



Air Curtain system **EUI 15**



Luftschleieranlagen

A product range of classic design using tried and tested technology

Air Curtain system EUI15

Classic design - without visible screw and rivet connections. STE or AWE fitting possible.

System design

Casing:

Standard colour white (RAL 9010)
Individual colours available upon request.
Plastic coated steel sheeting casing, easy to fit using internal screw threads M8 on the top of the system.

Ventilators:

5 stages, double-sided air intake, low-vibration and low-noise, maintenance free. Motor is protected by thermo-contacts. In the case of electrically heated air curtain systems - 3 stages speed control. Touch protection using ventilator protection grid in compliance with CE specifications.

Heat exchanger:

made of Cu/Al for PWW.
Max. nominal pressure PN 16 at 130°C. For steam and hot water heating: galvanised steel.
For electrical heating: ribbed pipe heating pipes incl. safety switch.

Air intake:

as décor air intake grid, powder coated RAL 7042, to be opened with quick release openers for problem-free air filter replacement. Reduction of dust particles due to air filter mats which keep their



shape and can be regenerated or micro-air intake grids (optional).

Air outlet:

synchrostream - wide angle outlet. Aerodynamically shaped aluminium air guidance lamellae, coupled in parallel, can be rotated up to $\sphericalangle 30^\circ$ on both sides. Turbulence at the edge is avoided by edge lamellae attached directly to the edge of the unit. The speed of the air blown out is increased in the variable area. Therefore the screening effect is maximised.

Electrical connection

using a printed circuit board with printed switching for thermal contacts, frost protection thermostat and solenoid valve. Message output for operating, error and frost alarm LEDs. Optional: potential-free output for collective error and operating messages.

Accessories:

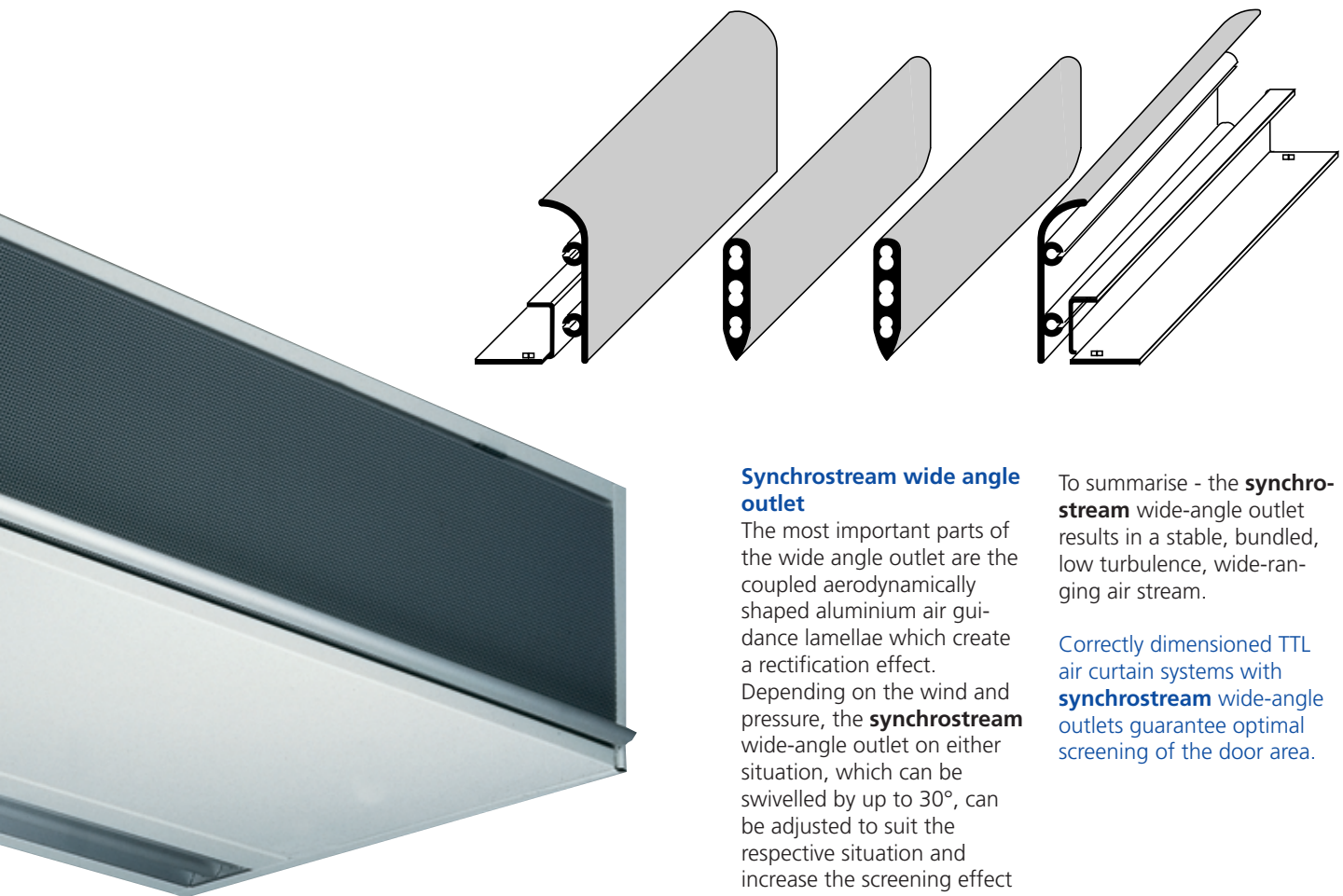
Step switch, operating panel, solenoid valve, thermostatic control valve, air filter, micro-air intake grid, frost protection thermostat (built-in).

Door contact, ceiling fixing set. Air intake box and sliding pipe end for lowered ceilings and AWE fixation. Aluminium frame to fit the system flush with the ceiling.

Control / regulation

see index 11

Constant screening with the wide angle **synchrostream** outlet

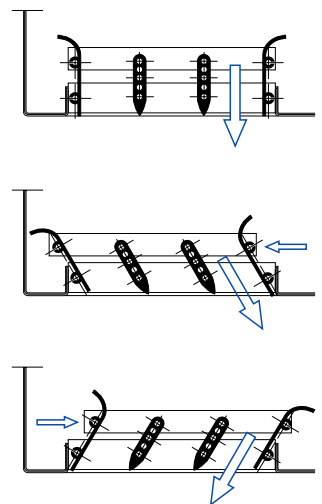


Synchrostream wide angle outlet

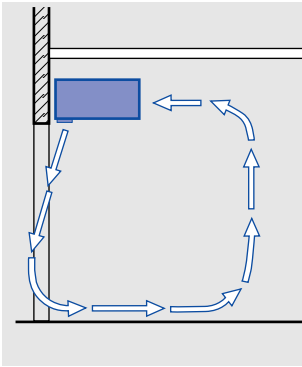
The most important parts of the wide angle outlet are the coupled aerodynamically shaped aluminium air guidance lamellae which create a rectification effect. Depending on the wind and pressure, the **synchrostream** wide-angle outlet on either situation, which can be swivelled by up to 30°, can be adjusted to suit the respective situation and increase the screening effect by increasing the speed of the air being blown out. At the same time turbulence and throttling effects are avoided due to the special bearing of the edge lamellae when the outlet is slanted.

To summarise - the **synchrostream** wide-angle outlet results in a stable, bundled, low turbulence, wide-ranging air stream.

Correctly dimensioned TTL air curtain systems with **synchrostream** wide-angle outlets guarantee optimal screening of the door area.



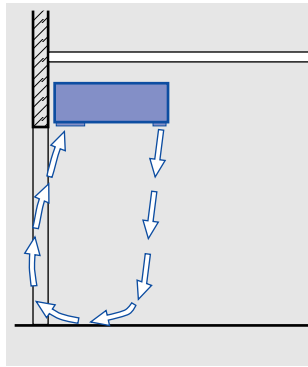
Fitting variations



STE - Standard fitting

Air is sucked from the room and blown out above the door. A circulating stream of air is created and its direction of rotation is the same as that of the incoming cold air.

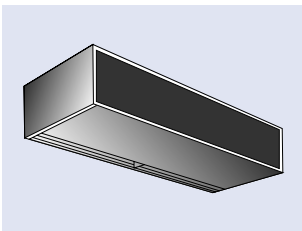
This results in a relatively large area of increased air movement in the region of the door. This is a solution for smaller rooms, buildings without vacuums and situations where no permanent work places are positioned in the door area.



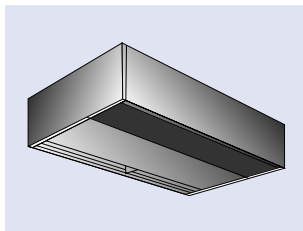
AWE - rolling screen fitting

Air is sucked in from above the door and blown into the room. This results in a circulating screening curtain of air and its direction of rotation is opposite to that of the incoming cold air.

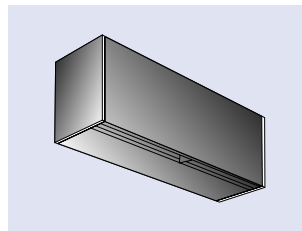
This significantly increases the screening performance and reduces the air required to create the screen. The noise level and area of air movement in the entrance area is also reduced.



**Standard design with
circulating air operation**



**With integrated air intake
housing for lowered
ceilings or AWE fitting.**



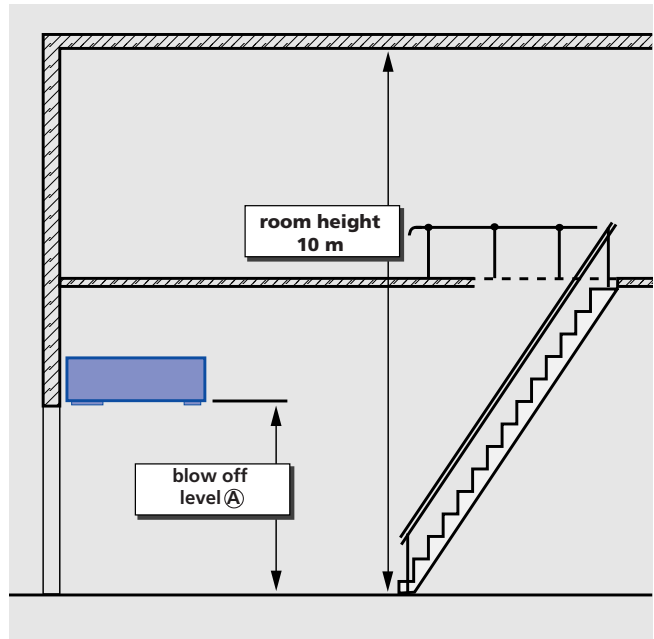
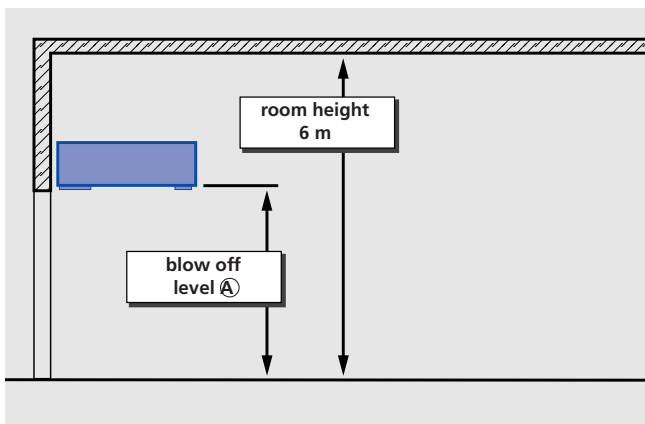
**With vertical air passage
for narrow spaces**



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Planning data

Various parameters must be taken into consideration at the planning stage such as door height and width, the blow off level, size and height of the rooms, doors opposite one another, height and number of open or connected storeys, type of heating or air-conditioning system.



Selecting the equipment:

In addition to the **blow off level**, the **room area** to be screened off together with the **room height**, are the important data for the correct design of a air curtain system.

The larger the volume of the room or building, the greater the dynamic pressure affecting the building. This dynamic pressure causes a vacuum which is reduced above the door area, i.e. this is where the unwanted exchange of air masses of different temperatures takes place.

Increasing the **room area** (room volume) usually results in an increase in leaks due to the doors, windows and leaks in the building. The air exchange taking place at the door is reinforced.

Due to these conditions and as a result of practical experience, including the room area into the planning of the air curtain system has proven to be worthwhile.

Room area in m² with blow off level A in cm

Blow off level A	Room height up to 6 m				Room height up to 10 m			
	300 cm	350 cm	400 cm	500 cm	300 cm	350 cm	400 cm	500 cm
STE fitting EUI .../15	9000	6000	4000	1800	3000	2000	1400	650
AWE fitting EUI .../15	15000	10000	5000	3000	5000	3400	2300	1000

System selection according to height of the air curtain and room area with pressure compensation.

Technical data EUI 15

The data specified in the table below regarding heating performance are based on a temperature increase of 14 K for STE fitting and 27 K for AWE fitting. The max. heating performance of the heat exchangers is significantly higher. This information is available upon request.

Usually 32°C is the optimal temperature of the air being blown out in air curtain systems. Lower temperatures create drafts, higher temperatures reduce the screening performance.

Fitting STE		incoming air +18 °C (outgoing air +32°C)					
	Type	Door width cm	Air volume		Heating capacity kW	Water resistance Pa	Connection inches
			min.	max.			
PWW 80/60°C 70/50°C	EUI 100 W-15	100	1950	4800	23,50	12000	1"
	EUI 150 W-15	150	3350	7200	35,00	13000	1"
	EUI 200 W-15	200	4150	9600	46,90	12000	1"
	EUI 250 W-15	250	5600	12000	58,60	8000	1"
	EUI 300 W-15	300	6400	14500	70,90	11000	1"
PWW 80/40°C	EUI 100 N 3-15	100	1950	4800	23,50	2000	1"
	EUI 150 N 3-15	150	3350	7200	35,00	3000	1"
	EUI 200 N 3-15	200	4150	9600	46,90	2000	1"
	EUI 250 N 3-15	250	5600	12000	58,60	4000	1"
	EUI 300 N 3-15	300	6400	14500	70,90	7000	1"
PWW 60/40°C	EUI 100 N 2-15	100	1950	4800	23,50	1000	1"
	EUI 150 N 2-15	150	3350	7200	35,00	4000	1 1/4"
	EUI 200 N 2-15	200	4150	9600	46,90	1000	1 1/4"
	EUI 250 N 2-15	250	5600	12000	58,60	2000	1 1/4"
	EUI 300 N 2-15	300	6400	14500	70,90	3000	1 1/4"

Technical data EUI 15 electric

Fitting STE		incoming air +18 °C (switching cabinet required)					
	Type	Door width cm	Air volume		Heating capacity		
			min.	max.	stage 1 kW	stage 2 kW	stage 3 kW
Electric V/Ph/Hz 400/3+N/50	EUI 100 E-15	100	1950	4800	12,0	18,0	24,0
	EUI 150 E-15	150	3350	7200	15,0	27,0	34,5
	EUI 200 E-15	200	4150	9600	24,0	36,0	48,0
	EUI 250 E-15	250	5600	12000	27,0	42,0	55,5
	EUI 300 E-15	300	6400	14500	36,0	54,0	72,0



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Note:

In the case of heating circuits which are dependent on the outside temperature (variable) the heat exchanger must be designed for the lowest flow temperature.

We recommend that the temperature of the incoming air is limited using a control valve (mechanical / electrical)

Fitting AWE		incoming air +5 °C (outgoing air +32°C)			
Type	Air volume min. / max. m ³ /h	Heating capacity kW	Water resistance Pa	Connection inches	
EUI 100 N 2-15	1950 4800	45,20	3000	1"	
EUI 150 N 2-15	3350 7200	67,80	12000	1 1/4"	
EUI 200 N 2-15	4150 9600	90,30	4000	1 1/4"	
EUI 250 N 2-15	5600 12000	113,30	7000	1 1/4"	
EUI 300 N 2-15	6400 14500	136,30	11000	1 1/4"	
EUI 100 N 3-15	1950 4800	45,20	7000	1"	
EUI 150 N 3-15	3350 7200	67,80	12000	1"	
EUI 200 N 3-15	4150 9600	90,30	8000	1"	
EUI 250 N 3-15	5600 12000	113,30	16000	1"	
EUI 300 N 3-15	6400 14500	136,30	23000	1"	
EUI 100 N 4-15	1800 4500	42,40	4000	1"	
EUI 150 N 4-15	3350 7000	65,90	8000	1 1/4"	
EUI 200 N 4-15	4000 9300	87,50	8000	1 1/4"	
EUI 250 N 4-15	5400 11600	109,50	7000	1 1/4"	
EUI 300 N 4-15	6200 14000	131,60	9000	1 1/4"	

Electrical connection air curtain system V/Ph/Hz 400/3+N/50**							
Ventilator 230/1/50 kW A		Noise level min. / max. dB(A)*		Weight device kg	Weight device + air intake box kg		
2x0,65	2x3,60	46	62	86	100		
3x0,65	3x3,60	49	65	126	144		
4x0,65	4x3,60	50	66	163	186		
5x0,65	5x3,60	51	67	205	233		
6x0,65	6x3,60	52	68	242	275		
2x0,65	2x3,60	46	62	86	100		
3x0,65	3x3,60	49	65	126	144		
4x0,65	4x3,60	50	66	163	186		
5x0,65	5x3,60	51	67	205	233		
6x0,65	6x3,60	52	68	242	275		
2x0,65	2x3,60	46	62	88	102		
3x0,65	3x3,60	49	65	129	147		
4x0,65	4x3,60	50	66	168	191		
5x0,65	5x3,60	51	67	211	239		
6x0,65	6x3,60	52	68	249	282		

Fitting AWE		incoming air +5 °C		
Type	min. / max. m ³ /h	Air volume stage 1 kW	Heating capacity stage 2 kW	stage 3 kW
EUI 100 E-15		on inquiry		
EUI 150 E-15		on inquiry		
EUI 200 E-15		on inquiry		
EUI 250 E-15		on inquiry		
EUI 300 E-15		on inquiry		

Electrical connection air curtain system V/Ph/Hz 400/3+N/50**							
Ventilator 230/1/50 kW A		Noise level min. / max. dB(A)*		Weight device kg	Weight device + air intake box kg		
2x0,65	2x3,60	46	62	84	98		
3x0,65	3x3,60	49	65	124	142		
4x0,65	4x3,60	50	66	161	184		
5x0,65	5x3,60	51	67	205	233		
6x0,65	6x3,60	52	68	242	275		

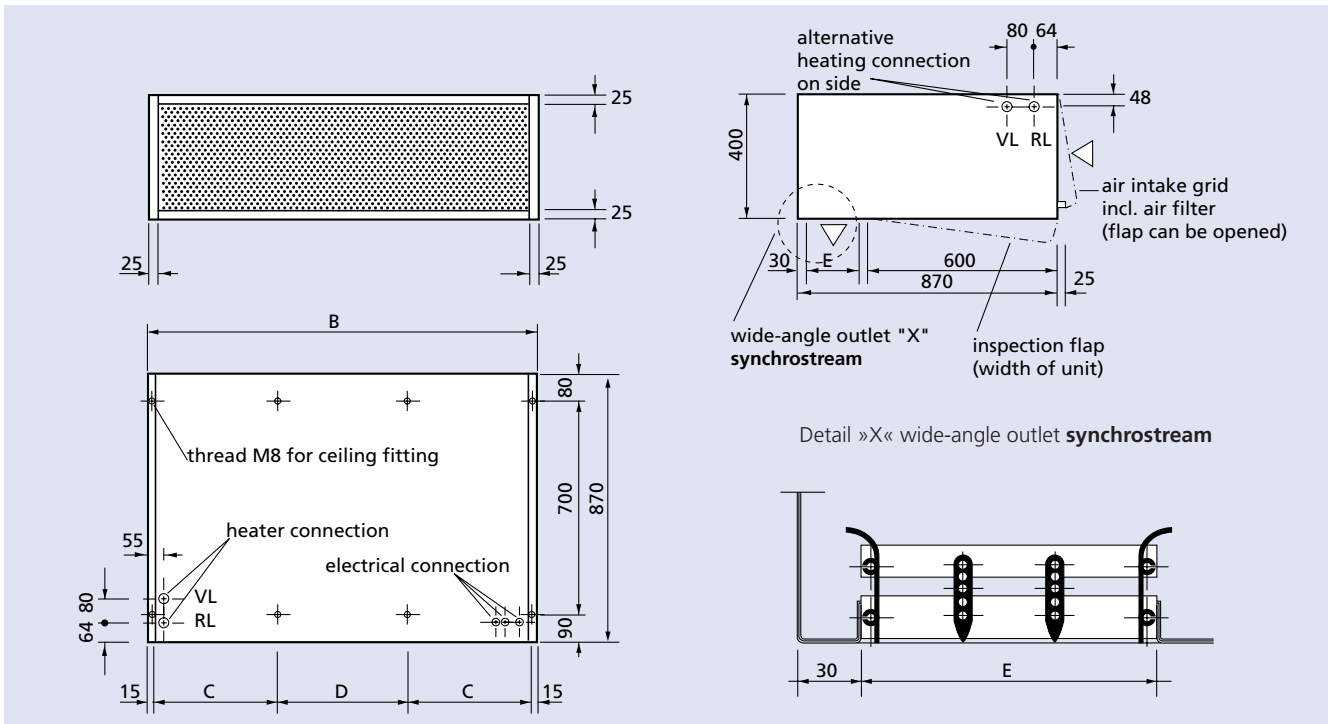
* noise level at a distance of 3 m at 300 m+ Sabin

** ventilator connection distributed across phases

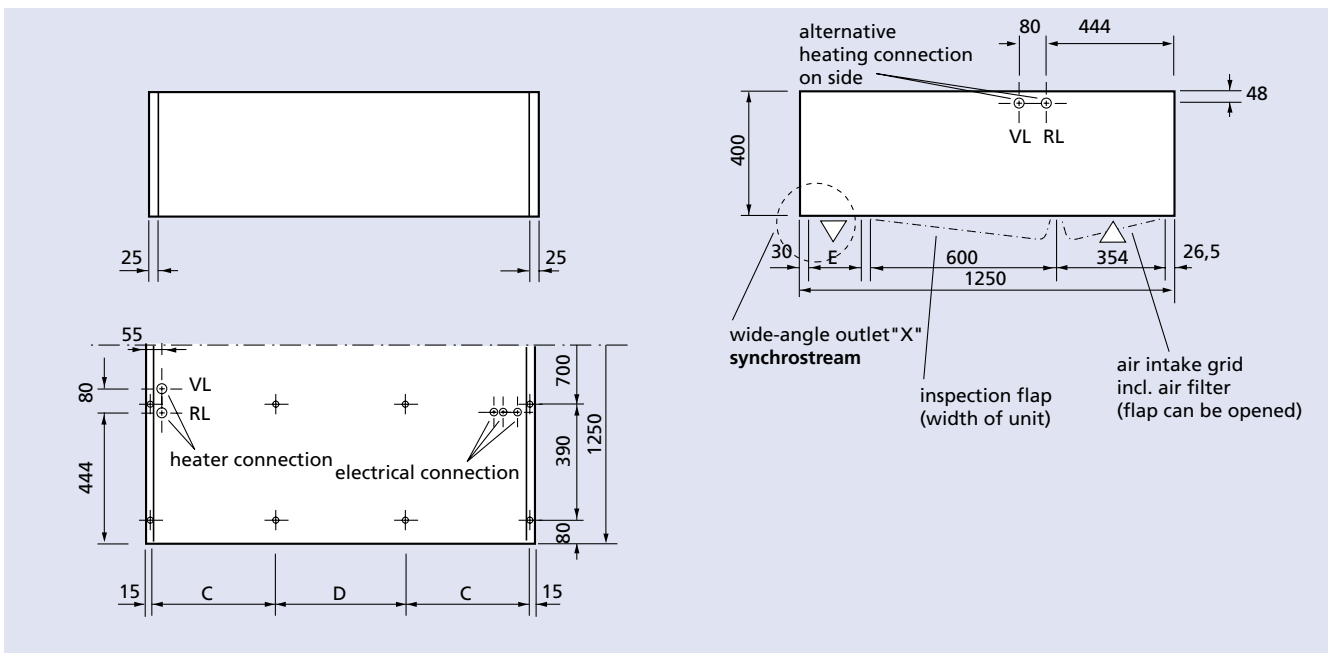


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Dimensioned drawing Type EUI 15



Dimensioned drawing Type EUI 15 - AK (with air intake box)



Dimensions	Ceiling fitting/piece					
	Type	B	C	D	E	EUI 15
EUI 100 - 15	990	960	–	138	4	6
EUI 150 - 15	1490	1460	–	138	4	6
EUI 200 - 15	1990	1960	–	138	4	6
EUI 250 - 15	2490	730	1000	138	8	12
EUI 300 - 15	2990	980	1000	138	8	12



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