

# DV51CH Adroit

## Adroit Line Top Entry

Up to 184 m<sup>3</sup>/h air volume @100Pa

### KEY FEATURES

- Up to 90% thermal efficiency
- Triple filter design with two Coarse > 75% and one ISO ePM1 50% filters - ISO 16890 compliant
- Automatic, 100% summer by-pass
- Integral humidity and carbon dioxide sensors
- Internet control by smartphone, tablet, or PC
- BMS connection
- Fits neatly as part of an integrated solution

Domestic Product  
of the Year 2020



Highly Commended  
Sustainable Product  
of the Year



The DV51CH Adroit is a compact kitchen unit incorporating a cooker hood extractor, designed to perfectly combine ventilation and extraction of cooking odours.

The heat recovery unit is delivered with a slim and stylish cooker hood, manufactured from metal providing a fire safe ventilation solution for kitchen installations. The DV51CH Adroit MVHR unit can be easily integrated in the kitchen design as the cooker hood is available in white or stainless steel. This kitchen ventilation solution is also an efficient use of space in small apartments. The grease filter which protects the MVHR unit against cooking particles can be easily cleaned in soapy water.

A unique feature of the DV51CH Adroit is the benefit of recovering the heat from the hob while other kitchen units discharge directly to outside, skipping the heat recovery process.

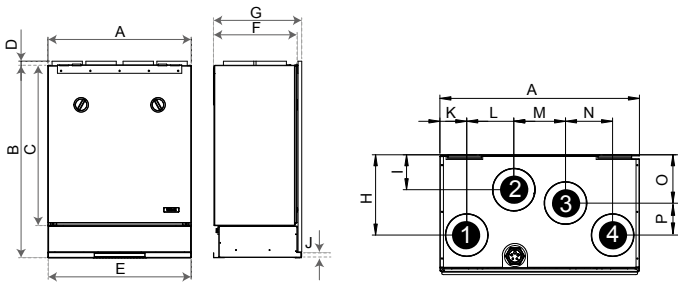


## TECHNICAL DATA

Specification	DV51CH (R)	DV51CH (L)
Suitable for dwellings up to m <sup>2</sup>	75	
Air flow m <sup>3</sup> /h / l/s @100 Pa	184 / 51	
Thermal efficiency	Up to 83%	
Heat exchanger	Counterflow (Aluminium)	
Fans	EC	
Summer bypass damper	100% automatic	
Frost protection	Stop supply fan	
Controls	Capacitive buttons with 3 speed profiles (on cooker hood)	
Digital controls	Optional digital - 4 profiles, 100% adjustable	
Mounting	Wall	
Sound pressure level @ 3m (dB(A))	15.5	
Duct diameter (mm)	4x125	
Condensate discharge (mm)	12	
Electrical supply	230 V / 1 ph / 50 Hz	
Electrical power input at max flow (W)	77 W	
Filter class (ISO 16890)	2 x ISO Coarse > 75% (G4) and 1 x ISO ePM1 50% (F7) filters	
Built-in electric post-heater (optional)	900 W	
Protection class	IP34	
Casing insulation (mm)	10	
Weight (kg)	51 (including cooker hood)	
Dimensions (L x D x H) (mm)	598 x 349 x 802 (including cooker hood)	
Part No.	90001174 (white)	90001175 (white)
	90001172 (stainless steel)	90001173 (stainless steel)
EAN	5019009326559 (white), 5019009326535 (stainless steel)	5019009326566 (white), 5019009326542 (stainless steel)

\*Complies with ISO 16890

## DIMENSIONS



### Duct outlets, Model R

- Inner diameter of the female collar: 125 mm
1. Extract air from the apartment to the unit
  2. Supply air from the unit to the apartment
  3. Exhaust air flowing outdoors from the unit
  4. Outdoor air to the unit

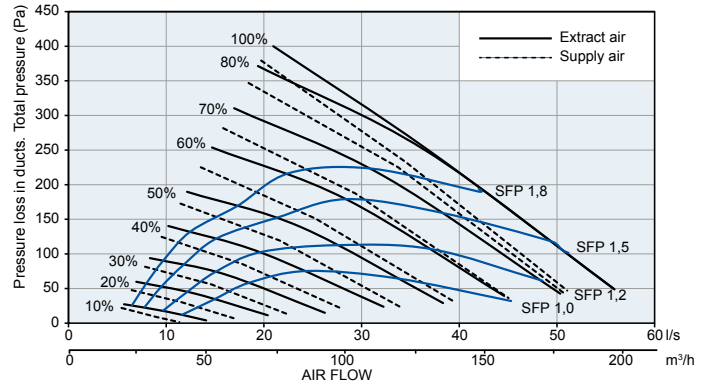
### Duct outlets, Model L

- Inner diameter of the female collar: 125 mm
1. Outdoor air to the unit
  2. Exhaust air flowing outdoors from the unit
  3. Supply air from the unit to the apartment
  4. Extract air from the apartment to the unit

+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I
DV51CH	598	802	668	17	597	349	368	239	103
	J	K	L	M	N	O	P		
	23	81	141	155	141	143	96		

## PERFORMANCE



\* Guidance only. Dependant upon system pressure.

## ACCESSORIES

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO <sub>2</sub> Transmitter	90000613
Adroit Speed Controller	9041219
Additional post heater for DV51CH (R)	90001262
Additional post heater for DV51CH (L)	90001263
Filter set (ISO Coarse > 75 % + ISO ePM1 50%, ISO Coarse > 75 %) (2xG4, 1xF7)	90001843
Boost Switch	90000542
KNX-Converter	90000723

## SAP RESULTS

Systems with rigid ductwork only SAP 2005 results

Exhaust terminal configuration	Specific Fan Power (W/l/s)	Thermal efficiency (%)
Kitchen+1 additional wet room	0.86	79
Kitchen+2 additional wet room	0.76	80
Kitchen+3 additional wet room	0.80	80
Kitchen+4 additional wet room	0.91	81
Kitchen+5 additional wet room	1.05	81
Kitchen+6 additional wet room	1.22	81

Systems with rigid ductwork only SAP 2012 results

Exhaust terminal configuration	Specific Fan Power (W/l/s)	Thermal efficiency (%)
Kitchen+1 additional wet room	0.78	80
Kitchen+2 additional wet room	0.84	80
Kitchen+3 additional wet room	0.99	81
Kitchen+4 additional wet room	1.24	81

# DV51CH Adroit

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Up to 184 m<sup>3</sup>/h air volume @100Pa

The DV51CH Adroit is fitted with a triple air filter facility which consists of 2 x ISO Coarse > 75% (G4) and 1 x ISO ePM1 50% (F7) filters – complies to ISO 16890. The air filtration will help to prevent small pollen particles from entering indoors.

Adjusting the ventilation characteristics according to specific lifestyles has never been so easy and efficient. Ventilation in a small apartment can be fully controlled through different options of controllers: a switch controller, capacitive touch buttons on the cooker hood front panel, a digital Adroit controller with 4 individual ventilation profiles or via the Internet or a local network using a laptop, smartphone, tablet etc.

The DV51CH Adroit can be integrated within the kitchen units and matched with other kitchen appliances offering an elegant overall style to the entire dwelling. This unit is ideally installed in one- or two-bedroom flats or a small three-bedroom apartment. Saving space and energy, the DV51CH Adroit unit is also easy to maintain and service, having plenty of front space to replace the filters and clean the grease filter grille.

The DV51CH can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

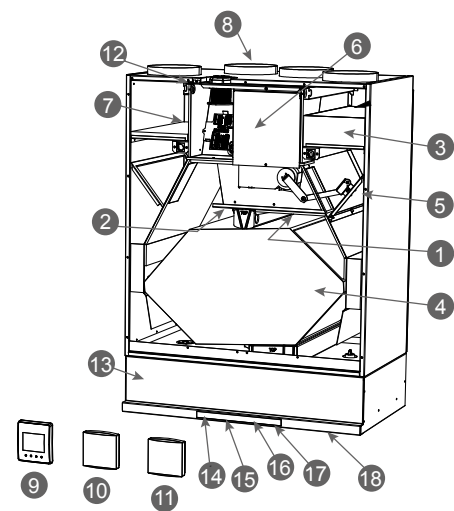
## NEW STYLISH AND COMPACT DESIGN



The internal humidity and carbon dioxide sensors ensure automatic boosting of the ventilation unit when required. This function reduces energy consumption even more by having an automated ventilation adjustment.

As previously stated, the unique feature of this MVHR Adroit unit is recovering the heat coming from the hob into the heat exchanger, a total energy class of A+ (when equipped with an additional sensor) is obtained. Another unique feature of this unit is having a partial bypass function. This partial bypass can automatically move into a suitable position where enough outdoor air is mixed with the supply air to provide the required indoor air temperature.

The DV51CH Adroit cooker hood has a modern and intuitive front panel which blends in with the kitchen furniture design. Two colours are available for the cooker hood: white and stainless steel. In addition, the unit can be customised further by using the brackets provided to hang a matching kitchen unit door. The kitchen door will have the standard width of 600 mm.



- |                   |                                      |   |                      |
|-------------------|--------------------------------------|---|----------------------|
| 1 Extract fan     | 6 Connection box                     | 11 Humidity sensor (optional)                   | 15 Fan speed buttons |
| 2 Supply fan      | 7 Extract filter                     | 12 Internal humidity and carbon dioxide sensors | 16 LED light button  |
| 3 Supply filter   | 8 Post heater (optional)             | 13 Cooker hood                                  | 17 Selection button  |
| 4 Heat exchanger  | 9 Control panel (optional)           | 14 Damper button                                | 18 Grease filter     |
| 5 Bypass actuator | 10 CO <sub>2</sub> sensor (optional) |   |                      |

## CONTROLS



### Damper's position

The damper is opened by pressing the damper button (light turns on). The damper is closed (light turns off) by pressing the damper button or automatically after one hour (without a timer or 45-120 min when programmed).



### Cooker hood light

Turn the light on or off by pressing the light switch. The brightness of the light can be adjusted.



### Ventilation profiles

Select the profile by pressing the fan speed button repeatedly until the signal light indicates the desired ventilation profile:



### Away profile

Use this ventilation profile when the apartment is unoccupied, e.g. during holiday.



### At home profile

Use this ventilation profile when the apartment is occupied.



### Boost profile

Use this profile to enhance ventilation, e.g. when there are more people than usual in the apartment.



### Selection button

The selection button is used to adjust the brightness of the cooker hood LED.

## CONTROLS

Adroit DV51CH is controlled via 4 ventilation profiles controls providing the following features:

- 4 ventilation profiles, 100% adjustable
- Internet connection available
- Automatic boost function with delay timer
- Filter maintenance reminder via counter clock (standard)
- Heater control for optional post-heater
- Connection to BMS via LON or KNX
- Self diagnostic via fault signal relay
- On-demand control via humidity and CO<sub>2</sub> sensors
- Separate fan control for ease of commissioning
- Weekly ventilation programming allows users to pre-set the ventilation levels scheduled for different days
- Indoor temperature control based on extract air temperature or supply air temperature
- 100% adjustable speed levels
- User friendly for quick and simple control



ISO Coarse > 75% (G4) filter



ISO ePM1 50% (F7) filter

## 100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

## CONTROLS & ACCESSORIES



**Adroit Digital Controller**  
No: 90000610  
Intuitive digital controller with touch buttons. Wall mounted.



**Boost Switch**  
No: 90000542  
Single gang momentary boost modular switch in a smooth polar white finish.



**Adroit Speed Controller**  
No: 9041219  
Four speed manual controller. Wall mounted.

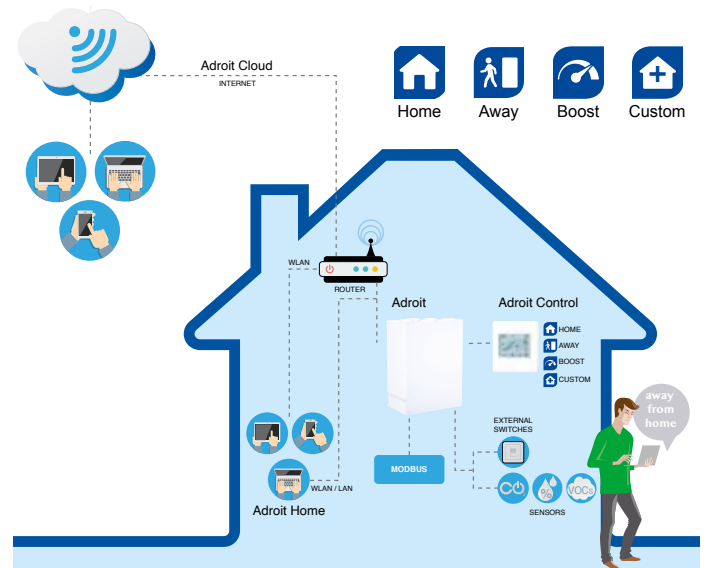
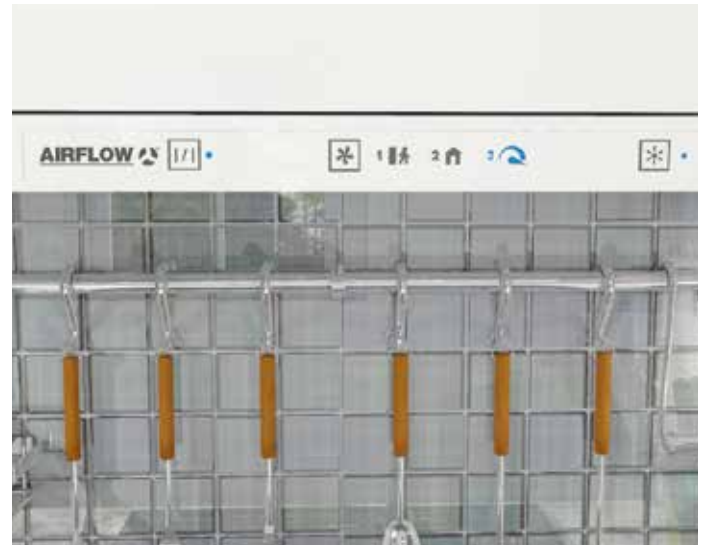


**DV51CH Adroit Filter Set**  
No: 90001843  
Replace filters 2x a year. (2 x G4/ISO Coarse 75%, 1 x F7/ISO ePM1 50%)

Others products available from [airflow.com](http://airflow.com)

## DV51CH Slim-Line Cooker Hood

Colour options of white or brushed stainless steel



Call: 01494 525252

Visit: [airflow.com](http://airflow.com)



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