – CLASS 300 – ISO 5752 FLANGED (SHORT)

Flow Path & Relative Disc Rotation

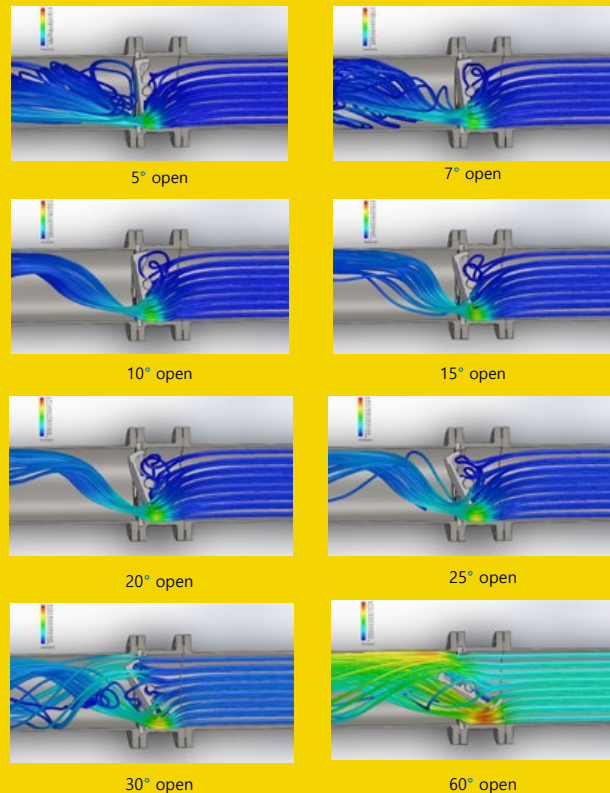


Two Control Phases

The superiority of this patented design is in the Two Control Phases. Maximum flow capacity comparable to a fully open butterfly valve. Flow remains parallel for minimal pressure drop, reduced noise.

- Spherical-disc diffuser-plate design allows for two phases of control seamlessly integrated into Equal Percentage Flow Characteristics
- Two optimized phases increase controllability in each phase and overall range-ability
- Low flow phase forces all flow through the diffuser plate. Diffuser plate provides low-noise, stable control for very low flow rates. Allows for backpressure with very low noise
- High flow phase allows flow bypass around the disc

3D Simulation: Flow Characteristics



C50 & C60 Butterfly Valve Features & Benefits Cont.

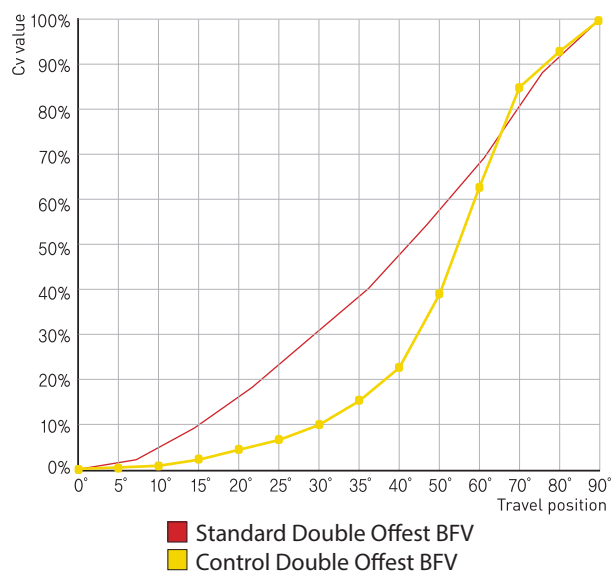
Design Advantages

- Unparalleled Range-Ability
- Equal Percentage Flow
- Controllable Range 5°-85°
(Rangeability up to ~600:1)
- Optimal Control Range 10°-70°
(Rangeability up to ~100:1)
- Fine-Tuned Low Flow Control
& High Flow Capacity
- Reduced Noise & Vibration

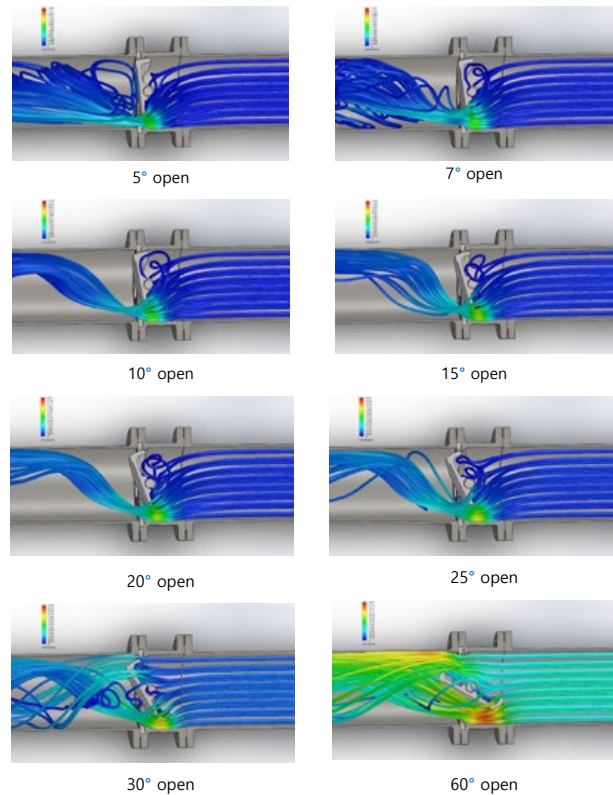
3D Flow Characteristics Video



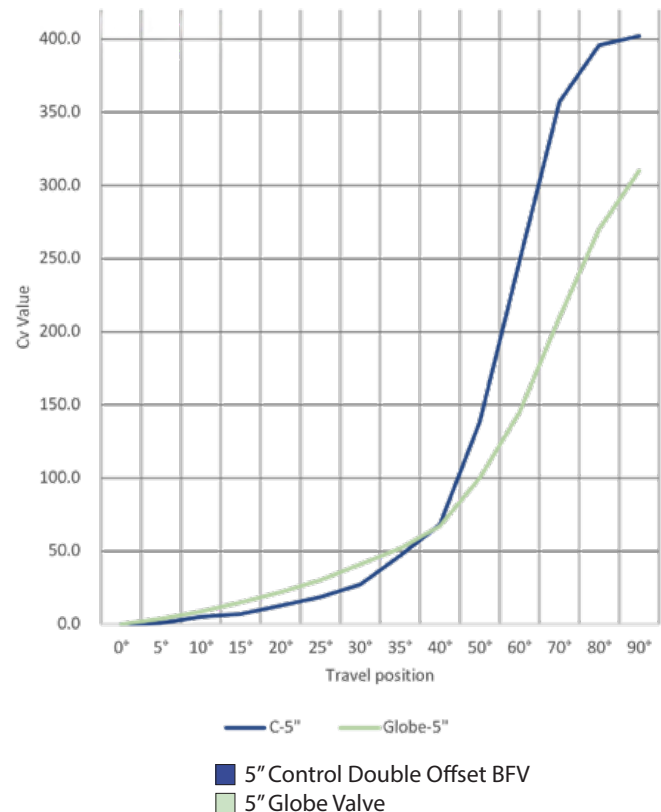
Flow Relative to Travel Position



3D Simulation: Flow Characteristics

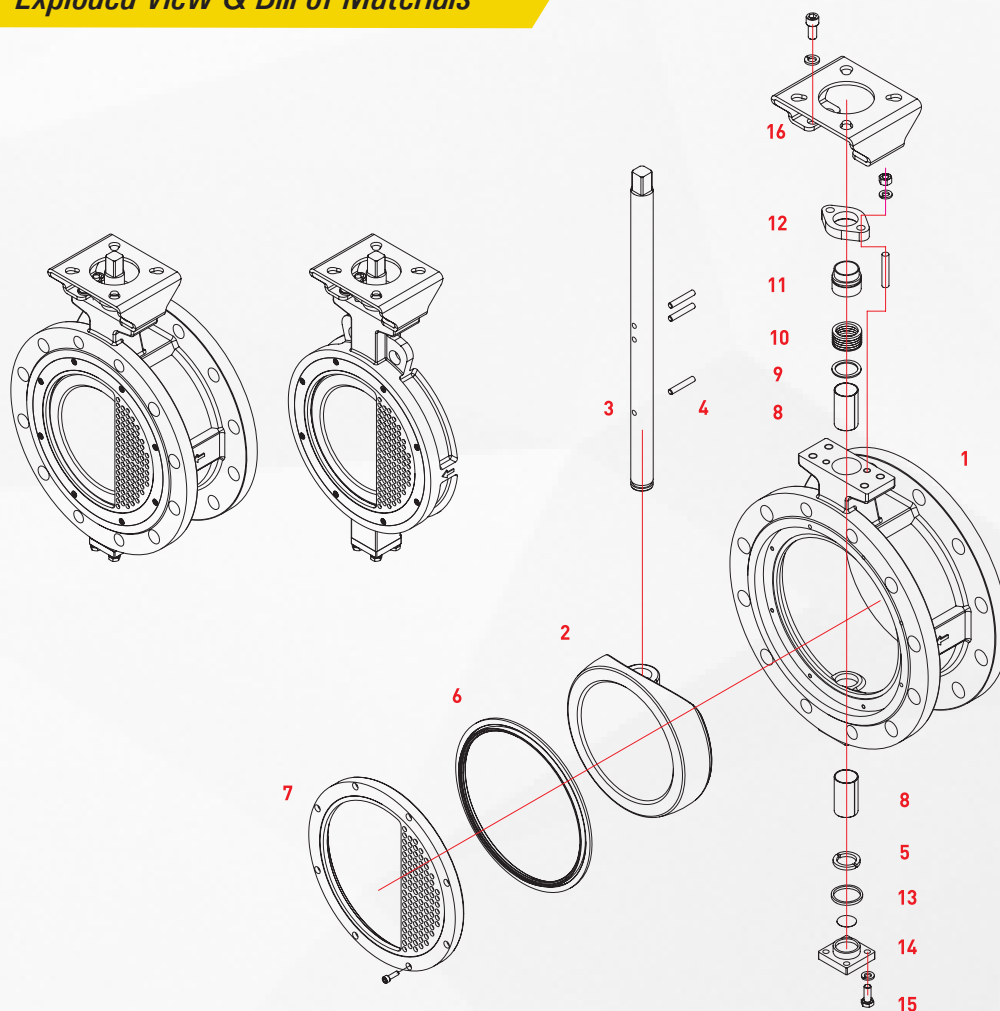


Cv Value to Travel Position Control BFV vs Globe Valve



C50, C60 Series Exploded View

Exploded View & Bill of Materials

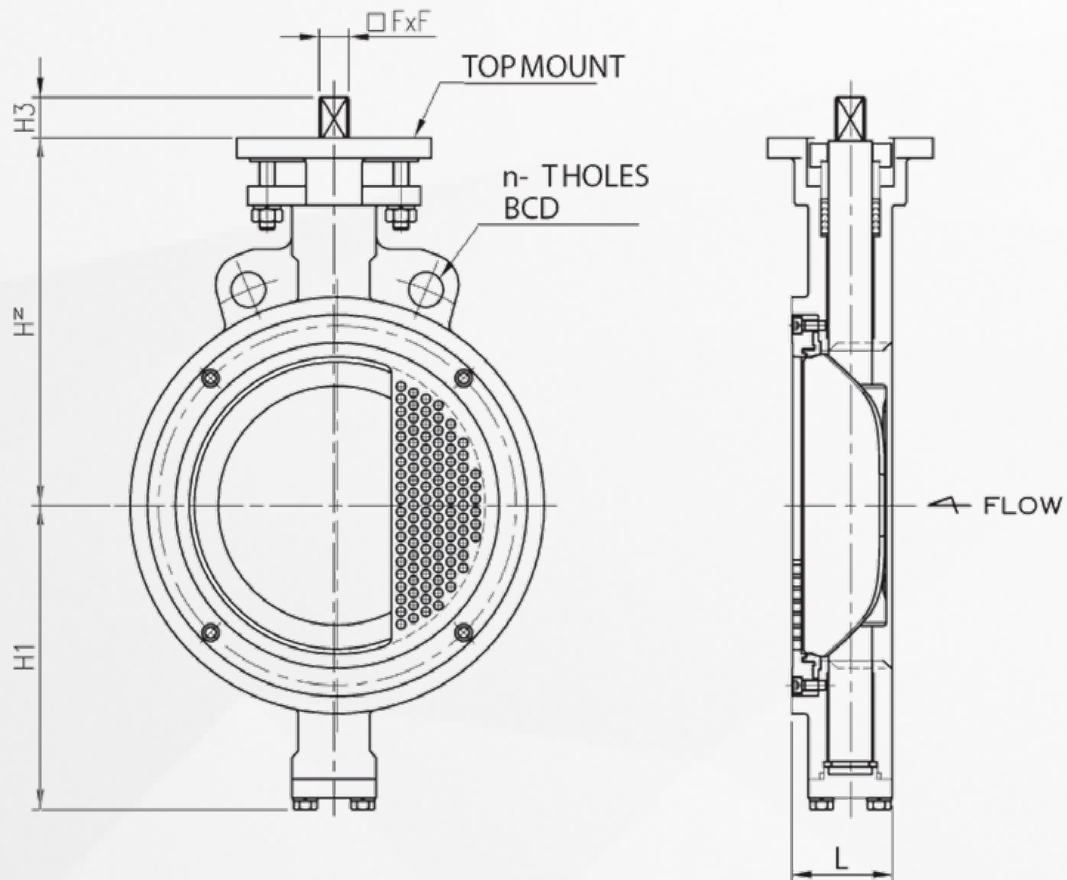


Bill of Materials

NO.	Part	Materials	Material Standard
1	Body	Carbon Steel	ASTM A216 WCB
		Stainless Steel	ASTM A351 CF8M
		Aluminium Bronze	ASTM B148 C95800 Aluminium Bronze
2	Disc	Stainless Steel	ASTM A351 CF8M
		Aluminium Bronze	ASTM B148 C95800 Aluminium Bronze
		Hard Facing	HCR, Stellite or ENP
3	Stem	Stainless Steel	304, 316, 420
		17-4PH	ASTM A564 630
		K500 Monel	ASTM B865 NO5500
4	Disc Pin	17-4PH	ASTM A564 630
		Stainless Steel	304, 316, 420
5	Stem Retainer	Stainless Steel	ASTM A240 304, 316
6	Seat	PTFE	PolyTetraFluoroEthylene
		RTFE	Reinforced PTFE, RTFE
		Stainless Steel	316, Inconel 625, Incoloy 825
		Fire Safe	RTFE / 316 Stainless Steel

NO.	Part	Materials	Material Standard
7	Insert Ring	Carbon Steel	ASTM A36
		Stainless Steel	ASTM A240, 304, 316
		Aluminium Bronze	ASTM B148 C95400/C95800
8	Bush Rearing	316 Stainless Steel with Teflon	
9	Packing Retainer	Stainless Steel	ASTM A240 316
10	Packing	PTFE / RTFE - V Packing	
		Graphite	
11	Gland	Stainless Steel	ASTM A351 CF8
12	Gland bridge	Stainless Steel	ASTM A351 CF8
13	Bottom Packing	PTFE / RTFE	
		Graphite	
14	Bottom	Stainless Steel	ASTM A351 CF8
15	Bolt	304 / 316 Stainless Steel	
16	Bracket	Carbon Steel	ASTM A36

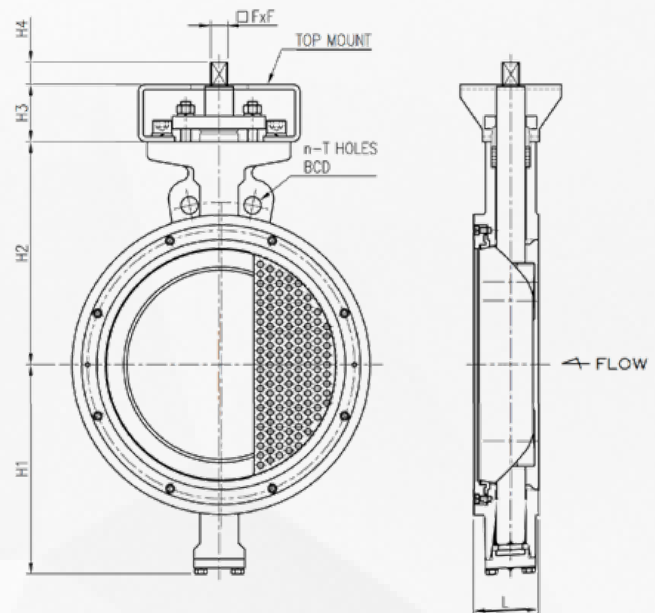
C50 (Class 150) Wafer 3" - 12" Dimensions



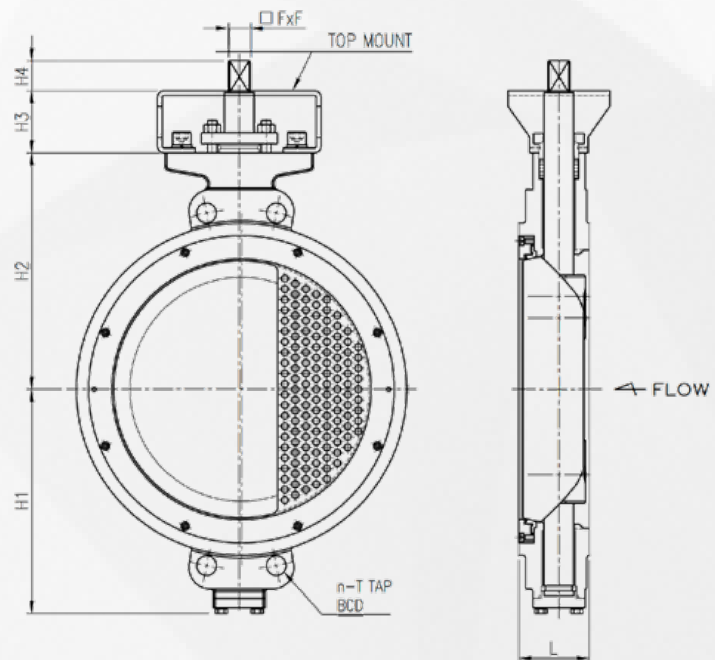
Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	1.88	2	Ø6.00	Ø3/4	4.61	6.30	0.51	0.43	ISO 5211-F07	15.2
4"	2.12	2	Ø7.50	Ø3/4	5.04	7.01	0.71	0.55	ISO 5211-F07	20.9
5"	2.25	2	Ø8.50	Ø7/8	5.75	7.60	0.71	0.55	ISO 5211-F07	31.5
6"	2.25	2	Ø9.50	Ø7/8	6.14	8.07	0.87	0.55	ISO 5211-F10	35.9
8"	2.50	2	Ø11.75	Ø7/8	7.68	9.25	1.02	0.75	ISO 5211-F10	59.2
10"	2.81	2	Ø14.25	Ø1	8.66	11.02	1.26	0.87	ISO 5211-F12	86.9
12"	3.19	2	Ø17.00	Ø1	10.43	12.20	1.38	1.06	ISO 5211-F12	137.3



C50 (Class 150) Wafer 14" - 16" Dimensions

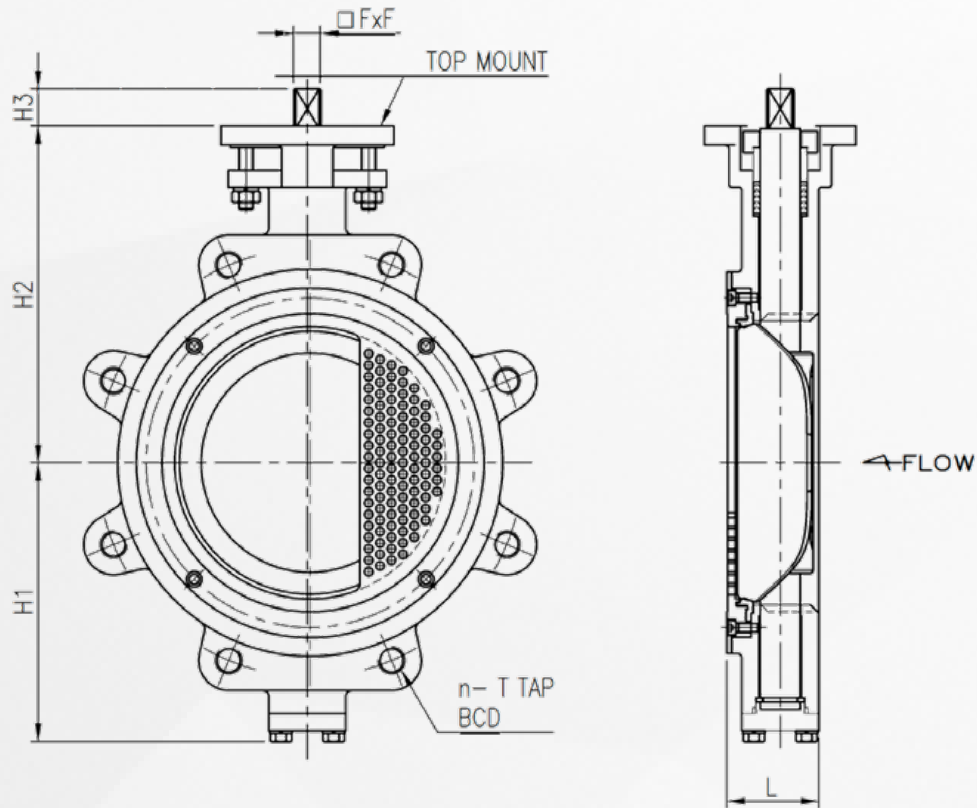


C50 (Class 150) Wafer 18" - 24" Dimensions



Size	L	n	BCD	T	H1	H2	H3	H3	FxF	TOP MOUNT	WEIGHT (lbs)
14"	3.62	2	Ø18.75	Ø1-1/8	11.42	12.40	3.54	1.38	1.06	ISO 5211-F12,F14	153.3
16"	4.00	2	Ø21.25	Ø1-1/8	12.95	13.78	3.54	1.38	1.06	ISO 5211-F14,F16	225.3
18"	4.50	4	Ø22.75	1-1/8" 8UN	14.21	14.96	3.94	1.89	1.42	ISO 5211-F14,F16	335.9
20"	5.00	4	Ø25.00	1-1/8" 8UN	15.75	16.54	4.33	1.89	1.42	ISO 5211-F14,F16	432.3
24"	6.06	4	Ø29.50	1-1/4" 8UN	18.46	18.90	4.33	1.97	1.81	ISO 5211-F14,F16	663.1

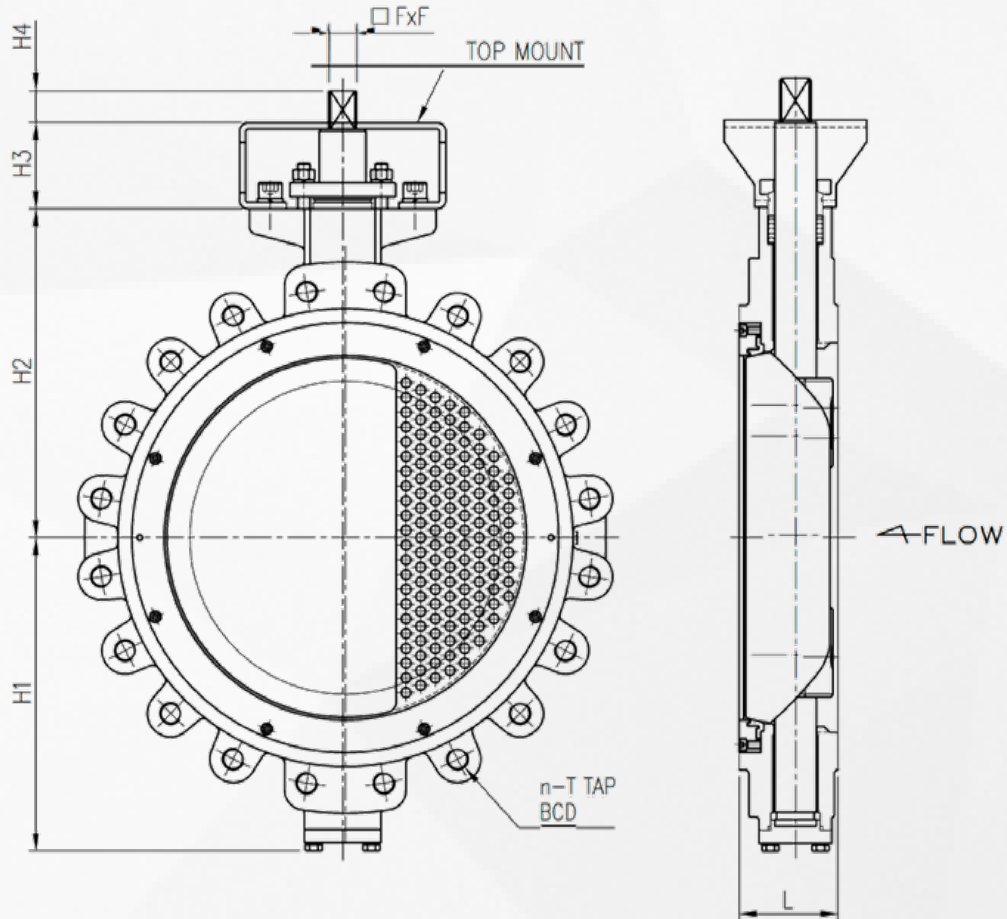
C51 (Class 150) Lug 3" - 12" Dimensions



Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	1.88	4	Ø6.00	5/8" UNC	4.61	6.30	0.51	0.43	ISO 5211-F07	19.4
4"	2.12	8	Ø7.50	5/8" UNC	5.04	7.01	0.71	0.55	ISO 5211-F07	35.9
5"	2.25	8	Ø8.50	3/4" UNC	5.75	7.60	0.71	0.55	ISO 5211-F07	42.9
6"	2.25	8	Ø9.50	3/4" UNC	6.14	8.07	0.87	0.55	ISO 5211-F10	55.9
8"	2.50	8	Ø11.75	3/4" UNC	7.68	9.25	1.02	0.75	ISO 5211-F10	75.0
10"	2.81	12	Ø14.25	7/8" UNC	8.66	11.02	1.26	0.87	ISO 5211-F12	120.1
12"	3.19	12	Ø17.00	7/8" UNC	10.43	12.20	1.38	1.06	ISO 5211-F12	186.6

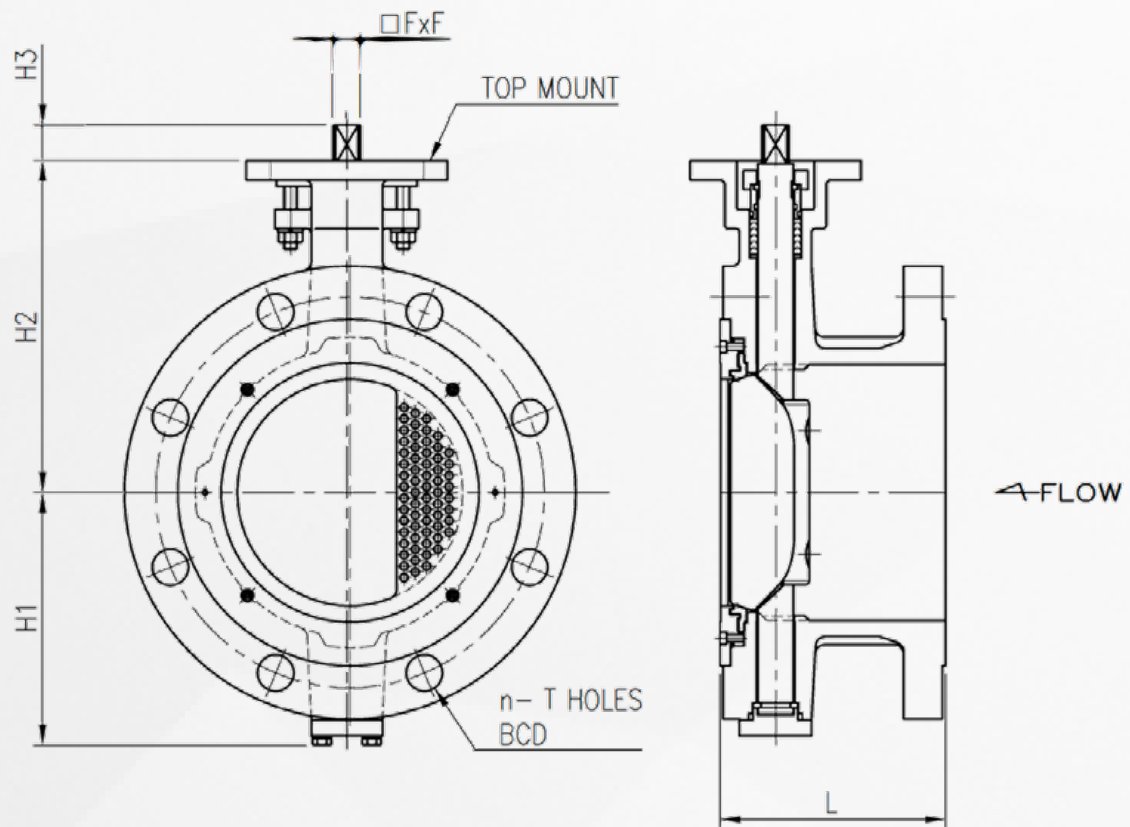


C51 (Class 150) Lug 14" - 24" Dimensions



Size	L	n	BCD	T	H1	H2	H3	H4	FxF	TOP MOUNT	WEIGHT (lbs)
14"	3.62	12	Ø18.75	1" UNC	11.42	12.40	3.54	1.38	1.06	ISO 5211-F12,F14	234.7
16"	4.00	16	Ø21.25	1" UNC	12.95	13.78	3.54	1.38	1.06	ISO 5211-F14,F16	329.8
18"	4.50	16	Ø22.75	1-1/8" 8UN	14.21	14.96	3.94	1.89	1.42	ISO 5211-F14,F16	496.1
20"	5.00	20	Ø25.00	1-1/8" 8UN	15.75	16.54	4.33	1.89	1.42	ISO 5211-F14,F16	609.6
24"	6.06	20	Ø29.50	1-1/4" 8UN	18.46	18.90	4.33	1.97	1.81	ISO 5211-F14,F16	949.1

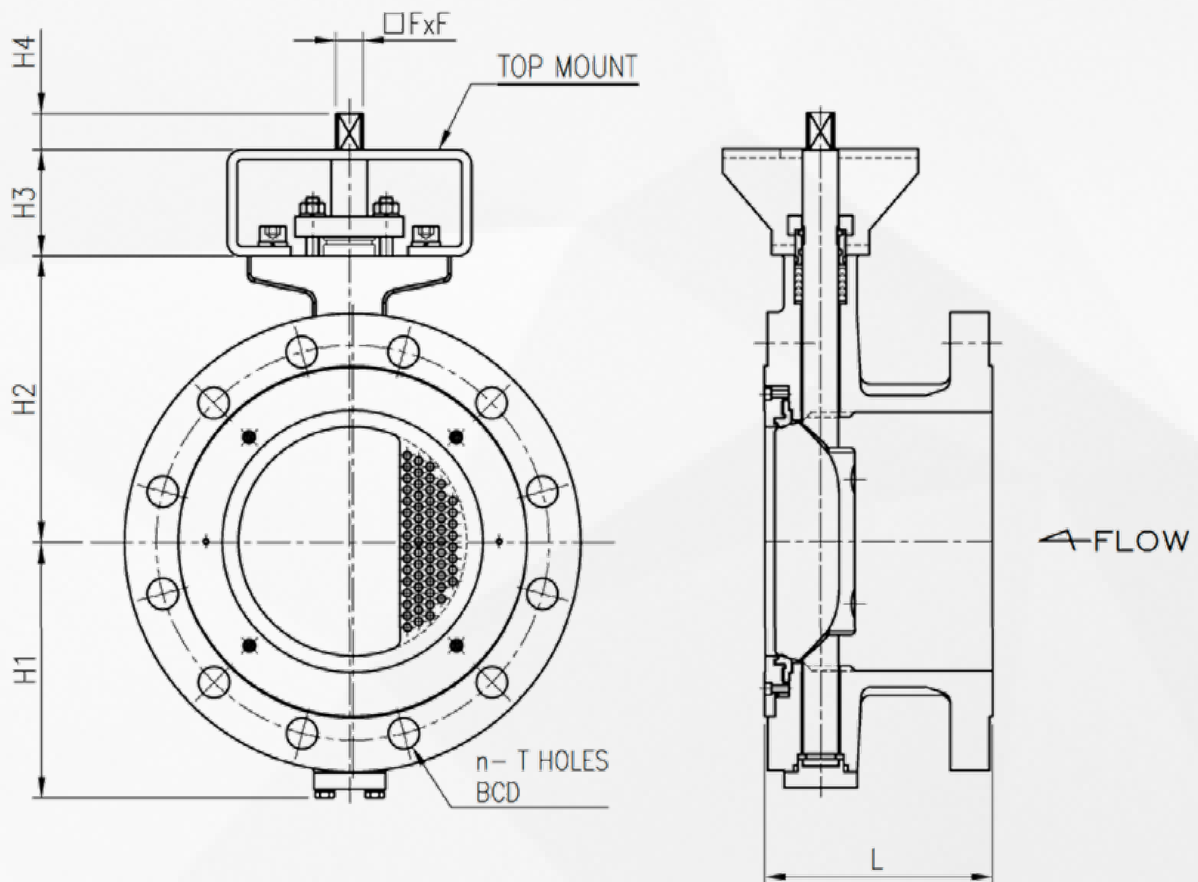
C53 (Class 150) Flanged 3" - 12" Dimensions



Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	4.50	4	Ø6.00	Ø3/4	4.61	6.30	0.51	0.43	ISO 5211-F07	Call
4"	5.00	8	Ø7.50	Ø3/4	5.04	7.01	0.71	0.55	ISO 5211-F07	Call
5"	5.50	8	Ø8.50	Ø7/8	5.75	7.60	0.71	0.55	ISO 5211-F07	Call
6"	5.50	8	Ø9.50	Ø7/8	6.14	8.07	0.87	0.55	ISO 5211-F10	Call
8"	6.00	8	Ø11.75	Ø7/8	7.68	9.25	1.02	0.75	ISO 5211-F10	Call
10"	6.50	12	Ø14.25	Ø1	8.66	11.02	1.26	0.87	ISO 5211-F12	Call
12"	7.00	12	Ø17.00	Ø1	10.43	12.20	1.38	1.06	ISO 5211-F12	Call

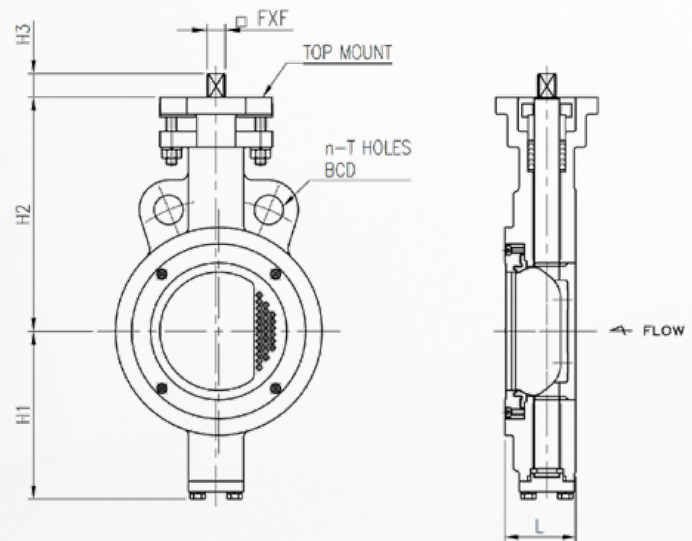


C53 (Class 150) Flanged 14" - 24" Dimensions

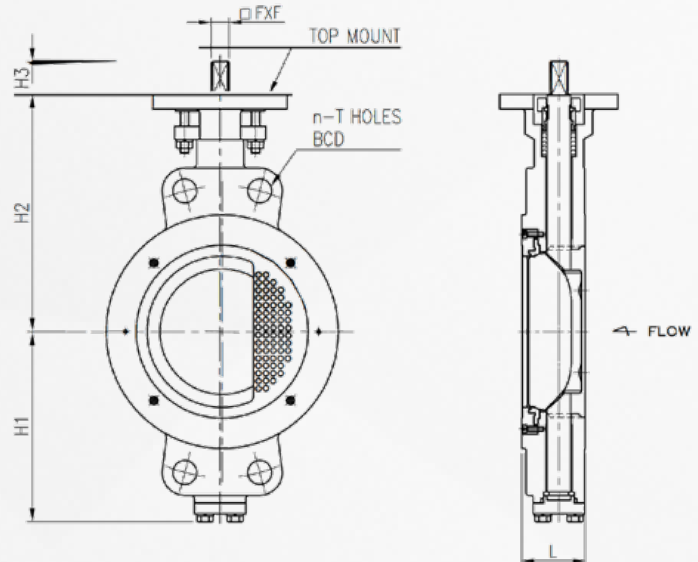


Size	L	n	BCD	T	H1	H2	H3	H4	FxF	TOP MOUNT	WEIGHT (lbs)
14"	7.5	12	Ø18.75	Ø1-1/8	11.42	12.40	3.54	1.38	1.06	ISO 5211-F12,F14	Call
16"	8.5	16	Ø21.25	Ø1-1/8	12.95	13.78	3.54	1.38	1.06	ISO 5211-F14,F16	Call
18"	8.8	16	Ø22.75	Ø1-1/4	14.21	14.96	3.94	1.89	1.42	ISO 5211-F14,F16	Call
20"	9.0	20	Ø25.00	Ø1-1/4	15.75	16.54	4.33	1.89	1.42	ISO 5211-F14,F16	Call
24"	10.5	20	Ø29.50	Ø1-3/8	18.46	18.90	4.33	1.97	1.81	ISO 5211-F14,F16	Call

C60 (Class 300) Wafer 3" - 5" Dimensions



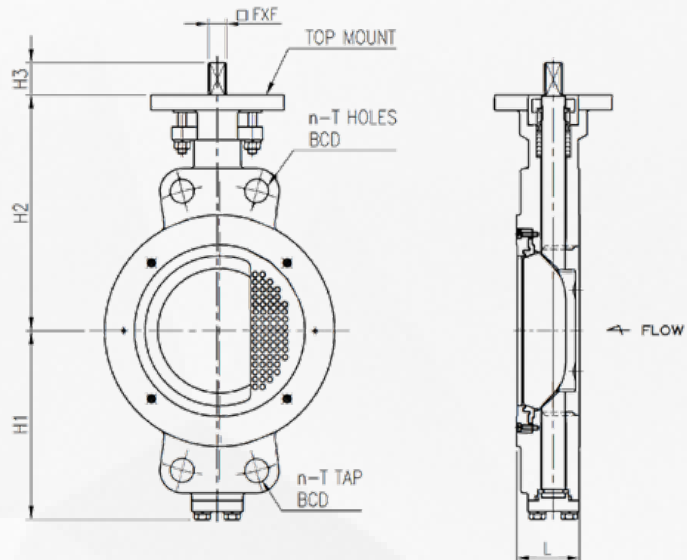
C60 (Class 300) Wafer 6" - 8" Dimensions



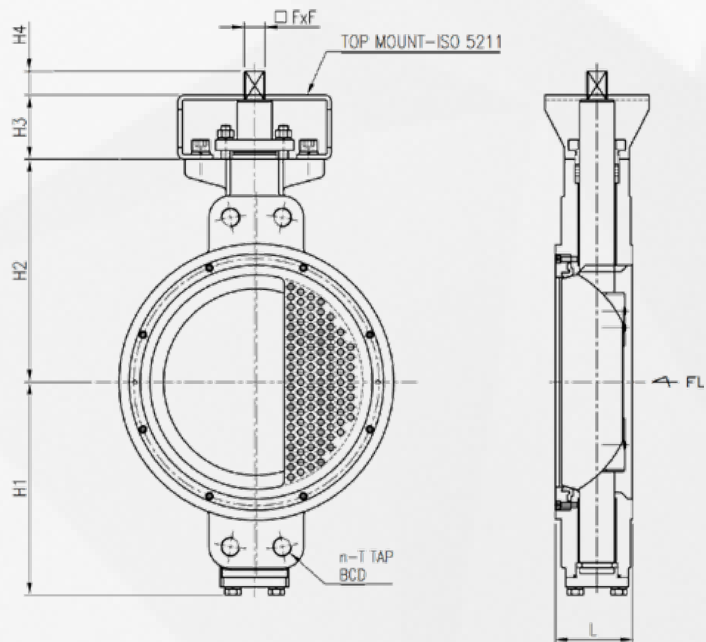
Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	1.88	2	Ø6.62	7/8"	4.61	6.30	0.51	0.43	ISO 5211-F07	22.0
4"	2.12	2	Ø7.88	7/8"	5.04	7.01	0.71	0.55	ISO 5211-F07	30.1
5"	2.31	2	Ø9.25	7/8"	5.75	7.60	0.71	0.55	ISO 5211-F07	45.5
6"	2.31	4	Ø10.62	7/8"	6.93	8.66	0.87	0.67	ISO 5211-F10	51.9
8"	2.88	4	Ø13.00	1"	8.46	10.24	1.26	0.87	ISO 5211-F12	86.5



C60 (Class 300) Wafer 10" - 12" Dimensions

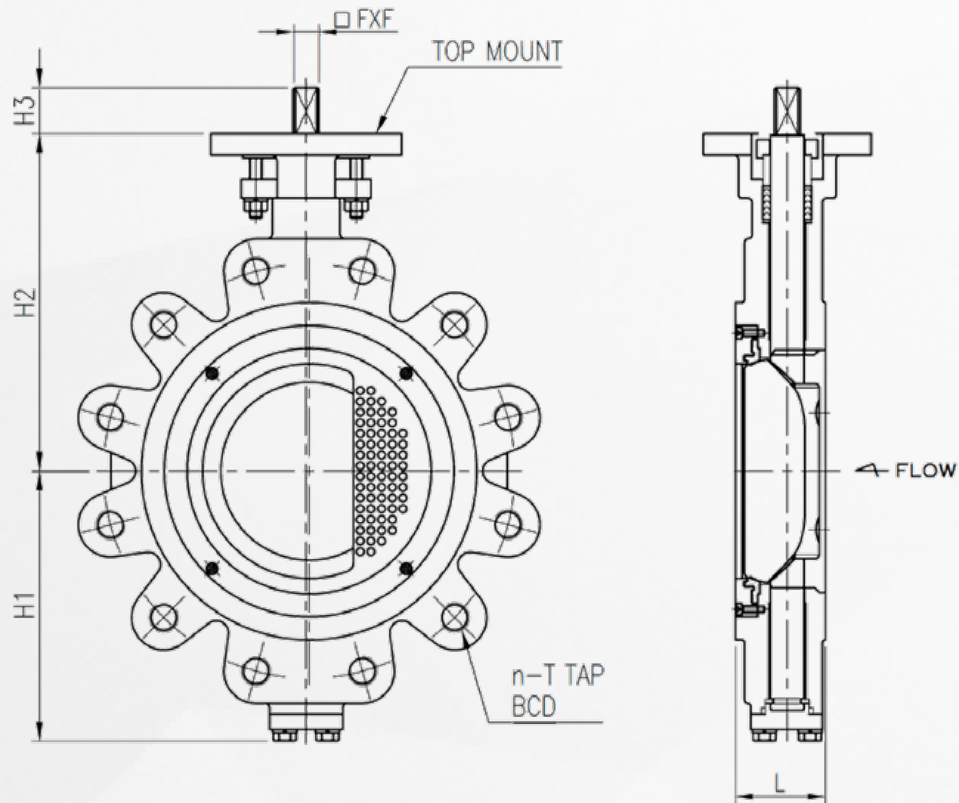


C60 (Class 300) Wafer 14" - 24" Dimensions



Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
10"	3.25	4	Ø15.25	1" UNC	10.59	11.42	1.38	0.87	ISO 5211-F12	133.8
12"	3.62	4	Ø17.75	1-1/8" 8UN	11.61	12.80	1.38	1.06	ISO 5211-F12	177.3
14"	4.62	4	Ø20.25	1-1/8" 8UN	12.80	13.98	3.54	1.89	ISO 5211-F14,F16	239.8
16"	5.25	4	Ø22.50	1-1/4" 8UN	14.37	15.43	3.54	1.89	ISO 5211-F14,F16	405.7
18"	5.88	4	Ø24.75	1-1/4" 8UN	16.14	16.46	4.33	1.89	ISO 5211-F14,F16	486.2
20"	6.25	4	Ø27.00	1-1/4" 8UN	17.72	18.70	4.92	1.97	ISO 5211-F25	615.1
24"	7.12	4	Ø32.00	1-1/2" 8UN	20.55	20.87	4.92	N/A	ISO 5211-F25	969.3

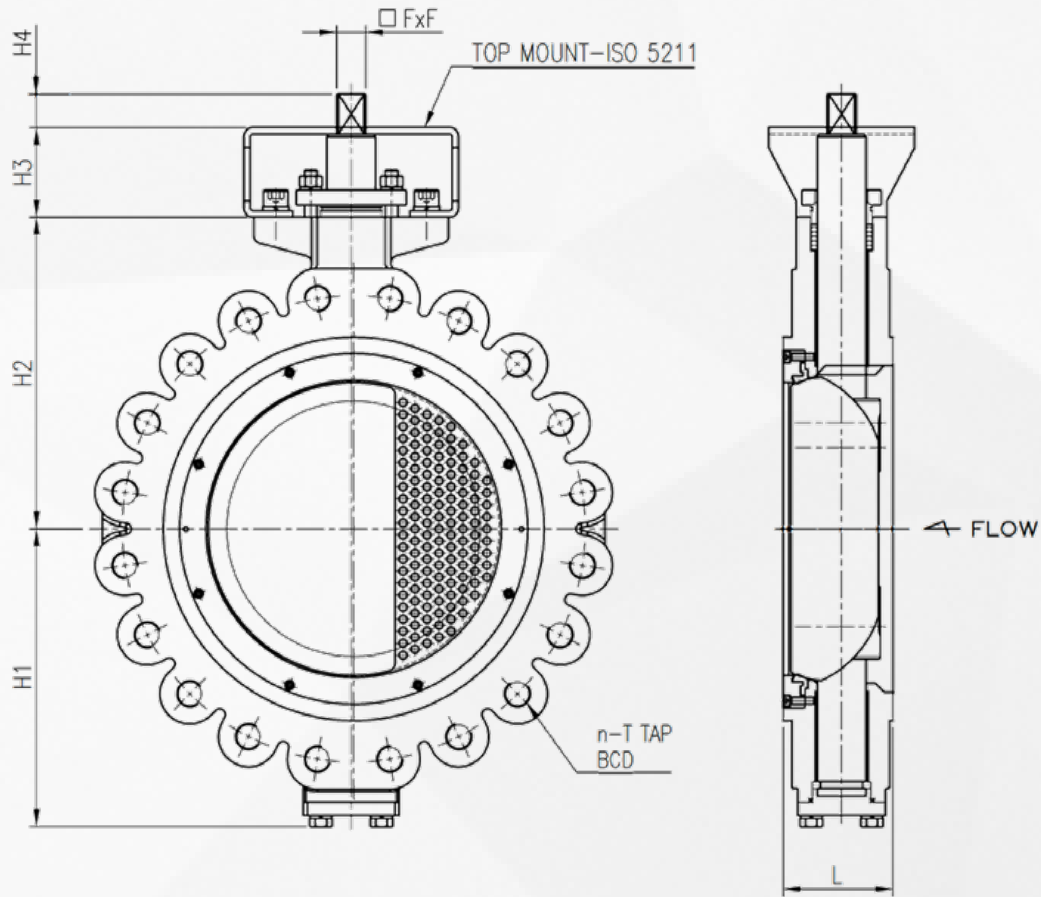
C61 (Class 300) Lug 3" - 12" Dimensions



Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	1.88	8	Ø6.62	3/4" UNC	4.61	6.30	0.51	0.43	ISO 5211-F07	25.7
4"	2.12	8	Ø7.88	3/4" UNC	5.04	7.01	0.71	0.55	ISO 5211-F07	43.3
5"	2.31	8	Ø9.25	3/4" UNC	5.75	7.60	0.71	0.55	ISO 5211-F07	62.7
6"	2.31	12	Ø10.62	3/4" UNC	6.93	8.66	0.87	0.67	ISO 5211-F10	73.3
8"	2.88	12	Ø13.00	7/8" UNC	8.46	10.24	1.26	0.87	ISO 5211-F12	123.4
10"	3.25	16	Ø15.25	1" UNC	10.59	11.42	1.38	0.87	ISO 5211-F12	177.1
12"	3.62	16	Ø17.75	1 1/8" 8UN	11.61	12.80	1.38	1.06	ISO 5211-F12	271.7

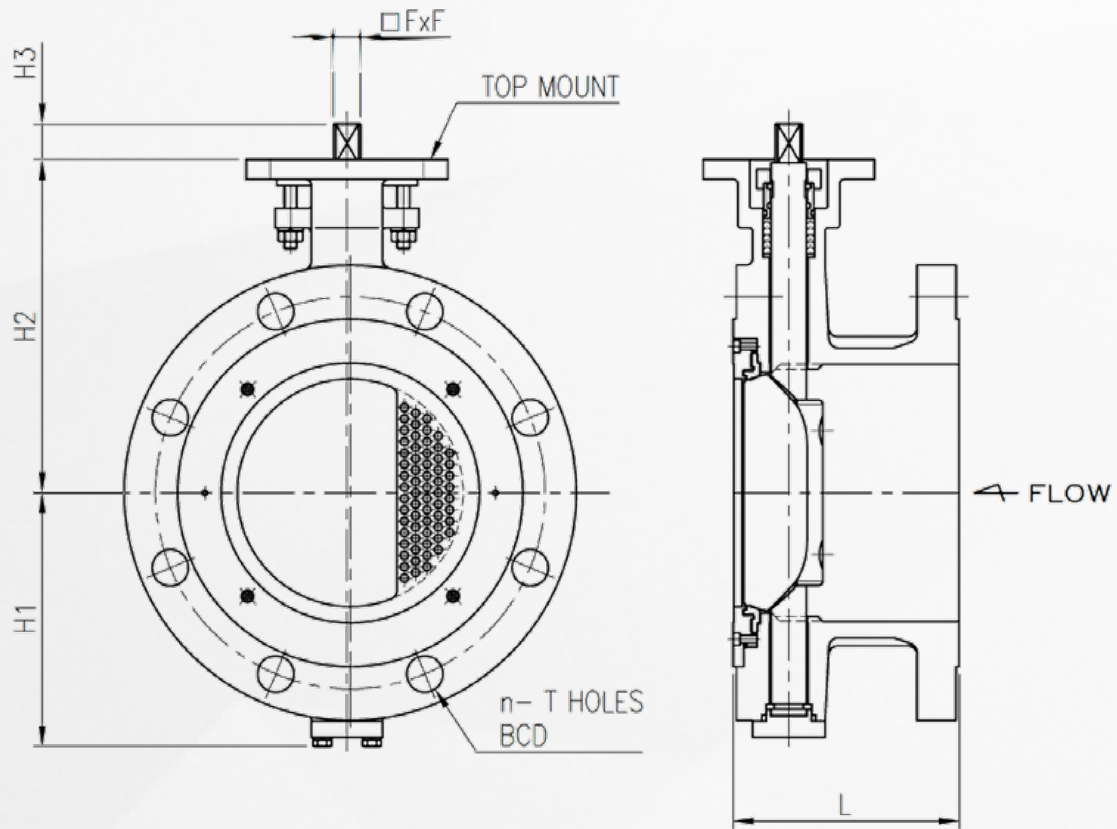


C61 (Class 300) Lug 14" - 24" Dimensions



Size	L	n	BCD	T	H1	H2	H3	H4	FxF	TOP MOUNT	WEIGHT (lbs)
14"	4.62	20	Ø20.25	1 1/8" 8UN	12.80	13.98	3.54	1.89	1.42	ISO 5211-F14,F16	485.8
16"	5.25	20	Ø22.50	1 1/4" 8UN	14.37	15.43	3.54	1.89	1.42	ISO 5211-F14,F16	609.0
18"	5.88	24	Ø24.75	1 1/4" 8UN	16.14	16.46	4.33	1.89	1.42	ISO 5211-F14,F16	746.5
20"	6.25	24	Ø27.00	1 1/4" 8UN	17.72	18.70	4.92	1.97	1.81	ISO 5211-F25	994.8
24"	7.12	24	Ø32.00	1 1/2" 8UN	20.55	20.87	4.92	Call	Call	ISO 5211-F25	1426.9

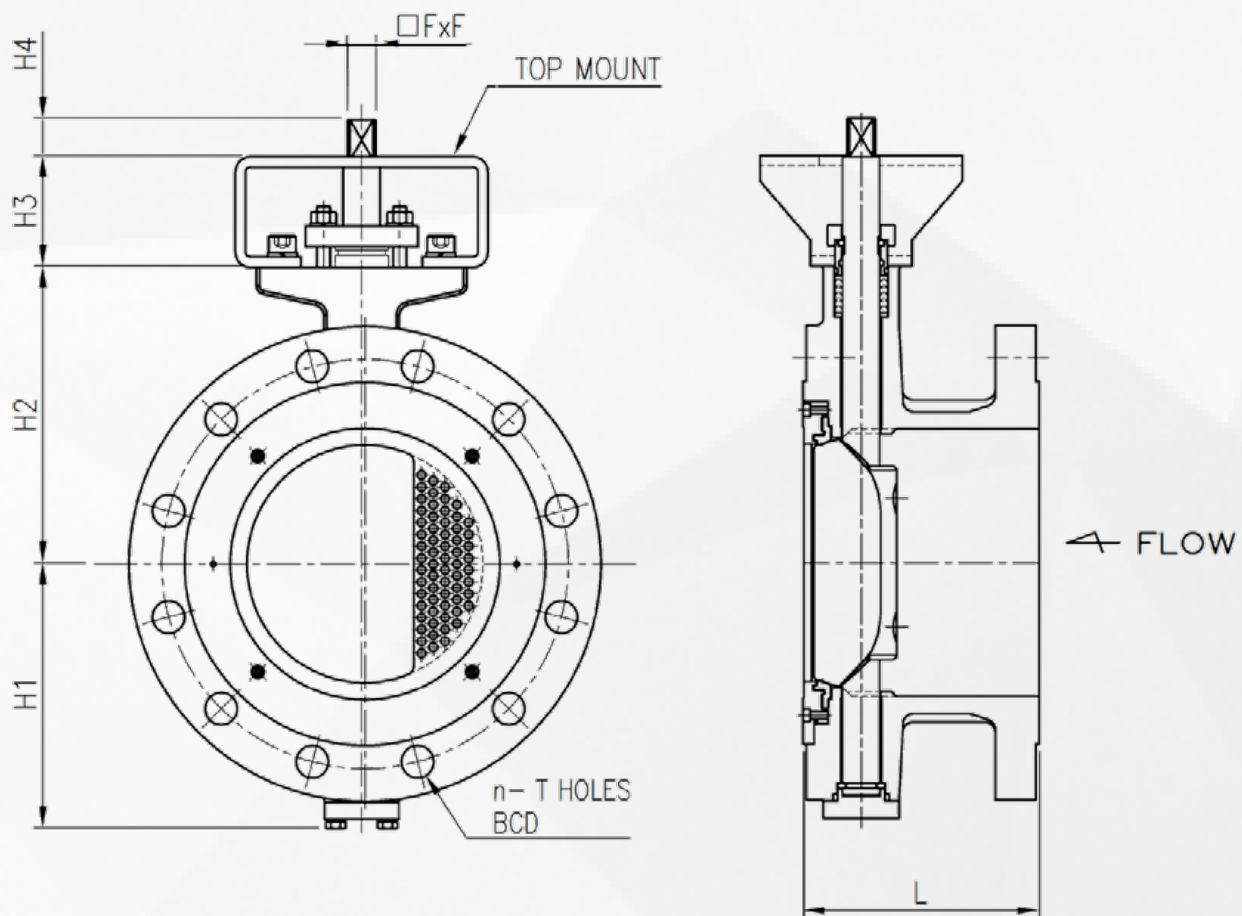
C63 (Class 300) Flanged 3" - 12" Dimensions



Size	L	n	BCD	T	H1	H2	H3	FxF	TOP MOUNT	WEIGHT (lbs)
3"	7.09	8	Ø6.62	Ø7/8	4.61	6.30	0.51	0.43	ISO 5211-F07	Call
4"	7.48	8	Ø7.88	Ø7/8	5.04	7.01	0.71	0.55	ISO 5211-F07	Call
5"	8.27	8	Ø9.25	Ø7/8	5.75	7.60	0.71	0.55	ISO 5211-F07	Call
6"	8.27	12	Ø10.62	Ø7/8	6.93	8.66	0.87	0.67	ISO 5211-F10	Call
8"	9.06	12	Ø13.00	Ø1	8.46	10.24	1.26	0.87	ISO 5211-F12	Call
10"	9.84	16	Ø15.25	Ø1-1/8	10.59	11.42	1.38	0.87	ISO 5211-F12	Call
12"	10.63	16	Ø17.75	Ø1-1/4	11.61	12.80	1.38	1.06	ISO 5211-F12	Call



C63 (Class 300) Flanged 14" - 24" Dimensions



Size	L	n	BCD	T	H1	H2	H3	H4	FxF	TOP MOUNT	WEIGHT (lbs)
14"	11.42	20	Ø20.25	Ø1-1/4	12.80	13.98	3.54	1.89	1.42	ISO 5211-F14,F16	Call
16"	12.20	20	Ø22.50	Ø1-3/8	14.37	15.43	3.54	1.89	1.42	ISO 5211-F14,F16	Call
18"	12.99	24	Ø24.75	Ø1-3/8	16.14	16.46	4.33	1.89	1.42	ISO 5211-F14,F16	Call
20"	13.78	24	Ø27.00	Ø1-3/8	17.72	18.70	4.92	1.97	1.81	ISO 5211-F25	Call
24"	15.35	24	Ø32.00	Ø1-5/8	20.55	20.87	4.92	Call	Call	ISO 5211-F25	Call

Cv Values Series C50 & C60

Class 150 Cv Values - Valve Sizing Coefficients (US-GPM/ ΔP)

Size (in)		Disc Position													
ANSI	DN	0°	5°	10°	15°	20°	25°	30°	35°	40°	50°	60°	70°	80°	90°
3	80	0	0.0	2.0	3.0	5.0	7.0	11.0	15	22	39	66	91	109	121
4	100	0	0.0	3.0	5.0	9.0	13.0	19.0	27	39	70	118	163	194	216
5	125	0	0.0	4.0	7.0	13.0	19.0	27.0	39	56	101	171	235	280	312
6	150	0	1.0	7.0	14.0	25.0	34.0	50	71	102	186	314	432	514	573
8	200	0	2.0	15.0	29.0	52.0	72.0	107	150	217	394	666	915	1090	1215
10	250	0	3.0	25.0	47.0	85.0	118	175	245	355	645	1090	1497	1783	1988
12	300	0	4.0	33.0	63.0	113	157	233	327	473	858	1450	1993	2374	2646
14	350	0	5.0	44.0	84.0	151	210	311	436	631	1145	1936	2659	3168	3531
16	400	0	8	70	132	238	330	489	686	992	1802	3046	4184	4984	5556
18	450	0	10	85	162	292	405	600	842	1218	2211	3737	5135	6117	6818
20	500	0	13	112	213	384	532	789	1106	1600	2906	4911	6748	8038	8960
24	600	0	21	177	336	606	840	1245	1745	2525	4584	7749	10646	12682	14136

Class 300 Cv Values - Valve Sizing Coefficients (US-GPM/ ΔP)

Size (in)		Disc Position													
ANSI	DN	0°	5°	10°	15°	20°	25°	30°	35°	40°	50°	60°	70°	80°	90°
3	80	0	0.0	1.0	2.0	4.0	6.0	9.0	12	18	32	54	75	89	99
4	100	0	0.0	2.0	4.0	8.0	11.0	16.0	22	32	57	97	133	159	177
5	125	0	0.0	3.0	6.0	11.0	15.0	23.0	32	46	83	140	193	230	256
6	150	0	1.0	6.0	11.0	20.0	28.0	41	58	84	152	258	354	422	470
8	200	0	1.0	12.0	24.0	43.0	59.0	88	123	178	323	546	750	894	996
10	250	0	2.0	20.0	39.0	70.0	97	144	201	291	529	894	1228	1462	1630
12	300	0	3.0	27.0	52.0	93	129	191	268	388	704	1189	1634	1946	2170
14	350	0	4.0	36.0	69.0	124	172	255	357	517	939	1587	2181	2598	2895
16	400	0	7	57	108	195	271	401	562	814	1477	2497	3431	4087	4556
18	450	0	8	70	133	240	332	492	690	999	1813	3065	4210	5016	5591
20	500	0	11	92	175	315	437	647	907	1312	2383	4027	5533	6591	7347
24	600	0	17	145	276	497	689	1021	1431	2070	3759	6354	8729	10399	11592



Class 150 Sizing Torques for PTFE/TFM Seats (in-lbs)

(Multiply Torques by Seat Adjustment Factor)

		Pressure Differential (ΔP in PSI)									
Size		50 ΔP		100 ΔP		150 ΔP		200 ΔP		290 ΔP	
in	mm	Water	Dry	Water	Dry	Water	Dry	Water	Dry	Water	Dry
3"	80	345	398	368	425	391	451	437	504	472	544
4"	100	495	571	541	624	575	664	667	770	725	836
5"	125	587	677	621	717	690	797	886	1,022	1,047	1,208
6"	150	782	903	817	943	1,128	1,301	1,346	1,553	1,645	1,898
8"	200	1,427	1,646	1,576	1,819	1,968	2,270	2,301	2,655	3,141	3,624
10"	250	1,875	2,164	2,175	2,509	2,876	3,319	3,233	3,731	4,556	5,257
12"	300	2,393	2,761	3,222	3,717	4,441	5,125	5,339	6,160	7,594	8,762
14"	350	3,670	4,235	5,235	6,041	6,581	7,594	7,974	9,200	11,218	12,944
16"	400	4,568	5,271	6,581	7,594	8,307	9,585	11,069	12,772	15,775	18,202
18"	450	6,006	6,930	8,572	9,891	10,724	12,373	14,348	16,555	20,550	23,711
20"	500	8,768	10,116	12,519	14,444	15,637	18,042	20,952	24,176	30,065	34,691
24"	600	14,992	17,299	18,743	21,627	23,438	27,043	31,400	36,231	45,046	51,976

Class 150 Seat Material Adjustment Factor

CODE	Seat material adjustment factors	
P, T	PTFE, TFM 1600	1.00
M, N, O, 1, 5	Metal	1.45
F, G, H, I	Fire Safe	1.35

Class 300 Sizing Torques for RTFE/TFM Seats (in-lbs)

(Multiply Torques by Seat Adjustment Factor)

		Pressure Differential (ΔP in PSI)									
Size		300 ΔP		400 ΔP		500 ΔP		600 ΔP		725 ΔP	
in	mm	Water	Dry	Water	Dry	Water	Dry	Water	Dry	Water	Dry
4"	100	1,083	1,408	1,195	1,553	1,450	1,885	1,705	2,216	2,023	2,630
5"	125	1,370	1,781	1,513	1,968	1,864	2,423	2,199	2,858	2,629	3,417
6"	150	1,975	2,568	2,374	3,086	2,931	3,811	3,489	4,536	4,174	5,426
8"	200	3,600	4,681	4,748	6,172	5,895	7,663	7,042	9,154	8,475	11,018
10"	250	6,006	7,808	7,950	10,335	9,909	12,882	11,853	15,409	14,259	18,536
12"	300	9,224	11,992	12,219	15,885	15,214	19,779	18,225	23,693	21,953	28,539
14"	350	16,011	20,814	21,252	27,628	26,478	34,421	31,719	41,235	38,235	49,706
16"	400	20,169	26,220	26,797	34,835	33,408	43,430	40,035	52,046	48,288	62,774
18"	450	25,729	33,448	34,173	44,425	42,616	55,401	51,060	66,378	61,591	80,068
20"	500	35,877	46,641	47,714	62,029	59,535	77,396	71,372	92,784	86,125	111,962
24"	610	56,843	73,896	75,626	98,314	94,425	122,753	113,208	147,171	136,643	177,636

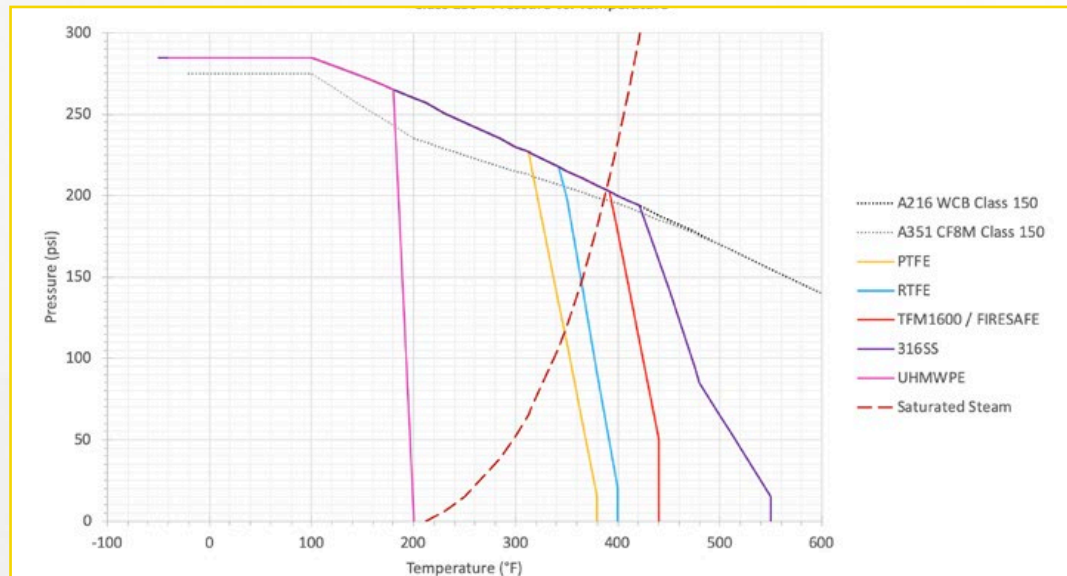
Class 300 Seat Material Adjustment Factor

CODE	Seat material adjustment factors	
R, T	RTFE, TFM 1600	1.00
M, N, O, 1, 5	Metal	1.60
F, G, H, I	Fire Safe	1.45

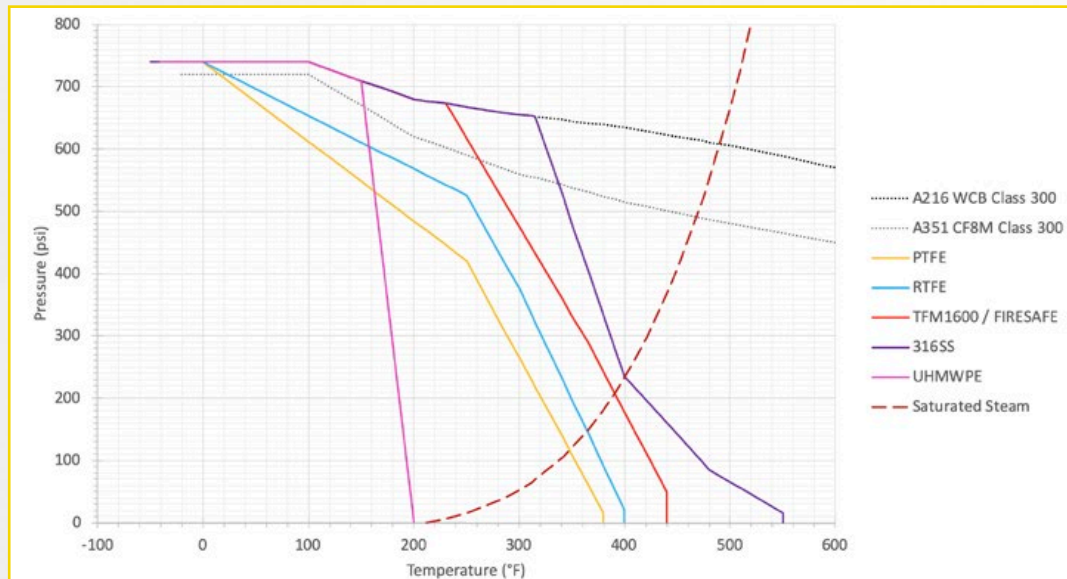
PT Charts

Series C50 & C60

Class 150 - Pressure vs Temperature Chart



Class 300 - Pressure vs Temperature Chart



Ordering Guideline

Example Part Number, Part Builder, & Crossover Guide

Ex.

A-SIZE	B-CODE	C-BODY	D-DISC	E-STEM	F-SEAT	G-OPERATOR	H-SPECIAL
040	C50	C	S	O	P	BST	

Part Number Builder

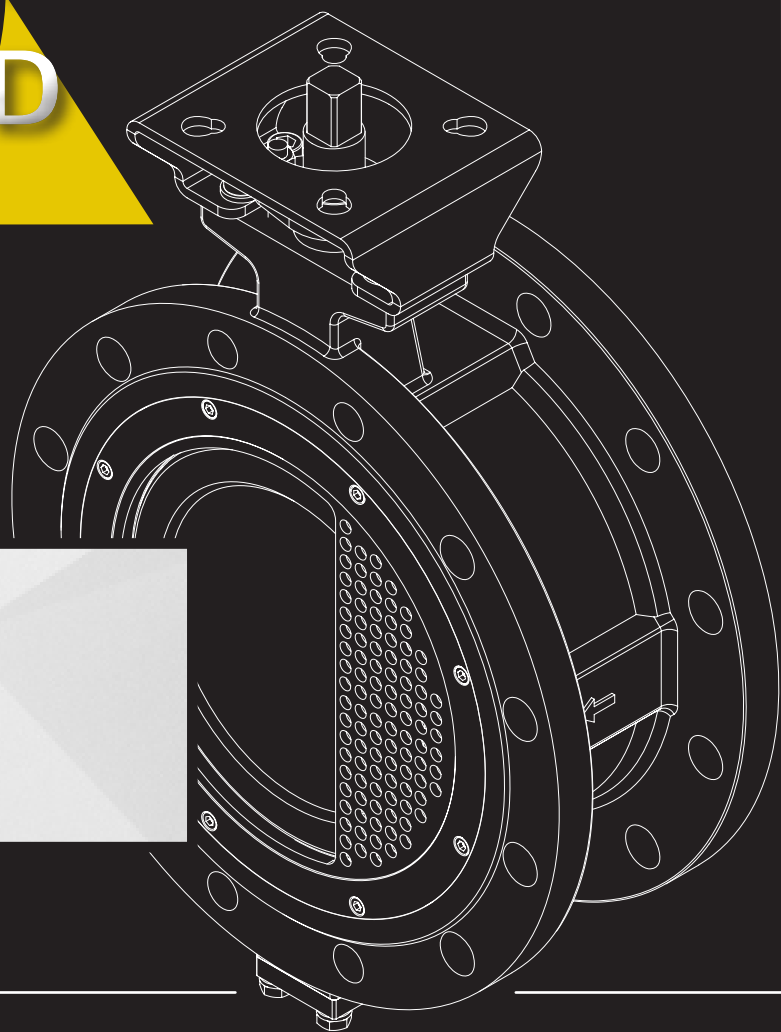
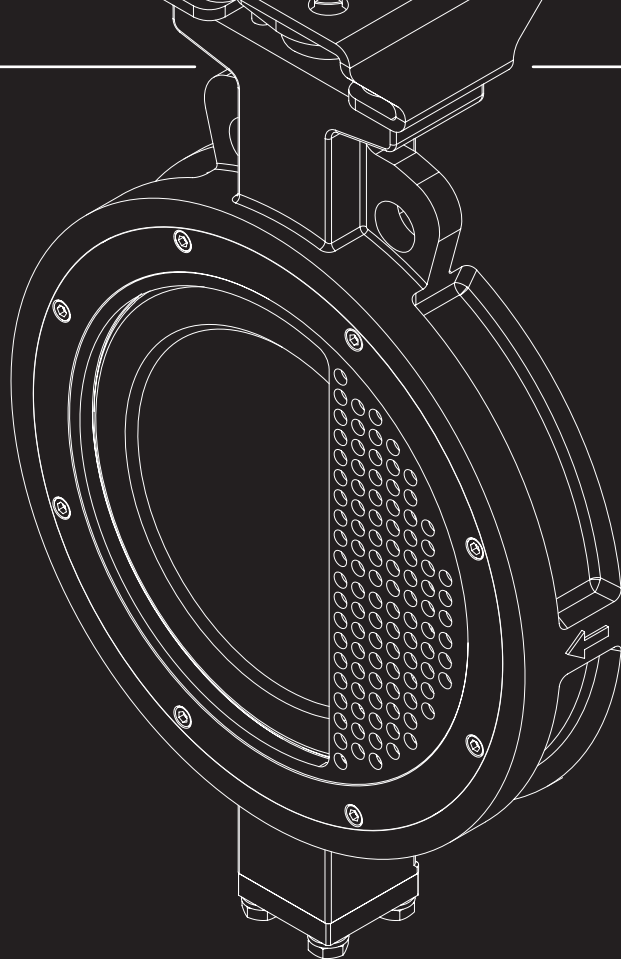
A-SIZE 030-3" 280-28" 040-4" 300-30" 050-5" 320-32" 060-6" 360-36" 080-8" 400-40" 100-10" 420-42" 120-12" 480-48" 140-14" 540-52" 160-16" 600-56" 180-18" 600-60" 200-20" 660-64" 240-24" 720-72"	-	B-CODE C50 - CLASS 150 - ANSI/DIN WAFER C51 - CLASS 150 - ANSI LUG C52 - CLASS 150 - DIN LUG C53 - CLASS 150 - ISO 5752 FLANGED (SHORT) C60 - CLASS 300 - ANSI/DIN WAFER C61 - CLASS 300 - ANSI LUG C62 - CLASS 300 - DIN LUG C63 - CLASS 300 - ISO 5752 FLANGED (SHORT)	-	C-BODY C - ASTM A216 WCB S - ASTM A351 CF8M B - ASTM B148 C95800 ALUMINUM BRONZE D - 2205 DUPLEX SS-UNS S32205/F51/F60 E - 2507 SUPER DUPLEX SS-UNS S32750/F53 T - ASTM B367 TITANIUM, GRADE C2
D-DISC S - ASTM A351 CF8M X - 316 + HARD CHROME PLATING B - ASTM B148 C95800 ALUMINUM BRONZE D - 2205 DUPLEX SS-UNS S32205/F51/F60 E - 2507 SUPER DUPLEX SS-UNS S32750/F53 T - ASTM B367 TITANIUM, GRADE C2	-	E-STEM O - 316-ASTM A274-S31600 P - 17-4PH-ASTM A564-TYPE630/17-4PH D - 2205 DUPLEX SS-UNS S32205/F51/F60 E - 2507 SUPER DUPLEX SS-UNS S32750/F53 K - N05500 MONEL K500 T - ASTM B367 TITANIUM, GRADE C2	-	F-SEAT P - PTFE R - RTFE T - TFM 1600 U - UHMWPE M - METAL SEATED SAME AS DISC N - METAL SEATED INCONEL 600 F - RTFE + 316 SS FIRE SAFE G - RTFE + INCONEL 600 FIRE SAFE H - TFM 1600 + 316 SS FIRE SAFE I - TFM 1600 + INCONEL 600 FIRE SAFE
G-OPERATOR BST - BARE STEM HND - LEVER HANDLE GOP - GEAR OPERATOR Cxx - CHAINWHEEL OPERATOR ("xx" = LENGTH)	-	H-SPECIAL BLANK - (NONE) SNA - SPOOL PIECE, NO DIFFUSER, ISA LENGTH SDA - SPOOL PIECE, DIFFUSER, ISA LENGTH SNX - SPOOL PIECE, NO DIFFUSER, CUSTOM LENGTH SDX - SPOOL PIECE, DIFFUSER, CUSTOM LENGTH XS - EXTENDED BONNET/STEM HC - HARD CHROME COATED DISC EN - ENP COATED DISC HF - HARD FACE STELLITED DISC O2 - CLEANED AND BAGGED FOR OXYGEN SERVICE SF - SILICONE FREE CLEANED VS - VACUUM SERVICE FF - CUSTOM FACE TO FACE DIMENSION J0 - CUSTOM BY CUSTOMER		



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