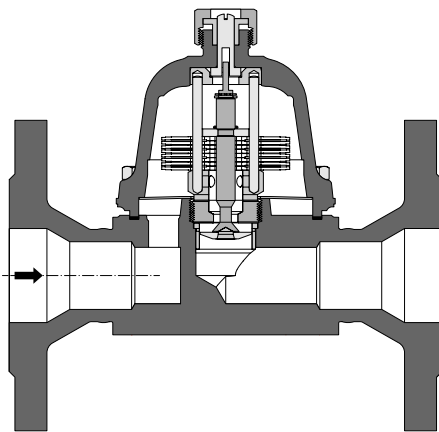


BK 15 with flange



Steam Trap

BK 15

PN 40/CL 300

DN 40, 50, NPS 1 1/2", 2"

Description

BK 15 thermostatic steam traps are used to discharge condensate from steam in pipes and for venting steam lines. The BK 15 has a corrosion-resistant Thermovit (Duo stainless steel) regulator that is unaffected by water hammer. The Thermovit regulator can be adjusted from the outside. With integral strainer and non-return valve action. Asbestos-free body gasket (graphite). Installation in any position. The steam trap is adjusted at our factory to discharge condensate with virtually no banking-up. More undercooling (banking-up) can be set manually from the outside during operation.

Fluids

The equipment is designed for the following fluids (in accordance with the EU Pressure Equipment Directive or Pressure Equipment (Safety) Regulations in the UK):

BK 15

- Group 2 fluids

Chemical and corrosive influences must be taken into consideration.

Use in potentially explosive atmospheres

The equipment does not have its own potential source of ignition (as per ATEX Directive). Please note the following:

Once installed, static electricity may arise between the equipment and the connected system.

If the equipment is used in potentially explosive atmospheres, the plant manufacturer or owner is responsible for discharging or preventing possible static charge.

If it is possible for fluid to escape, e.g. through actuating mechanisms or leaks in threaded joints, the plant manufacturer or owner must take this into consideration when dividing the area into zones.

Function

The equipment regulates the flow of fluid using a Thermovit regulator. The Thermovit regulator consists of several bimetallic plates stacked on top of one another. As the fluid temperature rises, these plates expand and cause the nozzle stems to move. The flow orifice closes.

When the system is cold, the Thermovit regulator opens.

You can set the Thermovit regulator so that it opens or closes at lower or higher temperatures.

If the fluid flows back, the pressure forces the nozzle stem into the nozzle holder, closing the flow orifice.

Material

Component	EN	ASTM/ASME
Body, cover	1.0460	SA105
Bolts	1.7225	A193 B7/SA193 B7
Nuts	1.7225	A194 B7/SA194 B7
Body gasket	Graphite/CrNi	
Thermovit regulator	Stainless steel	
Other internal parts	Stainless steel	

Types of connection

We reserve the right to design connections as welding neck flanges, socket-weld ends or butt-weld ends via transition pieces.

- Flange EN 1092-1 B1, PN 40
- Flange EN 1092-1 B2, PN 40
- Flange ASME B 16.5, CL 150 RF
- Flange ASME B 16.5, CL 150 RFS
- Flange ASME B 16.5, CL 300 RF
- Flange ASME B 16.5, CL 300 RFS
- Screwed socket ISO 228-1, G
- Screwed socket ASME B 16.11, NPT
- Socket-weld end DIN EN 12760 / ASME B 16.11, CL 3000
- Butt-weld end EN 12627, welded joint geometry ISO 9692-1, code no. 1.3 (30° chamfer)

Steam Trap
BK 15

Pressure and temperature ratings

BK 15, flange PN 40, butt-weld end EN

p Pressure ¹	barg	40.0	33.3	27.6	25.7	23.8	17.1
T Temperature ¹	°C	-10 — 20	200	300	350	400	420
Δ PMX Max. admissible differential pressure	bar	22					

¹ Ratings for strength of body/cover to EN 1092-1

BK 15, flange CL 150

p Pressure ¹	barg	19.6	13.8	10.2	8.4	6.5	5.5
T Temperature ¹	°C	-29 — 38	200	300	350	400	425
Δ PMX Max. admissible differential pressure	bar	19.6					
p Pressure ¹	psig	285	260	200	140	110	80
T Temperature ¹	°F	-20 — 100	200	400	600	700	800
Δ PMX Max. admissible differential pressure	psi	284					

¹ Ratings for strength of body/cover to ASME B16.5

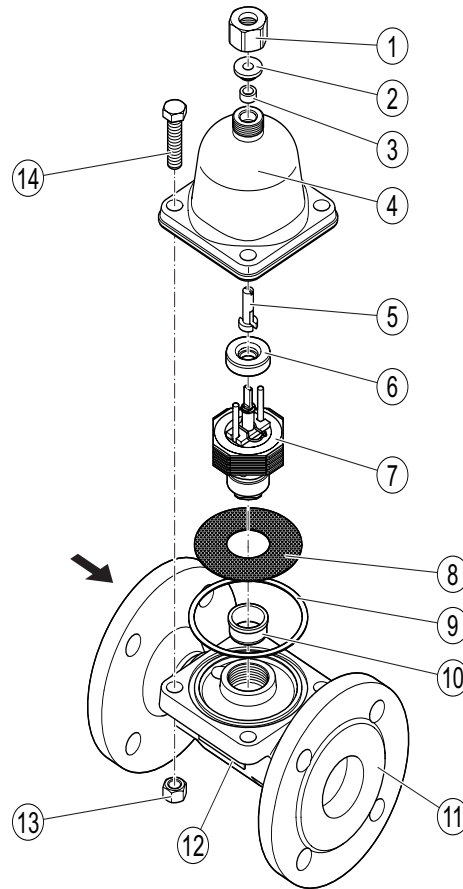
BK 15, flange CL 300, screwed socket G, screwed socket NPT, socket-weld end EN/ASME CL 3000

p Pressure ¹	barg	51.1	43.8	39.8	37.6	34.7	28.8
T Temperature ¹	°C	-29 — 38	200	300	350	400	425
Δ PMX Max. admissible differential pressure	bar	22					
p Pressure ¹	psig	740	680	635	570	530	410
T Temperature ¹	°F	-20 — 100	200	400	600	700	800
Δ PMX Max. admissible differential pressure	psi	319					

¹ Ratings for strength of body/cover to ASME B16.5

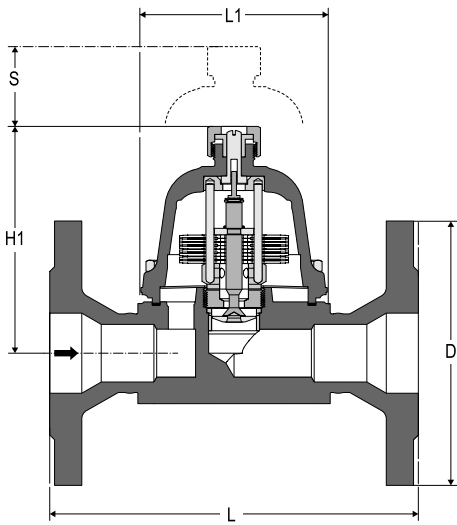
No.	Designation
1	Union nut (G $\frac{3}{4}$)
2	Stuffing box ring
3	Packing (9×14×7)
4	Cover
5	Adjusting fork
6	Guide ring
7	Thermovit regulator
8	Strainer
9	Body gasket
10	Bushing (interference fit)
11	Body
12	Rating plate as direction of flow arrow
13	Nut M12 (4×)
14	Bolt M12 (4×)

Equipment parts



Steam Trap

BK 15



Dimensions and weights

All equipment

	mm	in"
H1	140	5.5"
L1	115	4.5"
S Service dimensions of cover	90	3.5"

BK 15, flange PN 40, CL 150, CL 300

		PN 40		CL 150		CL 300	
Nominal size	DN	40	50	40	50	40	50
	NPS	1½"	2"	1½"	2"	1½"	2"
L Length	mm	230					
	in"	9.1"					
D Flange Ø	mm	150	165	125	150	155	165
	in"	5.9"	6.5"	4.9"	5.9"	6.1"	6.5"
Weight	kg	11.0	12.5	11.0	12.5	11.0	12.5
	lb	24.3	27.6	24.3	27.6	24.3	27.6

BK 15 screwed socket G, screwed socket NPT, socket-weld end EN/ASME CL 3000

Nominal size	DN	40	50
	NPS	1½"	2"
L Length	mm	130	230
	in"	5.1"	9.1"
Weight	kg	6.3	7.7
	lb	13.9	17.0

BK 15, butt-weld end EN

Nominal size	DN	40	50
L Length	mm	250	250
Butt-weld end via transition pieces	mm	48.3 × 2.6	60.3 × 2.9
Weight	kg	6.8	7.5

Steam Trap BK 15

Capacity chart

The chart shows the maximum capacity for hot and cold condensate at the factory setting (steam-tight seal).

Curve 1

Discharge without banking-up at a condensate temperature max. 10 K below boiling point.

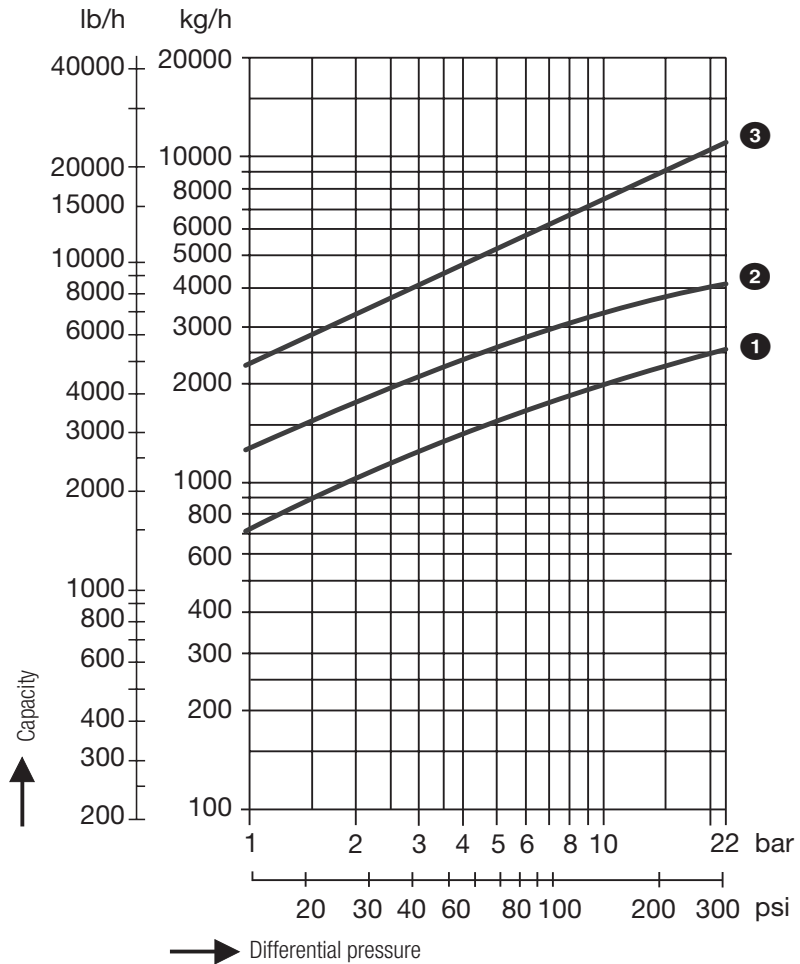
Curve 2

Condensate temperature 30 K below boiling point (due to banking-up).

Curve 3

Flow of cold condensate at 20 °C.

Capacity chart



How to order

GESTRA Steam Trap

Type: BK 15 (1.0460)

Connection: Flange,
screwed socket G,
screwed socket NPT,
socket-weld end EN/ASME CL 3000,
butt-weld end EN

Nominal size: DN 40, 50/NPS 1½", 2"

Pressure rating: PN 40, CL 150, CL 300

Acceptance inspections

An inspection certificate to EN 10204 can be provided as verification of material and construction tests. All inspection requirements must be included in the request for a quote or in the order. Once a product has been delivered, inspection certificates can no longer be issued. The standard test scope and costs of the above-mentioned test certificates can be found in our price list "Test and Inspection Charges for Standard Equipment". If you require a different inspection scope, please request a separate quote.

Directives and standards

You can find details on the conformity of the equipment and the relevant standards and directives, where applicable, in the Declaration of Conformity and associated certificates or approvals.

Please note our general terms of business.

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