

Primary characteristics

NAF-Duball is a full-bore ball valve which, due to its design and combination of materials, is equally suitable for use as control valve, on/off control valve or shut-off valve. The NAF-Duball is supplied as standard in stainless steel. Also available in other materials e.g. Hastelloy C.

The valve has:

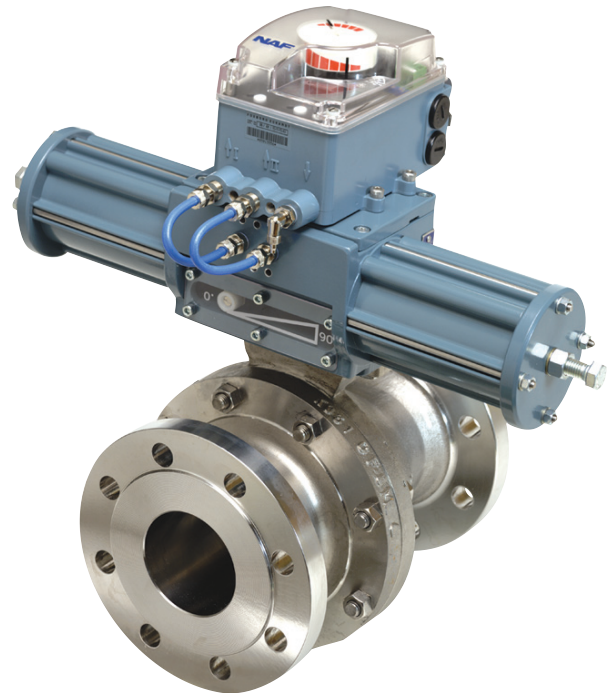
- an easy-to-service arrangement, due to the off-center joint face of the valve body, which allows for easy replacement of the ball and seals, without the need for removing the stem and actuator.
- a floating ball that seals in both directions of flow and at low differential pressures. For tight valve at differential pressures below 0,5 bar consult NAF.
- Sizes DN450-500 Internally trunion ball for lower torque.
- sturdy, blowout-proof rigidly journalled stem and a drive arrangement between the ball and stem that transmits torque evenly
- stem seal with maintenance-free O-ring seals or stuffing box
- metal-to-metal Stellite seat rings or soft, enclosed carbon reinforced PTFE seat rings.
- a range of materials available for the ball
- a wide range of optimal versions, over and above those described in the catalogue sheet
- the NAF standard for mounting the actuator, which simplifies installation and results in a compact valve/actuator unit.

CE-marked according to Pressure Equipment Directive (PED 97/23/EG) module H, category III.
For module H1, category IV contact NAF

Applications

NAF-Duball can be used both as a control valve and as a shut-off valve, in a wide variety of applications and in different operating modes. The valve represents a concrete result of our product philosophy which is focused on functionality, high quality and low life cycle costs, and is based on concentrating our range to a limited number of valve types, but all of them suitable for a wide variety of applications.

The excellent characteristics of NAF-Duball are particularly beneficial under the most arduous operating conditions in the process industry, where difficult media and demanding pressure conditions make severe demands on the design, materials and performance.

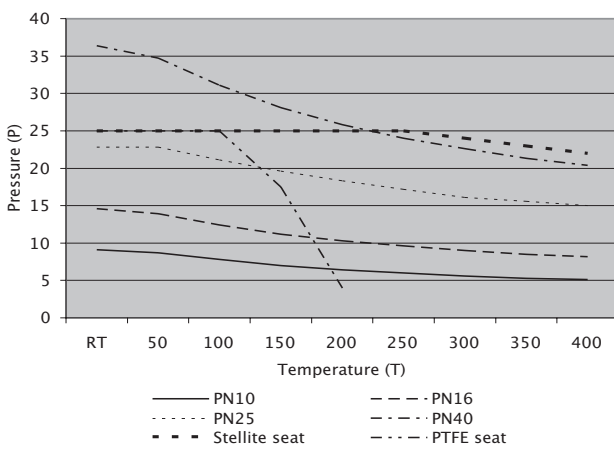


Technical specification

Material:	Stainless steel
Size range:	DN 25—500 (1"—20")
Pressure ratings:	PN 10—40 ANSI Class 150—300
Face-to face lengths:	PN 10: EN 558-1 series 12 (SSG 1042) ANSI 150: ANSI B 16.10 Class 150 long PN 25—40: EN 558-1 series 4 (SSG 1043) ANSI 300: ANSI B 16.10 Class 300 short Size 1"—12" Class 300 long Size 14"—20"
Installation method:	Flanges to DIN or ANSI B 16.5
Temperature range:	-30 - 350°C, see graph on page 2
Test pressure:	1,5xPN with valve open 1,1xPN with valve closed
Sealing class:	PTFE seats ISO 5208 -2 Rate A DIN 3230 BN Leckrate 1 Metal seats IEC 534-4 Class V ANSI B 16-104-V

Working pressure, differential pressure and temperature

The maximum working pressure and temperature in the body depends on pressure class according to respectively flange standards. For EN1092-1:2001 see Fk91.12. The differential pressure when the valve is closed is 25 bar, and the temperature dependence is shown in the diagram. The stem gland with EPDM O-ring can be used for temperatures up to 200°C. The standard design of stem gland with stuffing box and graphite packing and stem bushings in Stellite can be used for temperatures up to 350°C. For higher temperatures, consult NAF.



Flow capacities and characteristics (Table 1)

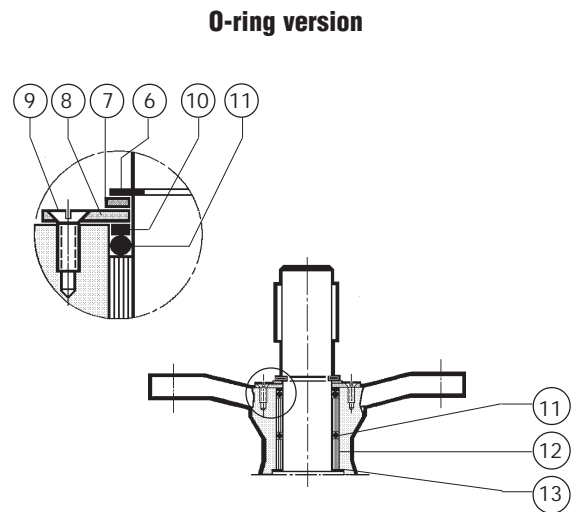
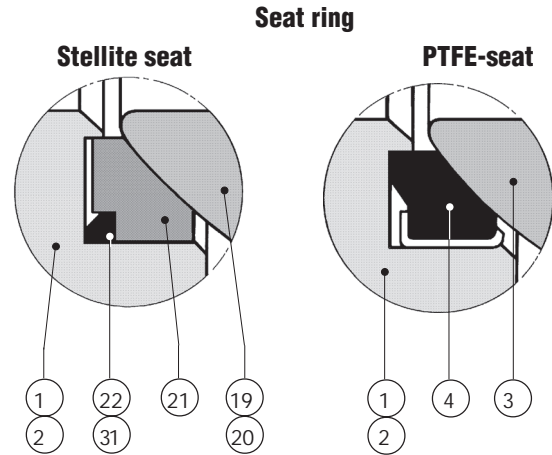
DN	K _v at an opening angle of															
	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
25	0	1	1	2	2	3	4	5	7	9	12	16	22	31	45	63
40	0	2	3	4	6	8	11	14	18	24	31	40	55	79	116	160
50	1	3	4	6	9	13	17	21	28	37	48	63	86	123	182	250
65	1	5	7	11	16	21	28	36	48	63	81	106	145	209	307	423
80	2	7	11	16	24	32	42	55	72	95	122	161	220	316	466	640
100	3	11	17	26	37	50	66	86	113	149	191	251	344	494	728	1000
125	5	17	26	40	58	78	103	134	176	232	199	393	538	771	1137	1563
150	7	24	38	58	84	113	149	193	254	334	430	565	775	1111	1637	2250
200	12	43	67	103	149	200	265	343	451	594	765	1005	1377	1975	2910	4000
250	19	67	105	160	233	313	411	535	705	929	1195	1570	2150	3086	4547	6250
300	27	97	151	231	335	450	596	771	1015	1337	1721	2261	3098	4444	6548	9000
350	37	132	205	315	456	613	811	1049	1381	1820	2343	3078	4217	5848	8192	11250
400	48	172	268	411	596	800	1059	1370	1804	2377	3060	4020	5508	7900	11640	16000
450	61	218	339	520	754	1013	1340	1734	2283	3009	3873	5088	6971	9998	14732	20250
500	75	269	419	642	931	1250	1654	2141	2819	3714	4781	6281	8606	12344	18188	25000

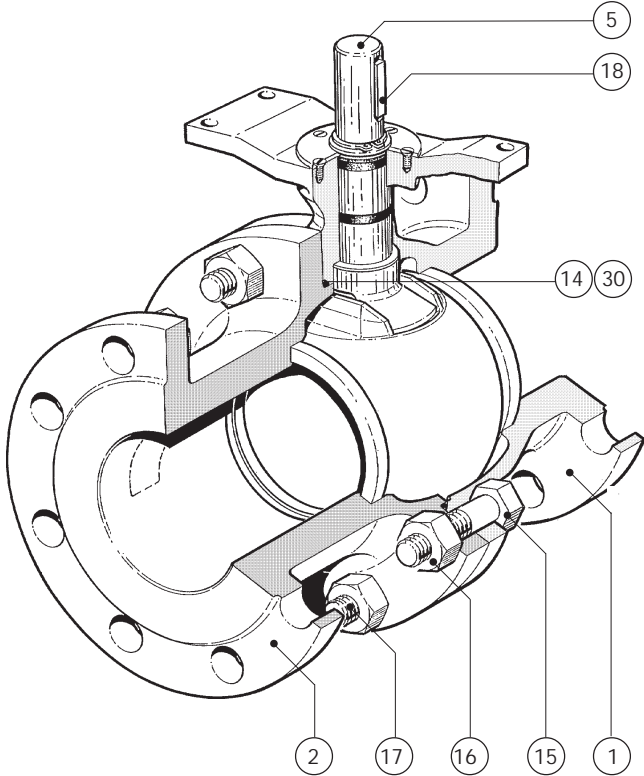
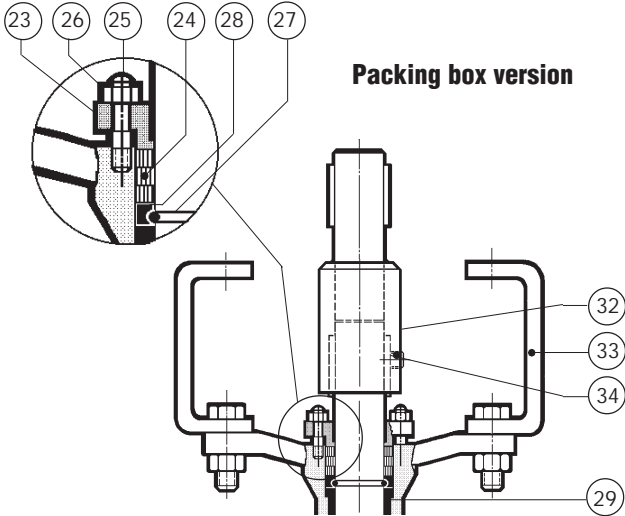
$$C_v = 1.16 \times K_v$$

Materials (Table 2)

Item	Qty	Part	Material
1	1	Body	EN 1.4408/CF8M
2	1	Body	EN 1.4408/CF8M
3	1	Ball	EN 1.4408/CF8M
4*	2	Seat ring	PTFE carbon reinforced 10%
5	1	Stem assembly	EN 1.4460
6	1	Circlip	Spring steel
7	1	Backing ring	PTFE
8	1	Washer	A4
9	1	Screw	A4
10*	1	Backing ring	PTFE
11*	2	O-ring	EPDM
12*	2	Bushing	PTFE carbon reinforced
13*	1	Anti friction washer	PTFE carbon reinforced
14*	1	Seal ring	PTFE
15	1	Bolt	A4
16	1	Nut	A4
17	1	Stud	A4
18	2	Key	Steel
19	1	Ball	EN 1.4408/CF8M hard chrome plated
20	1	Ball	Stellit
21	2	Seat ring	Stellit
22*	2	Seat seal	PTFE carbon reinforced
23	1	Gland cover	EN 1.4408/CF8M
24*	1	Boxpacking	Graphite
25	2	Bolt	A4
26	2	Nut	A4
27	1	Split ring	EN 1.4436
28	1	Ring	Stellit
29	2	Bushing	Stellit
30*	1	Seal ring	Graphite
31*	2	Seal ring	Graphite
32	1	Stem extension	EN 1.4460
33	2	Actuator yoke	Zink plated steel
34	1	Stop screw	A4

* Recommended spare parts
 Items 23—34 are for the stuffing box version for 350°C. Material combinations others than those specified are available to order - consult your NAF representative.





Operating torque, Nm (Table 3)

DN	Differential pressure in bar									
	5		10		16		20		25	
	PTFE	Stellite	PTFE	Stellite	PTFE	Stellite	PTFE	Stellite	PTFE	Stellite
25	12	15	16	20	19	23	22	30	25	35
40	16	20	23	28	30	36	35	42	40	50
50	20	25	30	36	40	48	48	60	60	70
65	30	36	50	60	75	85	85	105	110	130
80	55	65	90	110	130	160	160	200	200	240
100	95	115	160	190	250	280	300	350	350	450
125	180	210	320	390	480	550	530	690	680	850
150	300	350	530	620	750	950	920	1150	1100	1400
200	750	930	1350	1600	1900	2400	2380	2900	2900	3500
250	1500	1750	2500	3000	3600	4500	4400	5400	5200	6500
300	2400	3200	4000	5100	6000	7500	7200	9000	9000	11000
350	3800	4500	6400	8000	10000	12000	11500	14500	14500	18000
400	5500	7000	9700	12000	15000	18000	18000	22000	22000	26000
450	2300	2500	3900	4300	5900	6500	7100	7900	8700	9700
500	3600	4000	5700	6300	8600	9600	10600	11800	13000	14500

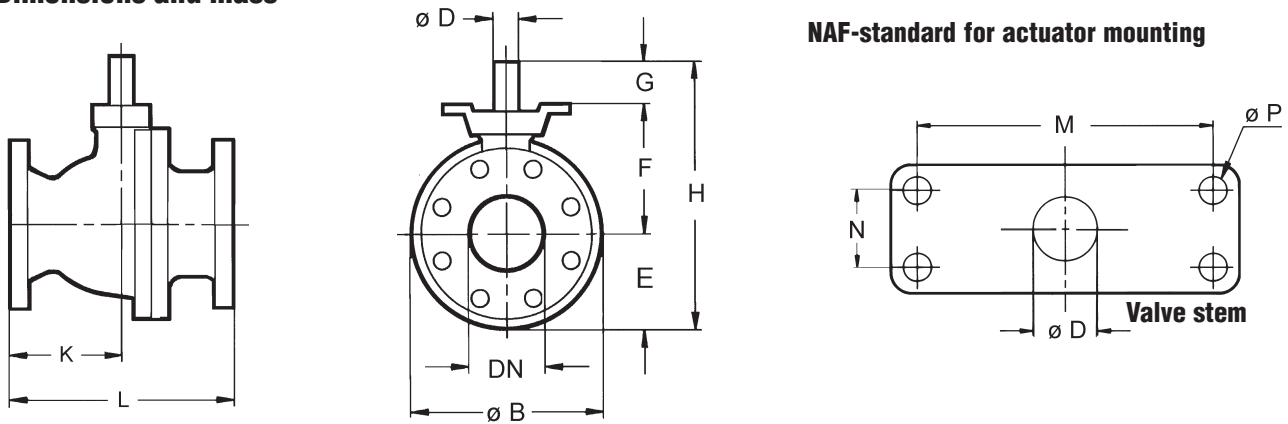
Operating torque

The minimum design differential pressure for selecting the actuator is 5 bar. The specified torques in the table above are for clean media. For steam and with Stellite seat rings increases the required torque with factor 1.5. If the media contains solids, if it is a suspension, etc., consult NAF.

Sizing of control valves

We have a Windows based valve calculation program which is advanced but very easy to use. This program can be ordered through your NAF representative. The program is based on calculating formula according to the standards IEC 534, ISA S75.01 and VDMA 24422.

Dimensions and mass



(Table 4)

DN/Size	B	D	E	F	G	H	K PN10	L PN10	K PN25	L PN25	K PN40	L PN40
25 1"	124	16	62	83	38	183	1)	1)	2)	2)	66	165
40 1,5"	150	16	75	91	38	204	1)	1)	2)	2)	95	190
50 2"	165	20	83	106	43	232	1)	1)	2)	2)	108	216
65 -	185	25	93	113	50	256	111	222	2)	2)	121	241
80 3"	214	25	107	137	50	284	121	241	2)	2)	142	283
100 4"	244	25	122	152	50	324	153	305	2)	2)	153	305
125 -	290	35	145	179	65	389	178	356	2)	2)	191	381
150 6"	336	40	168	218	80	466	197	394	2)	2)	202	403
200 8"	452	50	226	268	93	587	229	457	251	502	251	502
250 10"	528	60	264	321	111	696	267	533	284	568	284	568
300 12"	622	70	311	379	131	821	305	610	324	648	324	648
350 14"	688	90	344	467	172	983	343	686	381	762	381	762
400 16"	767	100	384	518	190	1092	381	762	419	838	419	838
450 18"	827	80	414	542	149	1105	432	864	457	914	457	914
500 20"	936	80	468	596	149	1213	457	914	496	991	496	991

(Table 5)

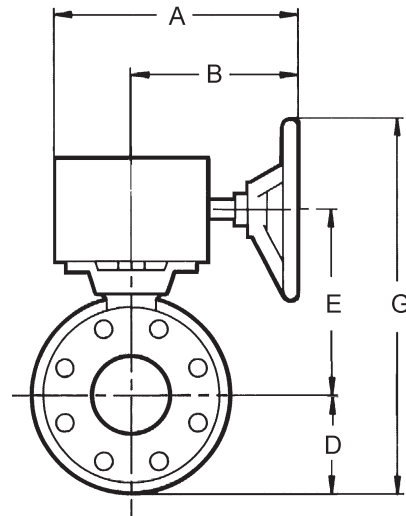
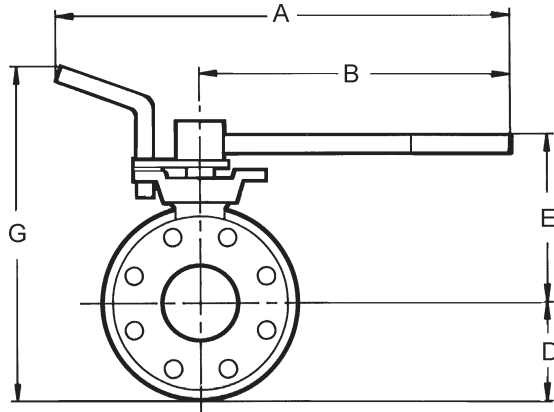
Size DN	K	L	K	L	M	N	P	Mass, kg				
								ANSI 150	ANSI 300	PN 10	PN 25	PN 40
25 1"	52	127	66	165	115	30	11	1)	2)	9	9	10
40 1,5"	60	165	95	190	115	30	11	1)	2)	11	11	12
50 2"	74	178	108	216	115	30	11	1)	2)	14	13	14
65 -	-	-	-	-	115	30	11	17	2)	19	-	-
80 3"	102	203	142	283	115	30	11	23	2)	27	23	30
100 4"	107	229	153	305	115	30	11	33	2)	36	36	43
125 -	-	-	-	-	160	40	14	53	2)	61	-	-
150 6"	197	394	202	403	214	60	18	74	2)	81	75	91
200 8"	229	457	210	419	214	60	18	124	144	154	127	148
250 10"	267	533	229	457	214	60	18	197	222	241	203	232
300 12"	305	610	251	502	277	115	33	298	334	364	316	340
350 14"	343	686	381	762	277	115	33	422	504	539	437	542
400 16"	381	762	419	838	277	115	33	570	668	728	591	716
450 18"	432	864	457	912	277	115	33	850	952	990	886	1054
500 20"	457	914	496	991	277	115	33	1190	1317	1373	1246	1456

1) For PN 10 in sizes DN 25-50 see PN40
 2) For PN 25 in sizes DN 25-150 see PN 40

Actuators

NAF-Duball is available with hand levers or with pneumatic or electric actuators and accessories. Use the following tables for selecting the hand levers and standard pneumatic actuators. (For clean media)

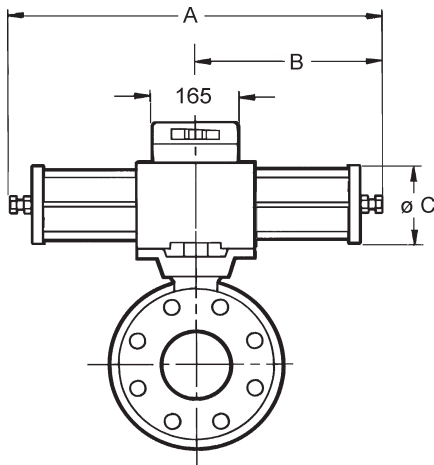
If other pneumatic or electric actuators are required, consult your NAF representative.



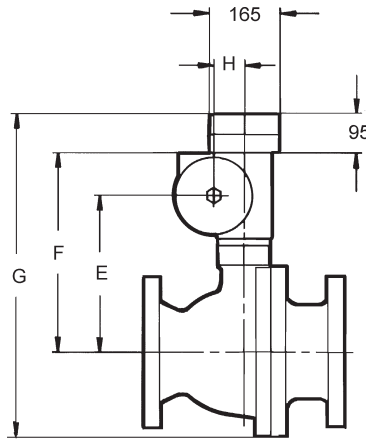
NAF-Duball valves with hand levers (Table 6)

Size DN	Max. dp bar Seat of		NAF No.	Dimensions, mm					Mass kg ¹⁾
	PTFE	Stellite		A	B	D	E	G	
Hand lever as per Fk 70.51									
25	25	25	791020-1	500	350	62	121	265	11
40	25	25	-1	500	350	75	129	286	13
50	25	25	-2	500	350	83	144	309	16
65	25	25	-3	500	350	93	161	335	21
80	15	13	-3	500	350	107	185	374	29
100	10	8	-3	615	450	122	200	404	38
Worm gear actuator as per Fk 70.74²⁾									
25	25	25	791009-0013	227	169	62	133	295	15
40	25	25	-0013	227	169	75	141	316	17
50	25	25	-0014	227	169	83	156	339	20
65	25	25	-0015	227	169	93	163	356	25
80	25	25	-0015	227	169	107	187	394	33
100	25	25	-0015	227	169	122	198	418	42
125	25	25	-0027	298	223	145	231	476	75
150	25	18	-0028	298	223	168	272	590	92
150	25	25	-0044	347	248	168	277	620	99
200	15	12	-0046	347	248	226	316	717	162
200	25	25	-0052	457	331	226	333	787	178
250	15	12	-0054	457	331	264	386	879	256
250	21	16	-0064	514	356	264	400	892	269
250	25	25	791003-0074	589	446	264	393	835	281
300	16	13	-0076	589	446	311	436	925	393
300	22	17	-0576	589	446	311	436	925	393
300	25	25	-0103	676	498	311	479	1018	444
350	21	16	-0105	676	498	344	547	1120	611
350	25	25	-0115	796	564	344	550	1200	673
400	13	10	-0106	676	498	384	600	1213	775
400	18	14	-0116	796	564	384	603	1292	837
400	25	25	-0126	754	522	384	603	1216	846
450	18	14	-0077	589	446	414	599	1191	1011
450	25	18	-0577	589	446	414	599	1191	1031
450	25	25	-0104	676	498	414	642	1285	1059
500	25	18	-0104	676	498	468	676	1373	1424

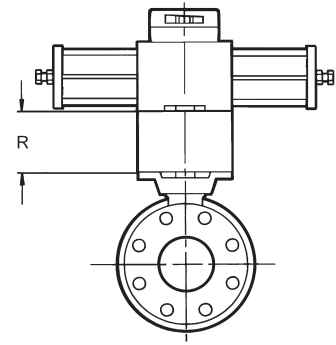
1) Applies to actuator + PN 25 valve



NAF 791290/791390



High-level mounting of the actuator must be employed for a valve with stuffing box. A spacer with height R is then required.



NAF-Duball valves with pneumatic actuators (Table 7)

The below stated dP apply for clean media type water. For other media contact NAF, see also page 6.

Size DN	Max. dP bar at supply of						NAF No.	Dimensions, mm										Mass kg ¹⁾
	4 bar		5 bar		6 bar			A	B	C	D	E	F	G ²⁾	H	R		
	PTFE	Stellite	PTFE	Stellite	PTFE	Stellite												
Double acting as per Fk 74.59																		
25	25	25	25	25	25	25	791290-0216	370	185	80	62	133	185	342	31	70	15	
40	25	25	25	25	25	25	-0216	370	185	80	75	141	193	363	31	70	17	
50	25	25	25	25	25	25	-0220	370	185	80	83	156	208	385	31	70	18	
65	18	15	25	19	25	25	-0225	370	185	80	93	163	215	403	31	70	23	
65	25	25	25	25	25	25	-1225	490	245	100	93	168	225	416	40	70	25	
80	9	7	11	9	19	12	-0225	370	185	80	107	187	239	441	31	70	31	
80	20	16	25	21	25	25	-1225	490	245	100	107	192	249	451	40	70	33	
80	25	25	25	25	25	25	-2125	700	350	145	107	212	285	487	63	70	44	
100	-	-	5	-	7	5	-0225	370	185	80	122	202	264	471	31	70	40	
100	10	8	13	11	17	13	-1225	490	245	100	122	207	264	481	40	70	42	
100	22	17	25	24	25	25	-2125	700	350	145	122	227	300	517	63	70	53	
125	10	8	13	11	17	13	-2135	700	350	145	145	254	327	567	63	80	78	
125	23	19	25	25	25	25	-2235	700	350	145	145	254	327	567	63	80	78	
150	5	-	7	6	9	8	-2140	700	350	145	168	293	366	629	63	120	98	
150	13	10	17	13	21	16	-2240	700	350	145	168	293	366	629	63	120	98	
150	25	22	25	25	25	25	-3240	820	410	200	168	318	418	681	75	120	110	
200	8	6	10	8	13	10	-3150	820	410	200	226	368	468	789	75	120	173	
200	17	13	21	17	25	21	-3250	820	410	200	226	368	468	789	75	120	173	
200	25	25	25	25	25	25	791390-4250	1110	555	260	226	396	528	849	100	120	189	
250	8	6	10	8	12	10	-4160	1110	555	260	264	450	582	941	100	120	267	
250	18	14	23	18	25	22	-4260	1110	555	260	264	450	582	941	100	120	267	
250	25	25	25	25	25	25	-5160	1680	840	395	264	486	651	1010	150	120	442	
300	-	-	5	-	7	5	-4170	1110	555	260	311	507	639	1045	100	250	379	
300	10	7	13	10	16	12	-4270	1110	555	260	311	507	639	1045	100	250	379	
300	22	17	25	23	25	25	-5170	1680	840	395	311	544	709	1115	150	250	554	
300	25	25	25	25	25	25	-5270	1680	840	395	311	544	709	1115	150	250	554	
350	13	10	16	13	21	17	-5190	1680	840	395	344	632	762	1200	150	250	724	
350	25	22	25	21	25	25	-5290	1680	840	395	344	632	762	1200	150	250	724	
400	8	5	10	8	13	10	-5100	1680	840	395	384	680	845	1324	150	250	888	
400	18	14	22	18	24	23	-5200	1680	840	395	384	680	845	1324	150	250	888	
450	-	-	5	-	7	6	-4180	1110	555	260	452	670	802	1349	100	250	997	
450	10	8	14	11	17	14	-4280	1110	555	260	452	670	802	1349	100	250	997	
450	23	19	25	25	25	25	-5180	1680	840	395	452	704	869	1416	150	250	1172	
450	25	25	25	25	25	25	-5180	1680	840	395	452	704	869	1416	150	250	1172	
500	14	13	18	16	23	21	-5180	1680	840	395	596	758	923	1614	150	250	1537	
500	25	25	25	25	25	25	-5280	1680	840	395	596	758	923	1614	150	250	1537	

1) Applies to actuator + PN 25 valve

(Table 8)

The below stated dP apply for clean media type water.
For other media contact NAF, see also page 6.

Size DN	Max dP bar at supply of						NAF No.	Dimensions, mm									Mass kg ¹⁾
	4 bar		5 bar		6 bar			A	B	C	D	E	F	G ²⁾	H	R	
	PTFE	Stellite	PTFE	Stellite	PTFE	Stellite											
Single-acting, spring to close as per Fk 74.59																	
25	25	20	25	25	25	25	791292-0216	455	270	80	62	133	185	342	31	70	14
40	16	12	25	22	25	25	-0216	455	270	80	75	141	193	363	31	70	16
40	25	25	25	25	25	25	-1216	635	390	100	75	146	203	373	40	70	20
50	10	8	18	15	25	20	-0220	455	270	80	83	156	208	385	31	70	19
50	25	25	25	25	25	25	-1220	635	390	100	83	161	218	395	40	70	23
65	16	13	25	25	25	25	-1225	635	390	100	93	168	225	413	40	70	28
80	8	6	15	12	19	12	-1225	635	390	100	107	192	249	451	40	70	36
80	25	25	25	25	25	25	-2225	890	540	145	107	212	285	487	63	70	50
100	-	-	8	6	10	6	-1225	635	390	100	122	207	264	481	40	70	45
100	20	16	25	25	25	25	-2225	890	540	145	122	227	300	517	63	70	59
125	9	7	17	14	22	14	-2235	890	540	145	145	254	327	567	63	80	84
125	25	25	25	25	25	25	-3235	1050	640	200	145	279	379	619	75	80	104
150	5	-	10	8	12	8	-2240	890	540	145	168	293	366	629	63	120	104
150	25	20	25	25	25	25	-3240	1050	640	200	168	318	418	681	75	120	124
150	25	25	25	25	25	25	791392-4240	1520	965	260	168	246	478	741	100	120	181
200	8	6	13	8	17	8	791292-3250	1050	640	200	226	368	468	789	75	120	187
200	14	11	25	22	25	22	791392-4250	1520	965	260	226	396	528	849	100	120	244
250	6	5	14	10	17	10	-4260	1520	965	260	264	450	582	941	100	120	322
250	25	25	25	25	25	25	-5260	2210	1370	395	264	486	651	1010	150	120	687
300	-	-	7	5	9	5	-4270	1520	965	260	311	507	639	1045	100	250	434
300	25	19	25	25	25	25	-5270	2210	1370	395	311	544	709	1115	150	250	800
350	14	11	22	18	25	18	-5290	2210	1370	395	344	632	762	1200	150	250	969
400	9	6	14	11	17	11	-5200	2210	1370	395	384	680	845	1324	150	250	1133
450	-	-	7	6	9	6	-4280	1520	965	260	452	670	802	1349	160	250	1052
450	52	21	25	25	25	25	-5280	2210	1370	395	452	704	869	1416	150	250	1417
500	15	14	25	22	25	22	-5280	2210	1370	395	596	758	923	1614	150	250	1782
Single-acting, spring to open as per Fk 74.59																	
25	6	-	25	25	25	25	791294-0216	455	270	80	62	133	185	342	31	70	14
40	-	-	20	15	25	25	-0216	455	270	80	75	141	193	363	31	70	16
40	25	17	25	25	25	25	-1216	635	390	100	75	146	203	373	40	70	20
50	-	-	12	9	22	18	-0220	455	270	80	83	156	208	385	31	70	19
50	25	12	25	25	25	25	-1220	635	390	100	83	161	218	395	40	70	23
65	10	5	25	19	25	22	-1225	635	390	100	93	168	225	413	40	70	28
65	25	25	25	25	25	25	-2225	635	390	100	93	188	261	449	63	70	42
80	5	-	16	9	16	13	-1225	635	390	100	107	192	249	451	40	70	36
80	25	14	25	25	25	25	-2225	890	540	145	107	212	285	487	63	70	50
100	-	-	8	-	8	7	-1225	635	390	100	122	207	264	481	40	70	45
100	8	7	25	22	25	25	-2225	890	540	145	122	227	300	517	63	70	59
100	25	14	25	25	25	25	-3225	1050	640	200	122	252	352	569	75	70	79
125	6	-	19	11	19	16	-2235	890	540	145	145	254	327	567	63	80	84
125	23	14	25	25	25	25	-3235	1050	640	200	145	279	379	619	75	80	104
150	-	-	10	6	10	9	-2240	890	540	145	168	293	366	629	63	120	104
150	13	8	25	23	25	25	-3240	1050	640	200	168	318	418	681	75	120	124
150	22	12	25	25	25	25	791394-4240	1520	965	260	168	346	478	741	100	120	181
200	-	-	14	8	14	11	791294-3250	1050	640	200	226	368	468	789	75	120	187
200	7	-	25	16	25	25	791394-4250	1520	965	260	226	396	528	849	100	120	242
200	25	25	25	25	25	25	-5250	2210	1370	395	226	433	598	919	150	120	609
250	-	-	16	8	16	12	-4260	1520	965	260	264	450	582	941	100	120	322
250	21	12	25	25	25	25	-5260	2210	1370	395	264	486	651	1010	150	120	687
300	-	-	8	-	8	6	-4270	1520	965	260	311	507	639	1045	100	250	433
300	11	6	25	22	25	25	-5270	2210	1370	395	311	544	709	1115	150	250	800
350	6	-	24	13	24	19	-5290	2210	1370	395	344	632	762	1200	150	250	969
400	-	-	15	8	15	12	-5200	2210	1370	395	384	680	845	1324	150	250	1133
450	-	-	8	-	8	7	-4280	1520	965	260	452	670	802	1349	100	250	1052
450	12	7	25	25	25	25	-5280	2210	1370	395	452	704	869	1416	150	250	1417
500	7	-	25	16	25	25	-5280	2210	1370	395	596	758	923	1614	150	250	1782

1) Applies to actuator + PN 25 valve

2) Including NAF valve positioner

Accessories

NAF's pneumatic actuators, see data sheet Fk74.59 can be equipped with a large number of accessories.

The following are included in NAF's standard programme and are suitable for direct mounting to NAF pneumatic actuators.

Valve positioner

Pneumatic and electro-pneumatic valve positioner, see data sheet Fk41.82. Intelligent valve positioner, see data sheet Fk41.85. Intelligent On/Off controller, see data sheet Fk41.86.

Solenoid valves

See data sheet Fk79.17.

Electrical position indication

See data sheet Fk79.10.

Terminal box

The actuator can be equipped with a junction box (part No. 349 20930) of cast aluminium containing terminal blocks for connecting the solenoid valve and position sensors.

Other versions

- **Locked seat rings**, all valves manufactured after 980101 are prepared for locking of the seat rings in the form of peening-over as shown in fig. 1.

Product code: L

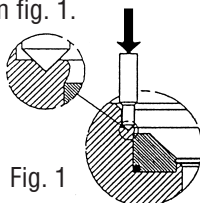


Fig. 1

- **Degreased for oxygen**, all components of the valve are degreased before assembly. A special grease which is approved for oxygen is used in assembly.

Product code: D

- **Degreased seat ring**, seat ring with two PDM o-rings to prevent media to penetrate behind seat ring shown in fig. 2. Used with media that chrysalis.

Product code: T

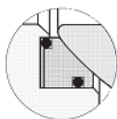


Fig. 2

- O-rings or springs behind the seat rings
- Tappings for flushing or drainage
- Seat ring with scraper edge
- Stem seal of FPM, PFM (Isoplast) of FEP-encapsulated o-ring type.
- Flanges to DIN 2512, Form N or DIN 2513, Form R
- Stellite-lined inlet and outlet
- Fire-Safe
- Anti-static
- Duplex material
- Hastelloy C material

Contact NAF for further information

Product code NAF-Duball valves

Example:

	88	8	6	9	7	- 0150
Code	1	2	3	4	5	6

1. Valve typ

- 88** Ball valve
- 89** Ball valve DN 450-500 (trunion ball)

2. Material (Body)

- 8** 1.4408 / CF8M

3. Pressure rating

- 2** PN 10 (DN 65 — 500)¹⁾
- 4** ANSI Class 150 (Size 1" — 20")
- 5** PN 25 (DN 200 — 500)¹⁾
- 6** PN 40 (DN 25 — 500)
- 7** ANSI Class 300 (Size 1" — 20")

4. Stem seal

- 2** Graphite stuffing box, up to 350°C²⁾
- 9** EPDM O-ring, up to 200°C

5. Seals

- | | Ball | Seat ring |
|----------|---|-------------------------|
| 5 | EN1.4408 / CF8M
hard chromium-plated | Stellite |
| 6 | EN1.4408 / CF8M | PTFE, carbon reinforced |
| 7 | Stellite | Stellite |

6. Size

	DIN version		ANSI version	
	DN	Size	Size	Size
0025	25	0001	1"	
0040	40	01.5	1.5"	
0050	50	0002	2"	
0065³⁾	65	-	-	
0080	80	0003	3"	
0100	100	0004	4"	
0125³⁾	125	-	-	
0150	150	0006	6"	
0200	200	0008	8"	
0250	250	0010	10"	
0300	300	0012	12"	
0350	350	0014	14"	
0400	400	0016	16"	
0450	450	0018	18"	
0500	500	0020	20"	

¹⁾ Size 25—50 has the same flange dimensions in PN 10, 16, 25 and 40. Choose PN 40 for these sizes.

Size 65—150 has the same flange dimensions in PN 25 and 40. Choose PN 40 for these sizes.

²⁾ Suffing box version includes stem extension and actuator yoke.

³⁾ DN 65 and 125 contact NAF

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ISO 9001 Certified

We reserve the right to design modifications without prior notice