

GK 11 / GK 21

## GESTRA Steam Traps

### GK 11, GK 21

### PN 16, DN 50 DN 100

### PN 10, DN 150

## Description

Thermodynamic steam traps with GESTRA stage nozzle for the discharge of large condensate flowrates. Automatic deaeration at startup and in continuous operation. The traps discharge condensate continuously and operate quietly. They are highly wear resistant and can handle dirty condensate.

Integral Vaposcope (sightglass) for monitoring the heating surface and for optimum trap adjustment. The traps can be continuously adjusted between steam-tight and purge positions, by means of the handwheel and lift indicator.

## Pressure/Temperature Rating

GK 11/GK 21, to DIN 1092-2, PN 16 (DN 50 100)			
Max. service pressure	[bar]	16	12.8
Related temperature	[°C]	120	200
GK 11, nach DIN 1092-2, PN 10 (DN 150)			
Max. service pressure	[bar]	10	8
Related temperature	[°C]	120	200
Max. differential pressure (inlet pressure minus outlet pressure)	[bar]	6	

## Materials

Item	DIN reference	ASTM equivalent
Body	EN-JL 1040 (0.6025)	A 126 Class B
Cover bolts	1.7709	A 194-7
Nuts	1.7709	A 194-7
Nozzle insert DN 50 80	EN-JL 1030 (0.7040)	A 536
Nozzle insert DN 100, 150	EN-JL 1040 (0.6025)	A 126 Class B
Stage nozzle	EN-JL 1040 (0.6025)	A 126 Class B
Stem	X20Cr13 (1.4021)	AISI 420

## Connections

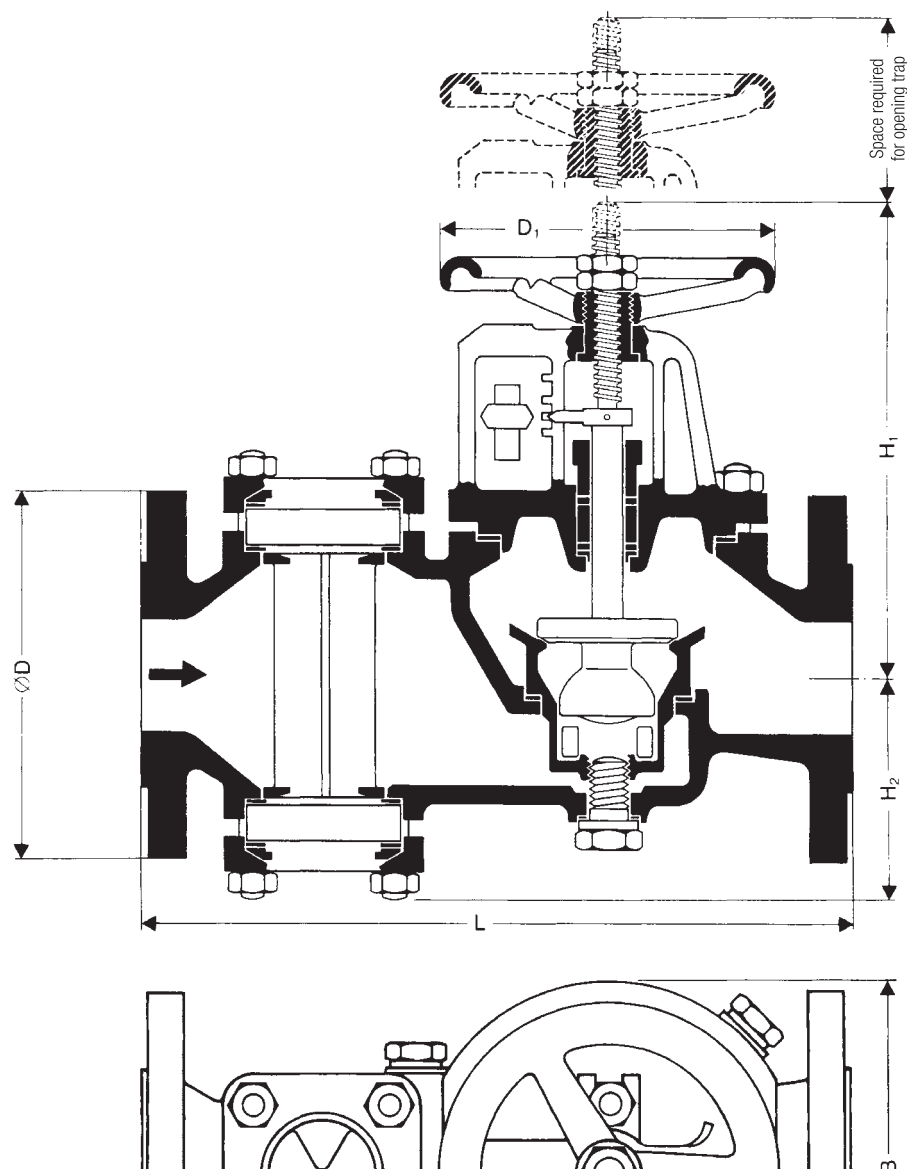
Flanges to: EN 1092-2, PN 10/16

## Dimensions and Weights

Type		GK 21	GK 11			
DN	[mm]	50	65	80	100	150
	[inch]	2	2½	3	4	6
Dimensions	L	320	420	420	620	900
	H <sub>1</sub>	220	275	275	485	670
	H <sub>2</sub>	100	120	120	200	285
	D <sub>1</sub>	150	200	200	315	315
	B	165	195	195	326	495
Flange measurements		D	165	185	200	220
Approx. weight		[kg]	23	44	45.3	135
					294	

**Space required for opening trap** from end of stem (trap in purge position)

DN	[mm]	50	65, 80	100	150
	[mm]	90	110	230	300



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### Capacity Chart

The chart shows the maximum capacities of hot condensate in continuous operation with the spindle at  $\frac{1}{4}$  of its full lift. The maximum capacity of the traps (in purge position) is approximately 15% greater. The cold-water capacity is approximately 70% higher than the hot-water capacity.

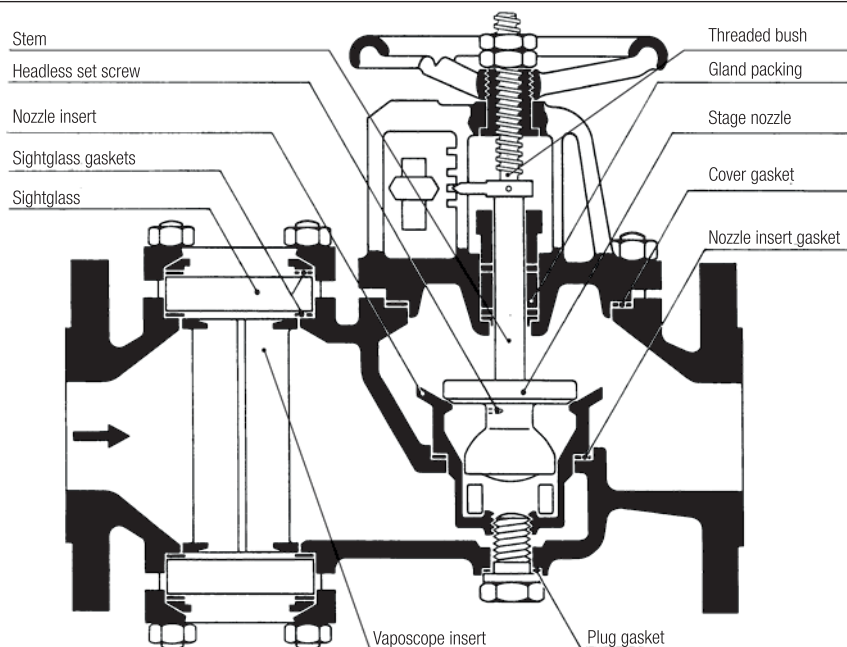
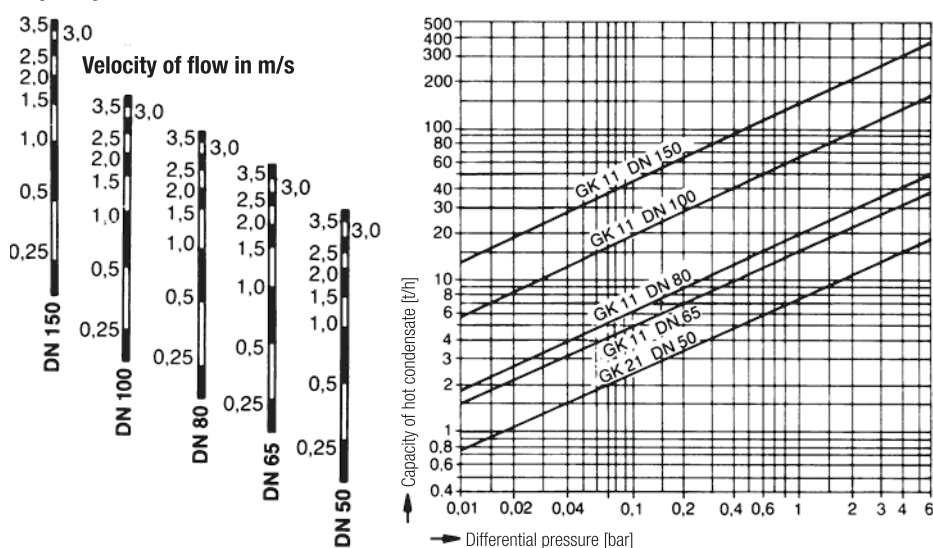
When operating under vacuum approximately 65% of the capacities indicated can be reached.

At large pressure drops with low back pressures and when operating under vacuum higher flow velocities will occur in the outlet side owing to flashing. The velocities must not exceed 150 m/s (492 ft/s).

If the condensate downstream of the trap is lifted, the differential pressure is reduced by approximately 1 bar for 7 m (or 2 psi for 3 feet) in lift.

The scales beside the chart indicate the condensate flow velocities on the inlet side for the various trap sizes. The maximum velocity and consequently the trap size depends on the application. In order to find the flow velocity read off the flowrate and pass horizontally to the scale on the left or right. If the flow velocity must not exceed a certain value, take a larger trap. In general, the flow velocity should not exceed 3 m/s (10 ft/s).

### Capacity Chart



### Spare Parts

Type	GK 21 Stock code #	GK 11 Stock code #		
DN	50	65, 80	100	150
Nozzle insert	367024	367026	367028	367030
Stage nozzle	367023	367025	367027	367029
Headless set screw	011286	011043	011298	2 x 011310
Gland packing	5 x 362631	7 x 082034	7 x 362860	6 x 362824
Nozzle-insert gasket	362855	362857	362859	362862
Cover gasket	362856	362858	362861	362863
Plug gasket	071383	071383	011303	000593
Sightglass	2 x 071717	2 x 011278	2 x 071705	2 x 071705
Sightglass gasket	4 x 362916	4 x 179520	4 x 362915	4 x 362915
Vaposcope insert	367674	367675	367676	367677
Stem	094942	094971	080002	080031
Threaded bush	094936	094967	094996	080026

### Inspection & Certification

Documentation regarding material tests and in-house examination with test report EN10204-2.2 or inspection certificates EN10204-3.1 or -3.2 available at extra cost. All inspection requirements have to be stated with the enquiry or order. After supply of the equipment certification cannot be established. Charges and extent of the above mentioned test 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.