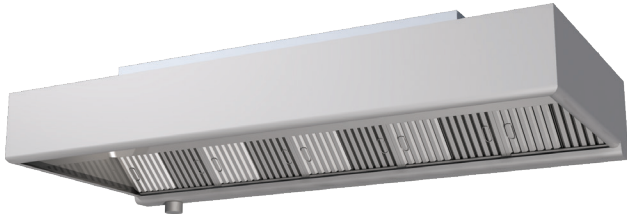


With Capture Jet™ technology



**MATERIALS**

PART	MATERIAL	NOTE
Casing	Hot galvanised steel	Available as an option: stainless steel EN 1.4404 (AISI316L)
Spigots	Hot galvanised steel and EPDM rubber	Available as an option: stainless steel EN 1.4404 (AISI316L)
Insulation	Mineral wool, s=25 mm, MED approved	-
I/O unit	Aluminium/plastic/electronics	-
Cables	Halogen-free	-
Airflow measurement probes and tubes	Aluminium/polyurethane	-

**KFM CONSTRUCTION**

The KFM hood consists of a Capture Jet™ air supply module, a light fixture, adjustment dampers, airflow measurement taps, and KSA grease filters. All components are constructed from polished stainless steel EN 1.4301 (AISI304) to ensure durability and resistance to corrosion. The Capture Jet™ supply plenum is thermally insulated with mineral wool material to prevent condensation on the inner surface above the cooking equipment. Additionally, the hood includes a removable grease cup for easy collection of grease.

**APPLICATIONS**

The Halton KFM is a galley grease hood designed for use in marine and offshore applications to effectively remove contaminated air released by cooking equipment. The hood utilizes Halton's advanced Capture Jet™ technology, allowing it to operate with up to 30% lower exhaust airflow rates compared to traditional hoods.

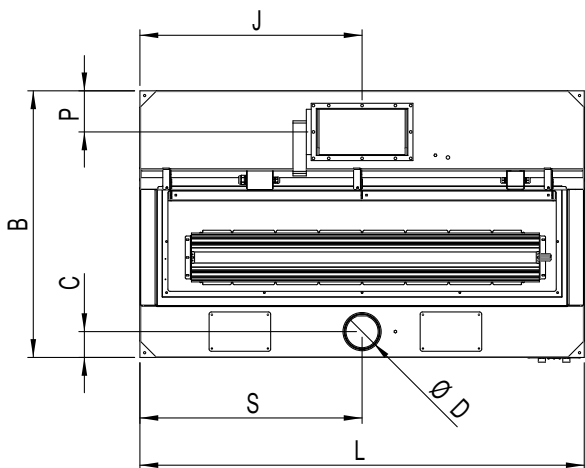
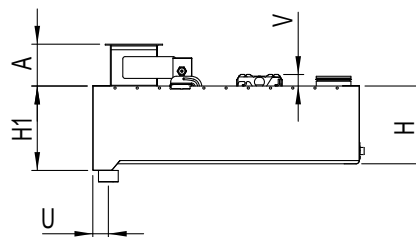
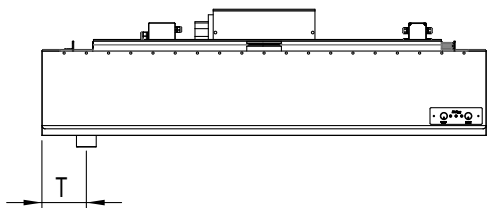
**FEATURES**

- Compliant with USPHS guidelines for optimal performance.
- Easily removable filters for convenient cleaning, promoting high levels of hygiene.
- Prevents the accumulation of grease deposits, significantly reducing the risk of fire hazards.
- Incorporates Halton Capture Jet™ technology, which enhances capture and containment efficiencies while reducing the required exhaust airflow, resulting in lower energy consumption.
- Utilizes Halton KSA multi-cyclone filters for high-efficiency grease filtration.
- Comes with standard lighting, balancing dampers for capture and exhaust air, and T.A.B.™ airflow measurement taps for accurate and efficient airflow balancing and commissioning.
- Durable stainless steel welded construction ensures long-lasting performance.

**KFM PRODUCT OPTIONS**

- Non-standard spigots available in various sizes and positions.
- Option for EN 1.4404 (AISI316L) construction.
- Certified fire damper manufactured from EN 1.4301 (AISI304) or EN 1.4404 (AISI316L).
- Option for a wet chemical fire suppression system.
- M.A.R.V.E.L. demand-based ventilation system.

**GENERAL KFM DRAWINGS**



KFM DIMENSIONS (mm)	
A	195
B	1100-1900
C	115
D	100-200
H	350
H1	380
J	1/2L
L	1000-3000
P	185
S	1/2L
T	200
U	70
V	Max 50

Please note that the maintenance/light fixture hatch is as large as the construction allows.

**KFM WEIGHTS**

**KFM HOODS (KG) WITH CAPTURE JET™ TECHNOLOGY**

B/L	1000	1500	2000	2500	3000
1100	50	74	100	124	138
1300	56	80	105	129	146
1500	61	86	111	135	154
1700	67	92	117	141	162
1900	73	97	122	147	170

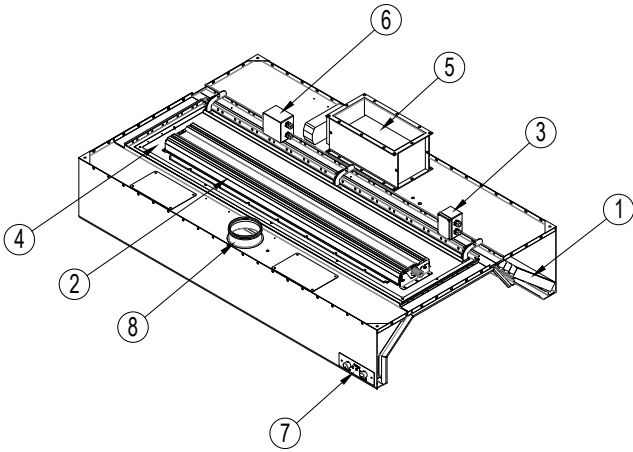
The table above provides an indication of the various sizes of average KFM hoods with Capture Jet™ technology. Please note that the weight mentioned does not include the fire damper.

**KFM HOODS (KG)**

B/L	1000	1500	2000	2500	3000
1100	40	60	80	100	110
1300	46	66	86	106	118
1500	51	71	92	111	126
1700	57	77	98	117	134
1900	63	83	103	123	142

The table above provides an indication of the various sizes of average KFM hoods without Capture Jet™ technology. Please note that the weight mentioned does not include the fire damper.

**KFM PARTS**

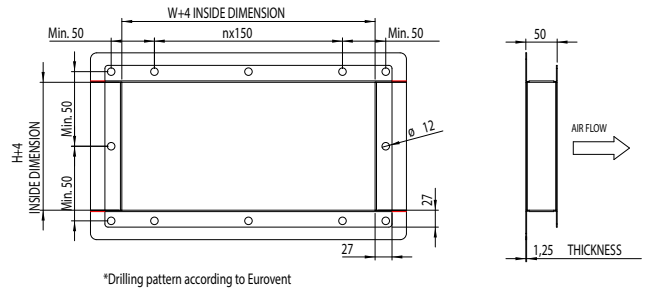


PARTS: 1. KSA grease filters; 2. Lighting fixture; 3. Lighting fixture power supply junction box; 4. Maintenance hatch; 5. Exhaust air connection, fire damper, or shut-off damper\* (available as an option) and adjustment damper; 6. Fire damper junction box (available as an option); 7. Damper switch and indication (available as an option); 8. Capture air connection and adjustment damper.

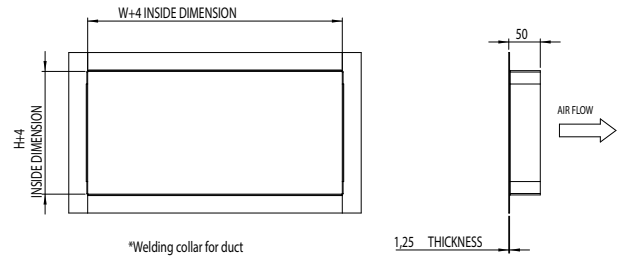
\*If the fire or shut-off damper is located at the duct, Halton suggests two default solutions for duct connection:

- Eurovent-collar with flange
- Welded L-collar

**EUROVENT-COLLAR WITH FLANGE**

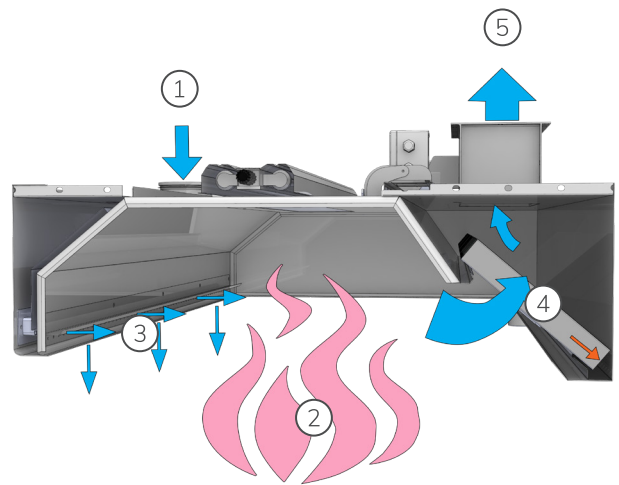


**WELDED L-COLLAR**



**KFM FUNCTION**

1. Supply air enters the Capture Jet™ plenum.
2. Contaminated air and heat rise from the cooking appliances.
3. Halton's patented Capture Jet™ technology directs contaminated air into the hood effectively.
4. KSA multi-cyclone filters utilize centrifugal force to efficiently remove grease and contaminants from the air stream. Independent laboratory tests confirm KSA as the most efficient mechanical grease filter available.
5. The hood then exhausts the filtered air, leaving the cooking area fresh and clean.



**SUGGESTED SPECIFICATIONS**

The galley hoods shall be constructed from stainless steel EN 1.4301 (AISI304). They shall be supplied complete with an outer casing/main body, airflow measurement taps, exhaust air spigot connection with an adjustment damper, maintenance hatch, light fixture, grease filters, and grease cup. An optional classified fire damper in each exhaust connection is available. The manufacture of all galley hoods shall comply with ISO 3834-2:2005, ISO 9001, ISO 14001, and OHSAS 18001 standards. The design of the hoods shall follow USPHS guidelines.

**CONSTRUCTION**

All parts shall be constructed of stainless steel sheet (thickness 1.25 mm) with a polished finish. The inside corners of the hood shall be rounded for easy cleanability, adhering to USPHS guidelines. The joints at the lower edges of the device shall be welded, and visible screws shall be of the thumb screw type. The hood shall be equipped with a grease cup for grease removal, and a maintenance hatch shall be included in each hood for easy access above the hood.

**CAPTURE JET™ PLENUM**

The Capture Jet™ plenum shall be insulated with sealed mineral wool and accessible through maintenance hatch(es).

**CAPTURE JET™ SYSTEM**

The hood shall be designed with Capture Jet™ technology to reduce the required exhaust airflow rate and increase the capture and containment efficiencies of the hood, resulting in reduced energy use.

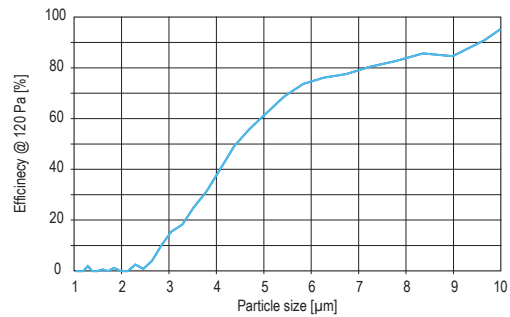
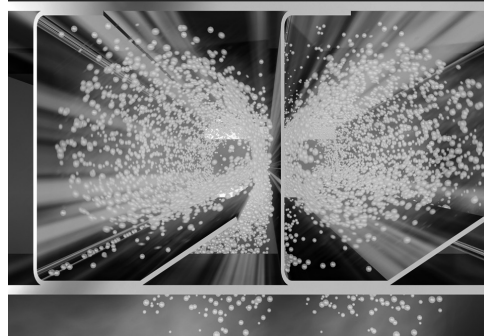
**AIRFLOW MEASUREMENT TABS**

Measurement taps shall be located on top of the hood for capturing air and exhaust air measurement.

**HALTON KSA FILTER**

- Minimizes grease deposits in the ducts.
- Enhances hygiene and safety.

The KSA grease filters shall be constructed of stainless steel in a modular size of 500x330x50 mm and shall be removable via two folding handles. The grease filters shall have a honeycomb design to allow high grease filtration efficiency with the aid of the centrifugal effect in filter honeycombs.



Mechanical filtration is recommended for hoods with low utilization rates and cooking processes producing mainly large grease particles (> 8 microns), e.g., food prepared with fryers, griddles, and broilers (source ASHRAE).

**DUCT CONNECTIONS**

The duct connections and adjustment dampers for exhaust air shall be constructed from stainless steel, and the dampers shall be adjustable.

### LIGHT FIXTURES

Each hood shall be delivered with energy-efficient LED light fixtures providing an average illuminance of approximately 500 lux at the work surfaces of the cooking appliances. The light fixtures shall be suitable for a single-phase 230-VAC power supply and shall be manufactured to be of protection class IP67. The ballast and capacitor shall be located within the lighting fixture. Core electric cables connecting the light fixture to the junction box shall be provided. The light fixture shall be installed on a hinged maintenance hatch, allowing access to the hood roof.

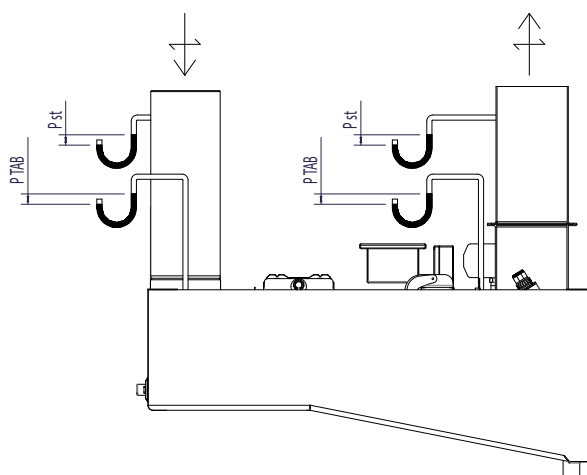
### LED LIGHT FIXTURE SIZES

HOOD DIMENSION	LENGTH	WIDTH
L < 1250 mm, 1x28 W	720 mm	175 mm
L ≥ 1250 mm, < 2000 mm, 1x42 W	1020 mm	175 mm
L ≥ 2000 mm, 1x69 W	1620 mm	175 mm

### MAINTENANCE HATCH

Each hood shall be provided with a maintenance hatch made of stainless steel with a shock-resistant plastic window. The window shall have a heat tolerance of up to +115 °C. The hatch shall be easily opened and closed. The maintenance/light fixture hatch shall be as large as the construction allows.

### AIRFLOW MEASUREMENT



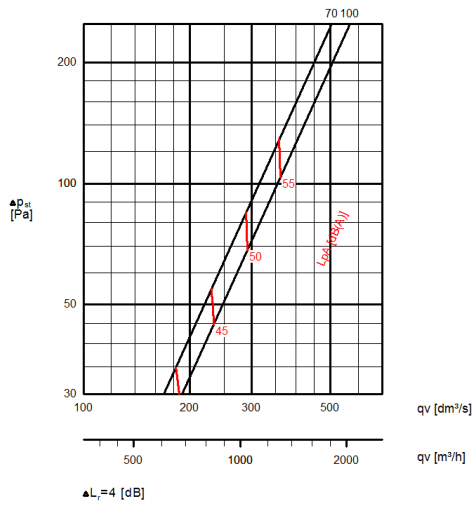
$\Delta P_{st}$  = Static pressure loss

$\Delta P_{TAB}$  = TAB pressure for airflow rate measurement

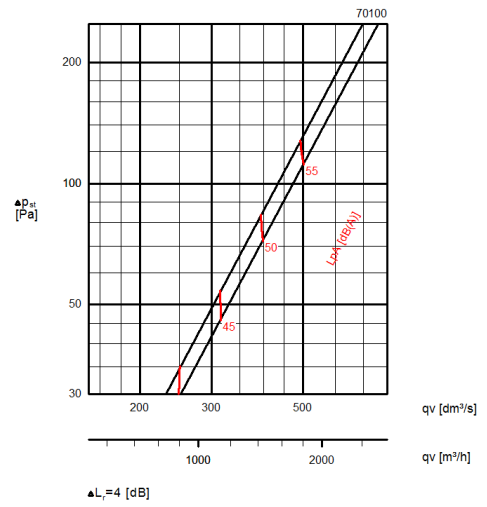
70, 100 = Damper opening in %

**PRESSURE DROP AND SOUND DATA WITH RECOMMENDED EXHAUST CONNECTION SIZE**

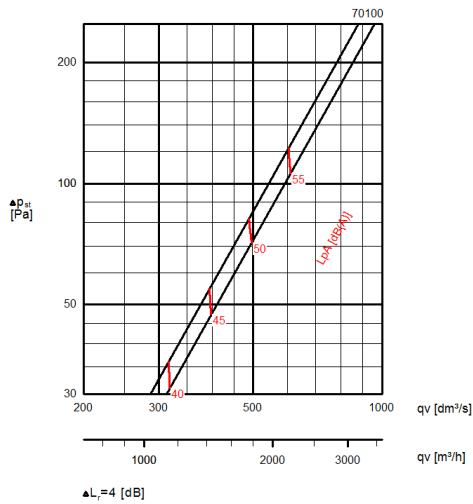
**KFM, SECTION 1000, STATIC PRESSURE LOSS AND SOUND DATA**



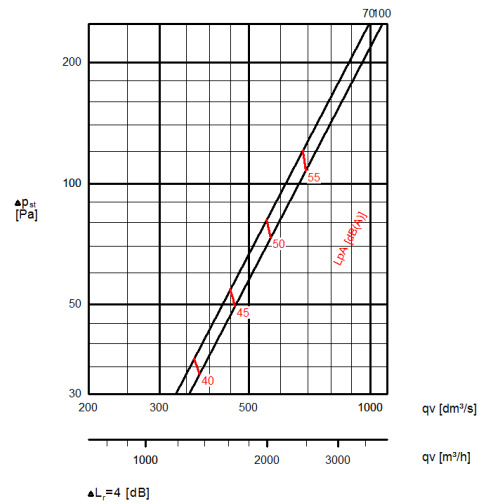
**KFM, SECTION 1500, STATIC PRESSURE LOSS AND SOUND DATA**



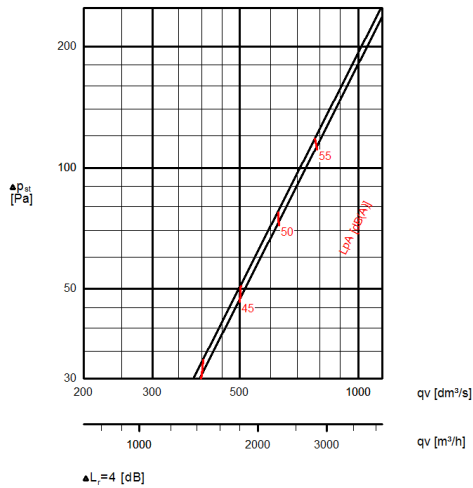
**KFM, SECTION 2000, STATIC PRESSURE LOSS AND SOUND DATA**



**KFM, SECTION 2500, STATIC PRESSURE LOSS AND SOUND DATA**



**KFM, SECTION 3000, STATIC PRESSURE LOSS AND SOUND DATA**

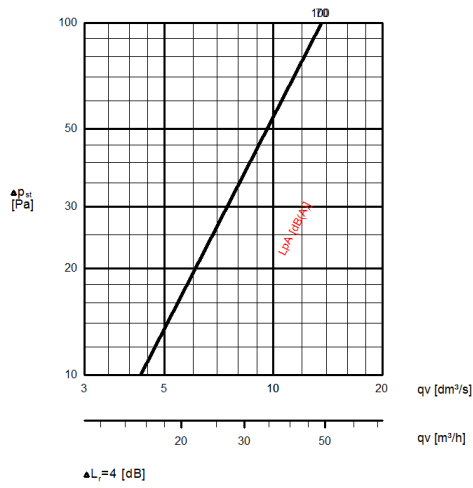


$\Delta p_{st}$  = exhaust static pressure loss  
 70, 100 = damper opening in %  
 $\Delta L_r$  = room attenuation

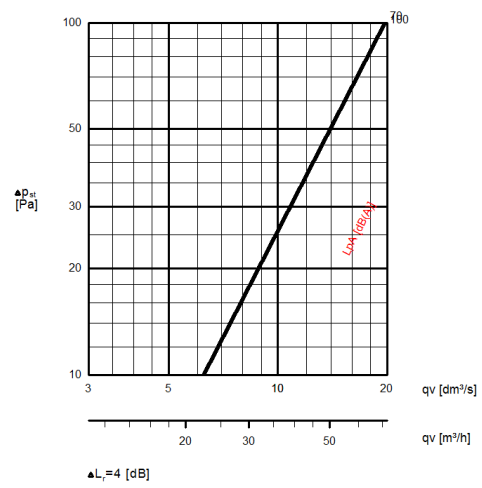
M07Y2024/Halton reserves the right to alter products without notice.

**PRESSURE DROP AND SOUND DATA WITH RECOMMENDED CAPTURE CONNECTION SIZE**

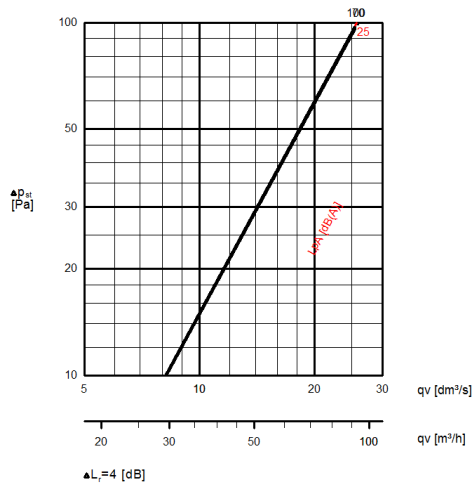
**KFM, SECTION 1000, STATIC PRESSURE LOSS AND SOUND DATA**



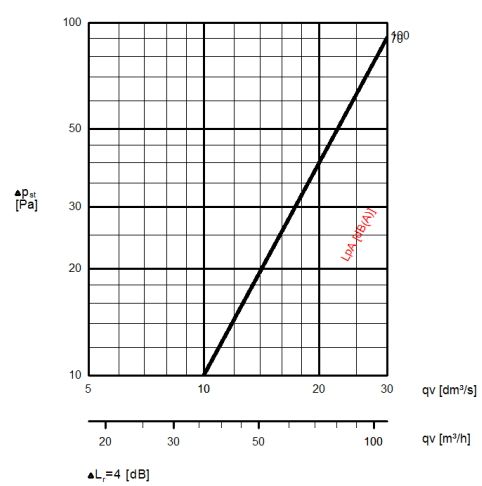
**KFM, SECTION 1500, STATIC PRESSURE LOSS AND SOUND DATA**



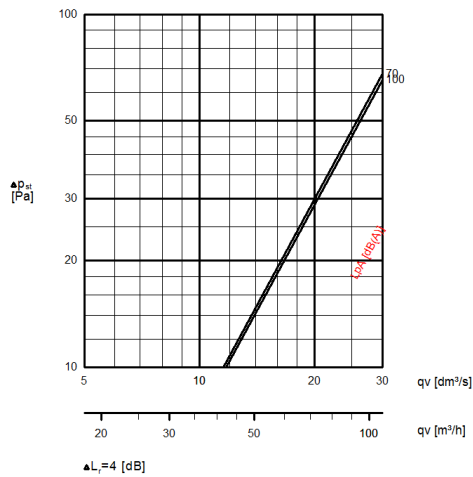
**KFM, SECTION 2000, STATIC PRESSURE LOSS AND SOUND DATA**



**KFM, SECTION 2500, STATIC PRESSURE LOSS AND SOUND DATA**



**KFM, SECTION 3000, STATIC PRESSURE LOSS AND SOUND DATA**



$\Delta p_{st}$  = capture static pressure loss  
 70, 100 = damper opening in %  
 $\Delta L_r$  = room attenuation

**EXHAUST AIRFLOW RATE MEASUREMENT USING**

**K-FACTORS**

KSA (NUMBER OF FILTERS)	KFM HOOD K-FACTOR (m³/h)	KFM HOOD K-FACTOR (l/s)
1	87.0	24.2
2	139.6	38.8
3	192.3	53.4
4	287.8	80.0
5	333.4	92.6
6	394.9	109.7

With the T.A.B. pressure measurement, it is also possible to check the exhaust airflow with the following formula. Above values are with recommended exhaust connection size.

$$q_{v,e} = k \times \sqrt{\Delta P_{TAB} [Pa]}$$

$q_{v,e}$  = Airflow

k = K-factor

$\Delta P_{TAB}$  = Pressure difference

**RECOMMENDED EXHAUST AIRFLOW FOR KFM**

NUMBER OF KSA FILTERS	MINIMUM (l/s)	MAXIMUM (l/s)	MINIMUM (m³/h)	MAXIMUM (m³/h)
1	130	201	468	724
2	259	402	932	1447
3	389	602	1400	2167
4	518	803	1865	2891
5	648	1004	2333	3614
6	778	1205	2801	4338

Note: KSA filter size 500x330x50 mm