The Specialist from our High Grade Modular System

MANKENBERG

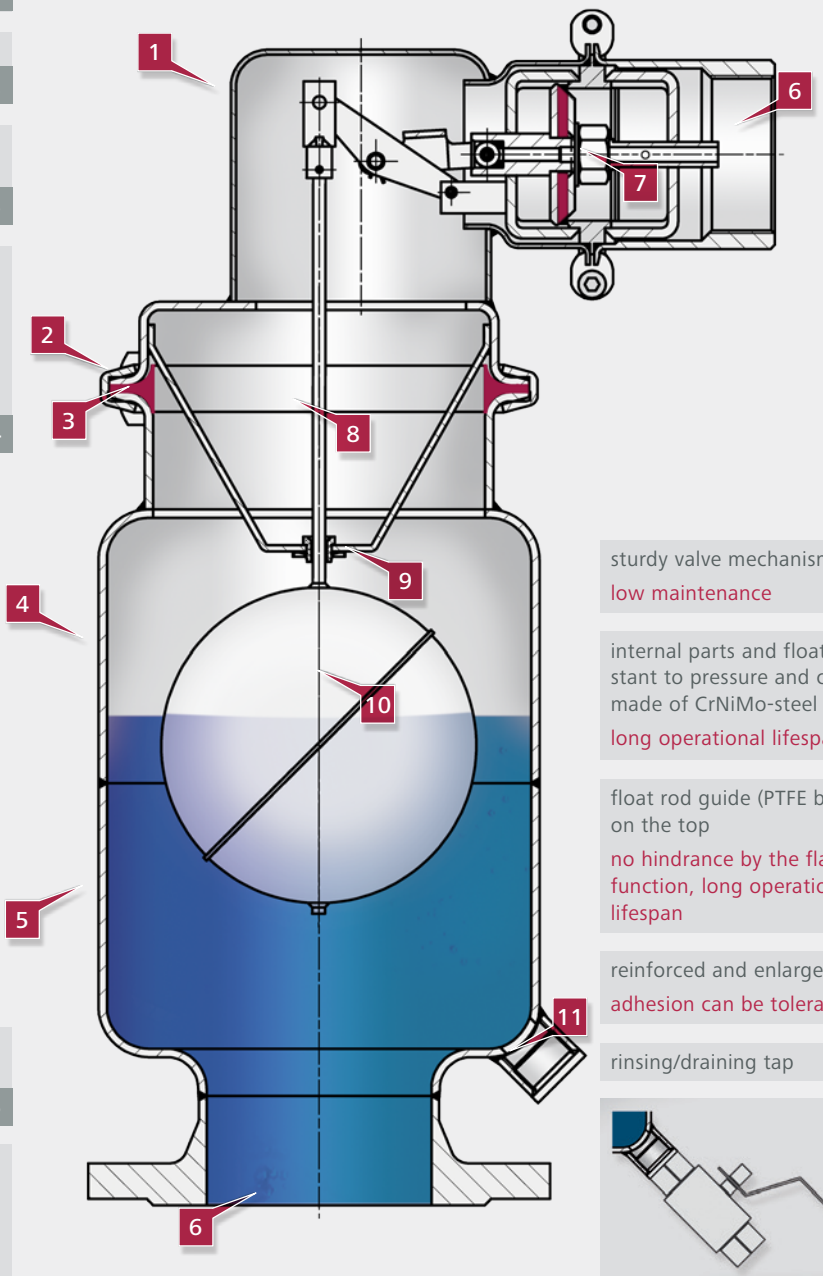
standard surface < Ra 1,6 µm
easy-to-clean 1

Mankenberg clamp system
easy-to-maintain 2

optional elastomers
suitable for ozone, FDA-compatible 3

deep-drawn CrNiMo-steel (316L), corrosion-resistant, lightweight and compact
long operational lifespan, manageable installation, requiring minimum space, low delta-ferrite content possible 4

New!



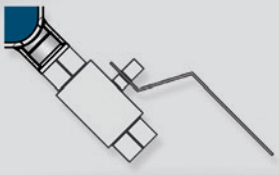
sturdy valve mechanism
low maintenance 7

internal parts and float are resistant to pressure and corrosion, made of CrNiMo-steel (316L)
long operational lifespan 8

float rod guide (PTFE bushing) on the top
no hindrance by the flap, better function, long operational lifespan 9

reinforced and enlarged float
adhesion can be tolerated 10

rinsing/draining tap 11



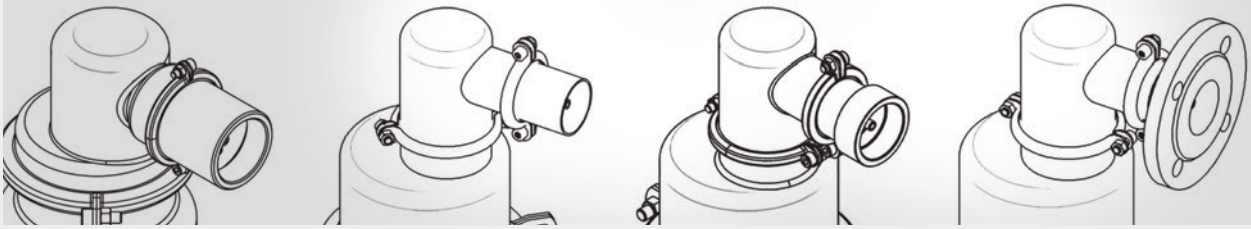
rinse ball valve (option)

extended casing
valve mechanism is kept free from contaminants 5

a wide variety of connection types: DIN- or ANSI-flanges or threaded connection on the outlet side
no adapters or fitting pieces required 6

Combined Bleeding and Venting Valve for Dirty and Sewage Water EB 1.84

thanks to a wide variety of connection possibilities, this is one of the most varied bleeding and venting valves



Mankenberg Bleeding and Venting Valves in Action

MANKENBERG

Combined Bleeding and Venting Valve for Dirty and Waste Water — EB 1.84

completely made of deep-drawn CrNiMo steel | corrosion-resistant, very lightweight and compact | long operational lifespan, manageable installation, easy-to-maintain owing to the clamp system, highest effectiveness with compact design | optimal triple functionality | especially suitable for dirty and sewage water

Inlet	DN 50 - 150	PN	10 - 16
Outlet	G2 - G 2 1/2	T_{max}	60 °C
p	0 - 16 bar	Q_{max}	1,100/140 Nm³/h

HIGH GRADE

New!

Bleeding and Venting of Dirty Pit Water in Open-Cast Mines

In the German brown coal open-cast mining sites, the mixture of sand and coal is removed above-ground by means of a special excavator technology. The ground water must be collected in wells and subsequently disposed of, in order to enable the huge excavators to work trouble-free without getting sunk in the mud. High-performance submersible motor pumps lift the water which then flows through so-called drainers to the pit water cleaning plants. Most of the drainers are arranged above-ground and constitute a pressure pipe system.

To protect the pipelines, combined startup and continuous bleeding and venting valves should be installed on high and low points. When you think of big water pipelines having a diameter of more than 20 inch. (1,000 mm), you mostly imagine sturdy steel pipes or pipes made of concrete or ceramics. However, those pipes are difficult to move, and for a number of years now they have been replaced by more lightweight plastic pipes. This provides cost advantages and has some practical reasons. Plastic pipes have the advantage that they are not corroded by the pit water, which contains ochre with different pH values. Therefore, the valves also have to be protected against wear and tear. Thanks to its basic material stainless steel 1.4404 (316L), the bleeding/venting valve EB 1.84 resists such corrosion without any problems. With the float arranged at the bottom of the valve, the valve mechanism is protected against contamination by the ochre sludge. In spite of all this, the EB 1.84 design is very compact and low. This is essential because the outside installation requires the valve to be fully functional also during long frost periods. With a low overall height of the valve, the wind load (moment) is reduced. Plastic pipes difficultly take load and compensate it.

In addition, the EB 1.84 is an excellent protection from undesirable negative pressures within the system thanks to its enormously high ventilation efficiency. Although plastic pipes are very lightweight, cost-effective and easy to handle, they need to be protected from implosion by means of an effective vacuum protection.