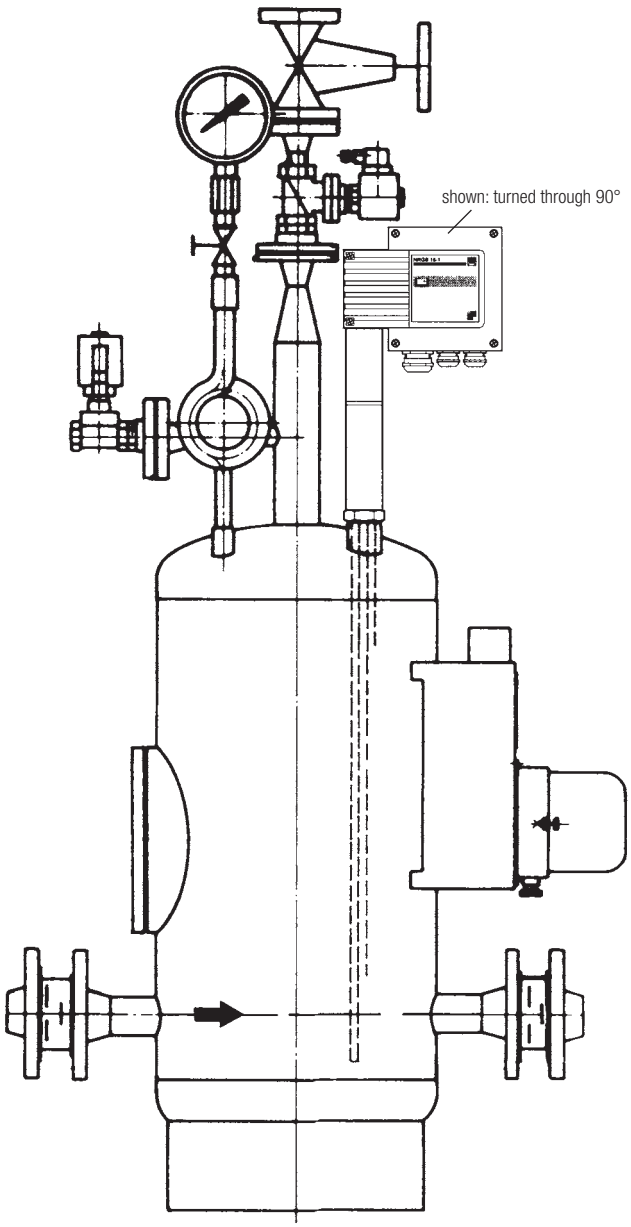


Steam-Powered Condensate-Return Unit **KH**

Description

The condensate flows into the upright cylindrical tank, displacing the air through a solenoid valve.

The tank is equipped with the compact level system type NRGS 11-1 / NRGS 16-1. As soon as the water level reaches the upper electrode tip the solenoid valve in the vent line is closed and simultaneously the solenoid valve in the booster-steam line (introduced from above into the tank) is opened. The flowing steam pushes the condensate via the condensate main into the condensate tank. The condensate level sinks and when the lower electrode tip emerges, the solenoid valve in the booster-steam line is closed and the solenoid valve in the vent line opened. The cycle repeats itself.

Before entering the condensate-return unit the condensate is collected in a condensate header to be provided on site. This condensate header should be equipped with a vent.

Condensate inlet and outlet are provided with GESTRA DISCO non-return valves type RK. The condensate-return unit is equipped with a pressure-gauge and the booster-steam line with a stop valve with characterized valve cone which permits the adjustment of the booster-steam pressure in accordance with the length of the condensate discharge line and the prevailing back pressure.

As the condensate-return unit operates without a float it is unaffected by waterhammer.

Continuous drainage of the booster-steam line upstream of the solenoid valve is ensured by a GESTRA steam trap.

The steam traps, non-return valves and compact systems are described in separate data sheets.

Pressure / Temperature Rating

Max. service pressure	12 barg (174 psig)
Max. temperature	200 °C
Discharge head	Booster-steam pressure in bar x 0.7
Mains supply	230 V, 50 Hz
Protection*)	IP 65

*) Explosion-proof design on request.

Materials

P 265 GH
1.4541 and 1.4571 on request

Capacity Range

Standard design for hot condensate flowrates up to 10 t/h.

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

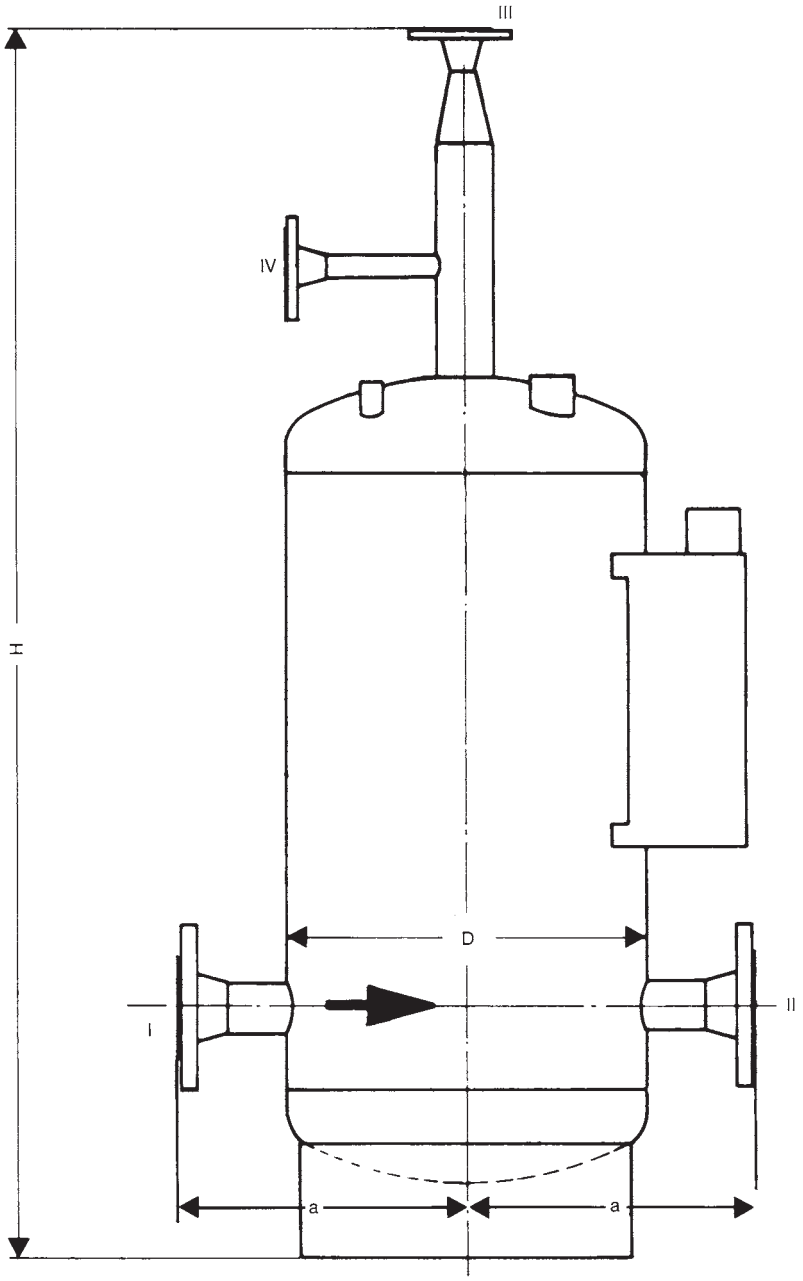
Supply

Vessel with equipment completely mounted and inter-connected, inclusive of counterflanges, bolts and gaskets.

Design

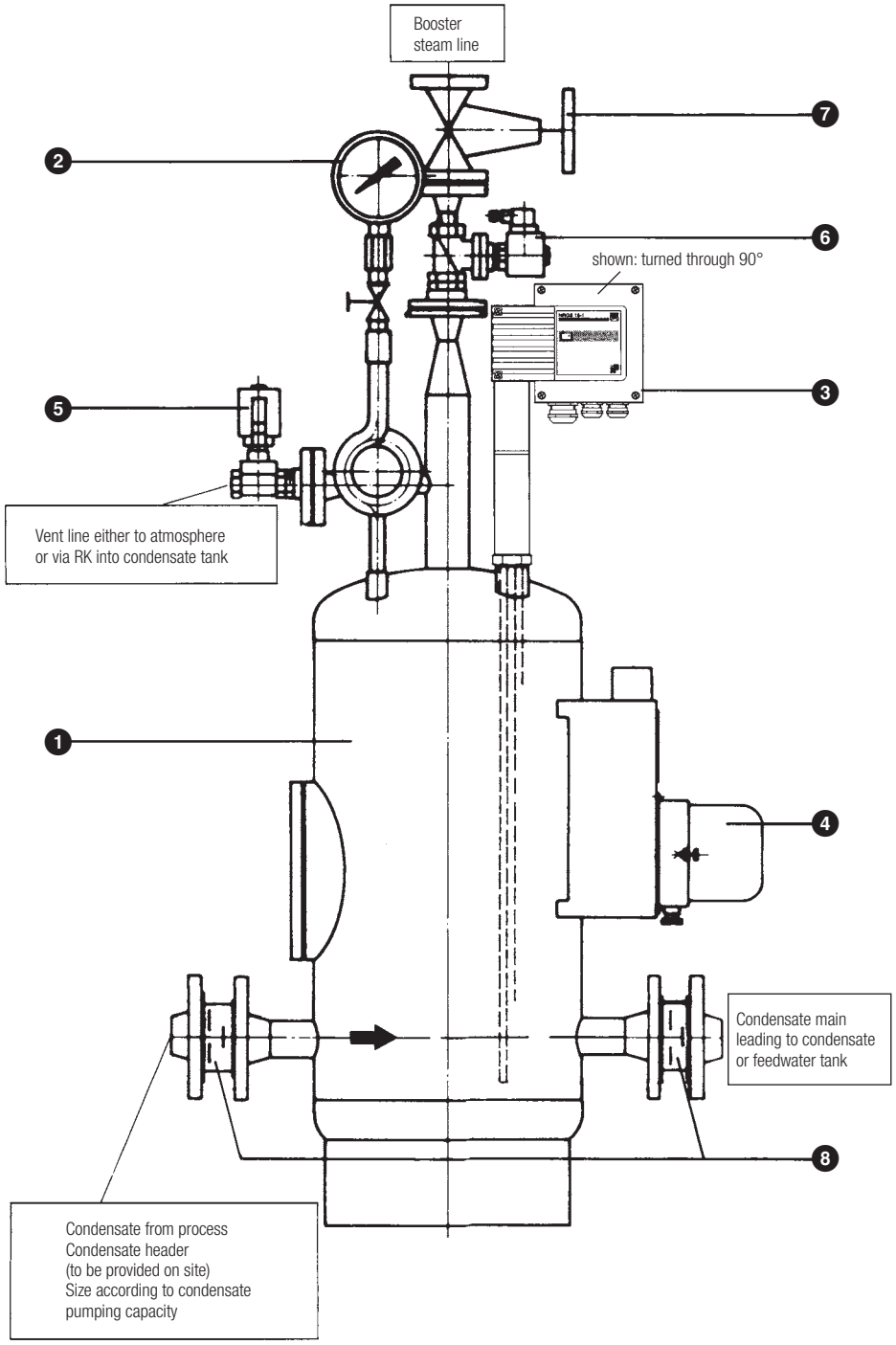
Vessel of steel plate in welded construction. Inside untreated, outside provided with an antirust paint. The equipment is supplied with all necessary connections on a round support.

Steam-Powered Condensate-Return Unit KH



Type		KH 13-2	KH 13-3	KH 13-5*)	KH 13-10*)
Capacity	t/h	2	3	5	10
Volume	l	50	75	100	390
Dimensions [mm]	D H H_1**) a	324 1100 1540 260	324 1400 1750 260	400 1190 1570 300	600 2240 2580 450
Connections I Condensate inlet II Condensate outlet III Booster-steam inlet IV Vent	DN [mm]	 40 40 15 15	 40 40 20 20	 50 50 20 20	 80 80 25 25
Material		P 265 GH	P 265 GH	P 265 GH	P 265 GH
Max. service pressure	barg psig	12 174	12 174	12 174	12 174
Max. temperature	[°C]	200	200	200	200
Approx. weight	[kg]	250	265	300	450

*) TÜV inspection required in Germany
**) H_1 Total height inclusive of valves



Key

1. Condensate tank
2. Pressure gauge
3. Multiple level control electrode
4. Terminal box KH-NRGS
5. Solenoid valve in vent line
6. Solenoid valve in booster-steam line
7. Stop valve
8. DISCO non-return valves RK 86

Steam-Powered
Condensate-Return Unit
KH

Equipment for Steam-Powered Condensate-Return Unit KH

Pressure gauge assembly ½" BSP consisting of pressure gauge ½" BSP, (case diameter 100 mm, indicating range 0 – 16 bar), pressure-gauge isolating valve ½" BSP, syphon ½" BSP, coil-type

Compact system NRGS 16-1, connection 1" BSP

GESTRA Terminal box KH NRGS
Solenoid valve for booster-steam line and solenoid valve for vent line, positions "OPEN" / "CLOSED".

Solenoid valve type 85720, screwed connections, body material: brass, normally closed, 0 – 16 bar, max. 200 °C, 230 V, 50 Hz, sealing material: Teflon

Isolating valve type GAV 24F. PN 16, material: GGG 40.3, maintenance-free, with regulating cone.

GESTRA DISCO non-return valve type RK 86, wafer-type valve, body material: 1.4317, valve disc material: stainless steel.

When ordering please state:

Steam pressure, back pressure, quantity of condensate, connections.

All inspection requirements have to be stated with the order. After supply of the equipment certification cannot be established. For tests and inspection charges please consult us.

Prices on request.

Supply in accordance with our general terms of business.

GESTRA AG

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