

## TILTING CHECK VALVE



It is a type of check valve which consists of a cylindrical body, a disc inside it, a shaft that holds the disc, a counter lever and weight. It is a type which needs less installation space.

Even it is fully open, disc is located on flow path. This is the reason why it cannot be used in sewage media, but can be used only in clean water.

Tilting check valves are used at outlet side of pumps.

When flow begins, disc is pushed forward by effect of flow. Flow continues its travel in direction of pumping.

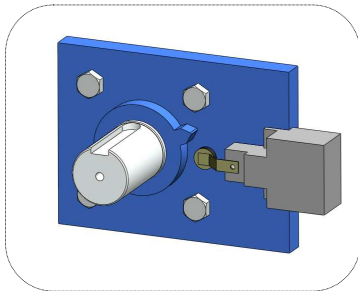
When pump begins to slow down to stop, disc begins to close. Check valve closes automatically by assistance of back flow and counter weight which is connected to shaft by counter lever. Its closure prevents the water in the pipe line to flow reversely.

Opening angle of disc must not exceed 80 degrees. If it exceeds, in case of a mechanical tightness, flow moves under the disc and required forces for closure cannot occur. Reverse flow begins; pump starts to turn reverse direction. Serious damage may take place.

## Installation Position,

Valve should be installed as shaft in horizontal position.

## Accessories

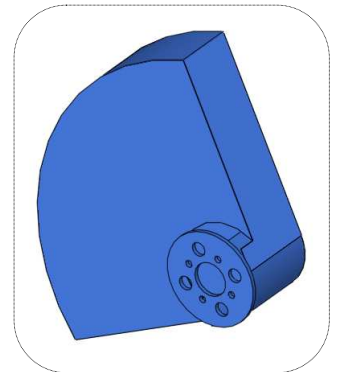


## Mechanical Limit Switch,

A cam, which is fixed on shaft of check valve, rotates as the disc flaps. When disc closes, cam hits on switch. Switch sends signal to panel at operation room to notify closed position of disc.

## Mesh Guard,

It is a protective accessory for the things around the valve against sudden movement of counter lever and weight under operation.



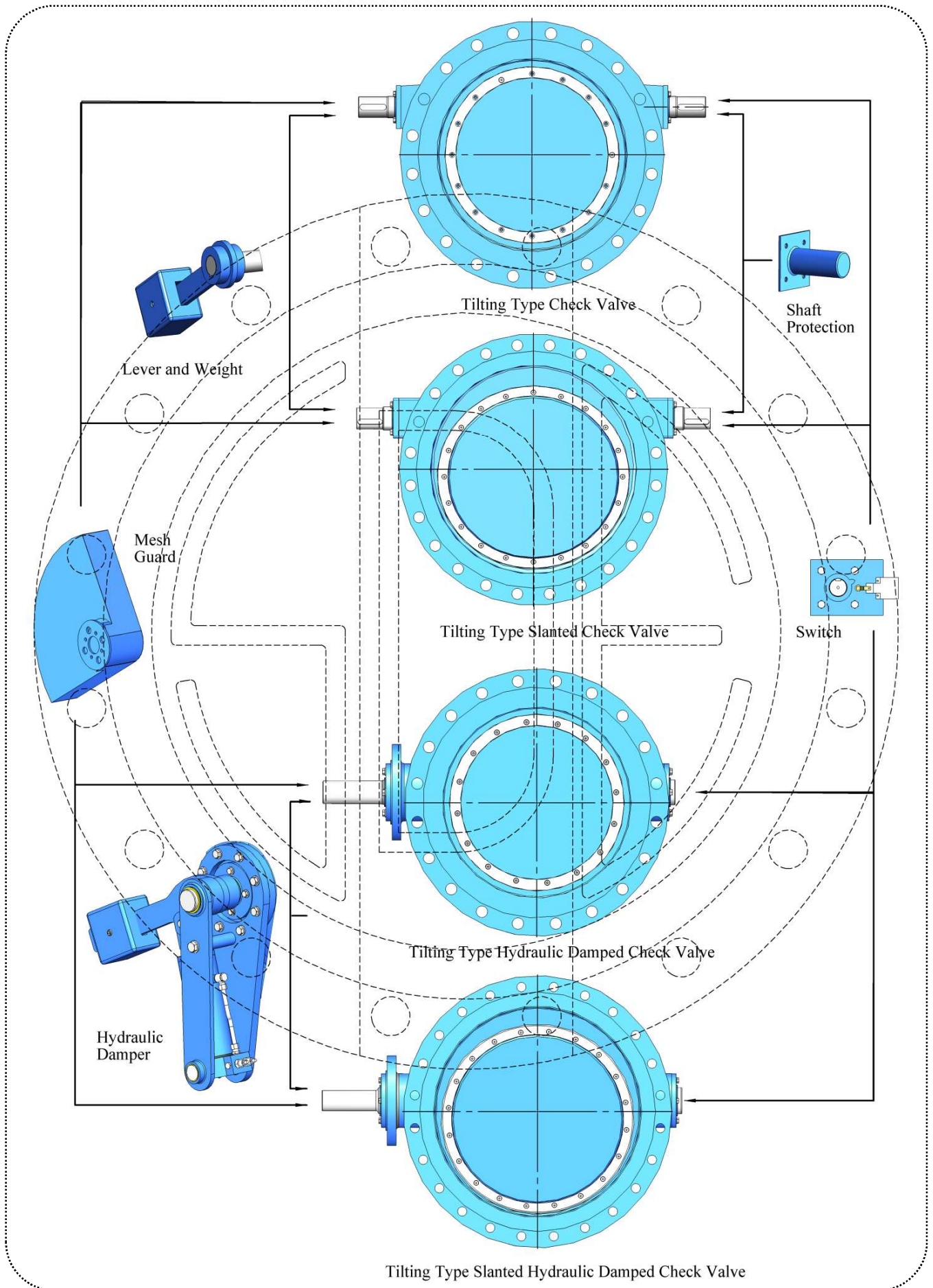
## Shaft Protection,

It is a steel pipe to protect open-end of valve shaft from any damage.

## Maintenance,

There is no need for maintenance for these valves that are installed especially in clean water pipe-line. If valve is uninstalled, it is recommended to check disc ring (rubber ring), o-rings and change if necessary.

ACCESSORIES OF TILTING and SLANTED TYPE CHECK VALVES

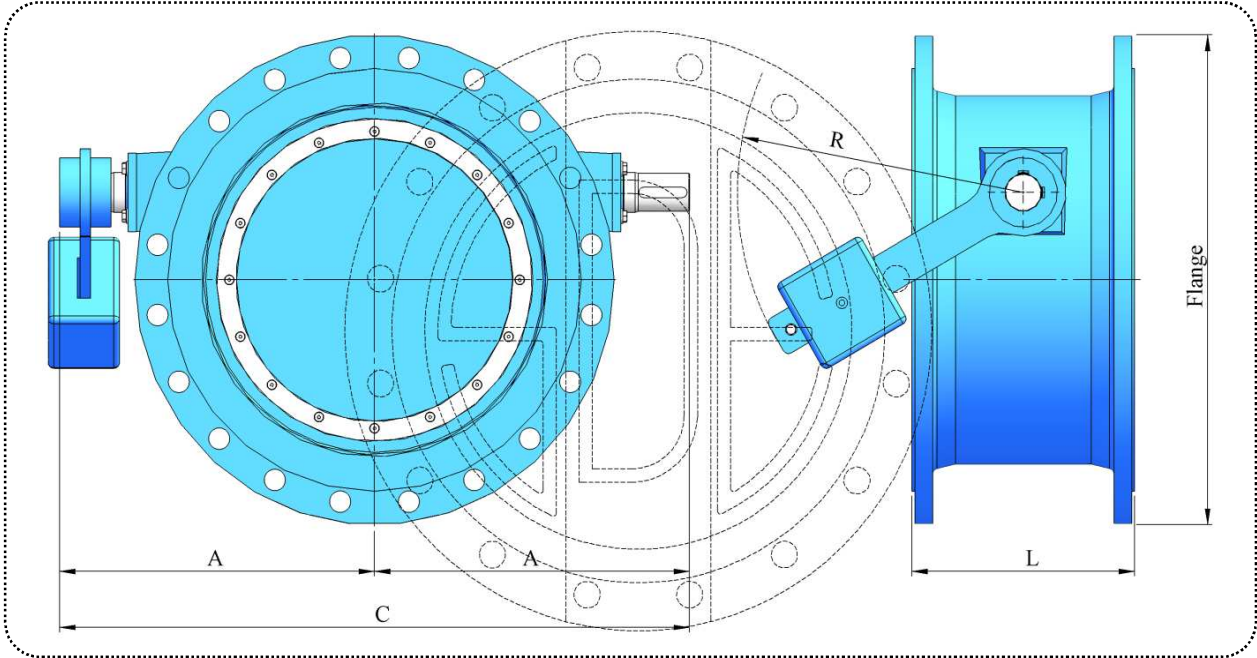


TILTING TYPE CHECK VALVE

Body Length Standard : EN 558-1, S 13

Valve Standard : -

Maximum allowable working temperature for all types of our valves is 80 degrees Celcius.



DIMENSIONS

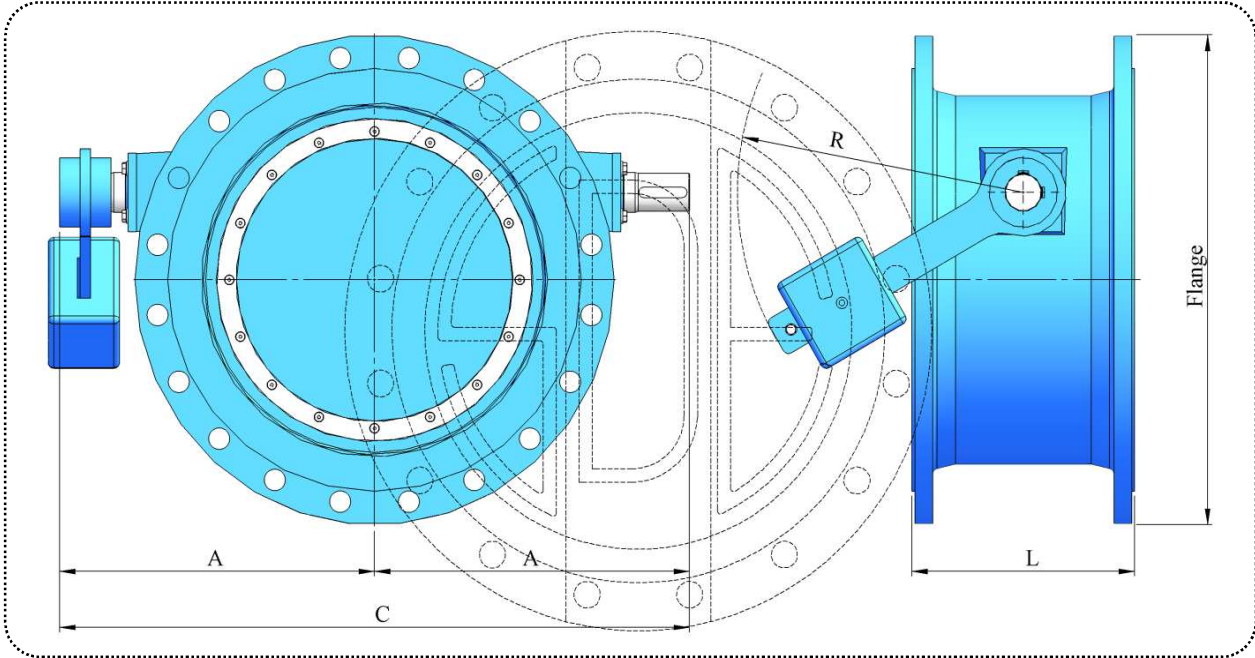
DN	L	PN 10				PN 16			
		A	C	R	Kg	A	C	R	Kg
200	152	245	490	280	53	245	490	280	54
250	165	273	545	280	78	278	555	280	80
300	178	310	620	280	103	318	635	280	106
350	190	353	705	335	129	360	720	335	133
400	216	408	815	335	176	415	830	335	183
450	222	458	915	400	228	470	940	400	238
500	229	485	970	400	256	508	1.015	400	280
550	248	538	1.075	400	290	564	1.128	500	350
600	267	565	1.130	400	320	595	1.190	500	393
650	280	619	1.238	500	395	638	1.275	500	471
700	292	648	1.295	500	449	655	1.310	600	542
750	305	708	1.415	500	538	710	1.420	600	633
800	318	733	1.465	600	641	738	1.475	600	725
900	330	833	1.665	600	866	838	1.675	700	988
1.000	410	890	1.780	700	1.098	903	1.805	700	1.293
1.050	440	968	1.936	700	1.260	978	1.955	700	1.487
1.100	440	996	1.993	700	1.424	1.003	2.005	800	1.706
1.200	470	1.078	2.155	700	1.416	1.093	2.185	800	1.732
1.300	510	1.163	2.325	800	1.797	1.168	2.335	800	2.142
1.400	530	1.213	2.425	800	2.118	1.218	2.435	800	2.479
1.500	575	1.293	2.585	800	2.608	1.310	2.620	900	3.104
1.600	600	1.408	2.815	800	3.164	1.415	2.830	900	3.797
1.700	635	1.508	3.015	900	3.999				
1.800	670	1.558	3.115	900	4.786				
1.900	715	1.660	3.320	900	5.902				
2.000	760	1.713	3.425	900	7.120				
2.100	805	1.819	3.638	1.000	8.629				
2.200	850	1.875	3.750	1.000	10.458				

TILTING TYPE CHECK VALVE

Body Length Standard : EN 558-1, S 14

Valve Standard : -

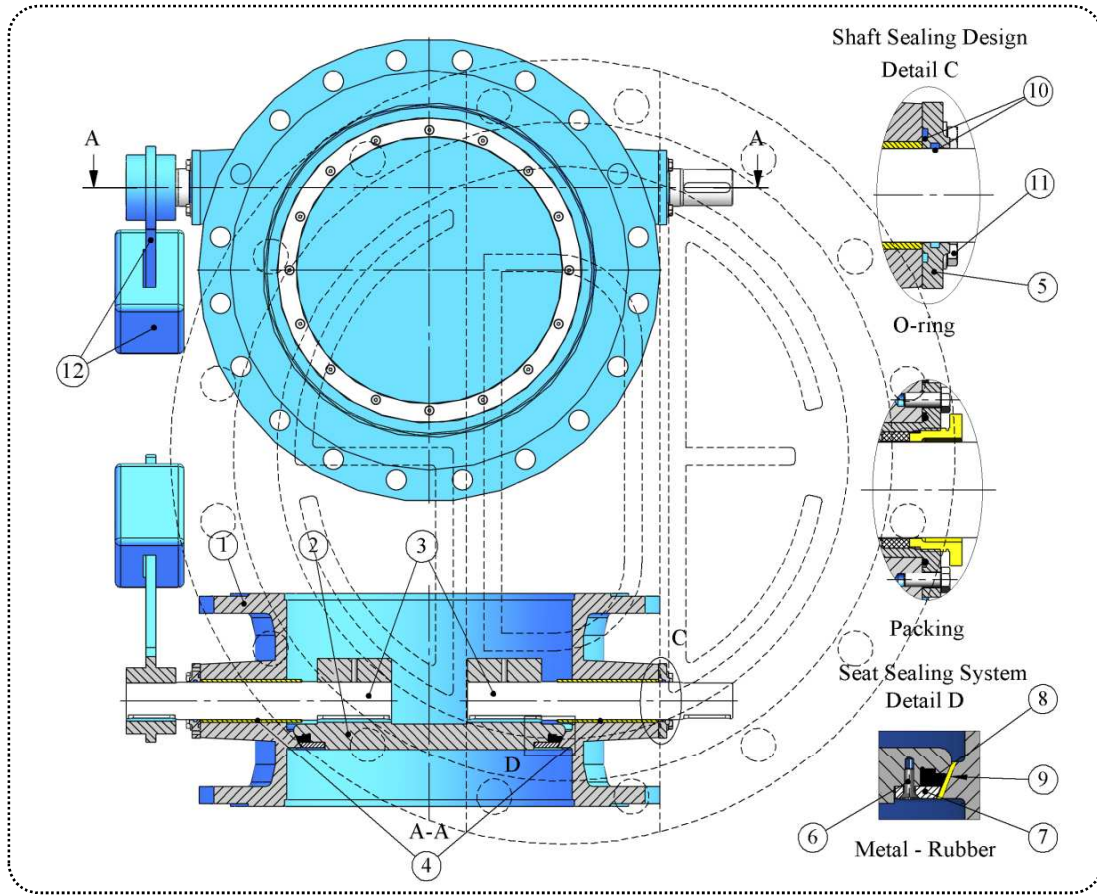
Maximum allowable working temperature for all types of our valves is 80 degrees Celcius.



DIMENSIONS

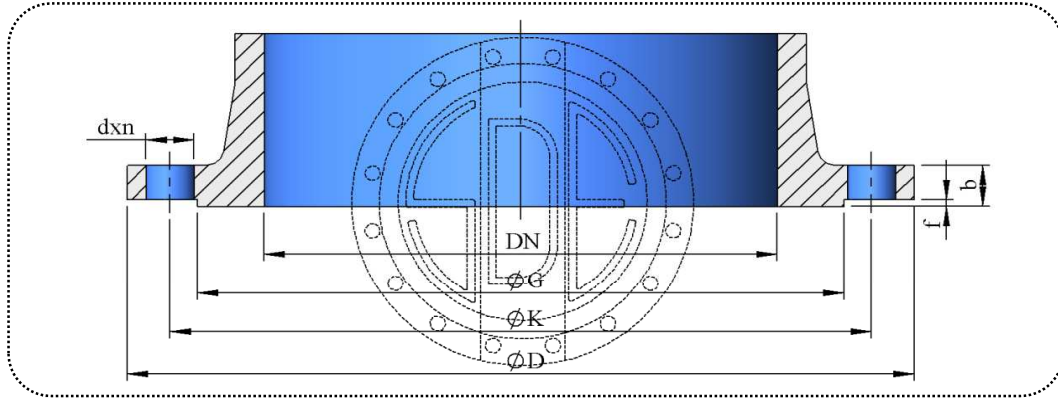
DN	L	PN 10				PN 16			
		A	C	R	Kg	A	C	R	Kg
200	230	245	490	280	56	245	490	280	57
250	250	273	545	280	82	278	555	280	84
300	270	310	620	280	108	318	635	280	111
350	290	353	705	335	135	360	720	335	140
400	310	408	815	335	183	415	830	335	190
450	330	458	915	400	237	470	940	400	248
500	350	485	970	400	268	508	1.015	400	293
550	370	538	1.075	400	302	564	1.128	500	364
600	390	565	1.130	400	333	595	1.190	500	408
650	410	619	1.238	500	410	638	1.275	500	489
700	430	648	1.295	500	466	655	1.310	600	563
750	450	708	1.415	500	558	710	1.420	600	656
800	470	733	1.465	600	663	738	1.475	600	750
900	510	833	1.665	600	900	838	1.675	700	1.024
1.000	550	890	1.780	700	1.126	903	1.805	700	1.327
1.050	570	968	1.936	700	1.289	978	1.955	700	1.520
1.100	590	996	1.993	700	1.462	1.003	2.005	800	1.749
1.200	630	1.078	2.155	700	1.627	1.093	2.185	800	1.976
1.300	670	1.163	2.325	800	2.047	1.168	2.335	800	2.431
1.400	710	1.213	2.425	800	2.439	1.218	2.435	800	2.850
1.500	750	1.293	2.585	800	2.956	1.310	2.620	900	3.506
1.600	790	1.408	2.815	800	3.585	1.415	2.830	900	4.284
1.700	830	1.508	3.015	900	4.482				
1.800	870	1.558	3.115	900	5.340				
1.900	910	1.660	3.320	900	6.507				
2.000	950	1.713	3.425	900	7.781				
2.100	990	1.819	3.638	1.000	9.349				
2.200	1.030	1.875	3.750	1.000	11.244				

TILTING TYPE CHECK VALVE



No	Item Name	Material	Description	EN Standard	Material No
1	Body	GGG 40	Ductile Iron	EN-GJS-450-15	0.7040
		GGG 50		EN-GJS-500-7	0.7050
		ST 37-2	Steel Construction	EN 10025	1.0037
2	Disc	GGG 40	Ductile Iron	EN-GJS-450-15	0.7040
		GGG 50	Ductile Iron	EN-GJS-500-7	0.7050
		304	Stainless Steel Casting	G - X6CrNi 18-9	1.4308
		316		G - X6CrNiMo 18-10	1.4408
CC 331G-GS	Aluminium Bronze	CuAl10Fe2-C	2.0940.01		
3	Shaft	420	Stainless Steel	X20Cr13	1.4021
		304		X5CrNi 18-10	1.4301
		316		X5CrNiMo17-12-2	1.4401
		431		X17CrNi16-2	1.4057
4	Bearing	Rg 5	Bronze	CC 491 K	2.1096.01
5	Covers	GGG 50	Ductile Iron	EN-GJS-500-7	0.7050
6	Bolts of Retainer Ring	A 2 - A 4	Stainless Steel	-	-
7	Retainer Ring	304	Stainless Steel	X5CrNi 18-10	1.4301
		316		X5CrNiMo17-12-2	1.4401
		CC 331G-GS	Aluminium Bronze	CuAl10Fe2-C	2.0940.01
8	Disc Ring	NBR - EPDM	Rubber	-	-
9	Body Seat	316 L	Stainless Steel Welding	12072	1.4430
		CuAl8	Aluminium Bronze Welding	14640 S Cu 6100	2.0921
10	Shaft Sealing	NBR - EPDM	Rubber	-	-
		Packing	Non Asbestos	-	-
11	Bolts of Cover	Galvanized	Steel	-	-
		A 2 - A 4	Stainless Steel	-	-
12	Lever and Weight	GGG 50	Ductile Iron	EN-GJS-500-7	0.7050
Coating		WRAS approved fusion bonded epoxy. 300 microns dft as standard.			
Maximum allowable working temperature for all types of our valves is 80 degrees Celcius.					

FLANGE DIMENSIONS



Nominal Dia	Outside Dia	Raised Face		Flange Holes			Flange Thickness	Outside Dia	Raised Face		Flange Holes			Flange Thickness
		Dia	Height	Circle Dia.	Dia	Num ber			Dia	Height	Circle Dia.	Dia	Num ber	
DN	D	G	f	K	d	n	b	D	G	f	K	d	n	b
PN 10								PN 16						
100	220	158	3	180	19	8	19	220	158	3	180	19	8	19
125	250	188	3	210	19	8	19	250	188	3	210	19	8	19
150	285	212	3	240	23	8	19	285	212	3	240	23	8	19
200	340	268	3	295	23	8	20	340	268	3	295	23	12	20
250	395	320	3	350	23	12	22	405	320	3	355	28	12	22
300	445	370	4	400	23	12	25	460	378	4	410	28	12	25
350	505	430	4	460	23	16	25	520	438	4	470	28	16	27
400	565	482	4	515	28	16	25	580	490	4	525	31	16	28
450	615	532	4	565	28	20	26	640	550	4	585	31	20	30
500	670	585	4	620	28	20	27	715	610	4	650	34	20	32
600	780	685	5	725	31	20	30	840	725	5	770	37	20	36
700	895	800	5	840	31	24	33	910	795	5	840	37	24	40
800	1.015	905	5	950	34	24	35	1.025	900	5	950	41	24	43
900	1.115	1.005	5	1.050	34	28	38	1.125	1.000	5	1.050	41	28	47
1.000	1.230	1.110	5	1.160	37	28	40	1.255	1.115	5	1.170	44	28	50
1.200	1.455	1.330	5	1.380	41	32	45	1.485	1.330	5	1.390	50	32	57
1.400	1.675	1.535	5	1.590	44	36	46	1.685	1.530	5	1.590	50	36	59
1.500	1.785	1.640	5	1.700	44	36	48	1.820	1.640	5	1.710	57	36	63
1.600	1.915	1.760	5	1.820	50	40	49	1.930	1.750	5	1.820	57	40	65
1.800	2.115	1.950	5	2.020	50	44	52	2.130	1.950	5	2.020	57	44	69
2.000	2.325	2.150	5	2.230	50	48	55	2.345	2.150	5	2.230	62	48	73
2.200	2.550	2.370	5	2.440	57	52	59	2.555	2.360	5	2.440	62	52	80
PN 25								PN 40						
100	235	162	3	190	23	8	19	235	162	3	190	23	8	19
125	270	188	3	220	28	8	19	270	188	3	220	28	8	24
150	300	218	3	250	28	8	20	300	218	3	250	28	8	26
200	360	278	3	310	28	12	22	375	285	3	320	31	12	30
250	425	335	3	370	31	12	25	450	345	3	385	34	12	35
300	485	395	4	430	31	16	28	515	410	4	450	34	16	40
350	555	450	4	490	34	16	30	580	465	4	510	37	16	44
400	620	505	4	550	37	16	32	660	535	4	585	41	16	48
450	670	548	4	600	37	20	34	685	560	4	610	41	20	50
500	730	615	4	660	37	20	37	755	615	4	670	44	20	52
600	845	720	5	770	41	20	42	890	735	5	795	50	20	58
700	960	820	5	875	44	24	47	995	840	5	900	50	24	63
800	1.085	930	5	990	50	24	51	1.140	960	5	1.030	57	24	68
900	1.185	1.030	5	1.090	50	28	56	1.250	1.070	5	1.140	57	28	73
1.000	1.320	1.140	5	1.210	57	28	60	1.360	1.180	5	1.250	57	28	80
1.200	1.530	1.360	5	1.420	57	32	69	1.575	1.385	5	1.460	62	32	88
1.400	1.755	1.570	5	1.640	62	36	74	1.795	1.600	5	1.680	62	36	98
1.500	1.865	1.680	5	1.750	62	40	75	1.910	1.700	5	1.790	70	40	102
1.600	1.975	1.790	5	1.860	62	40	81	2.025	1.815	5	1.900	70	40	108
1.800	2.195	2.000	5	2.070	70	44	88							
2.000	2.425	2.230	5	2.300	70	48	95							