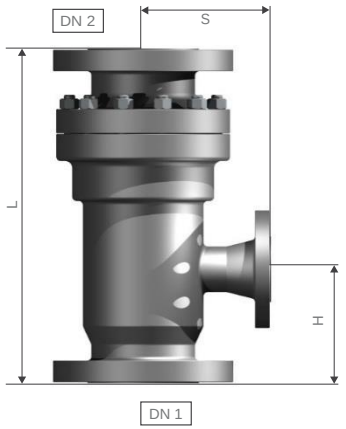
DIMENSION AND WEIGHT



Flanges acc. to ASME B16.5, class 150 **RF**

SIZE	DN1/2	DN3	L [mm]	H [mm]	S [mm]	WEIGHT [kg]
2“	2“	1“	305	108	130	20
3“	3“	1.5“	406	136	165	40
4“	4“	2“	495	159	209	64
6“	6“	3“	679	228	267	150

Flanges acc. to ASME B16.5, class 300 **RF**

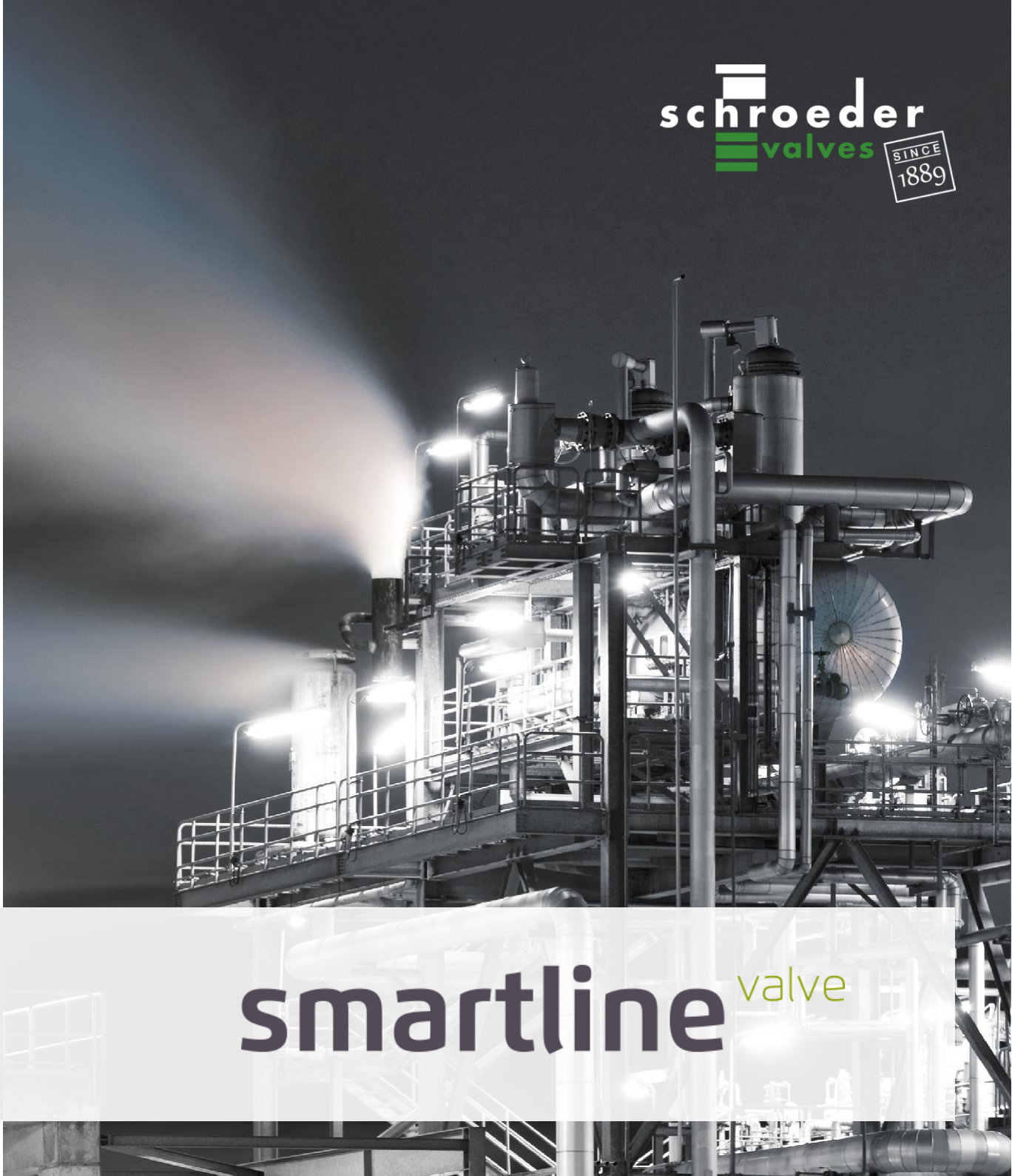
SIZE	DN1/2	DN3	L [mm]	H [mm]	S [mm]	WEIGHT [kg]
2“	2“	1“	305	108	130	22
3“	3“	1.5“	406	136	165	45
4“	4“	2“	495	159	209	73
6“	6“	3“	679	228	267	169

GET IN TOUCH WITH US

SCHROEDER VALVES GMBH & CO.KG

Archimedesstraße 3
51647 Gummersbach, Germany

Call: +49 2261 50116-0
Mail: info@schroeder-valves.com



schroeder valves SINCE 1889

Your partner for minimum flow valves

Schroeder valves has a worldwide reputati- on for high quality. Due to the usage of superior materials they are very reliable, very low-maintenance and extremely durable. With these attributes, our valves reduce downtime and ensure a higher efficiency of your system. Furthermore, as they require no auxiliary po-wer supply nor measurement technology, they guarantee more favorable equipment and ope-rating costs.

FEATURES AND FUNCTIONS

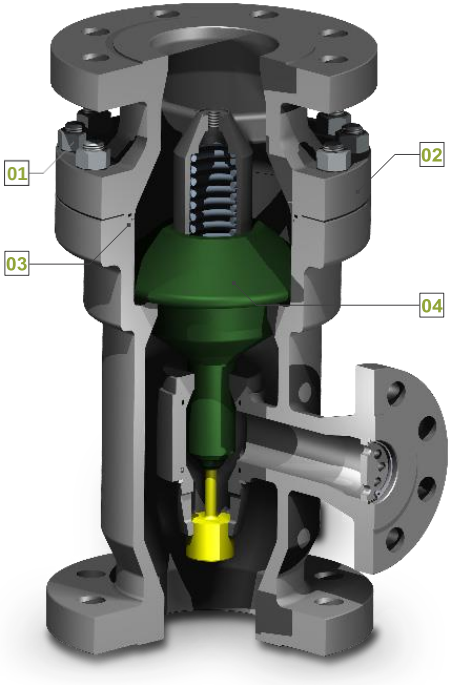
- Valve size: 2“- 6“
- Valve rating: class 150/300
- Connection: flange ASME B16.5 RF
- Body material: A351CF8, stainless steel
- 2-piece body design
- Internal parts: stainless steel
- Main flow Q100 :15 m3/h – 575 m3/h
- Bypass: $\Delta p_{max} \leq 40$ bar
- Suitable for a large range of different media
- admissible medium temperatures: from -50°C to 200°C
- Sizing and selection according to defined and fixed staggered design-matrix for body and internal parts
- Automatic bypass flow control
- Orifice plate
- Integrated check valve function for main flow

☑ **simple design**
☑ **reasonable costs**
☑ **rapid availability**

smartline valve

The smartline valves

Our main product range, smartline, is an automatic recirculation valve for the protection of standard centrifugal pumps. The valves of the smartline range automatically protect the pumps against wear, total failure and damage caused by dry running or during low-load operation. The smartline valves are availa-ble in different sizes, all of which are located in the low-pressure range. They are suitable for various media and for admissible average medium temperatures between -50°C and 200°C.



01. Bolts / Nuts SS
02. Pressure retaining parts casting SS
03. Gaskets standard EPDM
04. Internal parts SS

SIZING AND SELECTION

$$K_v = Q \cdot \sqrt{\frac{s.g.}{\Delta p}} \qquad C_v = 1.1561 \cdot K_v$$

QByR: required bypass flow rate [m³/h]
s.g.: specific gravity [kg/dm³]
Δp: differential pressure [bar]
Kv: flow coefficient [m³/h]
Cv: flow coefficient [USgpm]

Example:

medium: cooling water – s.g. = 0.992 kg/dm³ (@ 40 °C)

nominal main flow (Q100) = 153 m³/h
required minimum flow (QBy) = 62 m³/h
differential pressure @ QBy = 32 bar

Calculation:

$$K_v = 62\frac{m^3}{h} \cdot \sqrt{\frac{0.992\,kg/dm^3}{32bar}} \overset{*}{=} 10.92\frac{m^3}{h}$$

see table below

Pressure drop in main direction approx 0.5 bar for all sizes.

size	max. main flow [m³/h]	ByKV$_A$1 max. [m³/h]	ByKV$_A$2 [m³/h]	ByKV$_A$3 [m³/h]	ByKV$_A$4 [m³/h]	ByKV$_A$5 [m³/h]
2“	64	3.8	3.1	2.4	1.7	1.2
3“	165	9.4	7.8	6.2	4.6	3.0
4“	255	15.0	*12.5	10.0	7.5	5.0
6“	575	34.0	28.5	23.0	17.5	*12.1

conversion $C_v = 1.1561 \cdot K_v$