



# CA14S

## Air and Gas Trap

### DN40 and DN50 (Flanged)

#### Description

The CA14S is a cast iron ball float air and gas trap. It is available with a metal valve cone given designation CA14S having horizontal flanged connections. The cover will be drilled and tapped 1/2" BSP or NPT for the purpose of fitting a balance line.

#### Operating Media

The CA14 is designed for use on air or gases within PED group 2.

**Note:** The CA14 is not suitable for use on PED group 1 liquids or gases.

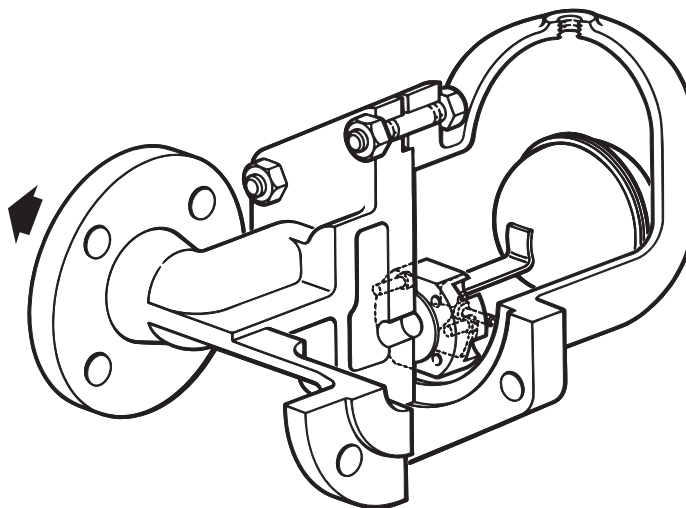
#### Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

#### Certification

This product is available with certification to EN 10204 2.2.

**Note:** All certification/inspection requirements must be stated at the time of order placement.



#### Sizes and pipe connections

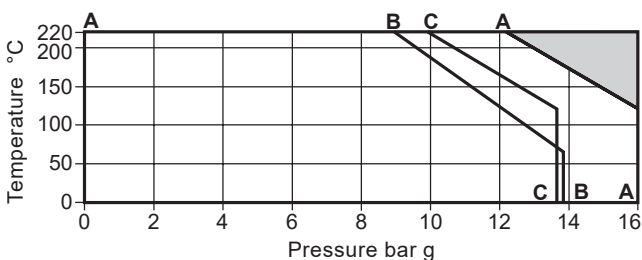
**CA14S** DN40 and DN50

Standard flanges are BS 4504 PN16.

On request ANSI B 16.1/BS 1560 class 125 and JIS/KS 10 flanges with drilled and tapped bolt holes can be provided.

PN flanges will be provided with BSP balance line and ANSI, JIS/KS with NPT balance line.

#### Pressure/temperature limits



The product **must not** be used in this region.

**A-A-A** Flanged BS 4504 PN16.

**A-B-B** Flanged ANSI B 16.1/BS 1560 class 125 having flat faces.

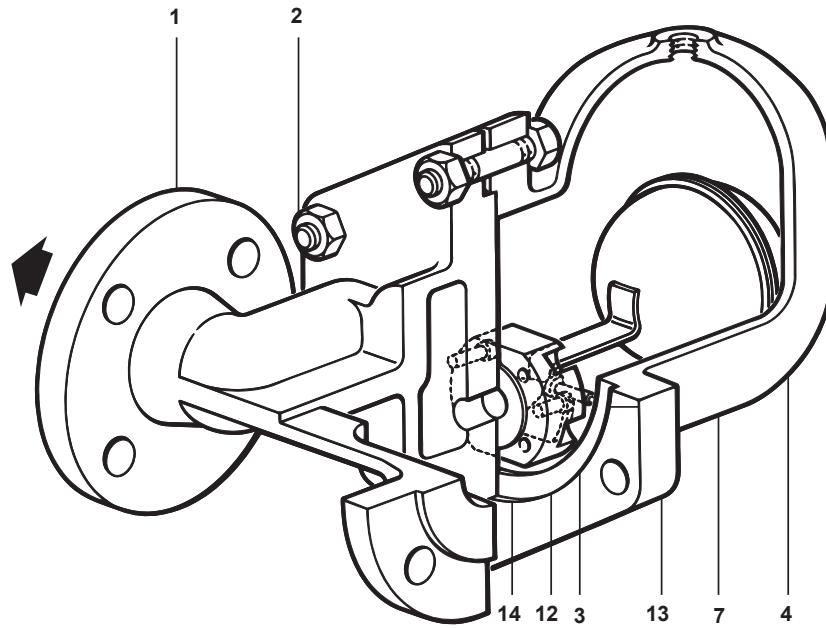
**A-C-C** Flanged JIS/KS 10.

Body design conditions	PN16
PMA Maximum allowable pressure	16 bar g
TMA Maximum allowable temperature	220 °C
Minimum operating temperature	0 °C
Designed for a maximum cold hydraulic test pressure of 24 bar g	

Where the trap is to handle a liquid having a specific gravity of less than 1, the following maximum differential pressures will apply.

Trap	Specific gravity				
	1.0	0.9	0.8	0.7	0.6
Maximum differential pressure bar					
<b>CA14S-4.5</b>	4.5	4.5	4.5	3.4	2.0
<b>CA14S-10</b>	10.0	9.5	6.8	5.5	3.4
<b>CA14S-14</b>	14.0	14.0	11.0	8.0	5.0

## Materials

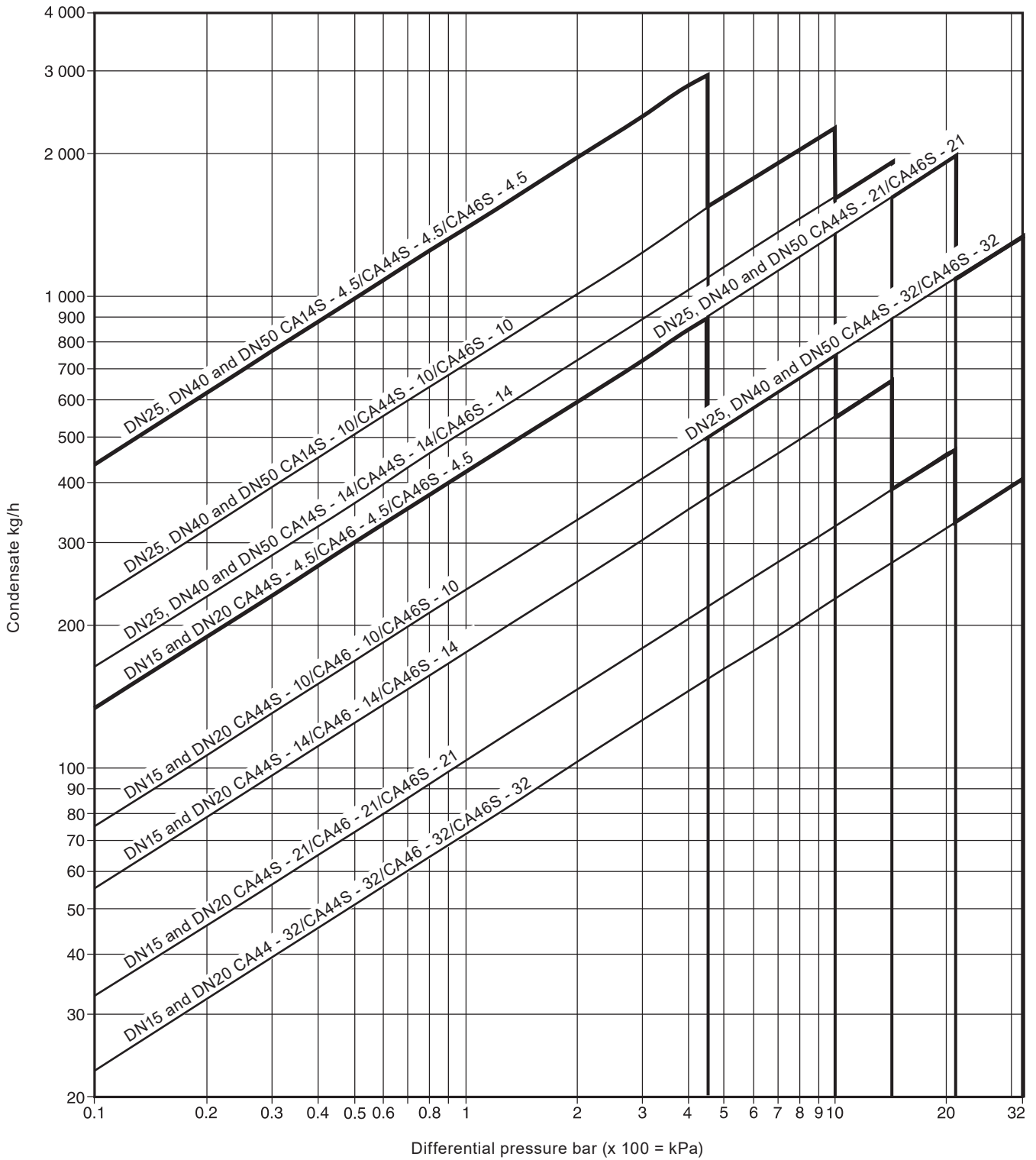


No.	Part	Material	
1	Body	Cast iron	DIN 1691 GG 25
2	Cover studs and nuts	Carbon steel	BS 3692 Gr. 8.8
3	Cover gasket	Reinforced exfoliated graphite	
4	Cover	Cast iron	DIN 1691 GG 25
5 *	Valve seat	Stainless steel	BS 970 431 S29
6 *	Pivot frame assembly bolts	Stainless steel	BS 4183 18/8
7	Ball and float lever	Stainless steel	BS 1449 304 S16
8 *	Valve cone	Stainless steel	AISI 440B
9 *	Pivot frame	Stainless steel	BS 1449 304 S16
10 *	Support frame	Stainless steel	BS 1449 304 S16
11 *	Pivot	Stainless steel	
12	Mounting plate	Stainless steel	BS 1449 316L S29
13	Mounting plate fastening bolts	Carbon steel	BS 3692 Gr. 8.8
14	Main valve assembly gasket	Reinforced exfoliated graphite	

**Note:** Items 5, 6, 8, 9, 10 and 11 are shown more clearly in spare parts.

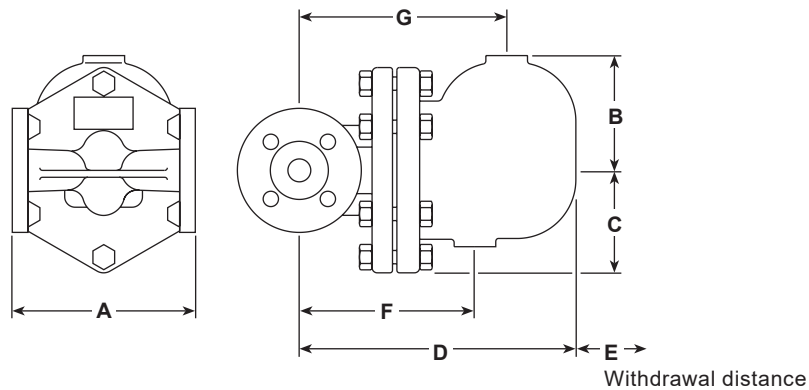
# Capacities

**Note:** The capacities provided here are calculated using water at ambient temperature. The discharge capacity is affected with a change in specific gravity, for further information contact Spirax Sarco.



## Dimensions/weights (approximate) in mm and kg

Size	PN16 A	ANSI 125 A	JIS/ KS 10 A	Flange bolt hole tappings ANSI 125	B	C	D	E	F	G	Weight
DN40	230	221	228	½" - 13 UNC-2B	128	110	312	200	187	230	21.5
DN50	230	220	228	⅝" - 11 UNC-2B	140	126	324	200	219	239	30.5



### Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P148-13) supplied with the product.

### Disposal

The product is recyclable. No ecological hazard is anticipated with the disposal of this product providing due care is taken.

### How to order

**Example:** 1 off Spirax Sarco DN40 CA14S-14 air and gas trap flanged to BS 4504 PN16 with cast iron body and cover.

## Spare parts

The spare parts available are shown in heavy outline.  
Parts drawn in broken line are not supplied as spares.

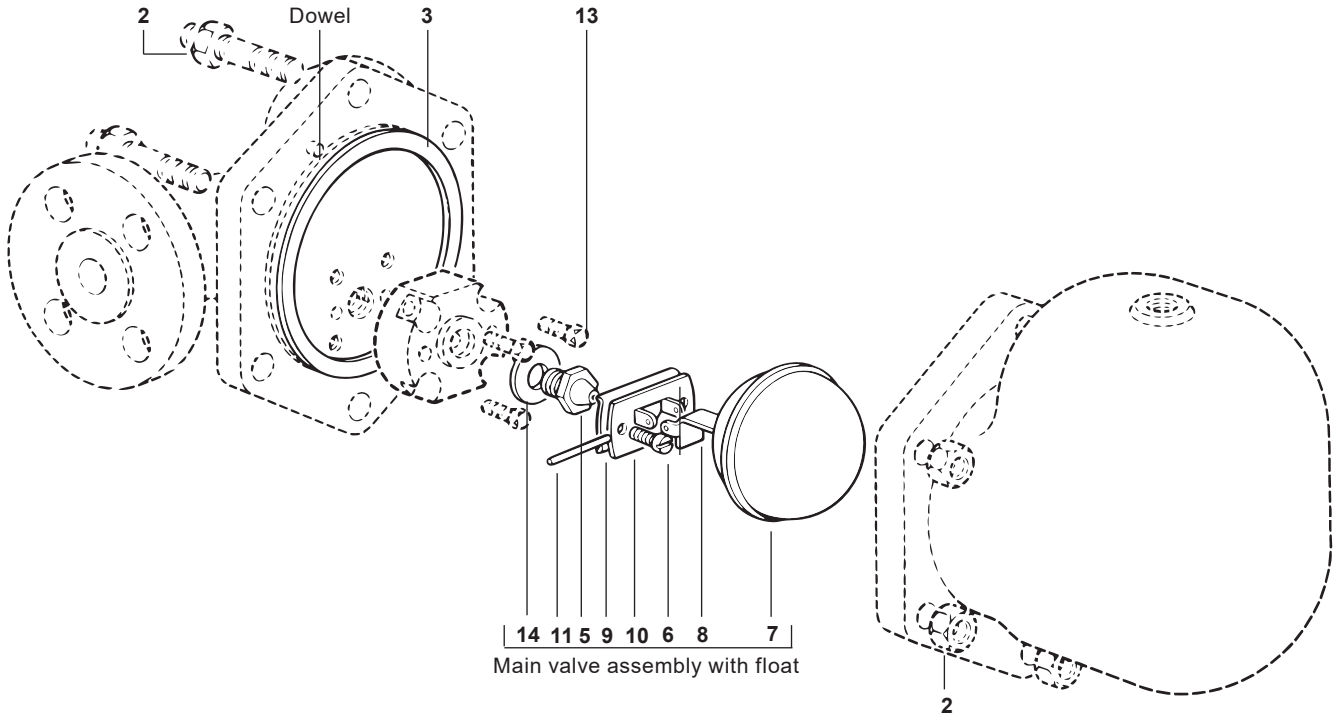
### Available spares

Main valve assembly with float	5, 6, 7+8, 9, 10, 11, 14
Complete set of gaskets (packet of 3 sets)	3, 14



### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap.

**Example:** 1 - Main valve assembly for a Spirax Sarco DN40 CA14S -14 air and gas trap.



### Recommended tightening torques

Item	Part	Qty	or		N m
					
2	DN40	6	19	M12	60 - 66
	DN50	6	24	M16	80 - 88
5	DN40, DN50	1	17	M12	50 - 55
6	DN40, DN50	2	Cheesehead	M5 x 20	2.5 - 2.8
13	DN40	4	10	M6	10 - 12
	DN50	4	13	M8	20 - 24