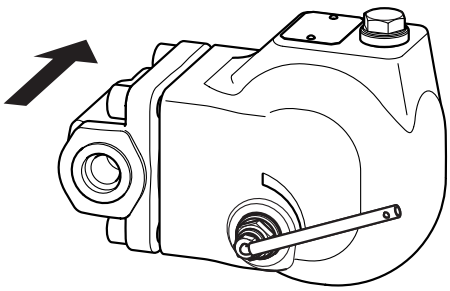
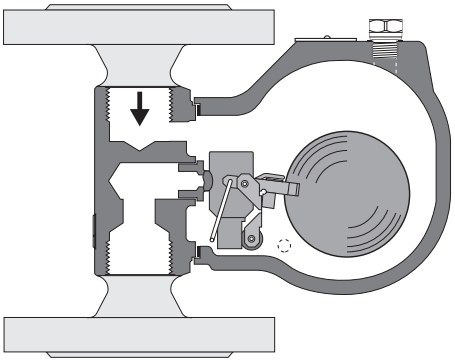


UNA 14PhI
Standard
Including manual float lifting lever



UNA 14Pv,
Simplex control unit

Condensate drain for compressed air / air trap
UNA 14P, PN 25
DN 15, 20, 25, NPS ½", ¾", 1"

System description

Type UNA 14P air traps are used to trap condensate in compressed air and other gases or gaseous mixtures.

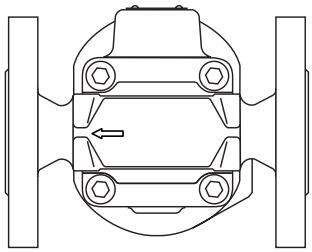
The equipment comprises a ball-float steam trap with a ball float and a sealing unit with rolling ball. As their operation is unaffected by backpressure, the equipment is suitable for universal use.

- Suitable for large condensate flowrates

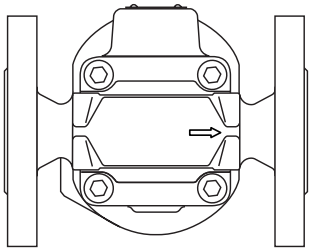
Design

The equipment consists of a body with flange-mounted cover and a control unit.

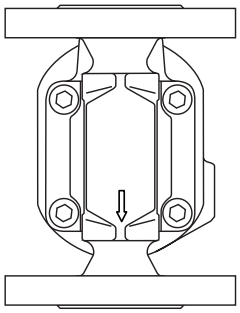
The different equipment versions allow you to adjust the direction of flow of the equipment to suit your system. The equipment can subsequently be converted from the "h" to the "v" version and vice versa by rotating the cover and the controller.



Position "hl"
Direction of flow to the left
for a horizontal pipe



Optional position "hr"
Direction of flow to the right
for a horizontal pipe



Position "v"
Downward flow for vertical
pipes

Design

The control unit is available with different rolling balls. Rolling ball made of stainless steel or Perbunan.

- **Simplex** (level-dependent float control): float control particularly suited to cold condensates from compressed air and other gases or gaseous mixtures.

Orifice

Maximum differential pressure ΔPMX

Orifice	ΔPMX bar
13	16

Optional extras

- Perbunan rolling ball

Fluids

The equipment is designed for the following fluids (in accordance with the EU Pressure Equipment Directive or Pressure Equipment (Safety) Regulations in the UK):

UNA 14P

- Group 2 fluids

Chemical and corrosive influences must be taken into consideration.

Use in potentially explosive atmospheres

The equipment does not have its own potential source of ignition (as per ATEX Directive). Please note the following:

During operation, avoid excessive surface temperatures caused by the fluid. The equipment itself does not generate higher surface temperatures.

Once installed, static electricity may arise between the equipment and the connected system. If the equipment is used in potentially explosive atmospheres, the plant manufacturer or owner is responsible for discharging or preventing possible static charge.

If it is possible for fluid to escape, e.g. through actuating mechanisms or leaks in threaded joints, the plant manufacturer or owner must take this into consideration when dividing the area into zones.

Function

The control unit opens the orifice (O) based on the fill level. This regulates the drainage rate. With the orifice opened to maximum, the drainage rate depends on the diameter of the orifice.

The manual float lifting lever can be used to lift the float manually.

Connections

We reserve the right to design connections as welding neck flanges, socket-weld ends or butt-weld ends via transition pieces.

UNA 14P

- Screwed socket ISO 228-1, G
- Flange EN 1092-1 B1, PN 25
- Screwed socket ASME B 16.11, NPT

Condensate drain for compressed air / air trap

UNA 14P

Materials

Component	EN	ASME / ASTM
Body of UNA 14P	1.0460	SA105
Cover of UNA 14P	5.3103	A536 60-40-18[1]
Body gasket	Graphite/CrNi	
Other controller parts, sealing ring	Stainless steel	

[1] ASME/ASTM material is comparable to EN material. Pay attention to differences in chemical and physical properties. The rolling ball is also available in Perbunan.

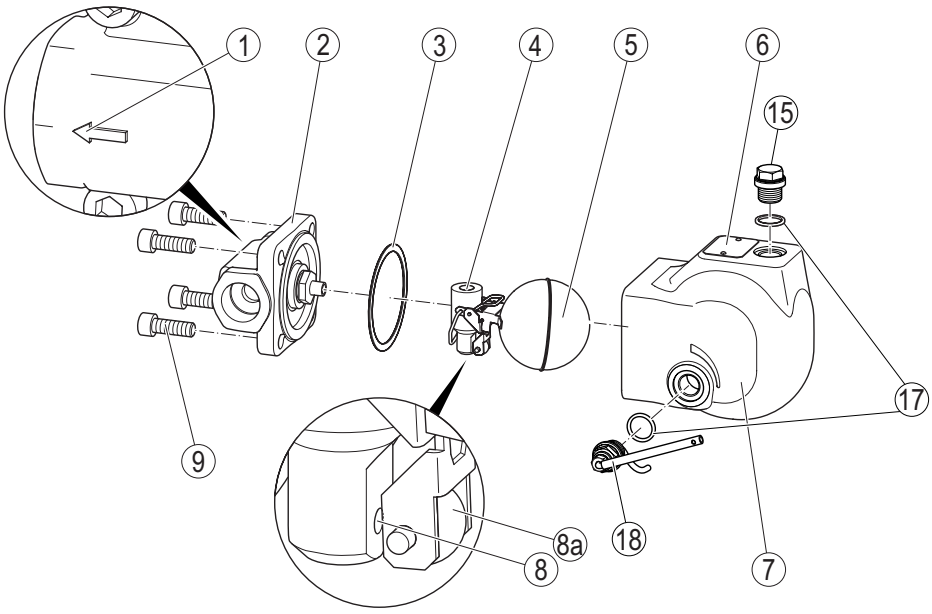
Pressure and temperature ratings

UNA 14P, flange PN25, screwed socket G, screwed socket NPT

p Pressure[1]	barg	25.0	21.4	19.4	17.7	16.0	15.1
T Temperature[1]	°C	–10 — 50	100	200	250	300	350
Δ PMX Max. admissible differential pressure at Orifice 13	bar	16					
Max. temperature for stainless steel rolling ball	°C	120					
Max. temperature for Perbunan rolling ball	°C	40					

[1] Ratings for strength of body/cover to EN 1092-1

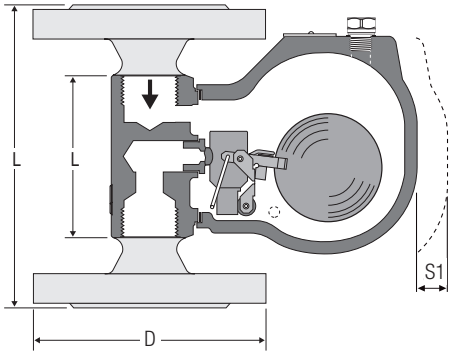
Equipment overview



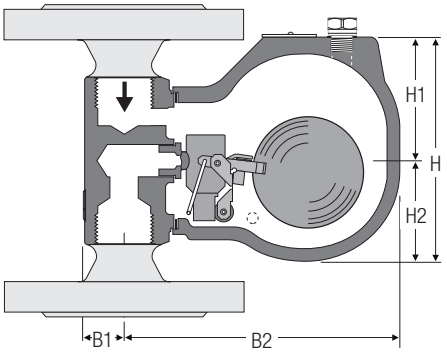
No.	Designation
1	Direction of flow arrow
2	Body
3	Body gasket
4	Control unit (SIMPLEX)
5	Float
6	Name plate
7	Cover
8	Drain outlet in orifice (O)
8a	Rolling ball
9	4 hexagon socket head bolts
15	Sealing plug
17	Sealing ring
18	Manual float lifting lever

Condensate drain for compressed air / air trap

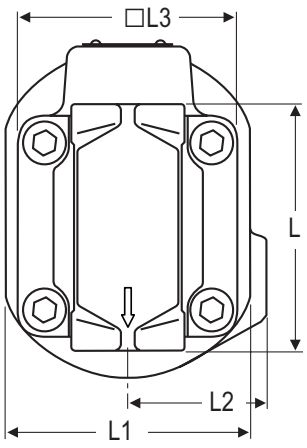
UNA 14P



UNA 14Pv,
DN 15 — 25



UNA 14Pv,
DN 15 — 25



UNA 14Pv,
screwed socket

Dimensions and weights

All equipment

	mm	in"
H	127	5"
H1	70	2.8"
H2	57	2.2"
B1	22	0.9"
B2	156	6.1"
L1	94	3.7"
L2	53	2.1"
L3	84	3.3"
S1 Cover service dimensions	120	4.7"

Manual float lifting lever: an additional 35 mm (1.4 in").

Sealing plug: an additional 13 mm (0.5 in").

Equipment with attached socket wrench requires additional clearance of 100 mm (4 in").

UNA 14P, flange PN25

		PN		
Nominal size	DN	15	20	25
	NPS	½"	¾"	1"
L Length	mm	150		160
	in"	5.9"		6.3"
D Flange ∅	mm	95	105	115
	in"	3.7"	4.1"	4.5"
Weight of UNA 14P	kg	6.6	7.3	7.7
	lb	14.6	16.1	17

UNA 14P, screwed socket G, screwed socket NPT

Nominal size	DN	15	20	25
	NPS	½"	¾"	1"
L Length	mm	95	95	95
	in"	3.7"	3.7"	3.7"
Weight of UNA 14P	kg	5.1	5.1	4.9
	lb	11.3	11.3	10.8

Condensate drain for compressed air / air trap

UNA 14P

Capacity chart

The chart shows the maximum capacities for cold condensate for all available nominal sizes and for the orifice (O) installed as standard.

The capacities are dependent on the differential pressure (working pressure). The differential pressure is the difference between the 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 being discharged.

The UNA 14P air trap is equipped as standard with an orifice (O) for a maximum differential pressure of 16 bar at a liquid density of $\rho = 1000$ kg/m³. If the density is below this value, the maximum operating range will be reduced.

Air traps for other pressure ratings are available on request.

DN 15 – 25	K_{VS} values m^3/h
Orifice 13	0.3

Orifice (O)	Hole ∅ mm (in")
Orifice 13	3.3 (0.13")

Inspection and certification

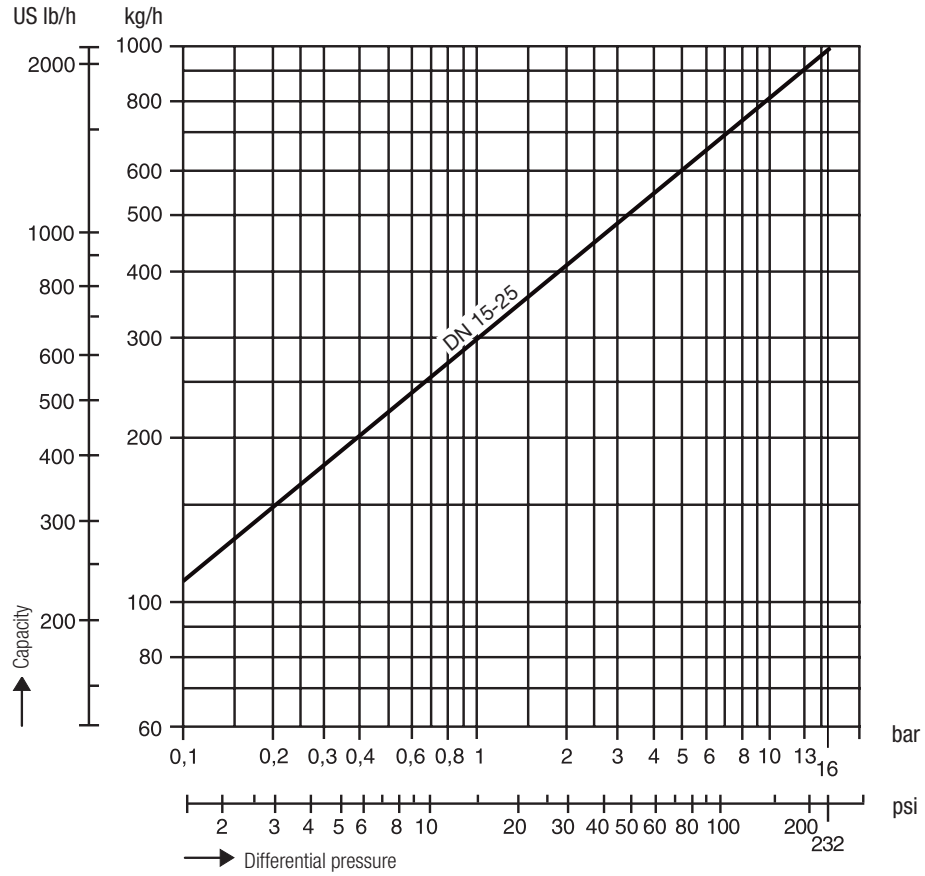
An inspection certificate to EN 10204 can be provided as verification of material and construction tests. All inspection requirements must be included in the request for a quote or in the order. Once a product has been delivered, inspection certificates can no longer be issued. The standard test scope and costs of the above-mentioned test certificates can be found in our price list "Test and Inspection Charges for Standard Equipment". If you require a different inspection scope, please request a separate quote.

Directives and standards

You can find details on the conformity of the equipment and the relevant standards and directives, where applicable, in the Declaration of Conformity and associated certificates or approvals.

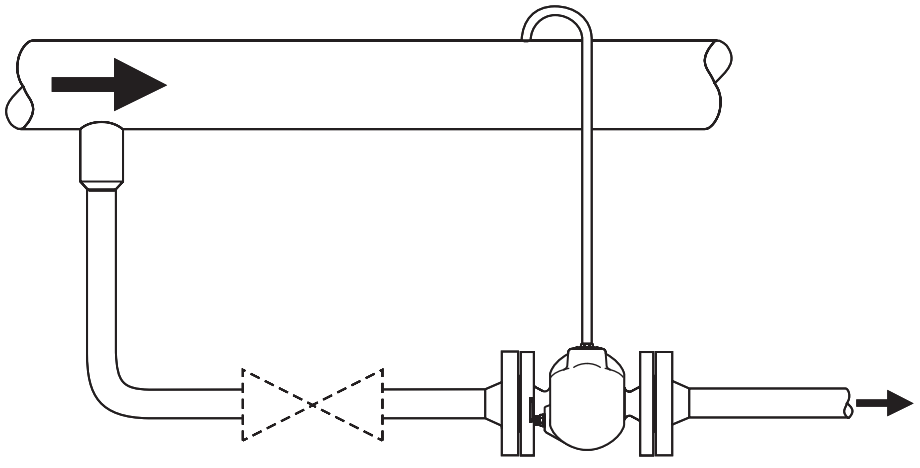
Please note our general terms of business.

Capacity chart



Installation note

The condensate/distillate must be free to flow to the UNA 14P over a steady slope. An air-balance pipe must be connected to the top hole.



	Stop valve (optional), horizontal valve spindle
	Air-balance pipe

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