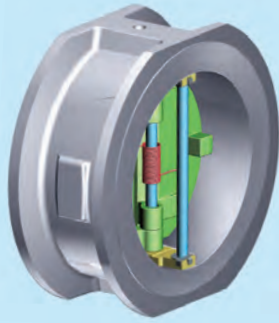


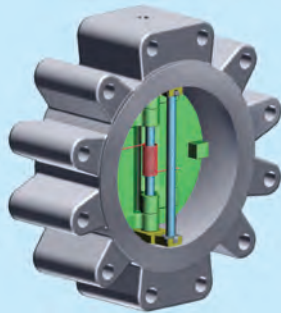
STANDARD MANUFACTURING PROGRAM



WAFER TYPE - PW

- Retainerless design is supplied as standard
- API 594 Face-to-face dimension
- To suit ANSI B16.5 flanges, NPS 2-24 (DN 50-600)
- To suit ANSI B16.47 Series A flanges, NPS 26 (DN 650) and larger

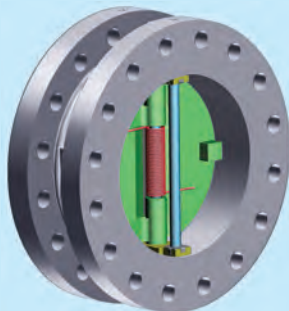
ASME CLASS					
150	300	600	900	1500	2500
NPS 2-60 DN 50-1500	NPS 2-60 DN 50-1500	NPS 2-60 DN 50-1500	NPS 2-48 DN 50-1200	NPS 2-24 DN 50-600	NPS 2-12 DN 50-300



SOLID LUG TYPE - PL, PM

- Retainerless design is supplied as standard
- API 594 Face-to-face dimension
- To suit ANSI B16.5 flanges, NPS 2-24 (DN 50-600)
- To suit ANSI B16.47 Series A flanges, NPS 26 (DN 650) and larger

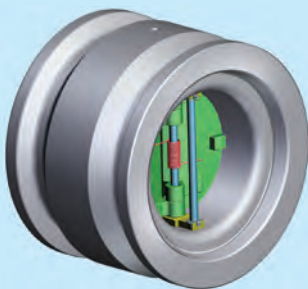
ASME CLASS					
150	300	600	900	1500	2500
NPS 2-10 DN 50-250	NPS 2-10 DN 50-250	NPS 2-10 DN 50-250	NPS 2-10 DN 50-250	NPS 2-24 DN 50-600	NPS 2-12 DN 50-300



DOUBLE FLANGED TYPE - PF, PG

- Retainerless design is supplied as standard
- API 594 Face-to-face dimension
- To suit ANSI B16.5 flanges, NPS 2-24 (DN 50-600)
- To suit ANSI B16.47 Series A Flanges, NPS 26 (DN 650) and larger

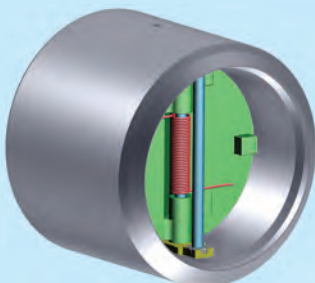
ASME CLASS			
150	300	600	900
NPS 12-60 DN 300-1500	NPS 12-60 DN 300-1500	NPS 12-60 DN 300-1500	NPS 12-48 DN 300-1200



HUB END TYPE - PH

- Retainerless design is supplied as standard
- To suit customer's specified hub-ended details

ASME CLASS			
600	900	1500	2500
NPS 2-24 DN 50-600	NPS 2-24 DN 50-600	NPS 2-24 DN 50-600	NPS 2-24 DN 50-600



BUTT WELD END TYPE - PZ

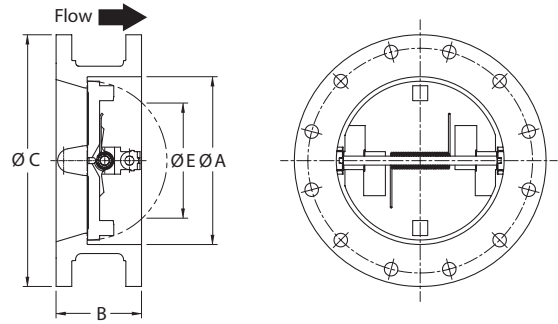
- Retainerless design is supplied as standard

ASME CLASS		
150	300	600
NPS 3-36 DN 80-900	NPS 3-36 DN 80-900	NPS 3-36 DN 80-900

For valve sizes, ASME Classes and designs not identified herein, please consult the Velan Marketing department.

INSTALLATION DIMENSIONS

DOUBLE FLANGE TYPE - PF, PG ANSI B16.5 / ANSI B16.47 SERIES A



Size		Pressure and Class		Dimensions								Approx. weight		Flange details				Eye bolt hole size
NPS	DN	Class	PN	Ø A		B		Ø C		Ø E		lbs	kg	No.(1)	Dia	Length RF ends	Length RTJ ends	
				in	mm	in	mm	in	mm	in	mm					Stud(2)	Stud(2)	
12	300	150	20	12.75	324	7.13	181	19.00	483	11.15	283	220	100	12	7/8	4.75	5.25	1/2
12	300	300	50	12.75	324	7.13	181	20.50	521	11.02	280	312	142	16	1 1/8	6.75	7.50	1/2
12	300	600	100	12.75	324	9.00	229	22.00	559	9.91	252	492	223	20	1 1/4	8.50	9.00	3/4
12	300	900	150	12.75	324	11.50	292	24.00	610	7.39	188	770	349	20	1 3/8	8.75	9.25	3/4
14	350	150	20	14.00	356	7.25	184	21.00	533	12.10	307	272	123	12	1	5.25	5.75	1/2
14	350	300	50	14.00	356	8.75	222	23.00	584	12.14	308	459	208	20	1 1/8	7.00	7.75	3/4
14	350	600	100	14.00	356	10.75	273	23.75	603	9.72	247	625	283	20	1 3/8	9.00	9.50	3/4
14	350	900	150	14.00	356	14.00	356	25.25	641	7.22	183	1240	562	20	1 1/2	9.25	10.00	3/4
16	400	150	20	16.00	406	7.50	191	23.50	597	13.90	353	340	154	16	1	5.50	6.00	1/2
16	400	300	50	16.00	406	9.13	232	25.50	648	14.08	358	675	306	20	1 1/4	7.50	8.25	3/4
16	400	600	100	16.00	406	12.00	305	27.00	686	12.54	319	900	408	20	1 1/2	9.75	10.25	3/4
16	400	900	150	16.00	406	15.13	384	27.75	705	11.18	284	1210	549	20	1 5/8	10.00	10.75	3/4
18	450	150	20	18.00	457	8.00	203	25.00	635	15.95	405	410	186	16	1 1/8	6.00	6.50	1/2
18	450	300	50	18.00	457	10.38	264	28.00	711	16.22	412	775	352	24	1 1/4	7.75	8.50	1
18	450	600	100	18.00	457	14.25	362	29.25	743	14.00	356	1215	551	20	1 5/8	10.50	11.00	1
18	450	900	150	18.00	457	17.75	451	31.00	787	9.81	249	1845	837	20	1 7/8	11.00	11.75	1
20	500	150	20	20.00	508	8.63	219	27.50	699	17.75	451	522	237	20	1 1/8	6.25	6.75	3/4
20	500	300	50	20.00	508	11.50	292	30.50	775	17.64	448	992	450	24	1 1/4	8.25	9.00	1
20	500	600	100	20.00	508	14.50	368	32.00	813	16.77	426	1520	689	24	1 5/8	11.25	11.75	1
20	500	900	150	20.00	508	17.75	451	33.75	857	13.00	330	2390	1084	20	2	12.00	12.75	1
24	600	150	20	24.00	610	8.75	222	32.00	813	21.68	551	760	345	20	1 1/4	7.00	7.50	3/4
24	600	300	50	24.00	610	12.50	318	36.00	914	21.73	552	1541	699	24	1 1/2	9.25	10.25	1
24	600	600	100	24.00	610	17.25	438	37.00	940	19.96	507	2385	1082	24	1 7/8	12.25	13.00	1
24	600	900	150	24.00	610	19.50	495	41.00	1041	18.97	482	3700	1678	20	2 1/2	14.00	15.00	1
26	650	150	20	26.00	660	14.00	356	34.25	870	21.96	558	1500	680	24	1 1/4	8.75	9.75	1
26	650	300	50	26.00	660	14.00	356	38.25	972	22.85	580	2200	998	28	1 5/8	10.50	11.50	1
26	650	600	100	26.00	660	18.00	457	40.00	1016	21.74	552	3100	1406	28	1 7/8	13.25	14.25	1
26	650	900	150	24.00	610	21.00	533	42.75	1086	20.51	521	5000	2268	20	2 3/4	17.50	19.00	1
28	700	150	20	28.00	711	15.00	381	36.50	927	22.06	560	1700	771	28	1 1/4	9.00	10.00	1
28	700	300	50	28.00	711	15.00	381	40.75	1035	24.41	620	2600	1179	28	1 5/8	11.00	12.00	1
28	700	600	100	28.00	711	19.00	483	42.25	1073	23.89	607	3800	1724	28	2	14.00	15.00	1
28	700	900	150	26.00	660	22.63	575	46.00	1168	21.53	547	6000	2722	20	3	18.50	19.75	1 1/4
30	750	150	20	30.00	762	12.00	305	38.75	984	27.81	706	1750	794	28	1 1/4	9.25	10.25	3/4
30	750	300	50	30.00	762	14.50	368	43.00	1092	27.98	711	2608	1183	28	1 3/4	11.75	12.75	1
30	750	600	100	30.00	762	19.88	505	44.50	1130	25.80	655	3815	1730	28	2	14.00	15.00	1
30	750	900	150	28.00	711	25.00	635	48.50	1232	22.75	578	6300	2858	20	3	19.00	20.50	1
32	800	150	20	32.00	813	14.00	356	41.75	1060	29.25	743	2300	1043	28	1 1/2	10.50	11.50	3/4
32	800	300	50	30.00	762	16.00	406	45.25	1149	27.28	693	3300	1497	28	1 7/8	12.75	13.75	1
32	800	600	100	32.00	813	21.00	533	47.00	1194	27.92	709	5000	2268	28	2 1/4	14.75	16.00	1
32	800	900	150	30.00	762	26.00	660	51.75	1314	25.33	643	8500	3856	20	3 1/4	20.25	21.75	1 1/4
36	900	150	20	36.00	914	14.50	368	46.00	1168	33.47	850	2541	1153	32	1 1/2	11.25	12.25	1
36	900	300	50	36.00	914	19.00	483	50.00	1270	32.30	820	3985	1808	32	2	13.25	14.50	1
36	900	600	100	36.00	914	25.00	635	51.75	1314	31.08	789	5988	2716	28	2 1/2	16.00	17.00	1
36	900	900	150	34.00	864	28.25	718	57.50	1461	31.47	799	11300	5126	20	3 1/2	21.75	23.50	1 1/2

- 1) Number of studs is per flange. For installation purposes, double the number of studs.
2) Stud length is per flange.

INSTALLATION DIMENSIONS

DOUBLE FLANGE TYPE - PF, PG ANSI B16.5 / ANSI B16.47 SERIES A

Size		Pressure and Class		Dimensions								Approx. weight		Flange details				Eye bolt hole size
NPS	DN	Class	PN	Ø A		B		Ø C		Ø E		lbs	kg	No.(1)	Dia	Length RF ends	Length RTJ ends	
				in	mm	in	mm	in	mm	in	mm					Stud ⁽²⁾	Stud ⁽²⁾	
40	1000	150	20	40.00	1016	17.00	432	50.75	1289	37.56	954	3900	1769	36	1 1/2	11.25	11.25	1
40	1000	300	50	36.00	914	21.50	546	48.75	1238	36.29	922	4900	2223	32	1 5/8	13.25	13.25	1
40	1000	600	100	36.00	914	26.00	660	52.00	1321	33.38	848	7800	3538	32	2 1/4	18.00	18.00	1 1/4
40	1000	900	150	34.00	864	30.00	762	59.50	1511	32.61	828	13700	6214	24	3 1/2	23.75	23.75	1 3/4
42	1050	150	20	42.00	1067	17.00	432	53.00	1346	39.20	996	4220	1914	36	1 1/2	11.75	11.75	1
42	1050	300	50	40.00	1016	22.38	568	50.75	1289	34.03	864	4640	2105	32	1 5/8	13.75	13.75	1 1/4
42	1050	600	100	38.00	965	27.63	702	55.25	1403	36.78	934	9400	4264	28	2 1/2	19.50	19.50	1 1/2
42	1050	900	150	36.00	914	31.00	787	61.50	1562	34.61	879	15000	6804	24	3 1/2	24.50	24.50	1 3/4
48	1200	150	20	48.00	1219	20.63	524	59.50	1511	43.06	1094	5900	2676	44	1 1/2	12.50	12.50	1 1/4
48	1200	300	50	44.00	1118	24.75	629	57.75	1467	43.68	1109	7400	3357	32	1 7/8	15.25	15.25	1 1/2
48	1200	600	100	42.00	1067	31.00	787	62.75	1594	42.25	1073	13600	6169	32	2 3/4	21.75	21.75	2
48	1200	900	150	42.00	1067	34.00	864	70.25	1784	41.67	1058	21100	9571	24	4	27.75	27.75	2 1/2
54	1350	150	20	54.00	1372	23.25	591	66.25	1683	50.44	1281	7700	3493	44	1 3/4	14.00	14.00	1 1/2
54	1350	300	50	50.00	1270	28.25	718	65.25	1657	48.65	1236	10600	4808	28	2 1/4	17.50	17.50	1 3/4
54	1350	600	100	48.00	1219	35.00	889	70.00	1778	48.34	1228	18500	8391	32	3	23.75	23.75	2
60	1500	150	20	60.00	1524	26.00	660	73.00	1854	55.68	1414	10000	4536	52	1 3/4	15.00	15.00	1 1/2
60	1500	300	50	56.00	1422	33.00	838	71.25	1810	48.00	1219	13000	5897	32	2 1/4	18.75	18.75	2
60	1500	600	100	54.00	1372	39.00	991	78.50	1994	45.00	1143	23400	10614	28	3 1/2	26.75	26.75	2 1/2

1) Number of studs is per flange. For installation purposes, double the number of studs.

2) Stud length is per flange.