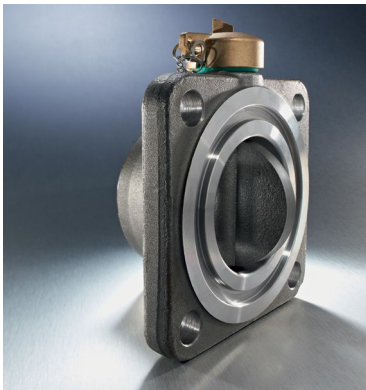


*Radiator Valves for Transformers*  
*Our Specialty for More Than 65 Years*



## The Most Reliable Radiator Valves



### **Metal-sealed Clap**

*Leakproofness and durability are the key success factors of our radiator valves. Each valve is routine tested individually and either produced as an intermediate flange design Type B or to be welded onto the transformer tank as Type A.*

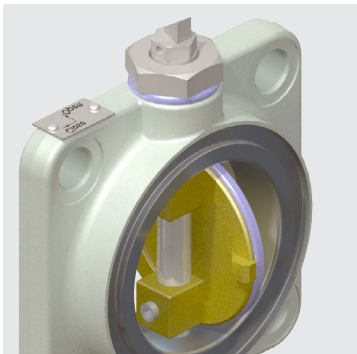
### **Your Benefit at a Glance**

- *The valve bodies are made of forged steel. This guarantees absolute leak tightness in operation condition*
- *The solid clap ensures minimum leakage and prevents accidental operation by means of its offset position inside the valve housing as well as the increased sealing surface of the radiator valve*
- *The setting device with the isolated concept of thrust member and thrust screw prevents any leakage for lifetime*
- *Metal-sealed valves are very durable and reliable along the transformer's lifetime*

### **Technical Information**

- *Nominal diameter: DN 80*
- *DIN 42560 and EN 50216-8*
- *Welding neck flange: Type A*
- *Wafer type flange: Type B*

## Special Designs for Offshore and Low-Temperature Applications



### **Soft-sealed Clap Type OR**

For special requirements each valve type is available with a soft-sealed clap. The soft-sealed valves are as well available as welding neck type or wafer type design.

The Type A OR and Type B OR valves don't show any leakage when vacuum or overpressure will be applied due to the O-ring sealing at the clap.



### **Offshore Installation**

Our radiator valves for highest requirements in terms of reliability and resistance to corrosion:

- SOLIDLINE® C5-M coating or valve body made of stainless steel 316 grade (Type B and B OR)
- Valve body made of stainless steel 316 (Type A and A OR)
- Locking cap made of glassfibre-reinforced plastic (UV-resistant)

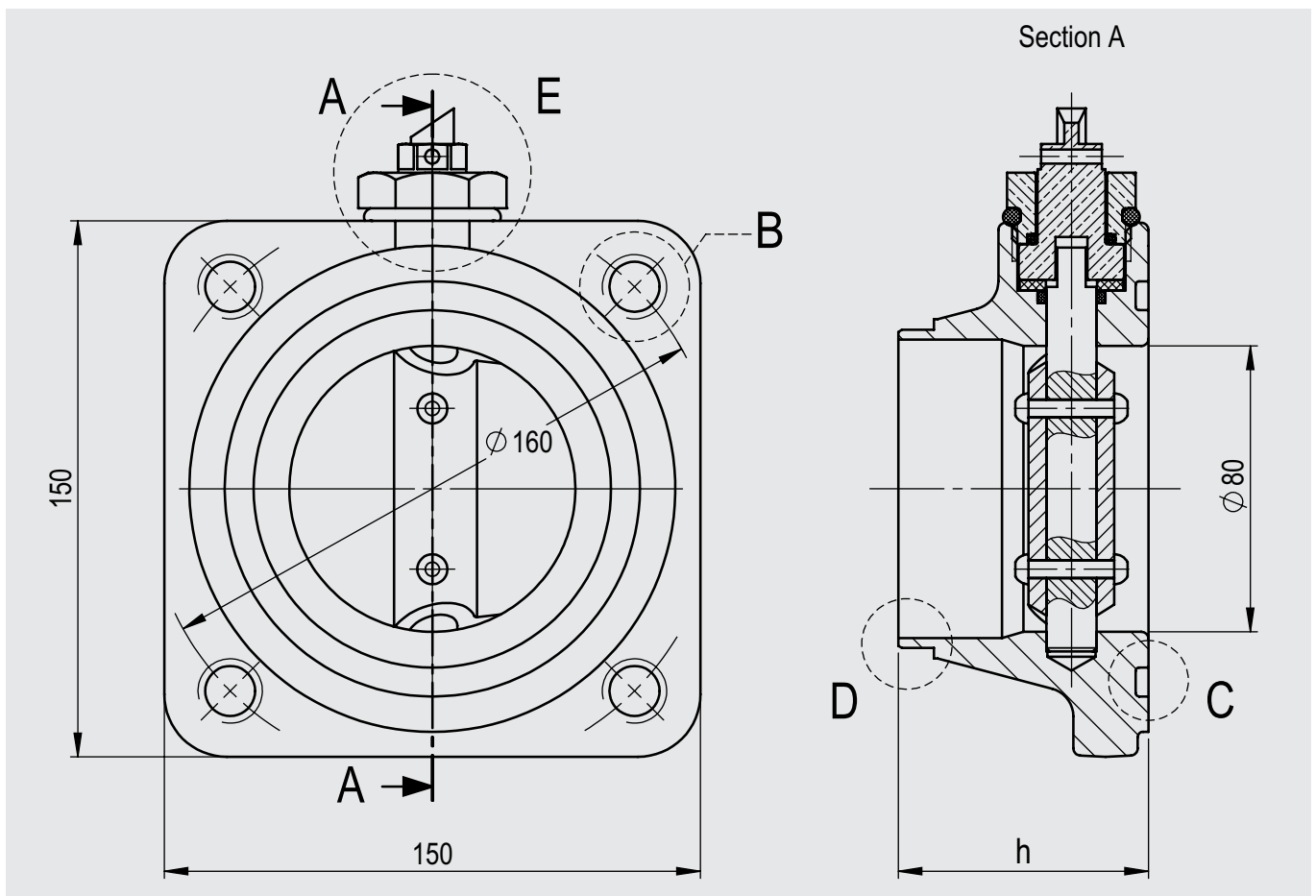
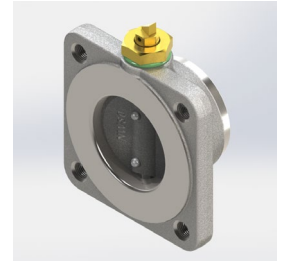


### **Low-temperature Design**

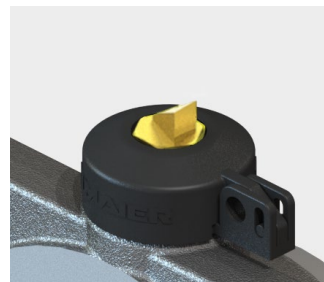
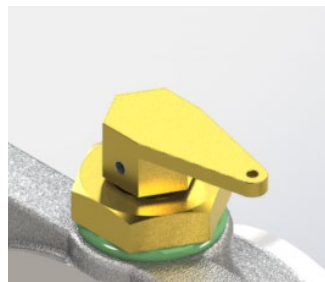
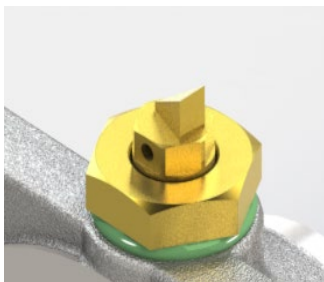
For reliable operation in extreme cold environmental conditions we adjust our valves with special gaskets resistant to all common insulation liquids for use in ambient temperatures until  $-60\text{ }^{\circ}\text{C}$ . Available types:

- Type A und Type A OR
- Type B und Type B OR

*Radiator Valve Type A  
Welding Neck Flange*



**Detail E: Setting Device**



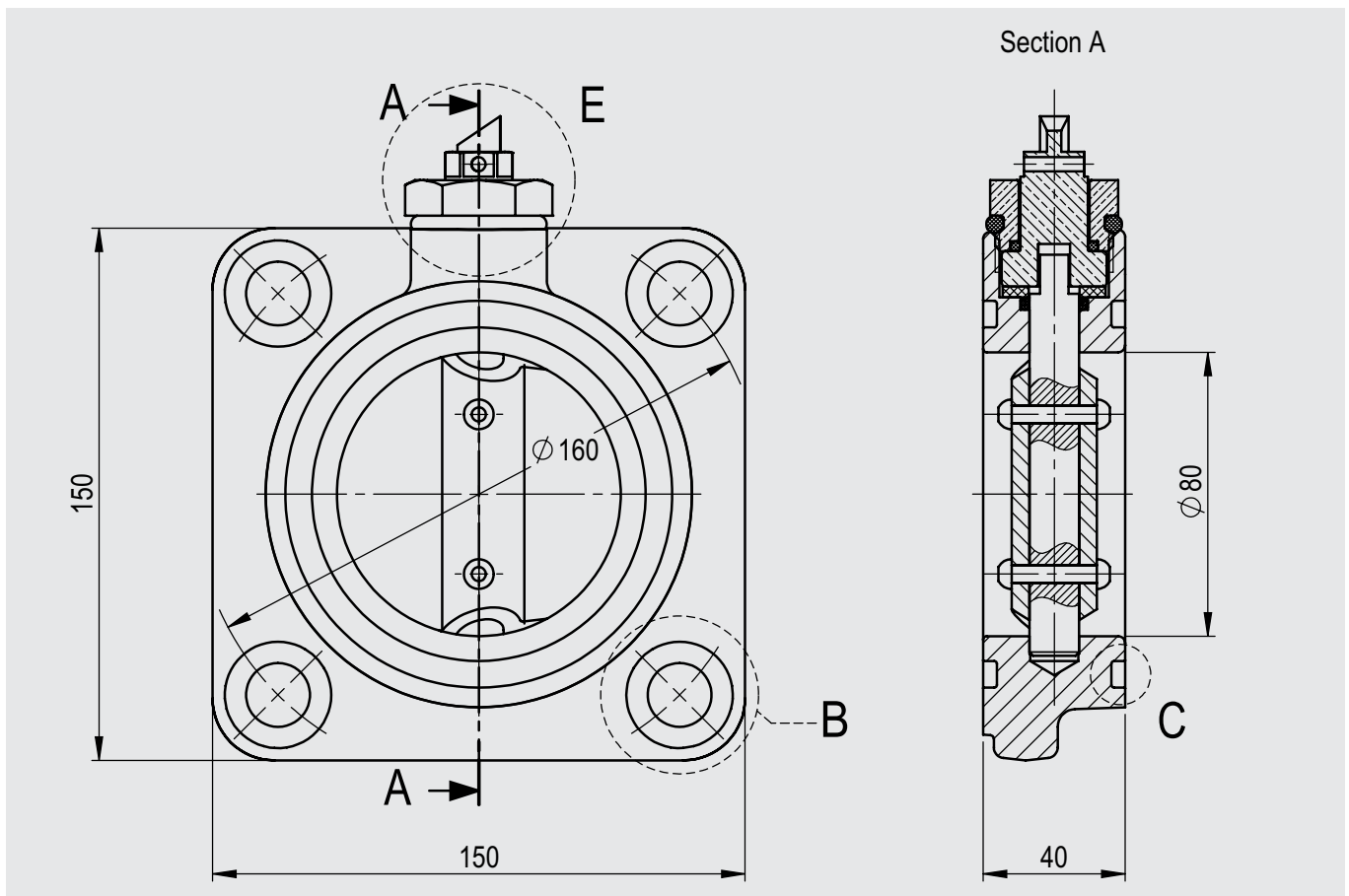
Standard

Handle

Locking Cap

Locking Handle

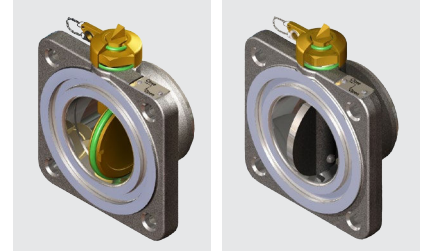
## Radiator Valve Type B Wafer Type Flange



Detail	Type A / A OR	Type B / B OR
B	M16 / Ø 18	Ø 18 / M16 (optional)
C	upon request	upon request
D	upon request	-
	see above	see above
h	70 / 85 mm	40
Coating	-	RAL 7032 / 7033 / 7035 / 7038 more upon request



## Comparison metal-sealed and soft-sealed radiator valve



Characteristics	Type A / B	Type A OR / B OR
Sealing type (clap)	metal-sealed	soft-sealed (O-Ring)
Valve body material	forged	forged
Valve body material upon request	forged	forged
Stem tightening	isolated; thrust screw / member	isolated; thrust screw / member
Leakage in operation condition	none	none
Standard	DIN 42560 / EN 50216-8:2005	DIN 42560 / EN 50216-8:2005
Allowed leakage (clap)	< 0,5 dm <sup>3</sup> /h bei 100 kPa; 30,5 cSt	none ≤ 100 kPa
Vacuum tightness (clap)	-	> 0,01 kPa (0,0014 psi)
Delivery condition	complete	assembly kit A OR / complete B OR
Maintenance	-	10 years

### Conclusion

On the one hand the metal-sealed valve is very durable and reliable along the transformer's lifetime and due to the metal sealing a very little internal leakage at the clap will occur. The soft-sealed valve with the O-ring gasket around its clap doesn't show any internal leakage neither under vacuum on the other hand but due to usual aging of the gasket compound the O-ring needs to be replaced after a proper time of use.

Taking this under consideration the metal-sealed valve should be the preferred solution for standard applications where a little leakage could be accepted while assembling / disassembling the transformers radiators.