

Steam Traps

Float-controlled Steam Traps KA Niagara

High-performance and Sturdy Steam Trap



Technical Data

Connection DN	15 - 150
Nominal Pressure PN	16 - 40
Operating Pressure	0 - 40 bar
Flow Rate	193 m ³ /h
Temperature	200 °C
Medium	steam

Description

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

For many decades NIAGARA steam traps have been used in all industries. Their excellent reliability and durability have made them renowned throughout the world.

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]

PN 16	0-2	0-4	0-8	0-13	0-16				
PN 25	0-2	0-4	0-8	0-13	0-16	0-22			
PN 40	0-2	0-4	0-8	0-13	0-16	0-22	0-25	0-32	0-40

Flow Rate in m³/h see Sheet KA Niagara/2.1.091.2

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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	PN	nominal diameter DN										
		15	20	25	32	40	50	65	80	100	125	150
A	16	285	295	340	355	445	530	635	685	800	900	1055
	25		305	390	415		550	635	685	800		
	40		305	390	415		550	635	720			
B	16	100	135	120	135	170	215	280	270	315	400	490
	25		155	165	185		235	280	270	315		
	40		155	165	185		235	280	330			
C	16	100	110	140	140	155	175	175	235	300	275	345
	25		115	160	150		200	215	230	300		
	40		115	160	150		200	215	250			
D	16	130	135	200	210	230	270	285	365	380	460	520
	25		160	230	230		285	325	345	395		
	40		160	230	230		285	325	390			
E	16	150	185	185	205	245	300	385	370	430	555	635
	25		215	225	255		320	385	385	450		
	40		215	225	255		320	385	430			
F	16	270	310	310	365	390	470	610	575	655	835	920
	25		330	365	385		480	550	560	655		
	40		330	365	385		480	550	645			
G	16	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8	3/8	1/2
	25		3/8	3/8	3/8		3/8	3/8	3/8	3/8		
	40		3/8	3/8	3/8		3/8	3/8	3/8			
H*	16	3/8	3/8	3/8	3/8	3/8	1/2	1/2	1/2	3/4	3/4	3/4
	25		3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2		
	40		3/8	3/8	3/8	3/8	1/2	1/2	1/2			

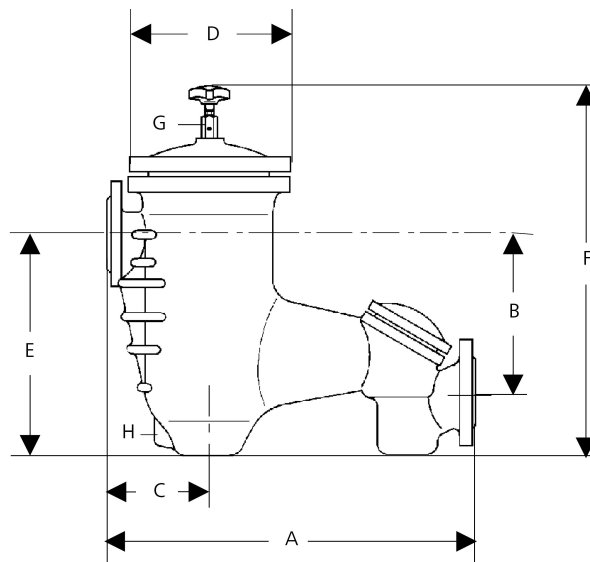
Weights [kg]												
PN	nominal diameter DN											
	15	20	25	32	40	50	65	80	100	125	150	
16	11	12	18	25	31	46	77	107	135	186	270	
25		23	23	30		58	90	110	144			
40		23	23	30		58	90	119				

Special designs on request.

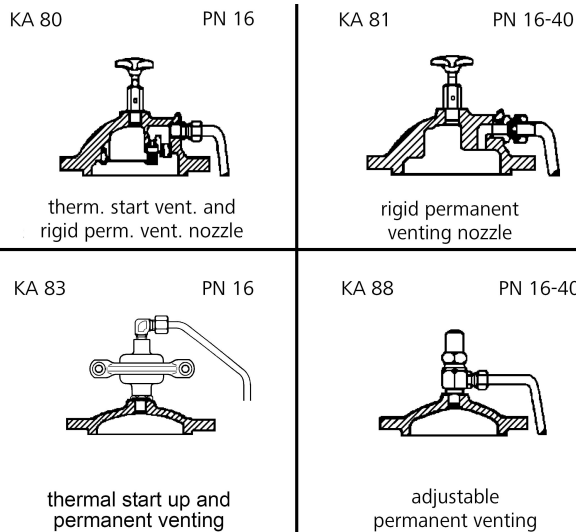
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Dimensional Drawing



Venting Devices



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max. Flow Rate in m ³ /h												
pressure range bar	operating pressure bar	nominal diameter DN										
		15	20	25	32	40	50	65	80	100	125	150
0-2	0,1	0,46	0,57	0,69	1,1	1,94	3,15	5,38	9,5	14,8	21,5	35,8
	0,25	0,73	0,9	1,1	1,8	3,1	5	8,6	15,2	23,6	34	57
	0,5	1,13	1,4	1,7	2,8	4,8	7,8	13,5	23,6	35,8	53	89
	1	1,59	2	2,4	3,9	6,8	11	19	33,5	52	75	125
	1,5	2,2	2,7	3,1	5,3	9,5	15,6	26	46	64	103	172
	2	2,47	3,05	3,7	6	10,6	17,4	29	52	73	116	193
0-4	0,1	0,28	0,36	0,47	0,7	1,12	2,4	4	6,1	9,5	12	23
	0,5	0,69	0,9	1,15	1,7	2,8	6	10	15	23,6	30	60
	1	0,97	1,28	1,6	2,4	4	8,36	14	21,4	33,4	42,3	83
	2	1,5	1,95	2,5	3,7	6	13	21,7	32,8	51,4	65	114
	3	1,84	2,4	3,05	4,52	7,35	15,8	26,6	40,3	63	79	137
	4	2,12	2,76	3,5	5,3	8,6	18,4	30,7	46,5	72,7	92	156
0-8	2	0,73	1,06	1,5	1,7	3,7	6	10,2	19,5	29	39,5	64,5
	4	1,05	1,5	2,12	2,8	5,22	8,5	12,9	26,3	41	55,7	89
	6	1,32	1,9	2,75	3,54	6,66	10,8	15,3	33,5	52,4	71	106
	8	1,54	2,22	3,13	4,1	7,72	12,5	17	38	60,4	82	123
0-13	4	0,63	1,05	1,26	1,5	2,76	6,22	11,6	18,2	26,2	35,6	55,7
	8	0,94	1,54	1,86	2,22	4,08	9,19	17,2	26,88	37,8	52,7	82
	10	1,08	1,76	2,15	2,55	4,69	10,55	19,75	30,86	44,4	60,5	98
	12	1,18	1,93	2,33	2,78	5,13	11,55	21,6	33,75	48,6	66,2	110
	13	1,23	2,01	2,43	2,9	5,35	12,04	22,5	35,2	50,7	69	115
0-16	8	0,72	1,19	1,54	1,86	3,12	6,38	14,4	21,7	32,5	44	82
	12	0,9	1,49	1,93	2,33	3,93	8,02	18	27,4	40,9	57	110
	14	0,98	1,6	2	2,52	4,24	8,66	19,5	29,5	44,1	61	119
	16	1,04	1,73	2,23	2,7	4,54	9,26	20,8	31,6	47,2	65	127
0-22	12		1,22	1,49	1,93		6,49	11,55	15,7	21,6		
	16		1,42	1,73	2,23		7,5	13,34	18,15	24,9		
	18		1,52	1,85	2,4		8,05	14,33	19,5	26,8		
	20		1,61	1,96	2,54		8,49	15,1	20,5	28,2		
	22		1,66	2,04	2,6		8,89	15,82	21,5	29,6		
0-25	16		0,66	1,04	1,36		5,21	9,26	13,34	18,15		
	20		0,75	1,18	1,55		5,9	10,49	15,1	20,5		
	22		0,77	1,22	1,62		6,18	10,98	15,82	21,5		
	25		0,83	1,32	1,74		6,62	11,78	16,96	23,1		
0-32	20		0,52	0,75	1,18		3,05	5,1	8,5			
	22		0,55	0,78	1,22		3,15	5,4	8,9			
	25		0,58	0,84	1,32		3,4	5,8	9,5			
	28		0,62	0,9	1,42		3,65	6,2	10,2			
	32		0,66	0,95	1,5		3,9	6,6	10,85			
0-40	35		0,25	0,69	0,99		2,1	3,8	6,8			
	40		0,28	0,74	1,06		2,3	4,1	7,3			

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