

SILVER



The SILVER Door Air Curtain features unique design matching most of modern interiors of various spaces. Highly efficient and quiet in operation, it is available in the lengths matching the typical door widths.

INTENDED USE

The unit is used to control the inflow of outside air through the doors and other openings in buildings, like:

- shopping centres and supermarkets
- public buildings and offices
- hospitals and chemist shops
- hotels and banks
- warehouses
- restaurants and bars

The SILVER air curtain warms up the air which it draws from the space. It can also be used as a cold curtain, without warming the air.

The unit is designed for use for entrance heights as follows:

- size 1 - up to 2,5 m
- size 2 - up to 3,0 m
- size 3 - up to 3,5 m

Typically, they are installed in horizontal position above the doors. Curtains: size 1-200cm, size 2-250, size 3-300 could be used in vertical working position.

DEVICE DESCRIPTION

The air curtains incorporate:

- coated or painted steel sheet housing with slot along its length and plastic side walls
- water or electric heater
- one up to five double-suction centrifugal fans

The SILVER Air Curtain is available in three sizes and three lengths per size.

Typically, the unit is mounted directly to the ceiling or by means of a support structure using four, six or eight threaded rods attached to the unit's housing. Wall mounting using support structure attached to the unit's back wall is also possible.

Electric heater types incorporate overheating protection.

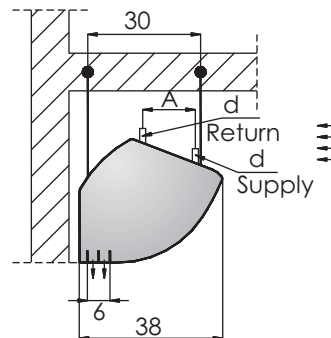
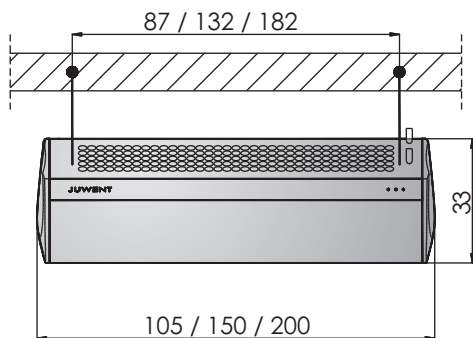
WORKING CONDITIONS

Hot water operated units are designed for supply with 110/70°C or lower temperature medium fed under pressure of 1MPa. Electric heater units are supplied from 3x400VAC mains.

DESIGNATIONS

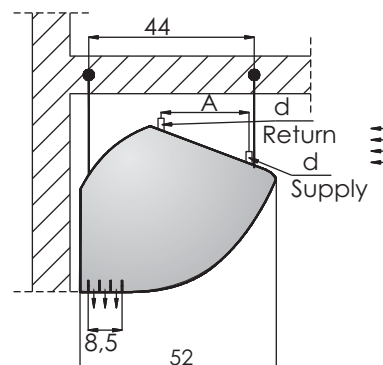
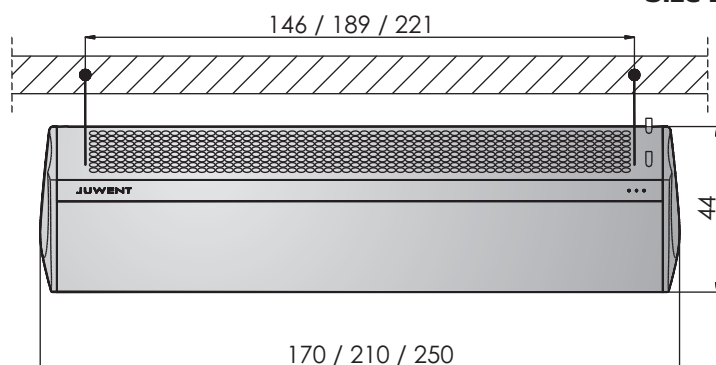
Air curtain	KP Silver - 1 - 150 - W
Size	1; 2; 3
Curtain length	size 1 (105; 150; 200 cm)
	size 2 (170; 210; 250 cm)
	size 3 (150; 225; 300 cm)
Heater type	(W) water heater, (E) electric heater (Z) no heater (cold curtain)

Size 1



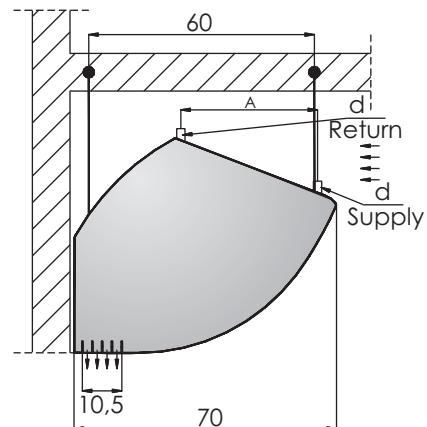
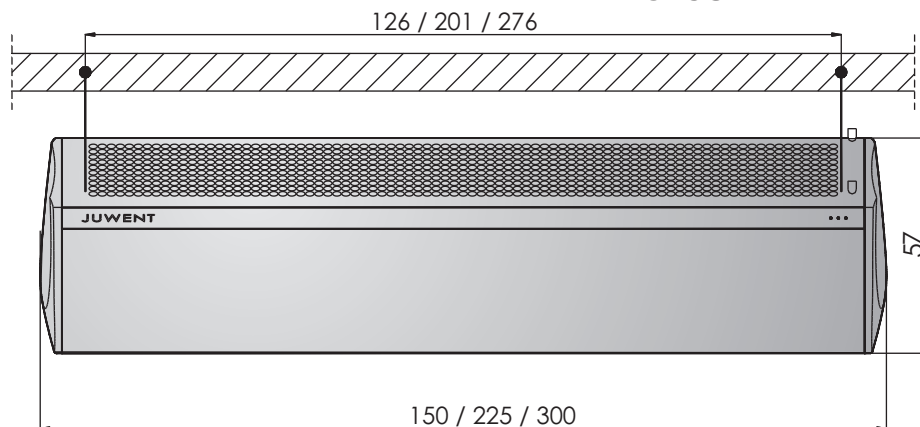
Connections: $d = \frac{1}{2}$ " for 105 cm length; connector spacing $A = 14$ cm
 $d = \frac{3}{4}$ " for 150 and 200 cm lengths; connector spacing $A = 17,5$ cm

Size 2



Connections: $d = \frac{1}{2}$ " for 170 cm length; connector spacing $A = 23,5$ cm
 $d = \frac{3}{4}$ " for 210 i 250 cm length; connector spacing $A = 27$ cm

Size 3



Connection: $d = \frac{3}{4}$ " for 150 and 225cm length; connector spacing $A = 36,5$ cm
 $d = 1$ " for 300cm length; connector spacing $A = 36,5$ cm

TECHNICAL DATA

Size	SILVER-1			SILVER-2			SILVER-3		
Length [cm]	105	150	200	170	210	250	150	225	300
Number of fans	2	3	4	1	2	5	2	3	4
Fan parameters in curtains									
Voltage [V]	230			230			230		
Motor power [kW]	0,16	0,16	0,16	0,6	0,147	0,147	0,45	0,45	0,45
Current [A]	0,7	0,7	0,7	4,8	1,2	1,3	2,0	2,0	2,0
Revolutions [rpm]	1270	1270	1270	1310	1340	1400	790	790	790
IP	44	44	44	20	20	20	54	54	54
Insulation class	B			B			B		
Curtain weight [kg]									
With water heater	34	45	66	75	99	131	91	140	181
With electric heater	35	45	65	78	100	133	92	143	184
Without heater	31	39	58	68	89	120	82	127	162
Noise level [dB(A)]* horizontal working position									
From distance of 1m	64	64	66	69	69	71	71	72	73
From distance of 3m	60	60	62	65	65	68	61	68	69
Noise level [dB(A)]* vertical working position									
From distance of 1m	-	-	65	-	-	71	-	-	73
From distance of 3m	-	-	61	-	-	68	-	-	69

* Noise level is defined as the acoustic pressure at 1 m and 3 m distance from the unit, taking the dispersion factor of room A=50 sq.m. and directivity factor Q=2 into account.

Thermal power of units with electric heater

Size	SILVER-1			SILVER-2			SILVER-3		
Length [cm]	105	150	200	170	210	250	150	225	300
Thermal power [kW]	6	9	12	18	24	30	18	27	36

Thermal power of curtains with water heater

Size		SILVER-1								
Length [cm]		105			150			200		
Air capacity [m³/h]		1500			2250			3000		
Water temp. [°C]	Inflow air temp. [°C]	Thermal power [kW], outflow air temperature [°C] and resistance of water flow [kPa]								
		kW	°C	kPa	kW	°C	kPa	kW	°C	kPa
90/70	5	13,7	31	4,6	20,6	32	2,7	27,5	31	5,2
	10	12,5	34	3,8	19,0	34	2,2	25,1	34	4,3
	15	11,3	37	3,1	17,2	37	1,8	22,7	37	3,6
80/60	5	11,4	26	3,2	17,2	27	1,8	22,9	26	3,6
	10	10,3	29	2,6	15,6	30	1,5	20,6	29	2,9
	15	9,1	33	2,0	13,9	33	1,2	18,3	33	2,3
70/50	5	9,2	22	2,1	13,9	23	1,3	18,5	22	2,4
	10	8,1	25	1,6	12,3	25	0,9	16,3	25	1,8
	15	7,1	28	1,2	10,7	29	0,7	14,2	29	1,3
60/40	5	7,1	18	1,2	10,7	19	0,7	14,3	18	1,4
	10	6,1	21	0,9	9,2	21	0,5	12,1	21	1,0
	15	5,1	25	0,8	7,7	25	0,4	10,1	25	0,7

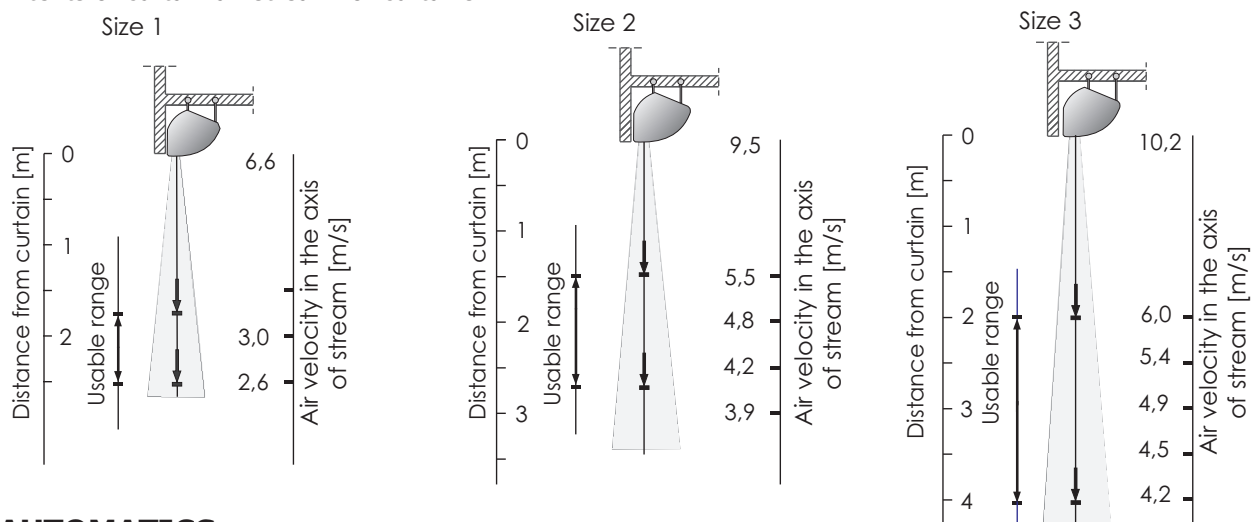
Thermal power of curtains with water heater

Size		SILVER-2								
Length [cm]		170			210			250		
Air capacity [m ³ /h]		3900			4400			6500		
Water temp. [°C]	Inflow air temp. [°C]	Thermal power [kW], outflow air temperature [°C] and resistance of water flow [kPa]								
		kW	°C	kPa	kW	°C	kPa	kW	°C	kPa
90/70	5	34,1	29	1,8	43,6	33	5,8	63,9	32	10,0
	10	31,0	32	1,4	39,8	36	5,1	59,3	35	7,5
	15	28,1	35	1,1	36,0	39	4,1	52,8	39	6,8
80/60	5	28,3	25	1,1	36,4	28	4,1	53,3	28	7,0
	10	25,5	28	0,9	32,7	31	3,3	47,9	31	5,4
	15	22,7	31	0,7	29,2	34	2,8	42,7	34	4,5
70/50	5	22,8	21	0,8	29,4	23	2,8	43,1	23	4,5
	10	20,1	24	0,6	22,9	27	2,0	38,0	26	3,6
	15	17,5	27	0,4	22,5	30	1,4	33,0	30	2,2
60/40	5	17,6	17	0,4	22,7	19	1,4	33,4	19	2,2
	10	15,0	20	0,3	19,4	22	1,1	28,4	22	1,9
	15	12,5	24	0,3	16,2	25	0,9	23,8	25	1,4

Thermal power of curtains with water heater

Size		SILVER-3								
Length [cm]		150			225			300		
Air capacity [m ³ /h]		5400			8100			10800		
Water temp. [°C]	Inflow air temp. [°C]	Thermal power [kW], outflow air temperature [°C] and resistance of water flow [kPa]								
		kW	°C	kPa	kW	°C	kPa	kW	°C	kPa
90/70	5	43,9	28	2,7	73,7	30	11,5	106,2	32	26,0
	10	41,0	31	2,3	67,3	33	10,1	96,9	35	22,0
	15	36,3	34	1,8	60,9	37	7,0	87,8	38	18,2
80/60	5	36,5	24	1,9	61,4	26	7,1	88,6	28	18,4
	10	32,8	27	1,5	55,2	29	6,4	79,2	31	15,0
	15	29,2	30	1,2	49,2	32	5,1	71,1	34	11,9
70/50	5	29,4	20	1,2	49,6	22	5,1	71,7	23	12,1
	10	25,9	23	0,9	43,7	25	4,0	63,2	26	9,4
	15	22,5	27	0,7	38,0	28	3,0	54,9	30	7,1
60/40	5	22,6	17	0,7	38,3	18	3,1	55,4	19	7,1
	10	19,3	20	0,5	32,7	21	2,2	47,3	22	5,2
	15	16,1	23	0,4	27,3	24	1,5	39,5	25	3,8

Extents of curtain air stream for curtains



AUTOMATICS

Description of air curtains automatics components selection are presented in the section: AIR CURTAINS CONTROL AND AUTOMATICS in this catalogue