

***Butt-Weld Type (Series LSW)
Flanged Type (Series LSF)***



Specification

- Description : GVC Cryogenic LNG gate valves with extended cryogenic bolted bonnet according to BS 6364, OS&Y design, Direct Mount ISO table, adjustable gland packing, one-piece stem, extended bonnet pressure relief device, metal seated.
- Numbering System : Series LSW : Cryogenic BUTT-WELD type Gate Valve
Series LSF : Cryogenic FLANGED type Gate Valve



BUTT-WELD
(Series LSW)



FLANGED
(Series LSF)

- Standards : Cryogenic Gate Valves are designed in compliance with the requirements of ASME B16.34, API 600, BS 6364 and special customer's requirements (If applicable). Valve design and flow analysed using Finite Element Method.
- Testing * : All cryogenic valves are tested in the fully equipped cryogenic in-house testing facilities.
- Materials : Stainless Steel 316, 316L, others on request.
- Production Range : Size : DN 50 - DN 1200 (2" - 48")
Working Pressure : Up to 250 Bar (3625 PSI)
Working Temperature : -196°C to + 815°C
- Pressure Classes : ANSI/ASME 150 LBS, 300 LBS, 600 LBS, 900 LBS and 1500 LBS. Others on request.
- Certification * : CE/PED, ABS Design Assessment, ABS and LRS type approvals, marine class society certified foundries and materials, inherently Fire Safe, BS 6364 cryogenic testing
- Operation : With ISO 5210 top flange for direct mounting of an actuator.
- Pressure Relief : Each cryogenic gate valve has a build-in pressure relief device, pressure in the valve's extended bonnet will be removed automatically by this device in case of sudden pressure increase in the valve extended bonnet.
- Options : A lantern ring in the gland packing is optionally available
- Typical Applications : Liquefied Gas Carriers (Propane, Butane, Acetylene, Ethylene etc.), LNG Carriers, LNG Receiving Terminals, LNG re-gasification units, LNG liquefaction units, LNG peak shaving plants, other Cryogenic Services (Liquefied Oxygen Plants [-160°C]), on board of FSRU's, FLNG's, VLGC's etc.

* See Catalogue "GVC Product Group L, Triple Eccentric Metal Seated Cryogenic LNG Butterfly Valves" for further details on our cryogenic testing, or consult us for further information.

Series



BUTT-WELD Series LSW

Size Range : DN 50 - DN 1200 (2" - 48")

Pressure Classes : ANSI/ASME 150 LBS, 300 LBS, 600 LBS, 900 LBS and 1500 LBS

- Butt-weld end connections
- Bolted bonnet, OS&Y
- Inherently fire-safe
- Extended Cryogenic Bonnet (BS 6364) with build-in pressure relief device.
- One piece blow-out proof stem
- Direct mount ISO table, no additional brackets required
- Adjustable gland packing, can be adjusted without removal of the actuator



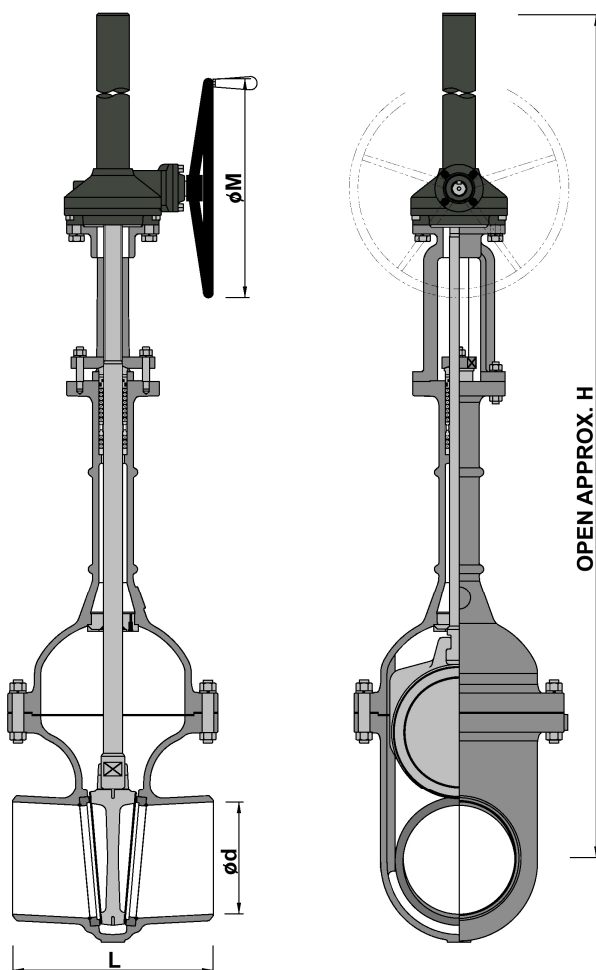
FLANGED Series LSF

Size Range : DN 50 - DN 1200 (2" - 48")

Pressure Classes : ANSI/ASME 150 LBS, 300 LBS, 600 LBS, 900 LBS and 1500 LBS

- Flanged end connections
- Bolted bonnet, OS&Y
- Inherently fire-safe
- Extended Cryogenic Bonnet (BS 6364) with build-in pressure relief device.
- One piece blow-out proof stem
- Direct mount ISO table, no additional brackets required
- Adjustable gland packing, can be adjusted without removal of the actuator

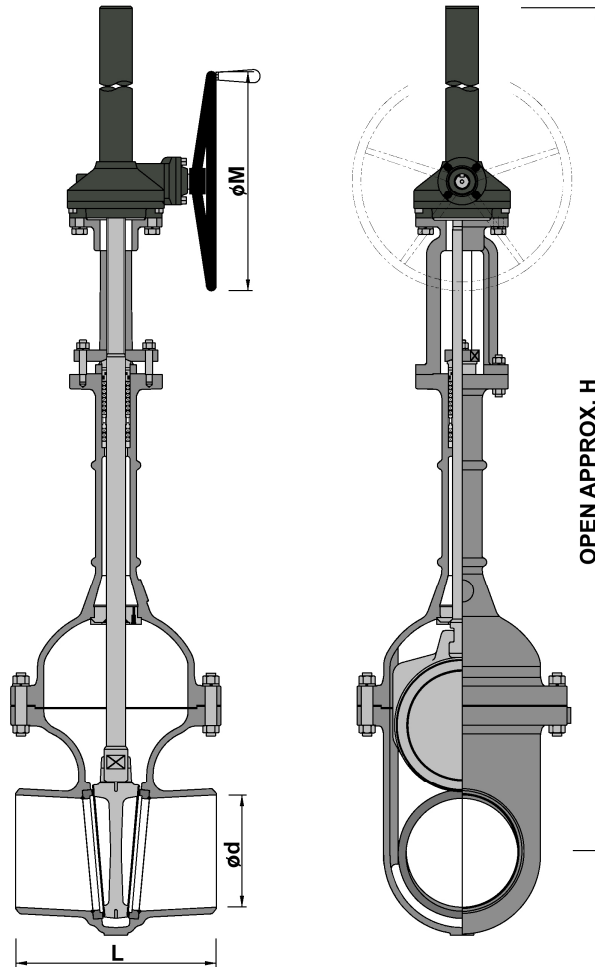
Series LSW Cryogenic Gate Valve Class 150# Butt-Weld Type DN 50 (2") - 1200 (48")



Dimensions DN 50 (2") - 1200 (48") **ANSI 150** [mm]

SIZE		L	REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		H	øM	
2"	50	178	1135	200	21
3"	80	203	1290	200	36
4"	100	229	1350	250	48
6"	150	267	1520	300	75
8"	200	292	1790	355	112
10"	250	330	2010	400	161
12"	300	356	2250	450	342
14"	350	381	2650	500	380
16"	400	406	2865	560	554
18"	450	432	3105	560	704
20"	500	457	3310	630	811
24"	600	508	3710	630	1492
28"	700	610	3794	710	2202
30"	750	610	3994	710	2340
36"	900	711	4384	800	4401
40"	1000	762	4801	900	4373
42"	1050	813	4944	900	4686
48"	1200	864	5715	900	6580

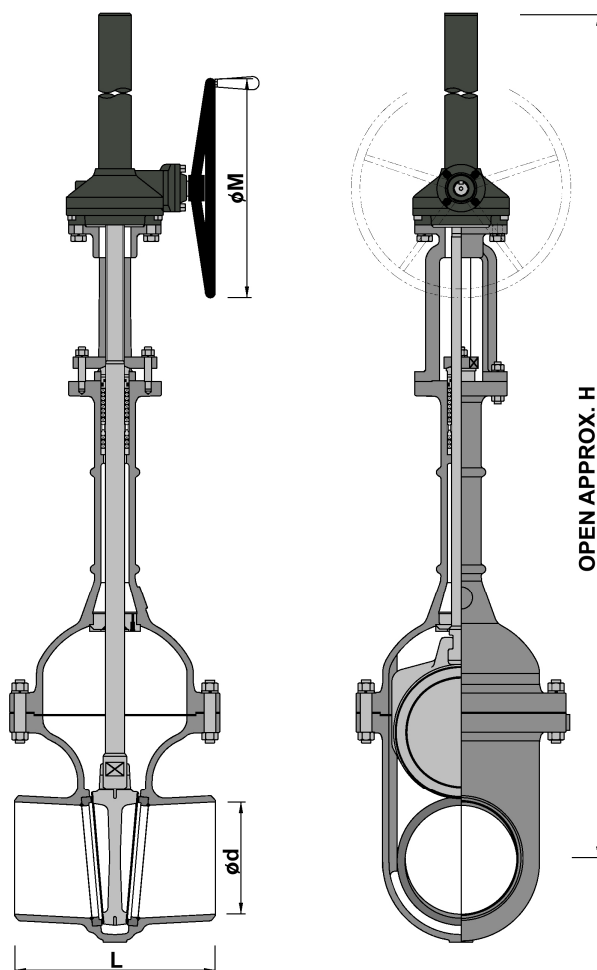
Series LSW Cryogenic Gate Valve Class 300# Butt-Weld Type DN 50 (2") - 1200 (48")



Dimensions DN 50 (2") - 1200 (48") **ANSI 300** [mm]

SIZE		L	REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		H	øM	
2"	50	216	1169	200	25
3"	80	282	1307	250	44
4"	100	305	1371	250	48
6"	150	403	1547	355	117
8"	200	419	1819	400	148
10"	250	547	2022	450	209
12"	300	502	2352	500	356
14"	350	762	2848	560	535
16"	400	838	3012	630	861
18"	450	914	3191	630	1115
20"	500	991	3418	630	1249
24"	600	1143	3810	710	1795
28"	700	1346	3962	710	3094
30"	750	1397	4116	800	3973
36"	900	1727	4481	900	5850
40"	1000	1930	5021	900	6500
42"	1050	1981	5299	900	7250
48"	1200	2215	6312	900	9320

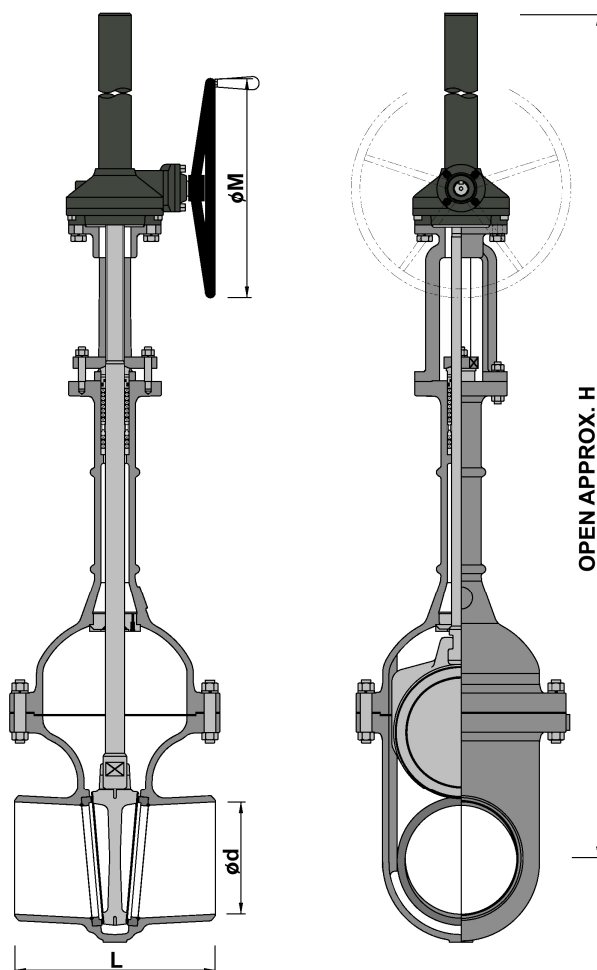
Series LSW Cryogenic Gate Valve Class 600# Butt-Weld Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 600** [mm]

SIZE		L	REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		H	øM	
2"	50	292	674	200	34
3"	80	356	785	250	67
4"	100	432	879	355	115
6"	150	559	1213	450	212
8"	200	660	1506	500	327
10"	250	787	1628	500	568
12"	300	838	1883	630	1059
14"	350	889	2014	630	1218
16"	400	990	2214	710	1760
18"	450	1092	2445	710	2182
20"	500	1194	2680	800	2956
24"	600	1397	3210	800	3582

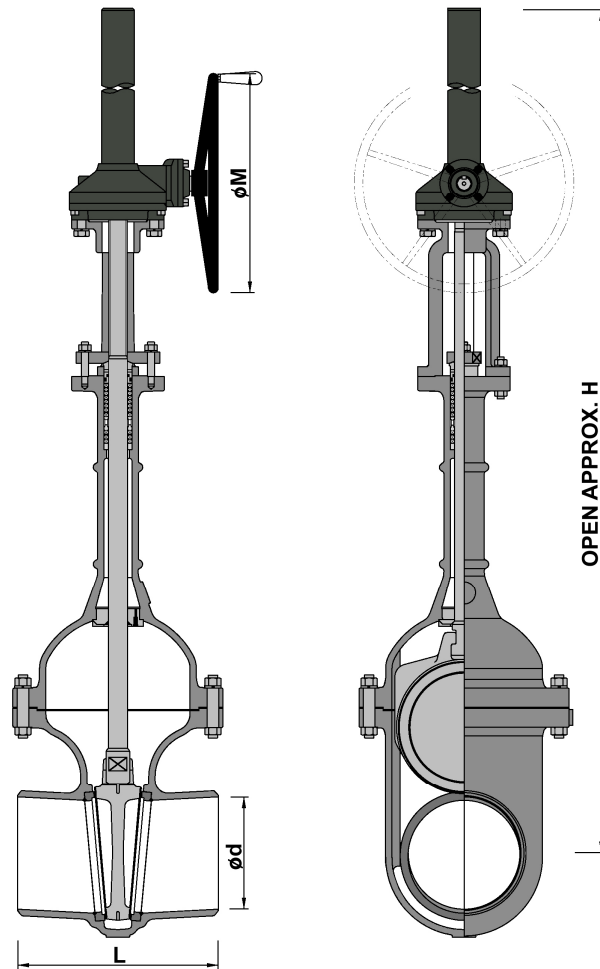
Series LSW Cryogenic Gate Valve Class 900# Butt-Weld Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 900** [mm]

SIZE		L	REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		H	øM	
2"	50	368	595	250	70
3"	80	381	802	355	148
4"	100	457	1033	355	234
6"	150	610	1327	500	393
8"	200	737	1558	500	724
10"	250	838	1813	630	1265
12"	300	965	1924	710	1401
14"	350	1029	2020	710	2076
16"	400	1130	2251	710	3030
18"	450	1219	2509	900	3548
20"	500	1320	2655	900	4304
24"	600	1549	3178	900	6405

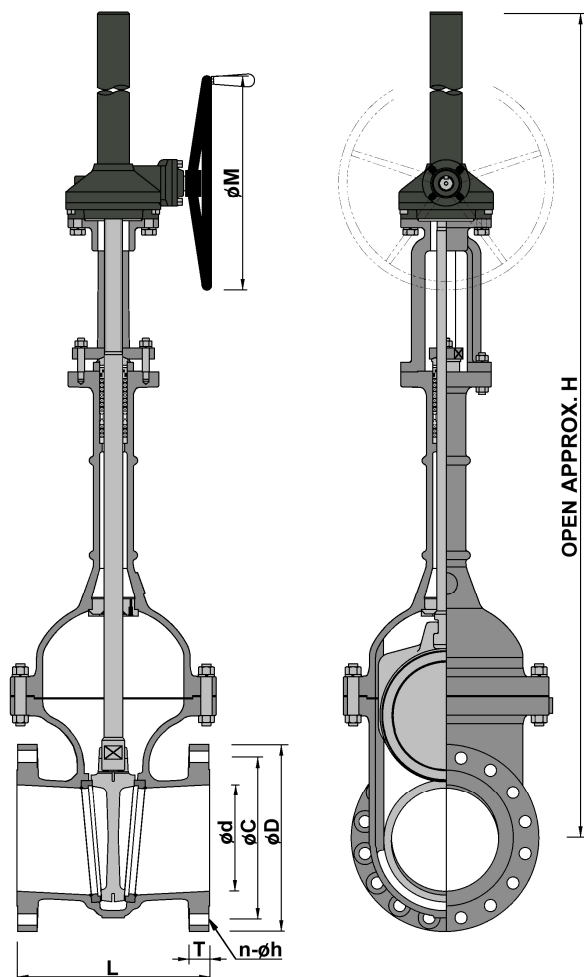
Series LSW Cryogenic Gate Valve Class 1500# Butt-Weld Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 1500** [mm]

SIZE		L	REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		H	øM	
2"	50	368	680	400	94
3"	80	470	800	400	184
4"	100	546	900	400	293
6"	150	705	1090	630	633
8"	200	832	1675	800	1280
10"	250	991	1850	800	1730
12"	300	1130	2180	800	3453
14"	350	1257	2275	800	3757
16"	400	1384	2525	1000	6546
18"	450	1537	2900	1000	7787
20"	500	1664	3245	1000	9563
24"	600	1943	3876	1000	13684

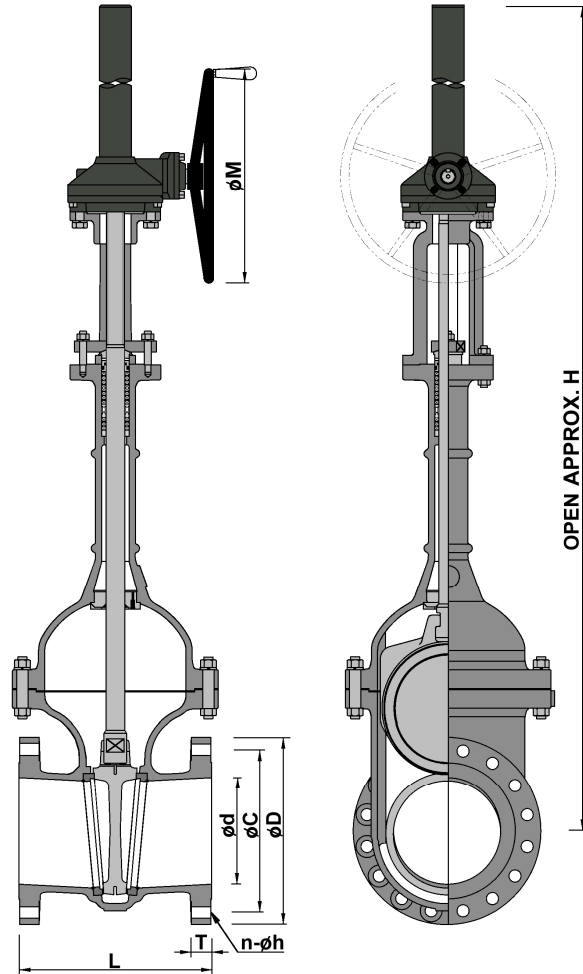
Series LSF Cryogenic Gate Valve Class 150# Flanged Type DN 50 (2") - 1200 (48")



Dimensions DN 50 (2") - 1200 (48") **ANSI 150** [mm]

SIZE		L	FLANGE			REFERENCE ONLY			WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	øM	
2"	50	178	150	120.7	4-19	19.5	835	200	22
3"	80	203	190	152.4	4-19	24.3	990	200	36
4"	100	229	230	190.5	8-19	24.3	1050	250	52
6"	150	267	280	241.3	8-22	25.9	1220	300	85
8"	200	292	345	298.5	8-22	29	1490	355	132
10"	250	330	405	263	12-25	30.6	1710	400	182
12"	300	356	485	431.8	12-25	32.2	1950	450	264
14"	350	381	535	476.3	12-29	35.4	2250	500	418
16"	400	406	595	593.8	16-29	37	2465	560	594
18"	450	432	635	577.9	16-32	40.1	2705	560	803
20"	500	457	700	635	20-32	43.3	2910	630	935
24"	600	508	815	749.3	20-35	48.1	3310	630	1826
28"	700	610	927	863.6	28-35	71.4	3794	710	2290
30"	750	610	985	914.4	28-35	74.7	3994	710	2430
36"	900	711	1169	1085.9	32-42	90.4	4384	800	4550
40"	1000	762	1290	1200.2	36-42	90.5	4801	900	4860
42"	1050	813	1346	1257.3	36-42	96.8	4944	900	4910
48"	1200	864	1511	1422.4	44-42	110	5715	900	8310

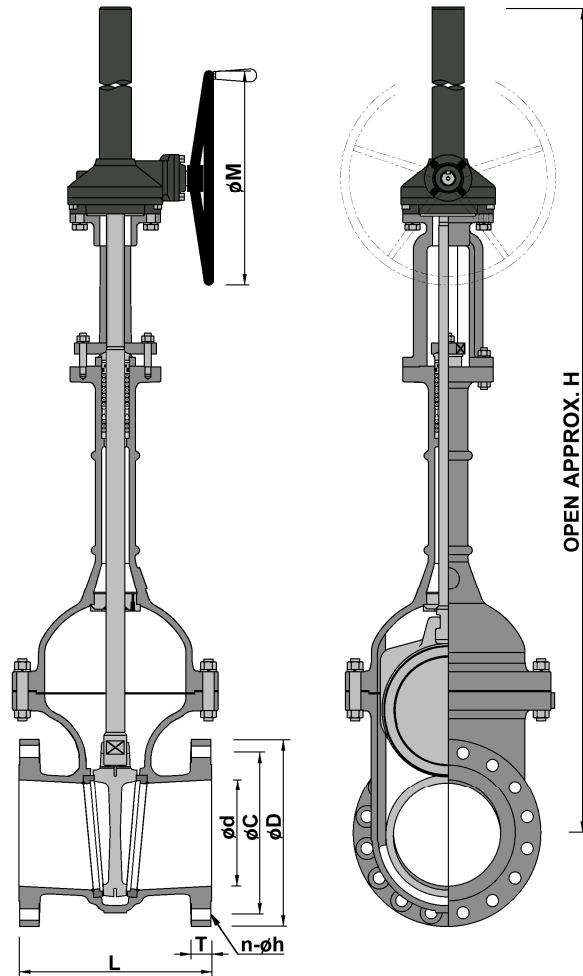
Series LSF Cryogenic Gate Valve Class 300# Flanged Type DN 50 (2") - 1200 (48")



Dimensions DN 50 (2") - 1200 (48") **ANSI 300** [mm]

SIZE		L	FLANGE			REFERENCE ONLY			WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	øM	
2"	50	216	165	127	8-19	22.7	869	200	28
3"	80	282	210	168.3	8-22	29	1007	200	47
4"	100	305	255	200	8-22	32.2	1071	250	52
6"	150	403	320	269.9	12-22	37	1247	300	145
8"	200	419	380	330.2	12-25	41.7	1519	355	184
10"	250	457	445	387.4	16-29	48.1	1722	400	243
12"	300	502	520	450.8	16-32	51.3	2052	450	406
14"	350	762	585	514.4	20-32	54.4	2448	500	608
16"	400	838	650	571.5	20-35	57.6	2612	560	956
18"	450	914	710	628.6	24-35	60.8	2791	560	1323
20"	500	991	775	685.8	24-35	64	3018	630	1495
24"	600	1143	915	812.8	24-41	70.3	3410	630	2221
28"	700	1346	1035	939.8	28-45	86	3962	710	3219
30"	750	1397	1092	997	28-48	92	4116	710	4129
36"	900	1727	1270	1168.4	32-45	104.7	4481	800	6049
40"	1000	1930	1238	1155.7	32-45	114.3	5021	900	6340
42"	1050	1981	1289	1206.5	32-45	119.1	5299	900	7010
48"	1200	2215	1469	1371.6	32-51	133.4	6312	900	9200

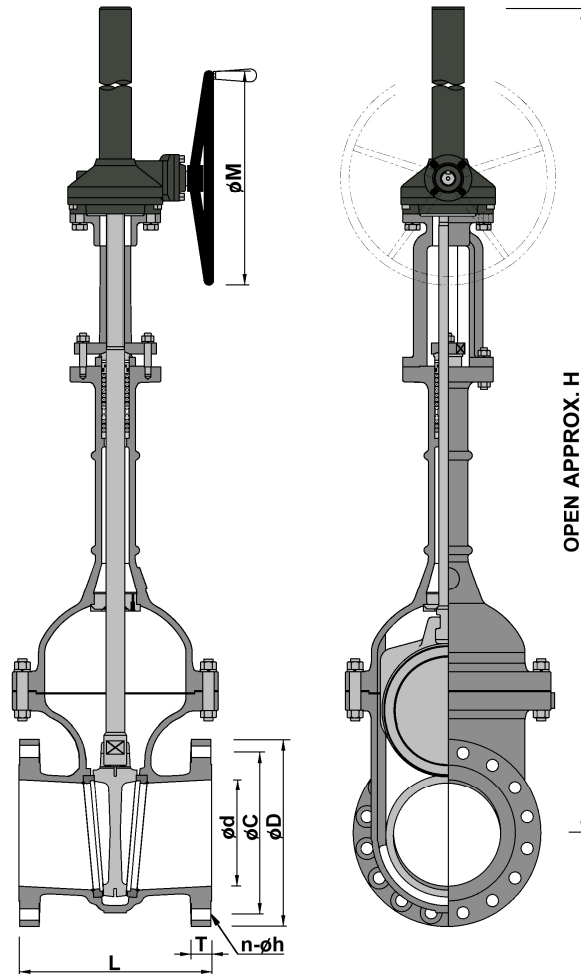
Series LSF Cryogenic Gate Valve Class 600# Flanged Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 600** [mm]

SIZE		L	FLANGE			REFERENCE ONLY			WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	øM	
2"	50	292	165	127.0	8-19	32.0	674	200	37
3"	80	356	210	168.3	8-22	38.2	785	250	75
4"	100	432	275	215.9	8-25	44.5	879	355	127
6"	150	559	355	292.1	12-29	54.1	1213	450	248
8"	200	660	420	349.2	12-32	62.0	1506	500	379
10"	250	787	510	431.8	16-35	69.9	1628	500	646
12"	300	838	560	489.0	20-35	73.1	1883	630	1173
14"	350	889	605	527.0	20-38	76.3	2014	630	1350
16"	400	990	685	603.2	20-41	82.6	2214	710	1942
18"	450	1092	745	654.0	20-44	89.0	2445	710	2451
20"	500	1194	815	723.9	24-44	95.3	2680	800	3346
24"	600	1397	940	838.2	24-51	107.9	3210	800	4192

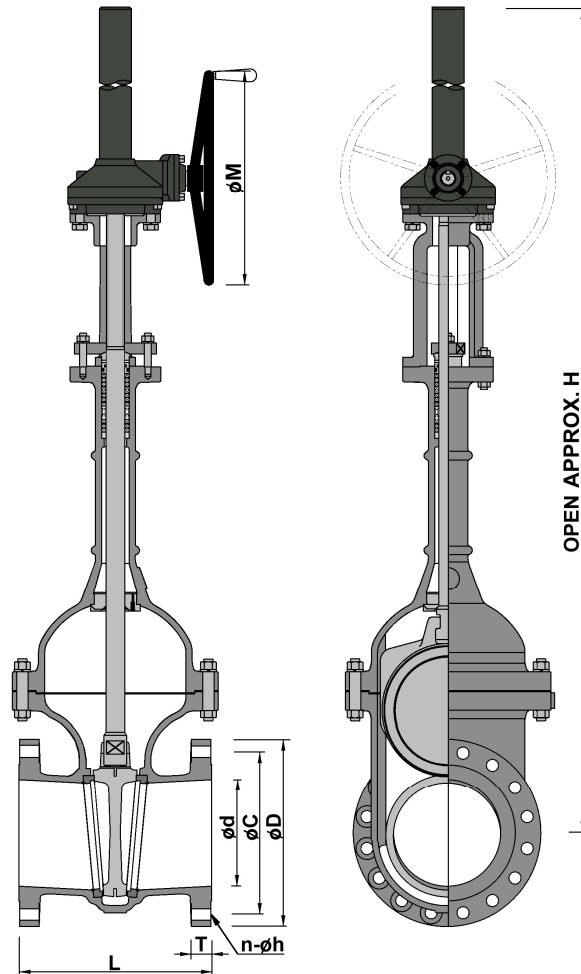
Series LSF Cryogenic Gate Valve Class 900# Flanged Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 900** [mm]

SIZE		L	FLANGE			REFERENCE ONLY			WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	øM	
2"	50	368	215	165.1	8-25	44.5	595	250	76
3"	80	381	240	190.5	8-25	95.3	802	355	166
4"	100	457	290	235.0	8-32	120.7	1033	355	168
6"	150	610	380	317.5	12-32	174.7	1327	500	451
8"	200	737	470	393.7	12-38	225.5	1558	500	839
10"	250	838	545	469.9	16-38	279.4	1813	630	1439
12"	300	965	610	633.4	20-38	330.2	1924	710	1552
14"	350	1029	640	558.8	20-41	362.0	2020	710	2275
16"	400	1130	705	616.0	20-44	412.8	2251	710	3208
18"	450	1219	785	685.8	20-51	463.4	2509	900	3985
20"	500	1320	855	749.3	20-54	514.4	2655	900	4872
24"	600	1549	1040	901.7	20-67	616.4	3178	900	7358

Series LSF Cryogenic Gate Valve Class 1500# Flanged Type DN 50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 1500** [mm]

SIZE		L	FLANGE			REFERENCE ONLY			WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	øM	
2"	50	368	215	165.1	8-25	44.5	680	400	102
3"	80	470	265	203.2	8-32	54.1	800	400	206
4"	100	546	310	241.3	8-35	60.4	900	400	323
6"	150	705	395	317.5	12-38	89.0	1358	630	726
8"	200	832	485	393.7	12-45	98.5	1675	800	1525
10"	250	991	585	482.6	12-51	114.4	1850	800	2020
12"	300	1130	675	571.5	16-54	130.3	2180	800	3900
14"	350	1257	750	635.0	16-60	139.8	2275	800	4190
16"	400	1384	825	704.8	16-67	152.5	2525	1000	7010
18"	450	1537	915	774.7	16-73	168.4	2900	1000	8958
20"	500	1664	985	831.8	16-79	184.2	3245	1000	11110
24"	600	1943	1170	990.6	16-92	209.6	3876	1000	16195

Product Group C
Concentric Rubber Lined Butterfly Valves



Product Group O
*Double Eccentric Replaceable Seat Ring
Type Butterfly Valves (Cargo Oil)*



Product Group H, F and M
High Performance Butterfly Valves



Product Group T
Triple Eccentric Metal Seated Butterfly Valves



Product Group E
Disc Seated Butterfly Valves



Product Group L
*Cryogenic Butterfly Valves (LPG, LNG)
Ball, Gate, Globe and Check Valves*



Product Group D
Damper Butterfly Valves

