



Home systems

It is estimated that we spend 90% of our time indoors and 70% of that time in our homes using heating, televisions, lighting and computers. It's hardly surprising then that 45% of the UK's carbon emissions are from buildings, 27% from homes and 18% from all other buildings - by far the nation's single largest source of CO₂ pollution.

With the addition of perhaps 4 million new homes to the housing stock over the next 20 years, the energy needs of buildings are likely to grow faster than those of other sectors. So it is to the indoor environment that we need to look if we truly want to reduce our energy consumption.

There are a number of Government initiatives intended to deliver savings in energy consumption of 20% over a ten year period. For example new Building Regulation Documents L & Part F1.

Xpelair sees these real environmental issues as an opportunity and accepts that the scope for cost-effective energy efficiency improvement in the home is large and will continue to be created by innovation.

Air tight buildings need controlled ventilation so the first in our series of energy efficient products is a range of new Xpelair Xcell whole house heat recovery systems featuring the latest generation of contraflow heat recovery cells combined with long life, low energy use, DC motors.

This DC technology is now also available in the new Xplus central extract system, the single room heat recovery unit and the EverDri range.

To complement the whole house systems the range now also includes SystemX wholehouse ducting kits with self regulating intake and extract terminals designed to eliminate the need for system balancing on site.

Xcell systems are not only good for the environment, they also reduce user heating costs, maintain a 'fresher' home and lower humidity levels. This can provide important health benefits for many allergy sufferers.



Home Systems

	 Xplus	 Xplus 250 & 400	 Xcell	 Profile 150	 System X	 EverDri	 XHR150	 AutoFlow
Page Number	62	64	66-75	76	78	82	84	86
Type	Mechanical Extract Ventilation (MEV)	Mechanical Extract Ventilation (MEV)	Mechanical Ventilation and Heat Recovery (MVHR)	System ducting	Ducting system	Positive Input Ventilation (PIV)	Mechanical Ventilation and Heat Recovery (MVHR)	Passive Air-input
Voltage								
Application	Wholehouse	Wholehouse	Wholehouse	Wholehouse	Wholehouse	Wholehouse	Single room fresh air intake	Thermostatic
Models	4	2	15	n/a	n/a	2	2	3
Max extract performance (m ³ /h)	493	389	810	n/a	n/a	259	31	200
Duct dia (mm)	125	125	125-200	n/a	n/a	100/150	148	80/100/160
AC motor	■		■	n/a	n/a	LoVolt	n/a	
DC motor	■		■	n/a	n/a	■	■	
Speeds	3	Up to 8	Up to 12	n/a	n/a	4	2	n/a
Carbonlite	■	■	■	n/a	n/a	■	■	■

All Xpelair ventilation products are designed to meet the good practice standard for energy efficient ventilation in dwellings. Xplus 340 and Xcell 270 are SAP Appendix Q listed. Both achieving Energy Saving Trust "Best Practice" performance levels as set out in GPG 268 Guide For Specifiers (2006 edition). The code for Sustainable Homes code level three is broadly similar to BRE's Eco Homes very good level and the EST 'Best Practice' standard for energy efficiency. Code level 3 achieves a 25% minimum percentage reduction in dwelling emission rate over target emission rate calculated using SAP 2005.

Xpelair Xplus

Multipoint ventilation units and UltraDC MEV models



Key features

Type:	Continuous mechanical extract unit (MEV)
Application:	Wholehouse system
Control options:	3 speed / 9 speed RF
Legislation:	Building Regulations Part F1, Xplus 340 DC is SAP Appendix Q listed
Spigot diameter:	125mm

The Range

Higher density building requires new methods of ventilation. Apartments for example can often have only one external wall face, requiring ductwork to reach some rooms. Having one ventilation outlet is not only preferred aesthetically by architects it means less builder's work and minimises noise breakout.

Suitable for domestic dwellings with a total internal volume up to 450m³. Also suitable for a wide range of commercial applications where multiple extract points can be served by a single fan, for example toilet cubicles.

The Xpelair Xplus range is the ideal solution for multipoint extract applications. Available in AC and now with UltraDC motors Xplus is easily installed in houses and flats.





The Xplus range is a high pressure, quiet, speed controllable system designed for continuous 24/7 running ensuring that wet rooms are properly ventilated to minimise the migration of high humidity to other rooms.

Used in conjunction with Xflex flexible ducting, Profile 29 flat ducting and RegulAir ventilation terminals, the system can be concealed above ceilings and in stud walls.

All units are speed controllable by means of a three speed hard wired switch. Xplus 340 DC is also available with RF transmitter.

The Xplus 340 is recognised by BRE for inclusion in SAP Appendix Q. Refer to www.sap-appendixq.org.uk for full details of how improved SAP ratings can be obtained.

Select the right product for your application

					
		Xplus 275	Xplus 340	Xplus 340 DC	Xplus 340 DCRF
Reference number		91260AW	91261AW	91262AW	91263AW
ac motor		■	■		■
UltraDC motor				■	■
Radio frequency controls					■
Speeds		3	3	9 options	9 options
Extract Performance (FID, m ³ /h)	high	385	474	450	493
	med	208	354	350	273
	low	139	148	150	148
Low sound pressure level (dB(A)@3m)	high	47	54	54	54
	med	123	88	64	64
	low	104	45	13	13
Power (W)	high	34	25	4	4
	med				
	low				
No. of intake spigots		3	3	4	4
Spigot diameter (mm)		125	125	125	125
Colour		black	white	white	white
Weight (kg)		4.7	6.0	6.0	6.0
Guarantee (years, UK)		3	3	5	5

Models

Xplus 275

Ref. 91260AW

- Multi-speed central extract unit
- Three 125mm diameter intake spigot connections and a 125mm diameter outlet
- Manufactured in high impact ABS
- External rotor motor / impeller
- Moulded high performance scroll
- Integral fixing points
- Suitable for temperatures up to 40°C
- Terminal box for electrical connection
- Black finish

Three Speed Controller

Ref. 91457AA

- 3 speed control switch suitable for Xplus 275 and 340 models



Xplus 340

Ref. 91261AW

- Higher performance three speed central extract unit
- Three 125mm diameter intake spigot connections and a 125mm diameter outlet
- Manufactured in high impact polypropylene
- External rotor motor/impeller
- Moulded high performance scroll
- Integral fixing points with key hole slots
- Suitable for temperatures up to 40°C
- Fitted with 1 meter of five core flex
- White finish

Xplus 340 DC

Ref. 91262AW

- As Xplus 340
- Incorporates UltraDC long life motor

Xplus 340 DCRF

Ref. 91263AW

- Includes Wireless control system
- Three speed wireless control unit (100 meter range) consisting of wall mounted transmitter powered by CR2430 battery and mains receiver fitted into the fan unit
- Stylish slim wall switch with led
- Optional 9 speeds from which 3 speeds can be selected
- 10mins manual timer option on speed setting three
- 30mins manual timer option on speed setting three
- Range 100m LOS

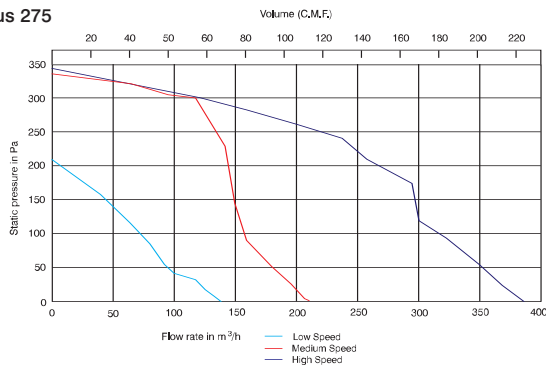


RF Controller
Ref. 91471AA

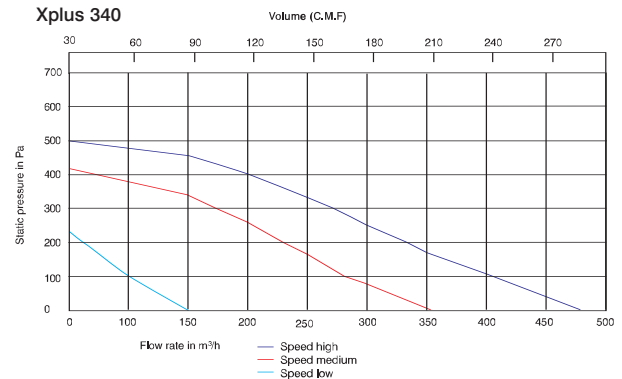
Typical Specifications on page 166.
Wiring Diagrams on page 183.

Performance

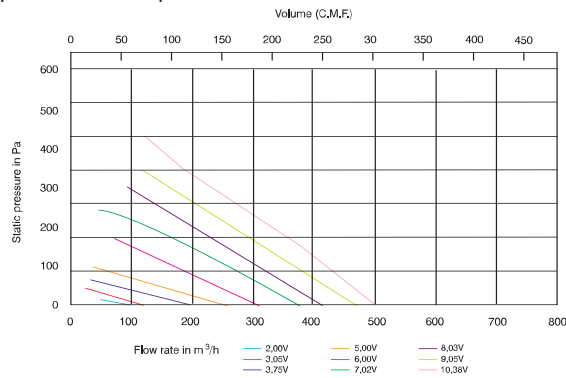
Xplus 275



Xplus 340

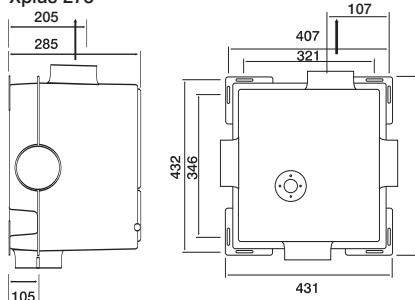


Xplus 340 DCRF / Xplus 340 DC

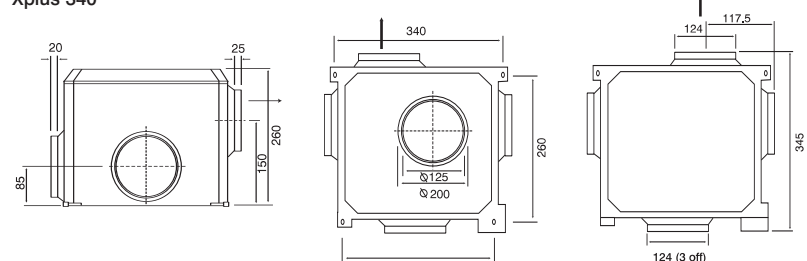


Dimensions (mm)

Xplus 275



Xplus 340



Xpelair Xplus250 & 400 DC 8CV

Continuous extract MEV unit with UltraDC technology



Xplus UltraDC



SAP Appendix Q listed to Best Practice Criteria
Xplus250 DC 8CV

Key features

- Type: **UltraDC extract MEV units. Two models, choice of 8 extract performances to offer trickle and boost**
- Application: **Multipoint extract unit for continuous extract ventilation from kitchen, utility room, bathrooms and toilet**
- Control options: **Boost operation from additional external switch or Xpelair active response sensors**
- Legislation: **Conforms to Building Regulations Part F1 and Scottish Building Regulations. Continuous mechanical extract ventilation (MEV). Xplus 250 DC 8CV is SAP Appendix Q listed**



Select the right product for your application

The Range

Two NEW Xpelair Xplus Multispeed models with Self-commissioning UltraDC technology. Energy efficient and long lasting.

Xpelair Xplus UltraDC is designed with installer selectable settings to satisfy Part F1 installed performances for continuous ventilation in domestic dwellings. The trickle speed is selectable at installation, based on the sum of the continuous extract rate requirements from table 1.1a of Part F1.

Xplus offers self-Commissioning centrifugal performance with an UltraDC motor. The installer selects the performance required - Xplus selects the speed necessary to meet the performance based on the system resistance. This ensures a constant extract performance and lower energy use than AC equivalents. Three 125mm input spigots are provided for connection to Xpelair Xflex ducting.

Xpelair Y pieces can be used for further branch ducts. 125mm RegulAir ceiling spigots with RegulAir factory set extract grilles ensure the correct extract rate from bathrooms and toilets without system balancing. A louvred grille with filtered inlet is used in the kitchen.

The built-in BOOST option allows the installer to select advanced sensors: active response humidity control, adjustable overrun timer, passive infrared sensor or Air Quality Sensor to provide BOOST override.

Xplus can be surface mounted at any angle in a cupboard or loft.

Xpelair UltraDC motors reduce energy consumption and last longer than conventional AC motors. For this reason Xpelair offers a 5 year UK only guarantee.

	Xplus250 DC 8CV	Xplus400 DC 8CV
Reference number.	92290AW	92100AW
Ultra DC Longlife motor	Yes	Yes
Self-Commissioning	Yes	Yes
Selectable 'installed' performances / Watts		
/dB(A)@3m	l/s W* dB(A)	l/s W* dB(A)
1	13 3.5 26.0	57 19.1 47.8
2	22 4.2 31.2	66 26.3 50.5
3	26 5.0 32.7	68 28.0 50.7
4	28 5.5 36.0	71 30.8 50.6
5	43 9.5 40.2	84 49.1 50.7
6	43 11.3 43.1	91 60.3 50.8
7	48 12.2 45.2	95 65.6 50.9
8	64 24.2 49.6	108 96.5 50.9
Boost override speed	Increases performance by one speed.	
Outlet spigot Ø	Ø125mm	Ø125mm
Inlet spigots 125mm	3	3
Colour	black	black
Weight (kg)	3.9	3.9
Guarantee (years, UK)	5	5

*Measured in typical applications comprising 1m ducting of each inlet, 3m ducting and an outlet grille fitted on outlet side.

Models

Xplus250 DC 8CV Ref. 92290AW

- Multipoint extract unit designed for 8 continuous trickle speeds up to 64 l/s or boost operation - one speed higher
- Three 125mm diameter inlet spigots and one 125mm diameter outlet spigot
- Casing in high impact black ABS
- Integral fixing points
- Energy saving long life UltraDC motor
- Selectable installed continuous extract speeds to satisfy Part F1 requirements (table 1.1a)
- Self-commissioning motor sets fan speed to meet performance requirement
- Maintenance free external rotor motor with greased for life ball bearings and thermal overload protection. Suitable for duct air temperatures up to 40°C

- Centrifugal backward curved impeller dynamically balanced to G6.3 ISO 1940
- Surface wall ceiling or loft mounting
- As a Constant volume product maximum motor input power is rated at 97W

Xplus400 DC 8CV Ref. 92100AW

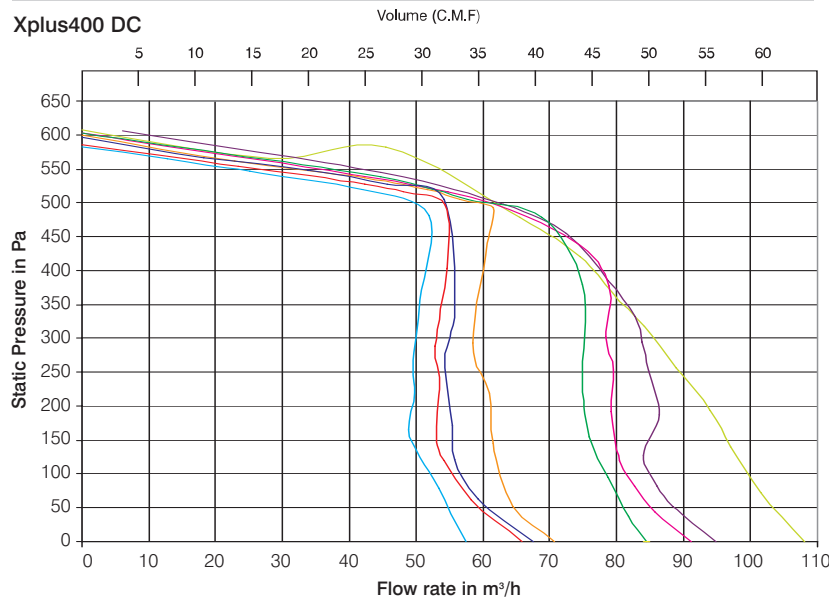
- Multipoint extract unit designed for 8 continuous trickle speeds up to 108 l/s or boost operation - one speed higher
- Three 125mm diameter inlet spigots and one 125mm diameter outlet spigot
- Casing in high impact black ABS
- Integral fixing points
- Energy saving long life UltraDC motor

- Selectable installed continuous extract speeds to satisfy Part F1 requirements (table 1.1a)
- Self - commissioning motor sets fan speed to meet performance requirement
- Maintenance free external rotor motor with greased for life ball bearings and thermal overload protection. Suitable for duct air temperatures up to 40°C
- Centrifugal backward curved impeller dynamically balanced to G6.3 ISO 1940
- Surface wall ceiling or loft mounting
- As a Constant volume product maximum motor input power is rated at 140W

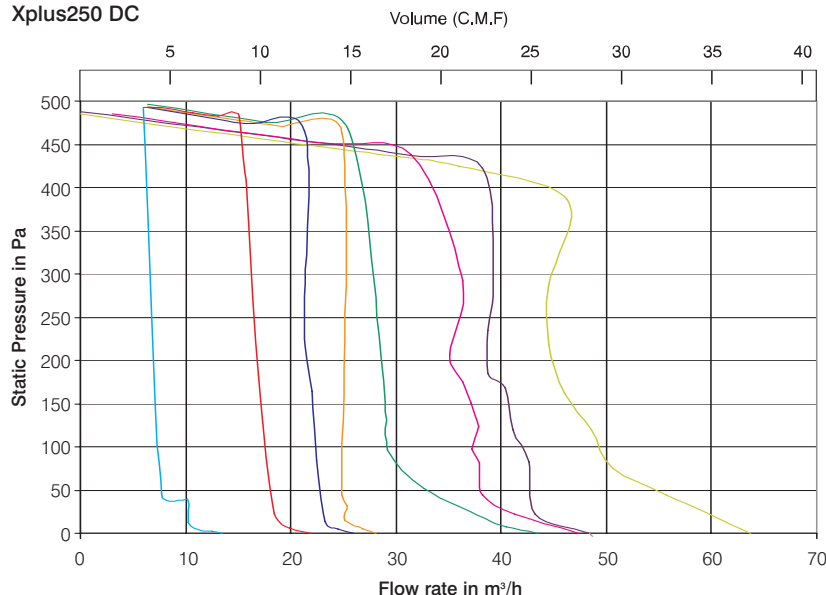
Typical Specifications on page 166.
Wiring Diagrams on page 184.

Performance

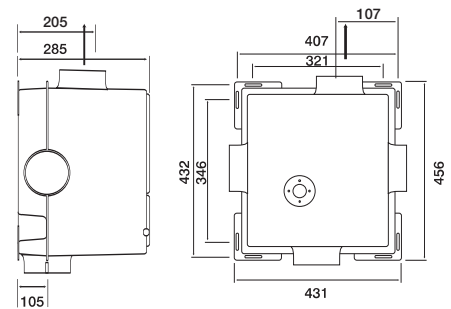
Xplus400 DC



Xplus250 DC



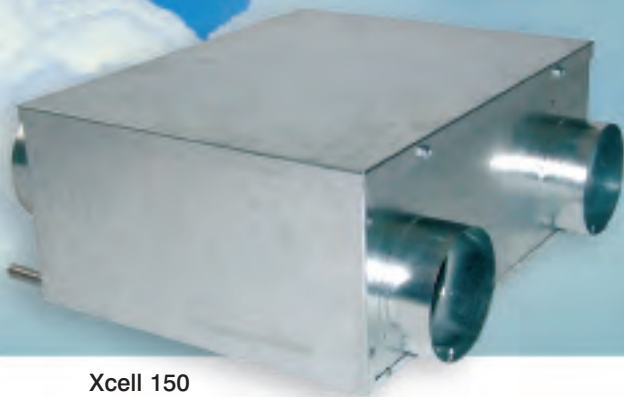
Dimensions (mm)



- Speed 1 (Blue)
- Speed 2 (Red)
- Speed 3 (Dark Blue)
- Speed 4 (Orange)
- Speed 5 (Green)
- Speed 6 (Pink)
- Speed 7 (Purple)
- Speed 8 (Yellow)

Xpelair Xcell 150 Low Profile

Hideaway heat recovery unit MVHR



Xcell 150



Xcell 150V

Key features

Type:	Continuous mechanical supply and extract with heat recovery MVHR
Application:	Wholehouse system
Control options:	2 speeds from 4
Legislation:	Building Regulations Part F1
Spigot diameter:	125mm dia. or Profile 60 ductwork

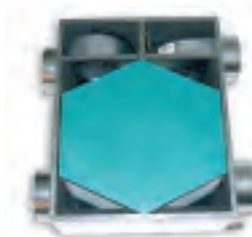
The Range

Designed for the smaller dwelling the New Xpelair **Xcell 150** is a slimline unit designed for horizontal or vertical installation where space is at a premium. It is ideal for recessed fitting in ceilings, in a coat cupboard or in lofts with limited space.

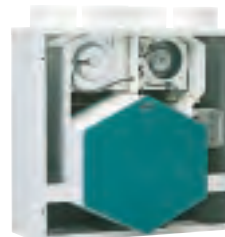
Xcell 150V is a vertical version with all spigots on top of the unit, making it particularly suitable for installation in kitchen cupboards.

Fitted with one of the most efficient heat recovery cells available, the **Xcell 150** has multispeed fans which can be set according to the volume of the home, and a compact antibacterial condensate drain system.

Xcell 150R is fitted with 'system-side' Profile 60 multi spigots for direct connection to Xpelair flat ducting.



Xcell 150 internal



Xcell 150V internal

Select the right product for your application

		Xcell 150	Xcell 150R	Xcell 150V
Reference number		91981AA	91976AA	92004AA
Max house volume (m ³)		300	300	300
Room side spigots		circular	rectangular	circular
House side spigot size (mm)		Ø125	204 x 60	Ø125
External spigot size (mm)		Ø125	204 x 60	Ø125
Efficiency (%)		92	92	92
No. speeds		4	4	4
Performance (m ³ /h)	4	150	150	150
	3	130	130	130
	2	100	100	100
	1	60	60	60
Max sound pressure (dB(A)@3m)	high	34	34	34
	low	27	27	27
Power (W)	high	146	146	146
	low	67	67	67
Roof space fitment		■	■	■
Horizontal installation		■	■	
Vertical installation				■
Weight (kg)		25	25	25
Guarantee (years)		3	3	3

Models

Xpelair Xcell 150

Ref. 91981AA

- Slimline insulated steel case with sealed access panel. Suitable for ceiling or loft mounting in confined spaces
- High efficiency counterflow heat recovery cell with up to 92% efficiency depending on volume setting
- Multispeed single inlet centrifugal fans for whisper quiet performance. Speeds are selected at installation based on the required volume/duty of the dwelling in accordance with Building Regulation Part F1
- A remotely fitted low/boost switch is provided with the unit
- Hygienic anti-bacterial condensate tray and outlet
- Fitted with 125mm spigots
- 6mm wire frame with EU 2 media panel
- Condensate rates: Typical=0.4 l/h, max=0.8 l/h

Xpelair Xcell 150R

Ref. 91976AA

- As Xcell 150
- Fitted with four flat duct spigots for connection to Profile 60 duct

Xpelair Xcell 150V

Ref. 92004AA

- As Xcell 150
- Designed for vertical installation with all spigots on top of unit

Options:

- Anti-vibration pads for loft mounting

Controllers

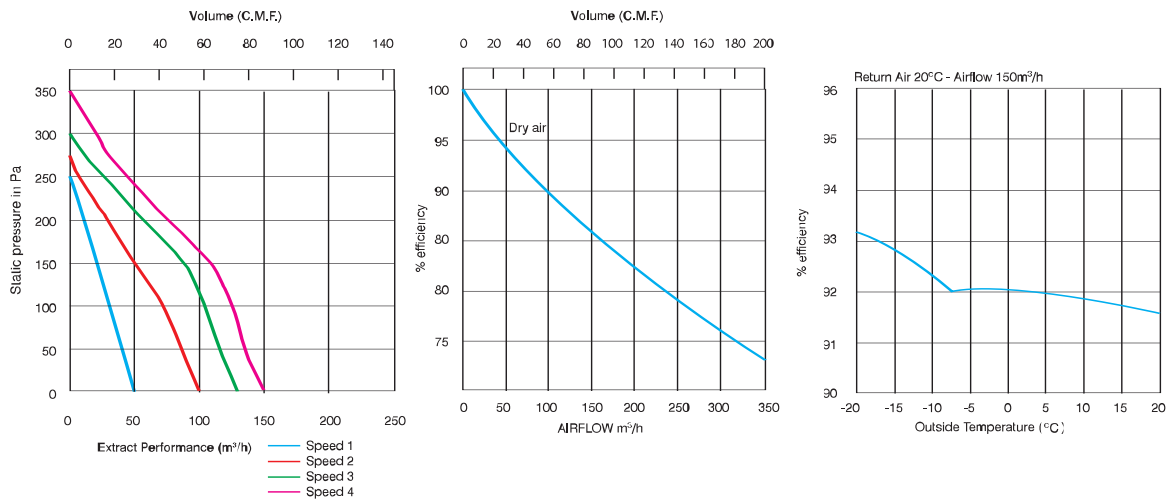
Included as standard

- The wall mounted single gang controller is fitted remotely in a convenient position for the user to select trickle or boost speed. The speeds are selected at installation from the 4 available according to the duty requirements of the dwelling



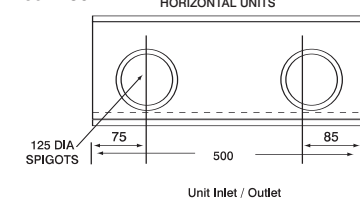
Typical Specifications on page 167.
Wiring Diagrams on page 184.

Performance

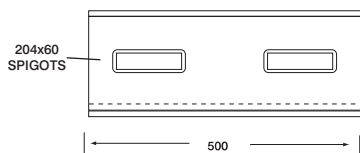


Dimensions (mm)

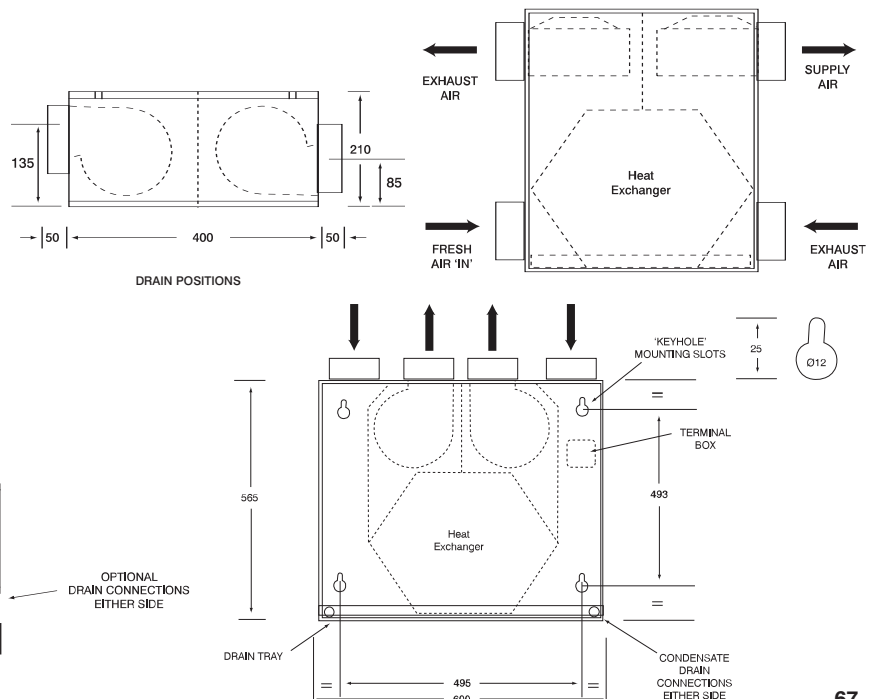
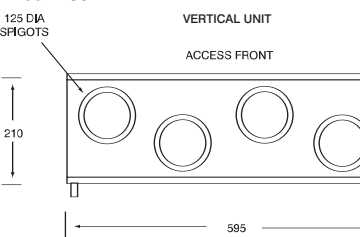
Xcell 150



Xcell 150R

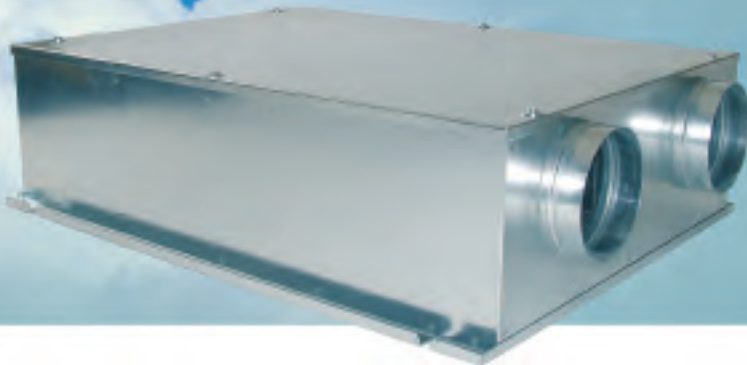


Xcell 150V



Xpelair Xcell 200 Low Profile

Hideaway heat recovery unit



Key features

Type:	Mechanical ventilation with heat recovery
Application:	Wholehouse system
Control options:	2 speed from 4
Legislation:	Building Regulations Part F1, BRE Digest 398 (1994)
Spigot diameter:	150mm or profile 60 ductwork

The Range

Designed for the smaller dwelling the New Xpelair **Xcell 200** is ideal for recessed fitting in ceilings in a coat cupboard, or in lofts with limited space.

Fitted with one of the most efficient heat recovery cells available, the **Xcell 200** has multispeed fans which can be set according to the volume of the home, and a compact antibacterial condensate drain system.

Xcell 200R is fitted with 'system-side' Profile 60 multi spigots for direct connection to Xpelair flat ducting.

Versions with a motorised summer 100% bypass are available. These use cool summer evening air to give 'free' cooling when the outside air temperature is lower than indoors.

The Slimline unit is designed for horizontal installation where space is at a premium.

An easy access cover allows top or bottom access for inspection of the filters.

Options include:

An electric or hot water heater maintains a constant input air temperature irrespective of the outside conditions.

Select the right product for your application

		Xcell 200	Xcell 200R	Xcell 200BP	Xcell 200RBP
Reference number		91977AA	91978AA	91979AA	91980AA
Max house volume (m ³)		480	480	480	480
Room side spigots		circular	rectangular	circular	rectangular
House side spigot size (mm)		Ø150	204 x 60	Ø150	204 x 60
External spigot size (mm)		Ø150	204 x 60	Ø150	204 x 60
Summer by-pass				■	■
Efficiency (%)		92	92	92	92
No. speeds		4	4	4	4
Performance (m ³ /h)	4	240	240	240	240
	3	205	205	205	205
	2	150	150	150	150
	1	90	90	90	90
Max static pressure (Pa)	high	350	350	350	350
Max sound pressure (dB(A)@3m)	high	38	38	38	38
	low	30	30	30	30
Power (W)	high	260	260	260	260
	low	110	110	110	110
Roof space fitment		■	■	■	■
Weight (kg)		40	40	40	40
Guarantee (years)		3	3	3	3

Models

Xcell 200

Ref. 91977AA

- Slimline insulated steel case with sealed access panel. Suitable for ceiling or loft mounting in confined spaces
- High efficiency counterflow heat recovery cell with up to 92% efficiency depending on volume setting
- Multi-speed double inlet centrifugal fans for whisper quiet performance. Speeds are selected at installation based on the required volume/duty of the dwelling in accordance with Building Regulations Part F1. A remotely fitted low/boost switch is provided with the unit
- Xcell filters
- Hygienic anti-bacterial condensate tray and outlet
- 150mm diameter circular spigots
- Cardboard frame with EU 4 pleated media panel

- Condensate rates: Typical=0.65 l/h, max=1.3 l/h

Xcell 200R

Ref. 91978AA

- As Xcell 200 except for rectangular roomside spigots suitable for Profile 60 ducting

Xcell 200BP

Ref. 91979AA

- As Xcell 200
- Plus built in motorised summer by-pass

Xcell 200RBP

Ref. 91980AA

- As Xcell 200R
- Plus built in motorised summer by-pass

Controllers

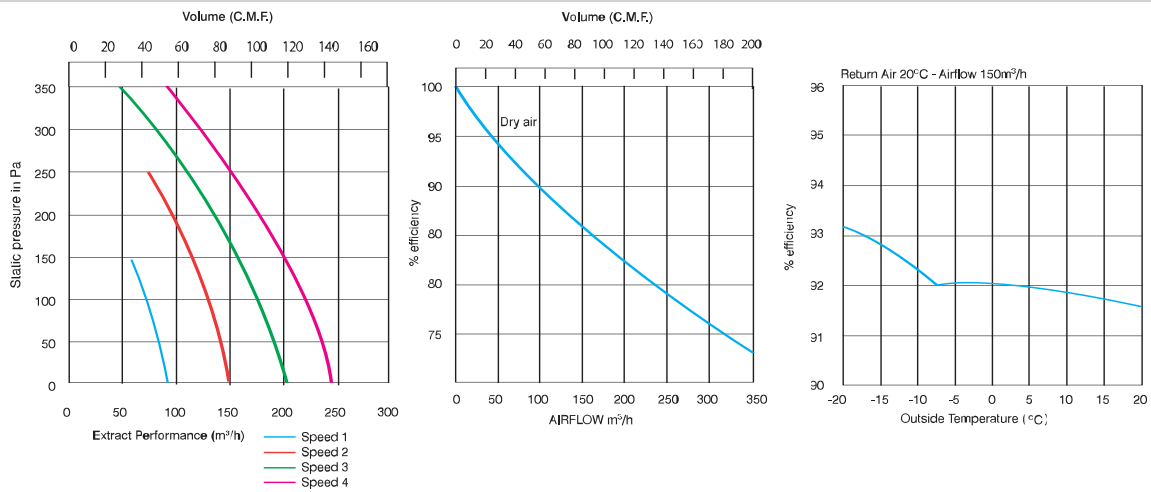
Included as standard

- The wall mounted single gang controller is fitted remotely in a convenient position for the user to select trickle or boost speed. The speeds are selected at installation from the 4 available according to the duty requirements of the dwelling

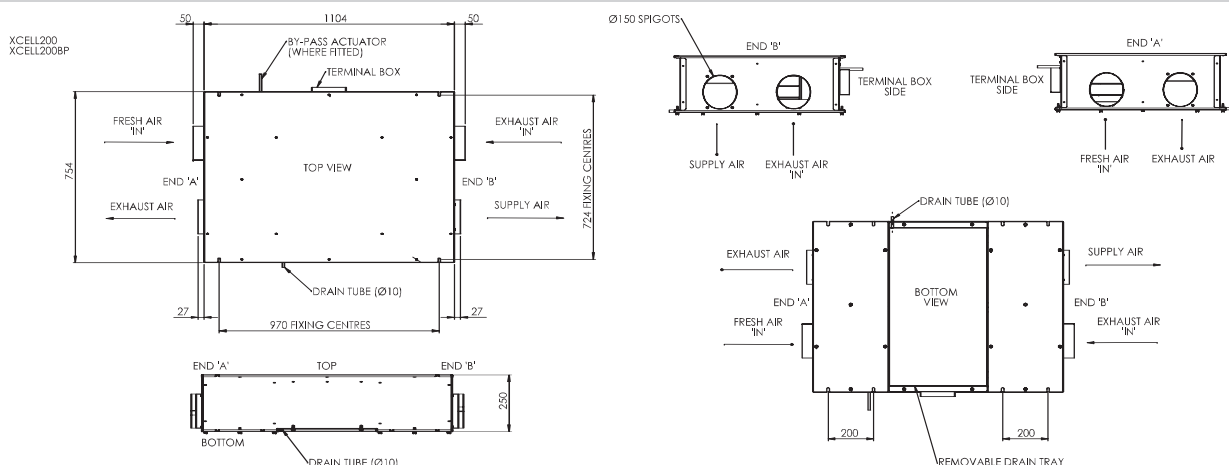


Typical Specifications on page 167.
Wiring Diagrams on page 184.

Performance



Dimensions (mm)



Installation and Accessories

Must be carried out by a competent person and in accordance with appropriate Building and Wiring Regulations.

The ductwork is normally installed at the first fix stage of the building process. Typically, circular Profile 150 insulated duct is fitted to draw air from the bathroom and en-suite(s) upstairs. The kitchen ceiling vent and cloakroom are served

by Profile 60 ducts concealed in the first floor studwork.

The 90% efficient heat recovery cell is fitted with a condensate tray and outlet pipe which is connected to the household waste system. Xpelair ReguAir inlets provide the chosen volume for the room with an unrestricted filtered grille fitted in the kitchen.

On the input side similar ductwork supply air to diffusers installed in the bedrooms and lounge or hall.

Boost speed can be selected by means of a manual switch sensor. ReguAir exhaust valves can be selected with built in humidistat or timers.

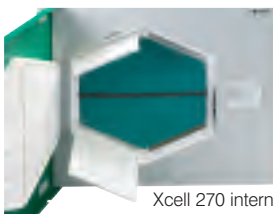
Xpelair Xcell 270

DC wholehouse heat recovery unit



Key features

Type:	Mechanical ventilation with heat recovery
Application:	Wholehouse system
Control options:	3 speeds from 12
Legislation:	Building Regulations Part F1, SAP Appendix Q, Energy Saving Trust Best Practice
Spigot diameter:	150mm



Xcell 270 internal filters

Select the right product for your application

	Xcell270	Xcell270BP
Reference number	91264AW	91265AW
Max house volume (m ³)	540	540
Summer bypass	■	■
UltraDC motor	■	■
Efficiency (%)	90	90
Speeds selected during installation	3	3
Typical Performance (m ³ h)		
high	290	290
med	175	175
low	110	110
Max static pressure (Pa)	300	300
Max sound pressure (dB(A)@1m)		
high	47.7	47.7
medium	39.7	39.7
low	32.2	32.2
Power (W)		
high	180	180
low	40	40
Wall mounting	■	■
Roof space fitment	■	■
Spigot diameter (mm)	150	150
Colour	beige	beige
Weight (kg)	31	31
Guarantee (years, UK)	5	5

The Range

New building regulations are striving to improve energy efficiency in the home and reduce CO₂ emissions. Part L places greater emphasis on airtightness in new homes to reduce the energy loss through uncontrolled air leakage, so the need for an intelligent controlled ventilation strategy is becoming more critical.

Wholehouse ventilation with heat recovery, is often referred to as MVHR. It provides a constant background flow of fresh tempered air to the living spaces of a 'tight home' whilst extracting condensation, smells, tobacco smoke and volatile organic compounds via kitchens, bathrooms, utility rooms and toilets. The resultant lower humidity deprives the house dustmite the conditions in which to breed, thus contributing to a healthier environment. The Xpelair **Xcell 270** is one of a new breed of high efficiency MVHR units designed to save energy and function reliably with extremely low running costs. It maintains a cosy indoor environment during the colder months and provides an 'aired' feeling even when the building has

been closed up for long periods. The Xpelair cell is housed in an insulated cabinet and integral filters are designed to make access to the cell unnecessary - keeping maintenance to a minimum. Xpelair **UltraDC** fan units not only ensure a low running cost but they are also much more efficient than ac motors - keeping energy usage down.

A choice of ten preset performance programmes enables flexible control over air quality and when combined with a manual switch or automatic sensor, the ventilation rate can be increased temporarily to reduce humidity - perfect for bath and shower rooms.

Fitted with a fan failsafe interlink, if one fan is stopped, the other will automatically switch off - particularly important in homes with open fires or unvented boilers. Housed in a stylish cabinet, the **Xcell 270** can be unobtrusively mounted in an airing cupboard, on a kitchen wall or within a roof space.

Models

Xcell 270 Whole House Mechanical Ventilation and Heat Recovery (MVHR) unit Ref. 91264AW

- Wall hanging bracket provided
- Steel powder coated cabinet
- Beige finish
- High density foam insulated cabinet lining/scroll construction with built in double sided condensate tray with choice of drain positions
- Polymeric, robotically assembled heat recovery cell with bonded seals to eliminate cross air leakage
- ContraFlow cell design providing heat recovery efficiently up to 95% (Independent TZWL laboratory tests)
- Two stage 1 G4 filters, which are removable for easy cleaning
- Hinged access door for access to the cell and filters
- 3 speeds from 12 available (via on board dip switches to suit dwelling volume) or low with switched higher speed. Factory set at the three most popular outlet settings

- Motors are UltraDC, maintenance free with sealed for life bearings
- The integrated electronic control system ensures equal constant outputs from both sides of the ducted resistances of the unit
- XFFI system automatically switches both fans off if one fan fails to rotate
- Complete with pre-wired connection cable

Xcell 270BP with Summer Bypass Ref. 91265AW

- All the features of Xcell 270 plus a built in summer by pass which diverts the incoming air directly into the dwelling without passing through the heat exchange cell
- During hot periods this ensures that comparatively cooler incoming fresh air is not further heated by warmer air exhausted from the dwelling
- This is particularly useful on summer evening when the outside temperature falls faster than that inside

Controllers

Three speed selector switch

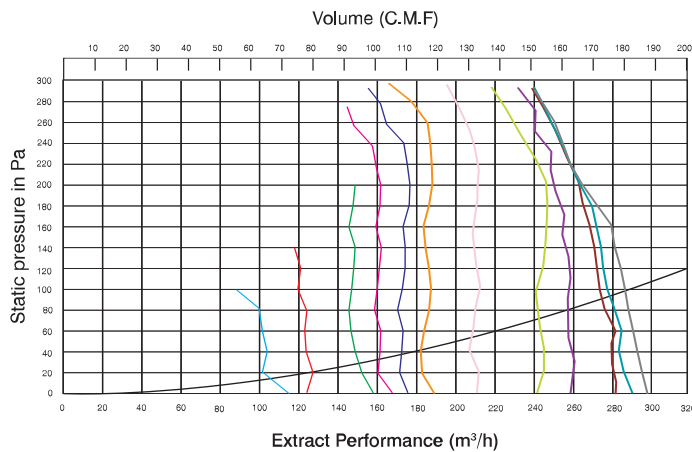
Ref. 91266AW

- Three speed selector switch for low (night-time), medium (daytime) and high (boost setting)
- Dimensions w81 x h152 x d62mm



Typical Specifications on page 167.
Wiring Diagrams on page 185.

Performance

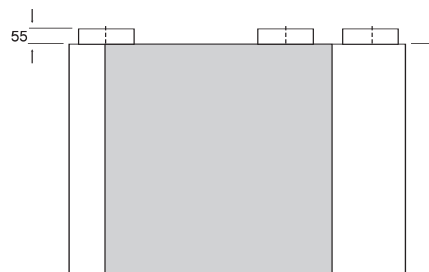
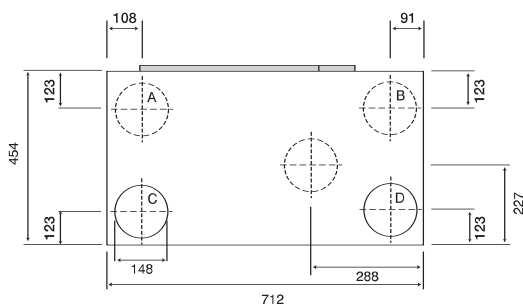


95% average efficiency

Energy efficiency is achieved using the Xcell 95% efficient ContraFlow heat exchange cell which transfers heat from the extracted air and preheats the incoming flow ensuring a fresher, drier, tempered atmosphere.

- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5
- Speed 6
- Speed 7
- Speed 8
- Speed 9
- Speed 10
- Speed 11
- Speed 12

Dimensions (mm)



- A - Exhaust air (into unit)
- B - Fresh air (into unit)
- C - Supply air (from unit)
- D - Exhaust air (from unit)

Installation and Accessories

Installation must be carried out by a competent person and in accordance with appropriate Building and Wiring Regulations.

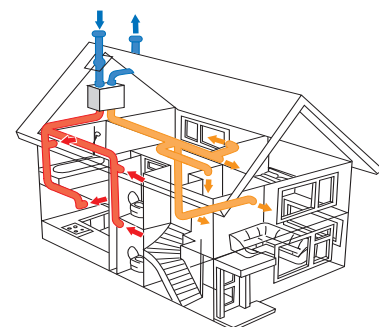
The ductwork is normally installed at the first fix stage of the building process. Typically, circular Profile 150 insulated duct is fitted to draw air from the bathroom and en-suite(s) upstairs. The kitchen ceiling vent and cloakroom are served by Profile 60 ducts concealed in the first floor studwork.

The 90% efficient heat recovery cell is fitted with a condensate tray and outlet pipe which

is connected to the household waste system. Xpelair RegulAir inlets provide the chosen volume for the room with an unrestricted filtered grille fitted in the kitchen.

On the input side similar ductwork supply air to diffusers installed in the bedrooms and lounge or hall.

Boost speed can be selected by means of a manual switch sensor. RegulAir exhaust valves can be selected with built in humidistat or timers.



Schematic diagram of a typical wholehouse MVHR installation

Xpelair Xcell 300 & 400

DC wholehouse heat recovery units



Key features

Type:	Mechanical ventilation with heat recovery
Application:	Wholehouse system
Control options:	3 speed
Legislation:	Building Regulations Part F1
Spigot diameter:	150mm (Xcell 300) 180mm (Xcell 400)



Easy access

Replacement filters

Spigots can be repositioned

The Range

Meeting improved energy efficiency requirements for new homes combines efficient heating, insulation, better air tightness and a controlled ventilation strategy. An integrated, new generation, high efficiency wholehouse heat recovery system is by far the most efficient ventilation solution for new 'tight' buildings.

A 90% efficient wholehouse heat recovery unit for larger properties.

The Xpelair **Xcell 300** and **400** are ideal for larger properties in order to meet Part F1 requirements.

As the extract points are in the 'wet rooms' – bathrooms, en-suites, cloakroom and kitchen, the air change rates in these individual rooms will be substantially higher.

At the heart of the unit is a 90% efficient heat recovery cell which transfers the heat from the outgoing exhaust airflow to the incoming fresh air whilst keeping the two flows separated. As the temperature of the outgoing air drops, it reaches dew point and gives up condensate. The warming process to the incoming air reduces its RH ensuring a fresh, condensation free indoor environment. The unit features UltraDC motors designed for continuous operation and exceptionally low running costs. The unit design allows the outlet spigots to be set vertically or horizontally to suit site conditions. The unit is fitted with two cell pre-filters which are user accessible from the outside and without having to isolate the unit.

Select the right product for your application

		Xcell 300	Xcell 300BP	Xcell 400	Xcell 400BP
Reference number		91267AW	91268AW	91269AW	91270AW
Max house volume (m ³)		600	600	800	800
Summer bypass			■		■
UltraDC motor		■	■	■	■
Efficiency (%)		90	90	90	90
Speeds selected during installation		3	3	3	3
Typical performance (m ³ h)	high	300	300	400	400
	med	200	200	200	200
	low	100	100	100	100
Max static pressure (Pa)	high	200	200	150	150
Max sound pressure (dB(A)@3m)	high	45	45	51	51
Power (W)	high	185	185	241	241
	low	47	47	31	31
Roof space fitment		■	■	■	■
Spigot diameter (mm)		150	150	180	180
Colour		white	white	white	white
Weight (kg)		32	32	32	32
Guarantee (years, UK)		5	5	5	5

Models

Xcell 300

Ref. 91267AW

- 300m³/h MVHR Unit at 200Pa
- 90% efficient heat transfer cell
- Corrosion resistant aluminium construction
- Automatic defrost protection
- Longlife low noise backward curved DC motor/impeller sets
- Integral condensate drain and pipe
- Vertical and horizontal option separately at all spigots
- 150mm spigots accept Xflex TFD insulated duct or Profile 150 duct
- Neon function indicator
- Two user accessible G3 cell pre filters that are washable
- Polypropylene casing, fire retardant to class B1/B2
- Cold bridging free
- Internal acoustic insulation
- Finished in RAL 9002 White
- Fitted with flying lead

Xcell 400

Ref. 91269AW

- Features over the Xcell 300
- 400m³/h MVHR unit at 150Pa
- 180mm spigots accepts Xflex TFD insulated

Test data

- Efficiency independently tested to NEN 5138 by TZWL. Efficiency 91% with an energy usage of 47W

Summer bypass Xcell 300BP

Ref. 91268AW

Summer bypass Xcell 400BP

Ref. 91270AW

- Features over the Xcell 300/400
- Units with factory fitted summer bypass are available to special order. Includes automatic control which opens bypass when the outside temperature is over 15°C and the inside temperature is over 20°C

Controllers

Three Speed Controller

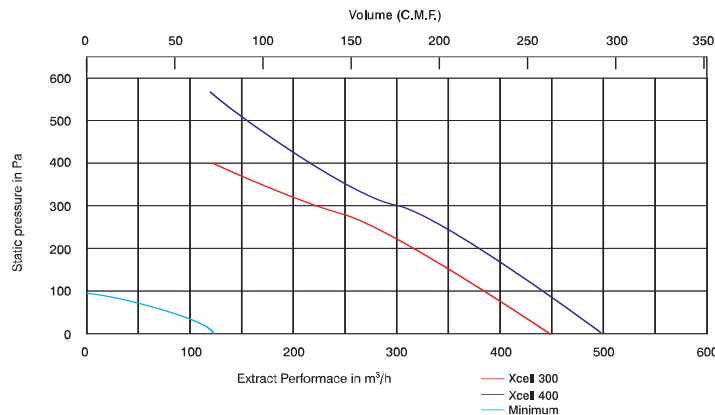
Ref. 91457AA

- 3 speed selector switch for low (night-time), medium (daytime) and high (boost setting)



Typical Specifications on page 167.
Wiring Diagrams on page 185.

Performance



Electrical characteristics Xcell 300

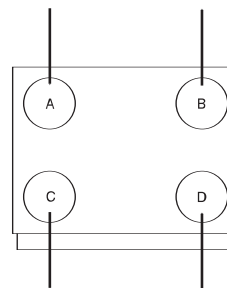
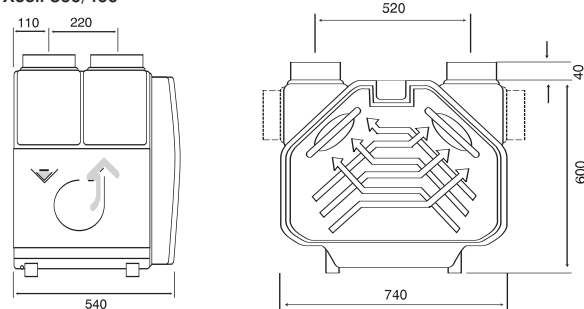
Volume	Pst(Pa)	Amps	Watts
100	100	0.3	47
150	125	0.4	65
200	150	0.6	101
250	250	1.1	175
300	200	1.1	185

Electrical characteristics Xcell 400

Volume	Pst(Pa)	Amps	Watts
100	45	0.3	31
170	50	0.3	49
270	90	0.7	103
300	110	0.8	133
400	150	1.5	241

Dimensions (mm)

Xcell 300/400



- A - Exhaust air from house
- B - Fresh air from outside
- C - Supply air to dwelling
- D - Exhaust air to outside

Installation and Accessories

Installation must be carried out by a competent person and in accordance with appropriate Building and Wiring Regulations.

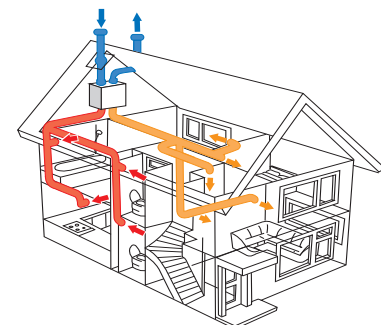
The ductwork is normally installed at the first fix stage of the building process. Typically, circular Profile 150 insulated duct is fitted to draw air from the bathroom and en-suite(s) upstairs. The kitchen ceiling vent and cloakroom are served by Profile 60 ducts concealed in the first floor studwork.

The 90% efficient heat recovery cell is fitted with a condensate tray and outlet pipe which

is connected to the household waste system. Xpelair RegulAir inlets provide the chosen volume for the room with an unrestricted filtered grille fitted in the kitchen.

On the input side similar ductwork supply air to diffusers installed in the bedrooms, lounge and living room.

Boost speed can be selected by means of a manual switch sensor. RegulAir exhaust valves can be selected with built in humidistat or timers.



Schematic diagram of a typical wholehouse MVHR installation

Xpelair Xcell 600 Low Profile

Hideaway heat recovery unit



Key features

Type:	Mechanical ventilation with heat recovery
Application:	Wholehouse system
Control options:	2 speed from 6 available
Legislation:	Building Regulations Part F1
Spigot diameter:	200mm

The Range

Designed for the larger property, the New Xpelair **Xcell 600** provides high performance and excellent heat recovery efficiency.

Xcell 600 is Xpelair's largest wholehouse heat recovery unit, suitable for large domestic applications. Also suitable for commercial installation. **Xcell 600** features multi-speed fans chosen for their quiet operation and proven reliability. The heat recovery cell is a high efficiency design having a typical energy recovery rate of 70%. The unit is fitted with two heavy duty filters, and an anti-bacterial stainless steel outlet on condensate tray.

The assembly is housed in a commercial quality case lined with non hygroscopic thermal/acoustic insulation complying with London Borough and CAA airport authority flammability and toxicity requirements.

Xcell 600BP has a built-in motorised summer 100% bypass. This uses cool summer evening air to give 'free' cooling when the outside air temperature is lower than indoors.

A remotely positioned speed selector is provided with the unit.

Select the right product for your application

		Xcell 600	Xcell 600BP
Reference number		92002AA	92003AA
Max house volume (m ³)		1620	1620
Room side spigots		circular	circular
House side spigot size (mm)		Ø200	Ø200
External spigot size (mm)		Ø200	Ø200
Summer by-pass		■	■
Efficiency (%)		70	70
No. speeds		6	6
Performance (m ³ /h)	6	522	522
	5	485	485
	4	446	446
	3	399	399
	2	335	335
	1	223	223
Max static pressure (Pa)	high	352	352
Max sound pressure (dB(A)@3m)	high	34	34
	low	28	28
Power (W)	high	339	339
	low	90	90
Roof space fitment		■	■
Weight (kg)		42	42
Guarantee (years)		3	3

Models

Xcell 600

Ref. 92002AA

- Slimline insulated steel case with sealed access panel. Suitable for ceiling or loft mounting
- High efficiency crossflow heat recovery cell with up to 70% efficiency depending on volume setting
- Multispeed double inlet centrifugal fans for whisper quiet performance. Speeds are selected at installation based on the required volume/duty of the dwelling in accordance with Building Regulations Part F1. A remotely fitted low/boost switch is provided with the unit
- Xcell filters
- Hygienic anti-bacterial condensate tray and outlet
- 200mm diameter circular spigots
- Cardboard frame with EU 4 pleated media panel

- Condensate rates: Typical=1.2 l/h, max=2.4 l/h

Xcell 600BP

Ref. 92003AA

- As Xcell 600
- Plus built in motorised summer by-pass

Typical Specifications on page 168.
Wiring Diagrams on page 185.

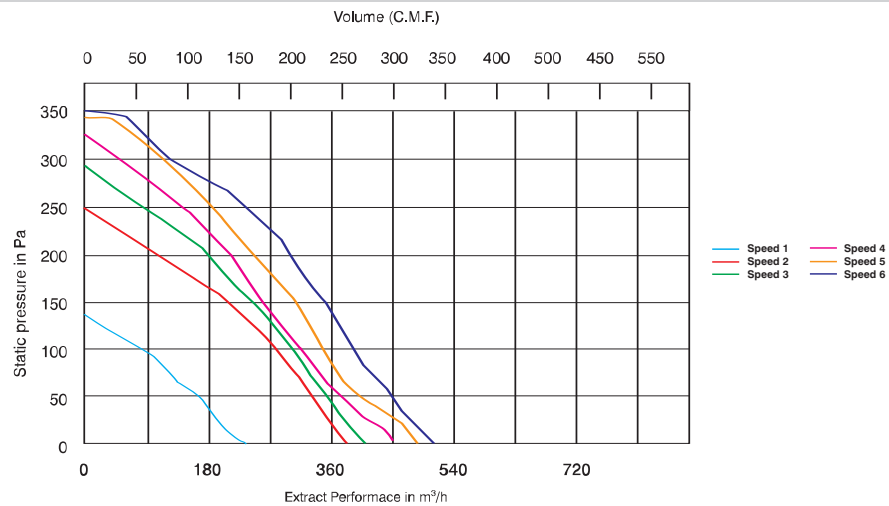
Controllers

Included as standard

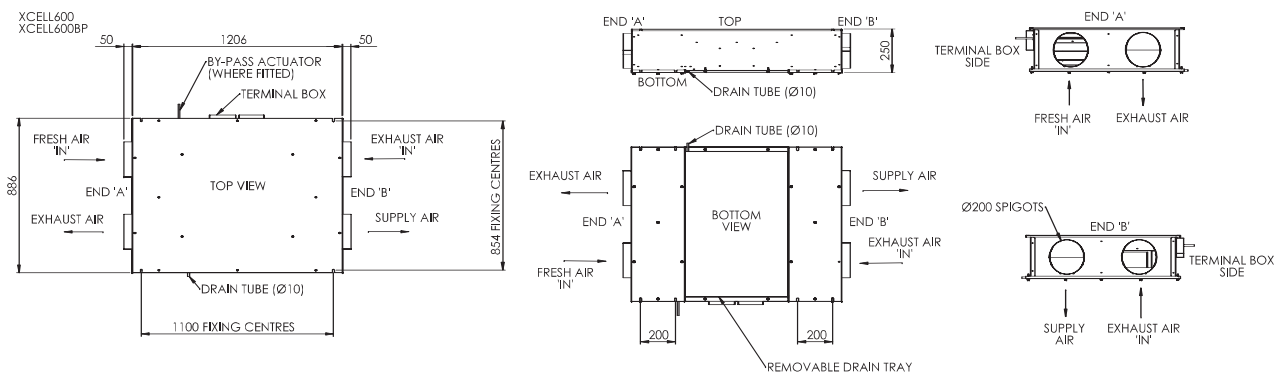
- The wall mounted single gang controller is fitted remotely in a convenient position for the user to select trickle or boost speed. The speeds are selected at installation according to the duty requirements of the dwelling



Performance



Dimensions (mm)



Installation and Accessories

Must be carried out by a competent person and in accordance with appropriate Building and Wiring Regulations.

The ductwork is normally installed at the first fix stage of the building process. Typically, circular Profile 150 insulated duct is fitted to draw air from the bathroom and en-suite(s) upstairs. The kitchen ceiling vent and cloakroom are served

by Profile 60 ducts concealed in the first floor studwork.

The 70% efficient heat recovery cell is fitted with a condensate tray and outlet pipe which is connected to the household waste system. Xpelair ReguAir inlets provide the chosen volume for the room with an unrestricted filtered grille fitted in the kitchen.

On the input side similar ductwork supply air to diffusers installed in the bedrooms and lounge or hall.

Boost speed can be selected by means of a manual switch sensor. ReguAir exhaust valves can be selected with built in humidistat or timers.

Xpelair Profile 150

Heat recovery duct systems



Key features

Type:	Ducting system
Application:	Mechanical ventilation with heat recovery
Duct Diameter:	150mm

The Range

An efficient wholehouse heat recovery system is only as good as the duct work that serves it. Reclaimed warmth can be lost before the air reaches the living spaces through poorly insulated ductwork.

Xpelair **Profile 150** ideally compliments the Xpelair Xcell range of Mechanical Ventilation with Heat Recovery (MVHR) units. Designed for quick, easy and mess free installation in domestic and commercial applications. Suitable for use in unheated spaces.

The thick but flexible foam system is lightweight, fire retardant and slim in profile. Straight ducts are supplied in 2.5m lengths and a full range of collar fit bends are available.

Appropriate lengths are cut using a cross-cut saw or knife, and using the collars, pushed together to build a system that is well insulated and very robust.

Where the system is connected to a terminal spigot or where periodic inspection is necessary, SnapClamp collars engage tightly or release completely in seconds allowing fast fitting and release as necessary.

A range of matching cowed terminations is available.



Fast and easy fitting

Models

Profile 150 System

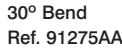
- Lightweight insulated ducting system in convenient 2.5m lengths with little wastage
- Material: vapour resistant EPE. Self extinguishing Class BI, DIN4102
- Density: 50kg/m³
- Heat transfer coefficient 0,040 W/m² at 0°C in accordance with DIN 52613
- Temperature range -40 to +100°C
- Attenuates sound
- Ductwork lengths are sufficiently flexible to get through awkward openings
- Full range of bends available
- Colour anthracite
- See also: two way splitters and roof terminations



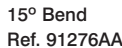
90° Bend
Ref. 91273AA



45° Bend
Ref. 91274AA



30° Bend
Ref. 91275AA



15° Bend
Ref. 91276AA



Pushfit Collar
Ref. 91279AA

- Simple push fit
- Centre stop
- Collar length 10mm



Y Piece Splitters

100 x 100 x 150mm	Ref. 91282AA
125 x 125 x 150mm	Ref. 91284AA
150 x 150 x 150mm	Ref. 91285AA
150 x 150 x 200mm	Ref. 91286AA



Roof Cowl
Ref. 91277AA

- Outlet cowl complete with flashing
- For roof pitch 25-45°
- Insulated, self extinguishing EPS
- Colour: black
- 160mm diameter (135mm not including foam lining)



Wall Cowl
Ref. 91278AA

- Weather protected wall cowl
- Ideal for exposed locations
- Manufactured in PVC
- Colour: brown

Profile 150 Components



Straight Duct
Ref. 91272AA

- Length 2.5m
- i/d 150mm
- o/d 180mm



SnapClamp Duct Collar
Ref. 91280AA

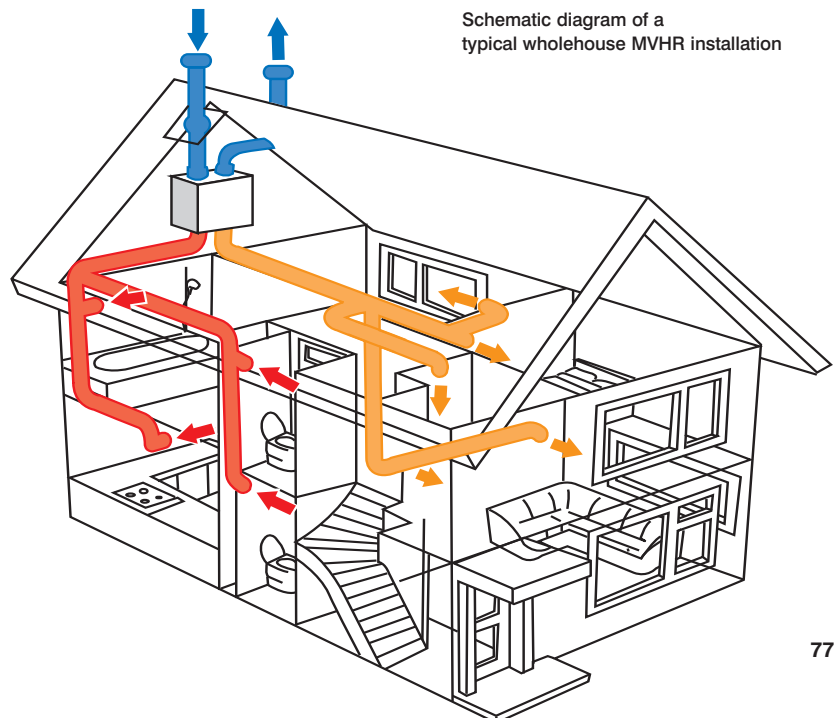
- Used where Profile 150 ducts need to be disconnected from an MVHR unit for servicing or cleaning.
- Overcentre clamp fits firmly when engaged

Performance

Resistance at 225m³/h

Component	Resistance (Pa)
Roof cowl as outlet	1.9
Roof cowl as intake	-26.8
Wall cowl as intake	-31.3
Duct per metre	1.4
90° bend	5.3
45° bend	3.4
15° bend	0.4

Typical Specifications on page 168.



Xpelair SystemX

Wholehouse heat recovery ducting kits

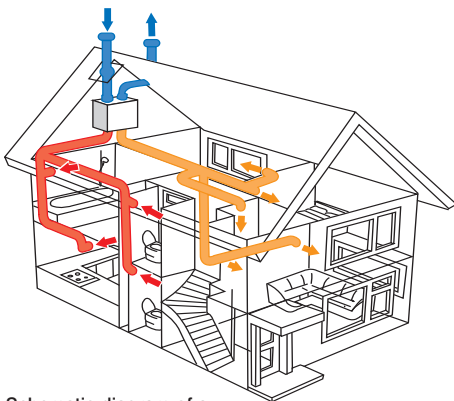


Photograph highlights some of the components in System X

Key features

Type: **Ducting system**

Application: **Mechanical ventilation with heat recovery**



Schematic diagram of a typical wholehouse MVHR installation

The Range

Xpelair Xcell wholehouse heat recovery units feature over 90% heat transfer efficiencies and low running cost 'LongLife' dc motors. To ensure that as much of this valuable heat energy gain is delivered back to the living areas, Xpelair has developed two **SystemX** kits which contain all the main ductwork components needed for a standard three or four bedroom two level new home. Kit 3 is suitable for a typical 3 bedroom home and Kit 4 is suitable for a typical 4 bedroom home.

Not only does this simplify the specification but the kits offer substantial savings over the cost of the individual components.

The systems are based on a low pressure drop design, aiming to keep the air paths as large as possible and providing the main resistance at the inlets and outlets.

The kits consist of Profile 150 and Xflex TFD components for ducting in uninsulated cold areas such as the loft, Profile 60 components for vertical risers in stud walls and other vertical voids, and splitters and RegulAir intake and outlet terminations for wet rooms and living areas.

Site conditions will inevitably mean that a few components more or less will be required to complete the project. Choose these from the accessory list.

SystemX components are delivered in a series of easy to handle master cartons with first fix items separate from the second fit fixing and grilles.

Because of the grease content, it is recommended that kitchen canopies are not connected to the system. Instead, use a separate extract point at ceiling level.

System X Kits

Xpelair SystemX Kit 3 Ref. 91293AA

Layout assumptions:

- Xcell unit in the airing cupboard on first floor
- Exhaust from family bathroom and one ensuite on first floor, kitchen general vent and cloak room on ground floor
- Intake to three bedrooms on first floor and hall or lounge on ground floor
- 2 external terminations are required but not included. Use either roof cowl or wall termination set

Comprises:

First fix

- 5x 2.5m Profile 150 straight duct
- 2x Profile 150 90° bend
- 2x Pushfit collar
- 4x SnapClamp collar
- 1x 150x150x150 Y splitter

- 3x 150x125x125 Y splitter
- 2x 125x125x125 Y splitter
- 1x 10m Xflex TFD125
- 26x Worm drive clip
- 13x Profile 60 flat duct
- 6x Profile 60 plenum box
- 9x Profile 60 coupling
- 3x Profile 60 vertical 90° bend
- 1x Profile 60 T piece
- 1x Profile 60 adjustable horizontal bend
- 26x Profile 60 mounting bracket
- 11x RegulAir ceiling spigot

Second fix

- 2x Kitchen / utility extract grille
- 4x RegulAir XEI 125 input grille
- 1x RegulAir XEP 6-12
- 2x RegulAir XEH 8-16
- 3x RegulAir XEV 8 valve

Roof cowl

Ref. 91277AA

- Profile 150 roof cowl
- 2 off required to complete installation

Wall termination set

Ref. 91455AA

- Required to complete installation:
- 2x 150mm Wall duct WD
 - 2x Wall grille
 - 2x Profile 150 45° bend
 - 2x 2.5m Profile 150 straight duct
 - 2x Pushfit collar

Xpelair SystemX Kit 4

Ref. 91294AA

Layout assumptions:

- Xcell unit in the airing cupboard on first floor
- Exhaust from family bathroom and two en-suites on first floor, kitchen general vent and cloak room on ground floor
- Intake to four bedrooms on first floor and hall and lounge on ground floor
- 2 external terminations are required but not included. Use either roof cowl or wall termination set

Comprises:

First fix

- 8x 2.5m Profile 150 straight duct
- 2x Profile 150 90° bend
- 2x Pushfit collar

4x SnapClamp collar

3x 150x150x150 Y splitter

5x 150x125x125 Y splitter

3x 125x125x125 Y splitter

1x 10m Xflex TFD125

38x Worm drive clip

17x Profile 60 flat duct

9x Profile 60 plenum box

12x Profile 60 coupling

4x Profile 60 vertical 90° bend

1x Profile 60 T piece

1x Profile 60 adjustable horizontal bend

34x Profile 60 mounting bracket

12x RegulAir ceiling spigot

Second fix

- 1x Kitchen / utility extract grille
- 1x RegulAir XEP 6-12

6x RegulAir XEI 125 input grille

1x RegulAir XEP 8-16

3x RegulAir XEH 8-16

5x RegulAir XEV 8 valve

Roof cowl

Ref. 91277AA

- Profile 150 roof cowl
- 2 off required to complete installation

Wall termination set

Ref. 91455AA

Required to complete installation:

- 2x 150mm wall duct WD
- 2x Wall grille
- 2x Profile 150 45° bend
- 2x 2.5m Profile 150 straight duct
- 2x Pushfit collar

Extract and Input Grilles

Extract Grilles

For use in en-suites, bathrooms, kitchens and utility rooms.



RegulAir ceiling spigot

Ref: 91452AA

- A 125mm first fix spigot that fits flush to the ceiling, allowing decoration without masking
- Self supporting - no fixings required
- Complete with rubber seal

RegulAir Exhaust grilles

- Factory set to the exhaust volume requirement for a room. No site balancing is necessary and the performance cannot be tampered with after insulation
- Pushed into the 125mm ceiling adaptor after decorating is complete as part of the second fix. Additional fixings not necessary
- Complete with rubber seal

RegulAir XEE 8-16 bathroom/utility

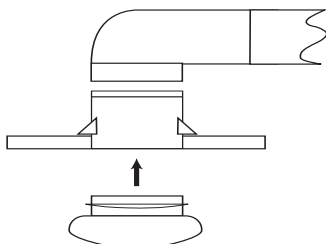
Ref: 91442AA

- Preset volume regulator. 8l/s trickle ventilation
- Electric damper opens to 16l/s

XEK Kitchen / Utility Room extract grille

Ref: 91454AA

- A 125mm frame with removable grille/filter. At least one XEK grille must be used in the system to maintain balanced extract / intake



Ceiling Spigot and regulator intake



RegulAir XEP 8-16 bathroom/utility

Ref: 91444AA

- Preset volume regulator. 8l/s trickle ventilation
- Pullcord opens to 16l/s

RegulAir XEH 8-16 bathroom/utility

Ref: 91445AA

- Preset volume regulator. 8l/s trickle ventilation
- Non electric humidistat opens to 16l/s

RegulAir XEP 6-12 sanitary accommodation

Ref: 91443AA

- Preset volume regulator. 6l/s trickle ventilation
- Pullcord opens to 12l/s



RegulAir XEV 6-12 sanitary accommodation

Ref: 91446AA

- Preset volume regulator. 6l/s trickle ventilation
- PIR opens to 12l/s

Input Grilles

For use in bedrooms, hall and living rooms etc



RegulAir XEI 125 input grille

Ref: 91451AA

- Hinged diffuser 125 with a distribution pattern allowing installation in the corner of the room • 125mm diameter to fit into RegulAir ceiling adaptor
- Also available in 100mm dia

RegulAir XEI 100 input grille

Ref:91450AA



RegulAir XEV induct constant airflow valve.

- Duct mounted regulator maintains a constant return flow volume to bedrooms etc. fits 125mm Profile 150 or Xflex duct

XEV4	4l/s	Ref: 91447AA
XEV8	8l/s	Ref: 91448AA
XEV12	12l/s	Ref: 91449AA

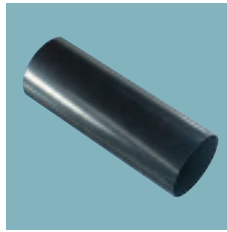
Important One of the return ducts should not be fitted with a constant airflow valve to maintain balance extract / intake. This is normally one of the returns to the ground floor.

Xpelair SystemX Accessories



Spigot Plates SP

- Fixes to inside of exterior wall
- 100mm spigot diameter SP100
Ref. 89697AA
- 125mm spigot diameter SP125
Ref. 89698AA
- 150mm spigot diameter SP150
Ref. 89699AA
- 200mm spigot diameter SP200
Ref. 89700AA
- 250mm spigot diameter SP250
Ref. 89701AA
- 315mm spigot diameter SP315
Ref. 89702AA



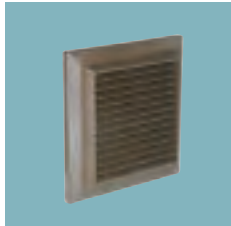
Wall Ducts WD

- For bridging cavities or lining solid exterior walls
- 100mm duct diameter WD100
Ref. 89543AA
- 125mm duct diameter WD125
Ref. 89703AA
- 150mm duct diameter WD150
Ref. 89704AA
- 200mm duct diameter WD200
Ref. 89705AA
- 250mm duct diameter WD250
Ref. 89706AA
- 315mm duct diameter WD315
Ref. 89707AA



Louvred Wall Grille White

Dia
LGW125 125mm Ref. 91492AA



Louvred Wall Grille Brown

Dia
LGB125 125mm Ref. 91493AA



Circular Air Valves CAV

Dia
CAV100 100mm Ref. 89682AA
CAV125 125mm Ref. 91490AA
CAV150 150mm Ref. 89683AA

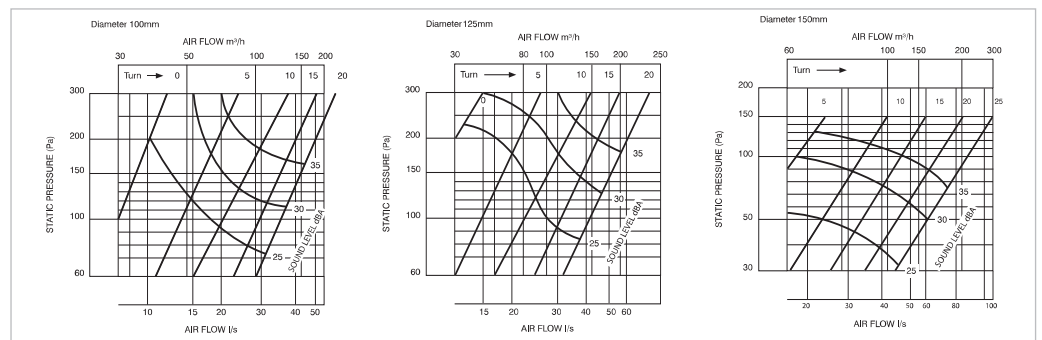
- Valve has adjustable centre disc
- For use with XID100, XID125 and XID150
- Flexible ducting (FD) can be terminated at the valve

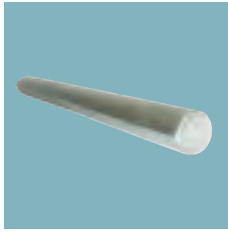


Circular Air Valve with Fire Damper

Dia
CAV125FD 125mm Ref. 91495AA

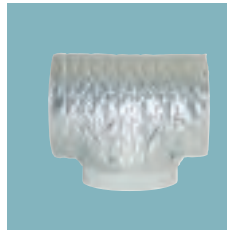
- Valve includes built in fire damper for use in kitchens
- Valve has adjustable centre disc and can be used as outlet for XID125 and Xplus
- Tested to BS476 Part 20 - provides 1 hour fire check





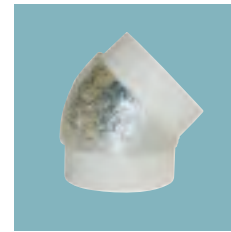
Insulated Circular Plastic Ducts

	Dia	Length	
CPD125	125mm	2m	Ref. 91474AA
CPD150	150mm	2m	Ref. 91475AA



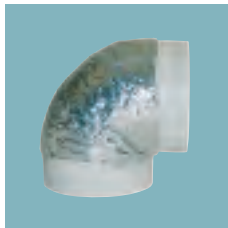
Insulated Circular T-pieces

	Dia	
ICT125	125mm	Ref. 91476AA
ICT150	150mm	Ref. 91477AA



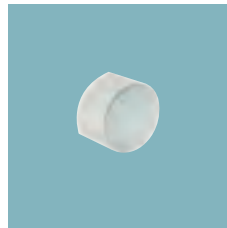
Insulated Circular Plastic 45° Bends

	Dia	
CPE125	125mm	Ref. 91480AA



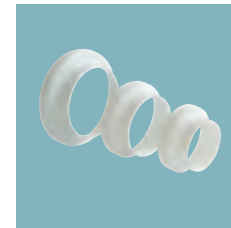
Insulated Circular Plastic 90° Bends

	Dia	
CPB125	125mm	Ref. 91478AA
CPB150	150mm	Ref. 91479AA



Circular Plastic Connectors

	Dia	
CPC125	125mm	Ref. 91485AA
CPC150	150mm	Ref. 91486AA



Circular Plastic Adaptors

	Dia	
CPA125/100	125-100mm	Ref. 91487AA
CPA150/125	150-125mm	Ref. 91488AA
CPA200/150	200-150mm	Ref. 91489AA

Xpelair EverDri LongLife UltraDC

DC positive pressure ventilation



Key features

Type:	Positive input ventilation
Application:	Wholehouse unit
Legislation:	Building Regulations Part F1
Hole diameter:	210mm



The Range

The effects of the moisture created by everyday living can quickly lead to the deterioration of the fabric of a building. Cooking, washing, showering and breathing all create water vapour – up to two gallons for a family of four per day. Without a home being able to ‘breathe’, this moisture has nowhere to go. Mould growth on cooler surfaces like window frames and in unventilated spaces such as the back of wardrobes not only looks bad, it can be bad for your health too.

The **EverDri** system is based on a continuous supply of fresh, dry air into the home. This creates a slight positive pressure which forces moisture and contaminant laden air out through natural leakage points in the building.

The LongLife low energy DC motor contained in the system is permanently

switched on and automatically temperature regulated to ensure continual air quality. The units are designed to meet Public Sector and refurbishment sector requirements for positive pressure ventilation.

Quick and easy to install.

Normally installed in a matter of hours, the units can quickly provide benefits to the entire dwelling.

UltraDC motor means that very low running costs can be achieved while maintaining outstanding efficiency.

The **EverDri** system is ideal for existing properties, particularly those with brick walls without a cavity or insulation and with low or intermittent heating periods.

Select the right product for your application

		XEDL
Reference number		90998AA
Loft spacing installation		■
Wall mounted		
Ducted		■
Integral electric heater		
Supply Performance (m ³ /h)	5	259
	4	216
	3	173
	2	130
	1	86
Supply Performance (l/s)	5	72
	4	60
	3	48
	2	36
	1	24
Power (W)	5	17
	4	13
	3	10
	2	7
	1	4
Guarantee (years, UK)		5

Models

Xpelair XEDL
Ref. 90998AA

- For installation in houses
- Installed in the roof space and ducted to a neat diffuser which is fitted to the ceiling, usually over the stairwell
- The unit draws dry air from the loft space taking advantage of solar gain which tempers the air
- The UltraDC motor is extremely efficient providing very low running costs. The air is filtered and gently introduced through the ceiling diffuser

Controllers

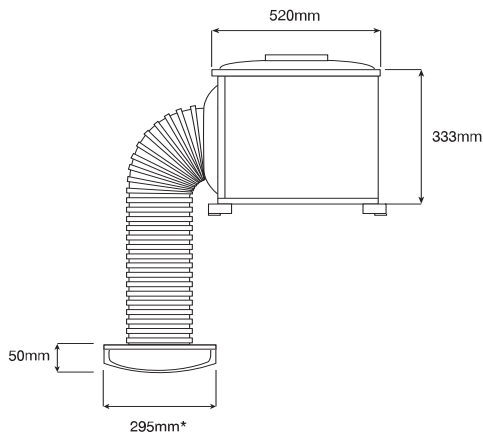
Built-in Controls

- Once the unit has been installed to one of the four extraction rates appropriate to the volume of dwelling there is no need to change any setting. The unit will automatically optimise performance according to temperature

Typical Specifications on page 168.
Wiring Diagrams on page 185.

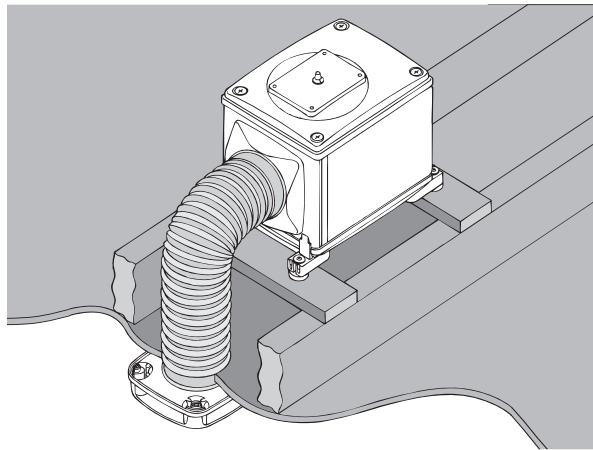
Dimensions (mm)

XEDL



*Maximum dimensions 295 x 295mm

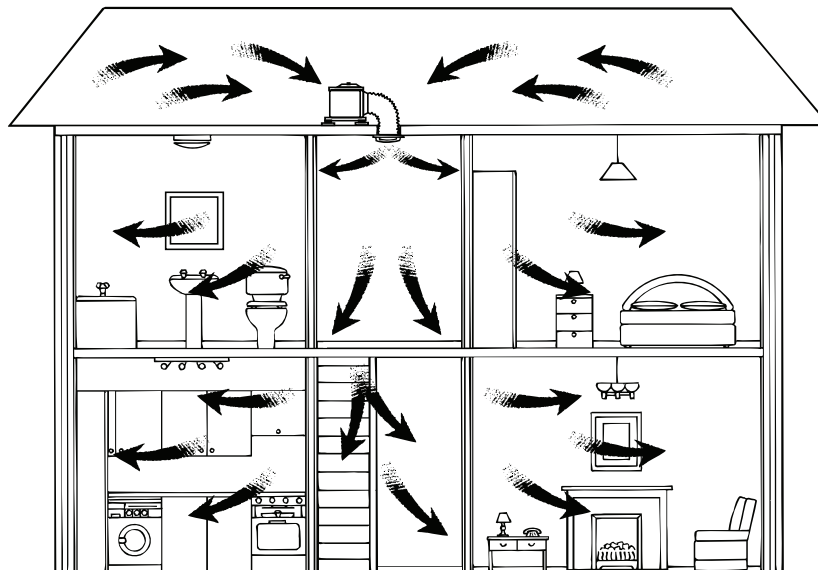
Installation



Standard loft installation
(XEDL with Diffuser)

Air Circulation

XEDL - Loft unit installed in a house



Xpelair LoVolt XHR150

Single room heat recovery ventilator



Carbonlite

Key features

Type:	Mechanical ventilation with heat recovery
Application:	Single room
Control options:	Pullcord/Humidistat
Legislation:	Building Regulations Part F1
Hole diameter:	150mm



The Range

In existing buildings, single room heat recovery ventilators can be quicker and less disruptive to fit than ducted wholehouse heat recovery systems.

Xpelair **LoVolt XHR 150** units can be installed quickly using a standard core drill.

Suitable for domestic applications in bathrooms, utility rooms, bedrooms and living rooms. Also suitable for commercial applications such as hotels, offices and meeting rooms.

Xpelair **LoVolt XHR150** is the energy efficient alternative to extract ventilation. It is an effective remedy for damp problems associated with household condensation.

The two speed unit removes moist air from the room, which then passes through a heat recovery cell, giving up it's heat to the incoming air flow. As it is warmed, the RH reduces dramatically, providing a flow of dry air which in turn acts as a 'sponge' to soak up further moisture in the room. Intake is fixed at less than the extract rate to ensure a slight negative pressure on the room, so that moist air does not migrate to the rest of the dwelling.

XHR150 is more energy efficient than normal fans both in terms of heating and fan running costs. It also complies with current Building Regulations.

Select the right product for your application

		XHR150PC	XHR150HP
Reference number		90821AA	90820AA
Integral pullcord		■	■
Automatic control from remote humidistat			■
Maximum efficiency (%)		80	80
Speeds		2	2
Extract performance (m ³ /h)	boost	31	31
	trickle	12	12
Extract Performance (l/s)	boost	9	9
	trickle	3	3
Sound pressure level (dB(A)@3m)	boost	41	41
	trickle	21	21
Power (W)	boost	46	46
	trickle	9	9
Hole diameter (mm)		152	152
Wall thickness range (mm)		229-356	229-356
Guarantee (years, UK)		3	3

Models

LoVolt XHR150 range

Effective solution for condensation problems in individual rooms

- Suitable for solid and cavity walls 229-356mm thick
- Easy installation - a 152mm hole can be drilled in minutes using a core cutter, the unit is then simply slid into place and fixed into position
- On trickle mode, the unit is whisper quiet. At boost speed it is a mere 41dB(A)
- The tamper proof design ensures it works constantly against the effects of condensation
- At the heart of the unit is an efficient aluminium heat recovery cell combined with LoVolt motor assembly for complete safety, especially in the splash zones of bathrooms and showers
- A separate 12V SELV transformer is supplied with the unit. This is installed outside of splash zones 1 and 2
- At most times the unit will 'idle' at trickle speed

LoVolt XHR150PC

Ref. 90821AA

- Two speed trickle and pullcord boost operation
- SELV safety LoVolt motor operation with separate SELV transformer
- Tubular construction with integral air intake/outlet and wall bezel
- Aluminium heat exchange cell
- Fascia with built in filters

LoVolt XHR150HP

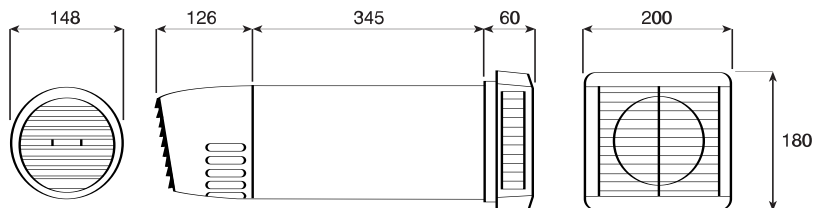
Ref. 90820AA

- Built in pullcord override switch for On / Off operation
- SELV safety LoVolt motor operation with separate SELV transformer
- Tubular construction with integral air intake/outlet and wall bezel
- Aluminium heat exchange cell
- Fascia with built in filters
- Remote adjustable set point type humidity sensor automatically switches to boost when a higher %RH is detected from showering etc...
- Integral light sensor to prevent misuse operation at night

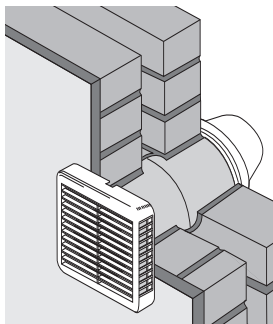
Typical Specifications on page 169.
Wiring Diagrams on page 185.

Dimensions (mm)

XHR Range



Installation and Accessories



The **XHR150** range comes complete with a universal mounting kit for installing through the wall.

Wall Mounting

Hole diameter: 152mm

Xpelair AutoFlow

Passive air-input units



Key features

Type:	Passive ventilation
Application:	All rooms
Control options:	Thermostatic
Legislation:	Building Regulations Part F1
Hole diameter:	85mm (AutoFlow 80) 105mm (AutoFlow 100) 165mm (AutoFlow 160)

The Range

Building refurbishment with replacement double glazing can often lead to condensation problems if there is inadequate ventilation. With central systems, be it central extract using multipoint system or a positive pressure system, it is often now necessary to provide passive ventilators in tight rooms. Introducing Xpelair **AutoFlow**, a simple and neat passive ventilation unit designed for installation at high level through a wall using a core cutter. Xpelair **AutoFlow** is self regulating and adjusts the airflow in relation to the outside temperature.

A self contained, temperature sensitive thermostatic piston controls the opening of the indoor vent disc. In automatic operation the aperture decreases with declining outdoor temperature and increase with rising outdoor temperature.

The unit comes complete with wall tube and outside weather protected wall grille.

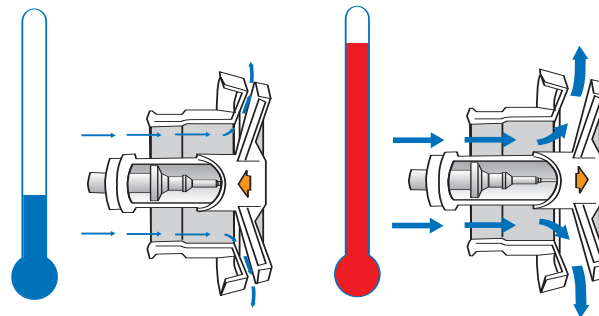


Diagram showing how AutoFlow opens with increasing temperature

Select the right product for your application

	AutoFlow 80	AutoFlow 100	AutoFlow 160
Reference number	91295AW	91296AW	91297AW
Operating temperature range (°C)	-5/+10	-5/+10	-5/+10
Maximum vent opening (mm)	15	15	15
Maximum ventilation rate (m ³ /h)	100	100	200
Pressure drop at max flow rate (Pa)	38	36	37
Diameter (mm)	80	100	160
Hole diameter (mm)	85	105	165
Guarantee (years, UK)	2	2	2

Models

AutoFlow 80

Ref. 91295AW

- Self regulating passive 80mm ventilator that adjusts airflow with outside temperature
- Building Regulations compliant
- Maintenance free temperature sensitive actuating piston
- Range -5°C to +10°C
- Fitted using a standard core cutter
- ABS front face with sound attenuating insulation to the reverse side
- Telescopic wall tube for walls to 270mm
- Outside weather protected wall grille
- Finish in white

AutoFlow 100

Ref. 91296AW

- Self regulating passive 100mm ventilator that adjusts airflow with outside temperature
- Building Regulations compliant
- Maintenance free temperature sensitive actuating piston
- Range -5°C to +10°C
- Fitted using a standard core cutter
- ABS front face with sound attenuating insulation to the reverse side
- Telescopic wall tube for walls to 270mm
- Outside weather protected wall grille
- Finish in white

AutoFlow 160

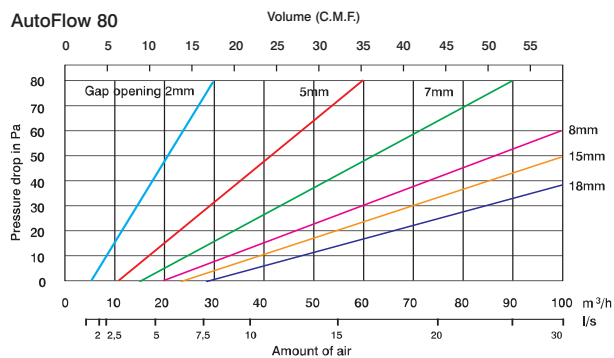
Ref. 91297AW

- Self regulating passive 160mm ventilator that adjusts airflow with outside temperature
- Building Regulations compliant
- Maintenance free temperature sensitive actuating piston
- Range -5°C to +10°C
- Fitted using a standard core cutter
- ABS front face with sound attenuating insulation to the reverse side
- Telescopic wall tube for walls to 270mm
- Outside weather protected wall grille
- Finish in white

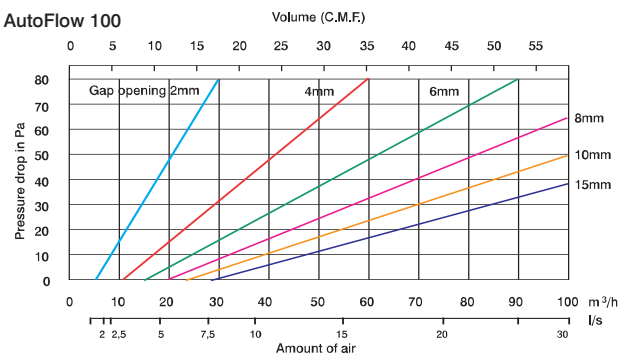
Typical Specifications on page 169.

Performance

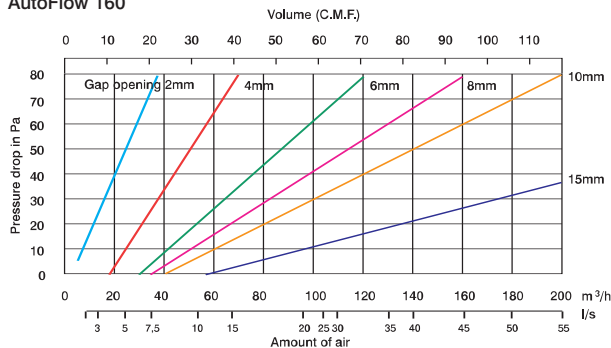
AutoFlow 80



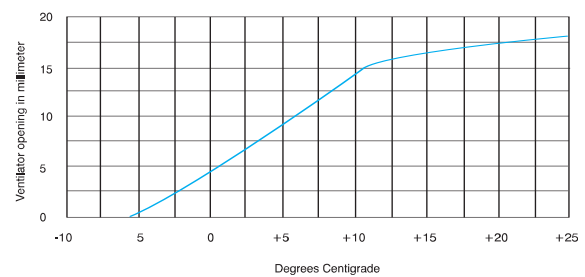
AutoFlow 100



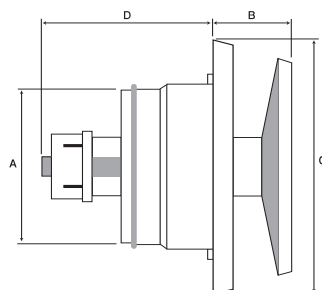
AutoFlow 160



Thermostat bulb operation



Dimensions (mm)



Model	Dimensions (mm)			
	A	B	C	D
AutoFlow 80	80	40	147	75
AutoFlow 100	95	40	147	75
AutoFlow 160	157	47	207	75