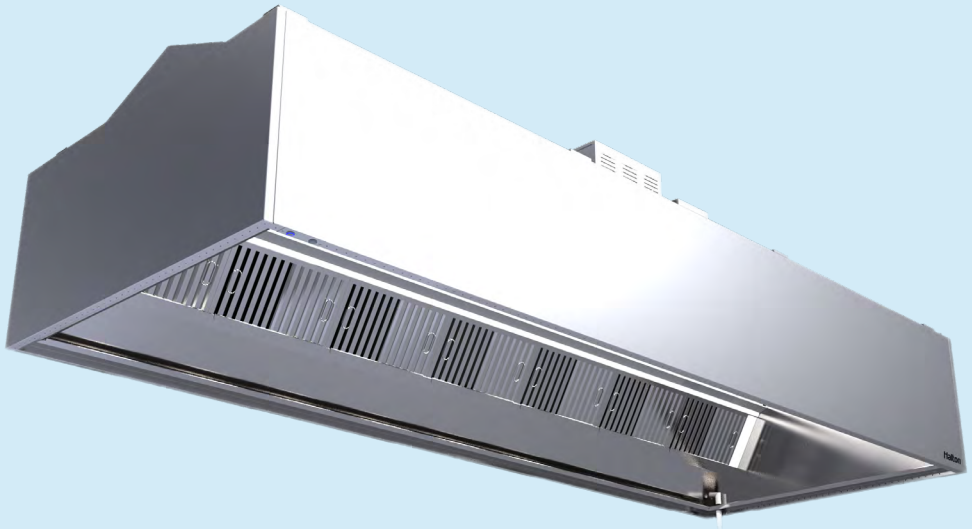
Form#: SS117_KCH
Date: 06-2021- Rev 2

KCH

Capture Jet™ Type I Condensate Hood



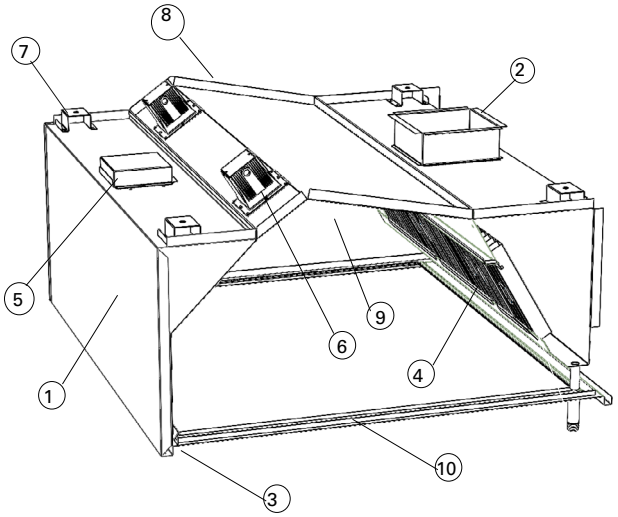
The KCH Capture Jet™ Type I Condensate hood is a highly efficient kitchen ventilation hood that removes contaminated air and excess heat emitted by cooking equipment and channels excess condensation from the interior of the hood to a perimeter gutter system, helping to provide a comfortable and clean environment.

The KCH hood uses the advanced Halton Capture Jet™ to improve the capture and containment of the airflows generated by the cooking equipment. Overall exhaust airflow rates can be reduced up to 30% from those of traditional kitchen hoods.

The Capture Jet™ hood is based on the high entrainment efficiency of a compact, high velocity capture air jet. The capture air jets efficiently induce ambient air at the critical front face area of the hood, minimizing the spillage of the contaminated air and maintaining good air quality in the chef's work area.

- Improved indoor air quality with reduced energy use. Halton Capture Jet™ with Side Jet technology reduces the exhaust airflow rates required and improves the capture and containment efficiency of the hood.
- High efficiency grease filtration using UL classified Halton KSA multi-cyclone filters for removal of up to 95% of particles with a size of 8 microns per ASTM F2519.
- T.A.B.™ (testing and balancing) ports, which allow accurate and effective commissioning.
- Halton HCL Culinary Lights provide the best visual comfort while contributing to improved safety and energy savings.
- Optional LED lights and LED dimming is available for Capture Jet hoods. Dimming is control by a knob on the switch panel or through Halton HMI Touch Screen.
- Designed to help eliminate water dripping from the edges and ceiling with standard canopy hoods when used with heavy steam producing equipment.

NOTE: Factory must be advised of any special requirements of the Authority Having Jurisdiction at time of quote.

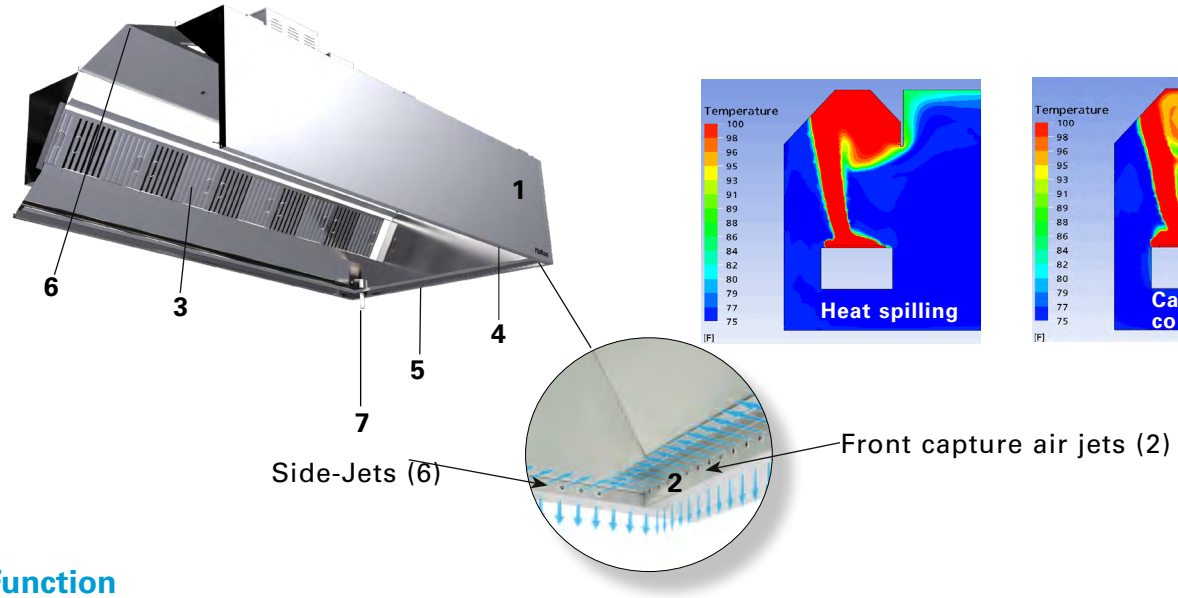


Part	Description
1	18 Ga. Stainless steel
2	Exhaust duct collar
3	Capture Jet air
4	KSA grease filters
5	Integrated Capture Jet fan intake
6	Halton (HCL) Culinary Lights
7	Hanger bracket
8	Double wall construction
9	Special Pitched Roof
10	Perimeter Gutter System

Construction

The KCH hood combines Capture Jet™ technology with Halton Culinary Lights (HCL) light fixtures, airflow measurement T.A.B. ports and KSA grease filters. The hood shall bear ETL label. The ETL listed range hood without exhaust fire damper per standard 710 and be fabricated in compliance with NFPA-96, and shall bear the NSF seal of approval.
The exposed parts are manufactured from 18 ga. stainless steel.

The hood ends have double side wall construction.



Function

The kitchen hood above cooking appliances contains the rising warm air and contaminants (1).

The capture air jets (2) direct the contaminated air toward the KSA grease filters (3), where grease particles and other impurities are separated from the exhaust air using the cyclone separation principle. The extracted grease and other air contaminants flow into a drain channel.

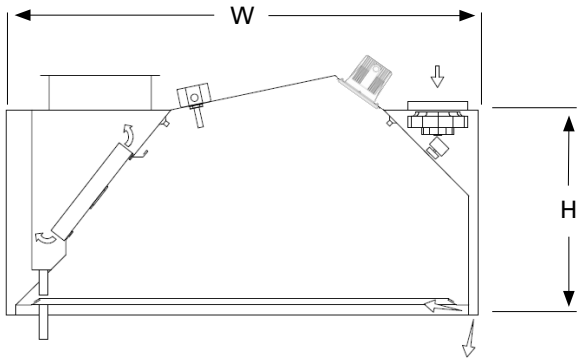
The vertical capture air improves efficiency, and allows the hood to operate at lower exhaust airflows. This is achieved by modifying the capture jet configuration on the front of the hood (4). The side jets allow for enhanced performance at the ends of the hood (5).

The sloped ceiling facilitates water drainage from the top of the hood into the perimeter gutters (6).

Perimeter gutters installed on all four sides of the hood and capture water from the sides of the hood and redirects it to the channel with drain connection (recommended to be plumbed to grease trap type drain)(7).

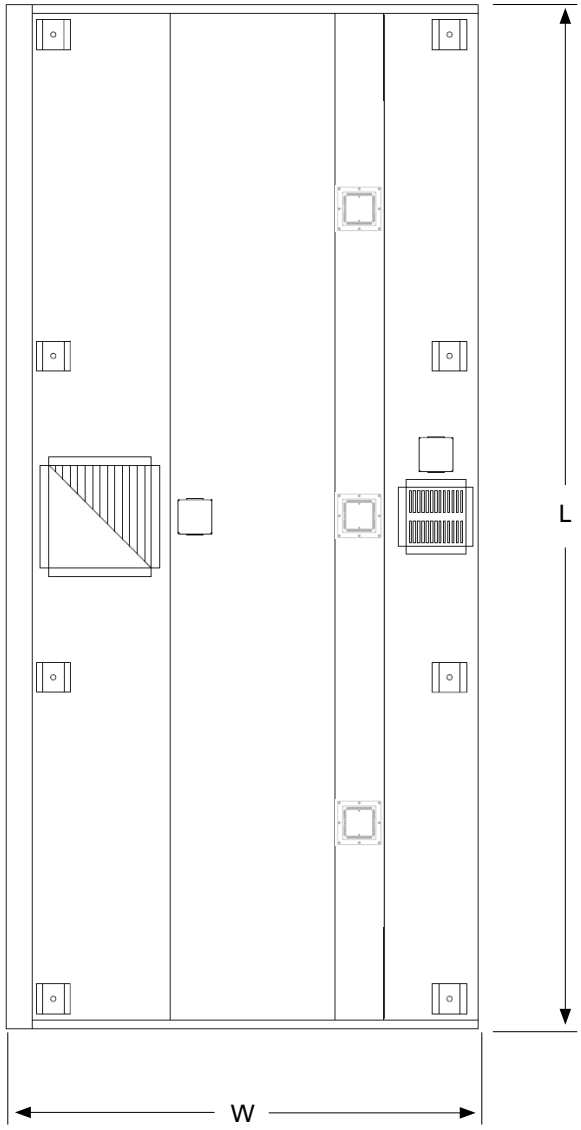
Dimensions

KCH - Wall model	inches
Length	48....168
Width	42....84
Height	24....30



Noted in drawings as:

* L = Length
* W = Width
* H = Height



Weight (LB)

18 ga.

Estimated Crated Shipping Weight	inches	Weight
Width	48"	75 lbs / ft.
Width	54"	80 lbs / ft.
Width	60"	85 lbs / ft.

*Larger Weights - Consult Factory

Suggested Specifications

General
Kitchen hood inner liner shall be constructed from 18 gauge stainless steel where exposed. The kitchen hoods shall be supplied complete with outer casing/ main body, inner liner, exhaust duct, pressure measurement T.A.B. ports, Outer casing panels shall be constructed of stainless steel with a brushed satin finish. Unique hood profile shall result in condensing water vapor to be directed toward the sides of the hood and into an integral perimeter gutter system. Perimeter gutter to have drain connection suitable to be plumbed to grease trap type drain. Each joint shall be welded and liquid tight, avoiding harmful dripping of condensation.

All exposed welds are ground and polished to the original finish of metal. Canopy ends shall be double sided wall construction (no single wall hoods permitted).

Exhaust
The exhaust airflow will be based on the convective heat generated by the appliances underneath each hood system. Submittals shall include convective heat calculations based on the input power of the appliance served.

Capture Jet™ Technology
The hood shall be designed with Capture Jet™ technology to reduce the exhaust airflow rate required, and to improve the capture and containment efficiency of the hood, while reducing energy consumption. 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 1500 feet per minute. Slot or grille type discharge shall not be used. The Capture Jet™ shall be internally mounted with a speed control and will not require a fire damper or electronic shut down in fire mode.

T.A.B. Ports
The airflows through the 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. The airflows are to be determined by the pressure vs. airflow curves supplied by Halton.

Grease Filters
The hood shall be equipped with KSA multi- cyclone stainless steel grease extractors. The KSA filters shall be UL classified. The grease extraction efficiency is 93% on particles with a diameter of 5 microns and 98% on particles with a diameter of 15 microns or larger as tested by an independent testing laboratory. The pressure loss over the extractor shall not exceed 0.50" of w.c at flow rates approved by U.L. for heavy load cooking. Sound levels shall not exceed an NC rating of 55. Baffle or slot type extractors shall not be used.

HCL Halton Culinary Lights
Each hood shall be equipped with Halton Culinary LED Lights (HCL). Constructed from stainless steel frame and Aluminum hosing, the light fitting comprises flush-mounted broad beam spots with a diffusion angle of at least 80°. Each light is comprised of a patented mixing chamber and a specific reflector. Both shall provide a good balance between direct and diffuse light components without dazzling the staff to mitigate eye fatigue. The shielding angle shall exceed DIN 12464-1 requirement and be at least 30°. The illuminance on the working surfaces shall be code required 50-foot candles at the cooking surface with a CRI Color Rendering Index greater than 80. The wattage per fixture will be 14W. The LED's lifetime shall be 50,000 hours. The internal power supplies shall have at least the same lifetime. They shall enable switching on/off or dimming the light (0-100%) with one or several switches.

[Optional] Light Fixtures
Hood lights shall be U.L. Listed LED fixtures, suitable for grease hoods. 20 Watts per fixture, 50 foot candles at cooking surface. Option: Recessed fluorescent, recessed incandescent or incandescent globe type lighting. The lighting shall be suitable for single phase power supply. Dimmable LED option is available. Standalone Hood based dimming control on the switch panel. When M.A.R.V.E.L. controls are used, all hoods connected to the system can have the light intensity adjusted through the HMI touch screen simultaneously.

Control Panel
The control panel will be either variable volume M.A.R.V.E.L. Demand Control System or constant volume starter panel hood or remote mount. (For constant volume systems). M.A.R.V.E.L. controlled systems come with an HMI touch screen to monitor variable volume operation and incorporate the use of V.F.D.'s to control fan operation.

Fire Suppression System
The kitchen hood fire extinguishing system shall protect the kitchen hood against grease fires by a completely automatic fire control system, which consists of wet chemical. The fire detection system shall be capable of detecting fire in the hood, duct, or surface equipment and shall automatically discharge liquid extinguishing agent into the plenum chamber, exhaust duct collar, and cooking appliance areas to ensure against re-ignition or re-flash. System components shall include a spring-loaded fusible link detector, wall mounted emergency pull stations, wall mounted automan and cabinet, and a mechanical gas valve installed in the gas line serving the cooking equipment. System installation shall be made by an authorized representative of the system manufacturer and conform to U.L. 300 requirements and local codes.

For more information, please contact your nearest Halton agency. To find it: **www.halton.com**

Halton Company
101 Industrial Drive
Scottsville, KY 42164 USA
Tel: 270-237-5600 Fax: 270-237-5700

Halton Indoor Climate Systems
1021 Brevik Place
Mississauga, ON L4W 3R7, Canada
Tel: 905-624-0301 Fax: 905-624-5547