

Hood for dishwashing area

With (D) or without (V) makeup air on the front / M.A.R.V.E.L. compatible



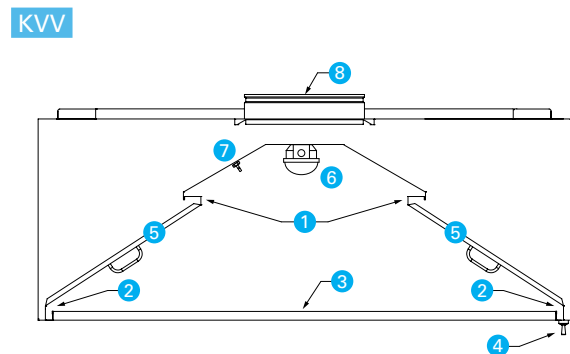
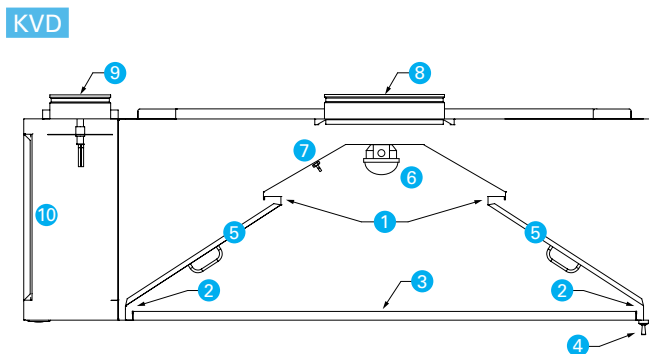
KVD/V hoods are designed to remove the steam released by dishwashing equipment and are equipped with specific deflectors to separate the steam from the extracted air.

In general KVD/V hoods are well suited for applications, where grease filtration is not the main requirement.

- Manufactured from polished stainless steel AISI 304.
- Better hygiene thanks to less condensation in the extract ducts.
- Deflectors removable without tool, of max 500 mm width to be easy to clean in a dishwasher.
- **KVD** Better comfort due to a low-velocity diffuser built into the front face.

- Surface LED light fitting (IP54, IK10). DALI compatible power supply as an option.
- Quick and easy commissioning. Hoods delivered “ready to install”, with all accessories included, such as T.A.B.™ taps and balancing dampers for quick balancing on-site.
- Sturdier and easier to clean: Less parts and less joints. Stainless steel construction.

# Description



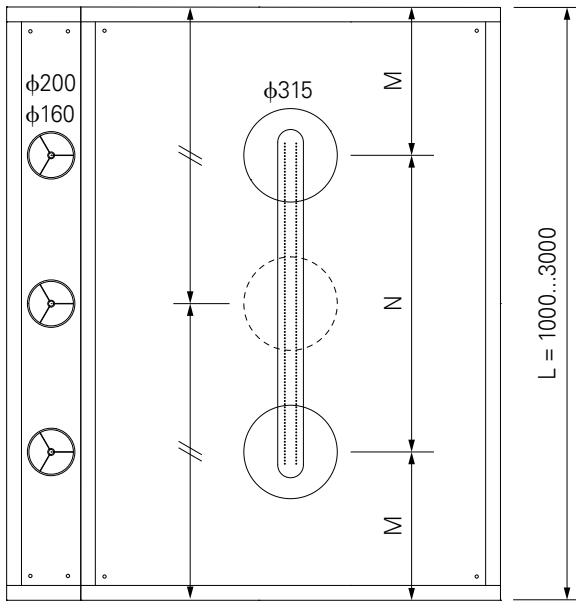
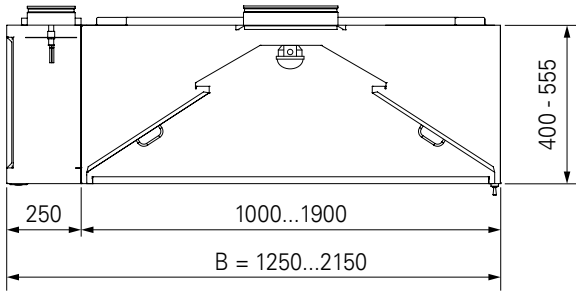
CODE	DESCRIPTION
1	Upper baffle chicane
2	Bottom baffle chicane
3	Condense channel
4	Collection tray or drain tap
5	Deflectors (one being equipped with handles)

6	LED light fitting 20 or 36W, IP54, IK10
7	Measurement tap TAB™
8	Exhaust air connection and damper plate
9	Supply air connection and adjustment damper (type MSM)
10	Perforated front face

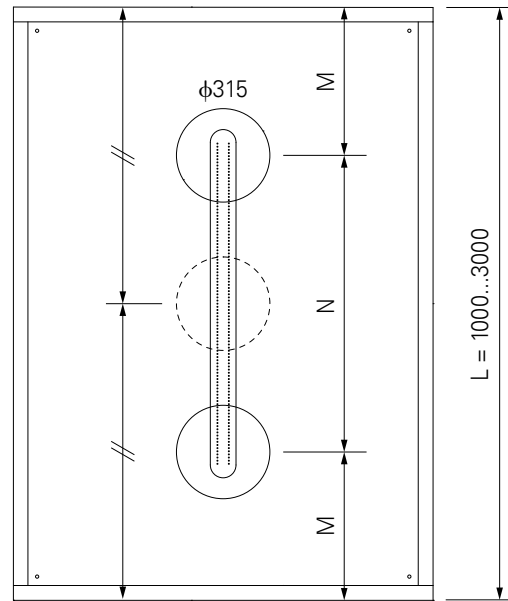
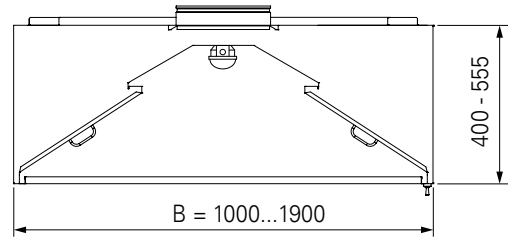
**KVV/KVD** Hood for dishwashing area  
With (D) or without (V) makeup air on the front / M.A.R.V.E.L. compatible



KVD



KVV



**LOCATION OF CONNECTIONS (mm)**

L	M	N
1000	-	-
1500	375	750
2000	500	1000
2500	500	1250
3000	500	1500

Note: The dimensions above are for modular sections only; larger hoods are assembled using a combination of separate modules, which makes transportation and site handling easier.

**QUICK DATA**

L	Recommended Exhaust air volumes	
	l/s	m <sup>3</sup> /h
1000	305	1100
1500	445	1600
2000	610	2200
2500	805	2900

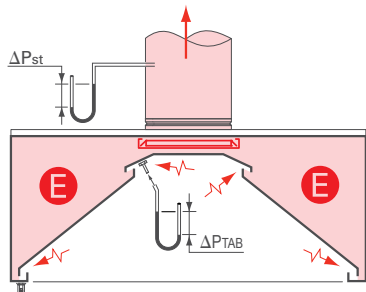
The recommended exhaust air volumes shown above provide the optimum velocity required through the slots.

### EXHAUST Pressure drop, sound data and airflow measurement

$\Delta P_{st}$  = Exhaust section static pressure loss  
 $\Delta P_{TAB}$  = T.A.B.™ pressure for airflow rate measurement  
 30,70,100 = Damper opening in %

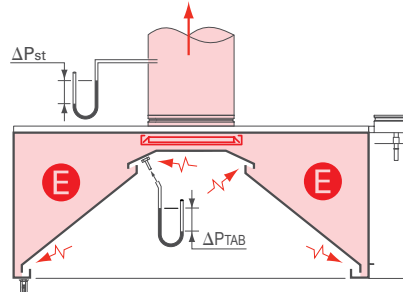
#### KVV

Exhaust plenum  
 H=555

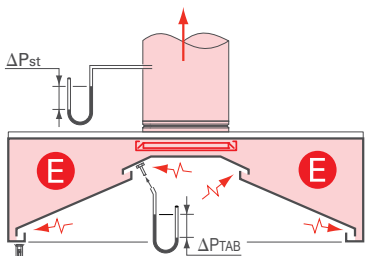


#### KVD

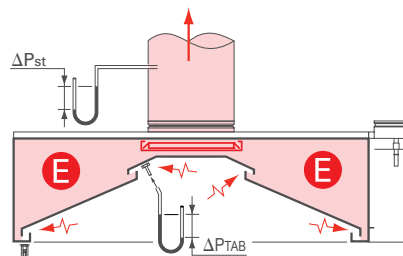
Exhaust plenum  
 H=555



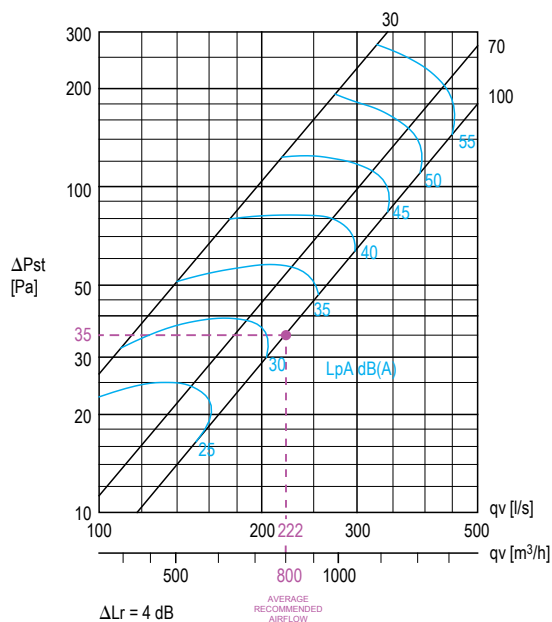
Exhaust plenum  
 H=400



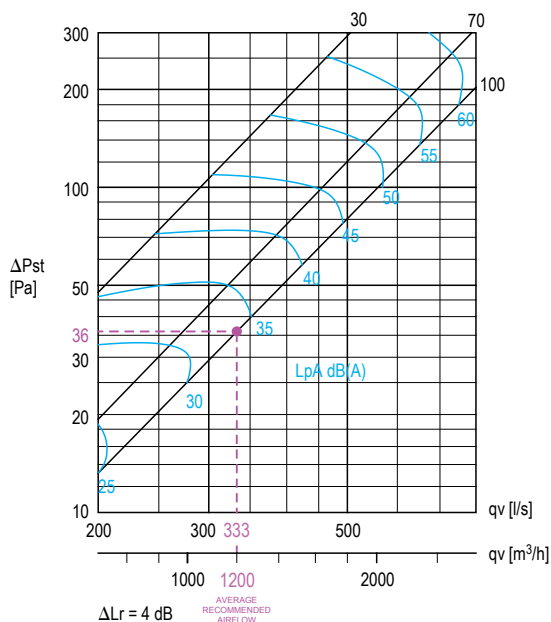
Exhaust plenum  
 H=400



Section 1000 Static pressure loss and sound data



Section 1500 Static pressure loss and sound data

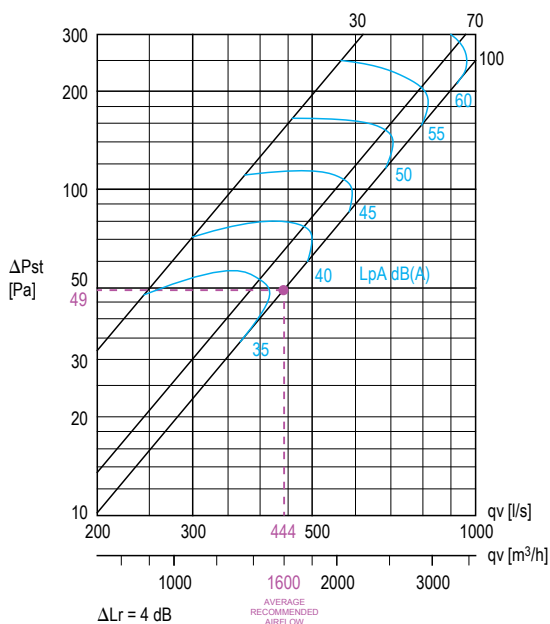


KVV/KVD

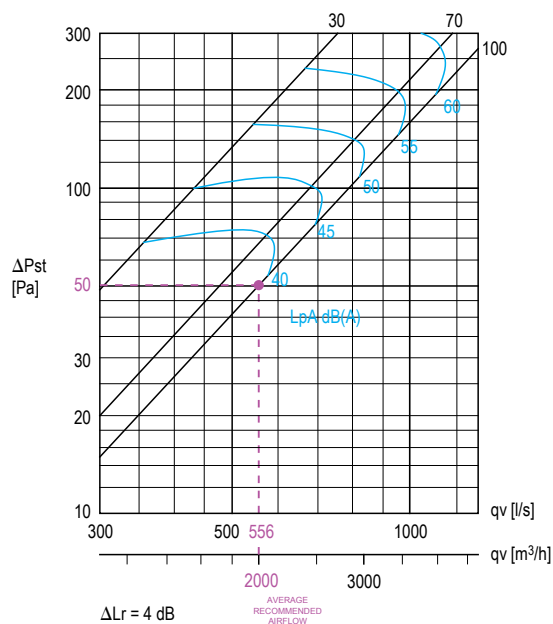
Hood for dishwashing area  
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Halton

Section 2000 Static pressure loss and sound data

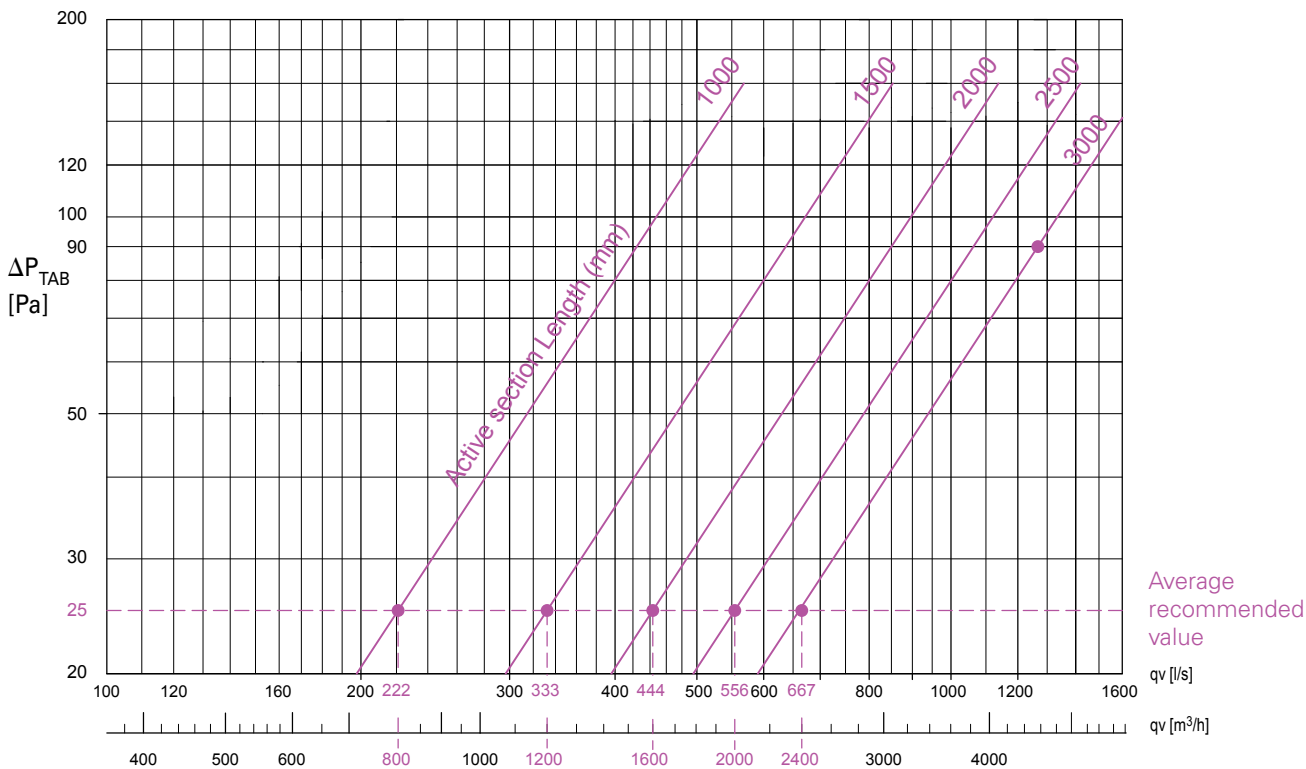


Section 2500 Static pressure loss and sound data



Exhaust airflow rate measurement with T.A.B.™ ports

Recommended pressure T.A.B.™ 25 Pa



Exhaust airflow rate measurement using k factors

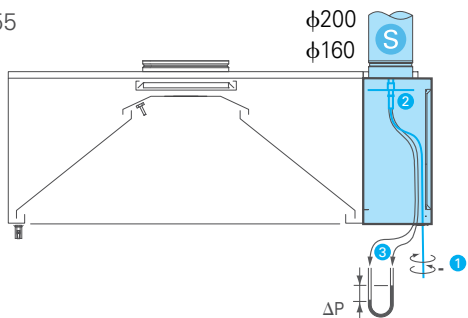
Length	k factor [m <sup>3</sup> /h]	k factor [l/s]
1000	161	44,7
1500	241,5	67,1
2000	322	89,4
2500	402,5	111,8
3000	483	134,2

With the T.A.B.™ pressure measurement, it is also possible to check the exhaust airflow with the following formula:

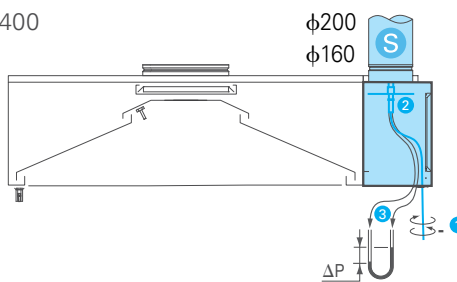
$$q_e = k \times \sqrt{\Delta P_{TAB} \text{ [Pa]}}$$

**SUPPLY Pressure drop, sound data and airflow measurement**

Supply plenum  
H=555



Supply plenum  
H=400



$\Delta P$  = Measure of pressure difference (Pa)  
MSM = Measurement and balancing damper

MSM  $\phi 160$   
 $Q_S$  [l/s] =  $21.9 \times \sqrt{\Delta P}$  [Pa]  
 $Q_S$  [m<sup>3</sup>/h] =  $78.8 \times \sqrt{\Delta P}$  [Pa]

MSM  $\phi 200$   
 $Q_S$  [l/s] =  $32 \times \sqrt{\Delta P}$  [Pa]  
 $Q_S$  [m<sup>3</sup>/h] =  $115.2 \times \sqrt{\Delta P}$  [Pa]

# Specifications

## **KVD / KVV Hood**

The hood shall be Halton Brand, KVD/V range. This hood type is designed to remove the steam released by dishwashing equipment. The models shall be according to the exhaust devices list.

KVV is the exhaust only model whilst the KVD is equipped with an integrated makeup air system on the front.

The hood shall be supplied ready to be installed. The following specifications shall be fully observed.

### **Hood outer casing and exhaust plenum**

- Constructed from 1.0 mm AISI 304 stainless-steel in a brushed satin finish. The joints of the lower edges shall be fully welded for better robustness, cleanability and a better aesthetic. All exposed welds are ground and polished to the metal's original finish.
- The hood shall be provided with a full perimeter condense channel and crush-folded sloping edges, which are properly deburred.
- The exhaust connections shall be supplied with sliding balancing dampers. The exhaust plenum shall be equipped with T.A.B.™ pressure tap for quick airflow measurement.
- The exhaust plenum shall be equipped with specific deflectors to separate the steam from the extracted air. They shall be easy to remove to provide access to the balancing dampers. They shall not be wider than 500 mm to enable cleaning in a dishwasher.
- The hood design shall be visually consistent with the hoods used in the kitchen area.

### **Exhaust and supply airflow rates**

- The exhaust airflow rates shall be according to the manufacturer recommendation.
- Any modification of the hood installation height together with the input power, type and dimensions of the cooking appliances shall be brought to the attention of the manufacturer as they all significantly impact the exhaust airflow rates.
- The makeup air design, especially the diffuser type, size, location and the balance between exhaust and supply, shall be entrusted to the hood manufacturer as it also impacts the exhaust airflow rates and capture efficiency. It is also key to preventing cross-contamination between the kitchen areas.

## **[Option] Integrated makeup air (KVD)**

- To improve staff comfort but also to optimise the capture and containment efficiency of the hoods (thus contributing to the exhaust airflow rates reduction), the makeup air shall be introduced into the space from the hood front fascia and at a very low velocity (less than 0.5 m/s).
- The hood shall be equipped with a perforated stainless-steel front panel, combined with a honeycomb structure on the rear. This draught free diffusion complex shall be easy to remove for cleaning and maintenance operations. The internal face of the supply plenum shall be insulated to avoid any risk of condensation on the hood containment volume side.
- The supply connections shall be supplied with MSM balancing dampers. The supply plenum shall be equipped with T.A.B.™ pressure tap for quick airflow measurement.

### **LED light fitting**

- The hood shall be equipped with an IP54, IK10 surface LED light fitting. Its Colour Rendering Index shall be at least 80.
- The illuminance on the working surfaces shall be 500 lx.
- **[Option]** The light fitting shall be dimmable.
- **[Option]** A specific DALI user interface with simple scenario and zoning functions shall be used to control the light fittings installed in the exhaust devices and – if applicable – in the rest of the area(s). Check the additional lighting requirements.



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