

Non-return Valve

# BOACHEM RXA

PN 10-40  
DN 15-300  
Flanged Ends

## Type Series Booklet



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Type Series Booklet BOACHEM RXA

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## Check Valves and Strainers

### Non-return Valves

## BOACHEM RXA



### Main applications

- Food and beverages industry
- Petrochemical industry
- Process engineering
- Sugar industry

### Fluids handled

- Aggressive liquids
- Steam
- Explosive fluids
- Solids-laden fluids
- Flammable fluids
- Fluids containing gas
- Gas
- Fluids posing a health hazard
- Toxic fluids
- High-temperature hot water
- Highly aggressive fluids
- Condensate
- Corrosive fluids
- Valuable fluids
- Volatile fluids
- Fluids containing mineral oils
- Oil
- Polymerising/crystallising fluids
- Feed water
- Thermal oil
- Other fluids on request.

### Operating data

Operating properties

Characteristic	Value
Nominal pressure	PN 10-40
Nominal size	DN 15-300
Max. permissible pressure	40 bar
Max. permissible temperature	400 °C

Selection as per pressure/temperature ratings (⇒ Page 4)

### Body materials

Overview of available materials

Material	Material number	Temperature limit
GX5CrNiMo19-11-2	1.4408	Up to 400 °C

### Design details

#### Design

- Straight-way pattern
- Spring-loaded check disc
- Fully confined cover gasket
- The valves satisfy the safety requirements of Annex I of the European Pressure Equipment Directive 97/23/EC (PED) for fluids in Groups 1 and 2.
- The valves do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, Group II, category 2 (zones 1+21) and category 3 (zones 2+22) to ATEX 94/9/EC.

#### Variants

- Oil and grease-free
- Serrated gasket (PTFE-coated)
- Applications down to -60 °C
- Heating jacket made of 1.4541/1.4301 or 1.4571/1.4404
- Other flange designs

#### Product benefits

- Fully confined cover gasket
- Closing spring as standard
- High-quality lapped valve seats

#### Related documents

- BOACHEM ZXAB bellows-type globe valve, see type series booklet 8150.1.
- BOACHEM ZYAB bellows-type Y-pattern globe valve, see type series booklet 8151.1.
- BOACHEM ZXA globe valve with gland packing, see type series booklet 8149.1.
- BOACHEM ZYA Y-pattern globe valve with gland packing, see type series booklet 8148.1.
- BOACHEM FSA Y-pattern strainer, see type series booklet 8146.1.
- Operating manual 8115.8

**On all enquiries/orders please specify**

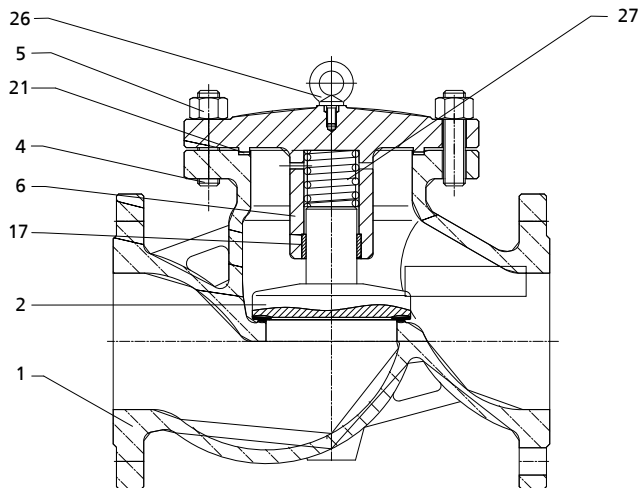
- |                          |                                   |
|--------------------------|-----------------------------------|
| 1. Type                  | 6. Operating temperature          |
| 2. Nominal pressure      | 7. Fluid handled                  |
| 3. Nominal size          | 8. Pipe connection                |
| 4. Operating pressure    | 9. Variants                       |
| 5. Differential pressure | 10. Number of type series booklet |

**Pressure/temperature ratings**

Permissible operating pressures in bar at a temperature of °C (to EN 1092-1)<sup>1)</sup>

Nominal pressure PN	Material	20	100	150	200	250	300	350	400
10	1.4408	10	10	9	8,4	7,9	7,4	7,1	6,8
16		16	16	14,5	13,4	12,7	11,8	11,4	10,9
25		25	25	22,7	21	19,8	18,5	17,8	17,1
40		40	40	36,3	33,7	31,8	29,7	28,5	27,4

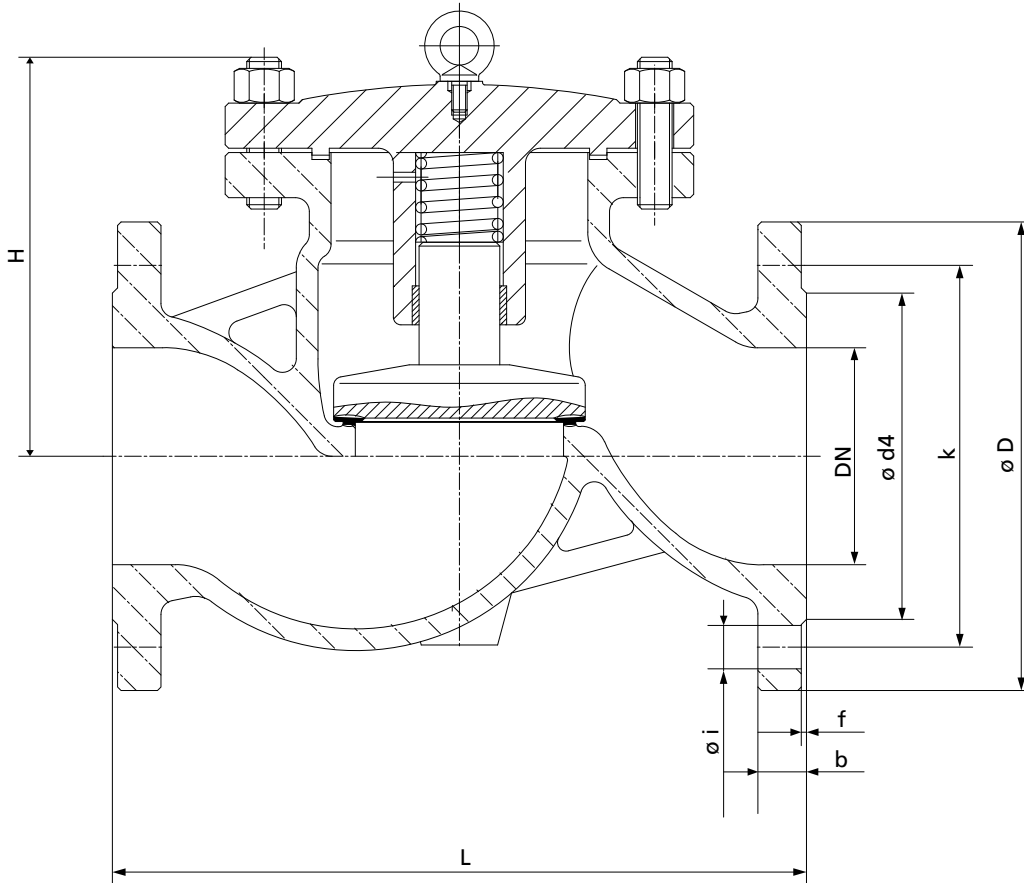
**Materials**



Overview of available materials

Part No.	Description	Material	Material number
1	Body	G X 5 CrNiMo 19-11-2	1.4408
2	Valve disc	X5 CrNiMo 18-10	1.4401
4	Bolt	A4-70	
5	Nut	A4-70	
6	Cover	G X 5 CrNiMo 19-11-2	1.4408
17	Plain bearing	Bronze	
21	Gasket	CrNiSt/graphite	
26	Eyebolt	CrNiSt	
27	Spring	X5 CrNiMo 18-10	1.4401

<sup>1)</sup> The valves are suitable for temperatures down to -10 °C.

**Dimensions**


Dimensions in mm

PN	DN	L	Ø D	k	No. of bolt holes z	Ø i	Ø d <sub>4</sub> x f	b	H	[kg]	
10-40	15	130	95	65	4	14	45 x 2	16	100	5,5	
	20	150	105	75	4	14	58 x 2	18	110	6,6	
	25	160	115	85	4	14	68 x 2	18	120	8,8	
	32	180	140	100	4	18	78 x 2	18	130	11	
	40	200	150	110	110	4	18	88 x 3	18	135	13,2
	50	230	165	125	125	4	18	102 x 3	20	150	17,6
10/16	65	290	185	145	8	18	122 x 3	22	160	32	
	80	310	200	160	8	18	138 x 3	24	169	29,7	
	100	350	220	180	8	18	158 x 3	24	194	45,1	
	125	400	250	210	8	18	188 x 3	26	225	59,4	
	150	480	285	240	8	22	212 x 3	28	255	82,5	
10	200	600	340	295	8	22	268 x 3	24	305	132	
16	200	600	340	295	12	22	268 x 3	24	305	132	
	250	730	405	355	12	26	320 x 3	26	305	255	
	300	850	460	410	12	26	378 x 4	28	306	426	
25/40	80	310	200	160	8	18	138 x 3	24	169	36	
	100	350	235	190	8	22	162 x 3	24	194	57	
	125	400	270	220	8	26	188 x 3	26	225	81	
	150	480	300	250	8	26	218 x 3	28	255	100	
25	200	600	360	310	12	26	278 x 3	30	305	158	
	250	730	425	370	12	30	335 x 3	32	305	268	
	300	850	485	430	16	30	394 x 4	34	306	438	

PN	DN	L	Ø D	k	No. of bolt holes z	Ø i	Ø d <sub>4</sub> x f	b	H	[kg]
40	200	600	375	320	12	30	285 x 3	34	305	164
	250	730	450	385	12	33	345 x 3	38	305	282
	300	850	515	450	16	33	410 x 4	42	306	518

### Mating dimensions - Standards

Face-to-face lengths: EN 558-1/1, ISO 5752/1

Flanges: Mating dimensions to DIN EN 1092-1, ISO 7005

Flange facing: DIN EN 1092-1, type B1

### Other flange designs

- E.g. groove (type D), tongue (type C), recess (type F), spigot (type E) to EN 1092-1 at both ends
- Other flange designs on request

### Installation instructions

**i** Non-return valves must always be installed in the line so as to ensure that the fluid enters the valve beneath the valve disc and flows out above the valve disc.

Differential pressures in bar

DN	10-50	65-200
With spring	0,15	0,07



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