

# KITCHEN LINE VARIANT

kitchen hoods  
with air supply



**VARIANT kitchen hoods** provide efficient extraction with waste air filtration, at the same time supplying treated fresh air for kitchens of all sizes and configurations, on request with automatic operation control.

VARIANT kitchen hoods are supplied as complete kit; they are made of stainless steel sheet according to CSN 17240 (AISI 304), with 400 × 400mm grease separators with a capture efficiency of up to 100 % (depending on the size of aerosols in the air). The hoods are fitted with built-in LED lighting as standard.

The front part of the hood has square, adjustable, 275 × 275mm outlets for the supply of treated fresh air. Extraction and supply outlets, circular or rectangular, are located at the top. It is recommended that the ductwork should be thermally and acoustically insulated (preferably Pitre or ALP) for cleaning and maintenance.

VARIANT hoods can benefit from a combination with DUPLEX units located outside the kitchen area, alternatively with stand-alone fans, filtration and reheating features.

They are suspended on M10 threaded rods anchored with expansion bolts to the ceiling along the perimeter of the hood. Their standard height is 435 mm, with plan dimensions to meet customer requirements within the specified range. VARIANT hoods are distinct for their compactness and excellent design. The integration of extraction with air supply into a single unit eliminates other aesthetically undesirable ducting in the kitchen.

## aMotion controls for automatic operation

On request, VARIANT hoods can be equipped with a comprehensive microprocessor-based operation control system.

The system consists of a microprocessor control module with differential temperature sensors built into the SM terminal block above the hood. A control panel for remote adjustment of the hood's operation and an RG switchboard for speed control of the supply and exhaust fan are supplied separately.

The automatic control system of VARIANT hoods ensures economical ventilation depending on the immediate heat production of the kitchen equipment. Only when there is an increased temperature difference between the air temperature under the hood and in the kitchen area do the exhaust and supply fans start running at a reduced speed. If the temperature differential increases further, both fans start running at a maximum speed. When this adjustable differential is reduced, the fan speed is automatically lowered or they are switched off.

**aMotion controls for automatic operation is supported only when operated together with DUPLEX unit.**

## LEGEND

VZT+ZZT ... DUPLEX Basic compact ventilation unit with heat recovery

$i_1$  ... exhaust air inlet

$i_2$  ... exhaust air outlet

$e_{\text{exter}}$  ... outdoor air inlet

$e_1$  ... fresh heated air supply

$e_2$  ... fresh heated air outlet

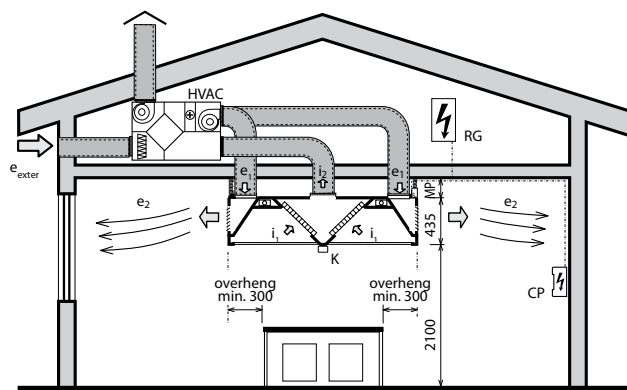
MP ... manipulation space

K ... grease collection tray

S ... connection terminal block

OP ... control panel for automatic control

RG ... automatic control panel



## Selection software

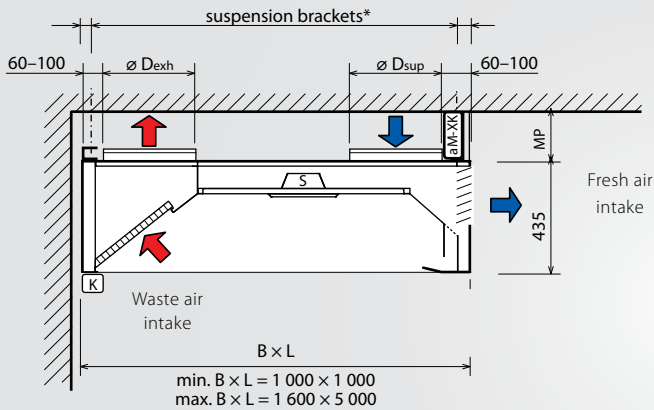
For the detailed selection of ventilated ceilings, kitchen hoods, accessories and control systems we recommend using our specialised selection software.

You will find it on our website [www.atrea.eu](http://www.atrea.eu).

**Atrea**®

# VARIANT 1-R (WALL-MOUNTED)

## VARIANT 1-R (WALL-MOUNTED)



### Legend:

- B x L ... width x length of the hood
- B1 x L1 ... hinge spacing
- MP ... manipulation space
- $\varnothing D_{\text{exh}}$  ... exhaust outlets (circular or rectangular)
- $\varnothing D_{\text{sup}}$  ... supply inlets (circular or rectangular)
- S ... LED light
- K ... grease collection tray
- aM-XK ... terminal block with a built-in microprocessor module
- BT1 ... operating temperature sensor of the automatic control system (internal)
- BT2 ... operating temperature sensor of the automatic control system (room) – located on the side of the hood
- \* ... a drawing of the suspension bracket layout according to the size of the hood available on request

**Note:** Hoods with a length of L > 3000mm are always supplied with 2 outlets  $e_1$  and  $i_2$  placed at 1/4 of the length from the edges.

## DIMENSIONS AND SIZES

Dimensions of the hood				Maximum number of filters	Maximum number of outlets	Maximum air flow rate (m <sup>3</sup> /h)	Maximum inlet/outlet pressure drop (Pa)	Lighting power input	Number of suspension brackets
Length L	Width B								
1 000	1 000	1 250	1 600	2 pcs	3 pcs	1 160	70 / 100	LED 22 W	4 pcs
1 200	1 000	1 250	1 600	2 pcs	3 pcs	1 160	72 / 101	LED 22 W	4 pcs
1 400	1 000	1 250	1 600	3 pcs	4 pcs	1 740	72 / 102	LED 22 W	4 pcs
1 600	1 000	1 250	1 600	3 pcs	5 pcs	1 740	77 / 117	LED 44 W	4 pcs
1 800	1 000	1 250	1 600	4 pcs	5 pcs	2 320	74 / 121	LED 44 W	4 pcs
2 000	1 000	1 250	1 600	4 pcs	6 pcs	2 320	83 / 123	LED 55 W	6 pcs
2 200	1 000	1 250	1 600	5 pcs	7 pcs	2 900	72 / 106	LED 55 W	6 pcs
2 400	1 000	1 250	1 600	5 pcs	7 pcs	2 900	72 / 94	LED 55 W	6 pcs
2 600	1 000	1 250	1 600	6 pcs	8 pcs	3 480	67 / 101	LED 55 W	6 pcs
2 800	1 000	1 250	1 600	6 pcs	9 pcs	3 480	67 / 91	LED 55 W	6 pcs
<b>Minimum 2 exhaust HVAC connections and 2 supply connections</b>									
3 000	1 000	1 250	1 600	7 pcs	10 pcs	4 060	72 / 108	LED 2x44 W	8 pcs
3 200	1 000	1 250	1 600	7 pcs	10 pcs	4 060	77 / 111	LED 2x44 W	8 pcs
3 400	1 000	1 250	1 600	8 pcs	10 pcs	4 640	71 / 102	LED 2x44 W	8 pcs
3 600	1 000	1 250	1 600	8 pcs	12 pcs	4 640	72 / 105	LED 2x44 W	8 pcs
3 800	1 000	1 250	1 600	9 pcs	12 pcs	5 220	71 / 107	LED 2x55 W	8 pcs
4 000	1 000	1 250	1 600	9 pcs	12 pcs	5 220	76 / 114	LED 2x55 W	8 pcs
4 200	1 000	1 250	1 600	10 pcs	14 pcs	5 800	72 / 106	LED 2x55 W	8 pcs
4 400	1 000	1 250	1 600	10 pcs	14 pcs	5 800	72 / 100	LED 2x55 W	8 pcs
4 600	1 000	1 250	1 600	11 pcs	14 pcs	6 380	72 / 100	LED 2x55 W	8 pcs
4 800	1 000	1 250	1 600	11 pcs	16 pcs	6 380	72 / 94	LED 2x55 W	8 pcs
5 000	1 000	1 250	1 600	12 pcs	16 pcs	6 960	72 / 90	LED 2x55 W	8 pcs

The hood can be supplied in non-standard dimensions ranging from:

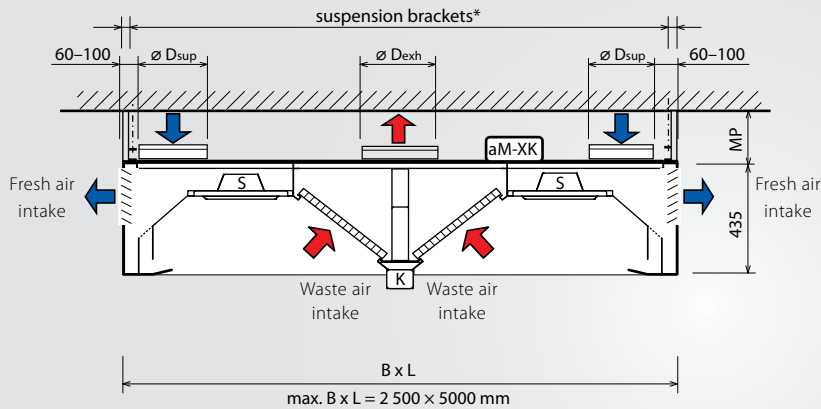
**Length L** = 1 000 to 5 000 mm (always in 50 mm increments).

**Width B** = 1 000 to 1 600 mm (always in 50 mm increments).

## IMPORTANT NOTES

- Class B gas appliances must be ducted into the chimney and under no circumstances can they be ducted into the hood.
- the possible passage of the flue pipe through the hood must be consulted
- hoods of up to L > 3 500 mm should always be delivered disassembled due to difficult transport and handling
- ensure that the hood overhang over the outline of the appliances is sufficient

## VARIANT 2-R (CENTRAL)



### Legend:

- $B \times L$  ... width  $\times$  length of the hood
- $B1 \times L1$  ... hinge spacing
- MP ... manipulation space
- $\varnothing D_{exh}$  ... exhaust outlets (circular or rectangular)
- $\varnothing D_{sup}$  ... supply inlets (circular or rectangular)
- S ... LED light
- K ... grease collection tray
- aM-XK ... terminal block with a built-in microprocessor module
- BT1 ... operating temperature sensor of the automatic control system (internal)
- BT2 ... operating temperature sensor of the automatic control system (room) – located on the side of the hood
- \* ... a drawing of the suspension bracket layout according to the size of the hood available on request

## DIMENSIONS AND SIZES

Length L	Dimensions of the hood				Maximum number of filters	Maximum number of outlets	Maximum air flow rate (m <sup>3</sup> /h)	Maximum inlet/outlet pressure drop (Pa)	Lighting power input	Number of suspension brackets
	Width B									
1 000	1 800	1 950	2 250	2 500	4 pcs	6 pcs	2 320	70 / 100	LED 2x22 W	6 pcs
1 200	1 800	1 950	2 250	2 500	4 pcs	6 pcs	2 320	72 / 101	LED 2x22 W	6 pcs
1 400	1 800	1 950	2 250	2 500	6 pcs	8 pcs	3 480	72 / 102	LED 2x22 W	6 pcs
1 600	1 800	1 950	2 250	2 500	6 pcs	10 pcs	3 480	76 / 114	LED 2x44 W	6 pcs
1 800	1 800	1 950	2 250	2 500	8 pcs	10 pcs	4 640	70 / 109	LED 2x44 W	6 pcs
2 000	1 800	1 950	2 250	2 500	8 pcs	12 pcs	4 640	83 / 123	LED 2x55 W	8 pcs
2 200	1 800	1 950	2 250	2 500	10 pcs	14 pcs	5 800	72 / 106	LED 2x55 W	8 pcs
2 400	1 800	1 950	2 250	2 500	10 pcs	14 pcs	5 800	77 / 106	LED 2x55 W	8 pcs
2 600	1 800	1 950	2 250	2 500	12 pcs	16 pcs	6 960	70 / 109	LED 2x55 W	8 pcs
2 800	1 800	1 950	2 250	2 500	12 pcs	18 pcs	6 960	70 / 98	LED 2x55 W	8 pcs
<b>Minimum 2 exhaust HVAC connections and 4 supply connections</b>										
3 000	1 800	1 950	2 250	2 500	14 pcs	20 pcs	8 120	70 / 104	LED 4x44 W	10 pcs
3 200	1 800	1 950	2 250	2 500	14 pcs	20 pcs	8 120	75 / 106	LED 4x44 W	10 pcs
3 400	1 800	1 950	2 250	2 500	16 pcs	20 pcs	9 280	70 / 100	LED 4x44 W	10 pcs
3 600	1 800	1 950	2 250	2 500	16 pcs	24 pcs	9 280	74 / 110	LED 4x44 W	10 pcs
3 800	1 800	1 950	2 250	2 500	18 pcs	24 pcs	10 440	70 / 104	LED 2x55 W	10 pcs
4 000	1 800	1 950	2 250	2 500	18 pcs	24 pcs	10 440	75 / 109	LED 2x55 W	10 pcs
4 200	1 800	1 950	2 250	2 500	20 pcs	28 pcs	11 600	73 / 110	LED 2x55 W	10 pcs
4 400	1 800	1 950	2 250	2 500	20 pcs	28 pcs	11 600	73 / 103	LED 2x55 W	10 pcs
4 600	1 800	1 950	2 250	2 500	22 pcs	28 pcs	12 760	70 / 106	LED 2x55 W	10 pcs
4 800	1 800	1 950	2 250	2 500	22 pcs	32 pcs	12 760	72 / 104	LED 2x55 W	10 pcs
5 000	1 800	1 950	2 250	2 500	24 pcs	32 pcs	13 920	71 / 104	LED 2x55 W	10 pcs

The hood can be supplied in non-standard dimensions ranging from:

**Length L** = 1 000 to 5 000 mm (always in 50 mm increments).

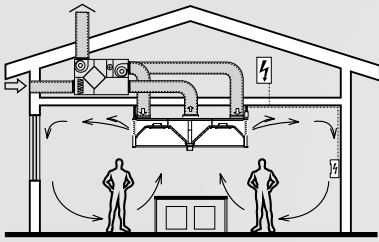
**Width B** = 1 800 to 2 500 mm (always in 50 mm increments).

## IMPORTANT NOTES

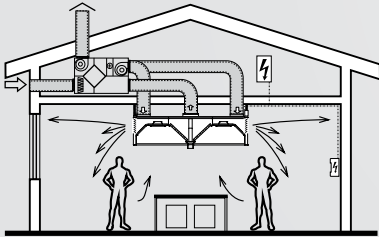
- Class B gas appliances must be ducted into the chimney and under no circumstances can they be ducted into the hood.
- the possible passage of the flue pipe through the hood must be consulted
- hoods from length  $L > 3\,500$  mm or width  $B > 2\,000$  mm are always recommended to be delivered in a disassembled state due to transport and handling difficulties
- ensure that the hood overhang over the outline of the appliances is sufficient

## SUPPLY OUTLETS

### WINTER MODE



### SUMMER MODE



The air intake of the VARIANT series hoods is provided by stainless steel outlets. Each outlet can be easily directed.

#### Winter period

Adjust the supply outlets so that they face upwards by removing the 4 screws using a size 4 Allen key and turning the entire grille, then attaching it back to the hood.

The supply outside air (preheated in the heat exchanger) is blown under the kitchen ceiling and does not directly affect the hood operator.

#### Summer period

Adjust the supply outlets so that they face downwards by removing the 4 screws using a size 4 Allen key and turning the entire grille, then attaching it back to the hood.

The supply outside air (without preheating) is blown diagonally downwards, creating a curtain of cooler air.

#### Sizing of the supply outlets

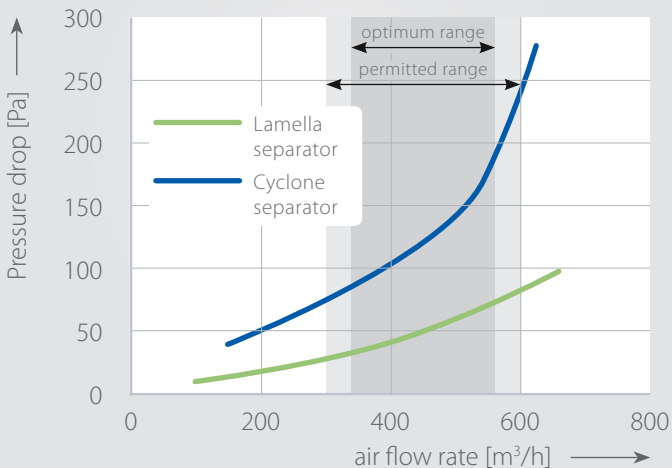
The number of outlets can be based on the recommended air flow rate through one outlet depending on the desired jet air throw:

$$V_{\text{rec}} = 270 \text{ to } 540 \text{ m}^3/\text{h} / 1 \text{ pc}$$

The pressure drop is then 7 to 40 Pa.

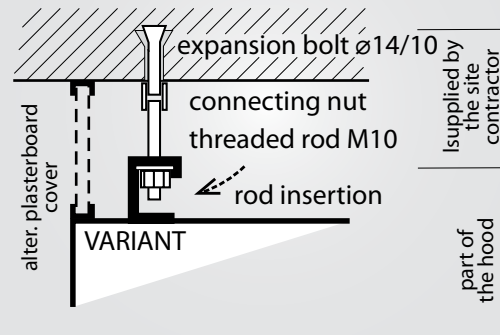
## LAMELLA AND CYCLONE SEPARATORS

The hoods are equipped with 400 × 400 mm lamella or cyclone separators as standard. The number of separators is always determined according to the maximum air flow rate of the hood according to the chart so that the air flow rate through one filter is always in the optimum range. Finally, it must be checked that the calculated number of filters can be physically accommodated within the length of the hood.



## ANCHORING TO THE CEILING

The hoods are equipped with special brackets for suspension on M10 threaded rods anchored to the ceiling with ø 14 / 10 mm expansion bolts (not included). The brackets with cut-outs allow for easy lateral insertion of the suspension rods and with nuts and easy height setting of the hood. Number and type of hinges – see diagrams.



## ELECTRICAL WIRING

### a) terminal block in basic design (without automatic control)

