



 **RAPHAEL**

Product Brochure

SWING CHECK VALVES

Series ES-51

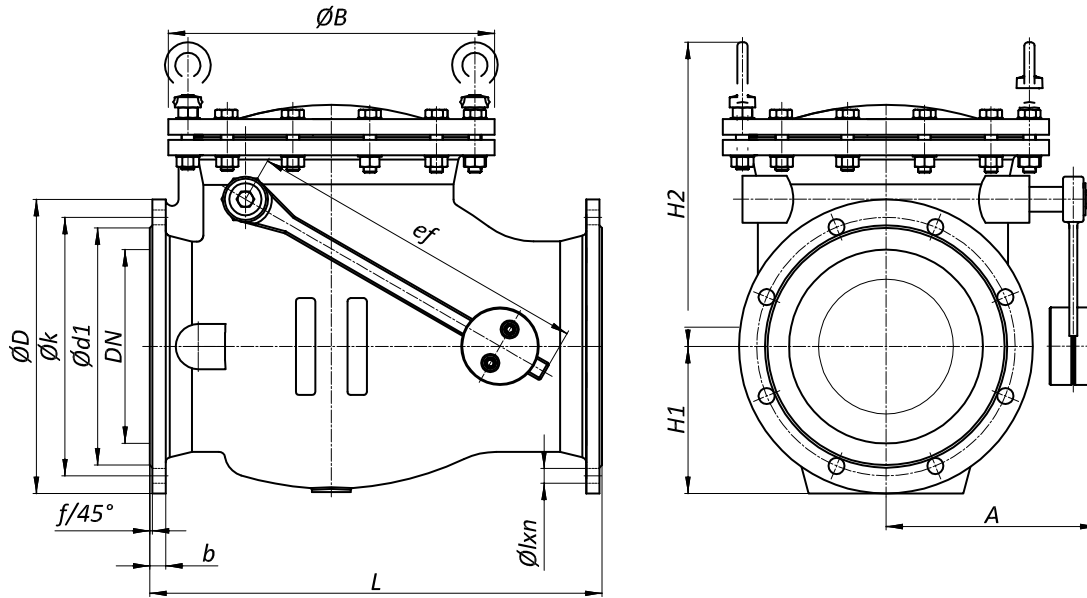


- High quality robust design with full bore and minimum pressure drops.
- Top cover design allows easy maintenance and cleaning without dismantling from the pipe line.
- Optional sealing materials include soft, bronze and stainless steel sealing alternatives
- High Quality anticorrosion coating.
- Optional counterweight for fast closing with possibility for limit switch installation.
- Installation in either horizontal or vertical position.
- Optional hydraulic damper for soft and silent closing.



Nominal Diameter	DN50 ~ 1000mm
Nominal Pressure	PN10/16/25/40
Working Temperature	-10°C ~ 120°C
Seat Test	1.1xPN(Nominal Pressure)
Shell Test	1.5xPN (Nominal Pressure)

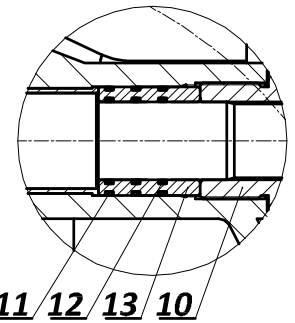
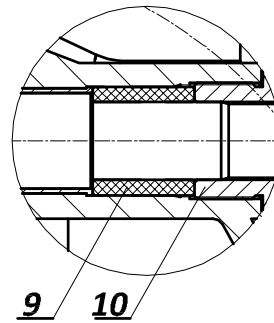
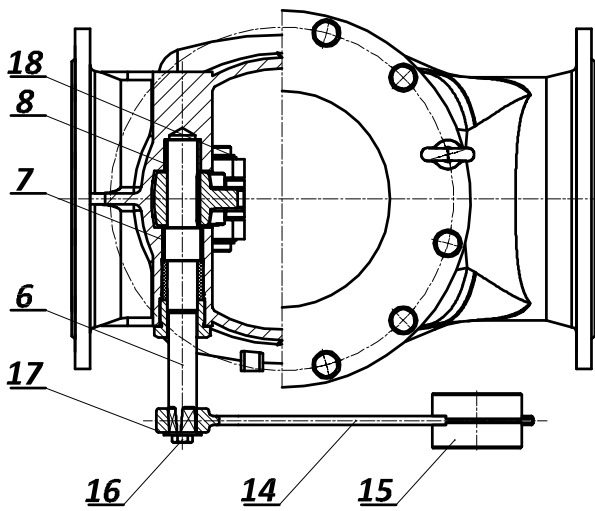
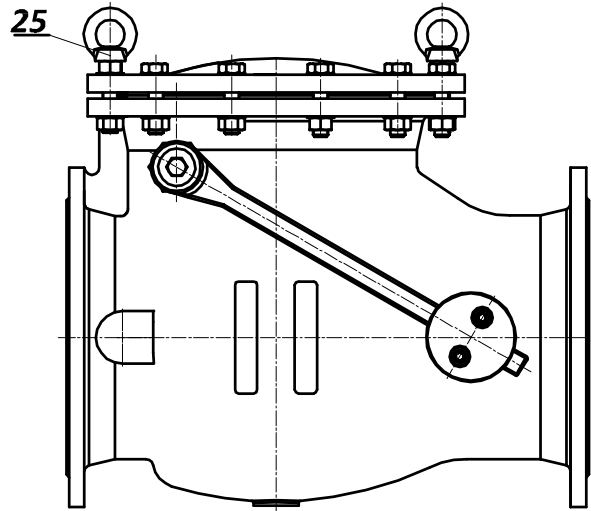
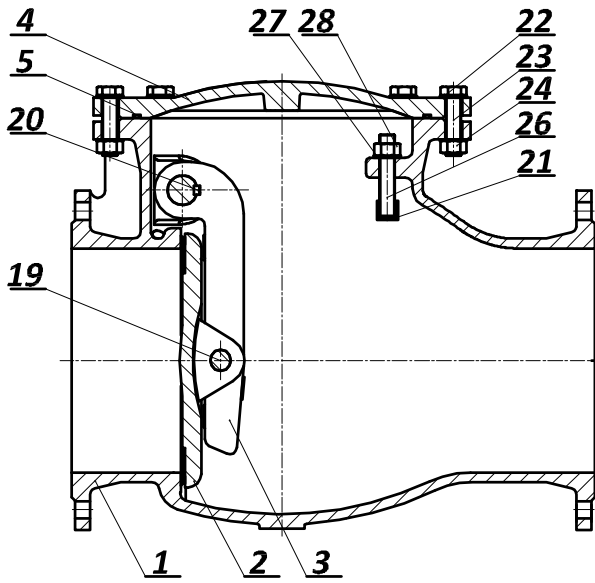
Dimensional Drawing



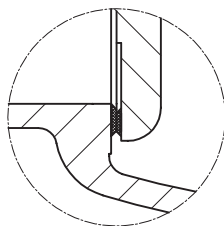
DN	L	H1		H ₂	e _f	A	B	PN 10						PN 16						f	m (kg)
		PN10	PN16					D	k	d ₁	l	n	b	D	k	d ₁	l	n	b		
50	200	87,5	87,5	172	116	132	158	165	125	99	19	4	19	165	125	99	19	4	19	3	17
65	240	97,5	97,5	203	145	150	193	185	145	118	19	4/8	19	185	145	118	19	4/8	19	3	28
80	260	105	105	216	160	152	212	200	160	132	19	8	19	200	160	132	19	8	19	3	30
100	300	115	115	242	190	157	235	220	180	156	19	8	19	220	180	156	19	8	19	3	38
125	350	130	130	260	226	185	265	250	210	184	19	8	19	250	210	184	19	8	19	3	54
150	400	147,5	147,5	279	266	216	302	285	240	211	23	8	19	285	240	211	23	8	19	3	71
200	500	180	180	367	343	265	395	340	295	266	23	8	20	340	295	266	23	12	20	3	125
250	600	207,5	212,5	400	440	272	421	395	350	319	23	12	22	405	355	319	28	12	22	3	160
300	700	232	240	441	535	334	505	445	400	370	23	12	24,5	460	410	370	28	12	24,5	4	210
350	800	262,5	270	514	585	412	560	505	460	429	23	16	24,5	520	470	429	28	16	26,5	4	355
400	900	292,5	300	560	660	465	622	565	515	480	28	16	24,5	580	525	480	31	16	28	4	470
500	1100	345	367,5	675	800	485	730	670	620	582	28	20	26,5	715	650	609	34	20	31,5	4	720
600	1300	400	430	781	900	585	910	780	725	682	31	20	30	840	770	720	37	20	36	5	1000
700	1500	457,5	465	928	1000	610	1025	895	840	794	31	24	32,5	910	840	794	37	24	39,5	5	1720
800	1700	517,5	522,5	1005	1000	742	1115	1015	950	901	34	24	35	1025	950	901	41	24	43	5	2230
900	1900	567,5	572,5	1149	1000	850	1255	1115	1050	1001	34	28	37,5	1125	1050	1001	41	28	46,5	5	3130
1000	2100	625	637,5	1276	1500	869	1355	1230	1160	1112	37	28	40	1255	1170	1112	44	28	50	5	4150

DN	L	H ₁		H ₂	e _f	A	B	PN 25						PN 40						f	m (kg)
		PN25	PN40					D	k	d ₁	l	n	b	D	k	d ₁	l	n	b		
50	200	87,5	87,5	172	116	132	158	165	125	99	19	4	19	165	125	99	19	4	19	3	19
65	240	97,5	97,5	203	145	150	193	185	145	118	19	8	19	185	145	118	19	8	19	3	30
80	260	105	105	216	160	152	212	200	160	132	19	8	19	200	160	132	19	8	19	3	33
100	300	122,5	122,5	242	190	157	235	235	190	156	23	8	19	235	190	156	23	8	19	3	41
125	350	140	140	260	226	185	265	270	220	184	28	8	19	270	220	184	28	8	23,5	3	59
150	400	155	155	279	266	216	302	300	250	211	28	8	20	300	250	211	28	8	26	3	78
200	500	190	197,5	367	343	265	395	360	310	274	28	12	22	375	320	284	31	12	30	3	137

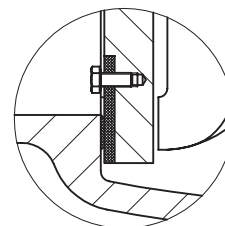
* other nominal sizes on request



SEALING



X15CrNiMn 18-8 / X15CrNiMn 18-8
CC480K / CC480K

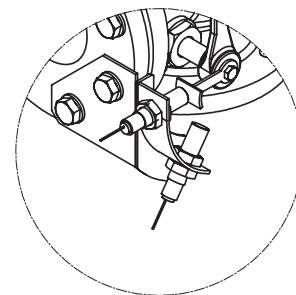


X15CrNiMn 18-8 / EPDM
X15CrNiMn 18-8 / NBR
X15CrNiMn 18-8 / VITON
CC480K / EPDM
CC480K / NBR
CC480K / VITON

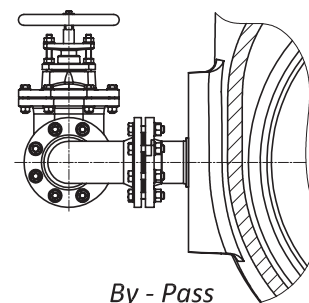
Construction Materials

Optional Features

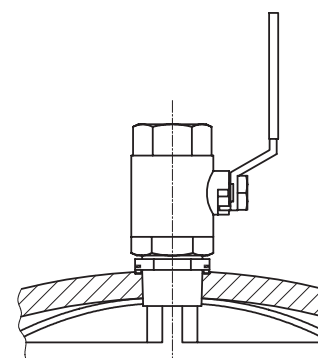
POSITION	PART	MATERIAL
1	Body	EN-GJS-400-15
2	Flap	EN-GJS-400-15
3	Flap Lever	EN-GJS-400-15
4	Cover	EN-GJS-400-15
5	“O” Ring	EPDM
6	Shaft	X20Cr13
7	Bearing Bush I	CC493K
8	Bearing Bush II	CC493K
9	Packing	PTFE
10	Cover	Ms
11	“O” ring	EPDM
12	“O” ring	EPDM
13	Sealing Bush	CC493K
14	Lever	EN-GJS-400-15
15	Weight	EN-GJS-400-15
16	Screw	8.8 galv.
17	Washer	galv.
18	Circlip	A4
19	Pin	X20Cr13
20	Parallel Key	X20Cr13
21	Rubber Bumper	EPDM
22	Washer	galv.
23	Screw	8.8 galv.
24	Nut	8 galv.
25	Lifting Eye Nut	C15
26	Threaded rod	A4
27	Washer	A4
28	Nut	A4



Limit Switches

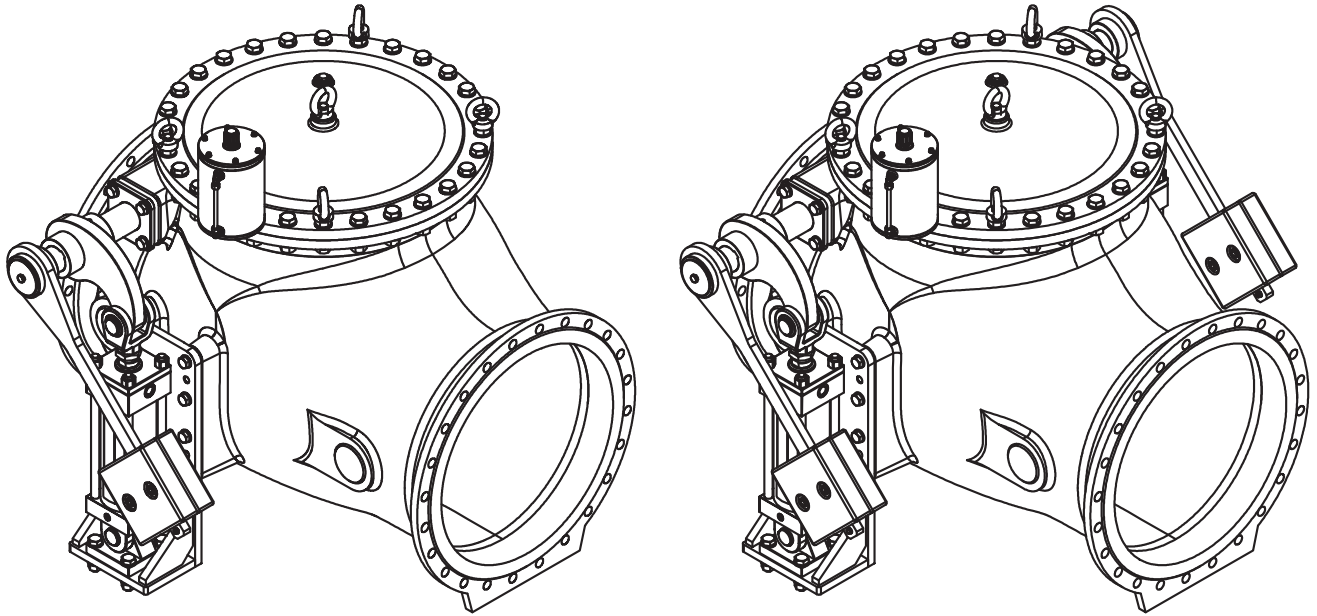


By - Pass



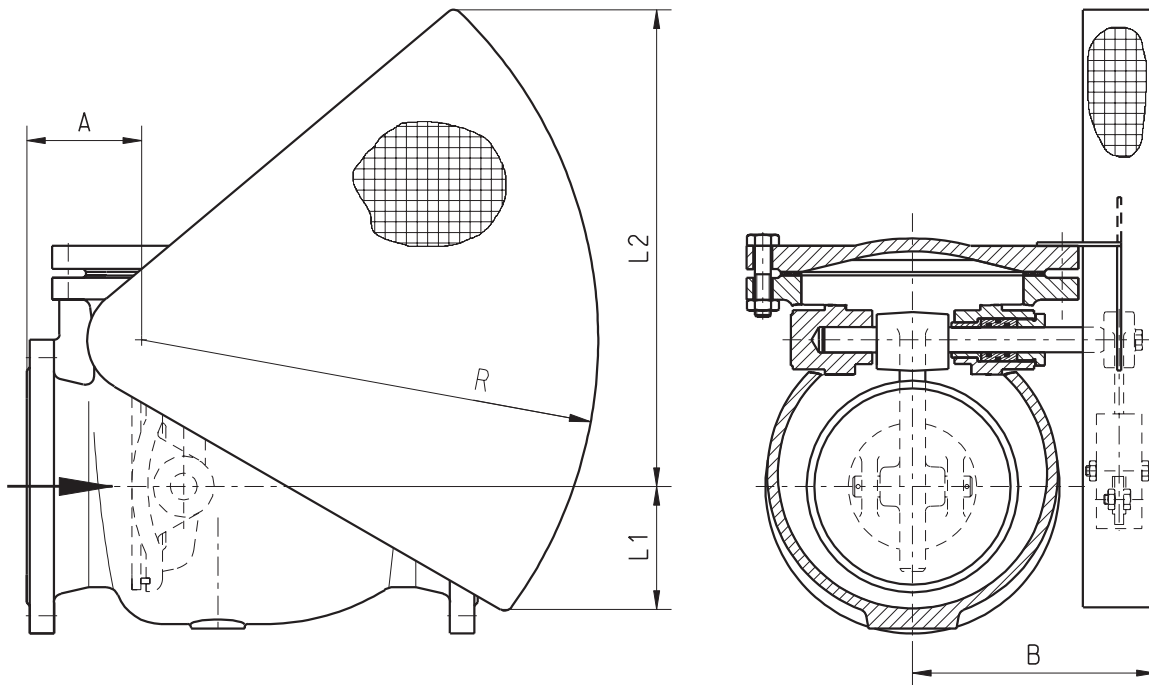
Ball Valve

Optional Features - Hydraulic Damper



DN	ΔPN	DASHPOT ACTUATOR		ΔPN	A DASHPOT ACTUATOR	
		HIDA	Pieces		HIDA	Pieces
100	5,00	50	1			
125	4,50	50	1			
150	4,50	50	1			
200	4,50	50	1	8,00	50	2
250	4,00	50	1	7,50	50	2
300	3,80	50	1	7,00	50	2
350	3,00	50	1	5,50	50	2
400	3,00	80	1	5,00	80	2
500	3,00	80	1	5,00	80	2
600	2,90	80	1	5,00	80	2
700	1,30	125	1	1,5	125	2
800	1,20	125	1	1,5	125	2
900	1,20	125	1	1,5	125	2

Optional Features - Protection Basket



<i>DN</i>	<i>R</i>	<i>L₁</i>	<i>L₂</i>	<i>A</i>	<i>B</i>
50	125	20	170	75	150
65	155	15	220	85	185
80	175	20	240	90	195
100	205	0	280	95	220
125	240	0	330	110	235
150	280	0	400	115	270
200	365	0	500	130	295
250	455	0	585	145	330
300	545	0	750	145	375
350	600	0	830	190	405
400	680	0	955	210	495
500	820	0	970	220	520
600	950	357	1231	260	620
700	1260	465	1330	365	697
800	On request				
900					
1000					



FIRE PROTECTION



IRRIGATION



WATERWORKS



SMART SOLUTIONS

RAPHAEL VALVES INDUSTRIES (1975) LTD, founded in 1949, is the first Israeli manufacturer of water control valves. RAPHAEL's research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire-protection and irrigation systems and other fields.

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