

# Steam Traps

## Float-controlled Steam Traps KA Niagara

High-performance and Sturdy Steam Trap



### Technical Data

Connection DN	15 - 150
Nominal Pressure PN	16
Operating Pressure	0 - 16 bar
Flow Rate	193 m <sup>3</sup> /h
Temperature	200 °C
Medium	steam

### Description

Steam traps automatically drain condensate without loss of steam or gas. They operate instantaneously and are not affected by backpressure or pressure fluctuations. They do not require an external energy input.

KN Niagara is a float-controlled steam trap for all applications where large volumes have to be handled. Body, cover and valve cap are manufactured from cast iron; the cone is fitted with a metallic seal. NIAGARA KN 1 is fitted as standard equipment with a manual bleed valve and, for the larger valve sizes, with a drain plug in the sludge collecting chamber.

The pipe diameter downstream of the steam trap should be dimensioned according to the volume of condensate and the length of the pipe.

### Standard

- » KN 1: manual bleed valve
- » KN 80: thermal start-up bleeding and fixed continuous bleed orifice
- » KN 81: fixed continuous bleed orifice
- » KN 83: thermal start-up and continuous bleeding
- » KN 88: adjustable continuous bleeding
- » from size DN 65 up: drain plug in sludge collecting chamber

### Options

- » manual test gag
- » up to size DN 65: drain plug in sludge collecting chamber (standard equipment for sizes DN 65 and larger)
- » various seal materials suitable for your medium
- » special versions up to 400 °C
- » designs for special applications and extreme operating conditions on request

Please state working pressure range when enquiring or ordering.

Operating instructions, know how and safety instructions must be observed. All the pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.



### Pressure Ranges [bar]

0 - 2	0 - 4	0 - 8	0 - 13	0 - 16
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### Materials

Body	PN 16	spheroidal cast iron
	PN 25/40	cast steel
Forklever		CrNiMo-steel
Seat		Cr-steel
Cone		CrNiMo-steel
Float		CrNiMo-steel
Body Seal		graphite

### Dimensions [mm]

size	nominal diameter DN									
	15	20	25	32	40	50	65	80	100	150
A	285	295	340	355	445	530	635	685	800	1055
B	100	135	120	135	170	215	280	270	315	490
C	100	110	140	140	155	175	175	235	300	345
D	130	135	200	210	230	270	285	365	380	520
E	150	185	185	205	245	300	385	370	430	635
F	270	310	310	365	390	470	610	575	655	920
G	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8	1/2
H*	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	3/4	3/4

### Weights [kg]

nominal diameter DN										
15	20	25	32	40	50	65	80	100	150	
11	12	18	25	31	46	77	107	135	270	

### Customs Tariff Number

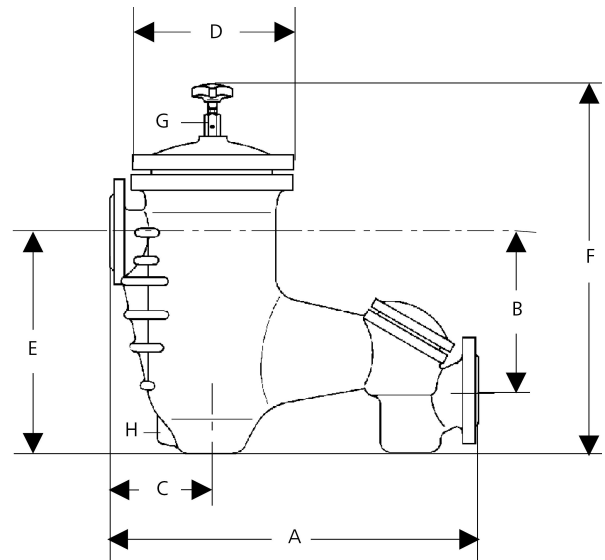
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Special designs on request.

The pressure has always been indicated as overpressure.

Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

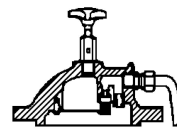
### Dimensional Drawing



### Venting Devices

KA 80

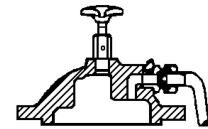
PN 16



therm. start vent. and  
rigid perm. vent. nozzle

KA 81

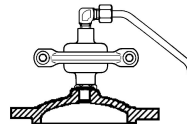
PN 16-40



rigid permanent  
venting nozzle

KA 83

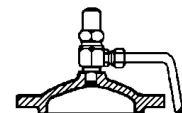
PN 16



thermal start up and  
permanent venting

KA 88

PN 16-40



adjustable  
permanent venting

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max. Flow Rate in m <sup>3</sup> /h											
pressure range bar	operating pressure bar	nominal diameter DN									
		15	20	25	32	40	50	65	80	100	150
0-2	0.1	0.46	0.57	0.69	1.1	1.94	3.15	5.38	9.5	14.8	35.8
	0.25	0.73	0.9	1.1	1.8	3.1	5	8.6	15.2	23.6	57
	0.5	1.13	1.4	1.7	2.8	4.8	7.8	13.5	23.6	35.8	89
	1	1.59	2	2.4	3.9	6.8	11	19	33.5	52	125
	1.5	2.2	2.7	3.1	5.3	9.5	15.6	26	46	64	172
	2	2.47	3.05	3.7	6	10.6	17.4	29	52	73	193
0-4	0.1	0.28	0.36	0.47	0.7	1.12	2.4	4	6.1	9.5	23
	0.5	0.69	0.9	1.15	1.7	2.8	6	10	15	23.6	60
	1	0.97	1.28	1.6	2.4	4	8.36	14	21.4	33.4	83
	2	1.5	1.95	2.5	3.7	6	13	21.7	32.8	51.4	114
	3	1.84	2.4	3.05	4.52	7.35	15.8	26.6	40.3	63	137
	4	2.12	2.76	3.5	5.3	8.6	18.4	30.7	46.5	72.7	156
0-8	2	0.73	1.06	1.5	1.7	3.7	6	10.2	19.5	29	64.5
	4	1.05	1.5	2.12	2.8	5.22	8.5	12.9	26.3	41	89
	6	1.32	1.9	2.75	3.54	6.66	10.8	15.3	33.5	52.4	106
	8	1.54	2.22	3.13	4.1	7.72	12.5	17	38	60.4	123
0-13	4	0.63	1.05	1.26	1.5	2.76	6.22	11.6	18.2	26.2	55.7
	8	0.94	1.54	1.86	2.22	4.08	9.19	17.2	26.88	37.8	82
	10	1.08	1.76	2.15	2.55	4.69	10.55	19.75	30.86	44.4	98
	12	1.18	1.93	2.33	2.78	5.13	11.55	21.6	33.75	48.6	110
	13	1.23	2.01	2.43	2.9	5.35	12.04	22.5	35.2	50.7	115
0-16	8	0.72	1.19	1.54	1.86	3.12	6.38	14.4	21.7	32.5	82
	12	0.9	1.49	1.93	2.33	3.93	8.02	18	27.4	40.9	110
	14	0.98	1.6	2	2.52	4.24	8.66	19.5	29.5	44.1	119
	16	1.04	1.73	2.23	2.7	4.54	9.26	20.8	31.6	47.2	127

Special designs on request.

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