

Condensate Drain Valve

AK 45

PN 40, DN 15, 20, 25 (1/2", 3/4", 1")

System Description

The AK 45 automatically drains condensate from steam systems during start-up, until the pressure in the system has reached the adjusted valve closing pressure.

At shut-down or when the pressure falls below the closing pressure the valve opens and accumulated condensate is automatically drained away.

Function

When there is no pressure the drain valve is held in the open position by the integral spring. As soon as the service pressure has reached the closing pressure to which the AK 45 has been adjusted, the valve closes (by the differential pressure acting on the valve cone against the force of the spring). When the pressure drops below the closing pressure, the AK 45 opens by spring force.

A hand purging knob is provided, so that the AK 45 can be opened by hand with the system under pressure to clear any deposits from the valve seat area.

The AK 45 is adjusted at our works to close at a differential pressure of 0.8 bar (12 psig).

The AK 45 is provided with an integral strainer.

Pressure/Temperature Rating				
Max. service pressure	[barg] [psig]	32 465	22 320	21 305
Related temperature	[°C] [°F]	250 482	385 725	400 842

Materials	DIN reference	ASTM equivalent
Body	C 22.8 (1.0460)	A 105
Cover screws	24 CrMo 5 (1.7258)	ASTM A 193 B 7
Other internals	Stainless steel	

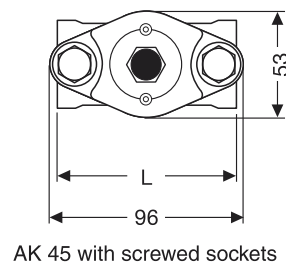
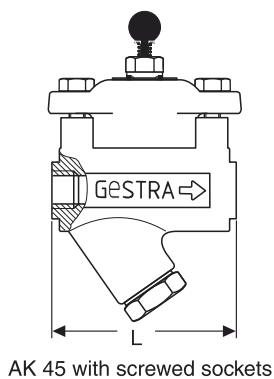
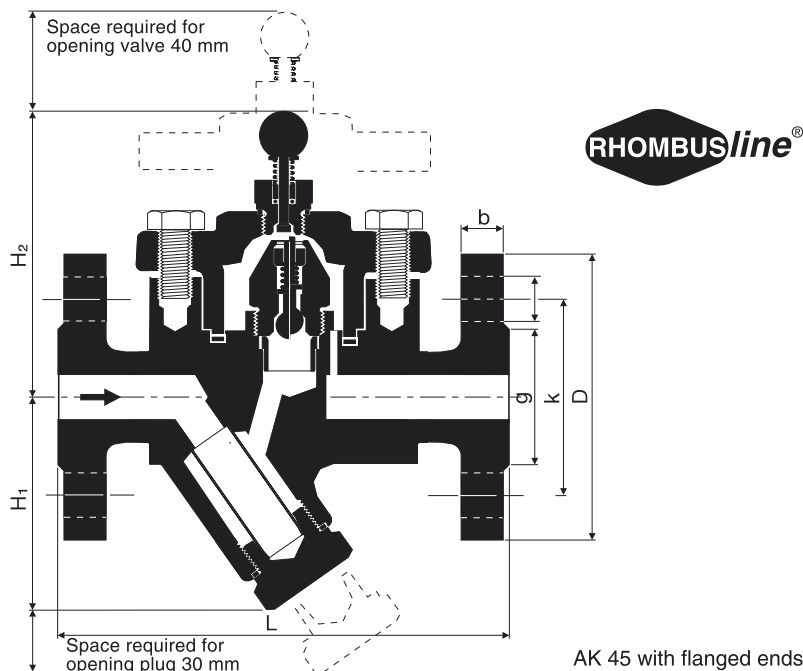
Connections

Flanges

DIN, PN 40
ANSI 150 and 300
B.S. 10, table E, F, H and J

Screwed sockets:

BSP and NPT



Dimensions and Weights		End connections					
		Flanged			Screwed		
Nominal size	[mm] [in]	15 ½	20 ¾	25 1	15 ½	20 ¾	25 1
Dimensions	L H ₁ H ₂	150	150 70 97	160	95 70 97		
Approx. weight	[kg]	3.7	4.3	4.8	2.2	2.1	2.0

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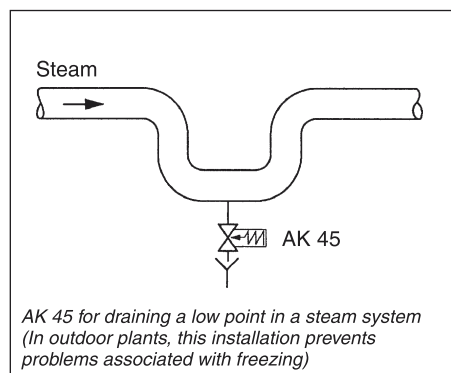
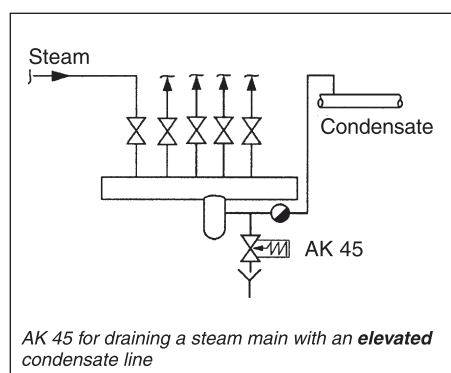
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($\frac{1}{2}$ " , $\frac{3}{4}$ " , 1")

Installation

Install the AK 45 so that discharge is to open drain (without back-pressure), preferably in a vertical line with downwards flow. If it is necessary to install the AK 45 in a horizontal line, the pipe on the discharge of the trap should include a 90° downwards bend.



When ordering please state:

End connection, size (DN)

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

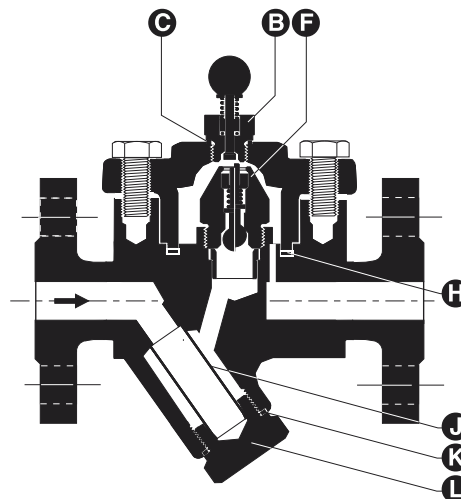
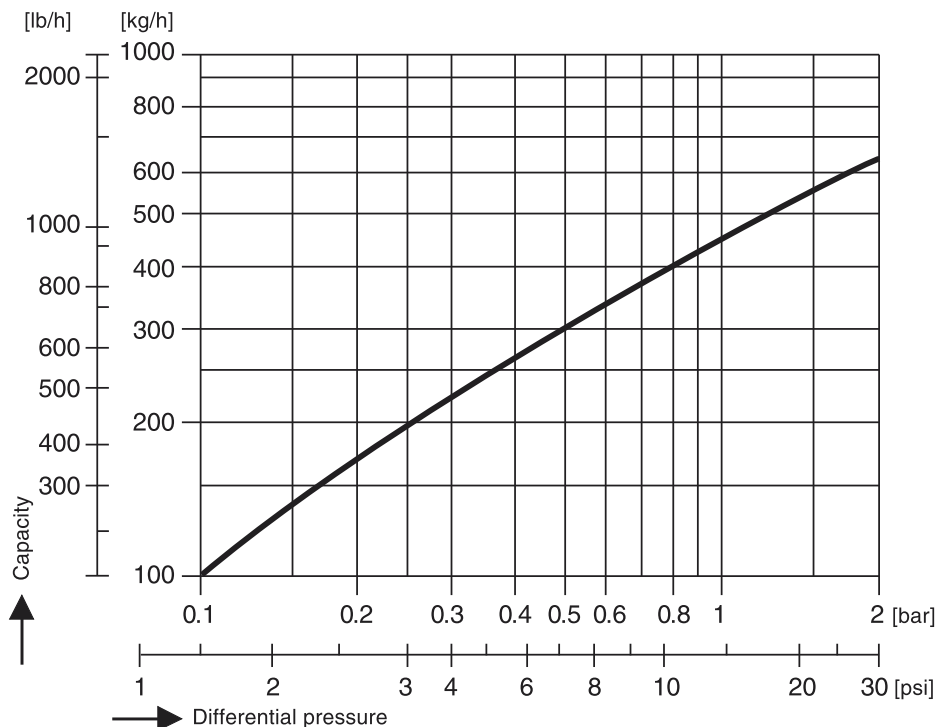
In accordance with DIN EN 10204/2.2 and -3.1 B.

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.

Supply in accordance with our general terms of business.

Capacity Chart

The chart shows the maximum capacities for cold condensate as a function of the differential pressure (without back pressure).



Item no.	Designation	Ref. no.
F	Valve insert	375 434
C	Gasket*) for hand purging knob (A 14 x 18) made of stainless steel	375 878
B	Hand purging knob	375 435
H	Cover gasket*) (40 x 48 x 2), made of graphite	375 159
J K L	Strainer, seal plug and gasket	375 113
K	Gasket*) for seal plug (A 24 x 29), made of stainless steel	375 162

*) Minimum order quantity 50 items. Contact your local dealer for smaller quantities.