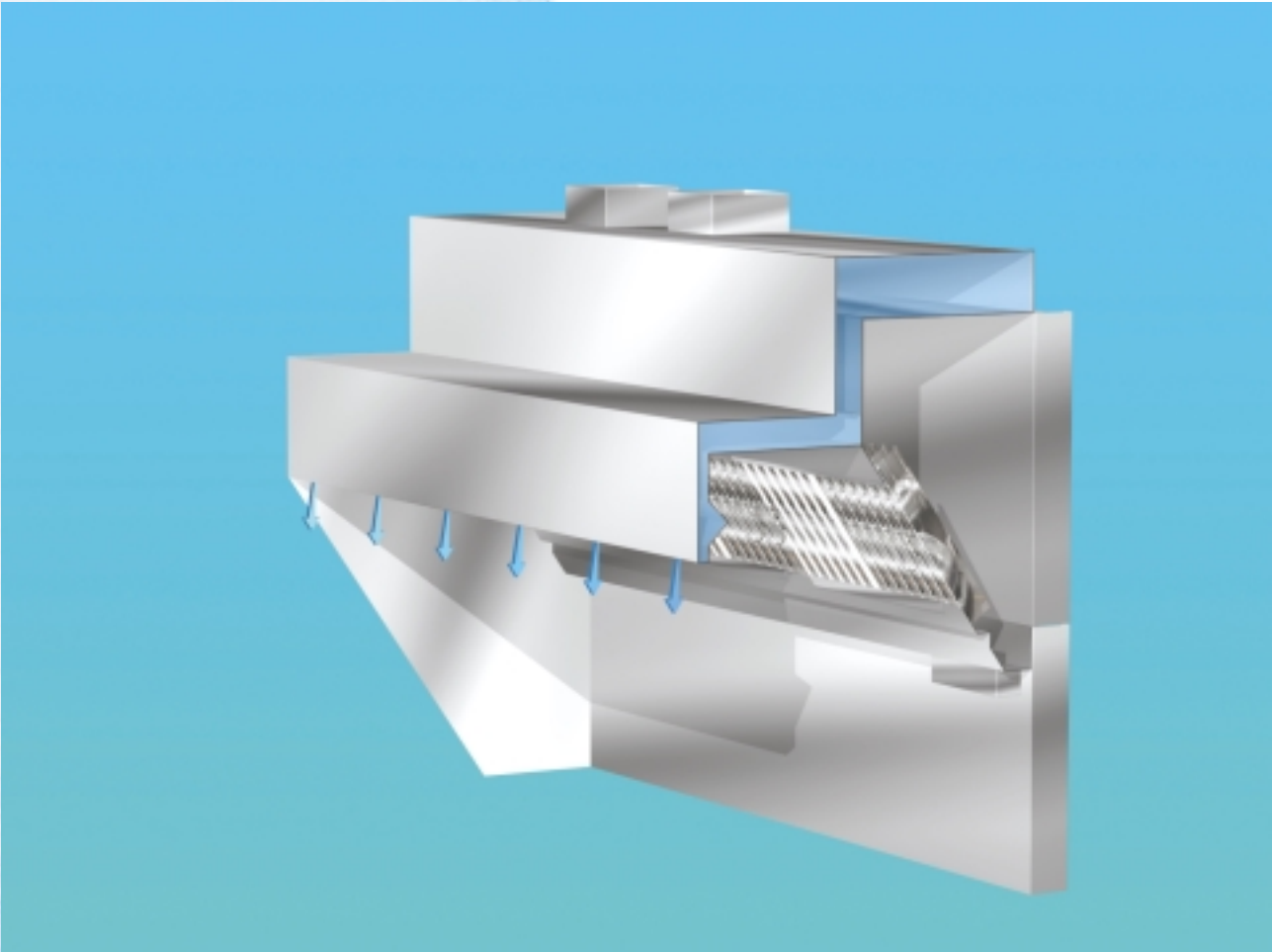


# KVL -Exhaust Backshelf Hood



The Capture Jet™ family of hood systems provides solutions for a variety of commercial food service ventilation applications over virtually any cooking process. The Capture Jet™ and low-pressure loss KSA Multi Cyclone™ filters combine to create the most efficient system for the removal of convective heat and effluent available.

- High efficiency 'CAPTURE JET 2™' technology reduces the exhaust airflow volume required.
- Heat load design method.
- ASTM 1704 validated performance.
- Stainless Steel Model KSA 'Multi-Cyclone' high efficiency grease filters – \*UL and \*\*NSF classified.
- Integral T.A.B.' testing & balancing taps for simple and accurate field balancing.
- Stainless steel, welded construction.

## QUICK DATA

The Capture airflow is 9-13 l/s . meter length (34-45 m<sup>3</sup>/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.

H.E.L.P.2000™ computer design program for exhaust airflow and kitchen air conditioning load calculations.

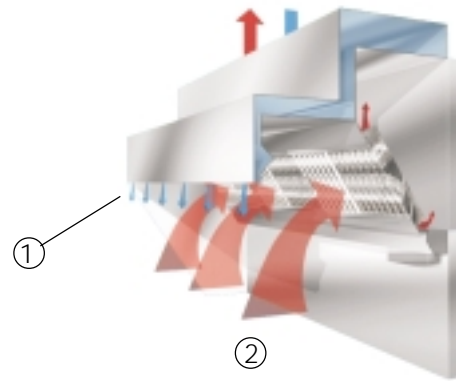
\* UL= Underwriters Laboratories (UL is an independent organization founded by the insurance industry in the U.S.A, giving approvals to safety tested products).

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

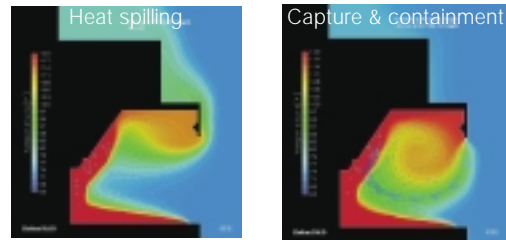
## FUNCTION

The Capture-Jet™ airflow (1) is directed vertically from the bottom lip of the backshelf face creating an air barrier to the rising contaminants (2) from the cooking surface. The combined action of the suction pressure of the exhaust and low volume of the Capture Jet™ effectively extends the containment barrier of the hood beyond the physical proportions of the hood face. This method prevents spreading of contaminants to the occupied zone. Capture-Jet™ air makes the KVL operate more efficiently despite turbulent currents normally present in kitchens.

Capture air also helps reduce the radiant heat from the interior of the hood.



Computational Fluid Dynamics:CFD



## CONSTRUCTION

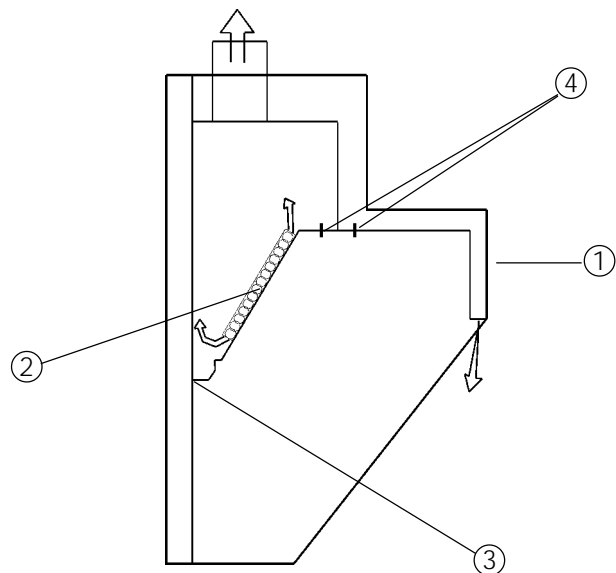
The exposed parts of the hood are manufactured of stainless steel and unexposed parts of galvanized steel.

Joints on the lower edge of the hoods are of fully welded construction.

The Capture Jet air is introduced through a special discharge panel (1).

Grease and dirt extracted by the KSA multi-cyclone filters (2), can be removed from the canopy by either a drain tap or by emptying the collection tray(3).

The airflow through the KSA extractors and the Capture Jet air chamber are to be determined through the integral T.A.B (Testing and Balancing) ports mounted in the hood (4).



## DIMENSIONS

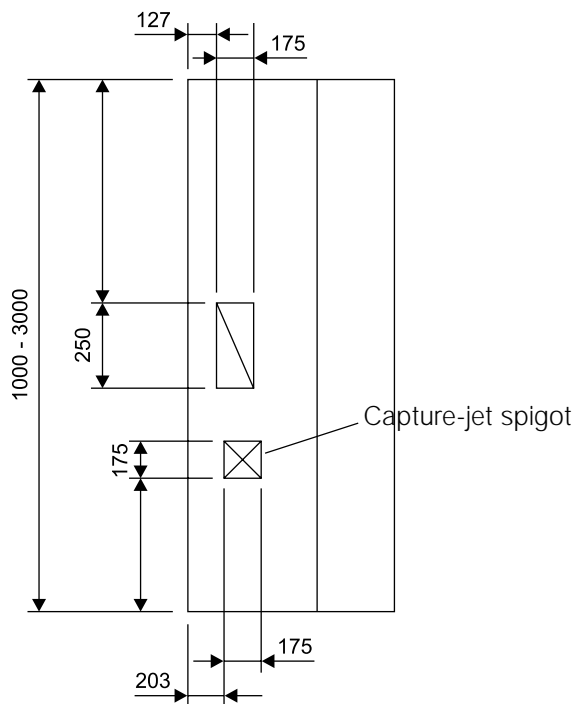
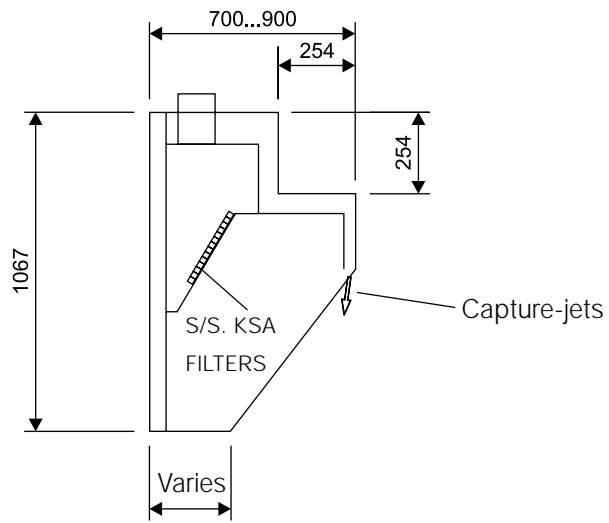
Length	1000...3000
Width	700...900
Height	1067

Contact your local Halton office or representative for special requirements.

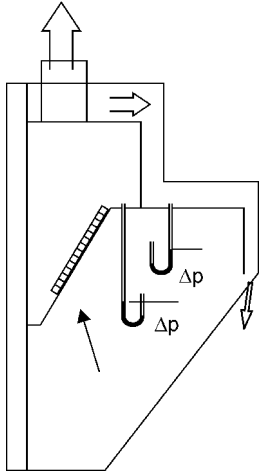
## ACCESSORIES - Refer to ACCESSORIES section

- Infill Panels
- KSA grease filters
- Blind Filter in stainless steel
- Non-standard spigots sizes and position
- Capture-Jet™ fan
- All stainless steel construction

# DIMENSIONS (mm)



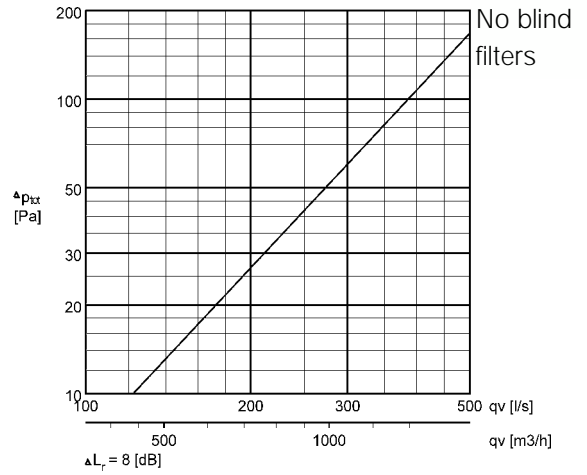
# PRESSURE DROP DATA, EXHAUST



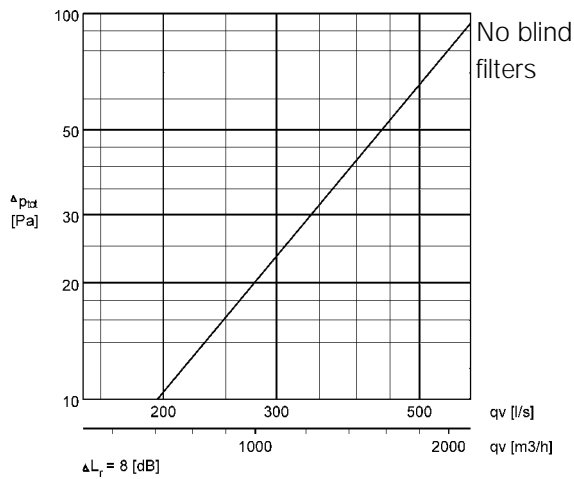
$\Delta p$  = Pressure loss measured from the measurement taps.

Recommended pressure loss of filter 35 -120 Pa

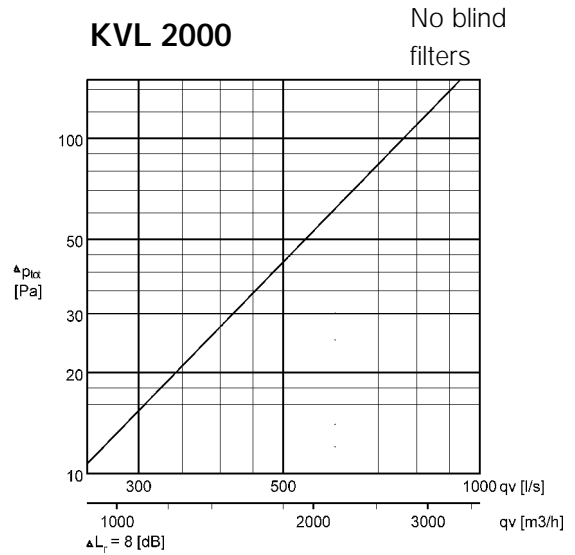
### KVL 1200



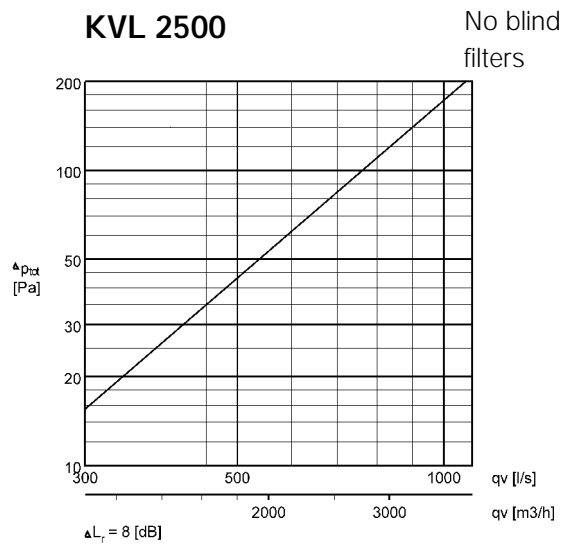
### KVL 1500



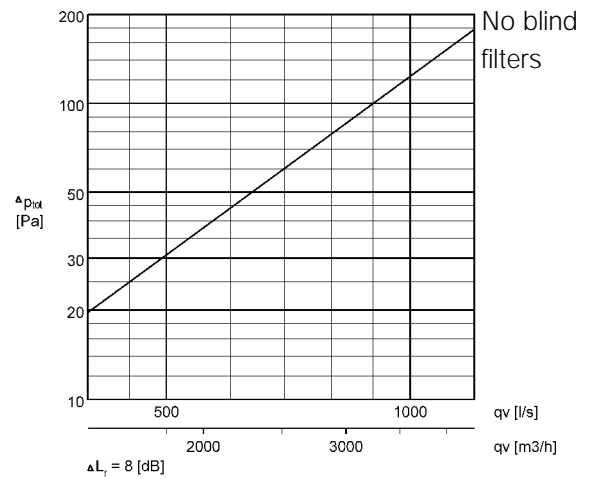
### KVL 2000



### KVL 2500



### KVL 3000



# SPECIFICATIONS

The hood shall be a Capture-Jet exhaust backshelf, Model KVL.

Outer casing panels shall be constructed of stainless steel sheet to AISI 304 with a brushed satin finish. The joint of lower edge are fully welded, avoiding harmful dripping of water. Backshelf shall have an integral Capture Jet supply collar.

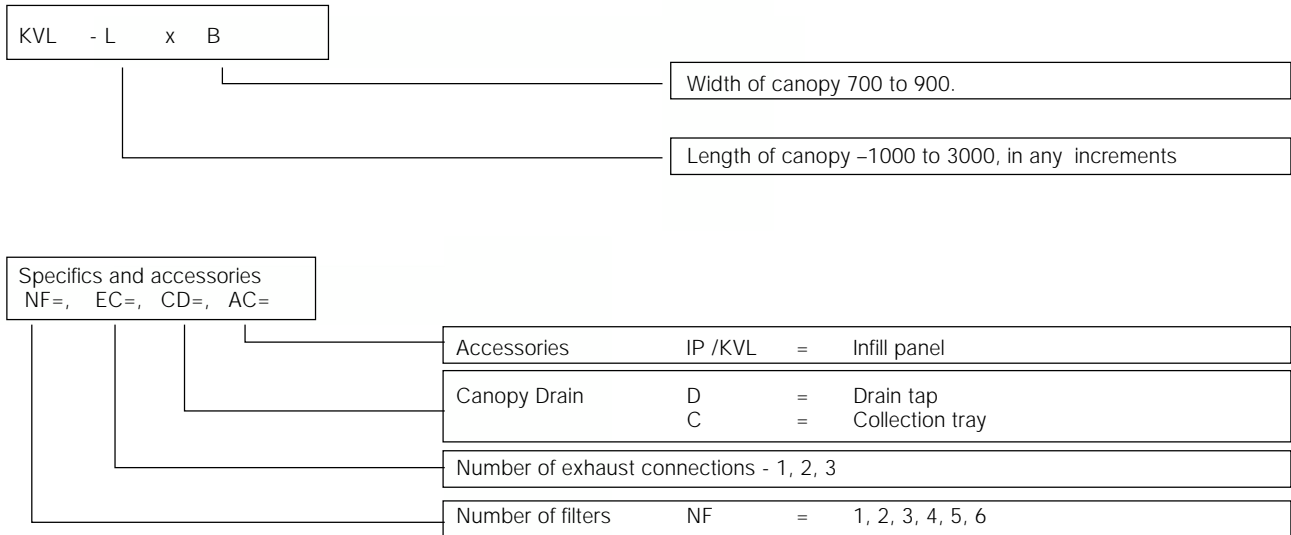
The Capture-Jet air shall be introduced through a special discharge panel and shall not exceed 10% of the calculated exhaust airflow. The Capture Jet discharge velocity will be a minimum of 3 m/s and designed to enhance capture and containment without disturbing thermal plume.

The hood shall be equipped with grease filters supplied in modular size 500x330x50 and shall be removable via two folding handles.

The grease filters shall be constructed from stainless steel to AISI 304 and shall be NSF and UL classified. High grease filter efficiency is achieved by a unique form (Halton patented) of honeycomb filter, which causes spiraling of the airflow inside the honeycomb.

The airflow through the KSA filters and Capture Jet air chamber are to be determined through the measurement taps mounted in the hood.

# PRODUCT CODE



EXAMPLE  
KVL-1200, EC=1

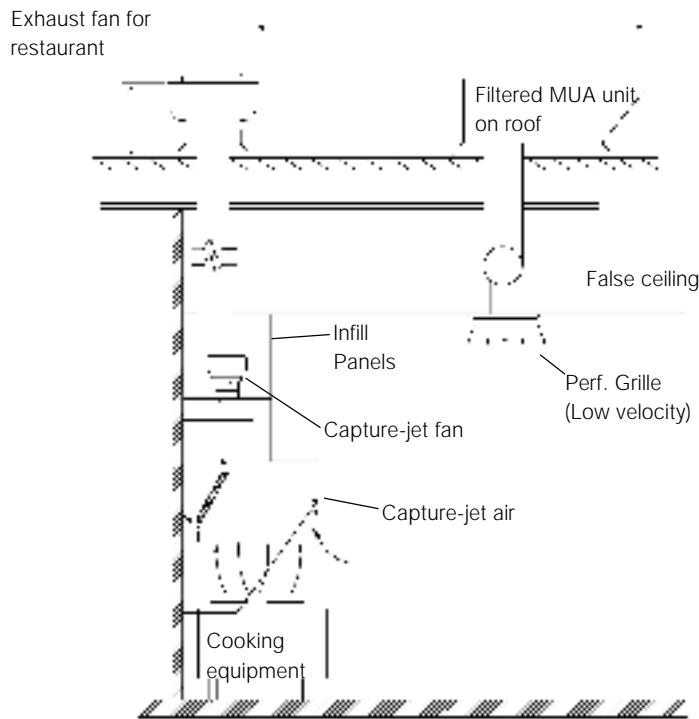


# INSTALLATION

Refer to 'Installation - Commissioning- Maintenance' manual

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).

