

# Mankenberg – Self-acting Control Valves **Optimum and specific Solutions**

From Standard up to customized Special Valves

### Our Company

- » Independent and family-owned
- » More than 130 years of experience
- » Know How in a wide field of applications from oil producing to pharma industry
- » More than 6,000 active customers worldwide
- » Fast and reliable shipments

### Our Quality Promise

- » Standard and special materials from steel up to titanium
- » CFD simulations and 3D geometries
- » Specific engineering
- » Acceptances and certificates acc. to individual requirements
- » Nearly all components from in-house production
- » Quality Made in Germany

"Please give me every opportunity to think and work for you!"

Gustav Mankenberg, (1858-1945)



Competence and Solutions for self-acting Control Valves

PRESSURE CONTROL LEVEL CONTROL

# Comparing spring-operated Pressure Control Valves and their Tasks

### **Pressure Reducing Valves**

DM

Outlet pressure control valves – reduce a higher, often varying inlet pressure to a constant and adjustable pressure downstream of the valve.

### **Back Pressure Regulator Valves**

UV

Inlet pressure control valves – limit / build up a constant adjustable pressure upstream of the valve.

### **Pilot-operated Control Valves**

RP

Their task depends on the selection of the pilot valve. Any task already mentioned in the previous or subsequent product subgroups (pressure reducing valves, back pressure regulators, flow controllers ...) can be realised. Thus it is also possible to build a control valve with several functions / pilot valves.

# Differential Pressure Regulating Valves

Regulation of the pressure depending on a second, nonconstant pressure without external measurement sensors.

#### Vacuum Breakers

VV

Vacuum limitation in vacuum systems and protection of steam plants.

#### Vacuum Control Valves

VV

Regulation of the vacuum in pipelines, tanks and similar plants.

### Pressure Surge Relief Valves

SR

Reduction of dynamic pressure surges in the pipeline system.

### Flow Controllers

MR

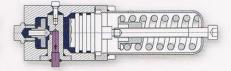
Limitation of quantities or flow independently from inlet or outlet pressures without additional measuring and evaluation devices.

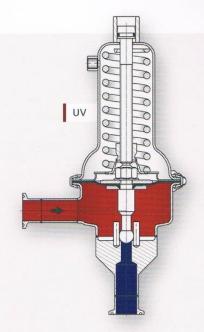
### Safety Valves

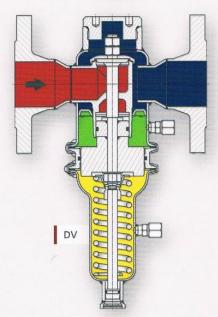
SV

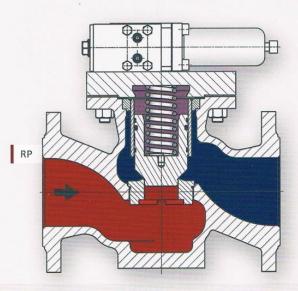
Emergency valves: In the event of the system's maximum allowable pressure being exceeded, the surplus medium is blown off.



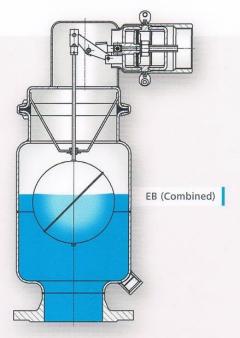


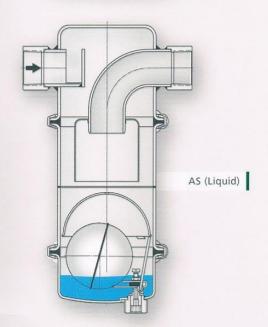


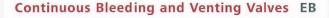




# Comparing float-operated Level Control Valves and their Tasks







Air supply and release to and from systems and vessels at full operating pressure.

# Start-up Bleeding and Venting Valves EB

Release of large air / gas quantities from systems or vessels at a small pressure difference.

### Combined Bleeding and Venting Valves EB

A combination of a start-up and an operating venting valve suitable for start-up and continuous operation.

### Steam Traps

KA

Automatic discharge of arising condensate from steam or gases without heat loss.

### **Float Valves**

NV

Regulate the liquid level in a reservoir.

#### **Liquid Separators**

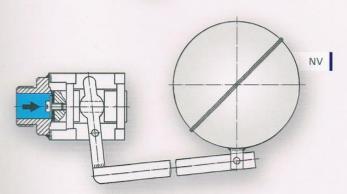
AS

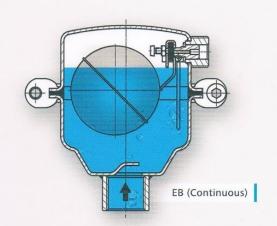
Automatic separation of liquids and condensate from gas and / or steam flows at operating pressure.

### **Gas Separators**

AS

Automatic separation of gases from liquid flows at operating pressure.





Inlet Pressure

Control Pressure

Outlet Pressure

Control Pressure p<sub>st+</sub>

Atmosphere

Control Pressure p<sub>st-</sub>

# Aspects for self-acting Control Valves which convince.

### Aspect No. 1 - Safety

- » Proper functioning, even in the event of a power failure
- » Proven functionality based on more than one hundred years of experience
- » No risk regarding maloperation
- » Quick response behaviour of self-acting control valves
- » Insusceptibility to computer viruses

# Aspect No. 2 - Costs

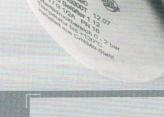
- » Low assembly and maintenance costs
- » No external energy supply required
- » Long operational lifespan with the proper selection of the valve

### Aspect No. 3 - Assembly and Operation

- » Easy installation of the valves
- » Low net weight and compact design
- » Valves can be operated even with poor infrastructure
- » No cabling or updates required
- » Particularly sturdy and maintenance-friendly

### Aspect No. 4 - Sustainability

- » Resource-saving thanks to independence from external energy
- » Long operational lifespan with the proper selection of the valve
- » Recyclability of the used materials



Please send us your enquiry and allow us to advise you.

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