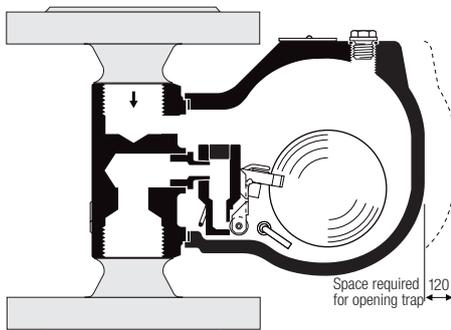
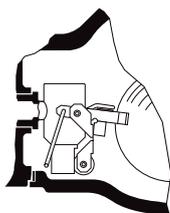
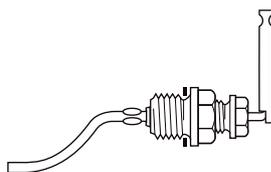


UNA 14Ph (horizontal)



UNA 14Ph (vertical)


 UNA 14P Simplex design  
with steel valve ball  
UNA 14P  
with Perbunan® valve ball


Float-lifting lever

## Air Trap UNA 14P, PN 25 DN 15, 20, 25

### Description

UNA 14P is an air trap with ball float and rolling ball valve. The steam trap can be used for all operating conditions, as it is unaffected by back pressure. It consists of a body with bolted cover and a control unit. The control unit is freely accessible after removing the cover. It can be completely replaced without having to remove the valve body from the line.

- suitable for large condensate flowrates
- „h“-design for horizontal lines
- „v“-design for vertical lines

(To convert “h” to “v” design or vice versa turn cover and control unit respectively)

### UNA 14P

The air trap is suitable for draining condensate from compressed-air and other gas lines. There are two different control units available: Control unit “SIMPLEX” with steel valve ball or control unit “SIMPLEX P” with Perbunan® valve ball. The air traps feature as standard a manual purging device (float-lifting lever) and a 3/8" BSP connection (with plug) for the subsequent fitting of an air-balance pipe.

| Pressure / Temperature Rating (DIN 1092-1) UNA 14P S.G. (ductile) iron (3 E0), PN 25 |       |     |
|--|-------|-----|
| Max. allowable pressure PMA  | [bar] | 25  |
| Max. allowable temperature TMA   | [°C]  | 120 |
|  | [°C]  | 40  |
| Max. differential pressure $\Delta$ PMX  | [bar] | 16  |
|  | [bar] | 16  |
| (inlet pressure minus outlet pressure)   |       |     |

### Materials of Construction

| Component                                    | EN number                   | ASTM                        |
|--|-----------------------------|-----------------------------|
| Body UNA 14P                                 | 1.0460 (P250GH)             | A105                        |
| Cover UNA 14P                                | 5.3103 (EN-GJS- 400-18-LT)  | A536 60-40-18 <sup>1)</sup> |
| Screws UNA 14P                               | 1.7225 (42CrMo4)            | A193-B7                     |
| Float  | 1.4571 (X6CrNiMoTi17-12-2)  | AISI 316Ti <sup>1)</sup>    |
| Orifice                                      | 1.4305 (X8CrNiS18-9)        | AISI 303 <sup>1)</sup>      |
| Rolling ball <sup>2)</sup>                   | 1.4301 (X5CrNi18-10)        | A182-F304 <sup>1)</sup>     |
| Gasket (3)                                   | Gaphite-CrNi                |                             |
| Thermostatic capsule 5N2                     | Hastelloy / stainless steel |                             |
| Other parts of the control unit, gasket (17) | Stainless steel             |                             |

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

<sup>2)</sup> A rolling ball made from Perbunan for UNA 14P is also available.

## Design

Body with bolted cover. The control unit is freely accessible after removing the cover. It can be completely replaced without having to remove the valve body from the line.

Cover with float-lifting lever (hand-purging knob) and connection for air balance line (screwed  $\frac{3}{8}$ " BSP).

Design "h" for installation in horizontal pipework

Design "v" for installation in vertical pipework

■ Simplex: Float control specially suited for the discharge of cold condensates and distillates. Rolling valve ball made of steel.

■ Simplex-P: Float control specially suited for the discharge of cold condensates and distillates. Rolling valve ball made of Perbunan®.

## Connections

### UNA 14P

- Flanges: EN 1092-1, PN 25
- Screwed sockets: BSP and NPT threads

## Dimensions

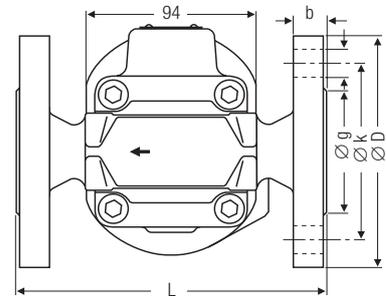
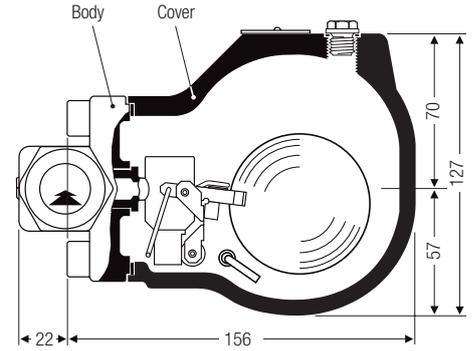
| DN                                 | [mm]<br>[inch]  | 15<br>½ | 20<br>¾ | 25<br>1 |
|------------------------------------|-----------------|---------|---------|---------|
| UNA 14P overall length             |                 |         |         |         |
| Screwed BSP/NPT                    | L <sup>1)</sup> | 95      | 95      | 95      |
| Flanges DIN EN 1092-1              |                 | 150     | 150     | 160     |
| Flange dimensions<br>DIN EN 1092-1 | D               | 95      | 105     | 115     |
|                                    | b               | 16      | 18      | 18      |
|                                    | k               | 65      | 75      | 85      |
|                                    | g               | 45      | 58      | 68      |
|                                    | l               | 14      | 14      | 14      |
| Number of holes                    |                 | 4       | 4       | 4       |

## Weight

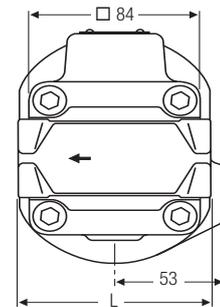
|                 |      |     |     |     |
|-----------------|------|-----|-----|-----|
| Flange          | [kg] | 6.0 | 6.5 | 7.0 |
| Screwed sockets | [kg] | 4.5 | 4.5 | 4.5 |

<sup>1)</sup> Overall length of flanged traps according to DIN EN 26554 (ISO 6554) series 1

## UNA 14Ph

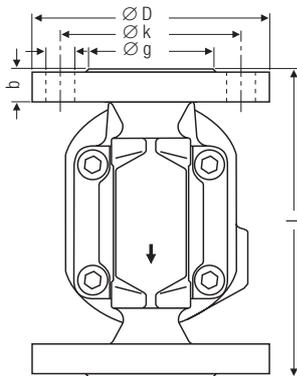
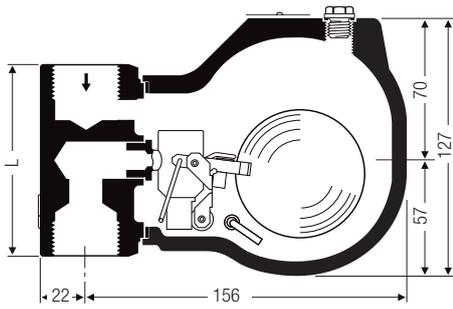


UNA 14h / UNA 16h, flanged design

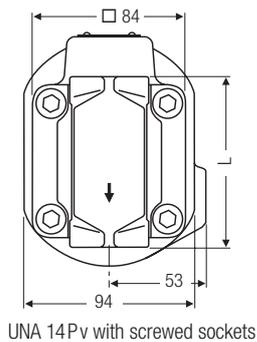


UNA 14Ph with screwed sockets

## UNA 14Pv



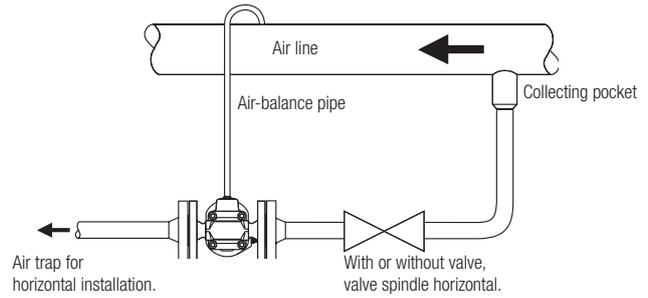
UNA 14Pv with flanged ends



UNA 14Pv with screwed sockets

## Hints on Installation:

The condensate/distillate must be free to fall towards the trap. Isolating valves in horizontal lines lead to the formation of water pockets. In this case an air-balance pipe is required (see drawing).

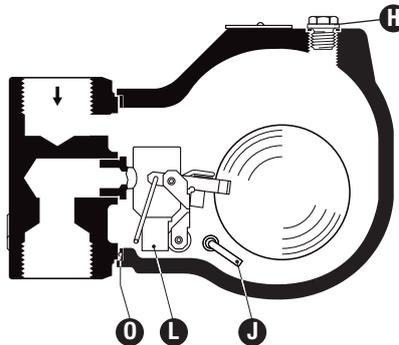


## Spare Parts

| Item              | Designation   | Stock code UNA 14P        |
|-------------------|---|---------------------------|
| <b>H</b>          | Gasket <sup>1)</sup> A17x23                           | 560486                    |
| <b>O</b>          | Cover gasket <sup>1)</sup> (graphite/CrNi)<br>67x77x1 | 560493                    |
| <b>L</b> <b>O</b> | Control unit Simplex,<br>complete                     | Orifice 13                |
|                   |   | Orifice 13P <sup>2)</sup> |
| <b>J</b> <b>H</b> | Float-lifting lever                                   | 560434                    |

<sup>1)</sup> Delivery quantity 20 pcs. For smaller quantities please contact your local dealer.

<sup>2)</sup> Control unit Simplex P with Perbunan<sup>®</sup> valve ball up to 40 °C



# Air Trap UNA 14 P, PN 25, DN 15, 20, 25

## Capacity Chart

The chart shows the maximum capacities of cold condensate for the range of sizes and orifices (O) available.

The capacities are dependent on the differential pressure (working pressure). The differential pressure is the difference between inlet and outlet pressure and depends among other things on the run of the condensate line. If the condensate downstream of the air 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 air trap UNA 14 P has a standard control unit with an orifice for 16 barg max. differential pressure and a density of the liquid of  $\rho = 1000 \text{ kg/m}^3$ . If the density is below this value, the max. admissible service pressure and temperature is reduced.

Air traps for other pressure ratings available on request.

| $k_s$ values [ $\text{m}^3/\text{h}$ ] |         |           |
|--|---------|-----------|
| DN 15 – 25                             | Simplex | Simplex P |
| Orifice 13                             | 0.3     | 0.3       |
| $\varnothing$ of orifice (O) [mm]      |         |           |
| Orifice 13                             | 3.3     |           |

## Inspection & Certification

Documentation regarding material tests and in-house examination with test report EN10204 available. All inspection requirements have to be stated with the enquiry or order. After supply of the equipment certification cannot be established. Charges and extent of the above mentioned test certificates as well as the different tests confirmed therein are listed in our Price List „Test and Inspection Charges for Standard Equipment“. For other tests and inspections than those listed above, please consult us.

## Application of European Directives

### Pressure Equipment Directive

The equipment conforms to this directive and can be used for the following media:

- Fluids of group 2

### ATEX-Richtlinie

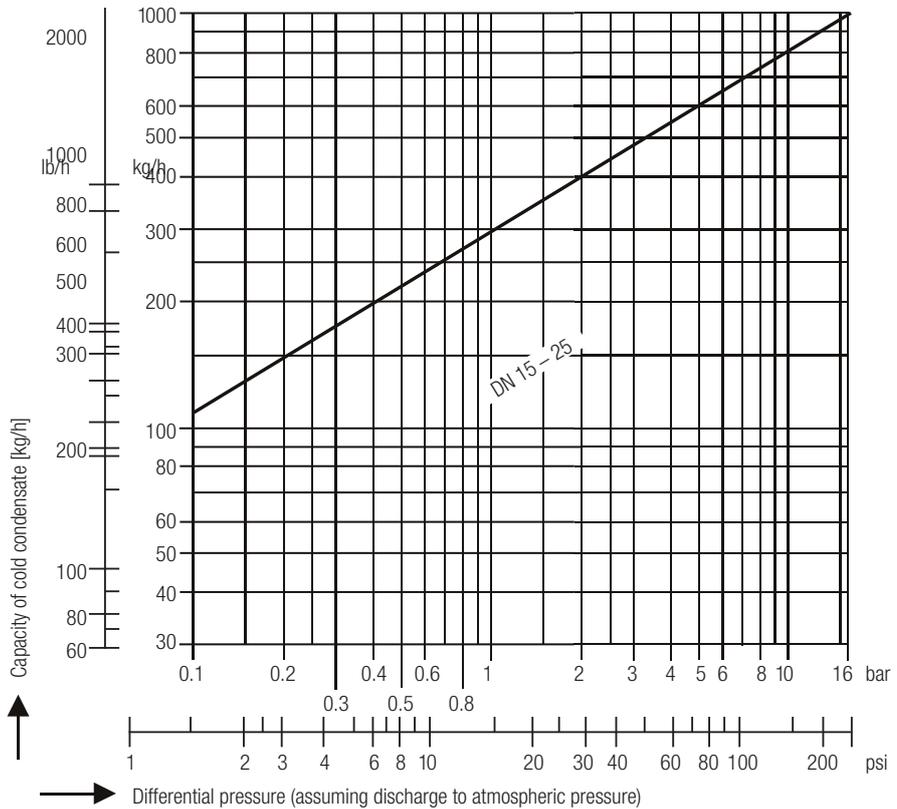
The equipment does not have its own potential ignition source and is not subject to this directive.

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

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

Supply in accordance with our general terms of business.

## Capacity Chart



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