

***Butt-Weld Type (Series LCW)
Flanged Type (Series LCF)***

LNG

CE



FOUNDED 1862

ABS

**Lloyd's
Register**



Specification

Description : GVC Cryogenic LNG swing check valves with bolted cover, metal seated, suitable for Uni-directional flow.

Numbering System : Series LCW : Cryogenic BUTT-WELD type Swing Check Valve
Series LCF : Cryogenic FLANGED type Swing Check Valve



BUTT-WELD (Series LCW)



FLANGED (Series LCF)

Standards : Cryogenic Swing Check are designed in compliance with the requirements of ASME B16.34, BS 1868, 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 600 (2" - 24")
Larger sizes up to and including DN 1000 available upon request.
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

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 LCW)

Size Range : DN 50 - DN 600 (2" - 24")

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

- Butt-weld end connections
- Bolted Cover
- Swing Type Disc
- Inherently fire-safe



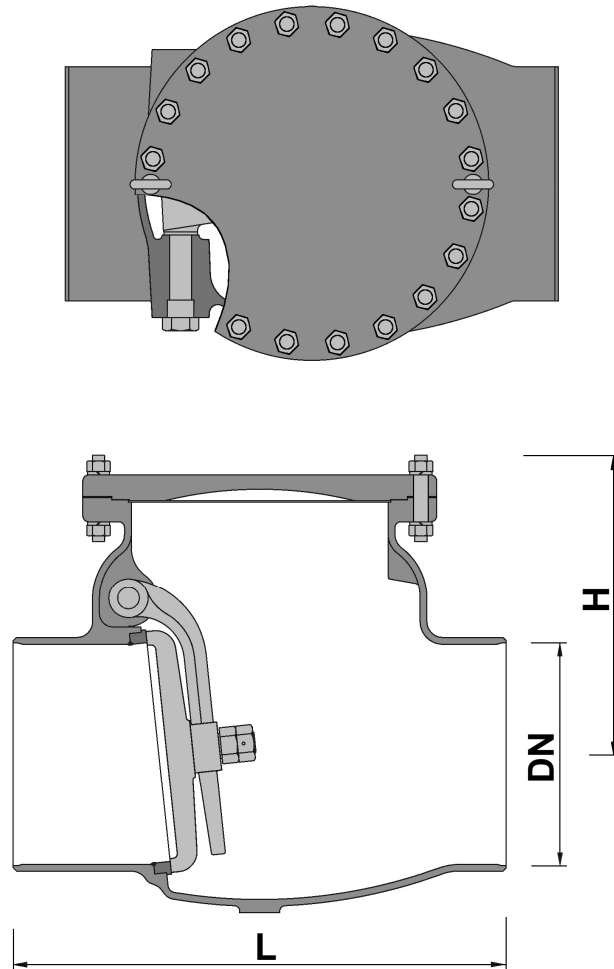
FLANGED (Series LCF)

Size Range : DN 50 - DN 600 (2" - 24")

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

- Flanged end connections
- Bolted Cover
- Swing Type Disc
- Inherently fire-safe

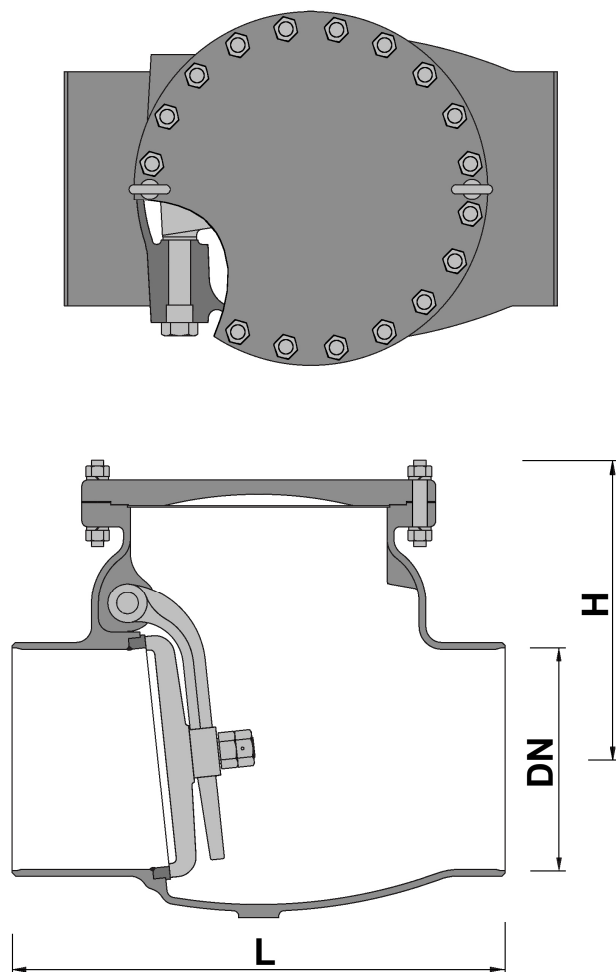
Series LCW Cryogenic Swing Check Valve Class 150# Butt-Weld Type DN50(2")-600(24")



Dimensions DN 50 (2") - 600 (24") **ANSI 150** [mm]

SIZE		L	REFERENCE ONLY	WEIGHT APPROX. (Kg)
Inch	DN		H	
2"	50	203	140	12
3"	80	241	170	22
4"	100	292	210	32
6"	150	356	250	62
8"	200	495	280	92
10"	250	622	320	201
12"	300	698	340	291
14"	350	787	395	356
16"	400	864	450	377
18"	450	978	530	638
20"	500	978	570	775
24"	600	1295	670	1022

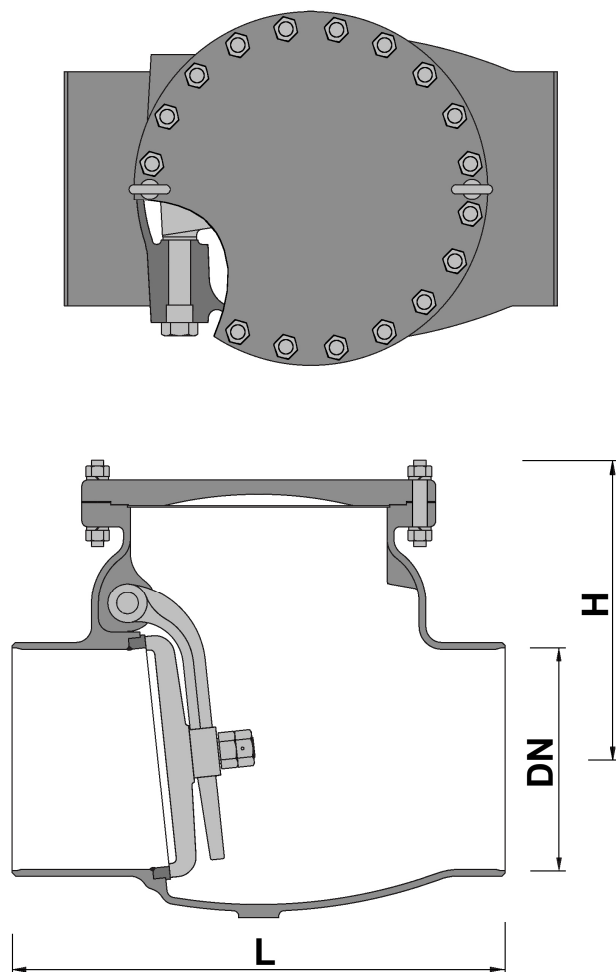
Series LCW Cryogenic Swing Check Valve Class 300# Butt-Weld Type DN50(2")-600(24")



Dimensions DN 50 (2") - 600 (24") **ANSI 300** [mm]

SIZE		L	REFERENCE ONLY	WEIGHT APPROX. (Kg)
Inch	DN		H	
2"	50	267	160	18
3"	80	318	185	33
4"	100	356	230	48
6"	150	444	295	104
8"	200	533	345	171
10"	250	622	390	196
12"	300	711	445	390
14"	350	838	470	545
16"	400	684	510	622
18"	450	978	545	797
20"	500	1016	600	936
24"	600	1346	690	1517

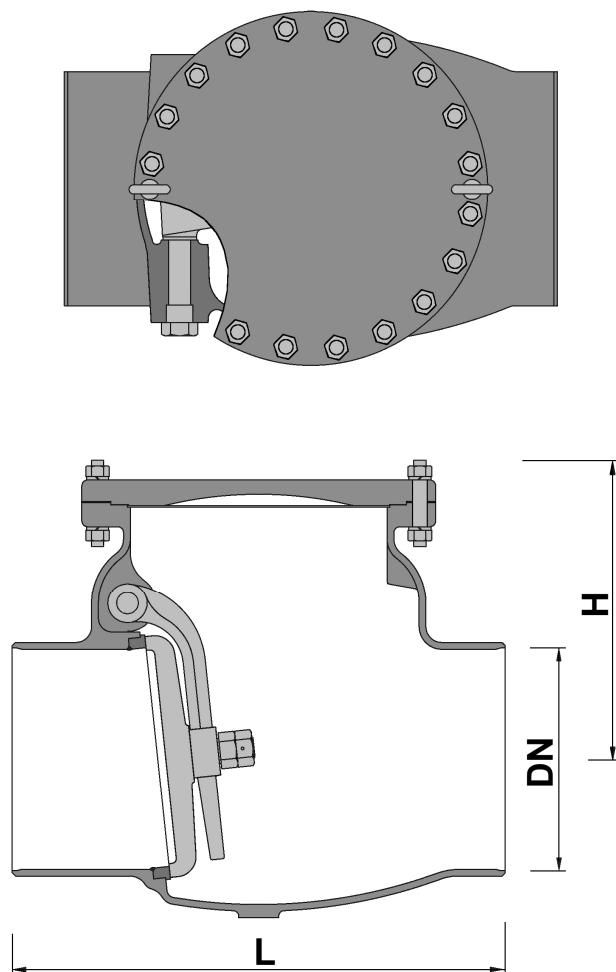
Series LCW Cryogenic Swing Check Valve Class 600# Butt-Weld Type DN50(2'')-600(24'')



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

SIZE		L	REFERENCE ONLY	WEIGHT APPROX. (Kg)
Inch	DN		H	
2"	50	292	210	34
3"	80	356	265	61
4"	100	432	310	79
6"	150	559	390	200
8"	200	660	540	334
10"	250	787	600	479
12"	300	838	620	619
14"	350	889	680	846
16"	400	991	810	1110
18"	450	1092	960	1674
20"	500	1194	1020	2019
24"	600	1397	1200	2619

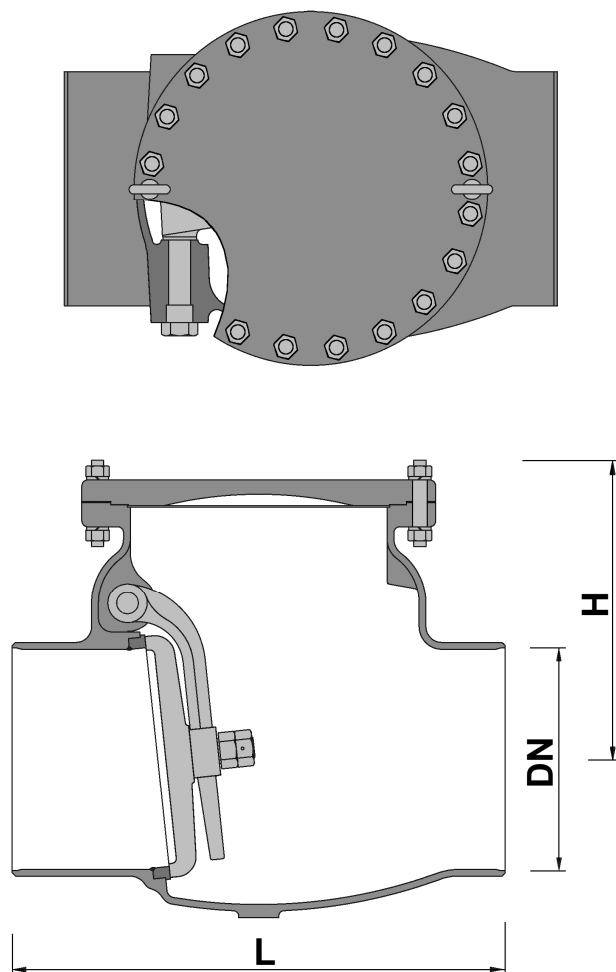
Series LCW Cryogenic Swing Check Valve Class 900# Butt-Weld Type DN50(2")-600(24")



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

SIZE		L	REFERENCE ONLY	WEIGHT APPROX. (Kg)
Inch	DN		H	
2"	50	368	310	50
3"	80	381	360	60
4"	100	457	390	167
6"	150	610	450	219
8"	200	737	565	481
10"	250	838	730	926
12"	300	965	780	1197
14"	350	1029	800	1369
16"	400	1130	870	1957
18"	450	1219	920	2674
20"	500	1321	1050	3291
24"	600	1549	1200	4321

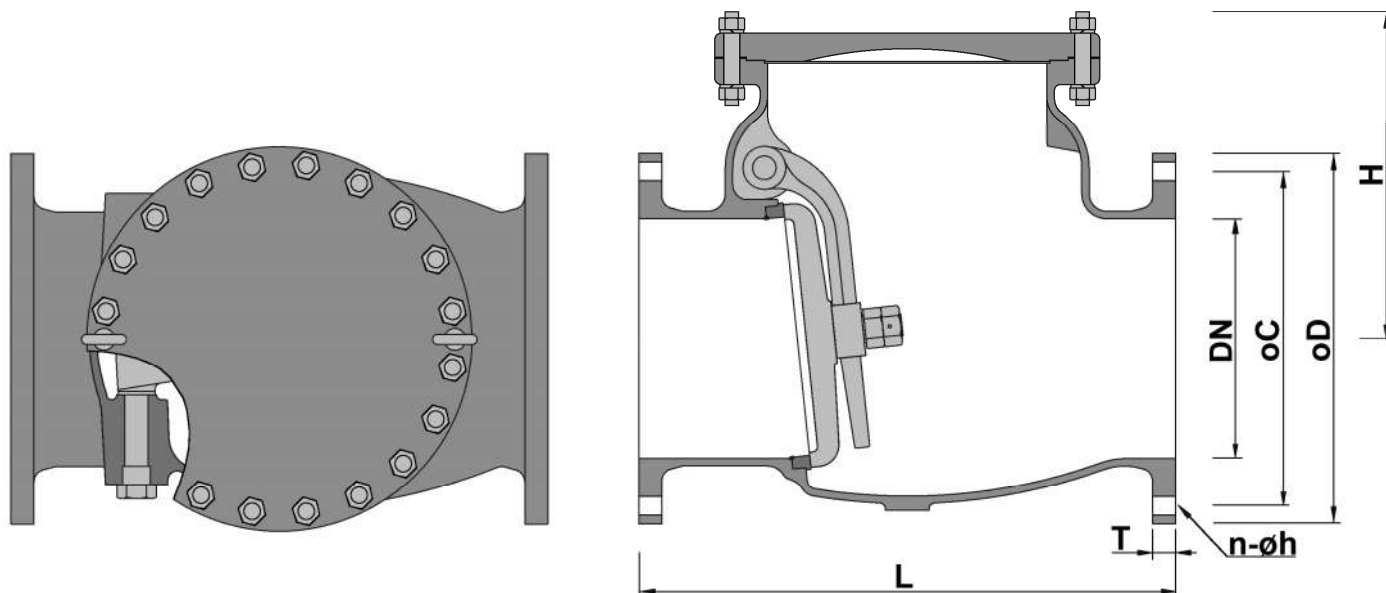
Series LCW Cryogenic Swing Check Valve Class 1500# Butt-Weld DN50 (2") - 600 (24")



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

SIZE		L	REFERENCE ONLY	WEIGHT APPROX. (Kg)
Inch	DN		H	
2"	50	368	310	49
3"	80	470	375	134
4"	100	546	430	159
6"	150	705	565	356
8"	200	832	665	845
10"	250	991	730	1354
12"	300	1130	900	2649
14"	350	1257	1035	2749
16"	400	1383	1060	3849
18"	450	1537	1190	5130
20"	500	1664	1300	6315
24"	600	1943	1450	8719

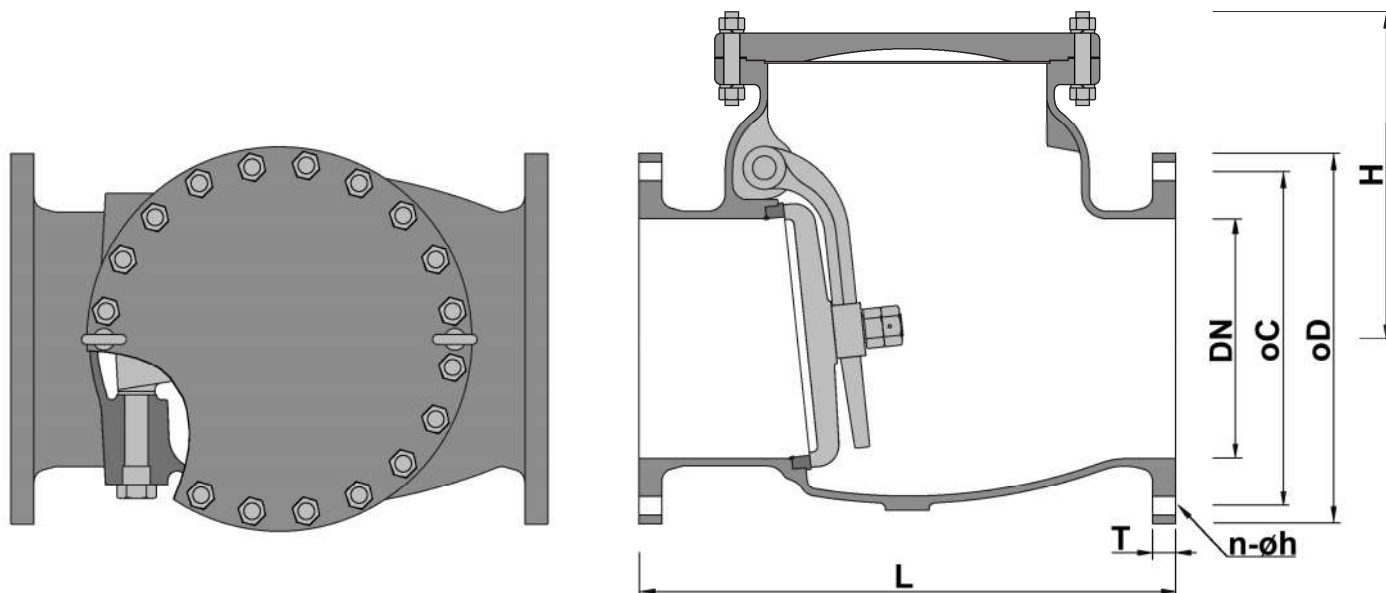
Series LCF Cryogenic Swing Check Valve Class 150# Flanged Type DN50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 150** [mm]

SIZE		L	FLANGE			REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	
2"	50	203	150	120.7	4-19	19.5	140	16
3"	80	241	190	152.4	4-19	24.3	170	30
4"	100	292	230	190.5	8-19	24.3	210	44
6"	150	356	280	241.3	8-22	25.9	250	78
8"	200	495	345	298.5	8-22	29.0	280	118
10"	250	622	405	263.0	12-25	30.6	320	236
12"	300	698	485	431.8	12-25	32.2	340	344
14"	350	787	535	476.3	12-29	35.4	395	422
16"	400	864	595	593.8	16-29	37.0	450	524
18"	450	978	635	577.9	16-32	40.1	530	729
20"	500	978	700	635.0	20-32	43.3	570	893
24"	600	1295	815	749.3	20-35	48.1	670	1187

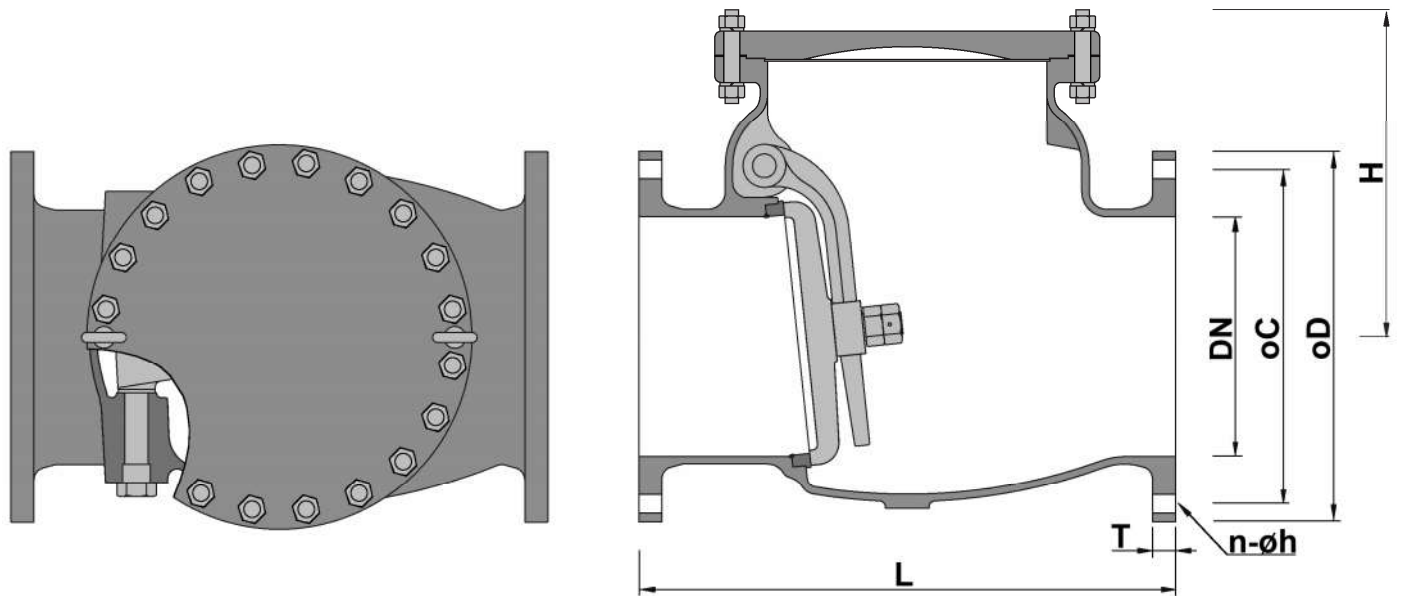
Series LCF Cryogenic Swing Check Valve Class 300# Flanged Type DN50 (2") - 600 (24")



Dimensions DN 50 (2") - 600 (24") **ANSI 300** [mm]

SIZE		L	FLANGE			REFERENCE ONLY		WEIGHT APPROX. (Kg)
Inch	DN		øD	øC	n-øh	T	H	
2"	50		165	127.0	8-19	22.7	160	24
3"	80		210	168.3	8-22	29.0	185	45
4"	100		255	200.0	8-22	32.2	230	68
6"	150		320	269.9	12-22	37.0	295	137
8"	200		380	330.2	12-25	41.7	345	220
10"	250		445	387.4	16-29	48.1	390	270
12"	300		520	450.8	16-32	51.3	445	495
14"	350		585	514.4	20-32	54.4	470	680
16"	400		650	571.5	20-35	57.6	510	769
18"	450		710	628.6	24-35	60.8	545	1004
20"	500		775	685.8	24-35	64.0	600	1190
24"	600		915	812.8	24-41	70.3	690	1896

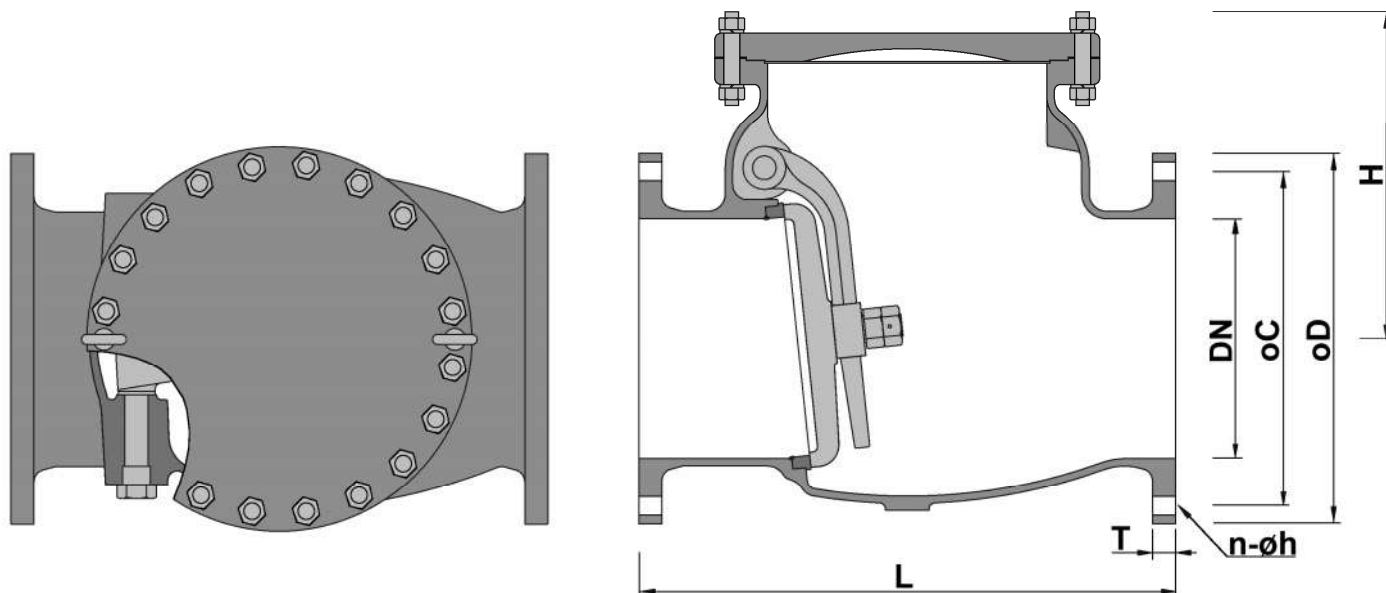
Series LCF Cryogenic Swing Check Valve Class 600# Flanged Type DN50 (2") - 600 (24")



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	
2"	50	292	165	127.0	8-19	32.0	210	37
3"	80	356	210	168.3	8-22	38.2	265	71
4"	100	432	275	215.9	8-25	44.5	310	112
6"	150	559	355	292.1	12-29	54.1	390	254
8"	200	660	420	349.2	12-32	62.0	540	415
10"	250	787	510	431.8	16-35	69.9	600	618
12"	300	838	560	489.0	20-35	73.1	620	820
14"	350	889	605	527.0	20-38	76.3	680	891
16"	400	991	685	603.2	20-41	82.6	810	1342
18"	450	1092	745	654.0	20-44	89.0	960	1998
20"	500	1194	815	723.9	24-44	95.3	1020	2394
24"	600	1397	940	838.2	24-50	108.6	1200	3261

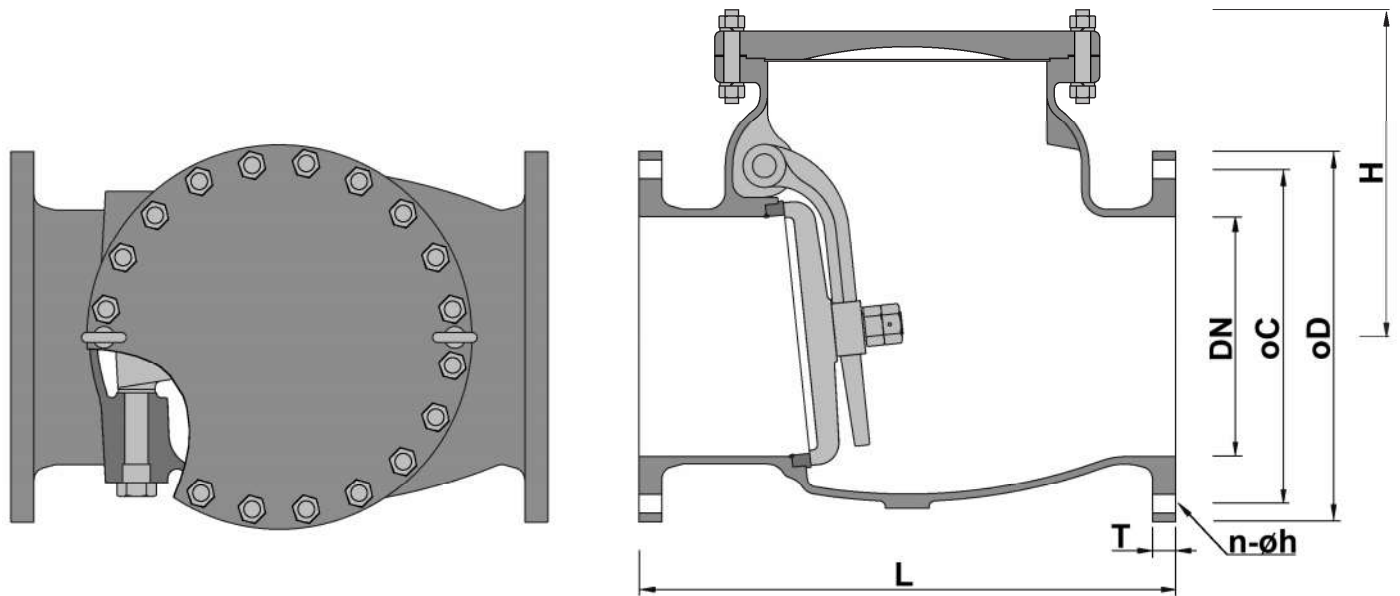
Series LCF Cryogenic Swing Check Valve Class 900# Flanged Type DN50 (2") - 600 (24")



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	
2"	50	368	215	165.1	8-25	44.5	310	71
3"	80	381	240	190.5	8-25	95.3	360	124
4"	100	457	290	235.0	8-32	120.7	390	216
6"	150	610	380	317.5	12-32	174.7	450	371
8"	200	737	470	393.7	12-38	225.5	565	627
10"	250	838	545	469.9	16-38	279.4	730	1197
12"	300	965	610	633.4	20-38	330.2	780	1468
14"	350	1029	640	558.8	20-41	362.0	800	1735
16"	400	1130	705	616.0	20-44	412.8	870	2494
18"	450	1219	785	685.8	20-51	463.4	920	3291
20"	500	1321	855	749.3	20-54	514.4	1050	4097
24"	600	1549	1040	901.7	20-67	616.4	1200	5841

Series LCF Cryogenic Swing Check Valve Class 1500# Flanged DN50 (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	
2"	50	368	215	165.1	8-25	44.5	310	68
3"	80	470	265	203.2	8-32	54.1	375	168
4"	100	546	310	241.3	8-35	60.4	430	218
6"	150	705	395	317.5	12-38	89.0	565	481
8"	200	832	485	393.7	12-45	98.5	665	1197
10"	250	991	585	482.6	12-51	114.4	730	1872
12"	300	1130	675	571.5	16-54	130.3	900	3291
14"	350	1257	750	635.0	16-60	139.8	1035	3549
16"	400	1383	825	704.8	16-67	152.5	1060	4821
18"	450	1537	915	774.7	16-73	168.4	1190	6597
20"	500	1664	985	831.8	16-79	184.2	1300	8191
24"	600	1943	1170	990.6	16-92	209.6	1450	11057

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

