

Calculation and Selection - Safety Valve

Initial data

100000 W	Maximum heat output of heat source	100 °C	Maximum water temperature at the installation place of the safety valve
10.0 bar	Valve gate opening pressure	2 pcs	Number of installed safety valves

Calculation results

$$10 * \{ (3 * 0.86 * 100000 \text{ [W]}) / (1000000 * 0.05 * 2 \text{ [pcs]}) \}^{0.5} = 16 \text{ [mm]}$$

Minimum diameter of the inlet connection of the safety valve

In the calculation, the lift height of the valve gate is assumed to be 1/20 of the seat diameter.

Selection result : Safety valve

ARI Armaturen : ARI-SAFE 903

Germany

- protects the system from exceeding the set pressure limit
- opens when the set pressure is exceeded
- normally closed

DN 20 / 32 [mm] Nominal valve diameter inlet/outlet

2 pcs Number of installed safety valves

dT -10 ... 120 [°C] Operating temperature

P 0.20 ... 16 [bar] Pressure setting

cast iron Body material

Water Allowable working fluids

