

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

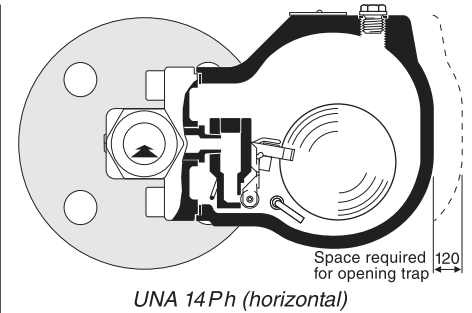
The air trap is suitable for draining condensate from compressed-air and other gas lines. There are two different control units available: Control unit “SIMPLEX” with steel valve ball or control unit “SIMPLEX P” with Perbunan® valve ball. The air traps feature as standard a manual purging device (float-lifting 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]	52
Max. allowable temperature TMA	with steel valve ball	[°C] 120
	with Perbunan® valve ball	[°C] 40
Max. differential pressure ΔPMX	with steel valve ball	[bar] 16
	with Perbunan® valve ball (inlet pressure minus outlet pressure)	[bar] 16

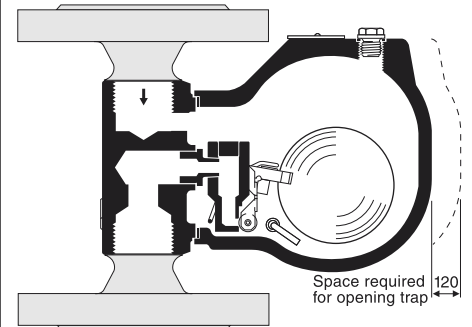
Materials	EN	DI N	AST M
Body UNA 14P	P250GH (1.0460)	C 22.8 (1.0460)	A 10 5
Cover UNA 14P	EN-GJS-400-18-LT (EN-JS-1049)	GGG 40.3 (0.7043)	A 536 60-40-18 ¹⁾
Fixing studs UNA 14P	42CrMo4 (1.7225)		A 193 B7
Ball float	X6CrNiMoTi17-12-2 (1.4571)	X 6 CrNiMoTi 17 12 2 (1.4571)	A 182 F 316 ¹⁾
Seat	X8CrNiS18-9 (1.4305)	X 10 CrNiS 18 9 (1.4305)	AISI 30 3
Valve ball ²⁾	X5CrNi18-10 (1.4301)	X 5 CrNi 18 10 (1.4301)	A 182 F 30 4
Cover gasket	Graphite-CrN i		
Other internals	Stainless steel		

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

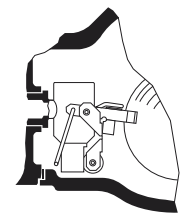
²⁾ Perbunan valve ball available as optional extra.



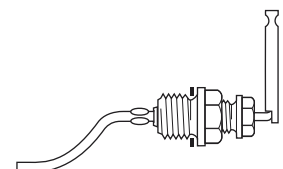
UNA 14Ph (horizontal)



UNA 14Ph (vertical)



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



Float-lifting lever

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 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

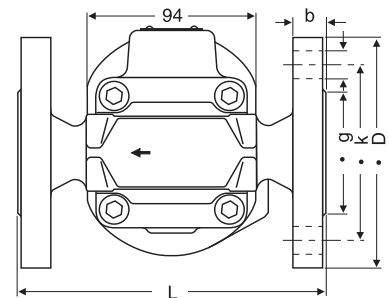
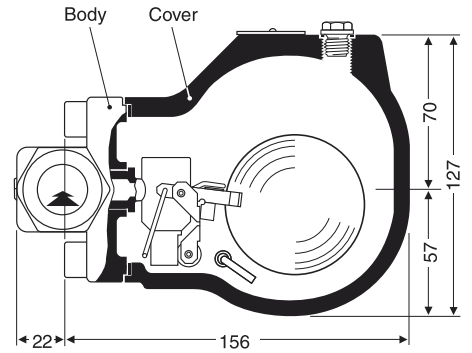
Flanges: DIN, PN 25

Screwed sockets: BSP and NPT threads

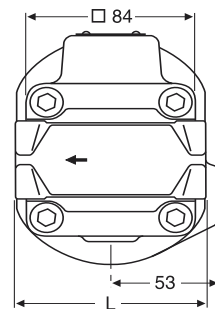
Dimensions				
DN	[mm] [inch]	15 ½	20 ¾	25 1
UNA 14P overall length	L ¹⁾			
Screwed BSP/NPT		95	95	95
Flanges DIN EN 1092-1		150	150	160
Flange dimensions DIN EN 1092-1	D	95	105	115
	b	16	18	18
	k	65	75	85
	g	45	58	68
	l	14	14	14
Number of holes		4	4	4
Weight				
Flange	[kg]	6.0	6.5	7.0
Screwed sockets	[kg]	4.5	4.5	4.5

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

UNA 14Ph

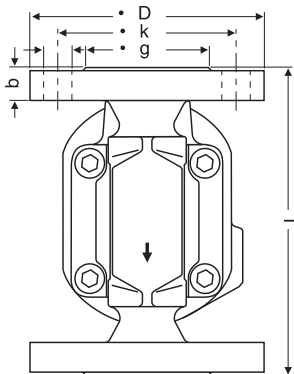
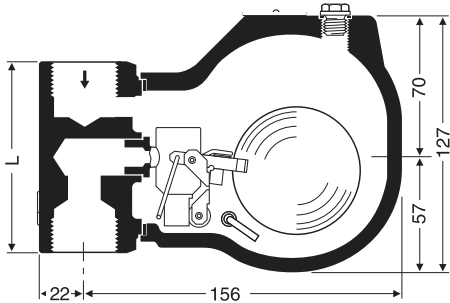


UNA 14h / UNA 16h, flanged design

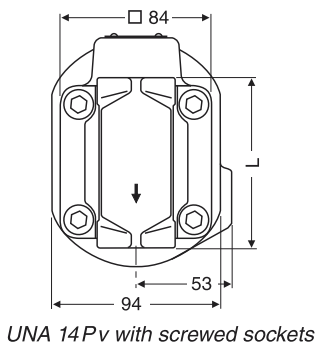


UNA 14Ph with screwed sockets

UNA 14Pv



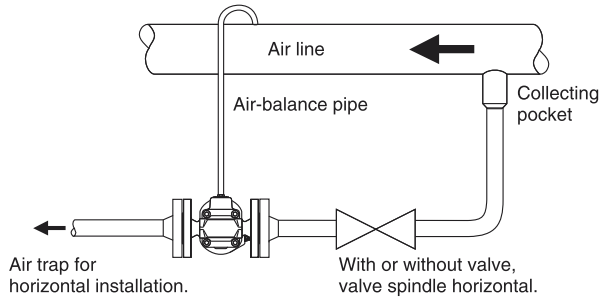
UNA 14Pv with flanged ends



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).

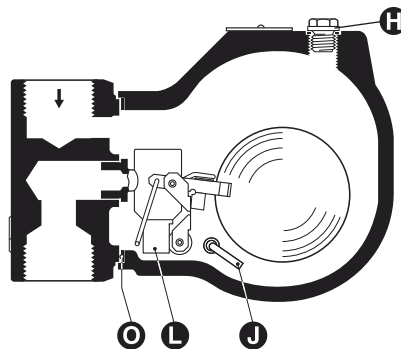


Spare Parts

Item	Designation	Stock code UNA 14P
H	Gasket ¹⁾ A 17x 23	560486
O	Cover gasket ¹⁾ (graphite/CrNi) 67x77x1	560493
L O	Control unit Simplex, complete	Orifice 13
		Orifice 13P ²⁾
J H	Float-lifting lever	560434

1) Purchasing quantity 20 pcs. For smaller quantities please contact your local dealer.

2) Control unit Simplex P with Perbunan[®] valve ball up to 40 °C



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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 _{vs} values [m ³ /h]		
DN 15 – 25	Simplex	Simplex P
Orifice 13	0,3	0,3
Ø of orifice (O) [mm]		
Orifice 13	3,3	

Available on request at extra cost:

Test certificate according to EN 10204/2.2 and -3.1B. 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.



These products meet the requirements of the EC Pressure Equipment Directive (PED) no. 97/23/eec. This pressure equipment is rated for application in fluid group 2 (non-hazardous substances). DN 15-25 are excluded from the scope of the PED (according to section 3.3) and are not entitled to bear the CE marking.

Supply in accordance with our general terms of business.

