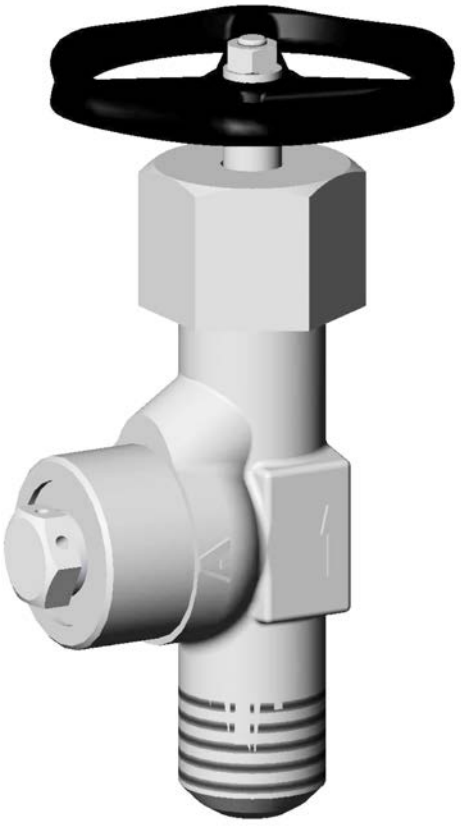
HIGH-PRESSURE SAFETY VALVE P10.01

PN 500; DN 10; T_{MAX}: 570 °C



APPLICATION

- water, steam, gas, oil, petroleum products

CONNECTION

- weld ends

OPERATION

- handwheel

DESCRIPTION

- rotating rising stem
- safety (shut-off) valve
- asbestos-free packing and gasket
- design of the body is straight
- shut-off disc
- complies with the requirements of the directive 2014/68/EU and standard EN 13709
- testing is carried out according to standard EN 12266-1; part 2

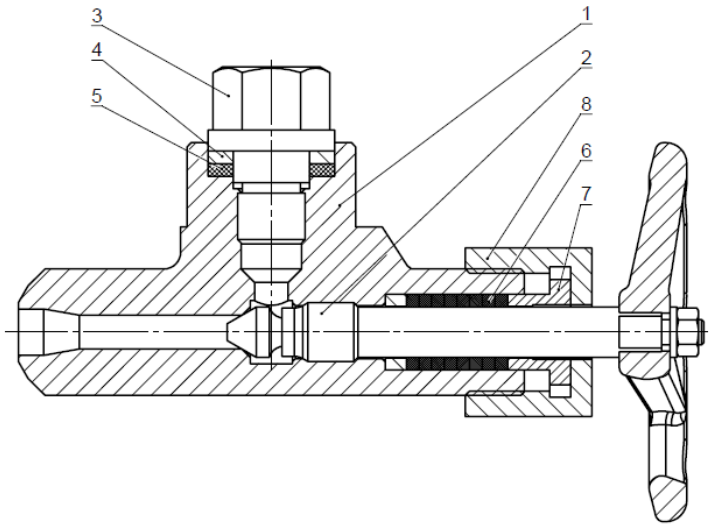
BASIC DESIGN OPTIONS

- safety pressure membrane from INCONEL

PRESSURE-TEMPERATURE-RATING

Material	PN	Admissible operating pressure PS [bar] at operating temperature TS [°C]												
		-10	50	100	200	300	350	400	450	500	520	540	555	570
15128 (ČSN 41 5128)	160	160	160	160	160	160	160	160	154	147	117	86	71	56
	250	250	250	250	250	250	250	250	240	230	182	134	111	87
	320	320	320	320	320	320	320	320	307	294	233	172	142	111
	400	400	400	400	384	368	354	340	328	316	265	214	177	140
	500	500	500	500	480	460	443	425	410	395	332	268	222	175

USED MATERIALS



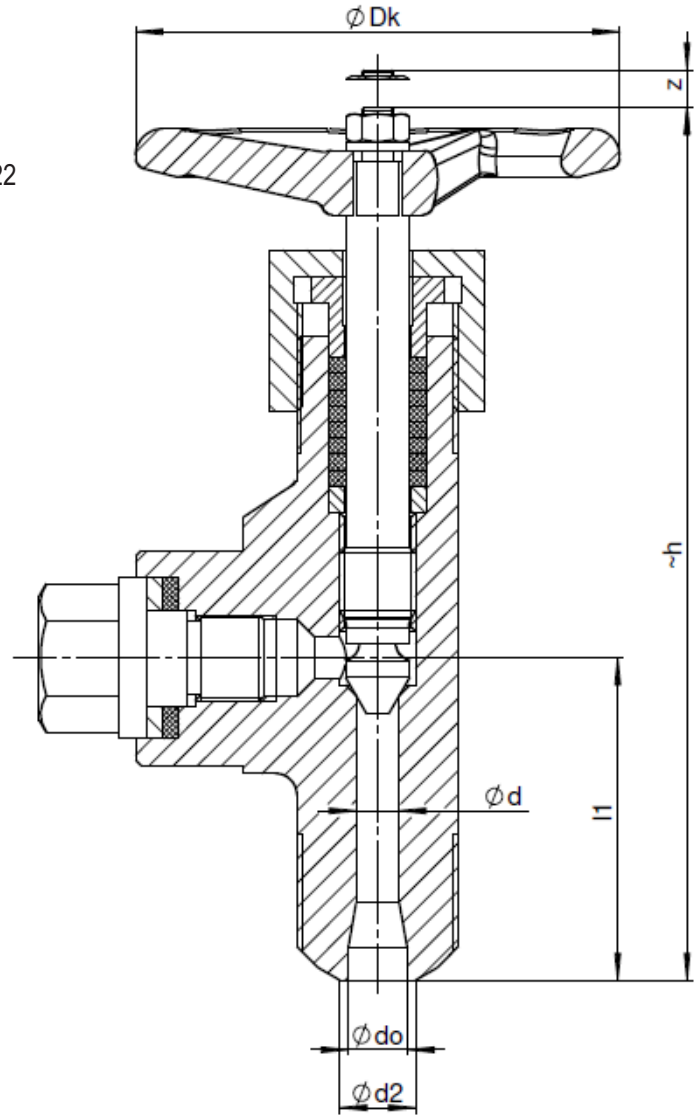
Pos.	Part	Material	
1	Body	15 128*	
	Hard facing of sealing surface	X22CrMoV12-1+QT1 (1.4923)+QT1	
2	Disc, Stem	X22CrMoV12-1+QT1 (1.4923)+QT1	X22CrMoV12-1+QT1 (1.4923)+QT1
3	Plug with membrane	X22CrMoV12-1 (1.4923)	
4	Washer	Ni Resist	
5	Gasket	Grafit	
6	Packing	Grafit	
7	Bushing	Ni Resist	
8	Nut	15128	

* Other materials on request

VALVE DIMENSIONS

Weld ends

Face-to face dimensions: as per table
Dimensions of welding ends: DiN 3239 – part 1
Groove form: DiN 2559 – sheet 1 – form 22



WELD ENDS

Nominal pressure	Nominal size	Face-to-face	Centre-to-top	Diameter driling	Stroke	Handwheel	Weld ends		Pipe dimensions	Approximate weight
PN	DN	l	h	d	z	D_k	d_2	d_0		m [kg]
160	10	60	160	8	7	90	18	13	17,2x2,0	1,6
250						90	18	12	17,2x2,6	
320						90	18	12	17,2x2,6	
400						90	18	10	17,2x3,6	
500						90	22	11,5	21,3x5,0	

USE OF SAFETY VALVE

At the customer‘s request, the valves can be equipped with protection of the space above the wedge from extreme pressure increase. This case may occur after the system is decommissioned, when the amount of fluid in the middle part of the closed valve is cooled (the space above the wedge). If after some time we start the valve in the closed state to heat (using a by-pass), due to the increase in temperature, there will be a high pressure increase in the space above the wedge.

If during the production process such a situation may arise, it is necessary to indicate in the order the requirement to put a valve with a space guard above the wedge (the inside of the valve).

Types of protection:

a) drilling a wedge - the input side

b) using safety valve P 10.01

c) external by-pass - using two high pressure valves connected to the central part

The use of a safety valve, although the most expensive, is a universal solution. Can be used on all valves and all production parameters. When using a safety valve, the valve is two-way. The safety device is installed on the condensation circuit, which is led out of the valve body, outside its thermal insulation. Due to the replacement of the membrane bolt during the production process, part of the safety valve is the flywheel, which can be used to close the safety valve when replacing. To set the allowable overpressure limit, you must specify the manufacturing parameters of the valve in the order.

Example of recommended membrane

Operating parameters of the valve: working pressure Pp = 23.5 MPa, production temperature Tp = 250 °C.

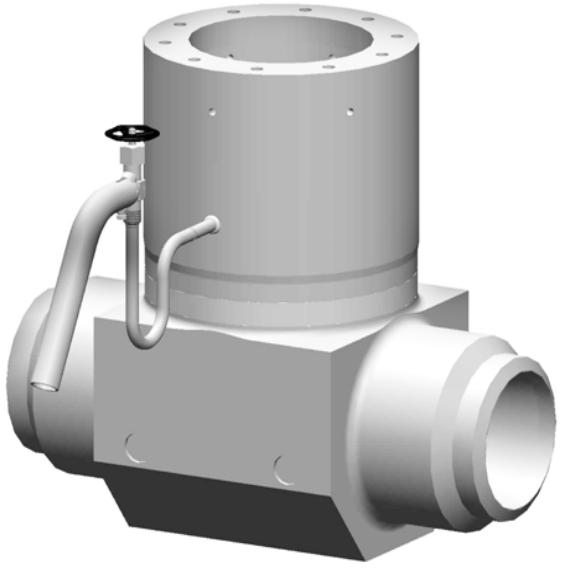
Bursting pressure of the membrane: 1.3 Pp = 1.3 * 23.5 = 30.55 MPa and at a temperature of 250 °C.

The entry in the order: valve operating parameters Pp = 23.5 MPa - Tp = 250 °C (bursting pressure of 30.55 MPa at temperature of 250 °C).

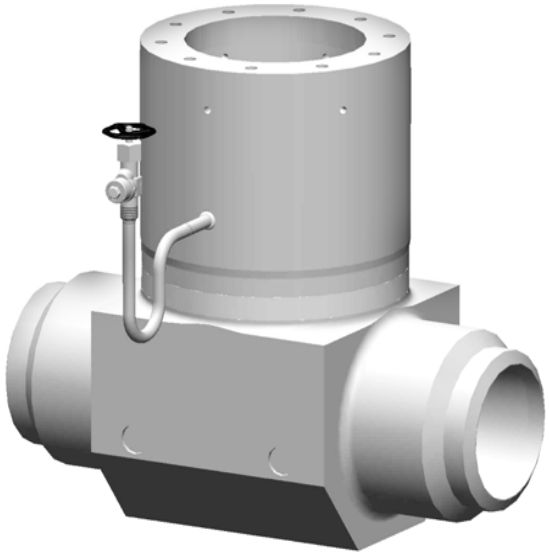
At high pressure drops and on the basis of the customer›s requirements, it is possible to produce valves with by-pass valves.

POSITION OF THE VALVE ON THE BODY OF THE GATE VALVE S43

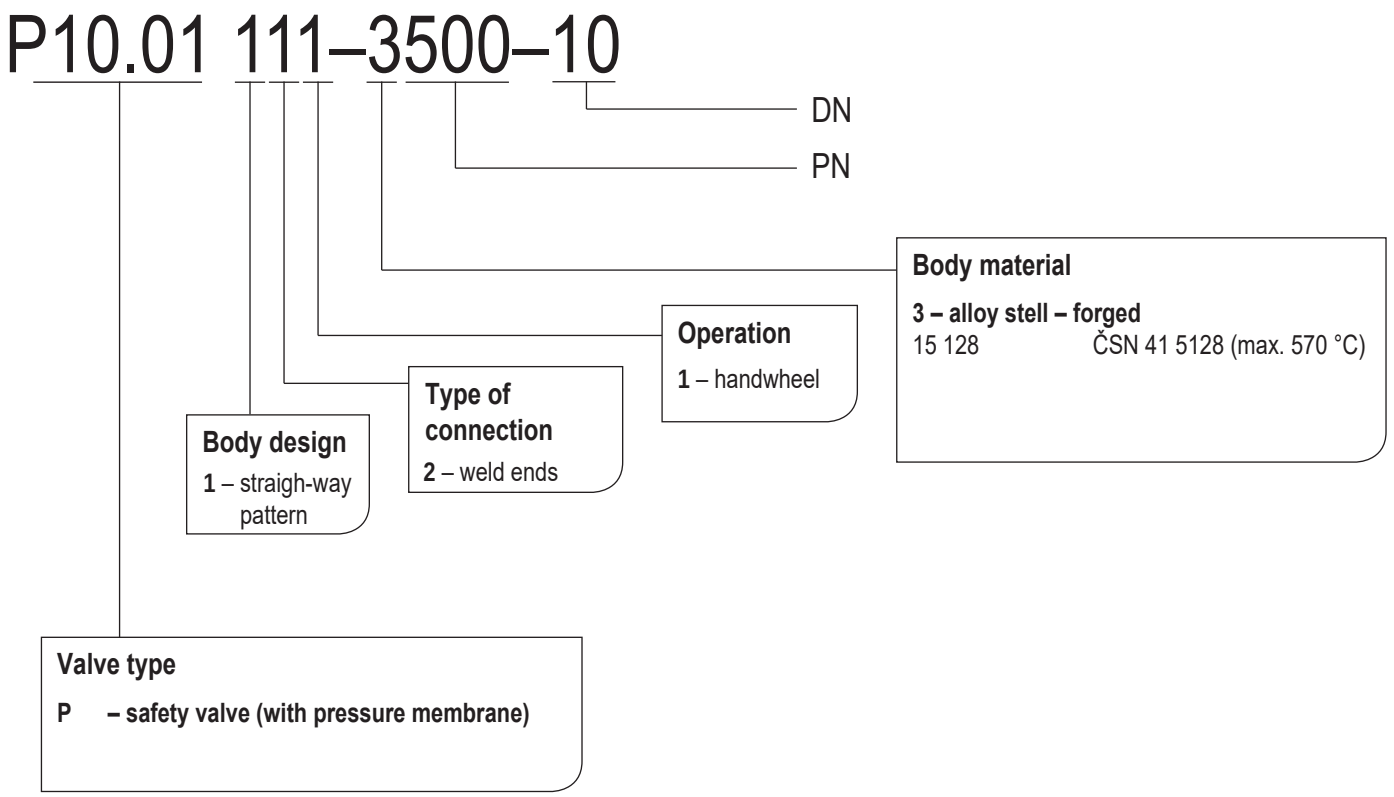
a)



b)



VALVE DESCRIPTION CODE



VALVE INSTALLATION

Valve can be installed in any position. Medium must flow under the cone in accordance with the direction indicated on the valve body. It is necessary to consider the following points during assembly and operation:

During the installation and use of the valve, the following points have to be respected:

- operating conditions must comply with operating parameters of the valve
- proper function of the valve is affected by the presence of impurities in the pipeline and flowing medium, therefore it is necessary keep working environment a pipeline clean, for example with using filters
- medium used must comply with the corrosion resistance of the valve material
- use of mechanically damaged valves during the operation is prohibited

The service life of valves significantly extends regular maintenance and minor repairs carried out by trained personnel.