

Primary characteristics

NAF-Pocket valve is an emptying valve that separates contaminations with a high safety from the process. It has a construction solution from our well established ball valve NAF-Duball.

NAF-Pocket valve is designed for extremely harse applications where exacting media courses large wear. The valve represents a concrete result of our products philisophy which is focused on functinality, high quality and low lifecycle cost, and it is based on concentrating our range to limited number of valve types, but all of them suitable for a wide range of applications.

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.
- sturdy, blowout-proof rigid journalled stem and a drive arrangement between the ball and stem that transmits torque evenly
- maintenance-free stem seal with O-ring. As an alternative available with a stuffing box.
- ball of solid Alloy 6.

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

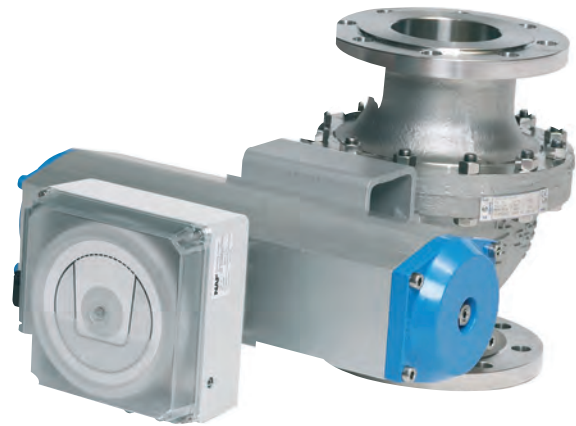
Design

NAF-Pocket valve has a rotating movement of 180°. The ball rotates 180° and the particles then fall out of the ball. Under the entire rotating movement the pressure side is not in connection with the opposite side. The body has built-in flushing nozzles. DN80 has 2 pieces of nozzles while DN100-200 have 3 pieces of nozzles. NAF-Pocket valve is designed with a conical wall against the bottom of the pocket to simplyfy the emptying. See figure 1 page 3.

Applications

NAF-Pocket valve is constructed to place together with a cleaning system there you can seperate sand, stone and other particles, which can cause wear or damage on the piping sytem or machine equipment. One of the benefits is that you get a higher safety. System pressure prevents media to reach the atmosphere.

NAF-Pocket valve is designed to transport solid particles from pipe system with higher pressure to system with lower pressure. The valve should always be mounted in a vertical pipe with the ball opening directed upwards. For further information view TPD:98001



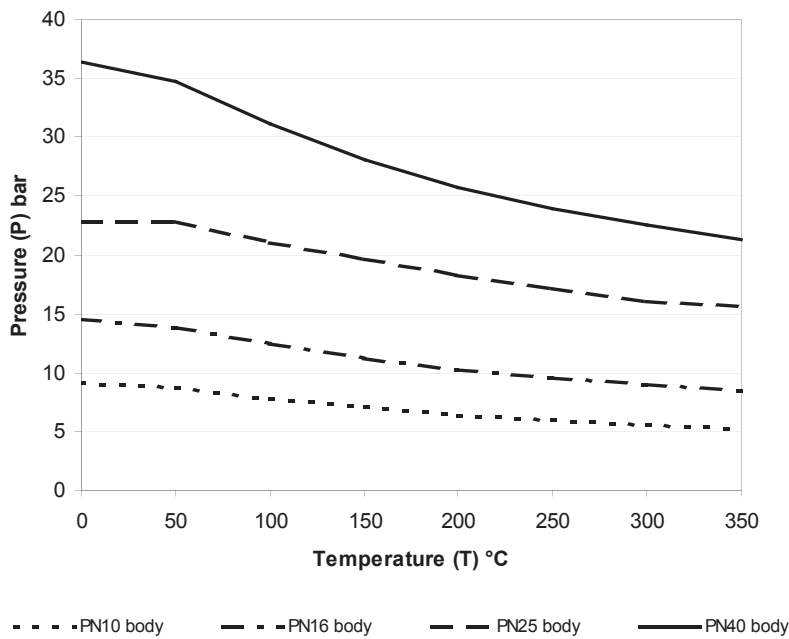
Technical specification

Material:	Stainless steel
Size range:	DN 80—200 (3"—8")
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 10"—12" Class 300 long Size 3"—8"
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:	IEC 534-4 Class V ANSI B 16-104-V

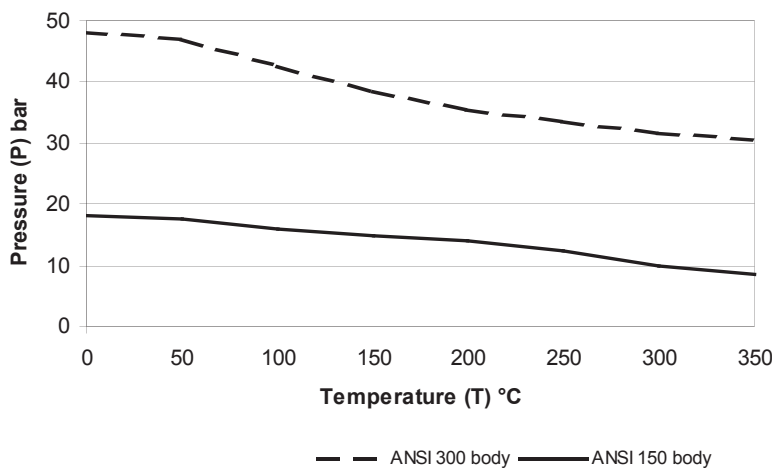
Working pressure, differential pressure and temperature

The maximum working pressure and temperature in the body depends on pressure class according to respectively flange standards. The differential pressure when the valve is closed is 25 bar, and the temperature dependence is shown in the diagram on page 3. 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 Alloy 6 can be used for temperatures up to 350°C. For higher temperatures, consult NAF.

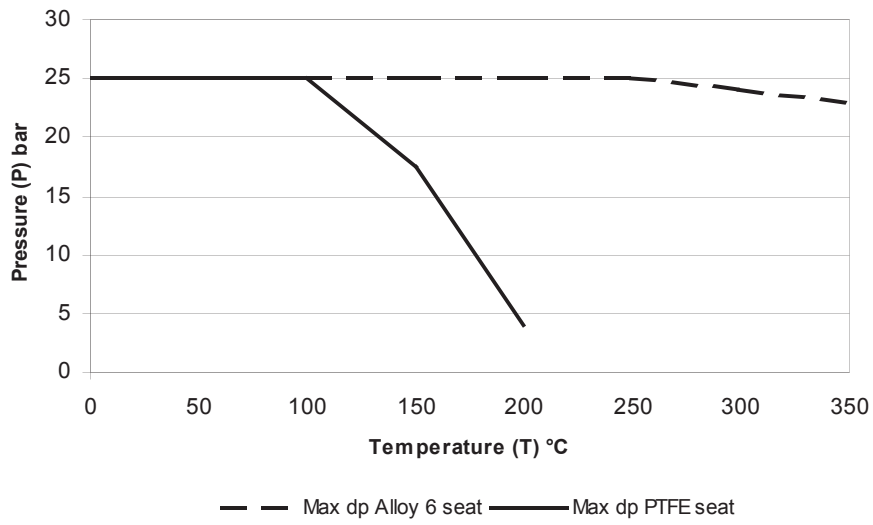
Max working pressure PN valves



Max working pressure ANSI valves



Max dp



Ball design

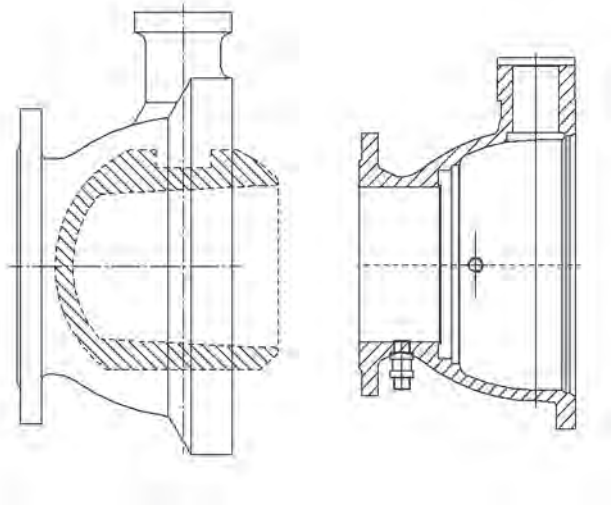


Figure 1

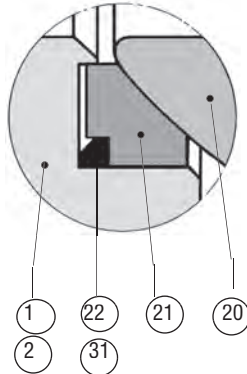
Torque in Nm (Table 1)

DN	Differential Pressure (Bar)				
	5	10	16	20	25
	Alloy 6	Alloy 6	Alloy 6	Alloy 6	Alloy 6
80	65	110	160	200	240
100	115	190	280	350	450
150	350	620	950	1150	1400
200	930	1600	2400	2900	3500

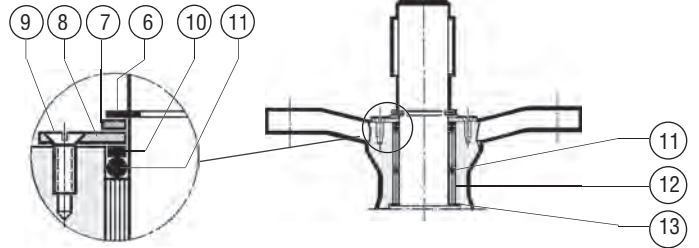
The minimum design differential pressure for selecting the actuator is 5 bar.

Material specification

Alloy 6 seat

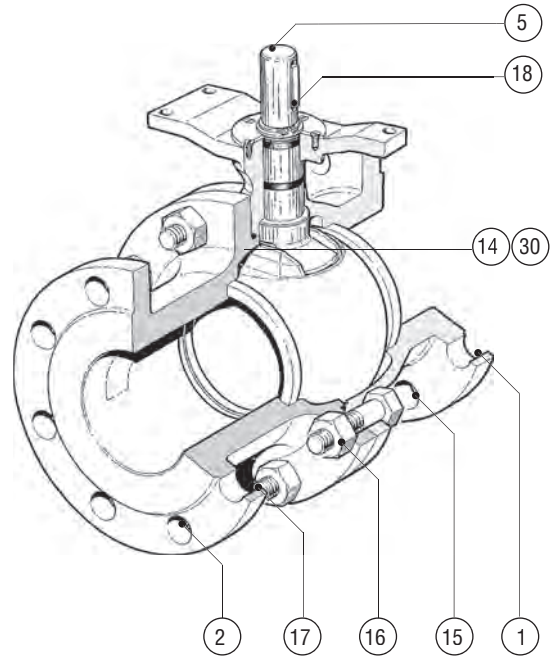


Seat ring



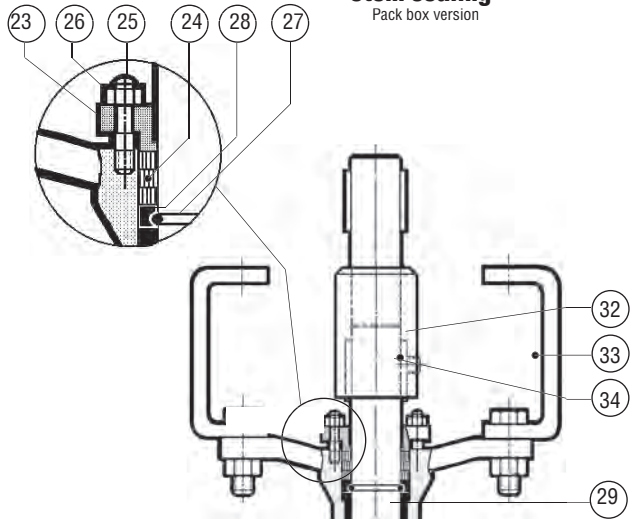
Stem sealing

O-ring version



Stem sealing

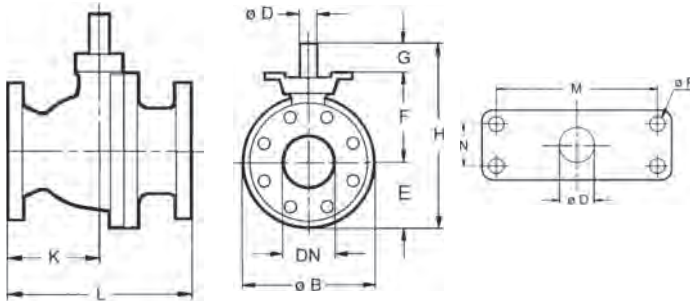
Pack box version



(Table 2)

Item	Qty	Part	Material
1	1	Body	EN 1.4408 / CF8M
2	1	Body	EN 1.4408 / CF8M
5	1	Stem assembly	EN 1.4408
6	1	Circlip	Spring steel
7	1	Backing ring	Spring steel
8	1	Washer	A4
9	-	Screw	A4
10*	1	Backing ring	PTFE
11*	2	O-ring	EPDM
12*	2	Bush	PTFE, Carbon reinforced
13*	1	Anti-friction washer	Alloy 6
14*	1	Seal ring	PTFE
15	-	Bolt	A4
16	-	Nut	A4
17	-	Stud	A4
18	2	Key	Steel
20	1	Ball	Alloy 6
21	2	Seat ring	Alloy 6
22*	2	Seat ring	PTFE, Carbon reinforced
23	1	Gland cover	EN 1.4408 / CF8M
24*	1	Packing	Graphite
25	2	Bolt	A4
26	2	Nut	A4
27	1	Split ring	EN 1.4404
28	1	Ring	Alloy 6
29	2	Bush	Alloy 6
30*	1	Seal ring	Graphite
31*	2	Seal ring	Graphite
32	1	Stem extension	EN 1.4460
33	2	Actuator yoke	EN 1.0044 zink plated
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.



Dimensions and mass

(Table 3)

Size DN	B	D	E	F	G	H	PN10	PN10	PN25	PN25	PN40	PN40
							K	L	K	L	K	L
80 3"	214	25	107	137	50	384	121	241	1)	1)	142	283
100 4"	244	25	122	152	50	324	153	305	1)	1)	202	403
150 6"	336	40	168	218	80	466	197	394	1)	1)	202	403
200 8"	452	50	226	268	93	587	229	457	251	502	251	502

(Table 4)

Size DN	K		L		M	N	P	Mass, kg				
	ANSI 150		ANSI 300					PN 10	PN 25	PN 40	ANSI 150	ANSI 300
	K	L	K	L				PN 10	PN 25	PN 40	ANSI 150	ANSI 300
80 3"	102	203	142	283	115	30	11	23	1)	27	23	30
100 4"	107	229	153	305	115	30	11	33	1)	36	36	43
150 6"	197	394	202	403	214	60	18	74	1)	81	75	91
200 8"	229	457	210	419	214	60	18	124	144	154	127	148

1) For PN 25 in DN80 - 150, see PN 40.

Actuator

Consult NAF for pneumatic actuator.

Control

NAF-Pocket valve can operate with a positioner for 180° or with a local control unit.

The assembly can also be equipped with solenoid and limit switches.

Product code NAF-pocket valve

Example:

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

1. Valve typ

88 Ball valve

2. Material (Body)

8 EN 1.4408 / CF8M

3. Pressure rating

2 PN 10 (DN 80 — 200)

4 ANSI Class 150 (Size 6" — 8")

5 PN 25 (DN 200)¹⁾

6 PN 40 (DN 80 — 200)

7 ANSI Class 300 (Size 3" — 6")

4. Steam seal

2 Packbox Grafit, max 350°C²⁾

9 O-ring EPDM, max 200°C

5. Seals

	Ball	Seating
7	Alloy 6	Alloy 6

**6. Size
DIN**

	DN	ANSI	Size
0080	80	0003	3"
0100	100	0004	4"
0150	150	0006	6"
0200	200	0008	8"

7. P Pocket valve

¹⁾ Size 80-150 has the same flange dimensions in PN 25 and PN40.
Choose PN 40 for these sizes.

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

