

Compact, sturdy design  
High stability, fit and forget

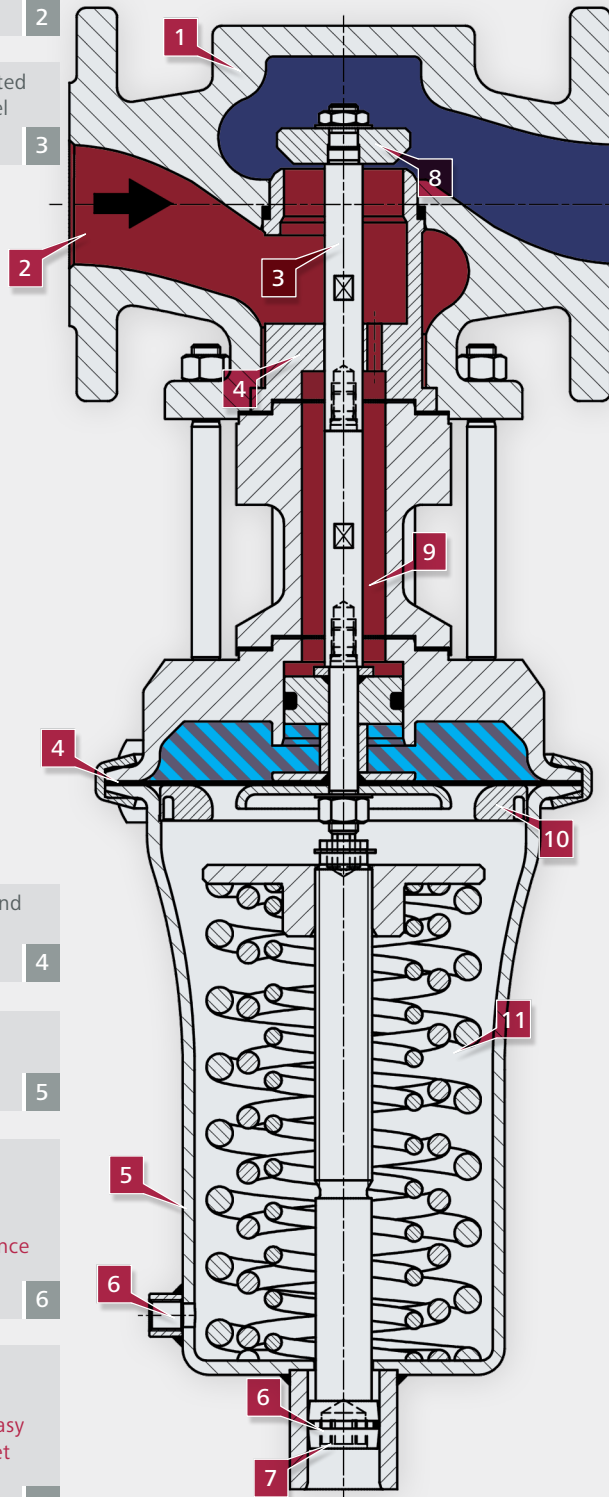
1

Favourable fluid dynamics  
Higher  $K_{vs}$  values

2

Spring cap and medium-wetted  
internal parts of CrNiMo steel  
Corrosion-resistant

3



Balanced cone

Outlet pressure control  
independently from the inlet  
pressure

8

Water Trap

No compensation chamber  
needed

9

Mankenberg clamp system and  
plug-in pack

Easy maintenance

4

Closed spring cap

Complete protection against  
contact

5

Leakage line connection and  
adjusting screw seal

Suitable for inflammable and  
dangerous media In accordance  
with accident prevention  
regulations

6

EASY-CHECK –  
Non-rising adjusting screw

Function externally visible, easy  
and accurate to adjust the set  
pressure, non-varying  
installation height

7

Exchangeable drives

Easy change between  
pressure ranges

10

Matched control surfaces, springs  
and control line

Very high control accuracy

11

Option

Body made of stainless steel

Elastomers made of FKW, NBR,  
PTFE or other materials

Inlet Pressure

Outlet Pressure

Control Pressure

Water Trap

Standard Cast Valve for Steam

DM 618Z

# Mankenberg Pressure Reducing Valve in Action

**MANKENBERG**

We reserve the right to make technical changes. Images are non-binding 01/2017



## Standard Cast Valve for Steam

**DM 618Z**

Single seat straight-way valve for high flow rates with balanced cone | usable for steam up to 250 °C | body made of GS-C25 optionally CrNiMo steel | medium-wetted internal parts made of CrNiMo steel | very precise control | spring cap with leakage line connection and adjusting screw seal

DN	15 - 100	PN	16 - 40
		T	up to 250 °C
P <sub>2</sub>	0.8 - 10 bar	K <sub>VS</sub>	4.5 - 115 m³/h

**New!**

## Cereal Production – Steam Pressure Reduction for a Honey Tank Heater

Regardless of whether they are energy providers at the beginning of a busy day or only a snack in between meals: cereal products have become vital for our everyday life. Although the available flavors are confusingly varied, bee honey still is an important ingredient for many of these sweet meals.

Raw materials and ingredients are of various consistencies and often expose the foodstuffs industry to great challenges: For example during the transport of grain, large amounts of dust are released. Honey, that enhances the taste of popped grains or cereal bars, loses its flowability under cooler temperatures and transforms into a viscous mass. To prevent this from happening, honey must continuously be heated to a temperature level of approx. 30 to 40 °C.

A leading company in the foodstuffs industry fabricates semi-finished and finished grain products. In the production plant there is a tank of approx. 40 m³ filled with honey which is constantly heated in order to keep the tank content capable of being pumped. In the heating circuit, a steam generator produces water steam with a pressure of 8 bar absolute. In the downstream steam supply line, the pressure of the generated steam is reduced to 4 bar absolute with the help of the pressure reducing valve Mankenberg DM 618Z and flows through a ball valve that opens pneumatically as soon as the temperature falls below 40 °C. After that the steam flows into a heat exchanger, condenses there and dissipates the heat to the environment. The arising condensate is separated in a steam trap, flows back in the return line to the condensate collector and is then re-supplied to the steam generator.

The self-acting pressure reducing valve DM 618Z reduces the steam pressure downstream of the valve to the suitable plant pressure of 4 bar absolute. The sturdy and low-maintenance control valve can withstand inlet pressures of up to 40 bar and features very favourable flow dynamics. The valve body is made of cast steel, the medium-wetted internal parts are of corrosion-resistant stainless steel (1.4404 / SS316L). Therefore, this metallic-sealed control valve is ideally suited for this steam application.