GESTRA® Steam Traps
RHOMBUS*line*®
MK 45A-1 and MK 45A-2
Stainless Steel Design

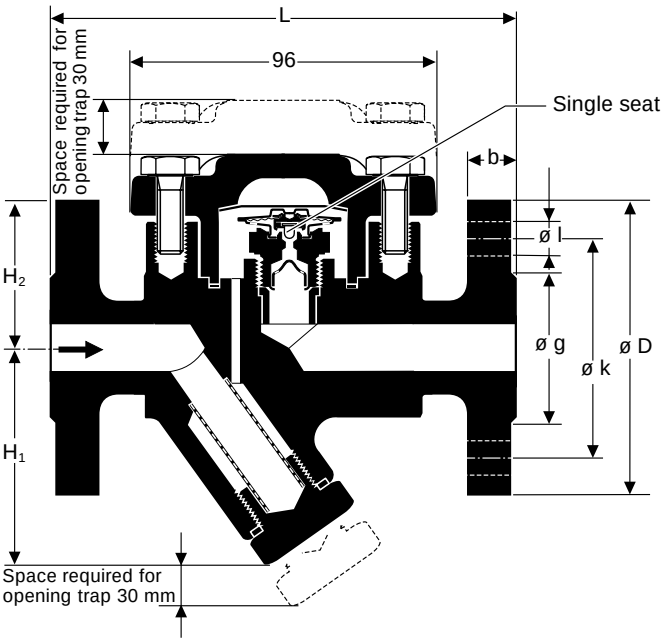
International patents

Issue Date: 11/00

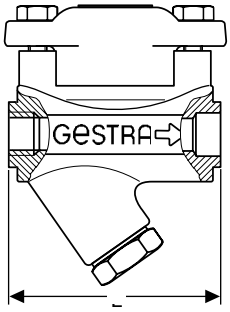
Steam Traps
PN 40
DN 15, 20, 25
½", ¾", 1"

A1

MK 45A-1 and MK 45A-2



MK 45A-1 with DIN flanges



MK 45A-1, MK 45A-2
with screwed sockets with socket-weld ends

Dimensions and Weights		End connections					
		Flanges			Screwed sockets Socket-weld ends		
Nominal sizes	[mm]	15	20	25	15	20	25
	[in]	½	¾	1	½	¾	1
Dimensions in [mm]	L	150	150	160	95		
	H_1	70			70		
	H_2	62			62		
Approx. weight	[kg]	3.7	4.3	4.8	2.2	2.1	2.0

Flange dimensions		End connections								
		DIN			CL 150			CL 300		
[mm]	D	95	105	115	88.9	98.4	107.9	95.2	117.5	123.8
	b	16	18	18	11.1	12.7	14.3	14.3	15.9	17.5
	k	65	75	85	60.3	69.8	79.4	66.7	82.5	88.9
	g	45	58	68	34.9	42.9	50.8	34.9	42.9	50.8
	l	14	14	14	15.9	15.9	15.9	15.9	19.0	19.0
Number of bolts		4	4	4	4	4	4	4	4	4

Description

Thermostatic steam trap with corrosion-resistant membrane regulator (thermostatic capsule) unaffected by waterhammer.

Integral Y-type strainer, non-return valve and asbestos-free cover gasket (graphite) included **as standard**.

The traps with standard capsule "N" discharge the condensate with virtually no banking-up, the traps with special capsule "U" with an undercooling of approx. 30 K in order to utilize the condensate heat in steam tracing systems.

The traps are **suitable for** draining saturated steam lines, steam tracers and heat exchangers. They can also be used for air-venting.

Installation in any position. If installed in horizontal pipes make sure that the cover is on top.

MK 45A-1 with tandem seat
In particular for low condensate flowrates. Optionally either with standard capsule "5 N 1" or undercooling capsule "5 U 1".

MK 45A-2 with single seat
For larger condensate flowrates.
Optionally either with standard capsule "5 N 2" or undercooling capsule "5 U 2".

Pressure / Temperature Ratings				
Max. service pressure	[barg]	29	25	24
	[psig]	421	363	348
Related temperature	[°C]	200	300	400
	[°F]	392	572	752
Max. differential pressure (**inlet** pressure minus **outlet** pressure)		22 bar (320 psig)		

Materials		DIN	ASTM
Body, cover		1.4404	A182F316L
Cover screws		A2-70	A 193 B 8*
Thermo-static-capsule	Membrane	Hastelloy®	
	Capsule	Stainless steel	
Other internals		Stainless steel	

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

Connections

Flanges: DIN, PN 40
BS 10, tables E, F, H and J
ANSI (BS 1560) classes 150 or 300 lb/in²
Screwed sockets: BSP or NPT
Socket-weld ends

A1

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PN 40
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MK 45 A-1 and MK 45 A-2

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Capacity Charts

The charts show the maximum capacities for hot and cold condensate.

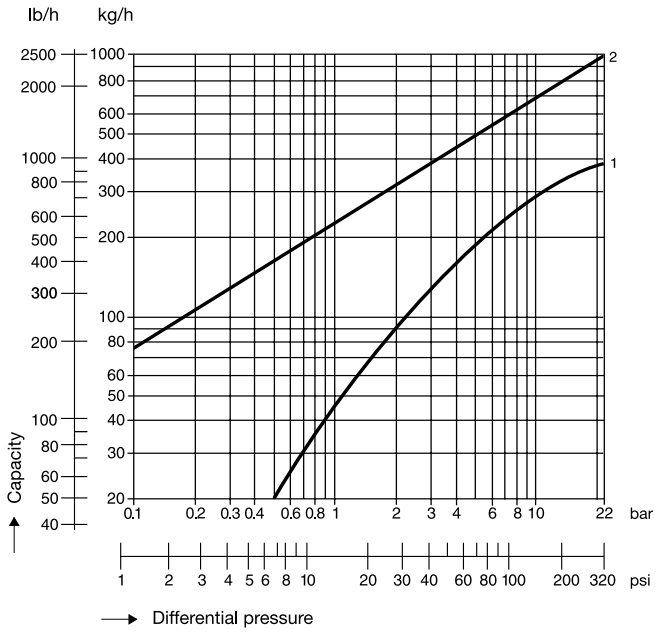
Curve 1

Curve 1 indicates the max. capacity of hot condensate that the traps with 5 N . . . capsule can discharge at a condensate temperature of approx. 10 K (degC) below saturation temperature with virtually no banking-up, and the traps with 5 U . . . (undercooling) capsule when the condensate is approx. 30 K (degC) below saturation temperature.

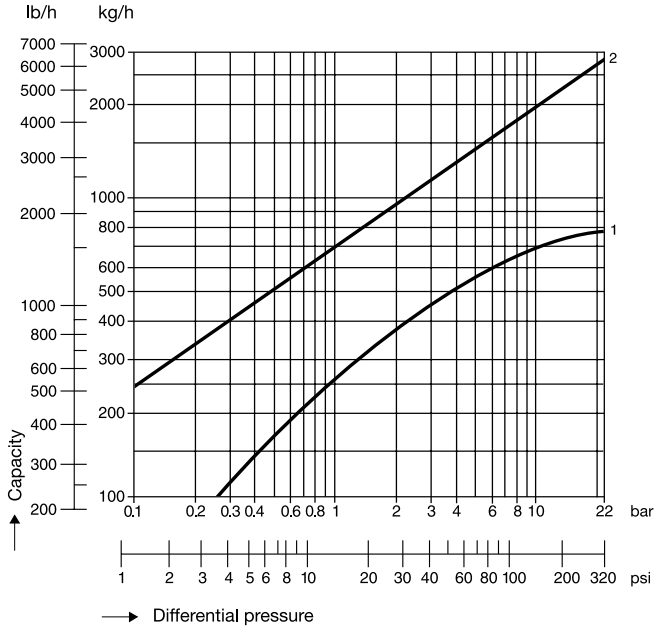
Curve 2

Curve 2 shows the max. capacity of cold condensate that the traps can discharge (condensate temperature 20 °C).

Capacity Chart for MK 45 A-1



Capacity Chart for MK 45 A-2



When ordering please state:

Steam pressure, back pressure, quantity of condensate to be discharged, type, size, connections, mounting position of the trap, and details of application.

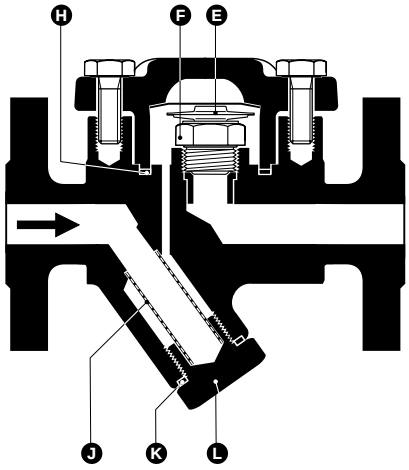
The following test certificates can be issued on request, at extra cost:

In accordance with EN 10204 – 2.2 and -3.1B. All inspection requirements have to be stated with the order. After supply of the equipment certificates can no longer be established. Charges and extent of the above mentioned 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.

Supply in accordance with our general terms of business.

Technical modifications reserved.



Spare Parts

Item	Designation		Order No. MK 45-1	Order No. MK 45-2
E F H	Membrane regulator, complete	5 N 1	375109	
		5 U 1	375111	
		5 N 2		375110
		5 U 2		375112
J K L	Strainer, complete		375382	375382
E	Thermostatic capsule MK 45 A-1	5 N 1	085585	
		5 U 1	086138	
	Thermostatic capsule MK 45 A-2	5 N 2		096530
		5 U 2		096535
H	Cover gasket*		375159	375159
K	Strainer gasket*		375162	375162

* Minimum purchasing quantity 50 pcs. Contact your local dealer for smaller quantities.

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