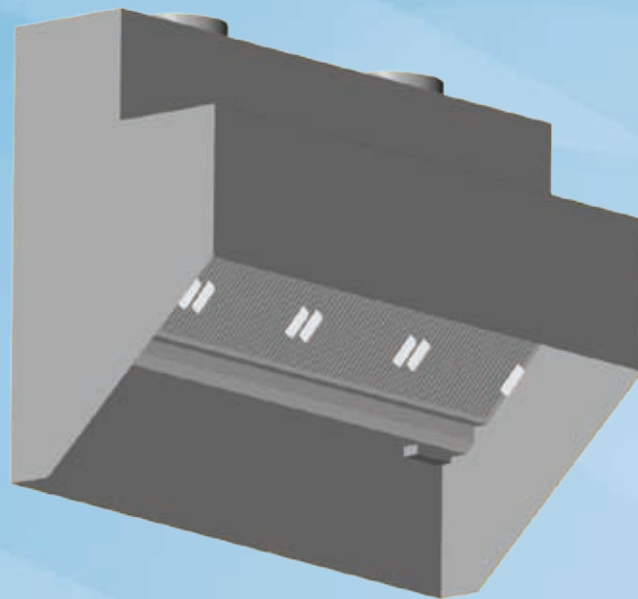


KVL

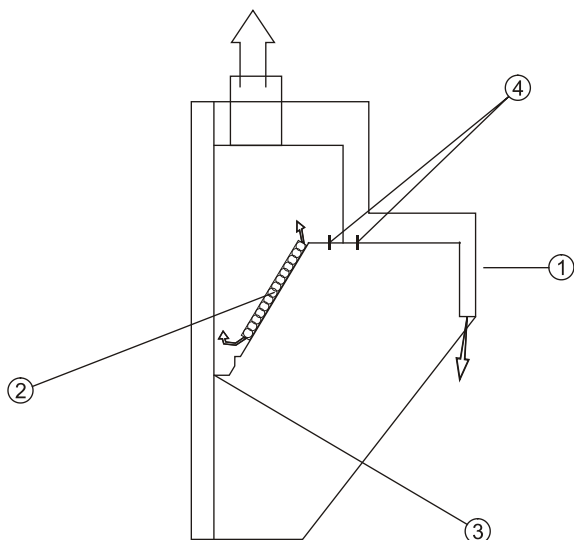
Backself Capture Jet Canopy



The KVL is a highly efficient kitchen ventilation canopy that removes contaminated air and excess heat emitted by cooking equipment, helping to provide a comfortable and hygienic environment.

The KVL uses the advanced Halton Capture Jet™ technology to improve the capture and containment of the airflows generated by the cooking equipment. The overall exhaust airflow rates can be reduced by up to 30% compared to traditional hoods.

- Halton Capture Jet™ technology reduces energy consumption due to low airflow rates.
- High efficiency grease filtration using UL and NSF classified Halton KSA multi-cyclone filters - up to 95% removal of particles at a size of 8 microns or above
- Validated performance according ASTM standard F 1704 for capture and containment threshold
- T.A.B.™ testing and balancing taps, which allow accurate and simple airflow rate adjustment and ductwork balancing and effective commissioning
- Stainless steel (AISI 304), welded construction.



Construction

The exposed parts of the canopy are manufactured of polished stainless steel (AISI 304) and the unexposed parts of galvanised steel.

Joints on the lower edge of the canopy are fully welded to avoid the harmful dripping of condensates onto the cooking equipment below.

The Capture Jet air is discharged on the canopy face area from outlet nozzles integrated in the front panel of the canopy (1).

A collection tray (3) or a drain tap is fitted into the grease drain channel in order to enable removal of the extracted grease and dirt removed by the KSA multi-cyclone filters (2).

Testing and balancing ports TAB for flow measurement are fitted to the extraction plenum and the Capture Jet air plenum (4).

DIMENSIONS

KVL	mm
Length	1000....3000
Width	700....900
Height	1067

Quick data

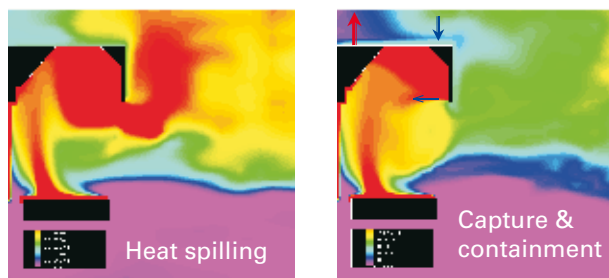
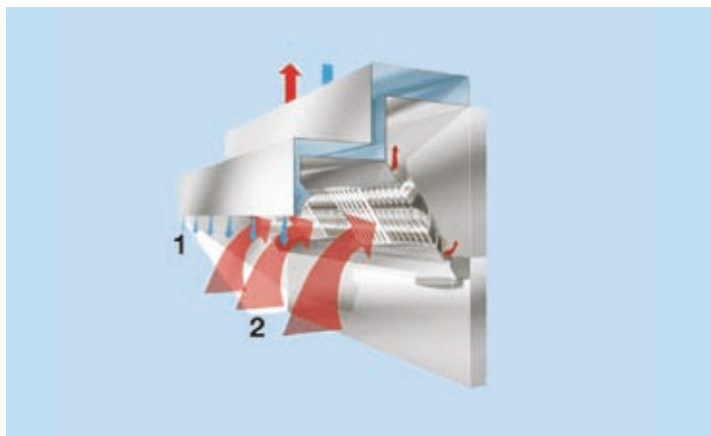
The capture airflow is 9-13 l/s meter length (34-45 m³/h meter length)

The best operation can be achieved when capture air volume is 5 – 10 % of the total exhaust air volume with the backshelf application.

Halton HELP, computer design program for exhaust airflow and kitchen air conditioning load calculations.

* UL= Underwriters Laboratories (UL is an independent organization founded by the insurance industry in the U.S.A, giving approvals to safety tested products).

** NSF= National Sanitation Foundation (promoting hygiene and sanitation in the U.S.A)



Function

The Capture Jets™ (1) are directed vertically from the bottom of the front edge of the canopy creating an air curtain for the contaminated air (2) rising from the cooking surface.

The containment volume is increased and the capture and containment efficiency is significantly improved by the combined effect of the exhaust arrangement in the back of the canopy and the Capture Jet™ air curtain preventing effectively the spreading of contaminants to the occupied zone.

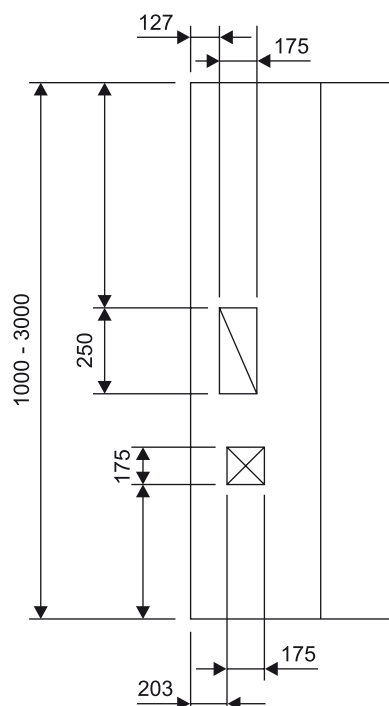
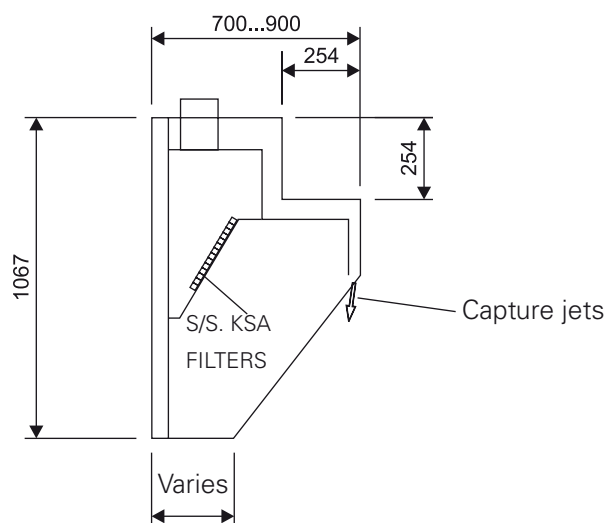
Due to Capture Jet™ air curtain the KVL canopy operates effectively even in conditions, where horizontal, turbulent air currents are occurring in the kitchen.

Capture Jets™ also compensate for the effect of the radiant heat emitted by the cooking appliances.

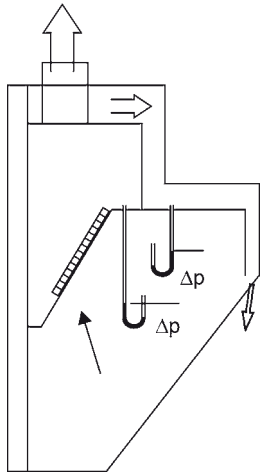
Accessories

- Infill Panels
- Blind filter in of stainless steel for low exhaust flow situations
- Non-standard spigots: choice of size and position
- Integrated light fitting
- Capture Jet™ fan to allow the use of room air for Capture Jet nozzles
- Fully stainless steel construction

Dimensions (mm)



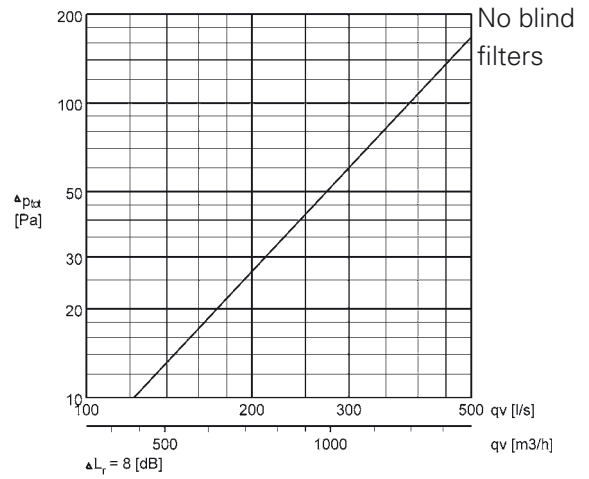
Pressure drop data, exhaust



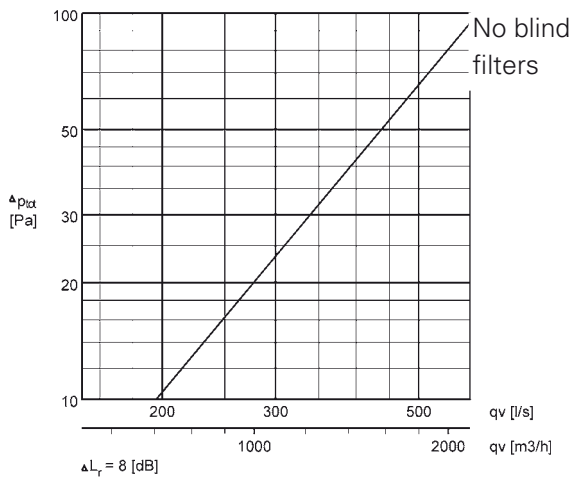
Δp = Pressure loss measured from the measurement taps.

Recommended pressure loss of filter 35 - 120 Pa

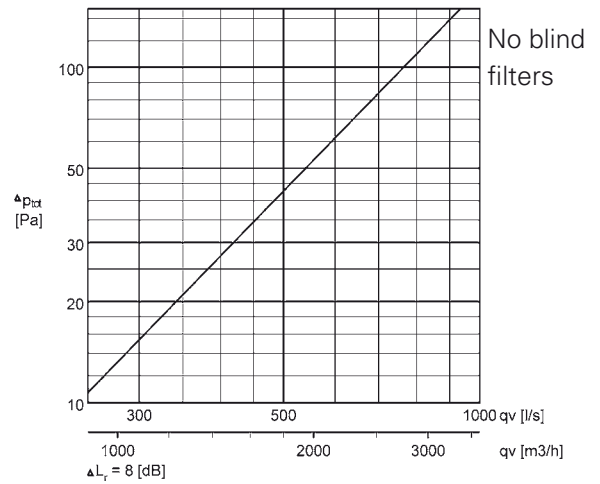
KVL-1200



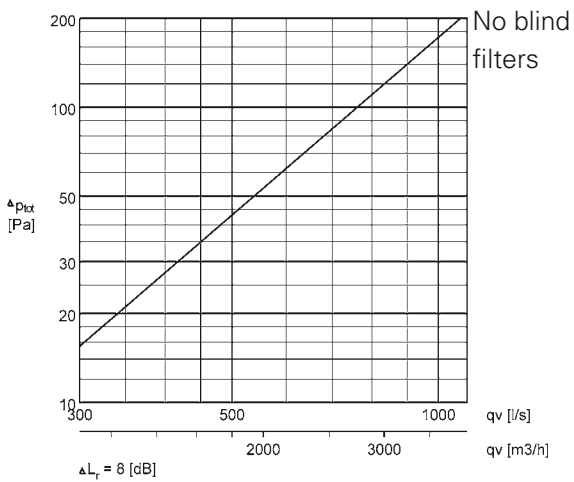
KVL-1500



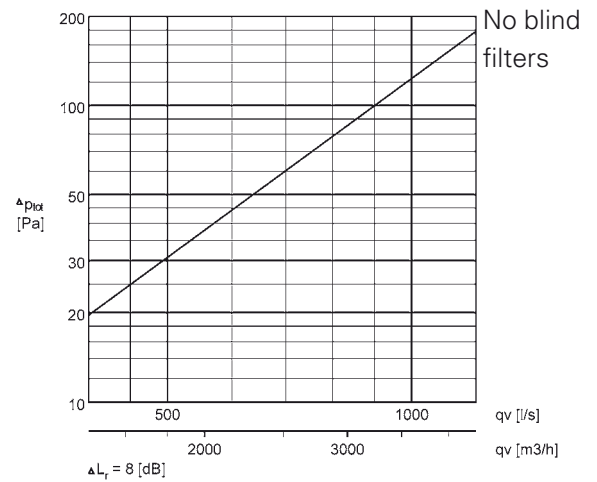
KVL-2000



KVL-2500



KVL-3000



Suggested specifications

General

Kitchen canopies shall be constructed from stainless steel AISI 304.

Kitchen canopies are supplied complete with outer casing/main body, supply air plenum, pressure measurement taps, supply and extract air spigots with adjustment dampers, installation hatch, fluorescent light fitting, capture jet nozzles, grease filters, perimeter drain channel, grease collection tray or drain tap, adjustment wires for supply air and assembly brackets.

Outer casing/Main body

Outer casing panels are constructed from stainless steel sheet AISI 304 in a brushed satin finish. Each joint shall be spot-welded, riveted or machine-stitched. The canopy shall be provided with a full-perimeter condensate channel and with crush-folded sloping edges, which have been properly deburred. The joints of the lower edge shall be fully welded in order to avoid harmful dripping of condensates.

Capture Jet

The kitchen canopy is designed using Capture Jet technology to reduce the required exhaust airflow rates and to improve the capture and containment efficiency of the canopy, while reducing energy consumption

Pressure Measurement Taps

The pressure measurement taps are located on the inside canopy to enable the measurement of capture and exhaust airflow rates.

Grease Filters

The grease filters shall be constructed from stainless steel AISI 304 and shall be NSF and UL classified. The grease filters shall be supplied in modular size, 500 mm x 330 mm x 50 mm and shall be removable via two folding handles. The grease filters shall have a honeycomb design to enable high grease filtration efficiency due to the vortex flow inside the honeycomb.

Spigot Connections

The spigot connections for the supply and exhaust air shall be constructed from hot galvanised steel and shall be supplied with a gasket and adjustment dampers made of hot galvanised steel.

The exhaust damper is adjustable and accessible via the removal of the KSA grease filters.

The capture air damper is adjustable via high-tensile stranded wire cables.

Fluorescent Light Fitting

Each canopy is provided with a fluorescent light fitting to provide an average illuminance of approximately 500 lux at the working surfaces of the cooking appliances.

The light fitting shall be suitable for a single-phase 240 VAC power supply and shall be constructed to protection standard IP 65.

The ballast and capacitor shall be located within the lighting fixture housing.

The light fittings are hinged to allow access to the canopy roof.

A core electric cable (3x1 mm²) connecting the light fittings to a junction box shall be provided.

Access Hatch

Each canopy is provided with an access hatch of stainless steel AISI 304 with a plain mill finish, surrounded by a tempered glass light diffuser.

The heat tolerance of the glass shall be -40 to +300°C.

The hatch is hinged and held in position by screws.

Product code

KVL-L-W

L = Length

1000,+10,...,3000

W = Width

700, 800, 900

Specifics and accessories

NB = Number of blind filters

L=3000: 0, 1, 2, 3, 4, 5

L=2500: 0, 1, 2, 3, 4

L=2000: 0, 1, 2, 3

L=1500: 0, 1, 2

L=1000: 0, 1

EC = Number of exhaust connections (D250)

1 1 pc

2 2 pcs

SC = Number of supply connections (D160)

1 1x160

N No spigot

LF = Light fitting

I Integrated light (std. location)

N No light

CD = Canopy drain

D Drain tap

C Collection tray

Code example

KVL-1000-700, NB=0, EC=1, SC=1, LF=I, CD=D

Sub products

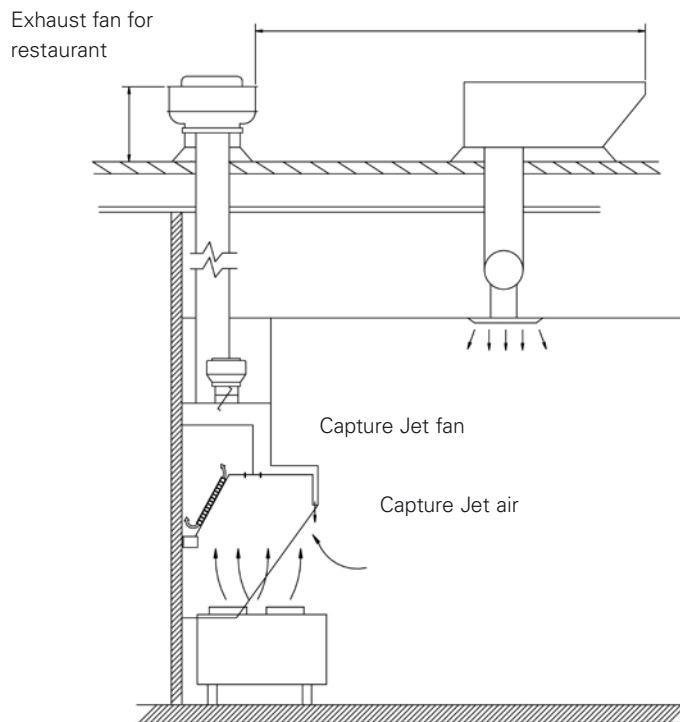
KB Cover board

KI Infill panel

Installation

Typical installation

Example 1: Note that Capture Jet fan is mounted on top of hood.



Example 2: Note that Capture Jet fan is ducted to a return grille (removing partial heat load and cooking odor).

