

Flash vessel VD with accessories

Flash Vessel Flash Vessel VD

Description

The flash vessel VD consists of a tank with a tangential condensate inlet, one outlet for flash steam and one for condensate and several connections for safety and inspection equipment. The flash vessel VD is designed for all applications where condensate, boiler blowdown or hot water produces flash steam. GESTRA flash vessels VD are particularly suited to boiler blowdown heat recovery systems. The flash vessel is thermodynamically designed and sized in accordance with the operating data.

Function

Condensate flows through the tangential inlet into the condensate tank of the flash vessel. Thanks to the tangential condensate inlet the flash vessel works like a cyclone separator, forcing the incoming condensate to flow in a spiral pattern. The rotating force generates flash steam with a residual moisture below 1%. Wire drawing effects in the flash vessel are also considerably reduced by the tangential arrangement of the condensate inlet. The design of the lower part of the flash vessel ensures that the condensate is free of steam bubbles when entering the float trap. The flash vessel VD is designed for an operating pressure of 12 bar, the material for max. 200 °C. The condensate level can be visually indicated by means of a magnetically operated liquid level gauge (optional). If necessary a bypass (optional) for the float trap can be installed. An inspection hole allows to check the condensate tank.

Condensate discharge system with pumps or electric / electropneumatic discharge control available on request.

Design

Flash vessel VD

Made from steel P265GH,
Made from steel S235JRG2,
Vertical flash vessel,
Inspection hole,

Vessel rests on sectional supports, without accessories
Vessel with pad mounting support (standard version).
If the unit is designed as compact system the vessel is
mounted on a steel frame.

Accessories (steam traps, valves, pressure & level
indicators) available at extra charge.

Stainless steel design at extra cost.

Other designs and special versions available on request.

Technical Data

Operating pressure

12 barg

Operating temperature

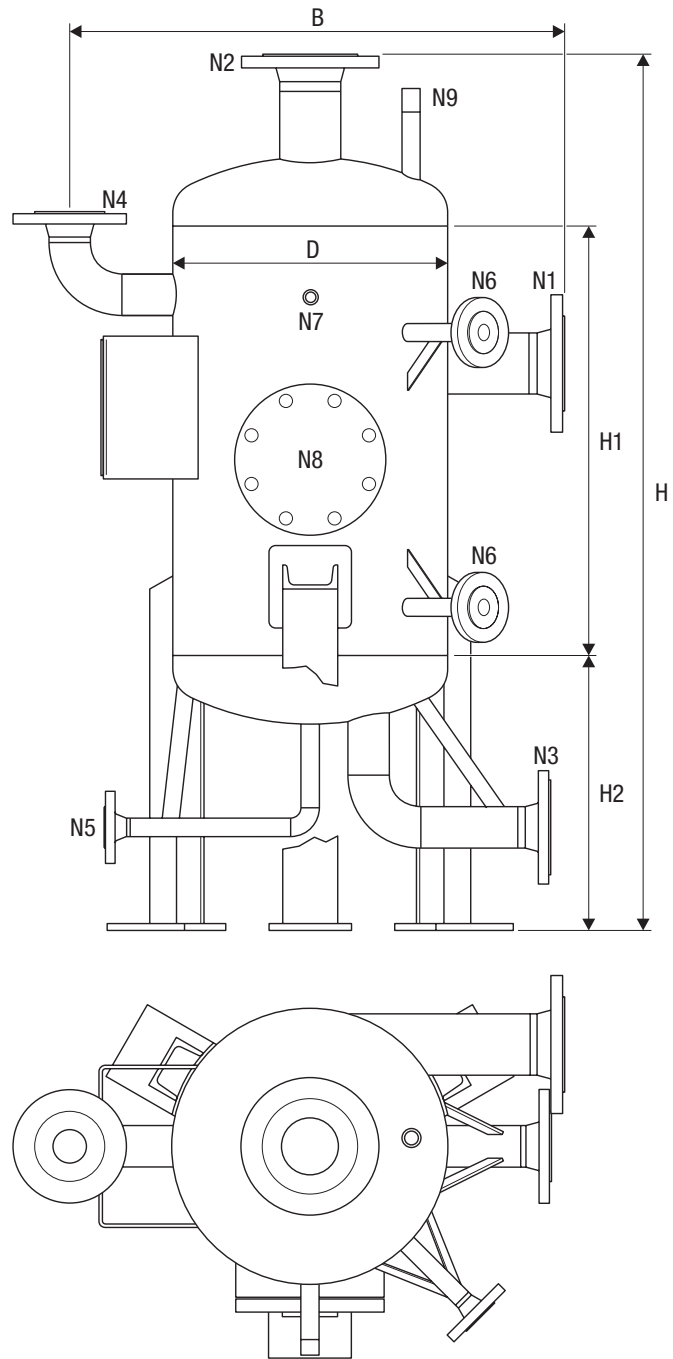
200 °C

Capacity

1.2 t/h up to 40 t/h

Higher pressures, temperatures and capacities on request.

Technical Data Flash Vessel VD



Volume	[l]	50	100	400	800	1400
Capacity	[t/h]	1.2	2.5	8	20	40
D	[mm]	324	400	600	800	1000
H	[mm]	1199	1229	1985	2310	2486
H ₁	[mm]	625	625	1250	1500	1500
H ₂	[mm]	335	350	440	478	616
B	[mm]	654	750	950	1150	1450
Condensate inlet N1	DN					
Flash steam outlet N2	DN					
Condensate outlet N3	DN					
Safety valve N4	DN					
Drain N5	DN					
Water level N6	DN					
Pressure gauge N7	DN					
Inspection hole N8*)	DN					
Air balance pipe N9	DN					
Weight	[kg]	100	115	200	350	410

Inlet/outlet sizes in accordance with operating data specification.

*) Oval design of inspection holes for vessels acc. to paragraph 3.3 PED

Flash Vessel

Flash Vessel VD

Important Notes

Flash vessel made from stainless steel: The chloride content of the condensate must not exceed 50 mg/l (conductivity 250 µS/cm).

Order & Enquiry Specification

GESTRA Flash vessel

Condensate flowrate	[kg/h]
Steam pressure at consumer (P 1)	[bar]
Flash steam pressure (P 2)	[bar]
Backpressure at condensate outlet (P 3)	[bar]
Flash vessel made of	Steel / stainless steel
Completely equipped with accessories	yes / no
Compact unit on base frame	yes / no
Partly equipped	
Special version	yes / no
Please enter data or delete if not applicable.	

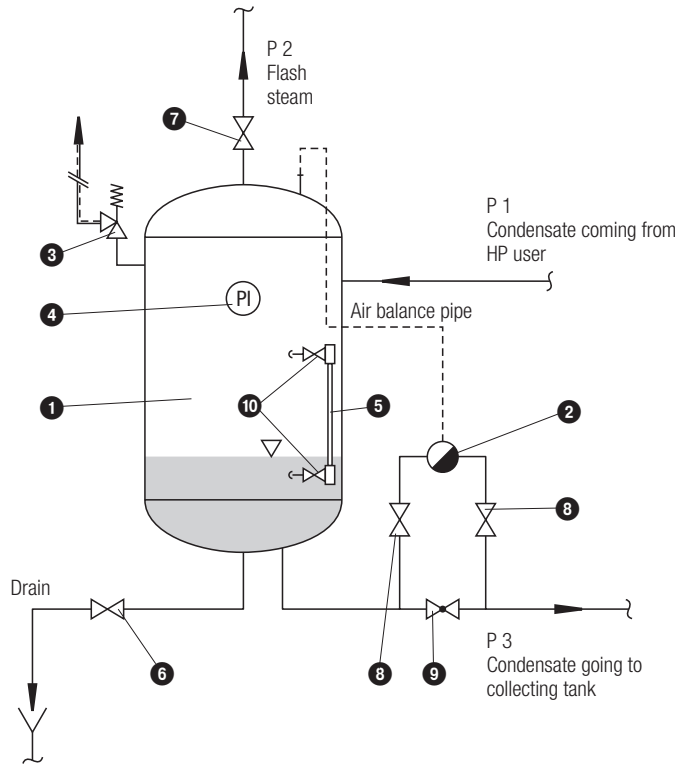
Refer to the folder "GESTRA Specification Texts" for more detailed specification.

PED (Pressure Equipment Directive)

The equipment meets the requirements of the Pressure Equipment Directive 97/23/EC and the AD 2000 Bulletins in compliance with the conformity assessment. For applications with fluids of group 1 and 2. With CE marking (apart from equipment according to section 3.3 that is excluded from the scope of this directive). For more information please refer to our PED Declaration of Conformity.

Supply in accordance with our general terms of business.

Schematic arrangement



Key

- 1 Flash vessel
- 2 Float trap UNA...
- 3 Full-lift spring-loaded safety valve GSV...
- 4 Pressure gauge unit
- 5 Water level indicator
- 6 Shut-off valve GAV...
- 7 Shut-off valve GAV...
- 8 Shut-off valve GAV...
- 9 Shut-off valve GAV...
- 10 Shut-off valve GAV...

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