

GESTRA Steam Systems

Product Range C4

Steam-Powered Condensate-Return Unit FPS 14

FPS 14

Description

The steam-powered condensate-return unit type FPS 14 collects and pumps condensate by means of booster steam in level-dependent intervals. It uses a special float valve as the control and operating mechanism, additional condensate pumps are not required.

Function

The condensate enters the vessel through the inlet pipe **G**, air venting is effected by the vent valve **H**. As the condensate level in the vessel rises, the ball float **B** is lifted. As soon as the maximum level is reached a spring mechanism integrated in the float valve **B** snaps over, closes vent valve **H**, and simultaneously opens booster-steam valve **I**. The booster-steam pressure closes non-return valve **E**, and pushes the condensate out via outlet pipe **D**. When the condensate level reaches its lowest point, the spring mechanism closes booster-steam valve **I**, and simultaneously opens vent valve **H**. Condensate can again flow into the vessel via the inlet **G** until the next cycle is reached.

Design

FPS 14:

Made from steel grade P265GH, ball float trap made of chromium steel. Vessel made of welded sheet steel, inside: untreated, outside: anti-corrosion coating. Equipped with connecting standpipes and ends, as well as two DISCO non-return valves RK... The installation rests on sectional supports.

FPS 14 Stainless Steel:

Made from stainless steel grade 1.4571, ball float trap made of chromium steel. Vessel made of welded s.s. plate, inside and outside pickled and passivated. Equipped with connecting standpipes and ends, as well as two DISCO non-return valves type RK... The installation rests on sectional supports.

Technical Data

Standard design for hot condensate flowrates up to 6 t/h. The discharge capacity decreases with rising back pressure.

For higher flowrates we recommend GESTRA condensate recovery and return systems types SD and SDR.

Max. service pressure

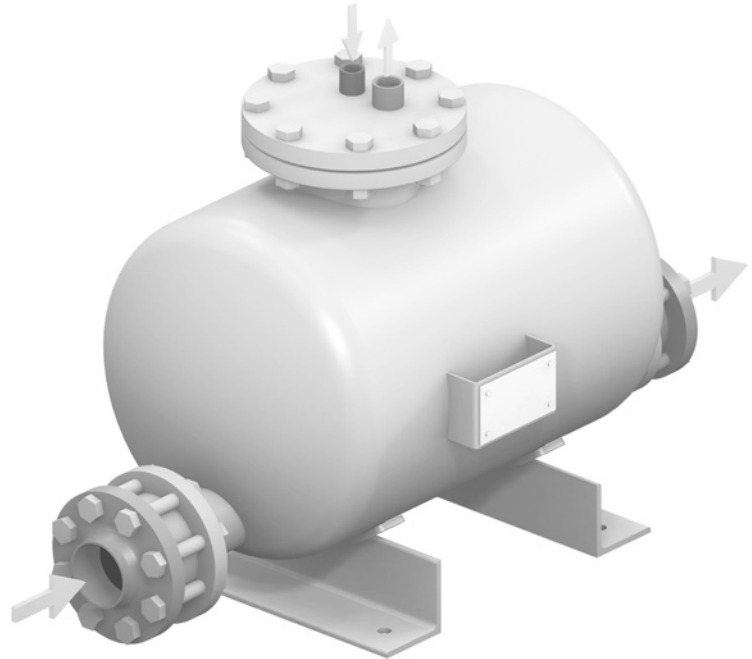
13 barg (185 psig)

Max. temperature

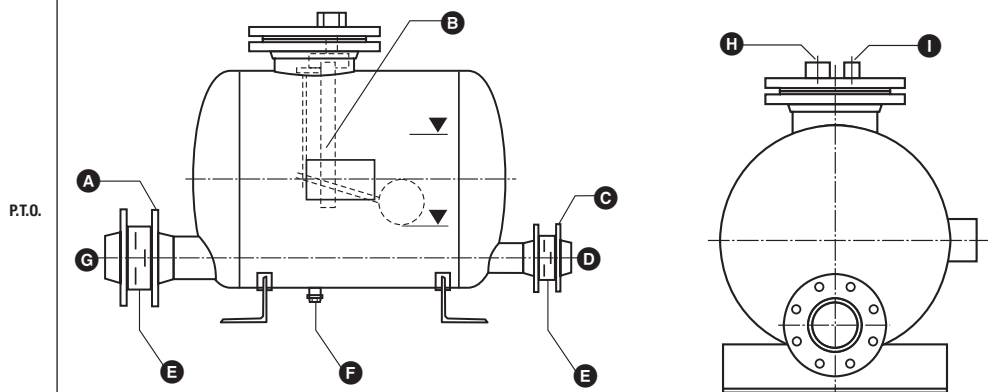
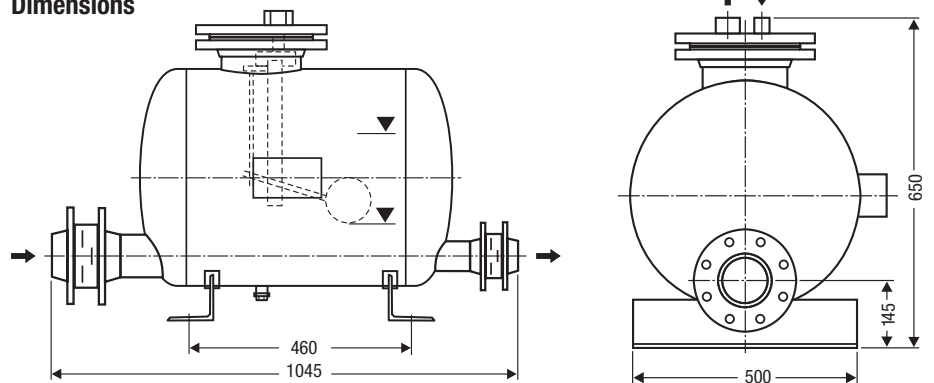
200 °C (392 °F)

Discharge head

Booster-stream pressure in bar x 0.7



Dimensions



Key

- A** Flange DN 80 mm (3"), PN 16, DIN 2633
- B** Float valve
- C** Flange DN 50 mm (2") PN 16, DIN 2633
- D** Condensate outlet

- E** Non-return valve type RK 86
- F** Drain plug
- G** Condensate inlet
- H** Vent valve 1" BSP
- I** Booster-steam valve ½" BSP

Steam-Powered Condensate-Return Unit FPS 14

Technical Data continued

Type FPS 14 Capacities		
Booster-steam [bar]	Back pressure [bar]	Capacity [t/h]
13	1.4	6.0
13	2.7	5.5
13	4.1	4.2
10	1.4	5.7
10	2.7	5.0
10	4.1	3.5
8	1.4	5.2
8	2.7	4.5
8	4.1	3.4
6	1.4	4.7
6	2.7	4.1
6	4.1	3.0
5	1.4	4.0
5	2.7	3.4
5	4.1	2.5
3	0.6	4.0
3	1.4	3.3
3	2.0	2.9
2	0.3	3.9
2	0.6	3.1
2	1.0	2.5
1	0.2	3.4
1	0.4	2.4

When ordering please state:

GESTRA Condensate Return Unit **FPS 14**

Steam pressure / Service pressure

Backpressure

Condensate flowrate

Design

Nominal size

Place of installation

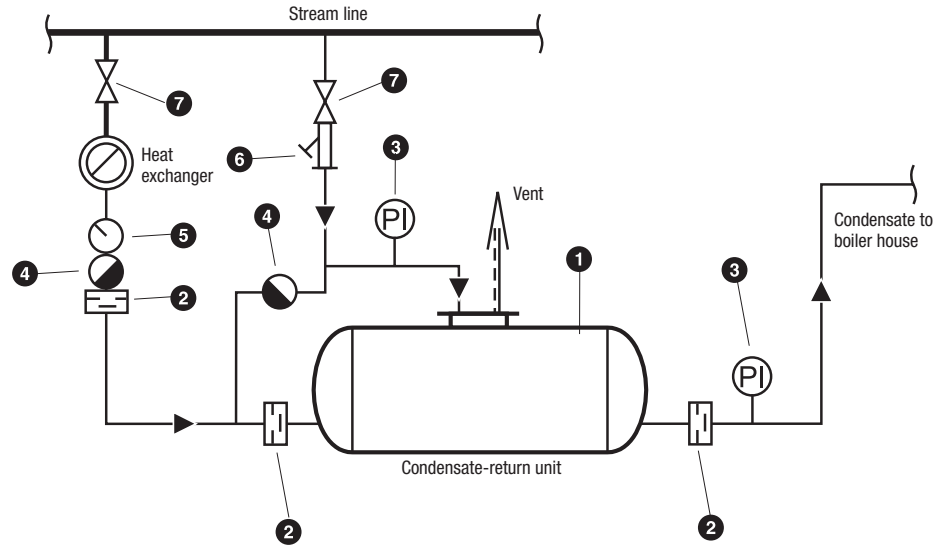
Type of steam user(s)

Please enter data if applicable.

For more information please refer to our Specification Texts.

Supply in accordance with our general terms of business.

Schematic Layout



Key

- ① Condensate return unit FPS 14
- ② DISCO Non-return valve RK...
- ③ Pressure gauge
- ④ Steam trap
- ⑤ Vaposcope VK...
- ⑥ Strainer GSF...
- ⑦ Isolating valve GAV...

PED (Pressure Equipment Directive)

These products comply with the requirements of the Pressure Equipment Directive PED 97/23/EC and the AD 2000 Bulletins, taking the conformity assessment into account. Applicable with fluids of group 1 and 2. With CE marking, except for equipment according to section 3.3. For more information refer to our PED Declaration of Conformity.

ATEX (Atmosphère Explosible)

The equipment does not have its own potential source of ignition and its therefore excluded from the scope of the ATEX Directive 94/9/EC. It can be used in Ex zones 0, 1, 2, 20, 21, 22 (1999/92/EC). Equipment without Ex marking. For more information see our ATEX Declaration of Manufacturer.

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