

GESTRA Steam Systems

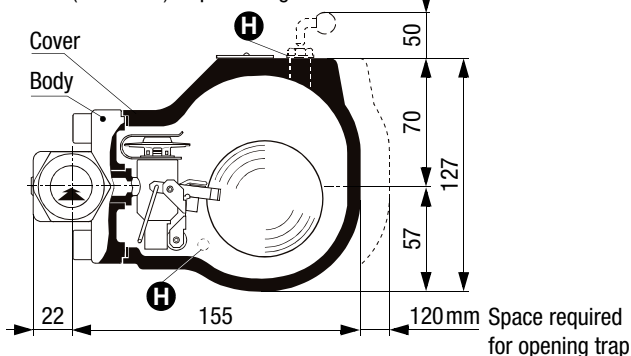
Steam Trap

UNA 13, PN16, Cast Steel

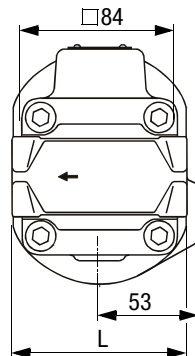
Product Range A1

UNA 13

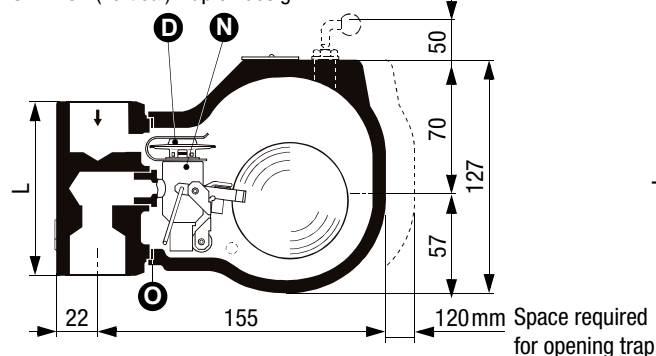
UNA 13h (horizontal) Duplex design



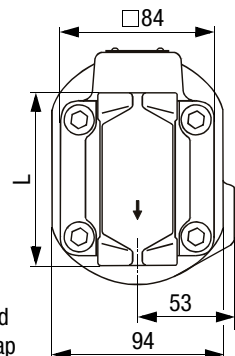
UNA 13h with screwed sockets



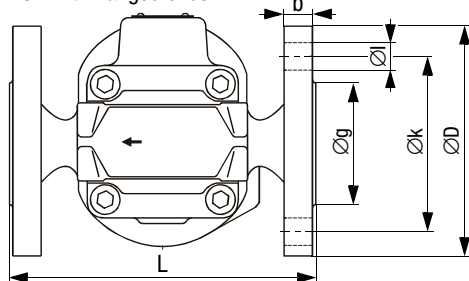
UNA 13v (vertical) Duplex design



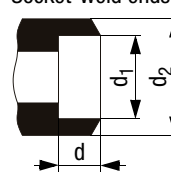
UNA 13v with screwed sockets



UNA 13h with flanged ends



Socket-weld ends



Ball-float traps with rolling ball valve. The ball valve is directly operated by the float as a function of the amount of condensate present.

The float traps can be used for all operating conditions within their operating range, as they are unaffected by back pressure.

The UNA 13 consists of a body with bolted cover, containing the control unit. The control unit can be replaced by levering it off its tapered interference-fit seat without removing the trap from the line.

The traps can be installed in horizontal lines ("h" design) or in vertical lines ("v" design). A conversion of "h" design to "v" design or vice versa is possible without any problem by repositioning body and control unit.

The direction of flow is indicated by an arrow, the position of installation by the word "Top" on the name plate.

Pressure/Temperature Rating

(DIN 2401)

UNA 13 Cast steel

PMA (Maximum allowable pressure)	barg	16	13
TMA (Maximum allowable temperature)	°C	120	300
Δ PMX (Maximum differential pressure (inlet pressure minus outlet pressure))		13 bar (188 psi)	

Connections

UNA 13 h/UNA 13 v, PN 16:

Screwed sockets: BSP or NPT (API).

Flanges: DIN/EN PN 16 or ASME Class 150

Socket-weld ends

Butt-weld ends

Available Designs

UNA 13 h

for horizontal pipework, flow from left to right (seen from the cover side).

DN 15-25 mm (½-1").

Conversion to obtain flow from right to left possible.

UNA 13 v

for vertical pipework with downward flow

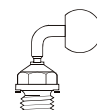
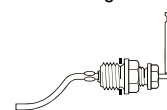
DN 15-25 mm (½-1").

Duplex: Float control with thermostatic capsule 5N2 for automatic temperature-dependent air-venting from steam systems (e.g. UNA 13 h, Duplex, orifice 13, DN...).

On request all traps can be supplied with lifting lever (for purging) and hand-vent valve or upper and lower ¾" BSP connections (with plugs) in the cover for subsequent fitting of float-lifting lever, hand-vent valve or an air-balance pipe.

Float-lifting lever

Hand-vent valve



Materials	EN/DIN reference	ASTM equivalent ¹⁾
Body	Cast steel GS-C25 (1.0619)	A216-WCB
Cover	Cast steel GS-C25 (1.0619)	A216-WCB
Ball float	Stainless steel X6 CrNiMoTi 17 122 (1.4571)	A 182 F 316
Seat	Stainless steel X10 CrNiS 189 (1.4305)	AISI 303
Ball valve	Stainless steel X5 CrNi 189 (1.4301)	A 182 F 304
Fixing screws	Alloy steel 40 CrMoV 4 7 (1.7711)	A 193 B 16
Cover gasket	Graphite/CrNi	
Thermostatic capsule 5N2	Hastelloy/Stainless steel	
Other internals	Stainless steel	

¹⁾ Physical and chemical properties comply with EN/DIN grade. ASTM nearest equivalent grade is stated for guidance only.

Dimensions				
Nominal sizes DN	mm inch	15 ½	20 ¾	25 1
UNA 13h / UNA 13v Overall length in mm Screwed BSP/NPT Flanged DIN/EN Flanged ASME Socket-weld ends Butt-weld ends	L	95 150 150 95 200	95 150 150 95 200	95 160 160 95 200
Flange DIN/EN measurements in mm UNA13h / UNA13v	D b k g l	95 14 65 45 14	105 16 75 58 14	115 16 85 68 14
Number of bolts		4	4	4
Socket-weld ends in mm	d1 d2 d	22 32 10	27 38 13	34 40 13

Capacity Chart

The chart shows the maximum capacities of hot condensate for the range of orifices and sizes available for the float-controlled traps (without thermostatic capsule). The cold-water capacities are: Capacity of hot condensate multiplied by factor F.

The capacities are dependent on the differential pressure (working pressure). The differential pressure is the difference between inlet and outlet pressures and depends among other things on the run of the condensate line. If the condensate downstream of the trap is lifted, the differential pressure (working pressure) is reduced by approximately 1 bar for 7 m (or 2 psi for 3 feet) lift.

The maximum admissible differential pressure is dependent on the cross-sectional flow area of the orifice and the density of the liquid.

The standard designs of the traps for condensate from steam are available for the following maximum differential pressures:

UNA 13: 13 bar (188 psi).

If, however, larger capacities are required, special orifices are available for differential pressures of:

UNA 13: 4 bar (58 psi).

When ordering please state:

Inlet pressure, outlet pressure, quantity of condensate to be discharged, design, size and desired orifice, position of trap and details of application.

The following test certificates can be issued on request, at extra cost:

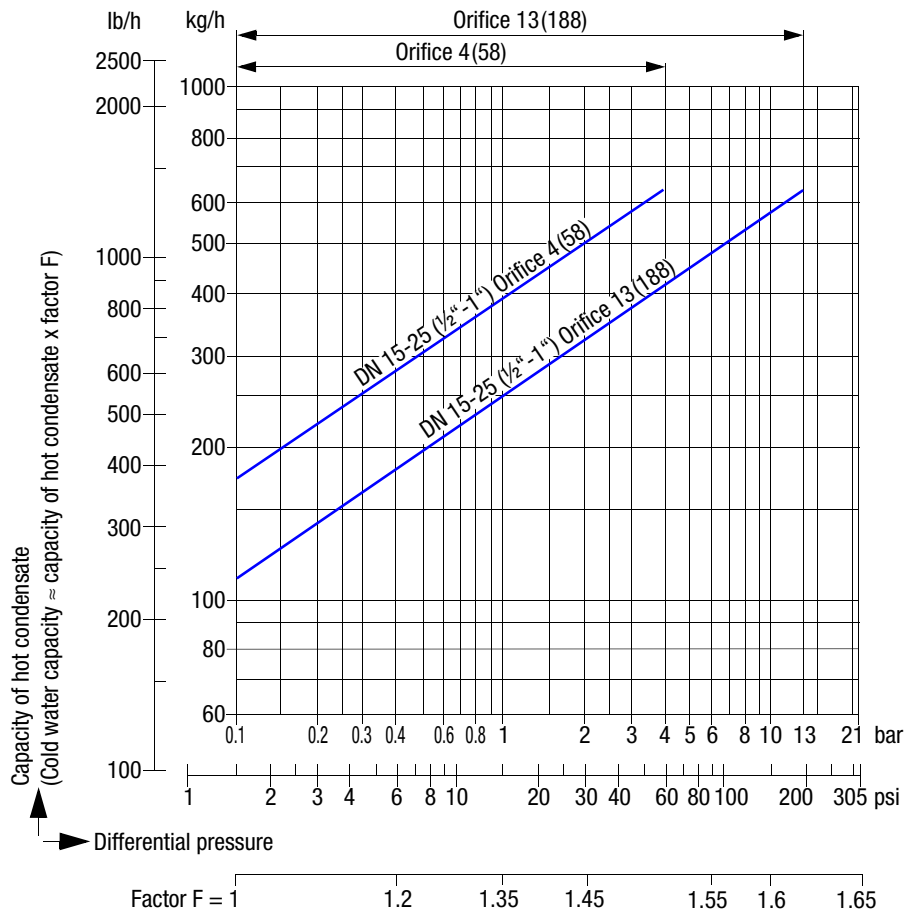
In accordance with EN 10204-2.2 and -3.1 A, -3.1 B and -3.1 C.

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

Supply in accordance with our general terms of business.

Technical modifications reserved.

Spare Parts	
Item	Designation
H	Gasket A17x23
O	Body gasket (graphite/CrNi)
D	Thermostatic capsule 5N2
N O	Control unit Duplex, complete
	Orifice 4 Orifice 13



Additional cold-water start-up capacity due to thermostatic capsule (Duplex design)										
Cold water Δp	bar	1	2	3	4	6	8	10	13	21
	psi	14.5	29	44	58	87	116	145	188	305
approx.	kg/h	180	230	330	410	480	540	600	680	825
approx.	lb/h	397	507	727	904	1058	1190	1322	1499	1819

K _V values (m³/h)	
DN 15-25 mm (½"-1")	Duplex
Orifice 4	0.71
Orifice 13	0.51

Approx. weight			
Flanged	kg	6.0	6.5
Screwed socket-weld ends butt-weld ends	kg	4.5	4.5

$$1 C_V (\text{U.S.}) = 1.17 \cdot K_V, 1 C_V (\text{U.S.}) = 0.98 \cdot K_V$$



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