KEYSTONE K-LOK SERIES H

HIGH PERFORMANCE BUTTERFLY VALVES

Series H1 ASME Class 150 / 25 bar
Series H2 ASME Class 300 / 50 bar

GENERAL APPLICATIONS

- Airport refueling
- Hydrocarbon processing
- Chlorine
- Chemical processing
- Purified gas
- Steam and vacuum services
- Potable water
- Food processing
- Sour gas
- Oxygen
- Reverse osmosis
- HVAC
- Ammonia

TECHNICAL DATA

Size range:	DN 50 to DN 900 (NPS 2 to NPS 36)
Pressure rating:	Series H1 ASME 150, 25 bar Series H2 ASME 300, 50 bar
Temperature rating:	-40°C to 538°C (-20°F to 1000°F)
Vacuum rating:	1.016 x 10^{-3} mm Hg (4 x 10^{-5} in Hg)
Body style:	Lug and wafer

Lug bodies are fully rated for bidirectional dead end service

FEATURES

- The Keystone K-LOK offers a high cycle life and a lower cost of ownership due to its unique seat designs which provides bi-directional, drop-tight shutoff in vacuum as well as at full rated differential pressure.
- Increased operator safety is provided by a standard blow-out proof shaft which meets the requirements of API 609.
- Flexibility is provided by a unique packing design which is suitable for both pressure and vacuum without modification or special assembly.
- Maintenance and down time is reduced due to an inverted packing gland bridge which allows for easy and full access to adjustment bolting without the removal of the actuator. Uneven packing adjustment is eliminated due to a 360 degree radius that is machined on the packing gland. This radius fits into an angle on the packing gland bridge resulting in a 360 degree even compression on the packing gland and packing.
- Positive shutoff and maximum seat life is achieved due to a cast in disc stop that perfectly aligns the disc into the seat.
- Positive and strong disc to shaft connection is achieved with the use of tangentially positioned wedge pins which are placed in a compression rather than shear, which eliminates the potential for failure.
- Reduced downtime and increased valve life is achieved by positioning the bearings close to the disc, providing maximum shaft support.
- Actuator mounting integrity is increased due to the ability to direct mount to the valve top plate without the use of brackets and couplings.
- Maintenance of packing is made easy due to an extended neck which allows for clearance of pipe insulation.
- All valves comply with Pressure Equipment Directive (PED), CE marking.

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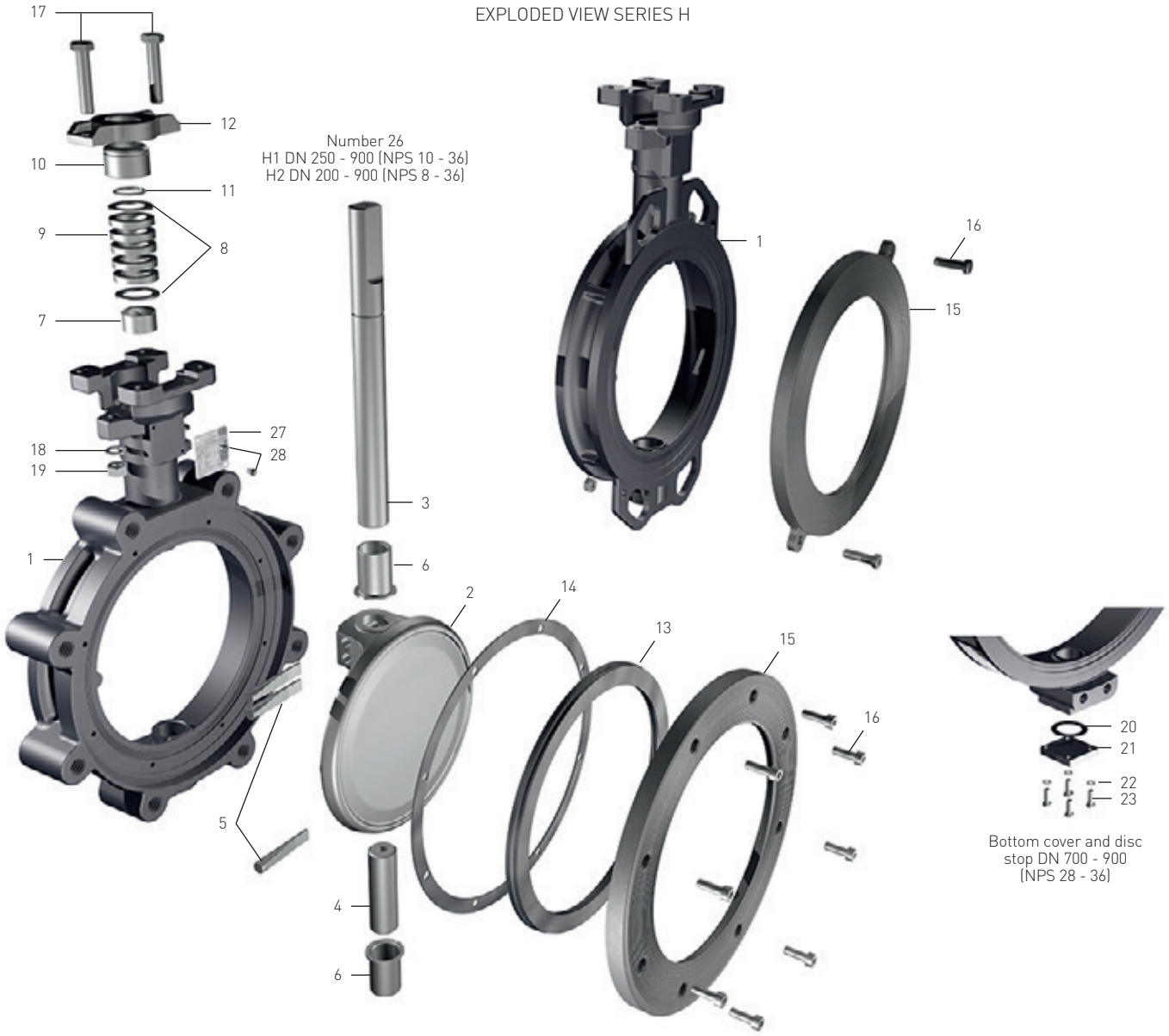
EXPLODED VIEW SERIES H



MATERIALS OF CONSTRUCTION

No.	Description	Ordering code	Material	Material standard
1	Body	C0	Carbon Steel	ASTM A216 WCB/EN 10213 GP240GH/1.0619
		C1	Carbon Steel LCC	ASTM A352 LCC/EN 10213 G20Mn5-QT/1.6620
		S0	316 Stainless Steel	ASTM A351 CF8M/EN 10213 GX5CrNiMo 19-11-2/1.4408
		S1	304L Stainless Steel	ASTM A351 CF3/EN 10213 GX2CrNi 19-11/1.4309
		S2	316L Stainless Steel	ASTM A351 CF3M/EN 10213 GX2CrNiMo 19-2/1.4409
		U0	Duplex	ASTM A890 CD3MN/EN 10213 GX2CrNiMoN 22-5-3/1.4470
		V0	Super Duplex	ASTM A890 CE3MN/EN 10213 GX2CrNiMoN 26-7-4/1.4469
2	Disc	S0	316 Stainless Steel	ASTM A351 CF8M/EN 10213 GX5CrNiMo 19-11-2/1.4408
		S1	316 Stainless Steel/ENP[1]	ENP/ASTM A351 CF8M/ENP 10213 GX5CrNiMo 19-11-2/1.4408
		S4	316L Stainless Steel	ASTM A351 CF3M/EN 10213 GX2CrNiMo 19-2/1.4409
		U0	Duplex	ASTM A890 CD3MN/EN 10213 GX2CrNiMoN 22-5-3/1.4470
		V0	Super Duplex	ASTM A890 CE3MN/EN 10213 GX2CrNiMoN 26-7-4/1.4469
3, 4, 5	Upper and lower shaft, wedge pins	S0	174-PH	ASTM A564 UNS S17400 1075 HT
		S1	316B Stainless Steel[2]	ASTM A276-316 COND B
		S2	XM19	ASTM A479 S20910
		S3	17-4PH DHT	ASTM A564 S17400 H1150 DHT
		J0	Alloy 718	ASTM B637 UNS N07718
		M0	Nickel Alloy 500	QQ-N-286 UNS N05500

MATERIALS OF CONSTRUCTION (Continued)

No.	Description	Ordering code	Material	Material standard
6, 7	Bearings	S	316 SS/ BRZ/ PTFE	
		F	Alloy 625/Hi Temp Low Friction	
8	Anti extrusion ring	**	Alloy	Corrosion Resistant Alloy
9	Shaft packing	T	PTFE	
		G	Graphite	
10	Packing gland follower	**	Alloy	Corrosion Resistant Alloy
11	Snap ring	**	Alloy	Corrosion Resistant Alloy
12	Gland bridge	**	316 Stainless Steel	
13	Seat	P0	PTFE GS	PTFE/SS - General Service
		P1	PTFE/SS HD	PTFE/SS - Heavy Duty
		R0	RTFE GS	RTFE/SS - General Service
		R1	RTFE/SS HD	RTFE/SS - Heavy Duty
		U1	UHMWPE/SS HD	UHMWPE/SS - Heavy Duty
		F0	Fire-safe	RTFE/Alloy 718
		M0	Metal	Alloy 718
		E0	EPDM	EPDM
		N0	NBR	NBR
		V0	FKM	FKM (Fluoroelastomer)
14	Seat retaining ring gasket	G	Graphite	
15	Seat retainer ring	**	Carbon Steel	
		**	Carbon Steel LCC	
		**	316 Stainless Steel	
		**	316L Stainless Steel	
		**	304 Stainless Steel	
		**	Duplex	
		**	Super Duplex	
16	Seat retaining ring bolting	**	316 Stainless Steel	
17	Gland bridge bolting	**	316 Stainless Steel	
18,19	Gland bridge nut	**	316 Stainless Steel	
	SRR nut (wafer style)	**		
20	Bottom cover gasket[3]	**	Graphite	
21	Bottom cover[3]	**	Carbon Steel	
		**	Carbon Steel LCC	
		**	316 Stainless Steel	
		**	316L Stainless Steel	
		**	304 Stainless Steel	
		**	Duplex	
		**	Super duplex	
22, 23	Bottom cover bolting[3]	**	316 Stainless Steel	
26	Key	**	Carbon Steel	
27, 28	Tag	**	Stainless Steel	

NOTES

1. Must be used with UHMWPE, fire-safe and metal seats.
2. May require de-rated pressure holding capabilities.
3. Other material available on request.
4. ** Determined by Valve ordering code (Uniqueness code).

PRESSURE/TEMPERATURE RATING FOR BODIES, DISCS AND SEATS (Metric)

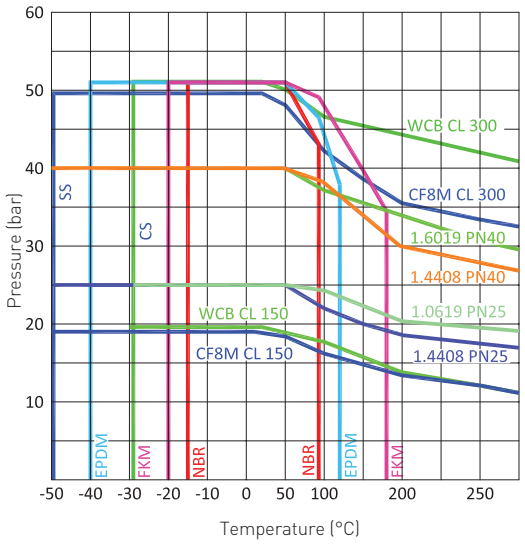
	Temperature °C																						
	-50	-40	-29	-10	20	50	93	100	120	150	180	200	250	260	300	325	350	375	400	425	450	500	538
	Pressure bar																						
Class 150 body																							
Carbon steel	-	-	19.6	19.6	19.6	19.2	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	9.3	8.4	7.4	6.5	5.5	4.6	2.8	1.4
Stainless steel	19.0	19.0	19.0	19.0	19.0	18.4	16.5	16.2	15.6	14.8	14.2	13.4	12.1	11.7	10.2	9.3	8.4	7.4	6.5	5.5	4.6	2.8	1.4
Monel®	-	-	15.9	15.9	15.9	15.4	14.0	13.8	13.4	12.9	12.7	12.5	12.1	11.7	10.2	9.3	8.4	7.4	6.5	5.5	4.6	-	-
Duplex	-	-	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	-	-	-	-	-	-	-	-
Super duplex	-	-	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	-	-	-	-	-	-	-	-	-	-
Super austenitic stainless steel	20.0	20.0	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	9.3	8.4	7.4	6.5	-	-	-	-
Class 300 body																							
Carbon steel	-	-	51.1	51.1	51.1	50.1	46.9	46.6	46.0	45.2	44.4	43.8	41.9	41.7	39.8	38.7	37.6	36.4	34.7	28.8	23.0	11.8	5.9
Stainless steel	49.6	49.6	49.6	49.6	49.6	48.1	42.8	42.2	40.6	38.6	36.9	35.5	33.4	33.1	31.6	30.9	30.3	29.9	29.4	29.1	28.8	28.2	25.2
Monel®	-	-	41.4	41.4	41.4	40.2	36.5	35.9	35.0	33.7	33.1	32.7	32.6	32.6	32.6	32.6	32.6	32.4	32.1	31.6	26.9	-	-
Duplex	-	-	51.7	51.7	51.7	51.7	50.8	50.7	48.6	45.9	44.1	42.7	40.5	40.2	38.9	-	-	-	-	-	-	-	-
Super duplex	-	-	51.7	51.7	51.7	51.7	51.5	51.5	51.0	50.3	49.3	48.6	46.3	-	-	-	-	-	-	-	-	-	-
Super austenitic stainless steel	51.7	51.7	51.7	51.7	51.7	51.7	50.8	50.7	48.6	45.9	44.1	42.7	40.5	40.2	38.9	38.2	37.6	37.4	36.5	-	-	-	-
Class 150 disc																							
Stainless steel	-	-	19.6	19.6	19.6	19.2	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	9.3	8.4	7.4	6.5	5.5	-	-	-
Nickel aluminum bronze	-	-	18.9	18.9	18.9	18.9	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.6	9.5	8.2	6.9	-	-	-	-	-	-
Monel®	-	-	15.9	15.9	15.9	15.4	14.0	13.8	13.4	12.9	12.7	12.5	12.1	11.7	10.2	9.3	8.4	7.4	6.5	5.5	4.6	-	-
Duplex	-	-	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	-	-	-	-	-	-	-	-
Super duplex	-	-	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	-	-	-	-	-	-	-	-	-	-
Super austenitic stainless steel	20.0	20.0	20.0	20.0	20.0	19.5	17.9	17.7	16.9	15.8	14.7	13.8	12.1	11.7	10.2	9.3	8.4	7.4	6.5	-	-	-	-
Class 300 disc																							
Stainless steel	51.1	51.1	51.1	51.1	51.1	50.1	46.9	46.6	46.0	45.2	44.4	43.8	41.9	41.7	39.8	38.7	37.6	36.4	34.7	29.1	28.8	28.2	25.2
Nickel aluminum bronze	-	-	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	44.8	41.1	32.5	31.0	24.9	21.4	17.9	-	-	-	-	-	-
Monel®	-	-	41.4	41.4	41.4	40.2	36.5	35.9	35.0	33.7	33.1	32.7	32.6	32.6	32.6	32.6	32.6	32.4	32.1	31.6	26.9	-	-
Duplex	-	-	51.7	51.7	51.7	51.7	50.8	50.7	48.6	45.9	44.1	42.7	40.5	40.2	38.9	-	-	-	-	-	-	-	-
Super duplex	-	-	51.7	51.7	51.7	51.7	51.5	51.5	51.0	50.3	49.3	48.6	46.3	-	-	-	-	-	-	-	-	-	-
Super austenitic stainless steel	51.7	51.7	51.7	51.7	51.7	51.7	50.8	50.7	48.6	45.9	44.1	42.7	40.5	40.2	38.9	38.2	37.6	37.4	36.5	-	-	-	-
Seats																							
PTFE	51.0	51.0	51.0	51.0	51.0	47.5	35.2	33.3	27.2	19.3	10.4	3.4	-	-	-	-	-	-	-	-	-	-	-
Reinforced RTFE	51.1	51.1	51.1	51.1	51.1	50.3	46.9	44.7	37.9	31.0	22.3	15.5	4.7	3.4	-	-	-	-	-	-	-	-	-
UHMWPE	51.1	51.1	51.1	51.1	51.1	47.9	38.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NBR	-	-	-	51.0	51.0	51.0	43.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPDM	-	51.0	51.0	51.0	51.0	51.0	46.5	44.5	37.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FKM	-	-	-	51.0	51.0	51.0	49.1	48.0	44.4	39.7	34.5	-	-	-	-	-	-	-	-	-	-	-	-
Metal (Inconel®)	51.1	51.1	51.1	51.1	51.1	50.1	47.1	46.6	46.0	45.1	44.4	43.8	41.9	41.5	39.8	38.7	37.6	36.4	34.7	29.1	28.8	28.2	25.2
Firesafe RTFE-Metal (Inconel®)	51.1	51.1	51.1	51.1	51.1	50.3	46.9	44.7	37.9	31.0	22.3	15.5	4.7	3.4	-	-	-	-	-	-	-	-	-

PRESSURE/TEMPERATURE RATING FOR BODIES, DISCS AND SEATS (Imperial)

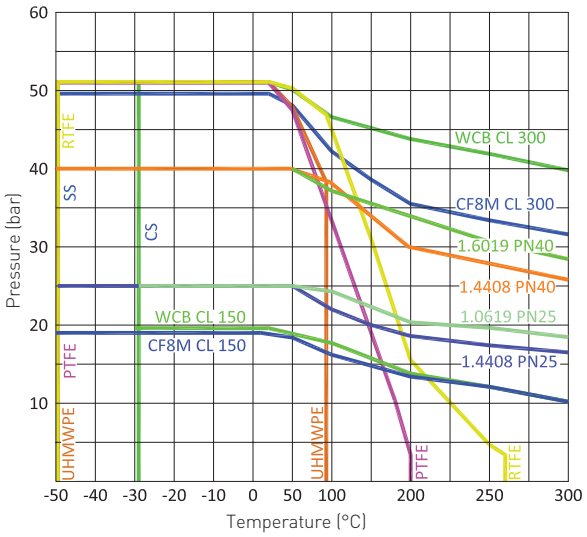
	Temperature °F																
	-58	**-40**	**-20**	**0**	**100**	**180**	**200**	**250**	**300**	**400**	**450**	**500**	**600**	**700**	**800**	**900**	**1000**
	Pressure PSI																
Class 150 body																	
Carbon steel	-	-	285	285	285	264	260	245	230	200	185	170	140	110	80	50	20
Stainless steel	275	275	275	275	275	246	240	226	215	195	185	170	140	110	80	50	20
Monel®	-	-	231	231	231	208	203	195	187	181	178	170	140	110	79	-	-
Duplex	-	-	290	290	290	266	260	245	229	200	185	170	-	-	-	-	-
Super duplex	-	-	290	290	290	266	260	245	229	200	185	-	-	-	-	-	-
Class 300 body																	
Carbon steel	-	-	740	740	740	694	680	666	655	635	618	605	570	530	410	230	85
Stainless steel	720	720	720	720	720	642	620	589	560	515	497	480	450	435	420	415	365
Monel®	-	-	600	600	600	543	529	507	489	474	473	473	473	470	454	-	-
Duplex	-	-	750	750	750	740	737	705	666	619	600	583	-	-	-	-	-
Super duplex	-	-	750	750	750	748	747	739	730	705	685	-	-	-	-	-	-
Class 150 disc																	
Stainless steel	285	285	285	285	285	264	260	245	230	200	185	170	140	110	80	50	20
Nickel aluminum bronze	-	-	274	274	274	263	259	245	229	200	185	168	126	-	-	-	-
Monel®	-	-	231	231	231	208	203	195	187	181	178	170	140	110	79	-	-
Duplex	-	-	290	290	290	266	260	245	229	200	185	170	-	-	-	-	-
Super duplex	-	-	290	290	290	266	260	245	229	200	185	-	-	-	-	-	-
Class 300 disc																	
Stainless steel	740	740	740	740	740	694	680	666	655	635	618	605	570	530	420	415	365
Nickel aluminum bronze	-	-	716	716	716	716	716	716	716	597	520	449	329	-	-	-	-
Monel®	-	-	600	600	600	543	529	507	489	474	473	473	473	470	454	-	-
Duplex	-	-	750	750	750	740	737	705	666	619	600	583	-	-	-	-	-
Super duplex	-	-	750	750	750	748	747	739	730	705	685	-	-	-	-	-	-
Seats																	
PTFE	740	740	740	740	740	556	510	395	280	50	-	-	-	-	-	-	-
Reinforced RTFE	740	740	740	740	740	701	680	550	450	225	100	50	-	-	-	-	-
UHMWPE	740	740	740	740	740	574	555	-	-	-	-	-	-	-	-	-	-
NBR	-	-	-	740	740	740	625	-	-	-	-	-	-	-	-	-	-
EPDM	-	740	740	740	740	740	675	550	-	-	-	-	-	-	-	-	-
FKM	-	-	-	740	740	740	713	645	576	-	-	-	-	-	-	-	-
Metal (Inconel®)	740	740	740	740	740	694	683	666	654	635	618	602	567	531	422	414	365
Firesafe RTFE-metal (Inconel®)	740	740	740	740	740	701	680	550	450	225	100	50	-	-	-	-	-

PRESSURE/TEMPERATURE RATINGS FOR SEAT MATERIALS (METRIC)

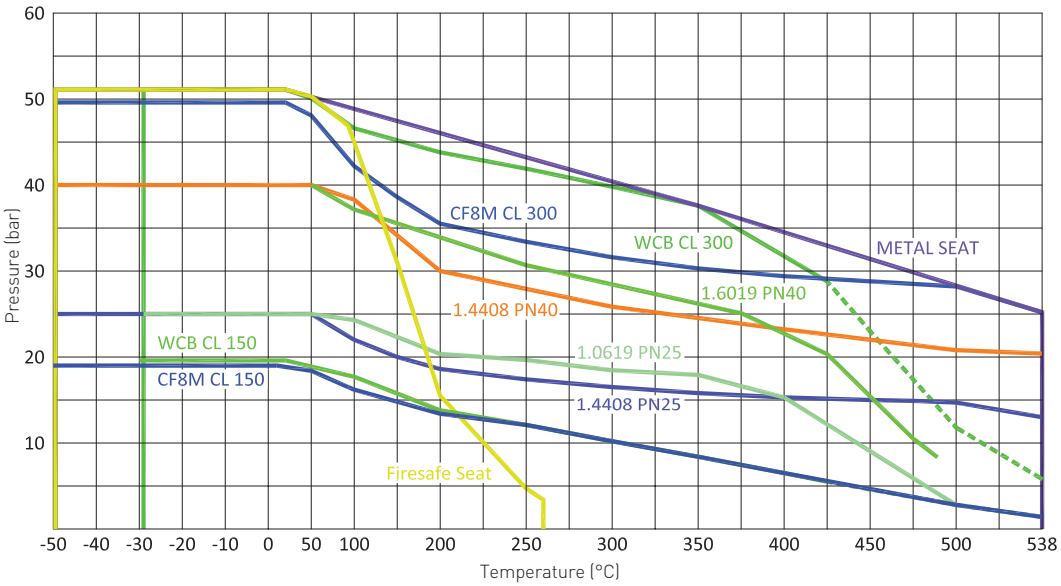
ELASTOMER SEATS



POLYMER SEATS



FIRE-SAFE AND METAL SEATS

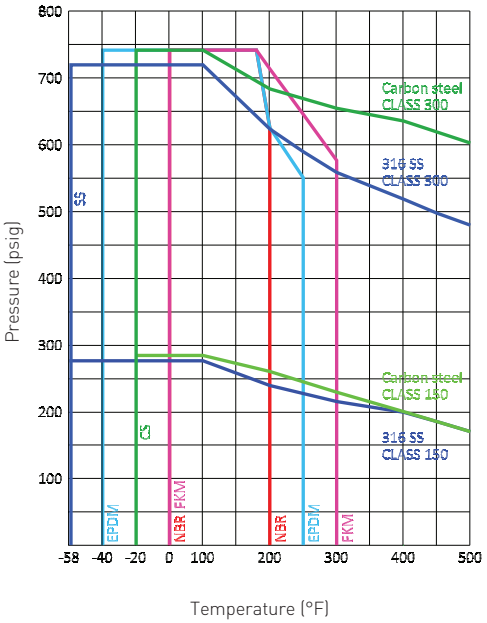


NOTE

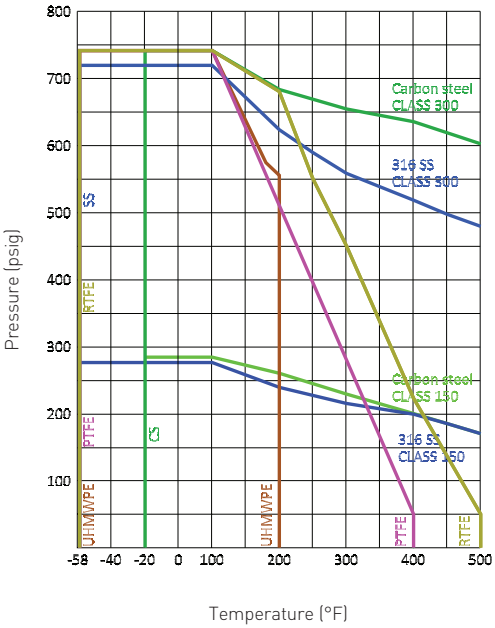
Inconel® shafts are required for continuous service above 343°C

PRESSURE/TEMPERATURE RATINGS FOR SEAT MATERIALS (IMPERIAL)

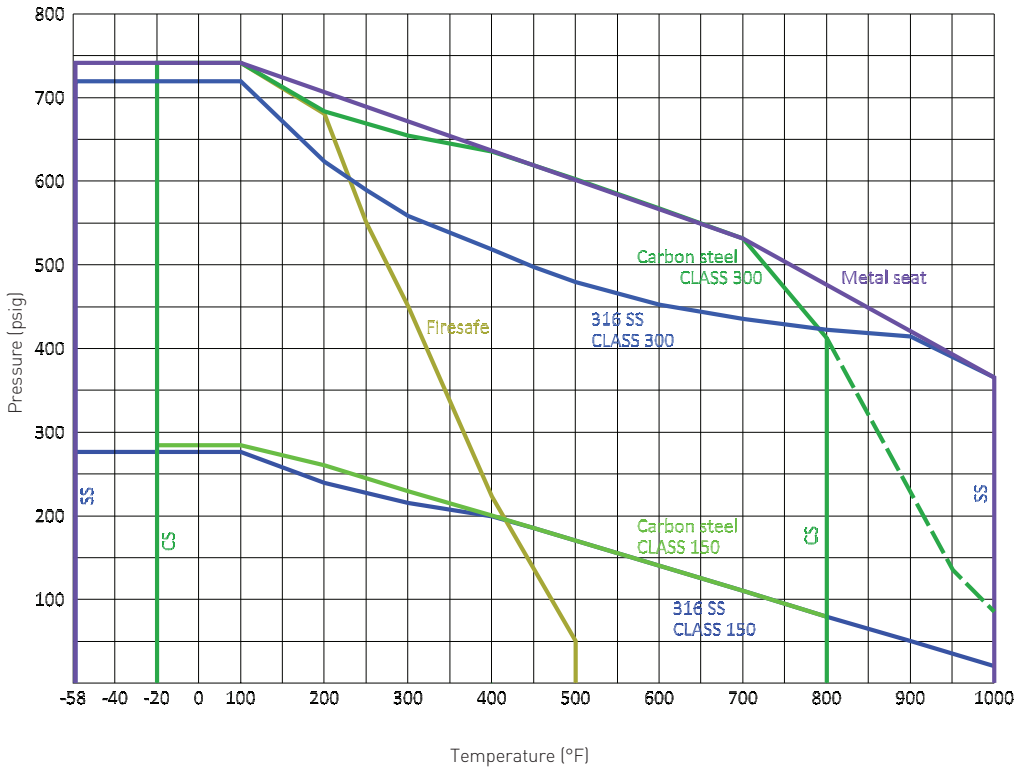
ELASTOMER SEATS



POLYMER SEATS



FIRE-SAFE AND METAL SEATS



NOTE
Inconel® shafts are required for continuous service above 650˚F

TORQUE VALUES - METRIC

Seating and un-seating torque

Seating and un-seating torques are a function of the size of the valve and the shutoff pressure of the system.

Specific torque ratings can be found in the seating/un-seating table at the intersection of the 'size' row and the 'shutoff pressure' column.

All torques listed are for normal service conditions (i.e. operating frequency is a minimum of once per month; disc corrosion is expected to be mild or minor, the media is a clean gas, liquid or steam, and is non-abrasive and chemical effects upon the seat are minor).

For services that combine unfriendly conditions such as extreme temperatures and high solids, or corrosive with high temperatures, contact your sales representative.

GENERAL SERVICE SEAT (GS SEAT) RTFE AND PTFE SEAT SEATING AND UNSEATING TORQUE VALUES

Size	Torque (Nm)			
	Diff. pressure bar			
(DN)	10.0	16.0	20.0	25.0
50	18	27	32	37
65	18	27	32	37
80	21	31	37	42
100	39	58	70	79
125	77	103	115	127
150	114	144	158	174
200	172	225	274	318
250	280	343	404	487
300	383	482	549	643

HEAVY DUTY SEAT (HD SEAT) RTFE AND PTFE SEATING AND UNSEATING TORQUE VALUES

Size	Torque (Nm)					
	Diff. pressure bar					
(DN)	10.0	16.0	20.0	25.0	40.0	50.0
50	24	36	43	49	61	66
65	24	36	43	49	61	66
80	27	41	49	55	69	73
100	52	77	94	106	131	140
125	102	137	154	169	203	215
150	152	191	210	232	289	328
200	230	300	366	424	620	759
250	374	457	539	649	932	1113
300	511	642	732	857	1217	1462
350	753	922	1045	1209	1650	1943
400	1044	1272	1435	1606	2154	2508
450	1329	1609	1803	2067	2723	3220
500	1741	2126	2393	2692	3523	4083
600	2411	3087	3488	3937	5205	6101
700	2959	3906	4475	5147	6882	8060
750	3234	4316	4969	5752	7721	9039
800	4110	5244	5973	6852	9164	10734
900	5864	7099	7983	9051	12052	14123

TORQUE VALUES - METRIC

UHMWPE SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (Nm)					
	Diff. pressure bar					
(DN)	10.0	16.0	20.0	25.0	40.0	50.0
50	27	39	48	54	67	72
65	27	39	48	54	67	72
80	30	45	54	61	76	81
100	57	85	103	117	144	153
125	112	150	169	186	224	236
150	167	211	232	255	318	360
200	253	330	402	466	682	835
250	411	503	593	714	1025	1224
300	562	706	805	943	1339	1608
350	829	1014	1150	1330	1815	2138
400	1148	1399	1579	1767	2370	2759
450	1462	1770	1984	2274	2995	3542
500	1915	2339	2633	2962	3875	4492
600	2652	3395	3837	4331	5725	6711
700	3255	4297	4923	5662	7570	8866
750	3557	4748	5466	6328	8493	9943
800	4521	5768	6571	7537	10081	11807
900	6450	7809	8781	9956	13257	15535

ELASTOMER SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (Nm)					
	Diff. pressure bar					
(DN)	10.0	16.0	20.0	25.0	40.0	50.0
50	29	43	52	59	73	79
65	29	43	52	59	73	79
80	33	49	59	67	83	88
100	63	93	112	127	157	167
125	123	164	184	203	244	258
150	183	230	253	278	347	393
200	276	360	439	509	744	911
250	449	548	646	779	1119	1335
300	613	771	878	1029	1461	1754
350	904	1106	1254	1451	1979	2332
400	1253	1527	1722	1928	2585	3010
450	1594	1931	2164	2480	3268	3864
500	2089	2551	2872	3231	4227	4900
600	2893	3704	4186	4724	6246	7321
700	3551	4688	5370	6177	8258	9671
750	3880	5179	5963	6903	9265	10847
800	4932	6292	7168	8222	10997	12880
900	7037	8519	9579	10861	14462	16948

FIRE SAFE AND METAL SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (Nm)					
	Diff. pressure bar					
(DN)	10.0	16.0	20.0	25.0	40.0	50.0
50	63	63	63	64	69	72
65	68	68	68	70	79	85
80	69	69	69	74	88	98
100	139	139	139	148	173	192
125	234	234	234	249	291	322
150	328	328	328	353	424	477
200	533	533	533	587	737	848
250	796	796	796	889	1154	1349
300	1118	1118	1118	1268	1692	2003
350	1457	1457	1457	1679	2306	2767
400	2020	2020	2020	2329	3206	3849
450	2635	2635	2635	3073	4314	5224
500	3684	3684	3684	4287	5995	7248
600	5357	5357	5357	6316	9031	11021
700	7155	7155	7155	8583	12624	15587
750	8537	8537	8537	10305	15308	18977
800	9902	9902	9902	11926	17657	21859
900	13442	13442	13442	16038	23386	28774

TORQUE VALUES - IMPERIAL

Seating and un-seating torque

Seating and un-seating torques are a function of the size of the valve and the shutoff pressure of the system.

Specific torque ratings can be found in the seating/un-seating table at the intersection of the 'size' row and the 'shutoff pressure' column.

All torques listed are for normal service conditions (i.e. operating frequency is a minimum of once per month; disc corrosion is expected to be mild or minor, the media is a clean gas, liquid or steam, and is non-abrasive and chemical effects upon the seat are minor).

For services that combine unfriendly conditions such as extreme temperatures and high solids, or corrosive with high temperatures, contact your sales representative.

GENERAL SERVICE SEAT (GS SEAT) RTFE AND PTFE SEAT SEATING AND UNSEATING TORQUE VALUES

Size	Torque (lbs in) Diff. Pressure (psi)		
(NPS)	150	200	285
2	165	210	285
2.5	165	210	285
3	188	240	323
4	356	450	615
5	694	844	1013
6	1028	1200	1388
8	1545	1748	2400
10	2505	2738	3525
12	3443	3938	4800

HEAVY DUTY SEAT (HD SEAT) RTFE AND PTFE SEATING AND UNSEATING TORQUE VALUES

Size	Torque (lbs in) Diff. pressure (psi)					
(NPS)	150	200	285	400	500	740
2	220	280	380	460	520	580
2.5	220	280	380	460	520	580
3	250	320	430	520	590	650
4	475	600	820	995	1120	1235
5	925	1125	1350	1570	1750	1900
6	1370	1600	1850	2150	2390	2900
8	2060	2330	3200	4020	4870	6720
10	3340	3650	4700	6250	7450	9850
12	4590	5250	6400	8160	9690	12940
14	6750	7560	9150	11450	13300	17200
16	9350	10450	12600	15000	17500	22200
18	11900	13300	15800	19500	21900	28500
20	15600	17500	21000	25200	28700	36140
24	21700	25340	30600	36900	42100	54000
28	26700	31780	39200	48633	55700	71333
30	29200	35000	43500	54500	62500	80000
32	36967	42833	52333	64667	74167	95000
36	52500	58500	70000	85000	97500	125000

TORQUE VALUES - IMPERIAL

UHMWPE SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (lbs in)					
	Diff. pressure (psi)					
(NPS)	150	200	285	400	500	740
2	242	308	418	506	572	638
2.5	242	308	418	506	572	638
3	275	352	473	572	649	715
4	523	660	902	1095	1232	1359
5	1018	1238	1485	1727	1925	2090
6	1507	1760	2035	2365	2629	3190
8	2266	2563	3520	4422	5357	7392
10	3674	4015	5170	6875	8195	10835
12	5049	5775	7040	8976	10659	14234
14	7425	8316	10065	12595	14630	18920
16	10285	11495	13860	16500	19250	24420
18	13090	14630	17380	21450	24090	31350
20	17160	19250	23100	27720	31570	39754
24	23870	27874	33660	40590	46310	59400
28	29370	34958	43120	53497	61270	78467
30	32120	38500	47850	59950	68750	88000
32	40663	47117	57567	71133	81583	104500
36	57750	64350	77000	93500	107250	137500

ELASTOMER SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (lbs in)					
	Diff. pressure (psi)					
(NPS)	150	200	285	400	500	740
2	264	336	456	552	624	696
2.5	264	336	456	552	624	696
3	300	384	516	624	708	780
4	570	720	984	1194	1344	1482
5	1110	1350	1620	1884	2100	2280
6	1644	1920	2220	2580	2868	3480
8	2472	2796	3840	4824	5844	8064
10	4008	4380	5640	7500	8940	11820
12	5508	6300	7680	9792	11628	15528
14	8100	9072	10980	13740	15960	20640
16	11220	12540	15120	18000	21000	26640
18	14280	15960	18960	23400	26280	34200
20	18720	21000	25200	30240	34440	43368
24	26040	30408	36720	44280	50520	64800
28	32040	38136	47040	58360	66840	85600
30	35040	42000	52200	65400	75000	96000
32	44360	51400	62800	77600	89000	114000
36	63000	70200	84000	102000	117000	150000

FIRE SAFE AND METAL SEATING AND UN-SEATING TORQUE VALUES

Size	Torque (lbs in)					
	Diff. pressure (psi)					
(NPS)	150	200	285	400	500	740
2	554	554	554	574	592	635
2.5	598	598	598	636	670	750
3	613	613	613	677	732	864
4	1229	1229	1229	1347	1450	1697
5	2069	2069	2069	2267	2439	2851
6	2900	2900	2900	3233	3525	4222
8	4720	4720	4720	5423	6037	7505
10	7042	7042	7042	8277	9357	11937
12	9895	9895	9895	11872	13599	17728
14	12893	12893	12893	15820	18376	24488
16	17876	17876	17876	21962	25530	34064
18	23322	23322	23322	29105	34156	46233
20	32603	32603	32603	40565	47520	64151
24	47414	47414	47414	60067	71118	97544
28	63327	63327	63327	82163	98615	137956
30	75560	75560	75560	98882	119252	167962
32	87638	87638	87638	114349	137679	193468
36	118969	118969	118969	153220	183136	254673

MAXIMUM ALLOWABLE SHAFT TORQUE

The following torques are not to be exceeded. These values represent the maximum torque that can be applied to the valve shaft without damage at operating conditions.

		17.4PH Stainless Steel S17400-H1075			
		Series H1		Series H2	
Size		ASME 150		ASME 300	
DN	NPS	Nm	lbs. in	Nm	lbs. in
50	2	132	1164	328	2905
65	2.5	132	1164	328	2905
80	3	328	2905	328	2905
100	4	328	2905	526	4657
125	5	526	4657	526	4657
150	6	526	4657	929	8219
200	8	929	8219	1872	16572
250	10	1872	16572	4005	35450
300	12	1872	16572	5041	44616
350	14	4005	35450	7057	62463
400	16	5041	44616	11677	103354
450	18	7057	62436	17859	158069
500	20	11677	103354	32043	283603
600	24	17859	158069	47831	423338
700	28	32043	283603	68103	602760
750	30	32043	283603	93419	826831
800	32	32043	283603	93419	826831
900	36	47832	423338	93419	826831

NOTE
For other shaft material, please contact your sales representative

EXTENSION BRACKETS FOR VARIOUS TEMPERATURES

	Required extension lengths									
	Handle		Gear		Pneumatic		High temp. Pneumatic		Standard Electric	
Pipeline fluid temperature	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
-29°C- 191°C (-20°F - 375°F)	-	-	-	-	-	-	-	-	-	-
192°C - 238°C (376°F - 460°F)	100	4	-	-	-	-	-	-	100	4
239°C - 293°C (461°F - 560°F)	150	6	100	4	100	4	-	-	100	4
294°C - 343°C (561°F - 650°F)	150	6	100	4	100	4	-	-	100	4
344°C - 385°C (651°F - 725°F)	150	6	150	6	150	6	100	4	150	6
386°C - 441°C (726°F - 825°F)	200	8	200	8	200	8	150	6	200	8
442°C - 496°C (826°F - 925°F)	250	10	200	8	200	8	150	6	200	8
497°C -538°C (926°F - 1000°F)	250	10	250	10	250	10	200	8	250	10

NOTES

1. Surrounding air temperature is assumed to be 21°C (70°F). For every degree over 35°C (100°F) of the surrounding air, deduct 2 degrees from the maximum temperature ranges shown under the Pipeline fluid temperature column. (Example: 52°C (125°F) external temperature reduces maximum temperature values under the Pipeline fluid temperature column to 325, 410, 510, 600, etc.)
2. Valves may be insulated or uninsulated.
3. Brackets may be open rectangular tubes or the standard closed Keystone tubular shaft extensions.
4. All actuators have a maximum service temperature (outside atmosphere). These temperature limitations apply regardless of K-LOK extension lengths.

K_v VALUES VS. TRAVEL POSITION

	Angle of opening									
Size (DN)	10°	20°	30°	40°	50°	60°	70°	80°	ASME 150 90°	ASME 300 90°
50	2	3	10	21	33	45	52	56	58	58
65	6	10	22	43	66	87	117	140	156	156
80	10	18	35	58	97	136	170	195	226	225
100	17	36	63	100	155	212	295	337	368	368
125	28	58	98	163	234	346	484	607	694	638
150	42	87	147	252	376	521	734	996	1149	1057
200	87	133	234	343	567	810	1123	1540	2038	1964
250	121	208	426	723	1045	1595	2332	3021	3725	3520
300	156	268	629	1036	1591	2310	3308	4215	5187	4808
350	182	366	772	1220	1821	2730	3806	5480	6814	6439
400	216	517	1038	1640	2570	3554	4953	7037	8479	8055
450	265	702	1299	2090	3119	4547	6406	8794	9834	9382
500	346	897	1642	2600	3908	5429	7912	10291	12140	11594
600	519	1362	2113	3619	5563	8259	11286	14533	19076	18294
700	714	1903	2782	4758	7587	11081	15426	19847	25950	24912
750	809	2206	3450	5624	8909	12875	17716	22706	30561	29400
800	897	2515	4179	6683	10380	15083	20520	27266	35475	34233
900	1049	3141	5778	9208	13893	21527	30631	40829	48021	46533

Note: K_v is the volume of water in cubic meters per hour (m^3/h) that will pass through a valve with a pressure drop of 1 bar at 28˚C

C_v VALUES VS. TRAVEL POSITION

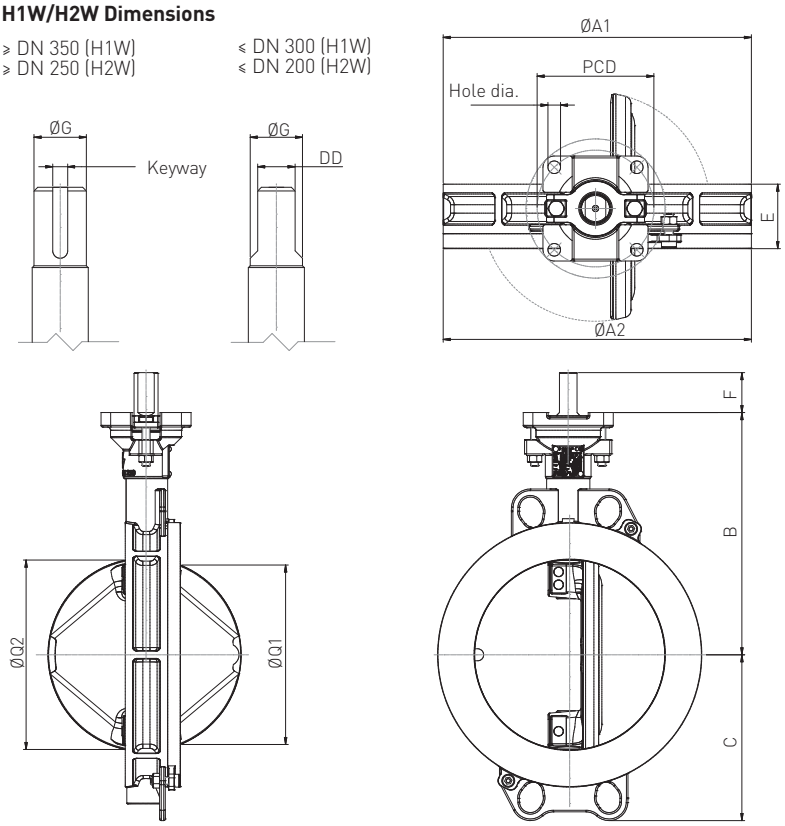
	Angle of opening									
Size (NPS)	10°	20°	30°	40°	50°	60°	70°	80°	ASME 150 90°	ASME 300 90°
2	2	4	12	24	38	52	60	65	67	67
2.5	7	12	26	50	76	101	135	162	180	180
3	12	21	41	67	112	157	196	226	261	260
4	20	42	73	116	179	245	341	390	426	425
5	32	67	113	189	271	400	560	702	802	738
6	48	100	170	291	435	602	849	1151	1328	1222
8	100	154	271	397	655	936	1298	1780	2356	2270
10	140	240	493	836	1208	1844	2696	3492	4306	4069
12	180	310	727	1198	1839	2671	3824	4873	5996	5558
14	210	423	892	1410	2105	3156	4400	6335	7877	7444
16	250	598	1200	1896	2971	4109	5726	8135	9802	9312
18	306	812	1502	2416	3606	5257	7406	10166	11369	10846
20	400	1037	1898	3006	4518	6276	9147	11897	14035	13403
24	600	1574	2443	4184	6431	9548	13047	16801	22053	21149
28	825	2200	3216	5500	8771	12810	17833	22945	30000	28800
30	935	2550	3989	6502	10299	14884	20481	26250	35331	33988
32	1037	2908	4831	7726	12000	17437	23722	31521	41011	39576
36	1213	3631	6680	10645	16061	24887	35412	47201	55516	53795

Note: C_v is the volume of water in US gpm that will pass through a valve with a pressure drop of 1 psi at 60˚F

H1W/H2W Dimensions

⩾ DN 350 (H1W)
⩾ DN 250 (H2W)

⩽ DN 300 (H1W)
⩽ DN 200 (H2W)

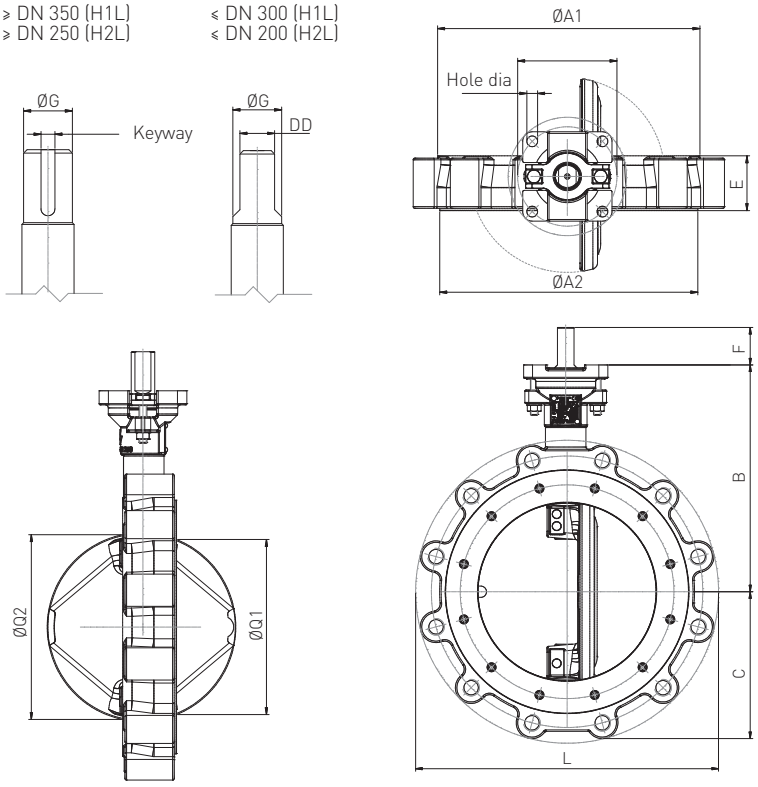


Valve shown is DN 250 wafer PN 25. Refer to pages 15-18 for wafer valve dimensions.

H1L/H2L Dimensions

⩾ DN 350 (H1L)
⩾ DN 250 (H2L)

⩽ DN 300 (H1L)
⩽ DN 200 (H2L)



Valve shown is DN 250 lugged Class 150. Refer to pages 19-22 for lug valve dimensions.

SERIES H1W CL 150 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight kg
50	98	98	160.5	76	43	30	13.5	42.3	12	8	F07	70	4	9.0	3
65	111	111	172.0	87	48	30	57.0	58.3	12	8	F07	70	4	9.0	4
80	130	130	181.5	97	47	30	50.3	70.8	16	11	F07	70	4	9.0	5
100	159	159	197.5	109	53	30	82.5	95.8	16	11	F07	70	4	9.0	7
125	190	190	214.5	126	58	30	115.8	120.5	20	14	F07	70	4	9.0	9
150	215	215	229.5	148	58	30	132.8	146.3	20	14	F07	70	4	9.0	12
200	270	270	263.5	173	61	50	184.3	192.5	25	18	F10	102	4	11.0	19
250	330	330	302.5	207	69	50	234.3	245.0	30	22	F12	125	4	13.5	31
300	378	378	326.5	236	79	50	278.8	291.5	30	22	F12	125	4	13.5	44
350	423	423	362.5	270	92	70	303.8	316.8	35	10 x 8 x 50	F14	140	4	17.5	61
400	486	486	412.5	299	102	75	347.3	362.3	40	12 x 8 x 56	F14	140	4	17.5	95
450	541	541	425.5	319	114	75	395.5	411.3	45	14 x 9 x 63	F14	140	4	17.5	138
500	596	596	478.5	355	127	75	439.0	456.5	50	14 x 9 x 70	F16	165	4	22.0	181
600	698	698	515.5	411	154	75	532.8	551.8	60	18 x 11 x70	F16	165	4	22.0	305
700	807	807	597.5	533	165	109	644.1	654.8	70	20 x 12 x 100	F25	254	8	17.5	394
750	867	867	627.5	559	167	109	692.1	703.1	70	20 x 12 x 100	F25	254	8	17.5	452
800	914	914	661.5	592	190	109	737.1	755.6	70	20 x 12 x 100	F25	254	8	17.5	561
900	1022	1022	716.5	642	200	109	850.1	862.3	80	22 x 14 x 100	F30	298	8	22.0	715

SERIES H1W CL 150 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.86	6.32	2.99	1.69	1.18	0.53	1.66	0.472	0.315	F07	2.76	4	0.35	7
2,5	4.37	4.37	6.77	3.43	1.89	1.18	2.24	2.29	0.472	0.315	F07	2.76	4	0.35	8
3	5.12	5.12	7.15	3.82	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	11
4	6.26	6.26	7.78	4.29	2.07	1.18	3.25	3.77	0.630	0.433	F07	2.76	4	0.35	15
5	7.48	7.48	8.44	4.96	2.27	1.18	4.56	4.74	0.787	0.551	F07	2.76	4	0.35	21
6	8.46	8.46	9.04	5.83	2.27	1.18	5.23	5.76	0.787	0.551	F07	2.76	4	0.35	26
8	10.63	10.63	10.37	6.81	2.40	1.97	7.25	7.58	0.984	0.709	F10	4.02	4	0.43	41
10	12.99	12.99	11.91	8.15	2.72	1.97	9.22	9.65	1.181	0.866	F12	4.92	4	0.53	69
12	14.88	14.88	12.85	9.29	3.11	1.97	10.97	11.48	1.181	0.866	F12	4.92	4	0.53	97
14	16.65	16.65	14.27	10.63	3.62	2.76	11.96	12.47	1.378	0.39 x 0.31 x 1.97	F14	5.51	4	0.69	134
16	19.13	19.13	16.24	11.77	4.00	2.95	13.67	14.26	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	210
18	21.30	21.30	16.75	12.56	4.49	2.95	15.57	16.19	1.772	0.55 x 0.35 x 2.48	F14	5.51	4	0.69	303
20	23.46	23.46	18.84	13.98	5.00	2.95	17.28	17.97	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	399
24	27.48	27.48	20.30	16.18	6.06	2.95	20.98	21.72	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	673
28	31.77	31.77	23.52	20.98	6.50	4.29	25.36	25.78	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	869
30	34.13	34.13	24.70	22.00	6.57	4.29	27.25	27.68	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	997
32	35.98	35.98	26.04	23.32	7.48	4.29	29.02	29.75	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1235
36	40.24	40.24	28.21	25.29	7.87	4.29	33.47	33.95	3.150	0.87 x 0.55 x 3.94	F30	11.73	8	0.87	1575

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H1W PN 25 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	98	160.5	76	43	30	13.5	42.3	12	8	F07	70	4	9.0	3
65	111	111	172.0	87	48	30	57.0	58.3	12	8	F07	70	4	9.0	4
80	130	130	181.5	97	47	30	50.3	70.8	16	11	F07	70	4	9.0	5
100	159	159	197.5	109	53	30	82.5	95.8	16	11	F07	70	4	9.0	7
125	190	190	214.5	126	58	30	115.8	120.5	20	14	F07	70	4	9.0	9
150	215	215	229.5	148	58	30	132.8	146.3	20	14	F07	70	4	9.0	12
200	270	270	263.5	173	61	50	184.3	192.5	25	18	F10	102	4	11.0	19
250	330	330	302.5	207	69	50	234.3	245.0	30	22	F12	125	4	13.5	31
300	378	378	326.5	236	79	50	278.8	291.5	30	22	F12	125	4	13.5	44
350	423	423	362.5	270	92	70	303.8	316.8	35	10 x 8 x 50	F14	140	4	17.5	66
400	486	486	412.5	299	102	75	347.3	362.3	40	12 x 8 x 56	F14	140	4	17.5	95
450	541	541	425.5	319	114	75	395.5	411.3	45	14 x 9 x 63	F14	140	4	17.5	137
500	596	596	478.5	355	127	75	439.0	456.5	50	14 x 9 x 70	F16	165	4	22.0	181
600	698	698	515.5	411	154	75	532.8	551.8	60	18 x 11 x70	F16	165	4	22.0	305
700	807	807	597.5	533	165	109	644.1	654.8	70	20 x 12 x 100	F25	254	8	17.5	393
750	867	867	627.5	559	167	109	692.1	703.1	70	20 x 12 x 100	F25	254	8	17.5	451
800	914	914	661.5	592	190	109	737.1	755.6	70	20 x 12 x 100	F25	254	8	17.5	557
900	1022	1022	716.5	642	200	109	850.1	862.3	80	22 x 14 x 100	F30	298	8	22.0	712

SERIES H1W PN 25 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.86	6.32	2.99	1.69	1.18	0.53	1.66	0.472	0.315	F07	2.76	4	0.35	7
2.5	4.37	4.37	6.77	3.43	1.89	1.18	2.24	2.29	0.472	0.315	F07	2.76	4	0.35	8
3	5.12	5.12	7.15	3.82	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	11
4	6.26	6.26	7.78	4.29	2.07	1.18	3.25	3.77	0.630	0.433	F07	2.76	4	0.35	15
5	7.48	7.48	8.44	4.96	2.27	1.18	4.56	4.74	0.787	0.551	F07	2.76	4	0.35	21
6	8.46	8.46	9.04	5.83	2.27	1.18	5.23	5.76	0.787	0.551	F07	2.76	4	0.35	26
8	10.63	10.63	10.37	6.81	2.40	1.97	7.25	7.58	0.984	0.709	F10	4.02	4	0.43	41
10	12.99	12.99	11.91	8.15	2.72	1.97	9.22	9.65	1.181	0.866	F12	4.92	4	0.53	69
12	14.88	14.88	12.85	9.29	3.11	1.97	10.97	11.48	1.181	0.866	F12	4.92	4	0.53	97
14	16.65	16.65	14.27	10.63	3.62	2.76	11.96	12.47	1.378	0.39 x 0.31 x 1.97	F14	5.51	4	0.69	145
16	19.13	19.13	16.24	11.77	4.02	2.95	13.67	14.26	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	209
18	21.30	21.30	16.75	12.56	4.49	2.95	15.57	16.19	1.772	0.55 x 0.35 x 2.48	F14	5.51	4	0.69	302
20	23.46	23.46	18.84	13.98	5.00	2.95	17.28	17.97	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	398
24	27.48	27.48	20.30	16.18	6.06	2.95	20.98	21.72	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	672
28	31.77	31.77	23.52	20.98	6.50	4.29	25.36	25.78	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	866
30	34.13	34.13	24.70	22.00	6.57	4.29	27.25	27.68	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	994
32	35.98	35.98	26.04	23.32	7.48	4.29	29.02	29.75	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1228
36	40.24	40.24	28.21	25.29	7.87	4.29	33.47	33.95	3.150	0.87 x 0.55 x 3.94	F30	11.73	8	0.87	1569

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H2W CL 300 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	98	160.5	76	43	30	13.5	42.3	14	9.5	F07	70	4	9.0	3
65	111	111	172.0	87	48	30	57.3	58.5	14	9.5	F07	70	4	9.0	4
80	130	130	181.5	97	47	30	50.3	70.8	16	11.0	F07	70	4	9.0	5
100	159	159	206.5	114	53	30	82.5	95.8	20	14.0	F07	70	4	9.0	7
125	190	190	219.5	130	58	30	115.8	120.5	20	14.0	F10	102	4	11.0	10
150	215	215	242.5	152	58	50	132.8	146.3	25	18.0	F10	102	4	11.0	14
200	285	285	276.5	182	73	50	179.0	192.3	30	22.0	F12	125	4	13.5	26
250	345	345	323.5	214	83	70	230.3	242.3	35	10 x 8 x 50	F12	125	4	13.5	41
300	410	410	362.5	246	92	70	277.0	289.8	40	12 x 8 x 56	F14	140	4	17.5	65
350	465	465	383.5	275	117	79	297.8	313.5	45	14 x 9 x 63	F16	165	4	22.0	117
400	535	535	421.5	320	133	79	338.0	358.5	50	14 x 9 x 70	F16	165	4	22.0	170
450	560	560	447.5	333	150	79	385.5	403.8	60	18 x 11 x 70	F16	165	4	22.0	186
500	615	615	499.5	383	161	109	436.0	452.0	70	20 x 12 x 100	F25	254	8	17.5	253
600	735	735	554.5	438	182	109	526.3	544.1	80	22 x 14 x 100	F25	254	8	17.5	432
700	840	840	647.5	578	231	129	613.1	648.3	90	25 x 14 x 110	F30	298	8	22.0	700
750	902	900	704.3	615	229	129	676.6	693.3	100	28 x 16 x 125	F30	298	8	22.0	788
800	960	960	729.3	645	241	129	724.1	748.6	100	28 x 16 x 125	F30	298	8	22.0	935
900	1070	1070	781.3	705	243	129	836.1	858.8	100	28 x 16 x 125	F35	356	8	33.0	1251

SERIES H2W CL 300 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.86	6.32	2.99	1.69	1.18	0.53	1.66	0.551	0.374	F07	2.76	4	0.35	7
2,5	4.37	4.37	6.77	3.43	1.89	1.18	2.25	2.30	0.551	0.374	F07	2.76	4	0.35	8
3	5.12	5.12	7.15	3.82	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	11
4	6.26	6.26	8.13	4.49	2.07	1.18	3.25	3.77	0.787	0.551	F07	2.76	4	0.35	16
5	7.48	7.48	8.64	5.12	2.27	1.18	4.56	4.74	0.787	0.551	F10	4.02	4	0.43	22
6	8.46	8.46	9.55	5.98	2.27	1.97	5.23	5.76	0.984	0.709	F10	4.02	4	0.43	31
8	11.22	11.22	10.89	7.17	2.87	1.97	7.05	7.57	1.181	0.866	F12	4.92	4	0.53	57
10	13.58	13.58	12.74	8.43	3.27	2.76	9.06	9.54	1.378	0.39 x 0.31 x 1.97	F12	4.92	4	0.53	91
12	16.14	16.14	14.27	9.69	3.62	2.76	10.91	11.41	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	143
14	18.31	18.31	15.10	10.83	4.61	3.11	11.72	12.34	1.772	0.55 x 0.35 x 2.48	F16	6.50	4	0.87	259
16	21.06	21.06	16.59	12.60	5.24	3.11	13.31	14.11	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	375
18	22.05	22.05	17.62	13.11	5.91	3.11	15.18	15.90	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	411
20	24.21	24.21	19.67	15.08	6.34	4.29	17.17	17.80	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	558
24	28.94	28.94	21.83	17.24	7.17	4.29	20.72	21.42	3.150	0.87 x 0.55 x 0.34	F25	10.00	8	0.69	953
28	33.07	33.07	25.49	22.75	9.09	5.08	24.14	25.52	3.543	0.98 x 0.55 x 4.33	F30	11.73	8	0.87	1543
30	35.51	35.43	27.73	24.20	9.02	5.08	26.64	27.30	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	1737
32	37.80	37.80	28.71	25.41	9.49	5.08	28.51	29.47	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	2060
36	42.13	42.13	30.76	27.75	9.57	5.08	32.92	33.81	3.937	1.10 x 0.63 x 4.92	F35	14.02	8	1.30	2756

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H2W PN 40 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	98	160.5	76	43	30	13.5	42.3	14	9.5	F07	70	4	9.0	3
65	111	111	172.0	87	48	30	57.3	58.5	14	9.5	F07	70	4	9.0	4
80	130	130	181.5	97	47	30	50.3	70.8	16	11.0	F07	70	4	9.0	5
100	159	159	206.5	114	53	30	82.5	95.8	20	14.0	F07	70	4	9.0	7
125	190	190	219.5	130	58	30	115.8	120.5	20	14.0	F10	102	4	11.0	10
150	215	215	242.5	152	58	50	132.8	146.3	25	18.0	F10	102	4	11.0	14
200	285	285	276.5	182	73	50	179.0	192.3	30	22.0	F12	125	4	13.5	26
250	345	345	323.5	214	78	70	235.0	242.3	35	10 x 8 x 50	F12	125	4	13.5	39
300	410	410	362.5	246	85	70	282.8	289.8	40	12 x 8 x 56	F14	140	4	17.5	60
350	465	465	383.5	275	127	79	287.0	313.5	45	14 x 9 x 63	F16	165	4	22.0	124
400	535	535	421.5	320	140	79	330.5	358.5	50	14 x 9 x 70	F16	165	4	22.0	176
450	560	560	447.5	333	150	79	385.5	403.8	60	18 x 11 x 70	F16	165	4	22.0	186
500	615	615	499.5	383	154	109	442.0	452.0	70	20 x 12 x 100	F25	254	8	17.5	247
600	735	735	554.5	438	182	109	526.3	544.1	80	22 x 14 x 100	F25	254	8	17.5	431
700	840	840	647.5	578	231	129	613.1	648.3	90	25 x 14 x 110	F30	298	8	22.0	699
750	902	900	704.3	615	229	129	676.6	693.3	100	28 x 16 x 125	F30	298	8	22.0	786
800	960	960	729.3	645	241	129	724.1	748.6	100	28 x 16 x 125	F30	298	8	22.0	932
900	1070	1070	781.3	705	243	129	836.1	858.8	100	28 x 16 x 125	F35	356	8	33.0	1251

SERIES H2W PN 40 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.86	6.32	2.99	1.69	1.18	0.53	1.66	0.551	0.374	F07	2.76	4	0.35	7
2.5	4.37	4.37	6.77	3.43	1.89	1.18	2.25	2.30	0.551	0.374	F07	2.76	4	0.35	8
3	5.12	5.12	7.15	3.82	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	11
4	6.26	6.26	8.13	4.49	2.07	1.18	3.25	3.77	0.787	0.551	F07	2.76	4	0.35	16
5	7.48	7.48	8.64	5.12	2.27	1.18	4.56	4.74	0.787	0.551	F10	4.02	4	0.43	22
6	8.46	8.46	9.55	5.98	2.27	1.97	5.23	5.76	0.984	0.709	F10	4.02	4	0.43	31
8	11.22	11.22	10.89	7.17	2.87	1.97	7.05	7.57	1.181	0.866	F12	4.92	4	0.53	57
10	13.58	13.58	12.74	8.43	3.05	2.76	9.25	9.54	1.378	0.39 x 0.31 x 1.97	F12	4.92	4	0.53	85
12	16.14	16.14	14.27	9.69	3.33	2.76	11.13	11.41	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	132
14	18.31	18.31	15.10	10.83	4.99	3.11	11.30	12.34	1.772	0.55 x 0.35 x 2.48	F16	6.50	4	0.87	273
16	21.06	21.06	16.59	12.60	5.52	3.11	13.01	14.11	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	387
18	22.05	22.05	17.62	13.11	5.91	3.11	15.18	15.90	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	409
20	24.21	24.21	19.67	15.08	6.04	4.29	17.40	17.80	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	545
24	28.94	28.94	21.83	17.24	7.17	4.29	20.72	21.42	3.150	0.87 x 0.55 x 0.34	F25	10.00	8	0.69	950
28	33.07	33.07	25.49	22.75	9.09	5.08	24.14	25.52	3.543	0.98 x 0.55 x 4.33	F30	11.73	8	0.87	1541
30	35.51	35.43	27.73	24.20	9.02	5.08	26.64	27.30	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	1733
32	37.80	37.80	28.71	25.41	9.49	5.08	28.51	29.47	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	2054
36	42.13	42.13	30.76	27.75	9.57	5.08	32.92	33.81	3.937	1.10 x 0.63 x 4.92	F35	14.02	8	1.30	2756

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H1L CL 150 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	99.8	160.5	63	43	30	13.5	42.3	12	8	F07	70	4	9.0	4
65	111	119.4	172.0	74	48	30	57.0	58.3	12	8	F07	70	4	9.0	5
80	130	133.1	181.5	75	47	30	50.3	70.8	16	11	F07	70	4	9.0	6
100	159	165.2	197.5	102	53	30	82.5	95.8	16	11	F07	70	4	9.0	9
125	190	192.7	214.5	118	58	30	115.8	120.5	20	14	F07	70	4	9.0	14
150	215	224.6	229.5	129	58	30	132.8	146.3	20	14	F07	70	4	9.0	17
200	270	267.8	263.5	156	61	50	184.3	192.5	25	18	F10	102	4	11.0	27
250	330	324.8	302.5	196	69	50	234.3	245.0	30	22	F12	125	4	13.5	42
300	378	373.8	326.5	230	79	50	278.8	291.5	30	22	F12	125	4	13.5	58
350	423	436.0	362.5	253	92	70	303.8	316.8	35	10 x 8 x 50	F14	140	4	17.5	78
400	486	486.0	412.5	287	102	75	347.3	362.3	40	12 x 8 x 56	F14	140	4	17.5	117
450	541	540.8	425.5	309	114	75	395.5	411.3	45	14 x 9 x 63	F14	140	4	17.5	161
500	596	599.0	478.5	355	127	75	439.0	456.5	50	14 x 9 x 70	F16	165	4	22.0	235
600	698	711.0	515.5	412	154	75	532.8	551.8	60	18 x 11 x70	F16	165	4	22.0	366
700	807	799.8	597.5	526	165	109	644.1	654.8	70	20 x 12 x 100	F25	254	8	17.5	468
750	867	855.0	627.5	550	167	109	692.1	703.1	70	20 x 12 x 100	F25	254	8	17.5	516
800	905	899.8	661.5	584	190	109	737.1	755.6	70	20 x 12 x 100	F25	254	8	17.5	652
900	1000	1022.0	716.5	638	200	109	850.1	862.3	80	22 x 14 x 100	F30	298	8	22.0	858

SERIES H1L CL 150 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.93	6.32	2.48	1.69	1.18	0.53	1.66	0.472	0.315	F07	2.76	4	0.35	9
2.5	4.37	4.70	6.77	2.89	1.89	1.18	2.24	2.29	0.472	0.315	F07	2.76	4	0.35	12
3	5.12	5.24	7.15	2.95	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	14
4	6.26	6.50	7.78	4.02	2.07	1.18	3.25	3.77	0.630	0.433	F07	2.76	4	0.35	21
5	7.48	7.59	8.44	4.63	2.27	1.18	4.56	4.74	0.787	0.551	F07	2.76	4	0.35	30
6	8.46	8.84	9.04	5.06	2.27	1.18	5.23	5.76	0.787	0.551	F07	2.76	4	0.35	36
8	10.63	10.54	10.37	6.12	2.40	1.97	7.25	7.58	0.984	0.709	F10	4.02	4	0.43	59
10	12.99	12.79	11.91	7.72	2.72	1.97	9.22	9.65	1.181	0.866	F12	4.92	4	0.53	92
12	14.88	14.72	12.85	9.06	3.11	1.97	10.97	11.48	1.181	0.866	F12	4.92	4	0.53	128
14	16.65	17.17	14.27	9.94	3.62	2.76	11.96	12.47	1.378	0.39 x 0.31 x 1.97	F14	5.51	4	0.69	173
16	19.13	19.13	16.24	11.30	4.00	2.95	13.67	14.26	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	258
18	21.30	21.29	16.75	12.15	4.49	2.95	15.57	16.19	1.772	0.55 x 0.35 x 2.48	F14	5.51	4	0.69	354
20	23.46	23.58	18.84	13.98	5.00	2.95	17.28	17.97	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	518
24	27.48	27.99	20.30	16.22	6.06	2.95	20.98	21.72	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	806
28	31.77	31.49	23.52	20.70	6.50	4.29	25.36	25.78	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1032
30	34.13	33.66	24.70	21.65	6.57	4.29	27.25	27.68	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1138
32	35.63	35.43	26.04	23.00	7.48	4.29	29.02	29.75	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1437
36	39.37	40.24	28.21	25.11	7.87	4.29	33.47	33.95	3.150	0.87 x 0.55 x 3.94	F30	11.73	8	0.87	1892

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H1L PN 25 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	99.8	160.5	63	43	30	13.5	42.3	12	8	F07	70	4	9.0	4
65	111	122.5	172.0	86	48	30	57.0	58.3	12	8	F07	70	4	9.0	7
80	130	136.8	181.5	96	47	30	50.3	70.8	16	11	F07	70	4	9.0	7
100	159	157.5	197.5	106	53	30	82.5	95.8	16	11	F07	70	4	9.0	10
125	190	187.0	214.5	125	58	30	115.8	120.5	20	14	F07	70	4	9.0	15
150	215	215.4	229.5	137	58	30	132.8	146.3	20	14	F07	70	4	9.0	17
200	270	267.8	263.5	171	61	50	184.3	192.5	25	18	F10	102	4	11.0	27
250	330	324.8	302.5	208	69	50	234.3	245.0	30	22	F12	125	4	13.5	45
300	378	373.8	326.5	235	79	50	278.8	291.5	30	22	F12	125	4	13.5	65
350	423	436.0	362.5	267	92	70	303.8	316.8	35	10 x 8 x 50	F14	140	4	17.5	96
400	486	486.0	412.5	299	102	75	347.3	362.3	40	12 x 8 x 56	F14	140	4	17.5	133
450	541	533.0	425.5	326	114	75	395.5	411.3	45	14 x 9 x 63	F14	140	4	17.5	190
500	596	591.5	478.5	355	127	75	439.0	456.5	50	14 x 9 x 70	F16	165	4	22.0	233
600	698	693.8	515.5	412	154	75	532.8	551.8	60	18 x 11 x70	F16	165	4	22.0	350
700	807	799.8	597.5	532	165	109	644.1	654.8	70	20 x 12 x 100	F25	254	8	17.5	485
750	867	855.0	627.5	557	167	109	692.1	703.1	70	20 x 12 x 100	F25	254	8	17.5	548
800	905	899.8	661.5	592	190	109	737.1	755.6	70	20 x 12 x 100	F25	254	8	17.5	657
900	1000	1022.0	716.5	642	200	109	850.1	862.3	80	22 x 14 x 100	F30	298	8	22.0	856

SERIES H1L PN 25 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.93	6.32	2.48	1.69	1.18	0.53	1.66	0.472	0.315	F07	2.76	4	0.35	9
2.5	4.37	4.82	6.77	3.39	1.89	1.18	2.24	2.29	0.472	0.315	F07	2.76	4	0.35	16
3	5.12	5.39	7.15	3.78	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	16
4	6.26	6.20	7.78	4.17	2.07	1.18	3.25	3.77	0.630	0.433	F07	2.76	4	0.35	23
5	7.48	7.36	8.44	4.92	2.27	1.18	4.56	4.74	0.787	0.551	F07	2.76	4	0.35	33
6	8.46	8.48	9.04	5.39	2.27	1.18	5.23	5.76	0.787	0.551	F07	2.76	4	0.35	37
8	10.63	10.54	10.37	6.73	2.40	1.97	7.25	7.58	0.984	0.709	F10	4.02	4	0.43	60
10	12.99	12.79	11.91	8.19	2.72	1.97	9.22	9.65	1.181	0.866	F12	4.92	4	0.53	98
12	14.88	14.72	12.85	9.25	3.11	1.97	10.97	11.48	1.181	0.866	F12	4.92	4	0.53	144
14	16.65	17.17	14.27	10.51	3.62	2.76	11.96	12.47	1.378	0.39 x 0.31 x 1.97	F14	5.51	4	0.69	213
16	19.13	19.13	16.24	11.77	4.02	2.95	13.67	14.26	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	293
18	21.30	20.98	16.75	12.83	4.49	2.95	15.57	16.19	1.772	0.55 x 0.35 x 2.48	F14	5.51	4	0.69	419
20	23.46	23.29	18.84	13.98	5.00	2.95	17.28	17.97	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	514
24	27.48	27.31	20.30	16.22	6.06	2.95	20.98	21.72	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	771
28	31.77	31.49	23.52	20.94	6.50	4.29	25.36	25.78	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1070
30	34.13	33.66	24.70	21.92	6.57	4.29	27.25	27.68	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1209
32	35.63	35.43	26.04	23.32	7.48	4.29	29.02	29.75	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	1447
36	39.37	40.24	28.21	25.29	7.87	4.29	33.47	33.95	3.150	0.87 x 0.55 x 3.94	F30	11.73	8	0.87	1887

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H2L CL 300 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	99.8	160.5	73	43	30	13.5	42.3	14	9.5	F07	70	4	9.0	5
65	111	122.5	172.0	86	48	30	57.3	58.5	14	9.5	F07	70	4	9.0	7
80	130	136.8	181.5	96	47	30	50.3	70.8	16	11.0	F07	70	4	9.0	8
100	159	165.2	206.5	110	53	30	82.5	95.8	20	14.0	F07	70	4	9.0	12
125	190	192.7	219.5	129	58	30	115.8	120.5	20	14.0	F10	102	4	11.0	16
150	215	231.7	242.5	147	58	50	132.8	146.3	25	18.0	F10	102	4	11.0	22
200	285	284.8	276.5	179	73	50	179.0	192.3	30	22.0	F12	125	4	13.5	36
250	345	344.8	323.5	212	83	70	230.3	242.3	35	10 x 8 x 50	F12	125	4	13.5	60
300	410	401.8	362.5	247	92	70	277.0	289.8	40	12 x 8 x 56	F14	140	4	17.5	90
350	413	436.0	383.5	279	117	79	297.8	313.5	45	14 x 9 x 63	F16	165	4	22.0	139
400	535	488.0	421.5	310	133	79	338.0	358.5	50	14 x 9 x 70	F16	165	4	22.0	201
450	560	560.0	447.5	339	150	79	385.5	403.8	60	18 x 11 x 70	F16	165	4	22.0	253
500	615	615.5	499.5	383	161	109	436.0	452.0	70	20 x 12 x 100	F25	254	8	17.5	330
600	692	719.8	554.5	442	182	109	526.3	544.1	80	22 x 14 x 100	F25	254	8	17.5	508
700	800	831.8	647.5	578	231	129	613.1	648.3	90	25 x 14 x 110	F30	298	8	22.0	812
750	857	858.0	704.3	615	229	129	676.6	693.3	100	28 x 16 x 125	F30	298	8	22.0	890
800	960	938.8	729.3	645	241	129	724.1	748.6	100	28 x 16 x 125	F30	298	8	22.0	1117
900	1070	1050.0	781.3	704	243	129	836.1	858.8	100	28 x 16 x 125	F35	356	8	33.0	1515

SERIES H2L CL 300 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.93	6.32	2.87	1.69	1.18	0.53	1.66	0.551	0.374	F07	2.76	4	0.35	11
2.5	4.37	4.82	6.77	3.39	1.89	1.18	2.25	2.30	0.551	0.374	F07	2.76	4	0.35	15
3	5.12	5.39	7.15	3.76	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	19
4	6.26	6.50	8.13	4.31	2.07	1.18	3.25	3.77	0.787	0.551	F07	2.76	4	0.35	26
5	7.48	7.59	8.64	5.06	2.27	1.18	4.56	4.74	0.787	0.551	F10	4.02	4	0.43	35
6	8.46	9.12	9.55	5.79	2.27	1.97	5.23	5.76	0.984	0.709	F10	4.02	4	0.43	48
8	11.22	11.21	10.89	7.05	2.87	1.97	7.05	7.57	1.181	0.866	F12	4.92	4	0.53	80
10	13.58	13.57	12.74	8.35	3.27	2.76	9.06	9.54	1.378	0.39 x 0.31 x 1.97	F12	4.92	4	0.53	131
12	16.14	15.82	14.27	9.72	3.62	2.76	10.91	11.41	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	199
14	16.26	17.17	15.10	10.98	4.61	3.11	11.72	12.34	1.772	0.55 x 0.35 x 2.48	F16	6.50	4	0.87	306
16	21.06	19.21	16.59	12.20	5.24	3.11	13.31	14.11	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	443
18	22.05	22.05	17.62	13.35	5.91	3.11	15.18	15.90	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	557
20	24.21	24.23	19.67	15.06	6.34	4.29	17.17	17.80	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	728
24	27.24	28.34	21.83	17.38	7.17	4.29	20.72	21.42	3.150	0.87 x 0.55 x 3.94	F25	10.00	8	0.69	1120
28	31.50	32.75	25.49	22.75	9.09	5.08	24.14	25.52	3.543	0.98 x 0.55 x 4.33	F30	11.73	8	0.87	1790
30	33.74	33.78	27.73	24.20	9.02	5.08	26.64	27.30	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	1962
32	37.80	36.96	28.71	25.41	9.49	5.08	28.51	29.47	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	2462
36	42.13	41.34	30.76	27.71	9.57	5.08	32.92	33.81	3.937	1.10 x 0.63 x 4.92	F35	14.02	8	1.30	3339

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

SERIES H2L PN 40 DIMENSIONS mm (metric)

									Shaft dimensions		Top plate data				
DN	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight Kg
50	98	99.8	160.5	63	43	30	13.5	42.3	14	9.5	F07	70	4	9.0	4
65	111	122.5	172.0	86	48	30	57.3	58.5	14	9.5	F07	70	4	9.0	7
80	130	136.8	181.5	96	47	30	50.3	70.8	16	11.0	F07	70	4	9.0	9
100	159	157.5	206.5	110	53	30	82.5	95.8	20	14.0	F07	70	4	9.0	12
125	190	187.0	219.5	129	58	30	115.8	120.5	20	14.0	F10	102	4	11.0	16
150	215	215.4	242.5	137	58	50	132.8	146.3	25	18.0	F10	102	4	11.0	20
200	285	284.8	276.5	179	73	50	179.0	192.3	30	22.0	F12	125	4	13.5	37
250	345	339.8	323.5	212	78	70	235.0	242.3	35	10 x 8 x 50	F12	125	4	13.5	57
300	410	401.8	362.5	247	85	70	282.8	289.8	40	12 x 8 x 56	F14	140	4	17.5	85
350	465	465.0	383.5	279	127	79	287.0	313.5	45	14 x 9 x 63	F16	165	4	22.0	151
400	535	488.0	421.5	318	140	79	330.5	358.5	50	14 x 9 x 70	F16	165	4	22.0	207
450	560	541.0	447.5	333	150	79	385.5	403.8	60	18 x 11 x 70	F16	165	4	22.0	241
500	615	591.5	499.5	383	154	109	442.0	452.0	70	20 x 12 x 100	F25	254	8	17.5	334
600	692	719.8	554.5	435	182	109	526.3	544.1	80	22 x 14 x 100	F25	254	8	17.5	495
700	840	831.8	647.5	568	231	129	613.1	648.3	90	25 x 14 x 110	F30	298	8	22.0	793
750	902	858.0	704.3	604	229	129	676.6	693.3	100	28 x 16 x 125	F30	298	8	22.0	914
800	960	938.8	729.3	633	241	129	724.1	748.6	100	28 x 16 x 125	F30	298	8	22.0	1075
900	1070	1050.0	781.3	690	243	129	836.1	858.8	100	28 x 16 x 125	F35	356	8	33.0	1467

SERIES H2L PN 40 DIMENSIONS in. (imperial)

									Shaft dimensions		Top plate data				
NPS	A1	A2	B	C	E	F	Q1	Q2	G	DD or keyway	ISO flange type	PCD	Holes no.	Holes dia.	Weight lbs
2	3.86	3.93	6.32	2.48	1.69	1.18	0.53	1.66	0.551	0.374	F07	2.76	4	0.35	9
2.5	4.37	4.82	6.77	3.39	1.89	1.18	2.25	2.30	0.551	0.374	F07	2.76	4	0.35	16
3	5.12	5.39	7.15	3.78	1.85	1.18	1.98	2.79	0.630	0.433	F07	2.76	4	0.35	19
4	6.26	6.20	8.13	4.33	2.07	1.18	3.25	3.77	0.787	0.551	F07	2.76	4	0.35	26
5	7.48	7.36	8.64	5.08	2.27	1.18	4.56	4.74	0.787	0.551	F10	4.02	4	0.43	35
6	8.46	8.48	9.55	5.39	2.27	1.97	5.23	5.76	0.984	0.709	F10	4.02	4	0.43	43
8	11.22	11.21	10.89	7.05	2.87	1.97	7.05	7.57	1.181	0.866	F12	4.92	4	0.53	81
10	13.58	13.38	12.74	8.35	3.05	2.76	9.25	9.54	1.378	0.39 x 0.31 x 1.97	F12	4.92	4	0.53	125
12	16.14	15.82	14.27	9.72	3.33	2.76	11.13	11.41	1.575	0.47 x 0.31 x 2.20	F14	5.51	4	0.69	188
14	18.31	18.31	15.10	10.98	4.99	3.11	11.30	12.34	1.772	0.55 x 0.35 x 2.48	F16	6.50	4	0.87	333
16	21.06	19.21	16.59	12.52	5.52	3.11	13.01	14.11	1.969	0.55 x 0.35 x 2.76	F16	6.50	4	0.87	457
18	22.05	21.30	17.62	13.11	5.91	3.11	15.18	15.90	2.362	0.71 x 0.43 x 2.76	F16	6.50	4	0.87	531
20	24.21	23.29	19.67	15.08	6.04	4.29	17.40	17.80	2.756	0.79 x 0.47 x 3.94	F25	10.00	8	0.69	736
24	27.24	28.34	21.83	17.13	7.17	4.29	20.72	21.42	3.150	0.87 x 0.55 x 3.94	F25	10.00	8	0.69	1091
28	33.07	32.75	25.49	22.38	9.09	5.08	24.14	25.52	3.543	0.98 x 0.55 x 4.33	F30	11.73	8	0.87	1747
30	35.51	33.78	27.73	23.79	9.02	5.08	26.64	27.30	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	2013
32	37.80	36.96	28.71	24.94	9.49	5.08	28.51	29.47	3.937	1.10 x 0.63 x 4.92	F30	11.73	8	0.87	2368
36	42.13	41.34	30.76	27.16	9.57	5.08	32.92	33.81	3.937	1.10 x 0.63 x 4.92	F35	14.02	8	1.30	3234

NOTES

1. Q dimension is the minimum allowable inside pipe diameter which provides API 609 specified clearance between the disc and pipe during operation. Dimension considers 1.6 mm (1/16") mating flange gasket offset on each end of the valve
2. For extensive drilling information see documentation.
3. Valve lay length (dimension 'E') complies with applicable industry standard face-to-face dimensions when consideration is provided for tolerances provided by said standard.

FLANGE DRILLING CODES, LUGGED STYLE

Size		Uniqueness	H1 lugged						
NPS	DN	code	AS-E	PN 10	PN 16	ASME 150	PN 25	PN 40	ASME 300
2	50	0050	X	MG	MG	A1	MG	P4	A2
2.5	65	0065	X	MG	MG	A1	MG	P4	A2
3	80	0080	E1	MG	MG	A1	MG	P4	A2
4	100	0100	E1	MF	MF	A1	P3	P4	A2
5	125	0125	MH	MH	MH	A1	P3	P4	A2
6	150	0150	E1	MN	MN	A1	P3	P4	A2
8	200	0200	E1	P1	P2	A1	P3	P4	A2
10	250	0250	E1	P1	P2	A1	P3	P4	A2
12	300	0300	E1	P1	P2	A1	P3	P4	A2
14	350	0350	X	P1	P2	A1	P3	P4	A2
16	400	0400	X	P1	P2	A1	P3	P4	A2
18	450	0450	X	P1	P2	A1	P3	P4	A2
20	500	0500	X	P1	P2	A1	P3	P4	A2
24	600	0600	X	P1	P2	A1	P3	P4	A2
28	700	0700	X	P1	P2	A1	MK	ML	A2
30	750	0750	X	MJ	P2	A1	MK	ML	A2
32	800	0800	X	P1	P2	A1	MK	ML	A2
36	900	0900	X	MJ	P2	A1	MK	ML	A2

FLANGE DRILLING CODES, WAFER STYLE

Size		Uniqueness	H1 wafer					H2 wafer	
NPS	DN	code	AS-E	PN 10	PN 16	ASME 150	PN 25	PN40	ASME 300
2	50	0050	M1	M1	M1	M1	M1	M2	M2
2.5	65	0065	M3	M3	M3	M3	M3	M2	M2
3	80	0080	M4	M4	M4	M4	M4	M2	M2
4	100	0100	M1	M1	M1	M1	M1	M2	M2
5	125	0125	M1	M1	M1	M1	M1	M2	M2
6	150	0150	M1	M1	M1	M1	M1	M2	M2
8	200	0200	M1	M1	M1	M1	M1	M2	M2
10	250	0250	M1	M1	M1	M1	M1	P4	A2
12	300	0300	M1	M1	M1	M1	M1	P4	A2
14	350	0350	M6	M6	M6	M6	M6	P4	A2
16	400	0400	M7	M7	M7	M7	MD	P4	A2
18	450	0450	E1	MJ	P2	A1	P3	P4	A2
20	500	0500	E1	MJ	P2	A1	P3	P4	A2
24	600	0600	E1	P1	P2	A1	P3	P4	A2
28	700	0700	X	P1	P2	A1	MK	ML	A2
30	750	0750	X	MJ	P2	A1	MK	ML	A2
32	800	0800	X	P1	P2	A1	MK	ML	A2
36	900	0900	X	MJ	P2	A1	MK	ML	A2

K-Lok Series H handle capacity

The maximum safe pull made by an operator is about 120 lbs. (54 kg). The effective length of the handle moment arm is 9¼" (235 mm) for the 10½" (267 mm) handle. This is due to the operator average hand width.
Listed below are the sizes of K-Lok Series H that can be operated safely with manual handles.

K-LOK SERIES H HANDLE CAPACITY

	K-Lok size		GS style RTFE/TFE		HD style RTFE/TFE		UHMWPE		EPDM/BUNA		Metal/Fire-safe	
Handle size	DN	NPS	ASME 150	ASME 300	ASME 150	ASME 300	ASME 150	ASME 300	ASME 150	ASME 300	ASME 150	ASME 300
10½" (267 mm)	50	2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10½" (267 mm)	65	2½	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10½" (267 mm)	80	3	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10½" (267 mm)	100	4	YES	YES	YES	YES	YES	YES	YES	NO[1]	NO	NO
10½" (267 mm)	125	5	YES	YES	YES	NO[1]	NO	NO	NO	NO	NO	NO

NOTE

1. Handle is only recommended if line pressure is 285 psi (19.6 bar) or less.

SELECTION GUIDE

Example:	H2	L	-	0100	C0	S0	S0	R1	T	S	G	A1	I	-	00	000	00

Series

H1	ASME 150/25 bar
H2	ASME 300/50 bar

Style

L	Lug[1]	**W**	Wafer

Size

0050	DN 50 (NPS 2)	**0200**	DN 200 (NPS 8)	**0500**	DN 500 (NPS 20)
0065	DN 65 (NPS 2½)	**0250**	DN 250 (NPS 10)	**0600**	DN 600 (NPS 24)
0080	DN 80 (NPS 3)	**0300**	DN 300 (NPS 12)	**0700**	DN 700 (NPS 28)
0100	DN 100 (NPS 4)	**0350**	DN 350 (NPS 14)	**0750**	DN 750 (NPS 30)
0125	DN 125 (NPS 5)	**0400**	DN 400 (NPS 16)	**0800**	DN 800 (NPS 32)
0150	DN 150 (NPS 6)	**0450**	DN 450 (NPS 18)	**0900**	DN 900 (NPS 36)

Body

C0	Carbon steel	**S2**	316L stainless steel
C1	LCC carbon steel	**U0**	Duplex stainless steel
S0	316 stainless steel	**V0**	Super duplex stainless steel
S1	304 stainless steel		

Disc

S0	316 stainless steel	**U0**	Duplex stainless steel
S1	316 stainless steel/ENP[2]	**V0**	Super duplex stainless steel
S4	316L stainless steel		

Shaft

S0	17-4PH stainless steel	**S3**	17-4PH DHT
S1	316B stainless steel[3]	**J0**	Alloy 718
S2	XM19	**M0**	Nickel alloy 500

Seat

GS seat[6]		**HD seat**		**Fire-safe seat**		**Elastomer seat**	
P0	PTFE/SS	**P1**	PTFE/SS	**F0**	RTFE/Iconel®	**E0**	EPDM
R0	RTFE/SS	**R1**	RTFE/SS	**Metal Seat**[3]		**N0**	NBR
		U1	UHMWPE/SS	**M0**	Inconel®	**V0**	FKM

Packing

T	PTFE	**G**	Graphite

Bearings

S	316SS/BRZ/TFE	**F**	Alloy 625/Hi temp low friction

Seat retainer ring gasket[4]

G	Graphite	**F**	Fiber

Flange drilling

Refer to page 23 for all drilling codes

Actuator mounting

I	ISO 5211 mounting

Actuation

00	None	**H0**	10 pos handle	**G0**	Gear actuation

Special requirements

000	None

Special coating

00	Standard

NOTES

1. All lug body valves have bolted seat retainers for full rated bi-directional dead end service.
2. Must be used with UHMWPE, fire-safe and metal seats.
3. May require de-rated pressure holding capabilities.
4. Standard seat retainer ring gasket is graphitic. Fiber is supplied for special applications.
5. Other material available on request.
6. Available in NPS 2 to 12 (DN 50 to 300) ASME 150/25 bar only.

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