



Welcome

to Beam Vacuum & Ventilation –
providing clean indoor air for life.©



For us, **BUILT-IN FRESHNESS** is more than a slogan, it's our philosophy. We've specialised in delivering clean fresh air to homes and businesses since 1977, which is why when it comes to experience, expertise, market leading products and aftersales support, 75,000+ customers across Ireland & UK trust Beam.

We have designed and installed systems for all types and sizes of new build and existing homes, many large private home developments, hundreds of hotels, nursing homes, offices, religious buildings, and manufacturing businesses countrywide.

From first contact, through to installation and after sales support, our trained, qualified and experienced staff and distributors will advise, specify and provide a bespoke technical design of the correct and most energy efficient vacuum and/or ventilation system to suit your needs and budget, which fully complies with current building regulations.

10 Reasons to trust Beam:

1. 40+ years of experience, knowledge and expertise
2. Market leaders in central vacuum & mechanical ventilation systems
3. All staff are directly-employed, assuring you of accountability
4. Extensive network of accredited sales & installation distributors countrywide
5. Innovative, high quality products by world leading manufacturers to suit your budget
6. Accredited with ISO 9001, 14001 and 45001 Quality Standards and BPEC certification
7. Leading customer service guaranteed
8. Full product range showcased in our showroom
9. Free no-obligation surveys and bespoke proposals available
10. No quibble written money back guarantee

Beam Values:

“Going above and beyond to exceed customer expectations through accountability, commitment and integrity”.



Central Vacuum Cleaning Systems

Turn your dream home into a Beam clean home!



BUILT-IN CONVENIENCE - this is what you get when a Beam Central Vacuum System is integrated into your home. Specified by architects, consulting engineers and installed as standard by quality house builders throughout Ireland & UK, we've a central vacuum system to suit your individual needs - from an apartment to a commercial building to a 300 bedroom hotel. More affordable than you may think, with a Beam Central Vacuum System you will:

- Enjoy the benefits of a cleaner, healthier home
- Save time, energy and money
- Vacuum faster, easier and more efficiently than ever before

Innovative design developments have made Beam power units the quietest, most powerful and technically advanced built-in vacuum cleaning systems available.

All Beam Central Vacuum Systems carry a three year product warranty.

What is a Beam Central Vacuum System?

A Beam Central Vacuum System consists of three main elements: a vacuum power unit, concealed 50mm ducting network throughout the home or building to strategically placed wall inlets and a specialist cleaning hose and accessories.

As the vacuum power unit is located away from the living area, simply insert the lightweight, crush-proof hose into one of the conveniently placed wall inlets. A switch on the handle of the hose starts the system automatically. All dust, mites, pollen, animal dander and other allergens are removed to the bin of the vacuum power unit, (which typically needs emptied 2-3 times per year), leaving the air you breathe completely free of harmful irritants.

A Beam Central Vacuum System is ideal to install alongside a Mechanical Ventilation with Heat Recovery (MVHR) systems, where you are assured of clean air, even after vacuuming.



Cyclonic 2-stage Filtration

With a Beam Central Vacuum System, there are no filters or screens to clean or replace.

Beam power units utilise an exclusive permanent self cleaning filtration material from the makers of Gore-Tex™ fabric. By using cyclonic forces to separate larger dirt particles and allergens from vacuumed air, the permanent filter then removes the remaining particles at a stunning 98% efficiency at 0.3 microns. The Beam self cleaning filter cleans itself every time the system is turned off.



Automatic Dustpan

A standard feature of every Beam Central Vacuum System, a Vacpan located in the toe space of your kitchen is the ultimate in convenience.

Just sweep debris to the automatic dustpan, activate the switch with your toe and dirt is whisked away.



Vacuum Inlet Selection

Exclusive to us, our designer modern inlets complement any home with their stylish appearance. All central vacuum systems are supplied as standard with automatic white plastic inlets. Upgrades to matt chrome or metal brass are available.



Installation

Ideally installed when a house is under construction, 1st fixing typically occurs at the same time as electrical work.

Beam systems are also equally as popular in the existing home market, where the vacuum ducting can be concealed with the least amount of disruption.

You can install the system yourself, or an experienced Beam engineer will be happy to install the system for you.



10 Reasons why you need a Beam Central Vacuum System for your dream home!

1. It's lightweight & easy to use – no heavy vacuum to drag around
2. Clinically proven to provide measurable relief for asthma and allergy sufferers as there's no recirculated dust or dirty air to breathe
3. Experience quiet cleaning performance – no noisy vacuum motor at the point of cleaning
4. Up to 50% more suction than portable vacuums and compliant with EU directive on power consumption
5. Power on demand – no loss of power or recharging needed
6. Quick clean integrated automatic dustpan for everyday kitchen cleaning
7. No maintenance or bags to buy – simply empty the bin 2-3 times per year
8. Ideal for new homes under construction
9. A Beam system greatly adds to the resale value of your home
10. Designed to last a Housetime®



Beam Alliance Range - Breakthrough Vacuuming Innovation



The **Beam Alliance range** gives you breakthrough innovation that elevates vacuum cleaning to a new standard. It combines ultimate cleaning performance with visually attractive Smart Screen technology, providing direct link to hose handle display. A high efficiency motor is at the heart of every metal-bodied Beam Alliance system.



Quick Clean Valve

Opens easily with the touch of a finger. The powered Quick Clean Valve lets you turn on the system from the hose handle and is great for quick clean-ups around the power unit.



Unique Press & Release Bin

Simply press down on any two points around the ring and pull down to empty bin. The bin lifts easily back into place with one hand.

Smart Screen Technology

The Advanced Smart Screen (Model 700TC) displays system performance, motor speed, empty bin notification, communication link icon, clock with system codes, LED screen & light ring with motion sensor and intuitive navigation buttons.

The Intelligent Smart Screen (Model 650TB) monitoring system with the unique 360° LED light ring provides continuous communication to the hose handle, displaying key system performance and operational elements.



Self Cleaning Filter

The exclusive BEAM Self Cleaning Filter with Gore™ technology filters 98% of particles at 0.3 microns without the need of ever having to buy separate filter bags. The BEAM Self Cleaning Filter prolongs and protects the HE motor for prolonged product life, keeping superior suction performance over time.





Beam Alliance Interface

Advanced Fingertip Controls electronically adjust the suction power and turn the system on/off with the push of a button. The exclusive double-D nozzle and fully sealed AeroPro® hose & wand provide quieter operation and superior suction.



Combi-Floor Tool

Changes from a hard floor tool to carpet tool with the click of a switch.



Hard Floor Brush

Allows for quick and easy cleaning of wooden floors, vinyl, ceramic tiles and stone.



3-in-1 Cleaning Tool

The right tool is always at hand with the exclusive 3-in-1 cleaning tool securely stored on the ergonomic hose handle. Easily converts from a dusting brush, to crevice nozzle and fabric tool.



Crush Proof Hose

9m Alliance hose with ergonomic, soft grip handle and variable speed control for energy savings.

Model:	Alliance 650TB	Alliance 700TC
Airwatts	650	700
Airflow (l/s)	50.6	52.9
Waterlift (mm)	3430	3610
Input Watts	1650	1760
Motor	HE Flow-Thru	HE Flow-Thru
Size (W x H) (cm)	38 x 108	38 x 108
Features:		
Sound Level (without external exhaust)	68 dB	68 dB
Press & Release Bin	15 litre	15 litre
Powered Quick Clean Valve	✓	✓
Cyclonic Self Cleaning Gore-Tex™ Filtration	✓	✓
Manual On/Off Switch	✓	✓
Smart Screen	Intelligent	Advanced
System on indicator	-	✓
LED Backlit & Ring	✓	✓
Motion Sensor	✓	✓
Empty Bin Icon	✓	✓
Performance Bars Icon	-	✓
Motor Speed Display	-	✓
Hose Link Icon	✓	✓
Navigation Buttons	-	✓
Motor Fault Icon	✓	✓
Clock	-	✓

Beam Serenity Range – Classic Powerful Performance



Based on the original Beam platform, the Serenity range of vacuum units have large diameter metal bodies, self cleaning filters and commercial bypass motors. In a high gloss metallic alloy colour, the Beam Serenity range is the ultimate in quiet, cleaning performance.

Bypass Motor

High performance, high efficiency bypass motor causes vacuumed air to be exhausted around the motor and not through it, prolonging motor life. An ECS control module with integrated soft start motor also helps extend motor life.

The variable speed motor provides 3 suction levels. An exhaust filter captures all motor carbon dust.

Sound Reduction System

Patented Serenity Sound Reduction system with additional filtration from motor area. The 'Sound-Off' Muffler also reduces air noise to a whisper.

Digital Management System

Interactive Digital Management System available on some Serenity vacuum models - displays time, temperature, hours of use, motor performance, call for service and when the bin needs emptied.



Self Cleaning Filter

The exclusive BEAM Self Cleaning Filter with Gore™ technology filters 98% of particles at 0.3 microns without the need of ever having to buy separate filter bags. The BEAM Self Cleaning Filter prolongs and protects the HE motor for prolonged product life, keeping superior suction performance over time.

Direct Utility Inlet

Convenient manually operated built-in utility inlet for vacuuming garage, car and surrounding area.

Waste Bin

Twist-off translucent resin bin allows easy viewing of dirt levels.

Cleaning Hose & Tools

- 9m Progression hose with ergonomic, soft grip handle and variable speed control for energy savings
- Lightweight aluminium telescopic cleaning wand
- The combi-floor tool is used for general cleaning and has a convenient pedal switch to change from carpets to hard floor surfaces
- The soft bristle round dusting brush makes dusting quick and easy
- The hardfloor brush allows for quicker and easier cleaning of wooden floors, vinyl, ceramic tiles and stone
- The upholstery brush is the perfect tool to clean any type of fabric, including curtains
- The crevice tool is ideal for narrow spaces and floor edges
- The hose hanger is used to easily coil and store the hose
- Handy tool caddy

Optional additional accessories include:

Turbo Brush (air driven) for use on carpets and rugs for deep thorough cleaning.

A car care kit complete with 5 metre standard hose and cleaning accessories.



Model:	Serenity 335	Serenity 385EB	Serenity 398 EA	Serenity 398EB
Airwatts	590	670	700	700
Airflow (l/s)	58.19	64.65	65.12	65.12
Waterlift (mm)	2962	3352	3350	3350
Input Watts	1700	1800	1800	1800
Bypass Motor	✓	✓	✓	✓
Size (W x H) (cm)	28 x 89	29 x 106.5	36 x 106.5	36 x 106.5
Features:				
Sound Level (with external exhaust)	62 dB	62 dB	63 dB	63 dB
Alphasan Twist off Bin	15 litre	15 litre	25 litre	25 litre
Direct Utility Inlet	Manual	Manual	Manual	Manual
Cyclonic Self Cleaning Gore-Tex™ Filtration	✓	✓	✓	✓
Manual On/Off Switch	✓	✓	✓	✓
Digital Management System				
System on indicator	-	✓	-	✓
LED Backlit Screen	-	✓	-	✓
Empty Bin Icon	-	✓	-	✓
Motor Performance	-	✓	-	✓
Hours of Use	-	✓	-	✓
Call for Service	-	✓	-	✓
Clock	-	✓	-	✓
Navigation Buttons	-	✓	-	✓

Beam Economy Range – Performance & Value

Our economy Beam 285 vacuum unit features a strong motor performance with high suction power and long life. It comes with a high-grade electronics package with soft-start and integrated motor management – the best high-tech feature in a compact and affordable unit for smaller houses.

- Self Cleaning Gore-Tex™ filter
- Durable latches for reliable, secure fit of bin
- View window to easily monitor dirt level
- Metallic silver alloy colour

Cleaning Hose & Tools

- Premium 9m standard hose
- Telescopic cleaning wand
- Crevice nozzle
- Combi-floor tool
- Dusting brush
- Hard-floor brush
- Upholstery brush
- Hose hanger and caddy clip.

Model:	BEAM 285
Airwatts	605
Airflow (l/s)	56
Waterlift (mm)	2920
Motor	Flow-thru
Input Watts	1800
Size (W x H) (cm)	28 x 92
Features:	
Sound Level	63 dB
Latched Dirt Bin	15 litre
Utility valve	No
Cyclonic Self Cleaning Gore-Tex™ Filtration	✓
Manual On/Off Switch	✓



BEAM Retractable Hose Management System

An alternative to the standard 9m cleaning hose supplied with all Beam systems, the Beam Retractable Hose Management System is the perfect solution for simple and efficient cleaning.

Your vacuum cleaning hose is stored in the central vacuum ducting system in the wall of your home. Simply pull out the length of vacuum hose required (max 12m) and connect the telescopic wand and one of the floor cleaning attachments and start vacuuming. When finished, retract the hose with the power of the vacuum unit – the hose is automatically stored inside the ducting system behind each inlet.

- No need for storage space for your vacuum hose
- Patented locking system – only use the length of hose required
- Suitable for use with a versatile range of cleaning attachments

It's important that the retractable hose management system is planned early during the build stage. Suitable for use with Beam Serenity Model 398EA, 398EB or Alliance Model 700TC vacuum power units only.



Mechanical Ventilation with Heat Recovery



Why Ventilate Your Home?



Energy Efficient Ventilation in Dwellings

For many years, homes in UK and Ireland have been ventilated via natural air infiltration. The result of this has been high energy consumption for space heating (which accounts for over 50% of the energy used within a dwelling).

New energy efficient homes today are being built as airtight as possible through double or triple glazed windows, sealed doors and high levels of insulation, all contributing towards enhanced u-values. Existing property homeowners are also being encouraged to make homes more energy efficient by insulating their roofspace, cavity walls etc.

Today's increased airtightness levels in new dwellings requires a planned ventilation approach. The objective of a good ventilation strategy is to provide a balance between energy efficiency and indoor air quality. This should have an integrated approach, taking into account other factors such as thermal insulation, heating systems, controls and the requirements of the occupants.

Poor ventilation causes streaming windows, musty odours, dampness, condensation, mould growth and excessive carbon dioxide in the home – it is also the biggest cause of heat loss. Studies show there is a direct connection between the quality of air (caused by poor ventilation) and our ability to concentrate and perform productively, as well as the effect poor indoor air quality has on asthma or allergy sufferers. Add to this the fact that poor ventilation causes damage to the fabric of the building and it's easy to see why the concept of “Build Tight – Ventilate Right” has never been stronger.

Presently ventilation (required by Building Regulation) in houses is provided by:

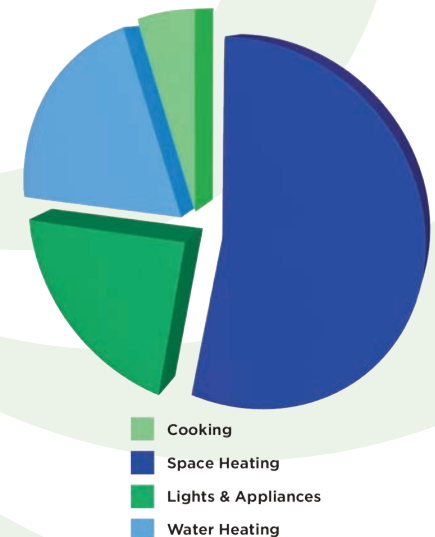
- Mechanical Ventilation with Heat Recovery (MVHR)
- Mechanical Extract Ventilation (MEV)
- Positive Input Ventilation (PIV)
- Basic Ventilation (windows & doors, trickle vents/extractor fans)

There are many energy saving features in mechanical ventilation systems. The type of ventilation used is determined by airtightness level, budget, overall house construction type and the lifestyle of the occupants.

All mechanical ventilation systems provided by Beam conform to requirements of UK and Ireland statutory Building Regulations and Technical Standards for Ventilation and BRE 398.

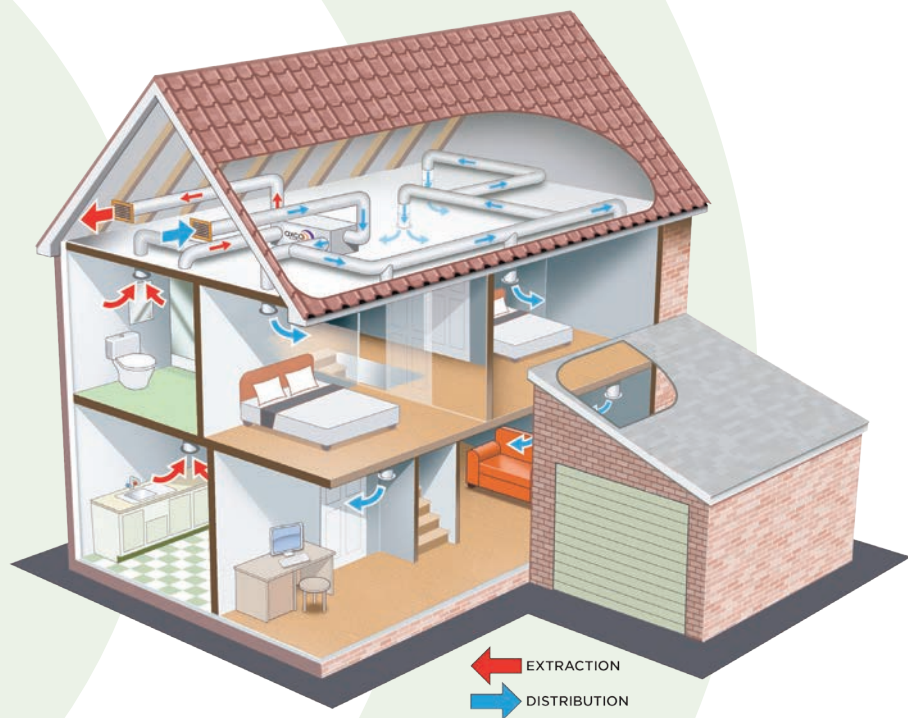
Home Energy Consumption

- Energy used for heating accounts for 53% of all energy use in the home – **of this 80% is lost through ventilation**
- An MVHR system recovers up to 95% of this heat energy whilst providing essential fresh air for the home



Source: Defra, The 2008 Climate Change Programme

What is a Beam Axco Mechanical Ventilation with Heat Recovery (MVHR) system?



MVHR systems are considered to be the most energy efficient method of ventilating an airtight dwelling. Fresh air is continuously drawn into the home via a low energy heat recovery ventilation unit, located in the roofspace/utility area of the home. The ventilation unit filters the incoming air to remove pollutants and insects. Once passed through the heat exchanger within the ventilation power unit, the warmed, clean, fresh filtered air is distributed around the home through a series of ducts which are run to each habitable room i.e. living rooms, bedrooms etc.

Moist, stale, warm air from wetrooms (such as bathrooms, kitchens, wc's, utility areas) is continuously extracted and filtered back through the ventilation unit. The heat from the extracted air is transferred to the fresh incoming air. The heat recovered can off-set the heating costs and will reduce fuel bills. The system provides low energy balanced continuous ventilation without the need for extract fans or window vents.

This controlled, pre-heated fresh air is provided throughout the house whilst at the same time delivering constant clean, fresh filtered air throughout, ensuring a draught-free living environment.

It is vital that an MVHR system is installed and commissioned correctly in accordance with the strict guidelines set by building regulations today. Filters within the MVHR units should also be changed / cleaned annually to help maintain system efficiency.

10 reasons why an MVHR system will benefit your health & home:

1. Constant clean, warmed, fresh filtered air throughout reduces symptoms for asthma and allergy sufferers
2. Contributes to the energy efficiency of the home
3. Reduces / eliminates surface condensation
4. Improves indoor air quality throughout
5. Enhances heat distribution
6. Eliminates mould & mildew
7. Removes musty odours
8. No need for window trickle vents or extractor fans
9. Quiet in operation
10. Aids Radon Dispersion

Beam Axco MVHR C Range

The Axco MVHR C range of ventilation units are manufactured in the UK for Beam Vacuum & Ventilation to the highest standards and are Energy Saving Trust (EST) Best Practice Compliant. The combination of extremely low power consumption and a highly efficient heat exchange is specifically designed to enhance the building's energy performance via SAP/DEAP assessment procedures.

- Extremely low power consumption. Latest EC motors with SFP (Specific Fan Power) from 0.5 wls-1. Energy Saving Trust compliant.
- Highly efficient heat exchange. Best in class performance - up to 92% efficient.
- Demand controlled ventilation when a rise in humidity. Manual control boost switch also provided. Setback option for unoccupied periods.
- Fully adjustable boost overrun timer 0-60 minutes. Automatic/manual set to suit occupants lifestyle.
- Unique design temperature controlled summer bypass.
- G4 filters as standard. Low cost filter refills are available.
- Intelligent frost protection - built-in to prevent freezing.
- Internally insulated in high density expandable polypropylene.
- Manufactured in Zintec® steel complete with high gloss baked resin finish for long life.



Remote Control Options:

Auralite® is a low voltage remote hard wired LED ventilation system status indicator, which allows access in living area to visible information on ventilation unit performance.

- Normal Running
- Frost Protection
- Filter Change
- Boost Speed
- Summer Bypass
- Fault



Aura-T® is a simple touchscreen controller for programming, set-up and occupancy control for the Beam Axco C130 & C170 via a wired connection.

- Digital 4 Speed Control
- 7 Day Programmable Timer
- Filter Change Indicator
- Internal Humidity Sensor
- Boost Functionality
- Time & Day Display Indicator
- Real Time Status & Operating Mode.



Unit	Axco C65	Axco C90	Axco C130	Axco C170
EST Compliant	✓	✓	✓	✓
Specific Fan Power (SFP)	0.6 wls-1	0.5 wls-1	0.5 wls-1	0.5 wls-1
% Heat Exchange Efficiency (HEE)	88%	92%	92%	92%
Flow (max)	245m3h-1	390m3h-1	500m3h-1	615m3h-1
Summer Bypass	✓	✓	✓	✓
Demand Control / Manual Boost System	✓	✓	✓	✓
G4 Filters	✓	✓	✓	✓
Auralite®	✓	✓	-	-
Aura-T®	-	-	✓	✓
Condensate Drain Required	✓	✓	✓	✓
Inlet Diameter (mm)	125	150	150	200
Weight (kg)	16	24	31	46
Dimension (W x H x D) (mm)	600 x 430 x 295	715 x 490 x 426	790 x 665 x 495	752 x 708 x 549
SAP Appendix Q Listed	✓	✓	✓	✓

Further technical specification available on request

Beam Axco MVHR HERU Range

Designed and built in Sweden for Beam Vacuum & Ventilation, this New Generation exclusive award-winning rotating heat exchanger technology offers many practical advantages over conventional systems.

- Regenerative, non-hygroscopic, aluminium rotating heat exchanger located in the centre of the unit. Low energy, high performance EC fans
- Up to 86% heat recovery efficiency
- Large surface Pollen Grade F7 filter (inlet and outlet) is the highest specification available for any residential ventilation system
- Increases thermal comfort by heat recovery or night cooling recovery
- Low sound level
- Constructed in Galvanized and Aluzinc Steel
- Insulated with 50mm dense mineral wool for quietness and facilitates use in any warm or cold space
- No condensate drain required

Unit	Axco HERU 100S	Axco HERU 100T	Axco HERU 160S	Axco HERU 160T	Axco HERU 200S	Axco HERU 200T
Max Flow - Free Blowing (l/s)	121	116	200	183	244	247
Max Pressure @ 100pa m ³ /h	390	378	650	605	786	805
SP1 w/m ³ /h	0.38	0.37	0.32	0.34	0.26	0.25
% Heat Efficiency	84	85	84	86	86	86
Sound Level @3m (dba)	43	41	41	38	42	40
Weight (kg)	59	66	77	95	101	136
Inlet Diameter (mm)	160	125	200	160	250	250
Duct Orientation	Side	Top	Side	Top	Side	Top
Touch Panel	✓	✓	✓	✓	✓	✓
App Controlled	✓	✓	✓	✓	✓	✓
Regenerative Heat Recovery	✓	✓	✓	✓	✓	✓
Max Speed (RPM)	3000	3600	2860	3070	2820	2820
Dimension (L x W x H) (mm)	1074 x 563 x 488	796 x 483 x 705	1236 x 631 x 570	942 x 551 x 865	1352 x 740 x 679	1124 x 679 x 1135

Further technical specification available on request

Wireless Intelligent IQ Control System

Intelligent control system for a healthy and energy-efficient indoor climate. Connects wirelessly to your AXCO HERU MVHR unit with an operating range of approximately 50m through walls and floors.

- **User friendly 4.3"** touch panel (including docking station) with status bar for quick overview
- **APP** - ability to control / monitor through smartphone App
- **Colour Theme** - choose light or dark colour to suit your home
- **Holiday Mode** - energy saving facility
- **7 Day Scheduler** - set up to your home requirements
- **Clock** - Screen saver shows time and internal/external temperatures
- **Alarm History** - Real-time diagnostics functionality
- **VOC Sensor** - Supports regulation of VOC
- **Fan Speeds** - RPM



Axco HERU S models



Axco HERU T models

Dantherm Passive House MVHR Range



Our Passive House range of MVHR systems, manufactured by Dantherm Air Handling are certified by the PassivHaus Institut and feature the latest energy saving technology.

- Certified component for Passive House
- Durable & efficient aluminium counterflow heat exchanger
- High efficiency - up to 95%
- EC motors with extremely low energy consumption (low SFP)
- G4 / F7 Pollen filters available
- Demand-controlled ventilation with integrated humidity sensor
- High end manufacture in corrosion resistant Aluzinc® steel



Differential pressure measurement across the heat exchanger is used to adjust the fan settings ensuring very high accuracy and performance of the ventilation system.

Controls:

The Dantherm HCV/HCH range of MVHR units is supplied with demand controlled automation and integrated humidity sensor. The control panel has options to adjust individual default settings to suit the occupants.

Advanced Demand Control:

Unique to Dantherm, incorporated intelligent humidity control adjusts ventilation rate due to ultra accurate parameter setting in response to both high and low humidity levels.

Control Panel:

The 3 push buttons of the control panel give access to:

- Manual control of ventilation speed
- Automatic control of ventilation speed
- Manual by-pass/cooling

Remote control:

The wireless remote control gives the user access to:

- Automatic demand control
- Manual operation
- Week programme operation
- Away operation
- Night operation
- Firelighting operation



Unit	HCV5	HCH5	HCH8
Passive House Certified Component	✓	✓	✓
Certified for air flow rates	99-220m3H-1	99-220m3H-1	135-340m3H-1
Effective Heat Recovery Rate	nHR, eff 81%	nHR, eff 81%	nHR, eff 83%
Electric power consumption	0.27 wh/m3	0.27 wh/m3	0.26 wh/m3
Flow (max)	425m3h-1	450m3h-1	650m3h-1
Summer Bypass	✓	✓	✓
Control System	demand control	demand control	demand control
Inlet Diameter (mm)	160	160	250
Weight (kg)	57	66	84
Dimension (W x H x D) (mm)	590 x 1055 x 566	1180 x 600 x 580	1180 x 600 x 780
SAP Appendix Q Listed	✓	✓	✓
Condensate Drain Required	✓	✓	✓

Further technical specification available on request

Ventilation Ducting System

One of the most important aspects of a well planned, low energy highly efficient MVHR system is the ducting type, design and the quality of installation.

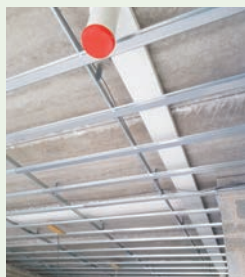
Careful consideration to the design and choice of installation materials ensures your MVHR system delivers the correct ventilation rate and energy efficiency to your home.

The best practice is to use larger 125mm diameter branch lines and up to 250mm diameter main lines, which can carry the necessary high volumes of air at low velocity and resistance (depending on size of system).

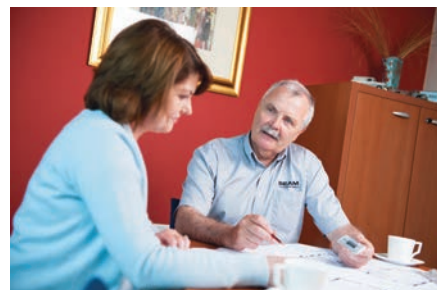
The use of rigid, large diameter ducting is industry best practice providing a smooth flow of air with the least resistance, causing less noise (from both fans and air turbulence) and **costing less to run**. A minimum of 25mm aluminium foil backed wool insulation to ducting in a cold space is essential to retain high heat efficiency and avoid condensation forming in the ductwork.

All Beam Mechanical Ventilation systems with Heat Recovery (MVHR) systems have been independently tested at the Building Research Establishment (BRE). As well as ensuring clean, fresh filtered air throughout the home, our ventilation units:

1. Are SAP Appendix Q listed
2. Help improve SAP/BER ratings
3. Comply with all building regulations
4. Are Energy Savings Trust compliant (Axco C units)
5. Are Passive House Certified Component (selected units)



Design & Installation



All systems are designed by an experienced technical team and are installed by Beam engineers or our nationwide distributors/installers. We will install your MVHR system with smoothflow rigid ducting throughout, providing better heat efficiency, lower energy use and a quieter system. Solid ducting is resistant to crush damage during construction and thereafter can be cleaned and maintained if required.

We only use precision engineered metal and plastic ducting, fitting and silencers mechanically fastened and sealed at every joint for air-tightness.

Should you decide to install an MVHR system from Beam on a DIY basis, we provide design layout, commissioning and support throughout the installation.

Beam MVHR systems carry a full three year product warranty.



Mechanical Extract and Positive Ventilation Systems

Beam Axco Demand Controlled Mechanical Extraction Ventilation (MEV) system



Primarily for use in dwellings with six wetrooms or fewer (dwellings up to 300m²/3200sq.ft), the quiet and compact Axco Demand Controlled Mechanical Extraction Ventilation system is usually installed in a roof space or cupboard and ducted to all wetrooms. The low energy unit runs continuously at a low normal ventilation rate, extracting stale polluted air from rooms where the most moisture is generated e.g. Kitchens and bathrooms. When higher humidity is detected (i.e. when showering) the system automatically boosts, returning to normal fan speed when humidity levels drop. A flow of fresh air from outside is supplied by a Positive Input Ventilation unit/s or window trickle vents to match the boost extract from the MEV fan.

The system is also Energy Saving Trust Best Practice Compliant, with a Specific Fan Power (SFP) down to 0.18 w/l/s. The occupier can make significant energy savings as there is no need for noisy, multiple extractor fans in each wetroom which create multiple breakout points in the building, creating draughts, air leakage and heat loss. It is also much more economical to run one fan instead of multiple single fans. With a three year product warranty, the high quality EC motor has a long-lasting performance, compared to low cost wall fans (some of which have a limited life cycle).

The Benefits:

- Eliminate condensation & mould growth
- No draughts from extractor fan openings
- Reduces pollutants in the home improving Indoor Air Quality (IAQ), therefore reducing the risk of Toxic Home Syndrome
- Energy efficient alternative to multiple individual extractor fans
- Removes musty odours
- Quiet in operation, no noisy extractors
- Demand Controlled, adjustable humidity sensor (between 55% & 85% relative humidity) triggers boost speed



Axco CEV130:

Exhaust Terminal Configuration*	Fan Speed Setting	Specific Fan Power (SFP)	Energy Saving Trust Compliant	SAP Appendix Q Listed
Kitchen + 1 additional wetroom	100% Variable	0.20	✓	✓
Kitchen + 2 additional wetrooms	100% Variable	0.18	✓	✓
Kitchen + 3 additional wetrooms	100% Variable	0.18	✓	✓
Kitchen + 4 additional wetrooms	100% Variable	0.19	✓	✓
Kitchen + 5 additional wetrooms	100% Variable	0.22	✓	✓
Kitchen + 6 additional wetrooms	100% Variable	0.25	✓	✓

Figures taken from the BRE Test Results *Number of wetrooms is based on SAP Q test criteria and does not correlate directly with regulatory performance requirements

Unit dimensions: 390mm W x 252mm H x 450mm D

Beam Axco Positive Input Ventilation (PIV) systems



The AXCO positive ventilation units are sophisticated energy efficient whole home ventilation and condensation control units designed to continuously gently ventilate the home from a central position on the landing or the central hallway. Moisture-laden air is diluted, displaced and replaced with subtle fresh filtered air, forcing contaminants out of the property through leakages or extract points in wetrooms (if applicable). A PIV system is the ideal solution for condensation and mould issues in existing homes.

The Benefits:

- Eliminate condensation & mould growth
- Stop streaming windows
- Improve Indoor Air Quality
- Remove musty odours
- Save energy
- No need for trickle / window vents if dwelling air tightness level is above Level 5
- Aids radon dispersion
- Suitable for existing and new homes

Health Benefits

With improved building features in our homes, such as cavity wall and room insulation, double glazing and draught proofing 'natural ventilation' is reduced. Stale air is trapped causing streaming windows and high moisture, which ultimately leads to musty smells, dampness and mould growth. These mould spores are known allergens and become airborne at the slightest disturbance which can be inhaled and can trigger respiratory problems such as asthma, dust allergies and hayfever.

The Axco positive ventilation units draw fresh air into the dwelling and filters it before being gently delivered into the property. Moisture laden air is diluted, displaced and replaced with clean, tempered and filtered air. This promotes free air circulation and eliminates or reduces surface condensation, which causes mould growth, providing a significant improvement in the health of asthma sufferers and general indoor air quality.

Energy Efficiency

Powered by an Ultra Low Watt Brushless DC Motor, the Axco positive ventilation units utilise the latest technology to ensure minimum energy consumption and long term trouble free life, achieving up to 80% more efficiency than a traditional AC fan.

Warm air accumulates at ceiling level. This air can be up to 7°C higher temperature than the internal air at floor level. By introducing a subtle filtered air supply into the dwelling, the unit helps to redistribute heat around the home and thus reduce space heating costs. In weather conditions below 10°C, the incoming air is lightly heated to prevent cold draughts.

During the heating season significant energy loss occurs by opening windows to reduce humidity and condensation. By installing a positive ventilation system and providing fresh filtered air to the home humid air is displaced without opening windows and thus making a significant saving to the occupier.



Filters

A synthetic fibre based, long-life filter made to G4 standard is used on the Axco PIV units. G4 filters will remove a high proportion of airborne particles, such as pollens and are constructed from selected high performance non-breakable fibres in a progressive density multi-layering technique all in accordance with EN779 standard ratings. The filter conforms to all European Union and US fire classification standards (e.g. DIN 53438-F1 and UL900-class 2) and is self-extinguishing. The Axco wall mounted unit is fitted with an integral insect filter.

Integral pre-heater (applicable to both loft and wall units)

- Designed to temper the incoming air during periods of low external temperatures to prevent the air falling below 10°C. A sensor monitors incoming air temperature and pulses the built-in low energy heater to ensure temperatures are held to pre-set minimums.
- Three independent safety cut-out devices shut down the heater in the event of fan failure.
- The heater facility is controlled independently from the fan by a conveniently positioned enable / disable switch.

Hours Run Meter

For monitoring of operational life and verification of usage, an integrated Hours Run Meter is fitted. The hours run meter retains its memory in the event of a power failure and restarts at existing reading when power is restored.

Radon

Radon, a natural radioactive gas that, in some areas of the country, comes from the earth, has been found to cause lung cancer. In areas where radon levels are quite high, indoor radon levels can rise above the Action Level. For more details, visit www.bre.co.uk/radon. An Axco positive ventilation system dilutes the air entering the house and helps to reduce the amount of contamination drawn into the house from the ground.



Ceiling Air Diffuser

Exclusive to Beam, our fully adjustable 4-sided opening modern slimline ceiling air diffuser distributes air evenly, without causing draughts.

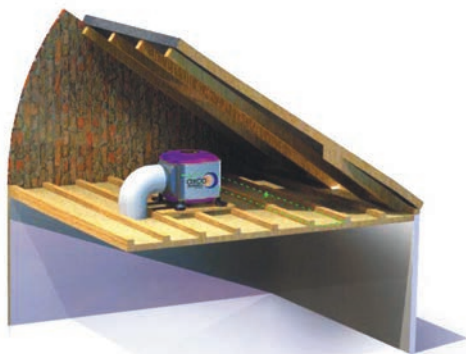
In a smoothflow, easy clean, white uPVC, the ceiling diffuser is suitable for most valve locations including close proximity to smoke alarms (as one side of the diffuser can be closed).

Guarantee

Beam Axco positive ventilation units are covered by a three year product warranty and are designed to provide a long and trouble free use over many more years. The unit will be programmed according to the size of the property and will operate continuously.



Beam Axco Positive Input Ventilation Systems



Beam Axco Loft Mounted PIV system

The loft mounted unit takes maximum advantage of the benefits of solar gain from within the loft space – the natural accumulation of heat from the sun on bright days. Temperatures in the loft space are on average 3°C higher than outside, and as the loft mounted unit draws fresh air from the loft and delivers it into the property via the innovative diffuser, this results in a relative saving of around 150 Watts of heat energy per day in an average modern family home.



Beam Axco Wall Mounted PIV system

Suitable for apartments/flats, the wall mounted unit has an air inlet from outside (inlet can be left or right handed to the side or rear of the unit). The unit also benefits from a double skin carcass for improved insulation.



Beam Axco Air-Source PIV system

Ideal for homes with a small or unventilated loft space, the Axco Air-Source PIV unit has the facility to source cooler air from outside the building when the temperature in the loft space rises above 25°C. Detecting the rise in temperature, the unit starts to draw air from the atmosphere. This not only provides efficient perception cooling into the property during warmer weather, but also maintains the required level of ventilation continuously throughout the year. This facility is greatly beneficial for properties affected by high levels of Radon.

Axco Air-Source PIV units have the additional facility to draw air from the atmosphere during the warmer months of the year.

	Speed	Loft PIV	Wall PIV	Air-Source PIV
Airflow	Trickle	19	9	23
	Boost	47	20	46
Watts	Trickle	3.03	3.4	3.2
	Boost	9.76	6.1	8.0
Specific Fan Power (SFP)	Trickle	0.15	0.39	0.14
	Boost	0.20	0.30	0.17
Unit Dimensions (W x H x D) (mm)		325 x 415 x 330	505 x 380 x 185	515 x 576 x 481
Integral comfort Pre Heater		✓	✓	✓
Integral G4 filter		✓	✓	✓
Square Ceiling Valve (mm)		✓	✓	✓
		300 x 300 x 30		

Beam Vacuum & Ventilation



For 40+ years, Beam has specialised in the supply and installation of central vacuum and low energy mechanical ventilation systems, providing a complete solution for clean, healthy energy efficient homes, commercial and industrial buildings.

With unrivalled experience, over 75,000 installations throughout Ireland & UK, a dedicated skilled workforce and extensive network of trained distributors, Beam continue to be the supplier of choice to specifiers, developers and self builders.

All current images correct at time of print and may be subject to change





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