

HEATING

COOLING

VENTILATION



## COLUMN EFFECT EC®

Energy-efficient design Air Curtain.

**Versatile**  
Heating · Cooling · Ventilation

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## Type ColumEffect EC® M/G/GX/GXX

### ColumEffect® application

With its suspended and standing versions, the LSA ColumEffect EC is particularly well suited for the visible parts of modern entry areas. With its compact cylindrical design, ease of operation and low maintenance operation, it will satisfy architects, contractors, clients and consultants. The floor mounted vertical unit is also a great choice in areas with revolving doors, since the heated airflow is discharged directly all the way down to floor level, without losing heat, thus preventing the formation of a "cold patch". Either powder coated in any RAL-color or executed in stainless steel, the ColumEffect fits seamlessly in every entry area. The ColumEffect EC is used in hotels, banks, flagship stores, shopping malls, hospitals, airports and public buildings.

### ColumEffect EC® casing

Self-supporting construction in a cylindrical shape with sheet steel or stainless steel housing in either a smoothly rolled or angulated design without any visible screw connections. The intake grille and aluminium discharge fins can be powder coated in the same RALcolor as the unit. The service hatch is located at the back of the unit and can be opened for easy maintenance. The water and electrical connections can either be connected from the bottom or top, upon your request. The unit can be discreetly bolted in place via premade holes in the floor console.

### ColumEffect EC® EC fans

The efficiency of the EC fans used is > 90% under partial load operation. This is 30–35% higher than for conventional AC fans. This doesn't just increase the efficiency, but also reduces the operating costs. The individually-driven radial EC fans with integrated motor protection have an air inlet from both sides. They have vibration-free bearings and are controlled using a PWM signal (pulse width modulation). They don't just comply with Directive ErP2015, but actually exceed this standard.

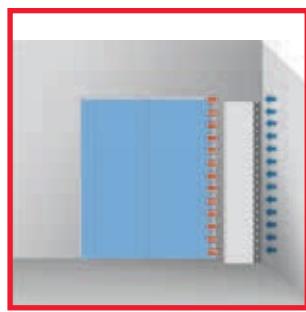
### ColumEffect EC® controls

For optimal performance of the air curtain it's important to set the discharge fin(s) to the right position. They should be directed slightly outward. If the air curtain is placed between 0–30cm from the door, 10° is recommended. If it's placed more than 30cm from the door, we recommend 15°. If the air curtain is used in combination with airconditioning, the fin(s) can be directed 10–15° inward in the summer, to keep the conditioned air inside.

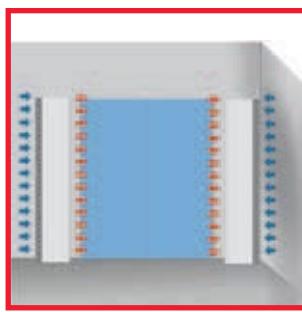
A **ColumEffect EC®** air curtain works.

**LSA, pleasantly different.**

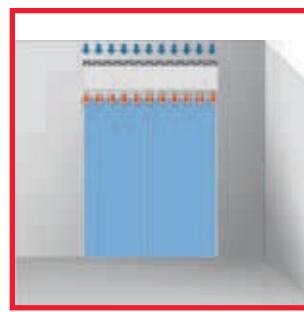
## Installation options



Single installation  
Left or right side of the opening.



Double installation  
For wide entrances.



Freely suspended installation  
For opening heights of 2,5 up to 3,6 meters. When there's insufficient space on the sides.

# Technical data ColumEffect EC®

Type	Length mm	Air volume m³/h	Heating capacity LPHW 60/40°C ~Δ 15°C kW **	Water resistance LPHW 60/40°C kPa	Water connections Internal thread"	Heating capacity electric 400 V kW	Electric connections fans			Sound pressure lvel min/max dB(A)*	Weight kg
							Volt 50 Hz	Nominal power kW	A		

**ColumEffect EC® M** recommended mounting height (bottom of the air curtain) / air throw of max. 2,50 meters

M 1000 P	1000	1816	9,70	6,30	2 x 3/4"	-	230	0,30	2,10	44/58	52
M 1500 P	1500	2724	13,30	7,90	2 x 3/4"	-	230	0,50	3,10	44/59	61
M 2000 P	2000	3632	20,80	7,80	2 x 3/4"	-	230	0,60	4,10	45/60	91
M 2500 P	2500	4540	24,10	5,80	2 x 3/4"	-	230	0,80	5,13	46/61	118
M 3000 P	3000	6356	43,68	8,51	2 x 3/4"	-	230	0,90	7,20	47/62	134
M 1000 E	1000	1816	-	-	-	3/6/9	230	0,30	2,10	44/58	52
M 1500 E	1500	2724	-	-	-	4/8/12	230	0,50	3,10	44/59	61
M 2000 E	2000	3632	-	-	-	6/12/18	230	0,60	4,10	45/60	91
M 2500 E	2500	4540	-	-	-	6/12/18	230	0,80	5,13	46/61	118
M 3000 E	3000	6356	-	-	-	6/12/18	230	0,90	7,20	47/62	134

**ColumEffect EC® G** recommended mounting height (bottom of the air curtain) / air throw of max. 2,80-3,00 meters

G 1000 P	1000	2724	10,80	7,80	2 x 3/4"	-	230	0,50	3,10	45/60	55
G 1500 P	1500	3632	18,10	14,40	2 x 3/4"	-	230	0,60	4,10	46/61	73
G 2000 P	2000	5448	26,10	12,20	2 x 3/4"	-	230	0,90	6,15	47/62	98
G 2500 P	2500	6356	32,60	10,30	2 x 3/4"	-	230	1,10	7,20	47/63	124
G 3000 P	3000	7264	48,15	10,18	2 x 3/4"	-	230	1,20	8,20	48/64	145
G 1000 E	1000	2724	-	-	-	5/10/15	230	0,50	3,10	45/60	55
G 1500 E	1500	3632	-	-	-	7,5/15/22,5	230	0,60	4,10	46/61	73
G 2000 E	2000	5448	-	-	-	10/20/30	230	0,90	6,15	47/62	98
G 2500 E	2500	6356	-	-	-	10,7/21,4/32	230	1,10	7,20	47/63	124
G 3000 E	3000	7264	-	-	-	10,7/21,4/32	230	1,20	8,20	48/64	145

**ColumEffect EC® GX** recommended mounting height (bottom of the air curtain) / air throw of max. 3,20 meters

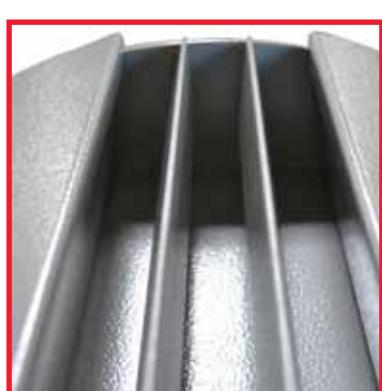
GX 1000 P	1000	4740	16,60	1,55	2 x 1"	-	230	1,10	6,00	48/64	77
GX 1500 P	1500	4740	27,10	3,03	2 x 1"	-	230	1,40	6,00	47/63	120
GX 2000 P	2000	7110	37,10	3,41	2 x 1"	-	230	2,10	9,10	48/64	155
GX 2500 P	2500	9480	47,30	4,40	2 x 1"	-	230	2,70	12,10	49/65	200
GX 3000 P	3000	11850	76,86	6,06	2 x 1"	-	230	3,50	15,00	50/67	225
GX 1000 E	1000	4740	-	-	-	5/10/15	230	1,10	6,00	48/64	77
GX 1500 E	1500	4740	-	-	-	7,5/15/22,5	230	1,40	6,00	47/63	120
GX 2000 E	2000	7110	-	-	-	10/20/30	230	2,10	9,10	48/64	155
GX 2500 E	2500	9480	-	-	-	10,7/21,4/32	230	2,70	12,10	49/65	200
GX 3000 E	3000	11850	-	-	-	10,7/21,4/32	230	3,50	15,00	50/67	225

**ColumEffect EC® GXX** recommended mounting height (bottom of the air curtain) / air throw of max. 3,60 meters

GXX 1000 P	1000	4740	19,70	1,97	2 x 1 1/4"	-	230	1,40	6,10	47/63	120
GXX 1500 P	1500	7110	31,40	3,69	2 x 1 1/4"	-	230	2,10	9,10	48/64	175
GXX 2000 P	2000	9480	42,60	4,38	2 x 1 1/4"	-	230	2,80	12,10	49/65	240
GXX 2500 P	2500	11850	54,80	5,85	2 x 1 1/4"	-	230	3,50	15,20	50/66	285
GXX 3000 P	3000	14220	88,76	7,96	2 x 1 1/4"	-	230	4,10	18,20	51/68	320
GXX 1000 E	1000	4740	-	-	-	5/10/15	230	1,40	6,10	47/63	120
GXX 1500 E	1500	7110	-	-	-	7,5/15/22,5	230	2,10	9,10	48/64	175
GXX 2000 E	2000	9480	-	-	-	10/20/30	230	2,80	12,10	49/65	240
GXX 2500 E	2500	11850	-	-	-	10,7/21,4/32	230	3,50	15,20	50/66	285
GXX 3000 E	3000	14220	-	-	-	10,7/21,4/32	230	4,10	18,20	51/68	320

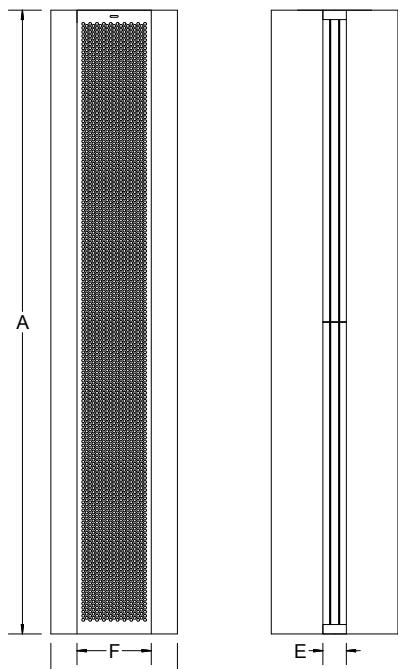
\* Measured at 3m distance. \* Effect GX/GXX EC on request.

Subject to technical modifications.

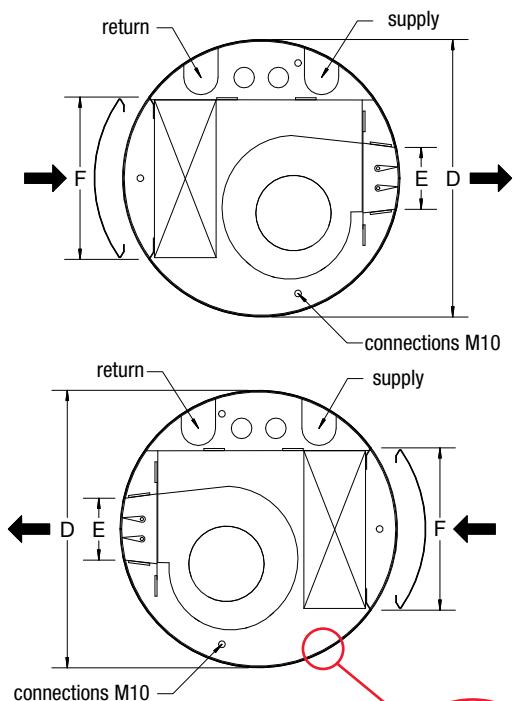


# Technical drawings ColumEffect EC®

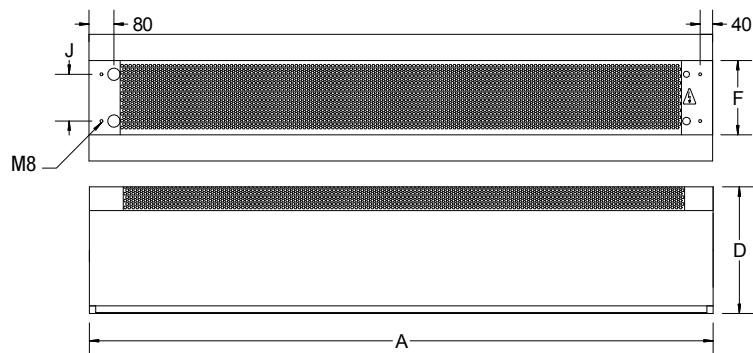
Side view vertical unit



Section cuts



Side view horizontal unit



as standard supplied in smoothly rolled or angulated casing.

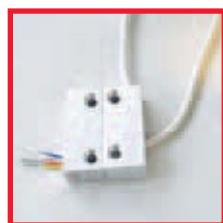
Model	Measurement symbols (mm)				
	A	D	E	F	J
ColumEffect® M		400	80	230	150
ColumEffect® G		400	80	230	150
ColumEffect® GX	A = variable	600	110	320	200
ColumEffect® GXX		600	110	320	200



Connection cable between control and air curtain



Thermostatic 3-way valve



Doorcontact



Ceiling mounting kit

# Correction Factors

## > Energy Saving

**Versatile advocate the use of low water temperature for energy saving.  
Our standard outputs are based on flow and return of 60/40.**

**\*\* LSA air curtains are supplied for a warm water supply with a temperature of 60°C and a return temperature of 40°C, inlet temperature +20°C. It is not necessary to supply the air curtain with other heat exchangers. See conversion table for other water temperature supplies and example below.**

T° Water °C	+15°C	+18°C	T°air +20°C
100/80	2.77	2.65	2.56
90/70	2.38	2.25	2.17
80/60	1.98	1.86	1.78
70/50	1.58	1.46	1.38
60/40	1.20	1.08	1.00
55/35	1.00	0.89	0.80

## > Example

The Effect M 2000 P60/40 gives 20.8kW with an air inlet temperature of 20°C. If the system gives water temperatures of 90°/70°C then the factor is 2.17. The capacity will become  $2.17 \times 20.8 = 45.14\text{kW}$ .



# Overview different installations



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