

## Gestra® Steam Trap • Thermostatic Steam Trap

**BK 45**

**Class Rating:** ANSI 300

**Available Sizes:** ½", ¾" and 1"  
(DN 15, 20 and 25)

**320**  
psi  
Maximum Δp  
(22 bar)

### Application

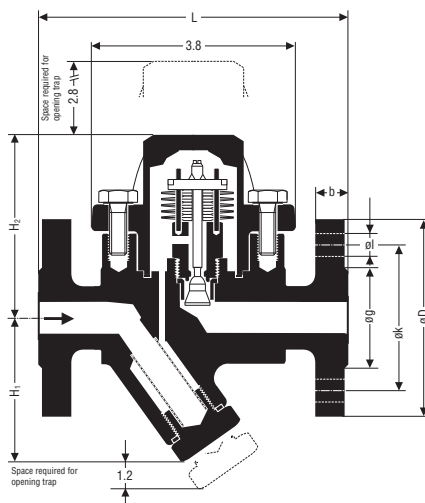
The **RHOMBUSline®** BK 45 steam trap is used for low capacity applications such as drip and tracing, and economically combines steam trap, check valve and Y-Strainer (with optional blow off valve) in a small profile with a convenient 2-bolt cover for easy maintenance.

### Features and Benefits

- Forged steel body and cover.
- Pressure assisted fail-open design.
- Factory-preset bimetallic regulator with integral staged nozzle. No adjustment required.
- Discharges hot condensate in a modulating fashion at approximately **18°F (10°C)** below saturation temperature throughout its operating range. One internal regulator for all pressure ranges.
- Unaffected by water hammer or superheat-solid stainless steel internals.
- Self draining – will not freeze when installed in gravity drainage position.
- Automatically vents air and non-condensable gases and has a high (**6:1**) cold water capacity for rapid start-up.
- Operates with **zero steam loss** throughout its operating range saving steam and money during the life of the trap.
- Easy in-line inspection and maintenance – mechanical stops prevent crushing of the gasket for extended gasket life.
- Can be installed in any position.
- Internal stainless steel Y-strainer, with optional blowoff valve.
- Integral check valve design.
- Two (2) year guarantee.

### Materials

- Body and Cover – ASTM A105 (DIN 1.0460)
- Cover Bolts – ASTM A193 B7 (DIN 1.7258)
- Bimetallic Regulator – Stainless Steels
- Other Internals – Stainless Steel



Pressure / Temperature Ratings				
Maximum Service Pressure	[psig]	464	319	305
	[barg]	32	22	21
Related Temperature	[°F]	482	725	752
	[°C]	250	385	400
Maximum Differential Pressure		320 psig (22 barg)		

Dimensions and Weights		End Connections								
		Flanged			Screwed Socket-Weld			Butt-Weld		
Nominal Sizes		1/2	3/4	1	1/2	3/4	1	1/2	3/4	1
	[inch]	15	20	25	15	20	25	15	20	25
	[mm]	150	150	160	95			200		
Dimensions	L [inch]	5.9	5.9	6.3	3.7			7.9		
	[mm]	150	150	160	95			200		
	H1 [inch]	2.8			2.8			2.8		
	[mm]	70			70			70		
	H2 [inch]	2.4			2.4			2.4		
	[mm]	62			62			62		
Approx. Weight	[lbs]	8.1	9.5	10.6	4.8	4.6	4.4	5.5	5.5	5.5
	[kg]	3.7	4.3	4.8	2.2	2.1	2	2.5	2.5	2.5

Flange Dimensions		End Connections								
		DIN			CL 150			CL 300		
D [inch]		3.7	4.1	4.5	3.5	3.9	4.2	3.7	4.6	4.9
[mm]		95	105	115	88.9	98.4	107.9	95.2	117.5	123.8
b [inch]		0.6	0.7	0.7	0.4	0.5	0.6	0.6	0.6	0.7
[mm]		16	18	18	11.1	12.7	14.3	14.3	15.9	17.5
k [inch]		2.6	3	3.3	2.4	2.7	3.1	2.6	3.2	3.5
[mm]		65	75	85	60.3	69.8	79.4	66.7	82.5	88.9
g [inch]		1.8	2.3	2.7	1.4	1.7	2	1.4	1.7	2
[mm]		45	58	68	34.9	42.9	50.8	34.9	42.9	50.8
l [inch]		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
[mm]		14	14	14	15.9	15.9	15.9	15.9	19	19
Number of bolts		4	4	4	4	4	4	4	4	4

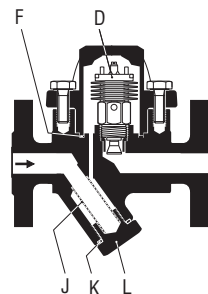
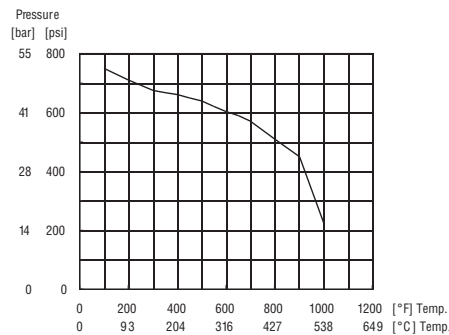
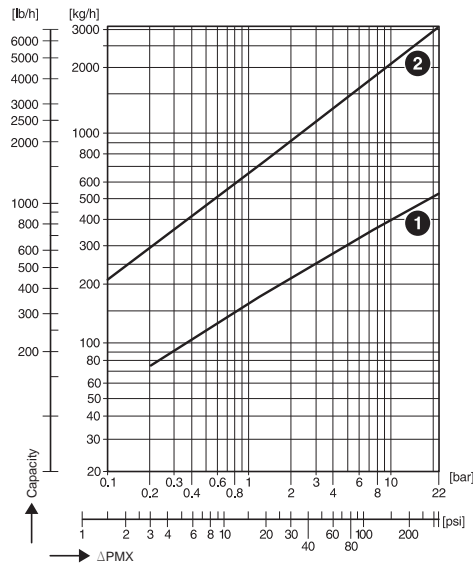
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Standard Spare Parts			
Item Number	Description	BK 45	BK 45U
D, F	Complete Regulator including cover gasket	375234	375235
J, K, L	Complete Strainer set	375113	375113

### Capacity Charts

The chart shows the maximum capacities for hot and cold condensate as a function of differential pressure or the difference between inlet and outlet pressures for the trap.

Curve 1 shows the maximum capacity when discharging hot condensate that is **18°F (10°C)** below steam saturation temperature. For example, at a differential pressure of **100 psi**, the maximum hot capacity is approximately **770 lb/hr.**

Curve 2 shows the maximum capacity when discharging cold condensate at a temperature of **68°F (20°C)**. For example, at a differential pressure of **100 psi**, the maximum cold capacity is approximately **4,200 lb/hr.**

### Temperature Discharge Options

Special factory adjustment of the regulator for increased undercooling is available for open discharge applications where sensible heat savings and flash steam suppression are desirable. Please contact your Flowserve Gestra representative for more details.

### Body Pressure/Temperature Ratings

The curve shows the maximum shell (body) pressure and temperature ratings. Operating differential pressure of the regulator is limited to **320 psi**.

### Material/Test Certificates

All inspection requirements must be stated at time of order. Test certificates can be issued on request in accordance with EN 10204 – 2.2 and -3.1B. Body and Cover heat codes are required.

### Available End Connections

Flanges: ANSI 150RF and 300RF (DIN, PN 40)

Screwed sockets: NPT, BSP

Socket-weld, Butt weld

### How to Order

Specify trap, end connection size and type.

Add "w/BOV" if optional blow off valve is desired.

For example: BK 45 ½" NPT w/BOV

**NOTE:** If ANSI flanged ends are required, please specify either ANSI 150 RF or ANSI 300 RF.