Lindab **Residential Ventilation**

Energy Efficient Solutions for Improved Indoor Climate

Lindab®

We're here to help

At Lindab, our aim is to match the reliability of our products with that of our service. Customer support is a core part of our business philosophy.

Our customers are the people we meet on a daily basis, rather than the companies they work at. It is alongside all these people – designers and architects, fitters and installers – that we have built our trust. Lindab is a partner you can rely upon. Our relations are based on an in-depth understanding of the challenges our customers face and we create our solutions based on these needs and challenges.

We are always near

Our National network of 22 branches means we are always local which in turn allows us to create close relationships with local authorities, housing associations, exclusive developers, contractors and end-users across the UK. Thanks to these unique customer contacts, we can predict what our customers need and adapt our offering to suit these requirements. We have a dedicated team of UK regional Business Development Managers who have been trained to the highest degree in residential ventilation systems. Our team is available to visit you, provide full technical support on site and work closely with you every step of the way.

Tel: 02380 240958 Fax: 02380 262595

Have Confidence

Our fundamental idea is to contribute to simplifying construction in all phases of the construction process from our products initial design phase through installation and throughout their complete life cycle. Quality management systems are applied throughout the business and Lindab's production and distribution units have quality systems certified to ISO 9001.

It comes naturally

Lindab's business is based on long-term sustainable and environmentally friendly systems in steel and sheet metal. We focus on minimising the use of raw materials, components, energy, packaging, and transport. Today 90 percent of our operations are certified according to ISO 14001. A full environmental declaration is available on request.

Contents

Lindab Residential Ventilation technical support office

Telephone: 02380 240958
Email: residential@lindab.co.uk

Lindab in Brief

With over half a century of experience in the development, manufacturing and marketing of sheet-metal products, Lindab has become one of the leading international players in the HVAC and construction industries.

In 1957, Lindab started out as a small sheet-metal shop in Lidhult, Sweden, and the year after, Lindab moved to Båstad, on the Bjäre Peninsula in the south west of Sweden, where Lindab is situated today.

Lindab has since then expanded to a worldwide business with representation in more than 30 countries. Lindab is a supplier of products and system solutions for simplified construction and improved indoor climate, our main market is Europe. Through close dialogue with our customers, a flat organisation, knowledgeable employees and a strong corporate culture, we develop solutions that have a lower environmental impact and offer increased customer value.

Tel: 02380 240958 Fax: 02380 262595

A culture of innovation

There are three core values behind the drive and the culture of innovation that permeate our entire organisation; to continuously generate improvements for our customers and users.

Customer Success

The way we see it, success for our customers breeds success for us. Our endeavour to simplify construction for our customers helps to make their operations more efficient. We do this by leading the development of solutions in our main areas.

Down to earth

We strive for long-term relations based on uncomplicated, trustworthy conduct and an attitude of humility. Important factors are cost-consciousness and fast, efficient decision making that avoids unnecessary bureaucracy.

Neatness and order

A state of good order has a positive impact on efficiency as well as the overall image of the company, and also contributes to a feeling of pride when presenting Lindab.

Good Thinking

Good thinking is a deeply rooted philosophy within Lindab that guides us in everything we do. What do we mean by Good Thinking? Well it's thinking about the impact of the actions we take upon the world around us. We believe that good thinking generates good solutions to the challenges we all face. Taking responsibility for what we do and how we do things is important to us. Good Thinking is not only about making life simpler and more comfortable for our customers and end users it´s also about thinking in a global perspective, all the time. Knowing that we at Lindab are helping to make the world a better place.

We simplify construction

At Lindab, we simplify construction because it is in human nature to build. By simplifying in every stage, we make it easier to build sustainably. We develop products with the environment in mind. We invent complete solutions that meet the demands for comfort, simplicity and energy efficiency.

We do this so that you can continue building with a clear conscience – not just today, but also tomorrow.

What do we simplify?

With the service, support and availability we provide, our broad product portfolio of smart products and solutions builds an offering that simplifies the construction of energy-efficient buildings.

Indoor Climate Solutions

An experienced team of engineers provide support with technical specification of waterborne and airborne systems for indoor climate solutions.

Tel: 01604 788383

Email: ICS@lindab.co.uk

Air Duct Systems & Acoustic Solutions

High quality ducting and fittings and a range of acoustic attenuation solutions are available through a network of 22 Lindab branches.

Find your local branch: www.lindab.co.uk/WhereToBuy

Email: sales@lindab.co.uk

Air Movement & Air Handling Units

Specialist support teams can offer expert advice relating to selection and specification of air handling units and fans from industry leading manufacturers.

Email: fans@lindab.co.uk

Residential Ventilation Solutions

BPEC qualified professionals can provide comprehensive project designs for domestic MEV and MVHR systems and a wide range of residential ventilation solutions. **Tel: 023 8024 0958**

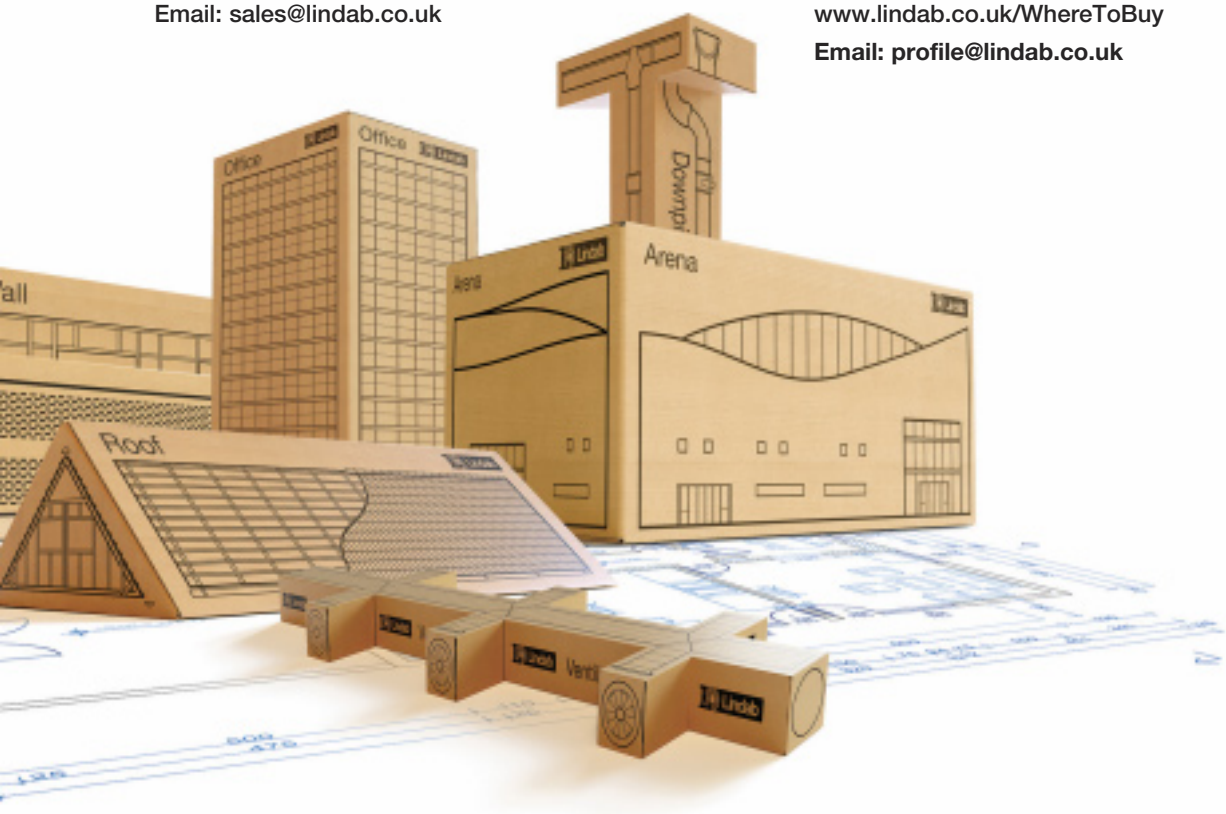
Email: residential@lindab.co.uk

Building Products

Lindab's industry leading steel rainwater system, Rainline and steel roofing solution, Seamline and Coverline are available through reputable builders merchants.

Find your local distributor: www.lindab.co.uk/WhereToBuy

Email: profile@lindab.co.uk



Tel: 02380 240958 Fax: 02380 262595

Demands of Modern Residential Ventilation

We all aim to minimise energy consumption in our homes. This means houses must be better insulated and more air tight, making energy efficient ventilation even more important.

Passive Stack Ventilation

PSV systems use the natural effect of warm air rising to extract from wet rooms through a roof ridge vent. Ducting needs to be relatively large compared to mechanical systems and as near to vertical as possible which limits design options. A PSV system can result in over-ventilation caused by movement and temperature of external air.

Intermittent Extract Ventilation

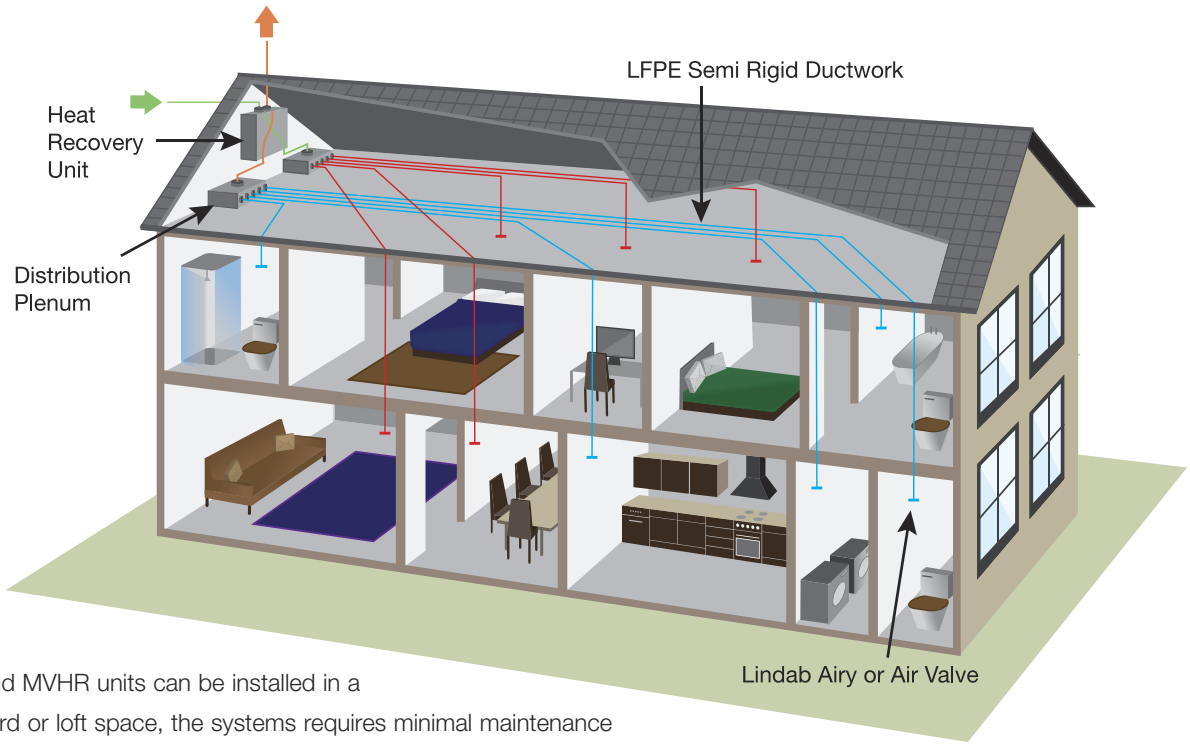
Intermittent fans placed in bathrooms and in cooker hoods are easy to install but can be very noisy and require trickle vents to be open to bring fresh air into the home. The fans need to be manually switched on and off and can cause condensation build up and mould if not consistently used.

Mechanical Extract Ventilation

MEV systems work at a continuous low level offering an efficient and much quieter solution. MEV systems can be centralised with just one fan and one extract outlet, this minimises cost. A continuous MEV system doesn't require manual operation but does require air bricks or trickle vents to bring in fresh air.

Mechanical Ventilation and Heat Recovery

MVHR systems extract stale air from wet rooms and supply fresh air to habitable rooms. The system incorporates a heat exchanger which enables the heat from extracted air to be transferred to fresh, filtered air and recovered back into the home. The unit operates continuously at a low rate which offers efficiency, low noise levels and the added benefit of cost savings from a reduction in heating requirement. Recovery by-pass functionality can be initiated in the summer.



MEV and MVHR units can be installed in a cupboard or loft space, the systems requires minimal maintenance and can be easily controlled with boost switches installed in wet rooms.

Energy Efficiency and Specific Fan Power

A minimum energy efficiency level for all residential ventilation systems is set in The Domestic Building Services Compliance Guide.

Specific Fan Power is the term used to effectively express the energy efficiency of a fan within a given ventilation system. Ventilation systems for new build and refurbishment projects must reach a specified minimum SFP.

SFP is calculated by dividing the fan power consumption by the airflow through the duct system, and is expressed in Watts per litre per second (W/l/s).

Other than the fan, the ducting system is the only significant factor that can influence SFP. The better the airflow through the ducting system, the better the SFP value.

Poorly installed or designed ductwork can have a dramatic effect on the efficiency of a ventilation system, both in terms of SFP and recovered heat.

Furthermore:

Airflow rates may not be achieved and the system could fail building control inspection.

Noise will increase as the unit tries to achieve the desired airflow against significant back pressure or leakage.

Lack of airflow will result in poor indoor air quality, high moisture and high CO_2 levels.

Tel: 02380 240958 Fax: 02380 262595

Standard Assessment Procedure for Energy Rating

Energy performance calculations are simplified by SAP Appendix Q listing.

UK building energy performance assessments are produced using the National Calculation Methodologies for energy rating buildings. These methodologies include the Standard Assessment Procedure for Energy Rating of Dwellings (SAP).

Flexible ducting is less efficient than rigid ducting. If flexible ducts are used within a ventilation system, to compensate for system losses, an in-use factor of 1.7 must be applied to the Specific Fan Power when calculating energy consumption.

The SFP in-use factor can be greatly reduced by utilising a SAP Appendix Q listed semi-rigid ducting.

SAP Appendix Q listing simplifies compliance calculations and enables energy efficient design. Lindab was one of the first companies to achieve SAP Appendix Q listing for semi-rigid ducting.

As shown below, independent testing by BRE found Lindab semi-rigid ducting to perform equally well or better than a rigid duct system.

Exhaust terminal configuration	Fan speed setting	Total flow supply rate (l/s)	Total exhaust flow rate (l/s)	Specific fan power rigid duct (normalised)	Specific fan power semi-rigid duct (comparative)
Kitchen + 1 additional wet room	100% Variable	15.0	15.0	1.0	Equal
Kitchen + 2 additional wet rooms	100% Variable	21.0	21.0	1.0	Equal
Kitchen + 3 additional wet rooms	100% Variable	27.0	27.0	1.0	Equal
Kitchen + 4 additional wet rooms	100% Variable	33.0	33.0	1.0	Better
Kitchen + 5 additional wet rooms	100% Variable	39.0	39.0	1.0	Better
Kitchen + 6 additional wet rooms	100% Variable	45.0	45.0	1.0	Better
Kitchen + 7 additional wet rooms	100% Variable	51.0	51.0	1.0	Better

BRE Test Report Ref 520008

Product performance data is held in the Product Characteristics Database (PCDB), which can be accessed at www.ncm-pcdb.org.uk

What do the Building Regulations say about ducting?

The ventilation Compliance Guidelines State:

Ducts should be sized to minimise pressure loss and noise generation.

Lindab InDomo Achieves this ✓

The routing of ducts should minimise the number of bends required.

Lindab InDomo Achieves this ✓

Bends should have a minimum radius equal to the diameter of the duct.

Lindab InDomo Achieves this ✓

The need for privacy (acoustic separation) between rooms should be considered.

Lindab InDomo Achieves this ✓

Tel: 02380 240958 Fax: 02380 262595

Lindab **Indomo**

The radial ductwork system which simplifies MEV and MVHR installation.

Email: residential@lindab.co.uk

Lindab **InDomo**

Radial ducting is the smart solution to today's ventilation needs.

Lindab InDomo adopts a new radial ducting philosophy which simplifies MEV and MVHR installation and meets the demands on modern ventilation systems.

Radial System

The radial principle involves individual ducting tubes from each extraction and supply point to plenum and distribution boxes connected to the mechanical unit. This eliminates cross contamination and noise transfer.

Semi-Rigid Ducting

Requiring only the minimum of space, InDomo ducting can be run in voids without interference to other services or structural members.

Reduced Power Use

Lindab semi-rigid duct takes a swept bend form around corners and has a smooth internal surface which reduces pressure drops and power consumption.

Easy Installation

Push and click Lindab Smart Lock enables hassle free installation. Installation time can be reduced by up to 66% compared to traditional ducting methods.

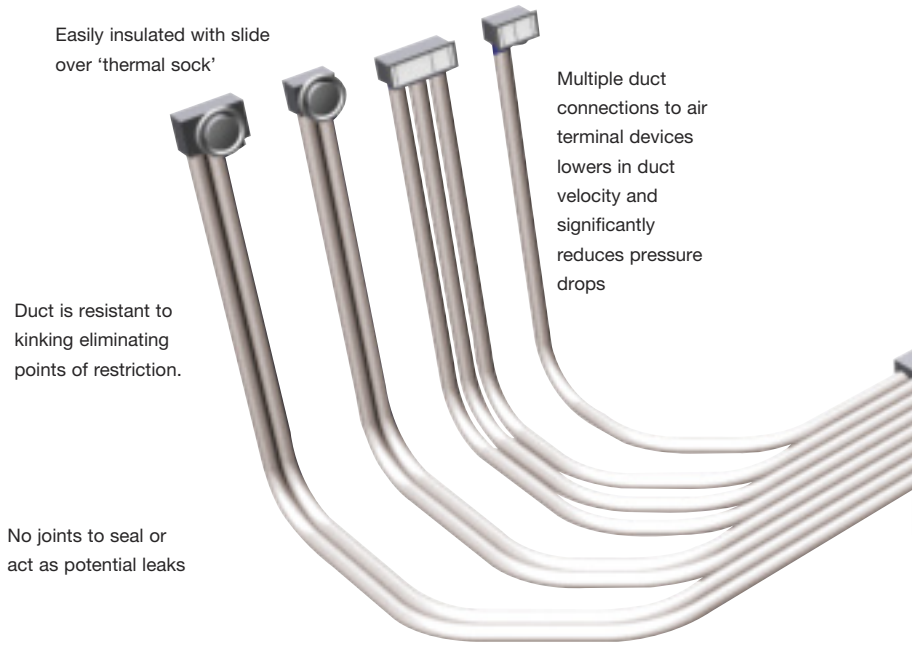
Energy Efficient

Supply and extract points feed directly from central distribution boxes significantly reducing system pressure drops and power loss which maximises fan power efficiency.

Air Tightness

Lindab InDomo components fulfil the requirements of air tightness class D, Lindab Safe connections on circular plenums have built-in gaskets and are Eurovent certified.

The radial ducting solution to today's ventilation needs



Tel: 02380 240958 Fax: 02380 262595

Adaptability

Smart Lock functionality has the added benefit that ducting can be removed without the need for specialist tools and without damage to components allowing installations to be easily adapted.

Noise Sensitivity

Radial ducting solutions provides acoustic separation eliminating cross-talk sound transfer between rooms. Low noise levels can be further ensured with optional specially developed silencers.

Fire Protection

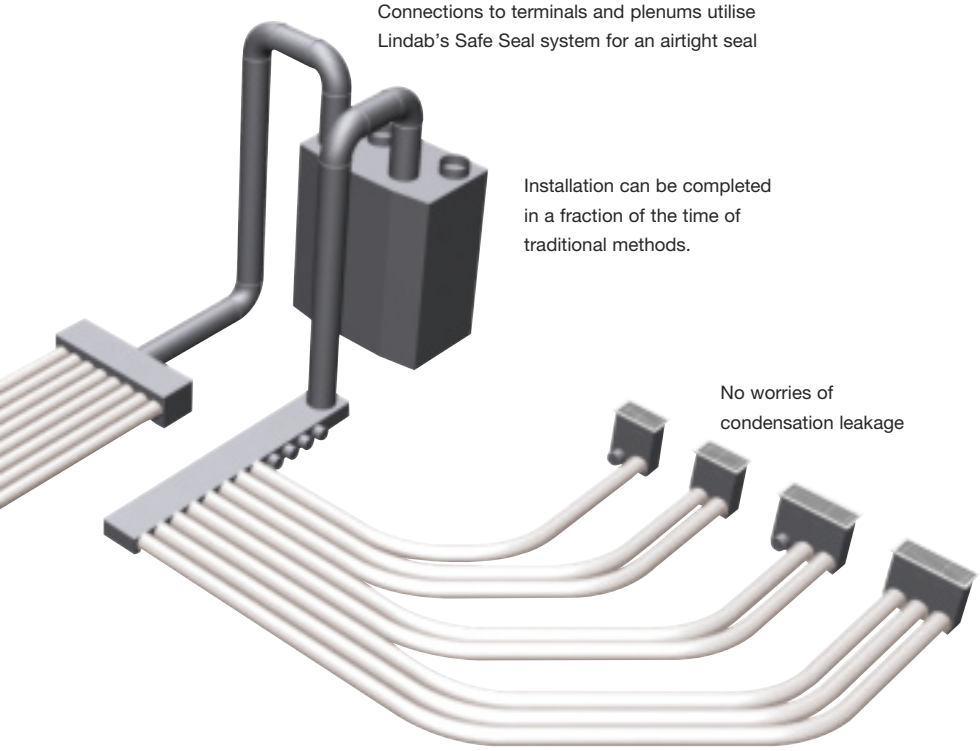
Intumescent fire sleeves and collars offer fire protection avoiding the need to construct fire resistant ducts.

Enhanced Aesthetics

Lindab Airy high performance air valves offer improved appearance for harmonised integration with interior design.

Compliance

Lindab InDomo semi-rigid ducting system complies with building regulation guidelines and is SAP Appendix Q listed which simplifies buildings energy consumption calculations.



Radial system provides acoustic separation as recommended in building regulations and eliminates cross talk.

Design Solutions

Semi-rigid ducting is ideally suited for a radial ventilation system. Lindab can also supply circular and low-profile rectangular ducting or steel ducting options enabling alternative solutions to design challenges.

Unlimited Applications

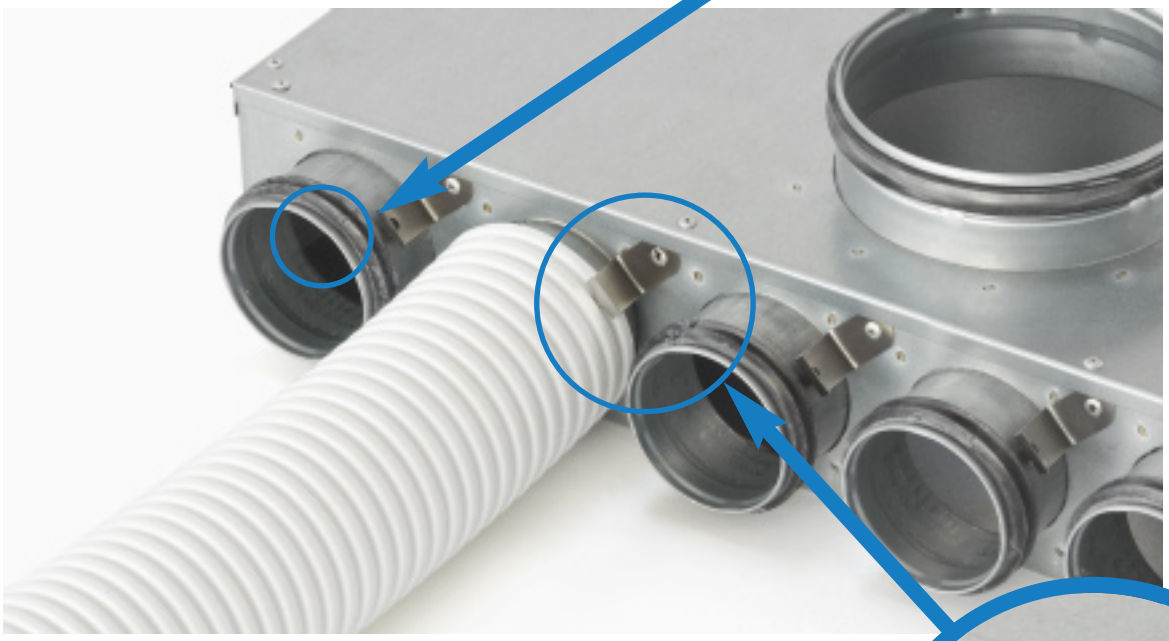
A comprehensive range of manifolds and plenums allow radial ducting systems to fulfil any residential ventilation requirement from single flats, multiple occupancy dwellings and large luxury homes.

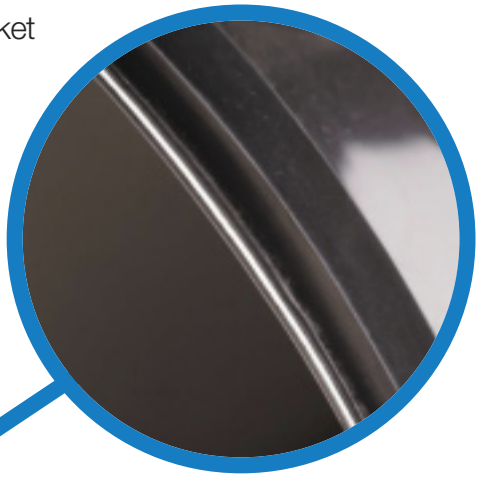



Lindab **InDomo** – up close

Lindab Safe

- Airtight joint sealing system with commercial grade gasket
- Double lipped gasket – conforms to Eurovent certified class D standard for airtightness
- Fast installation – No need for sealant or tape
- Less environmental impact – No use of solvent based sealants.





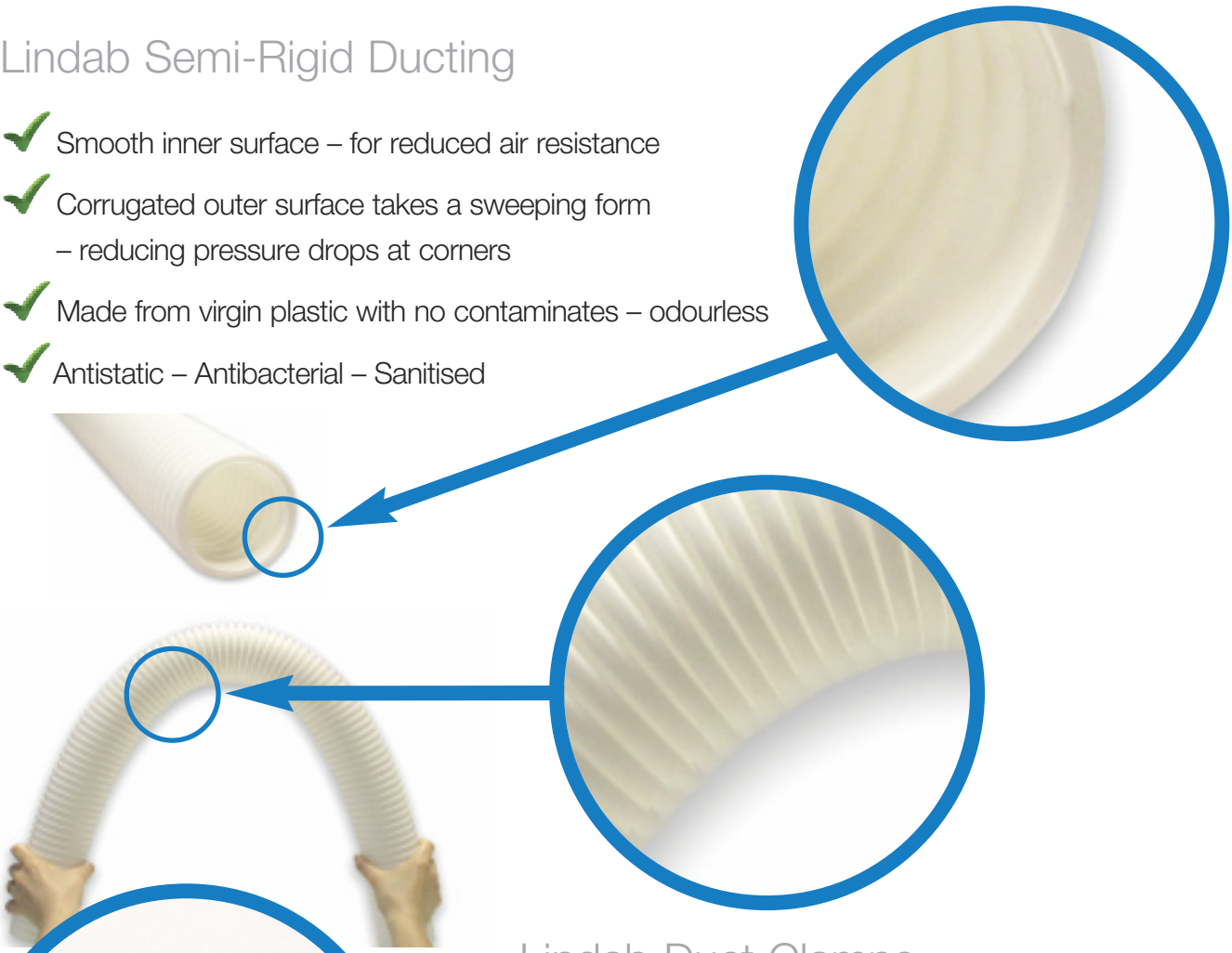
Lindab Smart Lock

- Quick and easy connection and disconnection
- Easy removal and access for cleaning of duct
- Fast installation – No need for sealant or tape
- No tools required.

Tel: 02380 240958 Fax: 02380 262595

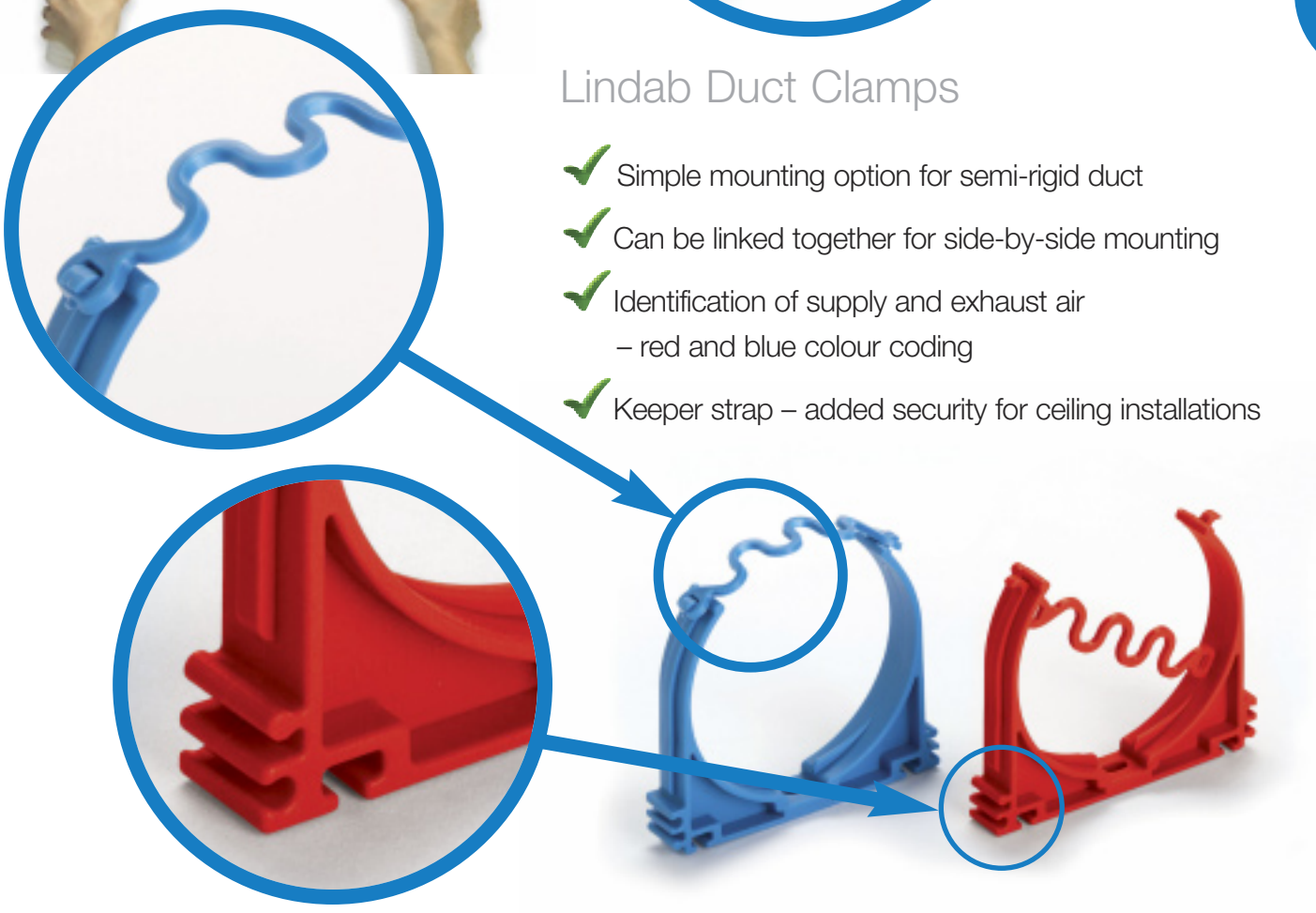
Lindab Semi-Rigid Ducting

- Smooth inner surface – for reduced air resistance
- Corrugated outer surface takes a sweeping form – reducing pressure drops at corners
- Made from virgin plastic with no contaminates – odourless
- Antistatic – Antibacterial – Sanitised



Lindab Duct Clamps

- Simple mounting option for semi-rigid duct
- Can be linked together for side-by-side mounting
- Identification of supply and exhaust air – red and blue colour coding
- Keeper strap – added security for ceiling installations



Semi-rigid duct LFPE

Description

Has a corrugated outside and a smooth inner surface. Made of odourless polyethylene (PE) without recycled material to ensure no contaminates are present.

Inner duct with antistatic additives and has microbial properties according to EN ISO 846 A.

Ring stiffness >= 8 kN/m^2 according to EN ISO 9969. Can be bent to a radius of minimum 150 mm.

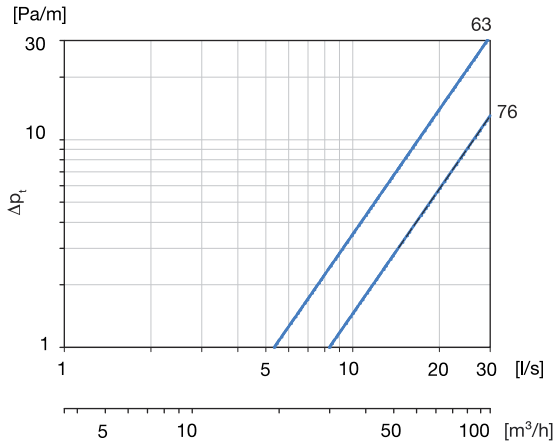
Available in Ø63 or Ø76mm sizes.

Outside/inside colour: White/White. Delivered in coils of 50m.

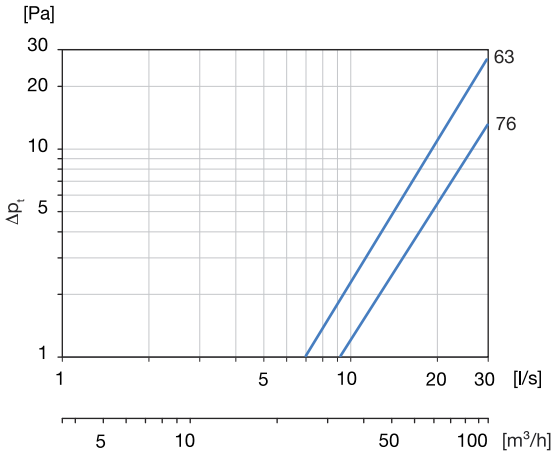
Minimum installation and use temperature: -5ºC
Maximum installation and use temperature: +60ºC

Technical data

Pressure Drop: Straight Run

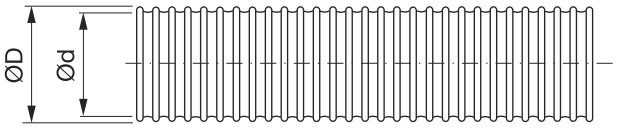


Pressure Drop: 1 x 90° Bend (0.5m length)



Multiply difference in pressure drop for additional bends.

Dimensions



Ød nom mm	ØD nom mm	L mm	kg
63	75	50000	0.25
76	90	50000	0.35

Ordering example

LFPE **63**

Product
Dimension Ød

Tel: 02380 240958 Fax: 02380 262595

Sizing the duct runs

The tables below can be used to establish the number of duct runs required for any given flow rate based on the associated pressure drop (Pa).

e.g. A 5m run requiring 1 x 90° bend with a flow rate of 20l/s would have a pressure drop of 78.5Pa if one 63mm duct is used and 17.5Pa if two 63mm ducts are used.

Single 63mm duct

Pressure Drop (Pa): Straight Run Single Duct

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	8.8	17.5	35.1	52.6	70.1
20	37.5	75.0	150.1	–	–
30	87.8	175.7	–	–	–

Pressure Drop (Pa): 1 x 90° Bend Single Duct

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	9.3	18.0	35.6	53.1	70.6
20	41.0	78.5	153.5	–	–
30	97.9	185.8	–	–	–

Single 76mm duct

Pressure Drop (Pa): Straight Run Single Duct

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	3.5	7.0	13.9	20.9	27.9
20	14.3	28.6	57.1	–	–
30	32.6	65.1	–	–	–

Pressure Drop (Pa): 1 x 90° Bend Single Duct

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	4.0	7.5	14.4	21.4	28.4
20	16.8	31.0	59.6	–	–
30	39.0	71.6	–	–	–

Pair of 63mm ducts

Pressure Drop (Pa): Straight Run 2 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	2.1	4.1	8.2	12.3	16.4
20	8.8	17.5	35.1	52.6	70.1
30	20.5	41.0	82.1	123.1	164.2
40	37.5	75.0	150.1	–	–
60	87.8	175.7	–	–	–

Pressure Drop (Pa): 1 x 90° Bend 2 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	2.1	4.2	8.2	12.3	16.4
20	9.3	18.0	35.6	53.1	70.6
30	22.1	42.6	83.7	124.7	165.7
40	41.0	78.5	153.5	–	–
60	97.9	185.8	–	–	–

Pair of 76mm ducts

Pressure Drop (Pa): Straight Run 2 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.9	1.7	3.4	5.1	6.8
20	3.5	7.0	13.9	20.9	27.9
30	8.0	15.9	31.8	47.7	63.6
40	14.3	28.6	57.1	–	–
60	32.6	65.1	–	–	–

Pressure Drop (Pa): 1 x 90° Bend 2 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.9	1.8	3.5	5.2	6.9
20	4.0	7.5	14.4	21.4	28.4
30	9.2	17.2	33.1	49.0	64.9
40	16.8	31.0	59.6	–	–
60	39.0	71.6	–	–	–

Trio of 63mm ducts

Pressure Drop (Pa): Straight Run 3 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.9	1.8	3.5	5.3	7.0
40	16.0	32.1	64.1	96.2	128.2
60	37.5	75.0	150.1	–	–
90	87.8	175.7	–	–	–

Pressure Drop (Pa): 1 x 90° Bend 3 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.9	1.8	3.5	5.3	7.0
40	17.2	33.2	65.3	97.3	129.4
60	41.0	78.5	153.5	–	–
90	97.9	185.8	–	–	–

Trio of 76mm ducts

Pressure Drop (Pa): Straight Run 3 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.4	0.8	1.5	2.2	3.0
40	6.3	12.5	25.0	37.6	50.1
60	14.3	28.6	57.1	–	–
90	32.6	65.1	–	–	–

Pressure Drop (Pa): 1 x 90° Bend 3 x Ducts

Flow rate l/s	Duct run (metres)				
	2.5m	5m	10m	15m	20m
10	0.4	0.8	1.5	2.3	3.0
40	7.2	13.5	26.0	38.5	51.0
60	16.8	31.0	59.6	–	–
90	39.0	71.6	–	–	–

Clamps CLAMP

Description

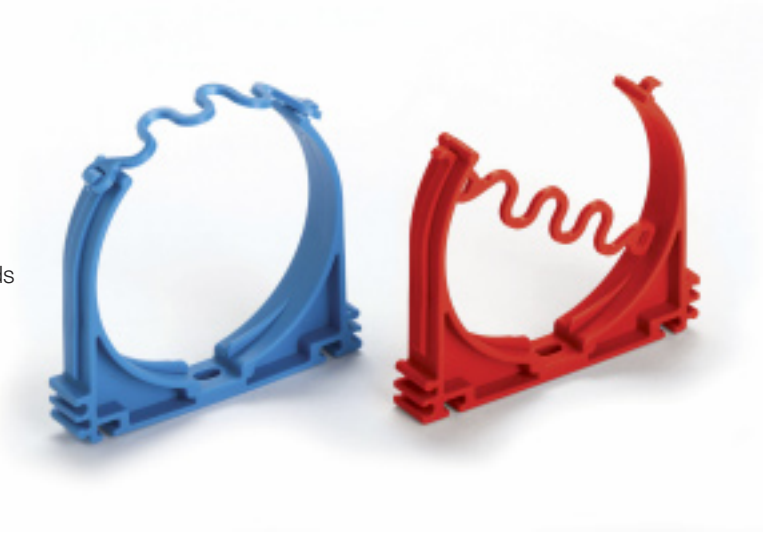
The CLAMP is used to fix semi-rigid ducts LFPE in ceiling spaces, lofts, under floor or embedment.

The clamps are available in red or blue colour, for simple identification of supply or exhaust air. They can be linked together for mounting two or more ducts.

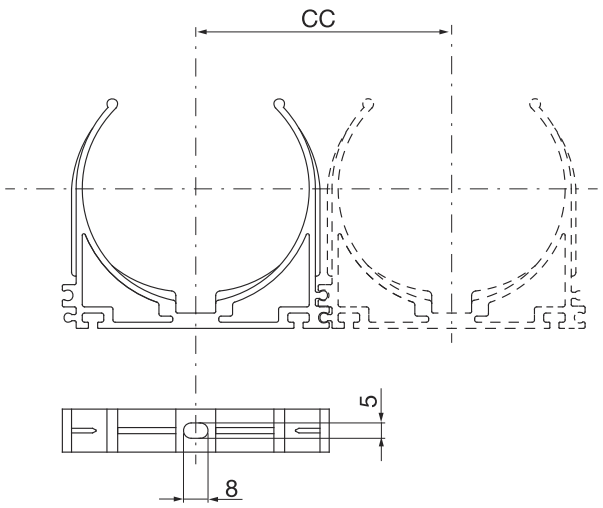
They are supplied in bags of 48 pieces, which corresponds to the amount needed for one 50m coil of LFPE duct.

New retainer bands offer further security to keep ducting in place.

Recommended distance between the clamps is 1 metre.



Dimensions



Type mm	CC mm
63	85
76	100

Ordering example

CLAMP	76	RED
Product	Dimension Ød	Colour

Tel: 02380 240958 Fax: 02380 262595

Lindab is raising the standard. Again.

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

It has now been officially proven that Lindab Safe and Lindab Safe Click systems come with the best possible tightness and thus quality.

Our ventilation ducts with Lindab Safe and Lindab Safe Click, are first in the world to have Eurovent certification. Certification means that the product must meet certain standards throughout the entire production process.

Eurovent certification guarantees that the product has been submitted for an independent check and has been honestly and correctly graded.

This means you can feel safe with the product you buy, and you can be completely sure that it maintains high quality and tightness class D.

Lindab is constantly striving to raise its standard when it comes both to product development and new energy efficient innovations.

Check ongoing validity of certificate:
www.eurovent-certification.com

www.lindab.co.uk

Lindab®

Manifold MCU

Description

The manifold can be used for both supply and exhaust air and is available in several variations. All types have Ø63 or Ø76mm spigots with Lindab Safe seals for connections of LFPE semi-rigid ducts.

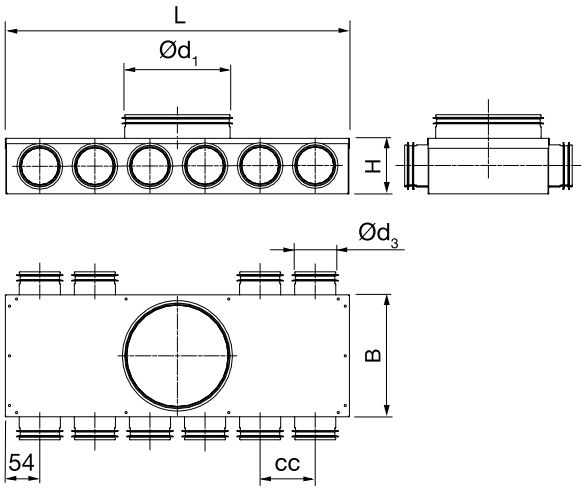
The manifolds are designed for floor installation but can be used in any location, such as in the ceiling for example.

The smart lock function allows you to fasten LFPE effortlessly to the Safe spigots.

Two turnable anchor plates, placed on the bottom of the manifold, can be used for mounting.

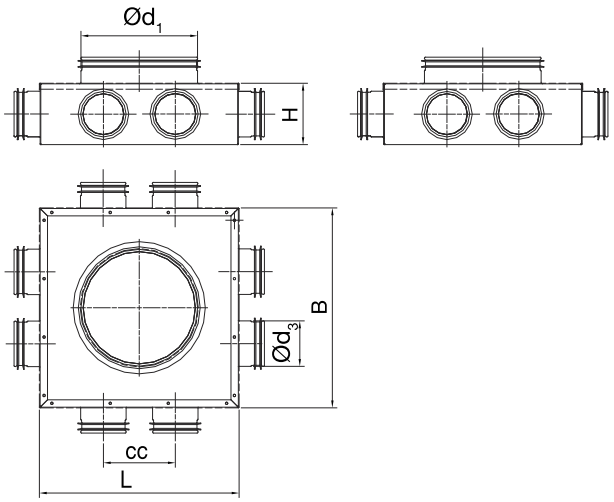
Fulfils air tightness class D.

Dimensions



Ød1 nom mm	Ød3 nom mm	Type	L mm	B mm	H mm	cc mm	kg
125	63	6-0	520	185	88	83	2.30
160	63	6-4	520	185	88	83	2.30
160	63	8	275	275	88	98	1.80
160	63	10-4	852	185	88	83	3.40
160	76	6-0	622	185	108	100	2.41
160	76	8	275	275	108	115	1.76
160	76	8-0	822	185	108	100	3.08
200	76	8	275	275	108	115	1.75
200	76	10-0	1022	221	108	100	4.19

MCU 160 63 8, 160 76-8, 200 76-8



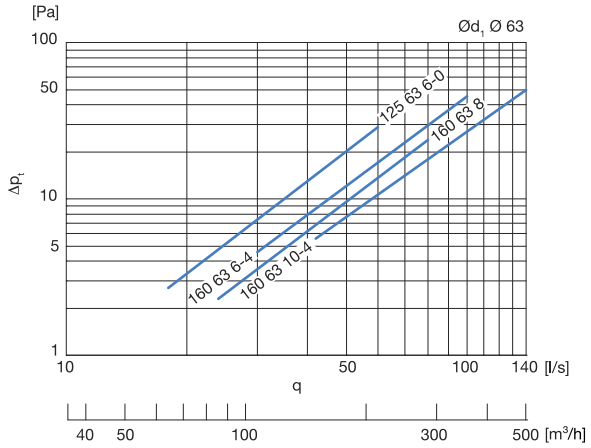
Ordering example

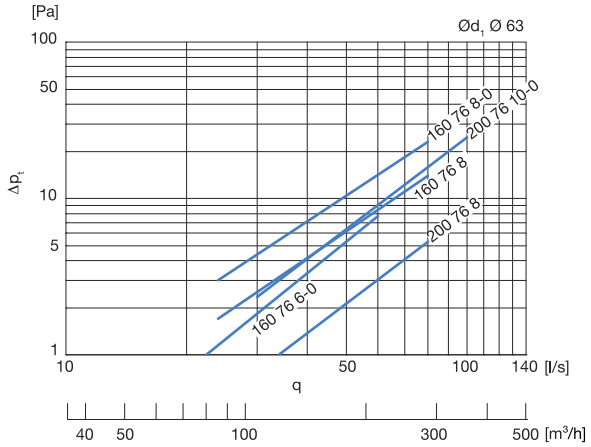
MCU	160	63	10-4
Product			
Dimension Ød1			
Dimension Ød3			
Type			

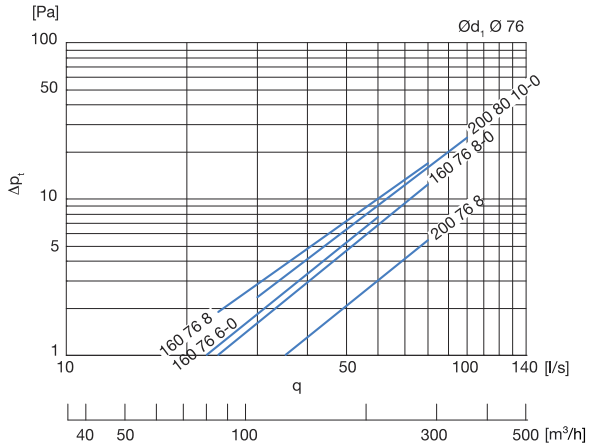
Tel: 02380 240958 Fax: 02380 262595

Technical data

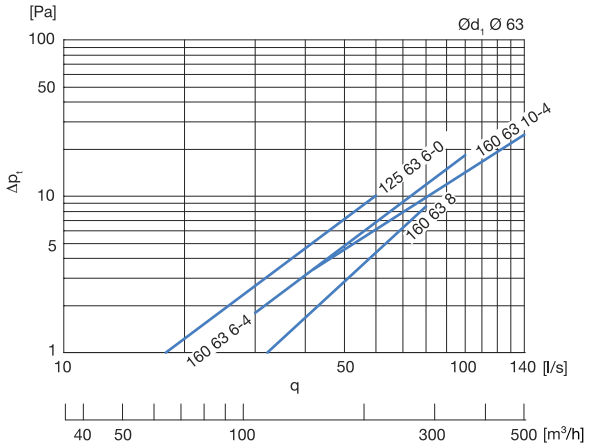
Supply

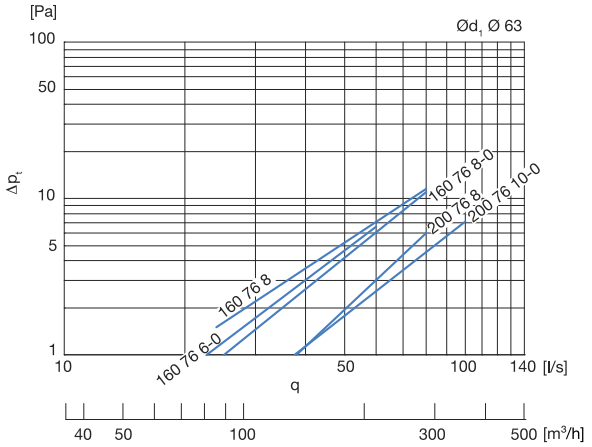


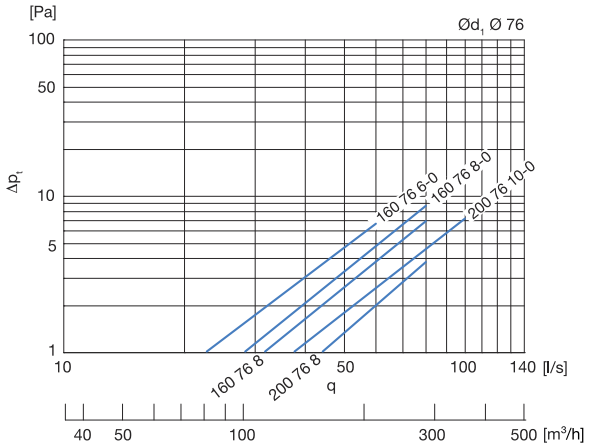




Exhaust







Manifold MHU

Description

The manifold can be used for both supply and exhaust air and is available in several variations. All types have Ø63 or Ø76mm spigots with Lindab Safe seals for connections of LFPE semi-rigid ducts.

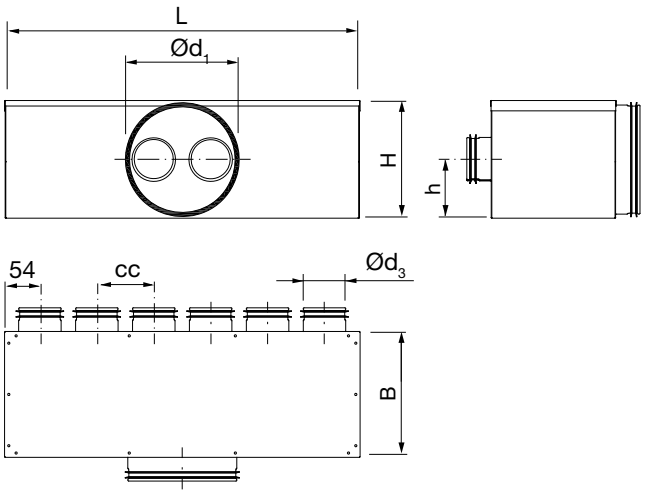
The manifolds are designed for floor installation but can be used in any location, such as in the ceiling for example.

The smart lock function allows you to fasten LFPE effortlessly to the Safe spigots.

Two turnable anchor plates, placed on the bottom of the manifold, can be used for mounting.

Fulfils air tightness class D.

Dimensions



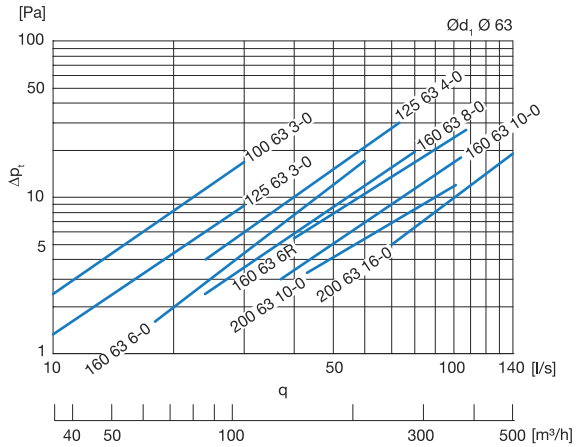
Ød1 nom mm	Ød3 nom mm	Type	L mm	B mm	H mm	h mm	cc mm	kg
100	63	3-0	270	184	138	67	83	1.50
125	63	3-0	270	184	138	67	83	1.40
125	63	4-0	352	184	138	67	83	1.90
125	63	6-0	518	184	138	67	83	2.40
125	76	2-0	221	184	138	67	100	1.20
125	76	3-0	321	184	138	67	100	1.80
160	63	6-0	518	184	173	85	83	2.80
160	63	6R	518	214	173	85	83	2.60
160	63	6L	518	214	173	85	83	2.60
160	63	8-0	685	184	173	85	83	3.30
160	63	10-0	867	184	173	85	83	4.10
160	76	6-0	620	184	173	85	100	3.00
160	76	8-0	620	184	173	85	100	4.00
160	76	6-0	620	184	173	85	100	3.00
160	76	8-0	820	184	173	85	100	4.00
200	63	10-0	867	184	213	105	83	4.50
200	63	16-0	775	187	215	50	95	5.35
200	76	10-0	1020	184	213	105	100	5.00

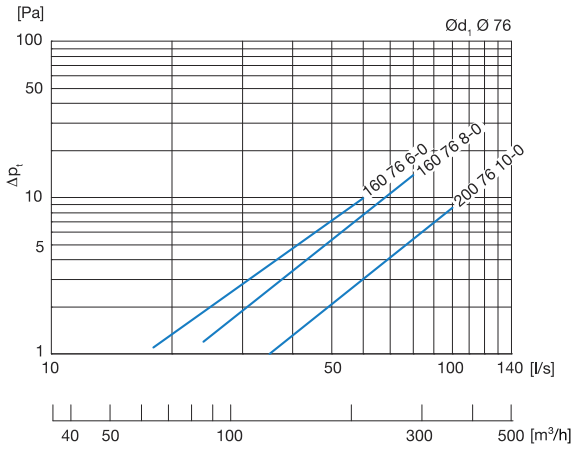
Ordering example

Tel: 02380 240958 Fax: 02380 262595

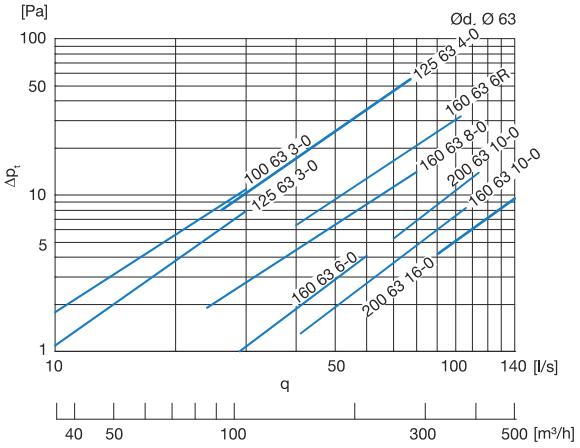
Technical data

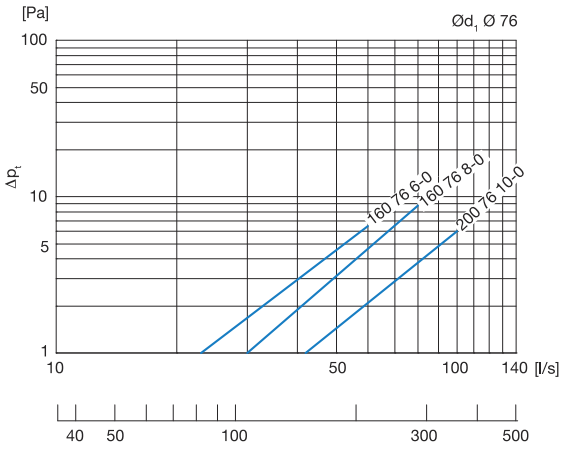
Supply





Exhaust





Manifold MRU/MLU

Description

The manifold can be used for both supply and exhaust air and is available in several variations. All types have Ø63 or Ø76mm spigots with Lindab Safe seals for connections of LFPE semi-rigid ducts.

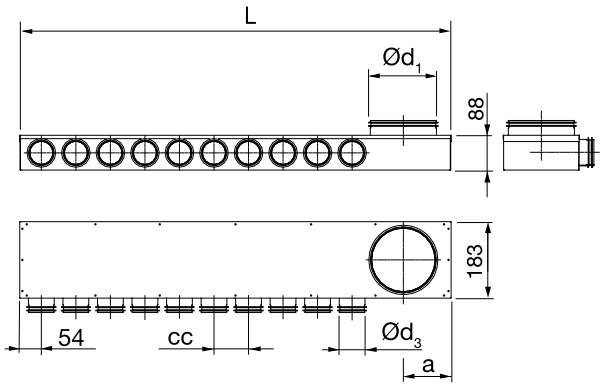
The manifolds are designed for floor installation but can be used in any location, such as in the ceiling for example.

The smart lock function allows you to fasten LFPE effortlessly to the Safe spigots.

Two turnable anchor plates, placed on the bottom of the manifold, can be used for mounting.

Fulfils air tightness class D.

Dimensions



MRU right handed option shown.
Use MLU code for left handed option.

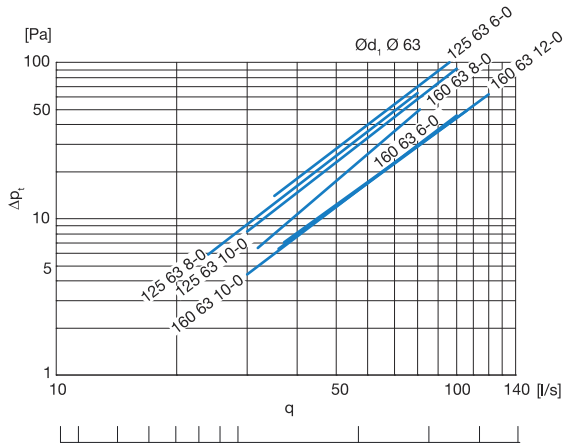
Ød1 nom mm	Ød3 nom mm	Type	L mm	cc mm	a mm	kg
125	63	6-0	704	93	85	2.50
125	63	8-0	888	93	85	3.20
125	63	10-0	1072	93	85	3.90
125	76	8-0	946	100	85	3.40
160	63	6-0	780	93	102	2.80
160	63	8-0	1001	98	102	3.30
160	63	10-0	1173	98	102	3.85
160	63	12-0	1293	93	102	4.50
160	76	4-0	574	100	102	2.60
160	76	6-0	774	100	102	3.00
160	76	8-0	974	100	102	3.50
160	76	10-0	1174	100	102	3.90

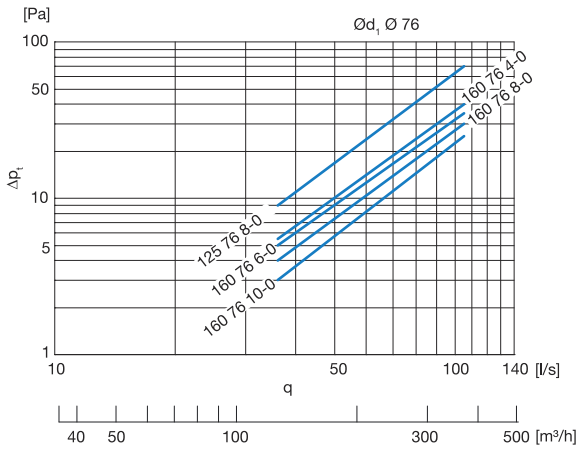
Ordering example

Tel: 02380 240958 Fax: 02380 262595

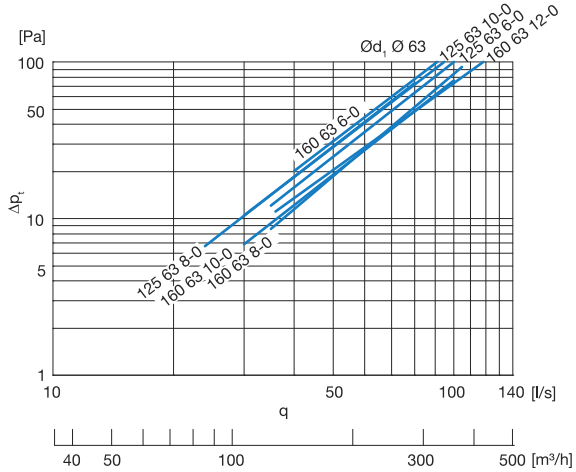
Technical data

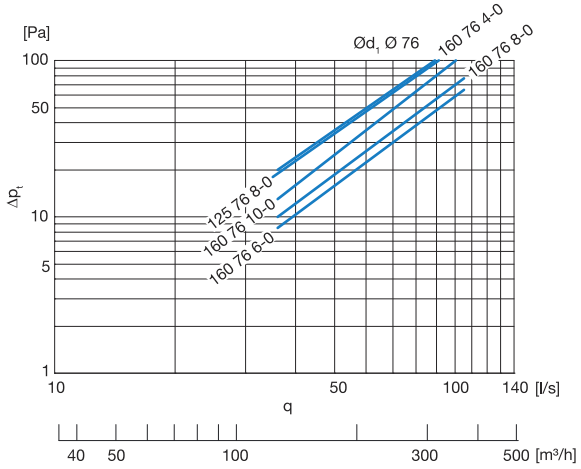
Supply





Exhaust





Plenum box PLVCU

Description

The plenum box is suitable for supply and exhaust air.

It is intended to accommodate an air valve, is designed for ceiling installation and can be cut to length to suit void depth.

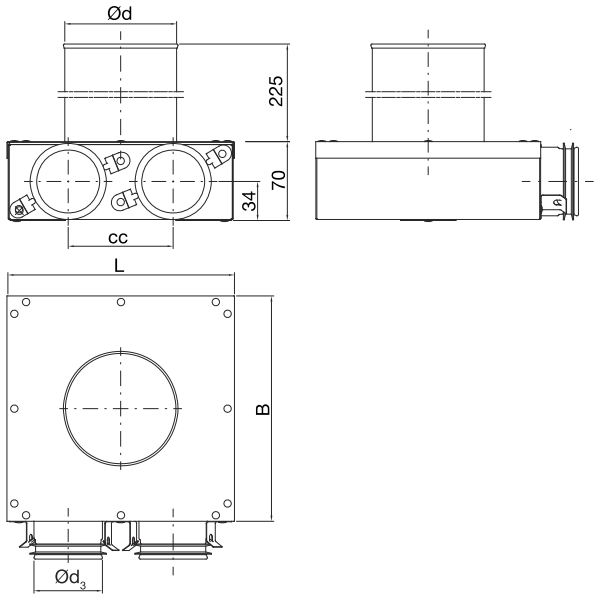
All types have Ø63 or Ø76mm spigots with Lindab Safe seals for connection of semi-rigid LFPE duct. Each connection is equipped with Smart lock to secure the duct.

Two turnable anchor plates, placed on the bottom of the manifold, can be used for mounting.

Fulfils the requirements for air tightness class D.

The shown pressure drop is for the box alone, the pressure drop for any fitted air valve has to be added.

Dimensions



Ød nom mm	Ød3 nom mm	Type	L mm	B mm	cc mm	kg
100	63	1	184	182	–	0.90
100	63	2	206	204	95	1.00
125	63	1	184	182	–	0.90
125	63	2	206	204	95	1.00
125	63	3	297	295	95	1.60
125	76	1	184	182	–	1.00
125	76	2	249	204	125	1.10
160	63	2	216	214	–	1.20
160	76	1	216	214	–	1.10
160	76	2	249	214	125	1.50

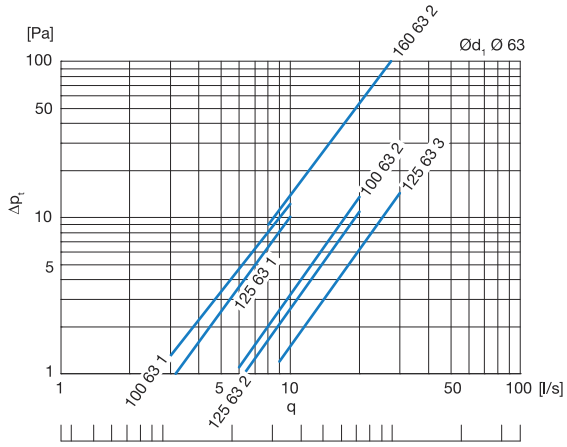
Type

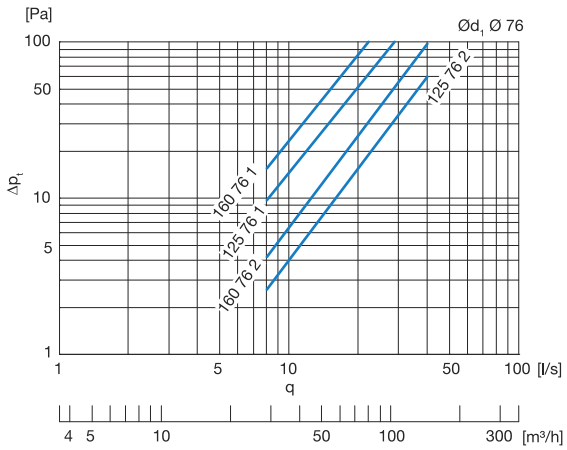
PLVCU	100	63	2
Product			
Dimension	Ød1		
Dimension		Ød3	
Type			

Tel: 02380 240958 Fax: 02380 262595

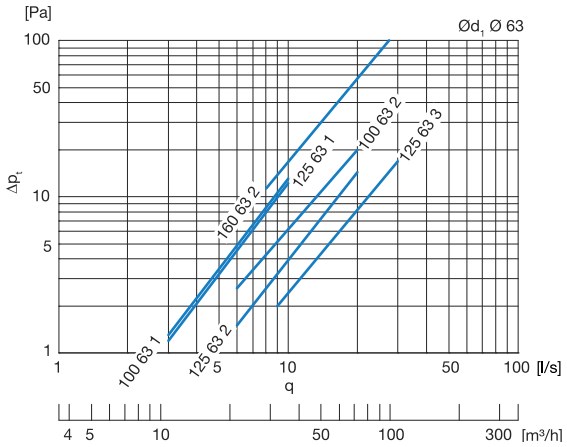
Technical data

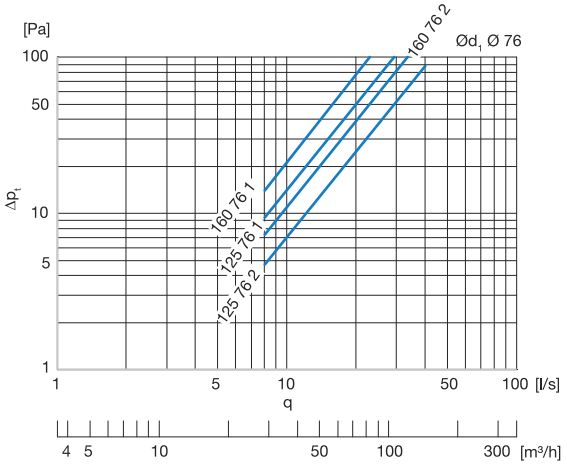
Supply





Exhaust





Plenum box PVCU

Description

The plenum box is suitable for supply and exhaust air.

It is intended to accommodate an air valve, is designed for ceiling installation but can be used at other locations as well.

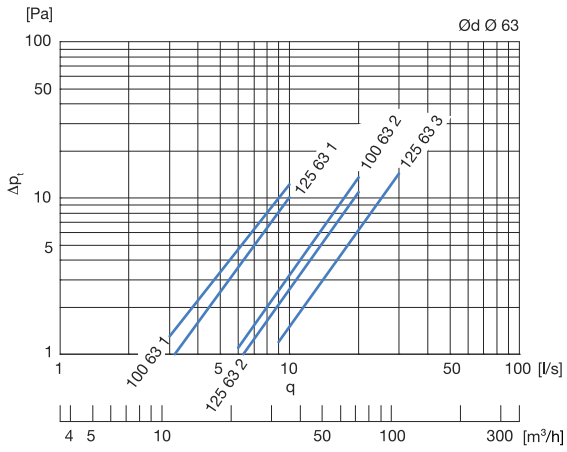
All types have Ø63 mm spigots with Lindab Safe seals for connection of semi-rigid LFPE duct. Each Ø63 connection is equipped with Smart lock to secure the duct.

Fulfils the requirements for air tightness class D.

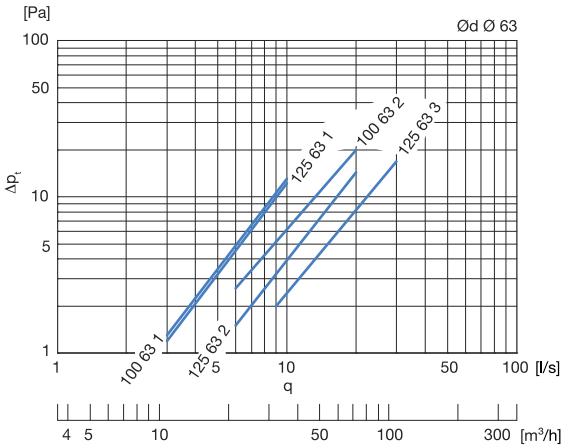
The shown pressure drop is for the box alone, the pressure drop for any fitted air valve has to be added.

Technical data

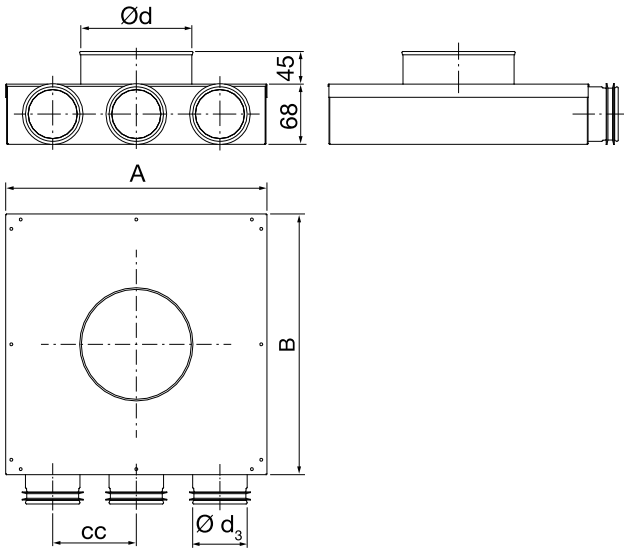
Supply



Exhaust



Dimensions



Ød nom mm	Ød3 nom mm	# of Ø63	L mm	B mm	cc mm	kg
100	63	1	184	184	95	0.66
100	63	2	206	206	95	0.80
125	63	1	184	184	95	0.66
125	63	2	206	206	95	0.80
125	63	3	297	297	95	1.36

Ordering example

PVCU 100 63 2

- Product
- Dimension Ød1
- Dimension Ød3
- Number of Ø 63 in-/outlets

Tel: 02380 240958 Fax: 02380 262595

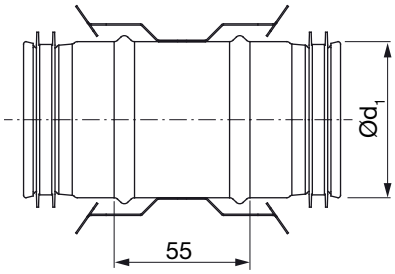
Coupling **NPULFPE**

Description

Used when connecting two semi-rigid ducts LFPE. It is supplied with clips to hold the semi-rigid duct – Smart lock function.

Fulfils the requirements for air tightness class D.

Dimensions



Ød1 nom mm	kg
63	0.07
76	0.09

Ordering example

NPU	63	LFPE
Product		
Dimension Ød1		
Semi-rigid duct		

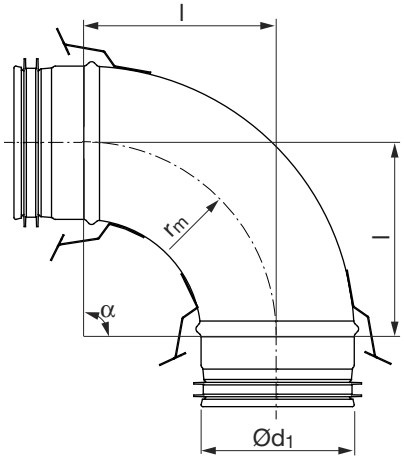
Bend **BULFPE90**

Description

Used for semi-rigid ducts when small radius is required. It is supplied with clips to hold the semi-rigid duct – Smart lock function.

Fulfils the requirements for air tightness class D.

Dimensions



Ød1 nom mm	l mm	kg
63	110	0.20
76	105	0.26

Ordering example

BU	76	90	LFPE
Product			
Dimension Ød1			
Angle α			
Semi-rigid duct			

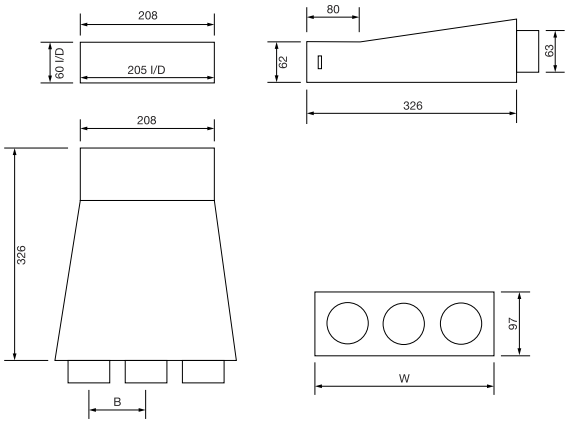
Air brick adapters ABA

Description

ABA is an air brick adapter available with 2 or 3 Ø63 or Ø76mm connections and is fitted with Smart Lock for quick and simple connection of LFPE semi-rigid ducting.

ABA is designed to receive the Lindab VPAB air brick fascia (sold separately)

Dimensions



Ød mm	# of spigots	W mm	B mm
63	2	221	110
63	3	281	89

Ordering example

ABA 63 2

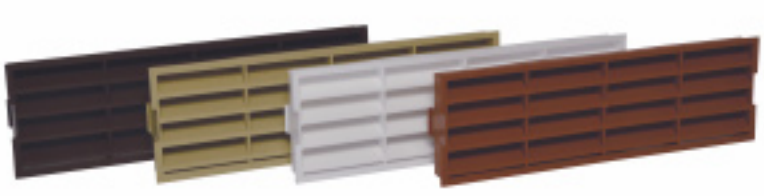
Product
Dimension Ød
No. Spigots

Air brick fascia VPAB

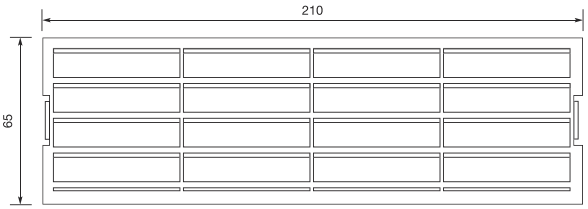
Description

VPAB is an air brick fascia for mounting in the ABA air brick adapter (sold separately).

VPAB is available in terracotta,Cotswold stone, white or brown.



Dimensions



Colours available

Brown
Cotswold Stone
White
Terracotta

Tel: 02380 240958 Fax: 02380 262595

LFPE Insulation **FLDSL**

Description

TT400 is a highly flexible, high insulation thermal sock for insulating LFPE when passing through unheated voids such as roof spaces etc.

Supplied in 10m lengths TT400 can easily be cut to length and simply slid over the LFPE to provide a highly efficient thermal jacket.

Technical data

Size	Ø100mm for LFPE Ø63mm, Ø125mm for LFPE Ø76mm
Insulation:	25mm thick microfiber 16kg/m³ Thermal conductivity in λ w/m.K at 10ºC is 0.036
Outer layer:	Scuff resistant reinforced aluminium laminate fabric
Length:	10 Metres

Compliance

Tested to and compliant with the requirements of BS476 Parts 6, 7 and 20.

Insulation wrap **DUCTWRAP**

Description

Non-combustible mineral wool insulation with aluminium foil facing. Ideal for insulating plenum and distribution boxes when installing in unheated areas voids such as roof spaces etc.

Technical data

Roll size:	1.2m x 18m
Insulation:	25mm thick mineral wool 25kg/m³ Thermal conductivity in λ w/m.K at 10ºC is 0.033
Outer layer:	Aluminium foil facing

Heavy Duty Turboshear TSHD

Description

The Turboshear simplifies cutting of spiral duct. The lightweight clamping device allows one-handed operations and offers greater manoeuvrability.

The heavy-duty shears are capable of cutting spiral ducting up to 1.32mm and require just a 25mm hole to start cutting.

Fits most cordless drills of 14.4 volts or larger.

Drill not included.

Snips AV

Description

Durable AV snips made from forged steel can be used to cut spiral duct. Available in 45°, 90° and straight cutting options with left and right handed grips which are coloured for ease of identification.

Capable of cutting spiral ducting up to 1.2mm.

Radial Duct Cutter LFPECUT

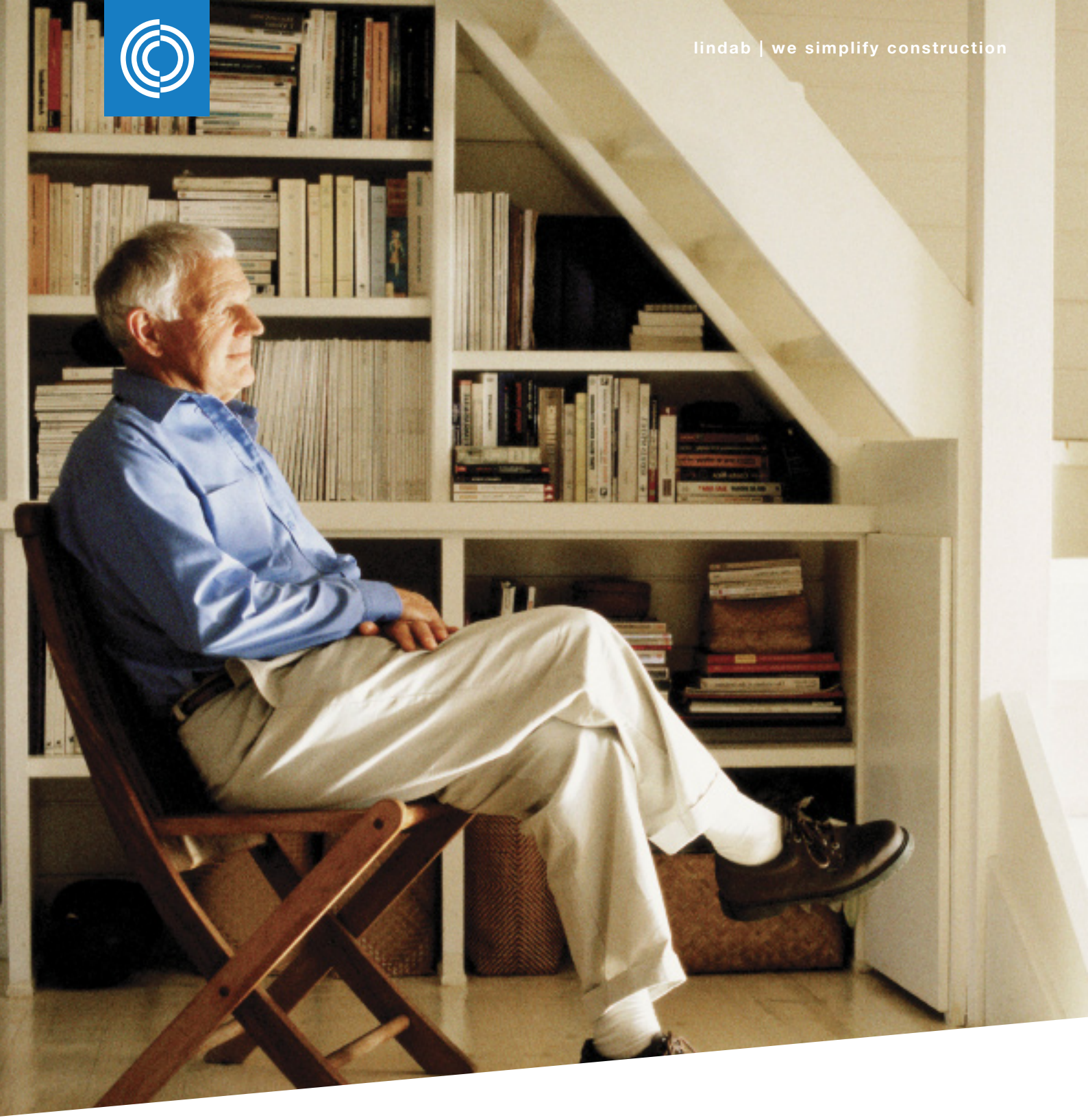
Description

This cutter is specifically designed to simplify cutting LFPE semi-rigid duct.

The built-in blade, ergonomic handle and cutting guides enable the ducting to be easily cut to length to suit a radial ventilation system and neatly fit to smart-lock components.

Suitable for use with 63mm and 76mm duct.

Tel: 02380 240958 Fax: 02380 262595



Lindab **InDomo** – The Quiet Solution

There is nothing more annoying than the constant background noise from a poorly designed ventilation system.

When Lindab developed the InDomo residential ductwork system, from the specially designed low profile silencers to plenum chambers which assist in attenuation of fan noise within the living space, noise was always high on the agenda

www.lindab.co.uk

Lindab®

Lindab **InDomo** Sound Performance

Whilst designing products for the InDomo range which provide ease of installation, it was important to us that this could not be at the expense of additional noise.

Lindab LFPE ducting has the equivalent or better noise break-out characteristics as our industrial standard SR spiral ducting and the extremely smooth internal wall of LFPE results in little or no turbulence generated noise.

Table 1: Insertion loss [dB] of LFPE Semi rigid duct versus standard spiral duct of the same size								
Reference	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**8KHz**
LFPE 63 1000	0	1	1	1	0	0	1	5
LFPE 63 2000	1	1	1	1	0	0	1	8
LFPE 76 1000	0	1	1	1	0	0	1	5
LFPE 76 2000	1	1	1	1	0	0	1	8

Lindab InDomo plenum chambers and distribution boxes assist in the attenuation and limit the distribution of mechanical noise within a residential ventilation system.

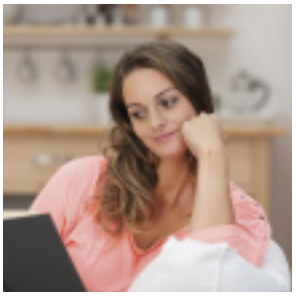
The table below illustrates the example of a MHU 125 distribution box with six 63mm spigots and MHU 160 distribution box with six 76mm spigots showing the insertion loss within a single room directly connected by LFPE duct to 1, 2, 3, 4 or 6 outlets from the MHU.

Table 2: Insertion loss [dB] of MHU in various configurations (excludes outbreak & flow generated noise)								
Reference	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**8KHz**
MHU-125-6-63 1 DUCT	26	15	15	12	12	13	13	17
MHU-125-6-63 2 DUCTS	22	10	11	11	8	8	8	12
MHU-125-6-63 3 DUCTS	15	8	10	11	8	6	7	11
MHU-125-6-63 4 DUCTS	12	7	8	9	5	5	5	10
MHU-125-6-63 6 DUCTS	2	5	7	8	4	3	4	8
MHU-125-6-76 1 DUCT	26	15	22	18	13	14	14	19
MHU-125-6-76 2 DUCTS	18	12	15	12	9	10	11	15
MHU-125-6-76 3 DUCTS	14	8	11	8	8	9	10	14
MHU-125-6-76 4 DUCTS	10	7	8	6	7	8	8	13
MHU-125-6-76 6 DUCTS	2	3	1	2	3	4	5	9

Tel: 02380 240958 Fax: 02380 262595

The table below details attenuation properties of Lindab PVCU-125 and PLVCU-125 plenums with KI-125, KU-125 and Airy air valves.

Table 3: Sound attenuation in [dB] of P(L)VCU + KI/KU-125 (excludes outbreak & flow generated noise)								
Reference	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**8KHz**
PVCU-125 + KI-125	23	16	8	15	14	12	8	6
PLVCU-125 + KI-125	23	14	11	12	12	13	8	8
PVCU-125 + KU-125	17	16	6	10	12	7	5	6
PLVCU-125 + KU-125	22	12	9	10	10	11	5	6



Sound Calculations for MVHR Systems

Lindab are now able to offer full sound calculations for MVHR systems, utilising our own calculation program, **DIM**silencer.

Provided that we are given the relative requirements, we can show how we achieved your required Db(a) or NR level using our residential ventilation system components, for each and every room in the house that has an Air Valve.

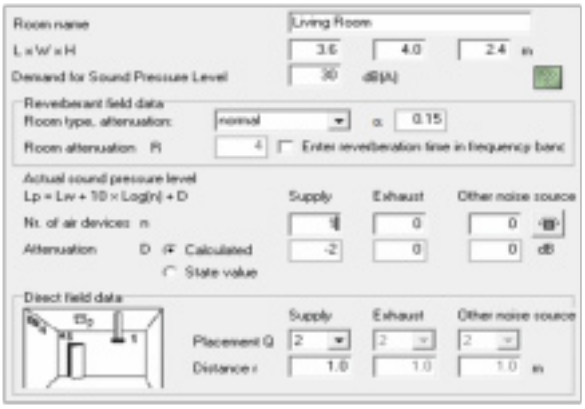
We have an extensive library of Lindab products within DIMsilencer, enabling us to give you an accurate calculation for your project.

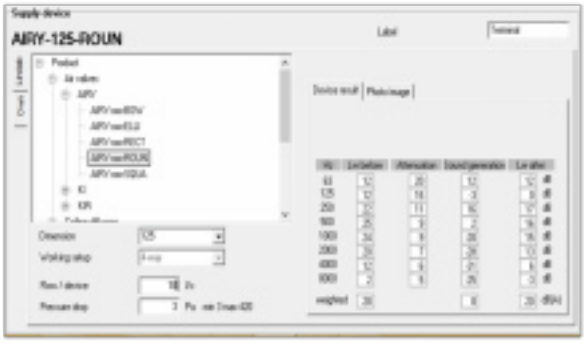
Only available with projects using our InDomo radial system.

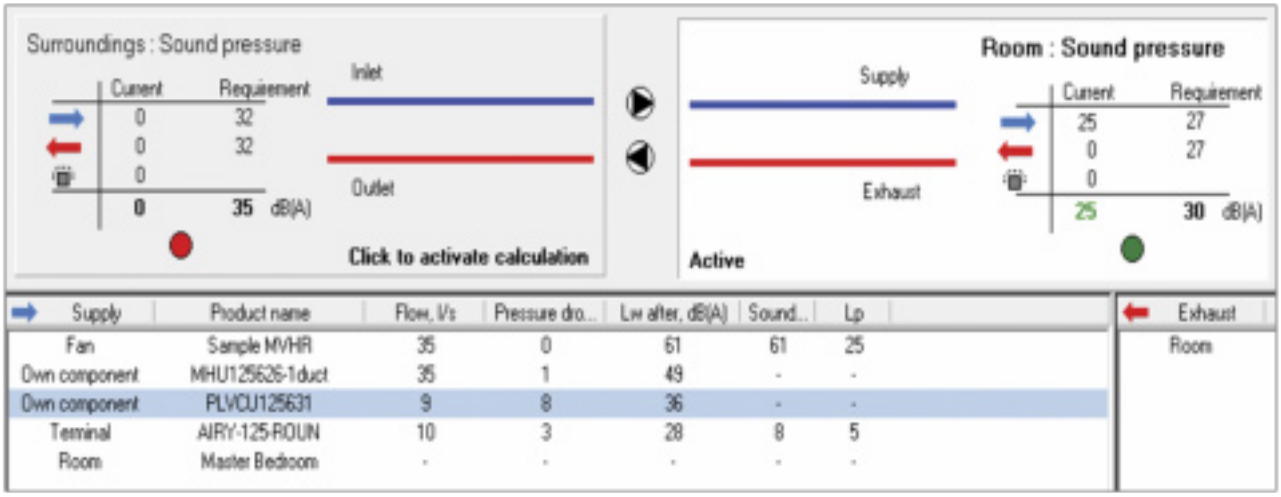
Please speak with your regional Lindab Residential Ventilation representative for more information.

DIMsilencer

www.lindab.co.uk/dimsilencer







Tel: 02380 240958 Fax: 02380 262595

Circular straight silencer **SLXU 50**

Description

SLXU 50 is a circular straight silencer designed to significantly reduce fan noise in residential systems.

Fulfils tightness class D.

Insulation thickness 50 mm.

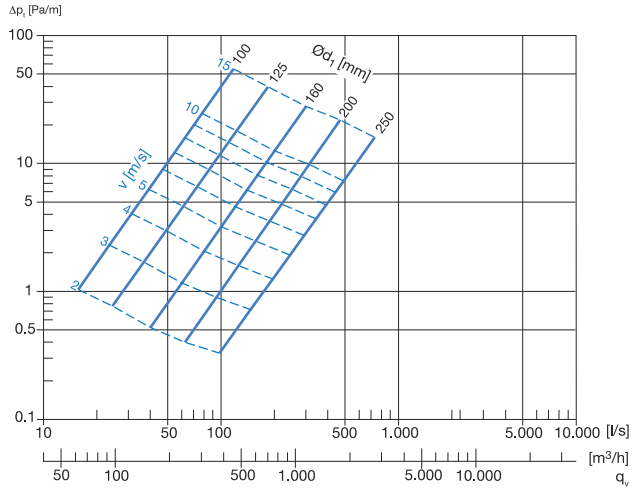
Attenuation material is glass wool.

Made with galvanised steel casing.

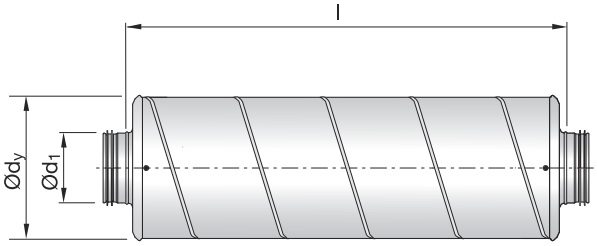
Tested according to ISO 7235 standard.

Technical data

Pressure loss Δp_t [Pa/m]



Dimensions and sound data



$Ød_1$ nom mm	l_{nom} mm	Attenuation [dB] for centre frequency Hz								$Ød_y$ mm	l kg	kg
		63	125	250	500	1k	2k	4k	8k			
100	300	2	4	8	11	17	26	16	16	210	360	2.0
100	600	5	6	13	19	29	45	28	21	210	660	3.0
100	900	8	8	19	26	42	50	42	30	210	960	5.0
125	300	3	3	7	9	17	25	15	14	235	365	3.0
125	600	6	6	10	15	26	40	24	22	235	665	4.0
125	900	7	7	15	19	36	50	30	21	235	965	7.0
160	300	0	3	5	10	21	20	13	13	270	375	3.0
160	600	1	5	8	13	24	29	14	15	270	675	6.0
160	900	2	5	11	18	35	42	21	16	270	975	8.0
200	600	1	3	6	11	25	20	11	12	310	685	7.0
200	900	1	4	8	13	27	26	13	12	310	985	10.0
250	600	0	2	4	9	20	14	7	8	365	600	9.0
250	900	1	4	8	15	30	19	10	11	365	900	12.0

Ordering example

Product	SLXU	aaa	bbb	50
SLXU				
Connection dim. $Ød_{1\ nom}$				
100 - 250				
Length in mm (l_{nom})				
300 - 900				
Insulation thickness				
50 mm				

Example: SLXU - 125 - 600 - 50

Circular straight low-built silencer LRCA

Description

LRCA is a circular straight silencer designed to significantly reduce fan noise in residential systems whilst maintaining a low profile which permits installation into tight spaces without loss of performance.

Fulfils tightness class D.

Insulation thickness 50 mm.

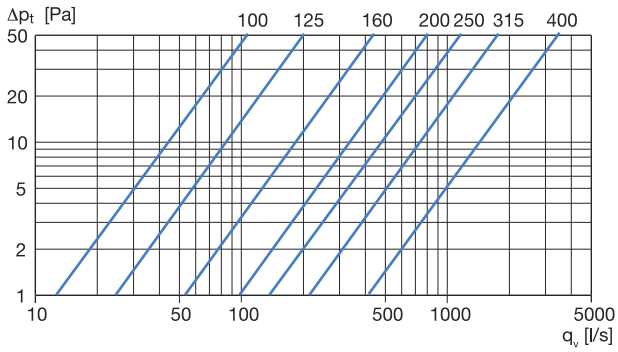
Attenuation material is glass wool.

Made with galvanised steel casing.

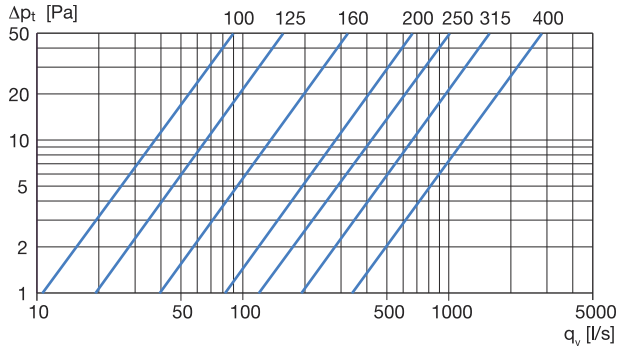
Tested according to ISO 7235 standard.

Technical data

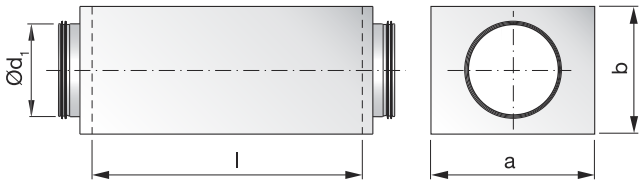
500mm



1000mm



Dimensions and sound data



Ød1 mm	l mm	a x b mm		Attenuation [dB] for centre frequency Hz								kg
				63	125	250	500	1k	2k	4k	8k	
100	500	210	158	8	12	12	23	44	45	30	18	3.2
100	1000	210	158	17	18	25	41	50	50	50	32	5.6
125	500	239	181	8	9	11	21	36	36	23	14	3.9
125	1000	239	181	17	14	21	38	50	50	45	23	6.9
160	500	275	218	6	7	10	18	28	24	13	10	4.4
160	1000	275	218	9	10	19	36	50	49	24	17	7.9
200	500	328	254	5	6	9	16	22	17	7	7	5.7
200	1000	328	254	11	13	15	30	46	36	14	12	10.1
250	500	390	308	5	4	8	16	19	13	6	6	7.2
250	1000	390	308	11	7	14	31	41	26	12	9	13.0
315	500	453	372	3	4	7	13	15	8	4	5	9.2
315	1000	453	372	8	8	13	26	33	18	9	9	16.4
400	500	546	460	2	3	6	10	10	5	5	5	12.7
400	1000	546	460	6	6	12	20	24	11	7	8	21.6

NB! Max. attenuation specified is 50 dB.

Ordering example

Product **LRCA** **aaa** **bbbb**

LRCA

Connection dim. Ød$_1$

Ød$_1$ = 100 - 400 mm

Length in mm

l = 500 - 1000 mm

Example: LRCA - 125 - 1000

Tel: 02380 240958 Fax: 02380 262595

Lindab **Airy**

Colour, form and function for fresh air
Innovative air valve with unlimited applications.

www.lindab.co.uk

Lindab®

Design and function in perfect harmony

Give your living room, bathroom or bedroom a facelift and get a better indoor climate in the process. Lindab Airy is a slim, effective air valve with unlimited applications and the lowest sound power level on the market.

Simply white, a happy splash of colour, wallpaper pattern or shiny stainless steel? Whatever look you choose, you will get a perfectly harmonized indoor climate with style.

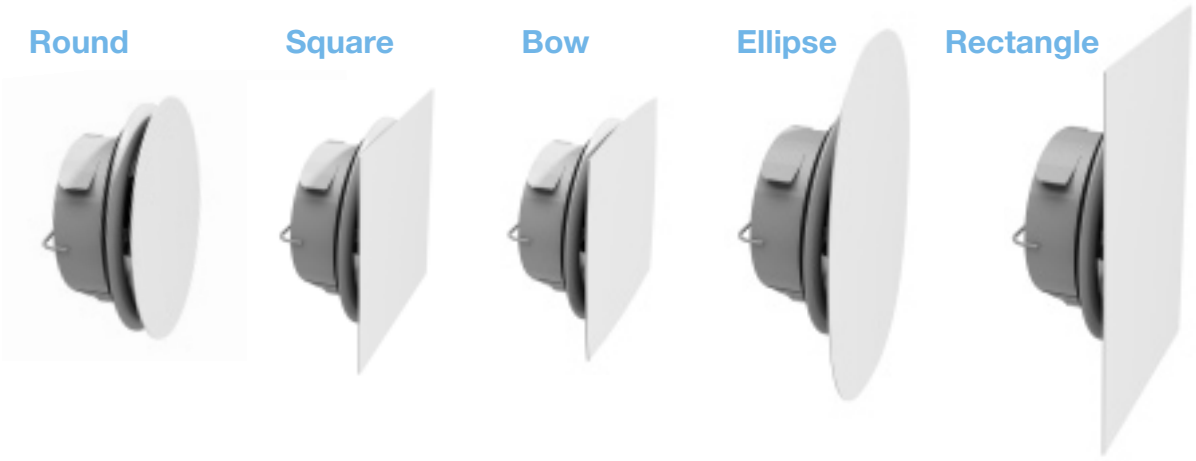
Tel: 02380 240958 Fax: 02380 262595

How to combine Lindab Airy

Choose between five forms, three front finishes and three dimensions.
Lindab Airy the perfect partner for your residential ventilation system.

1. Choose form

Round **Square** **Bow** **Ellipse** **Rectangle**



2. Choose front surface

RAW
What look do you prefer?
Front with raw surface.

- repaper
- repaint
- make invisible
- make your own design

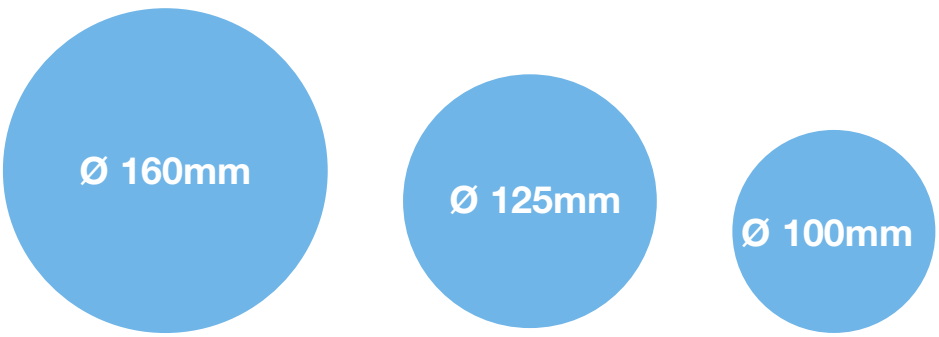
COATED
Painted and ready to fit?
Powder-coated front.

- white RAL 9003
- white RAL 9010

METAL
Highlight the material.
Front in metal.

- stainless steel

3. Choose dimension



Try it out yourself!
Visit www.lindab.com/airy. Read more about Lindab Airy and try different forms, colours and materials with our online tool.

Valve – supply and exhaust air AIRY

Description

The Airy valve is designed for wall or ceiling installation in new-build or as an upgrade replacement. Its smart grip function ensures easy installation whilst its unique sound performance ensures an optimum sound level. The valve consists of two parts; the valve body (AIRYB) and the flat front plate (AIRYFP).

The valve body is fixed to the duct system or a valve socket via flexible spring wings. The front plate is attached to the valve body via springs.

There are 5 standard front plate shapes:
ROUN – a circle,
BOW – a square with slightly bulged edges,
SQUA – a square,
ELLI – an ellipse.
RECT – a rectangle,

It is recommended that the valve is mounted in the frame ILVRU. The product will also fit in the valve frames VRGU, VRGM, VRFU, VRFM and the products BU GJUT, and TCPU GJUT. The valve body has to cover the brim of the product it is fitted into. Therefore the maximum diameter of the brim for Ø100 is 133.5 mm for Ø125 is 152.5 mm and for Ø160 is 187.5 mm.

Can be equipped with a blanking-off sector plate for 2 or 3 way airflow.

Materials and finish

Material:	Galvanised sheet metal
Colour:	White RAL 9003, gloss 30 or white RAL 9010, gloss 30

The front plate can be ordered in stainless steel.
It is also possible to paint the front plate with standard wall paint or to cover it with wallpaper.

Maintenance

The visible parts can be wiped off with a damp cloth.

Ordering example

Product AIRYB — **AIRYB 125 9010**
Connection dim. Ød Ød nom = 100, 125, 160 mm
Colour RAL 9003, RAL 9010

Example: AIRYB - 125 - 9003

Product AIRYFP — **AIRYFP 100 ROUN 9003**
Connection dim. Ød Ød nom = 100, 125, 160 mm
Type BOW, ELLI, RECT, ROUN, SQUA
Colour RAL 9003, RAL 9010

Example: AIRFP - 125 - ELLI - 9003

Technical data

Capacity

Airflow qv [l/s] and [m3/h], total pressure Δpt [Pa], throw $l_{0.2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the graphs.

Frequency-related sound power level

The sound power level in the frequency band is defined as $L_{WA}+K_{ok}$. K_{ok} values are specified in charts beneath the graphs on the following pages.

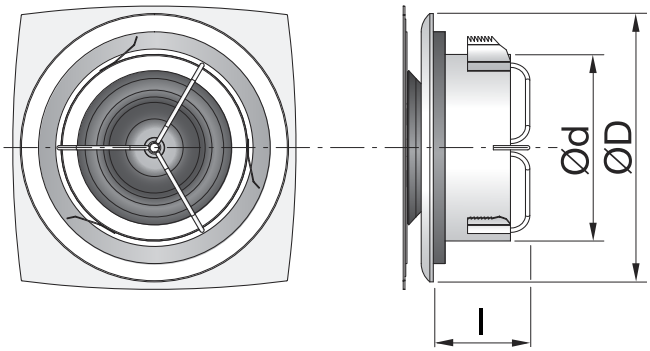
Sound attenuation

Sound attenuation of the diffusers ΔL from duct to room, including end reflection, is detailed below.

Ød nom mm	Centre frequency Hz							
	63	125	250	500	1k	2k	4k	8k
100	22	18	13	11	9	8	7	8
125	20	16	11	9	9	7	6	5
160	18	14	10	9	9	7	6	6

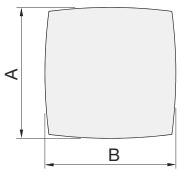
Tel: 02380 240958 Fax: 02380 262595

Dimensions

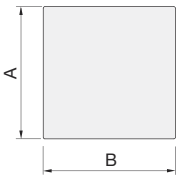


Ød nom mm	Ød mm	ØD mm	l mm	kg
100	90	137.5	54	0.13
125	114	156	57	0.18
160	191	191	57	0.28

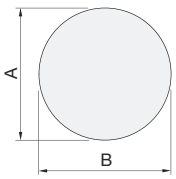
AIRYFP BOW



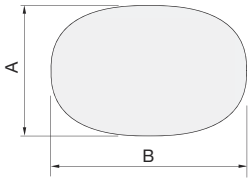
AIRYFP SQUA



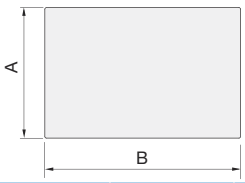
AIRYFP ROUN



AIRYFP ELLI

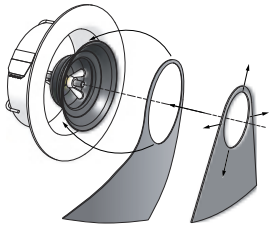


AIRYFP RECT



Ød nom mm	A nom	B mm	Type	kg
100	140	140	BOW	0.17
100	140	210	ELLI	0.21
100	140	140	ROUN	0.13
100	140	210	RECT	0.24
100	140	140	SQUA	0.17
125	165	165	BOW	0.22
125	165	248	ELLI	0.29
125	165	165	ROUN	0.18
125	165	248	RECT	0.33
125	165	165	SQUA	0.23
160	210	210	BOW	0.34
160	210	315	ELLI	0.44
160	210	210	ROUN	0.28
160	210	315	RECT	0.53
160	210	210	SQUA	0.35

Blanking off sector plate



Ordering example

Product **AIRYBP** **aaa**

AIRYBP

Connection dim. Ød

Ød nom = 100, 125, 160 mm

Example: AIRYBP - 125

Correction for sound and throw

When using blanking off sector in Airy calculate correction factor C and use this factor to read corrected sound and throw data:

$C = ((\alpha / 360)+1)$

Corrected flow to use for reading data in diagrams = $C \times q_v$

Example

AIRY-125

Sector plate α:	120°
Airflow qv:	20 l/s
Required pressure drop Δpt:	50 pa

$C = ((120 / 360)+1) = 1.33$

Corrected flow to use for reading data in diagrams = 1.33 × 20 l/s = 27 l/s

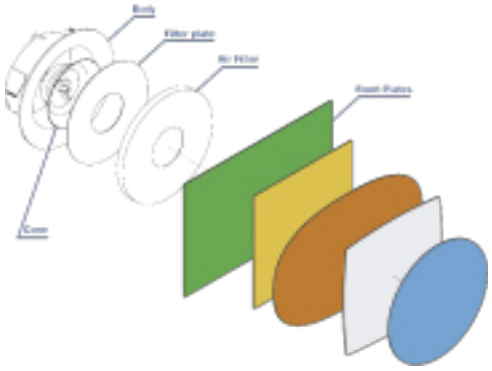
Corrected data:

Sound power level Lwa:	30 dB(A)
Slot setting for 50 pa :	12 mm
Throw l_{02} (12 mm. slot):	2.6 m

Fitting

Gently stretch the hole in the rubber blanking off plate and place it in the groove in the cone. Bend the rubber plate so that its edge rests on the inside of the valve body. Rotate the plate so the air diffuses in the desired direction.

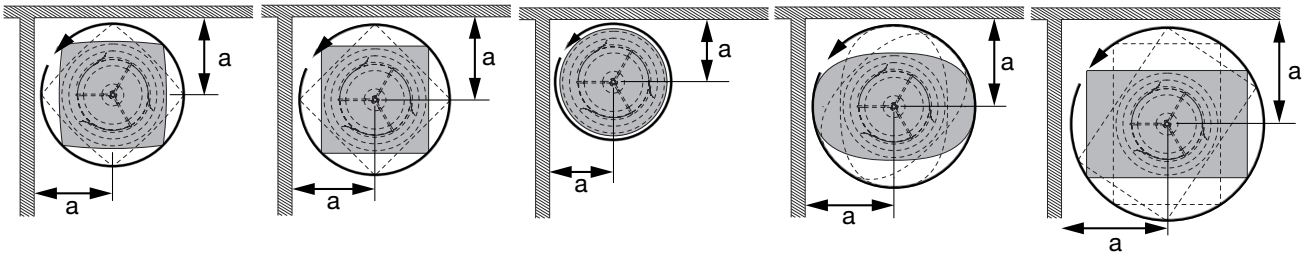
Simplified Airy Installation



Minimum distance to wall of ceiling

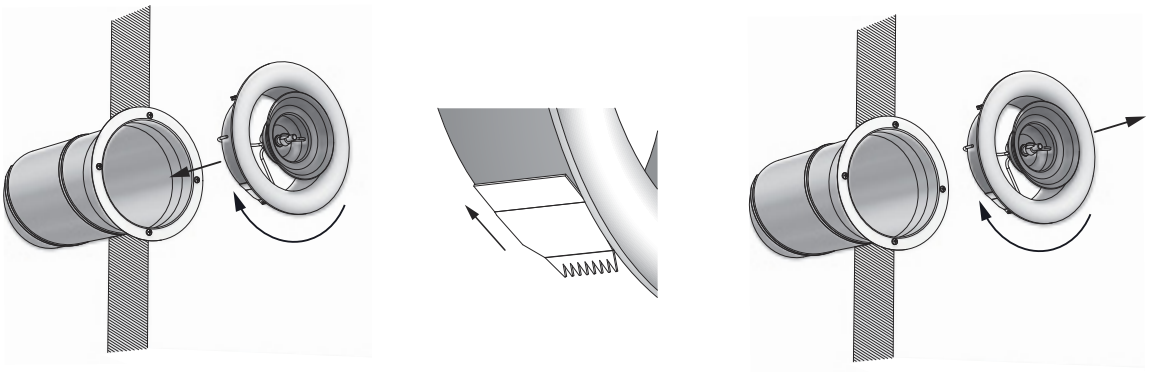
	a (mm)				
Ø nom mm	BOW	SQUA	ROUN	ELLI	RECT
100	100	100	70	130	130
125	118	118	85	155	155
160	150	150	118	195	195

Bow **Square** **Round** **Ellipse** **Rectangle**



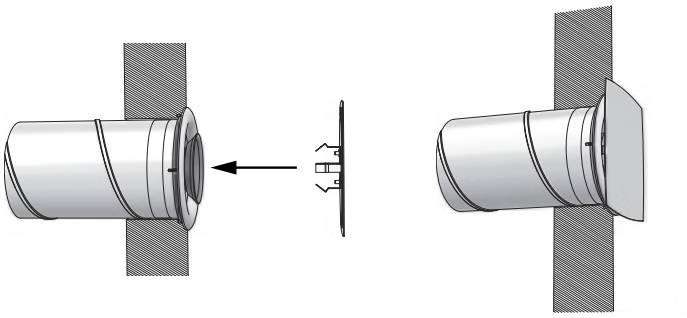
Tel: 02380 240958 Fax: 02380 262595

Mounting of valve



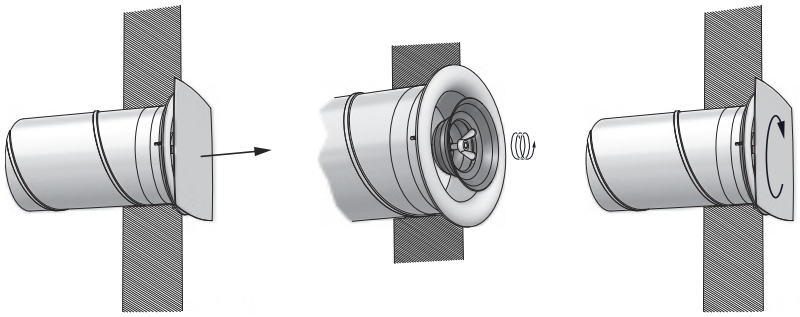
It is recommended that the AIRY valve is mounted in the frame ILVRU. The valve can also be mounted in valve frames VRGU, VRFU, VRFM, VRGM and products BU GJUT and TCPU GJUT. Press the valve's body into the frame and rotate it clockwise. To demount the body, rotate it clockwise while pulling.

Mounting of front plate



Lock the cone's position by locking the wingnut on the threaded rod against the cone. Attach the front plate of your choice onto the cone by clicking the springs into the cone.

Balancing



Remove the front plate. Unscrew the wingnut so that the cone is unlocked and can be adjusted. Reattach the front plate and rotate to adjust the air flow. Once balanced, remove the front plate, lock the cone's position by fastening the wingnut and reattach the front plate to the cone.

Maintenance

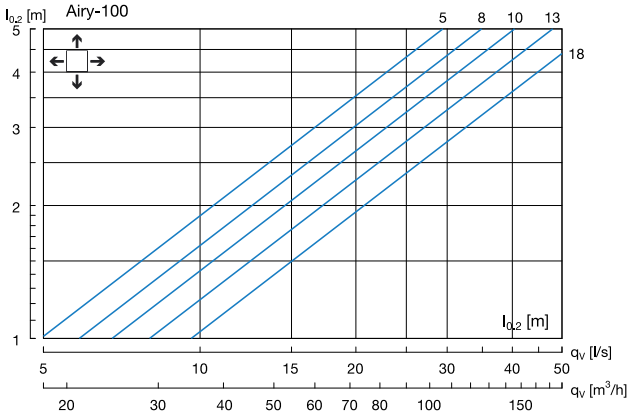
Remove the front plate and clean it with a mild detergent or a wet cloth. The insulation filter can be changed.

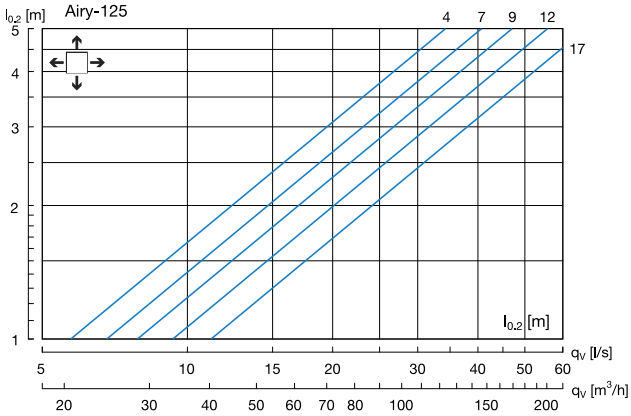
Valve – supply and exhaust air AIRY

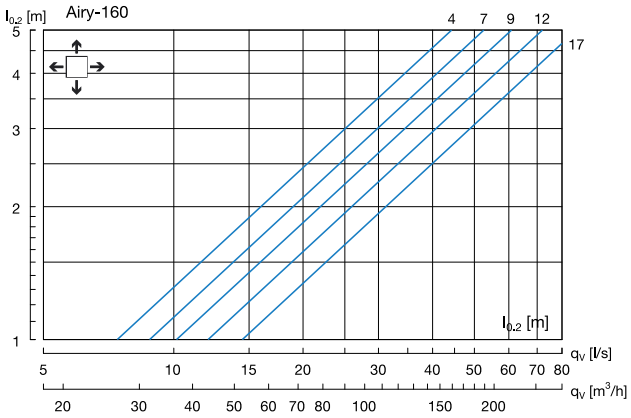
Technical data

Throw $l_{0.2}$

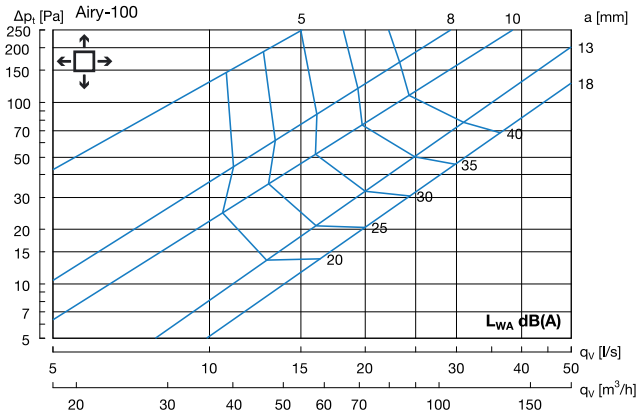
Throw $l_{0.2}$ [m] can be seen in the graphs for isothermal air, at a terminal velocity of 0.2 m/s.



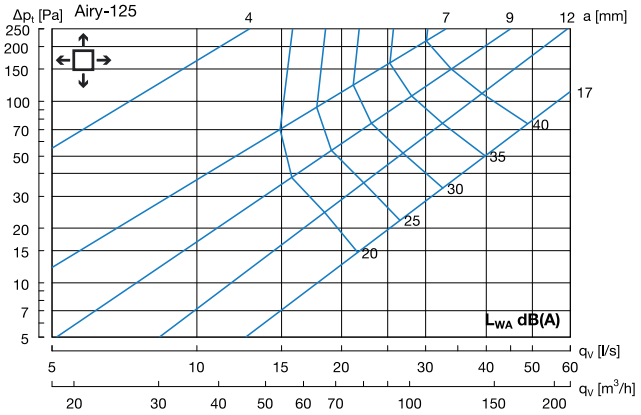




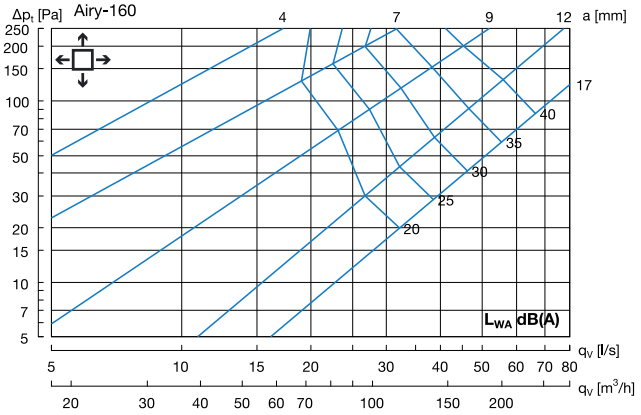
Supply air



Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	0	-6	0	1	-7	-13	-17	-21



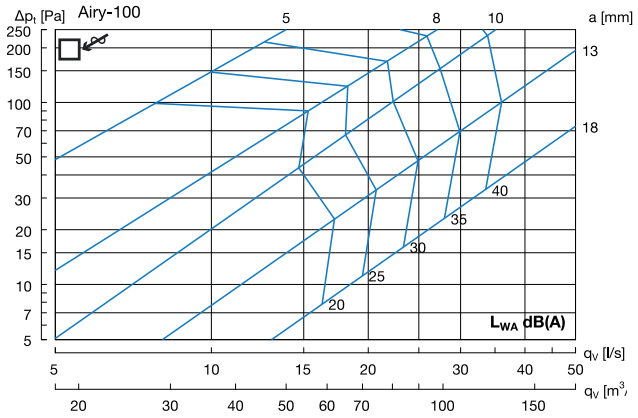
Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	4	-6	-1	0	-6	-11	-15	-15

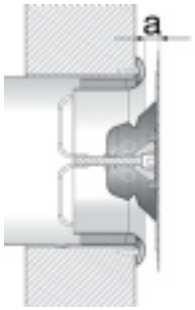


Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	4	-4	-1	-1	-6	-10	-13	-13

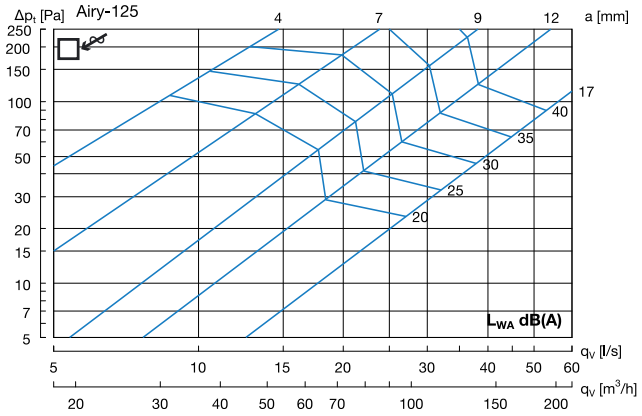
Tel: 02380 240958 Fax: 02380 262595

Exhaust air

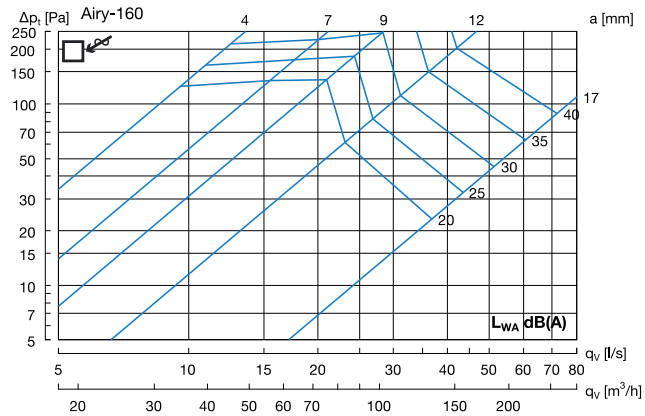




Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	8	-11	-3	0	-7	-9	-15	-15



Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	8	-9	-3	-3	-5	-6	-17	-21



Hz	63	125	250	500	1k	2k	4k	8k
K_{ok}	11	-8	-2	-2	-4	-10	-19	-17

Valve – supply air KI

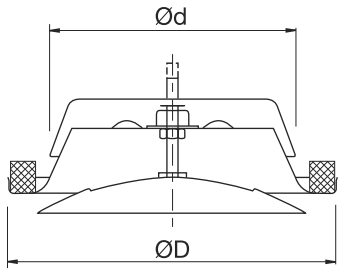
Description

Valve for supply air.
Designed for ceiling mounting.
Bayonet holders connect to socket VRGU, VRGL or VRGM.

Materials and finish

Material:	Powder-coated galvanised sheet metal.
Colour:	White RAL 9003, gloss 30 or white RAL 9010 gloss 30.

Dimensions



Ød nom mm	ØD nom mm	kg
80	111	0.14
100	130	0.21
125	160	0.30
150	190	0.39
160	190	0.41
200	245	0.65

Technical data

Airflow, q [l/s] and [m³/h], total pressure drop, Δp_t [Pa], throw length, $l_{0.2}$ [m], and A-weighted sound power level, L_{WA} [dB], for different settings, a [mm], are shown in the graphs.

Sound power level, L_{Wok} [dB], in octave bands

is calculated as $L_{WA} + K_{ok}$. K_{ok} is found in the table below.

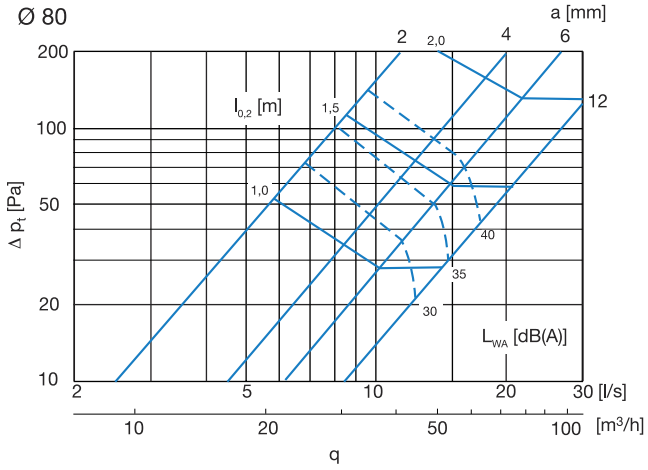
Ød nom mm	Valve mounted in	Centre frequency Hz							
		63	125	250	500	1k	2k	4k	8k
80	Duct	–	2	2	-1	-6	-14	-25	-37
100	Duct	–	2	2	-1	-6	-14	-25	-37
125	Duct	–	2	4	-2	-7	-14	-25	-37
160	Duct	–	6	5	-9	-9	-14	-25	-36
200	Duct	–	5	5	-8	-8	-16	-25	-36
Tolerance		–	±6	±3	±2	±2	±2	±2	±3

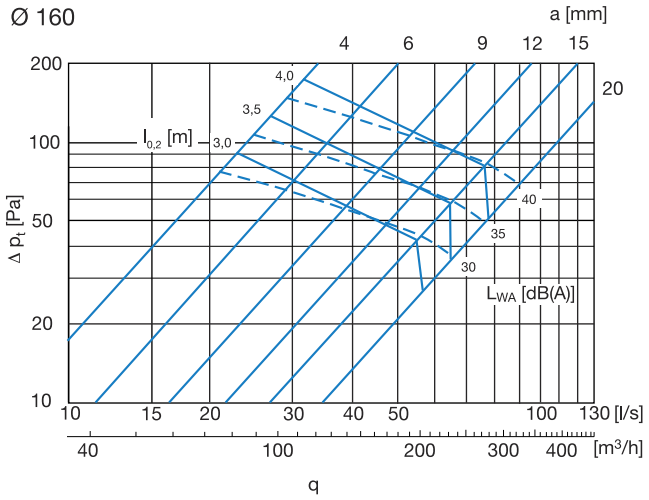
Sound attenuation, ΔL, [dB]

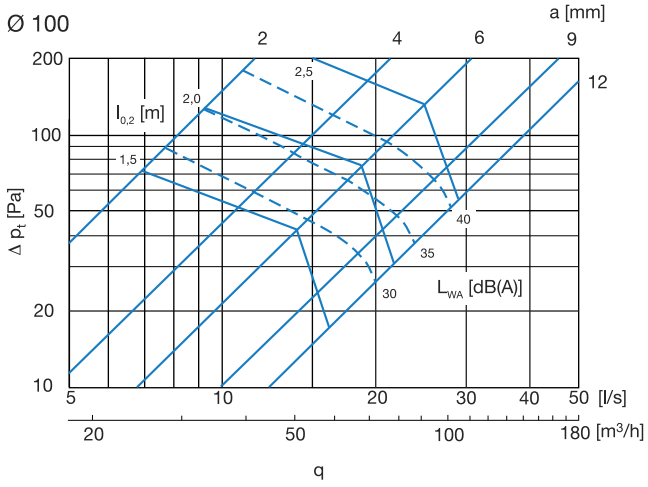
Ød nom mm	Valve mounted in	Setting a mm	Centre frequency Hz							
			63	125	250	500	1k	2k	4k	8k
80	Duct	2	26	20	15	14	11	8	10	9
		6	24	19	13	11	8	5	8	6
		12	24	19	13	10	6	4	5	6
100	Duct	2	22	19	14	12	11	12	10	12
		6	22	17	11	9	8	9	6	9
		12	22	17	11	8	6	7	4	7
125	Duct	3	20	17	12	11	9	9	8	8
		7	19	15	10	8	7	7	5	5
		12	19	15	9	7	5	5	4	4
160	Duct	4	18	14	10	10	10	10	8	8
		9	18	13	9	8	7	7	6	6
		20	18	13	8	7	6	5	5	5
200	Duct	5	17	13	10	9	11	10	9	9
		9	16	12	8	8	9	9	8	7
		20	15	11	7	6	7	6	7	6
Tolerance			±6	±3	±2	±2	±2	±2	±2	±3

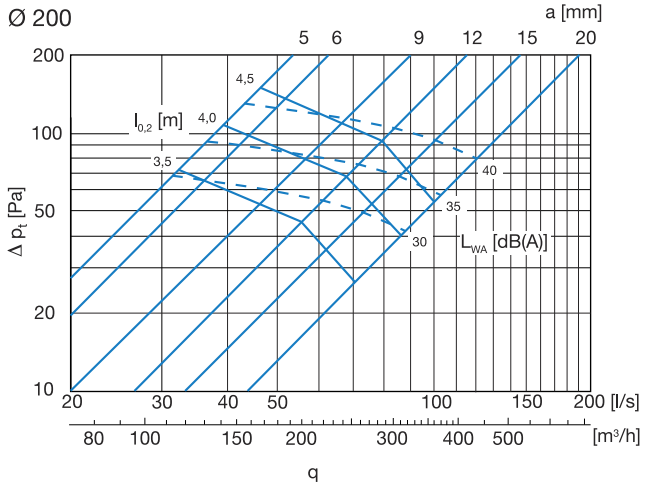
Tel: 02380 240958 Fax: 02380 262595

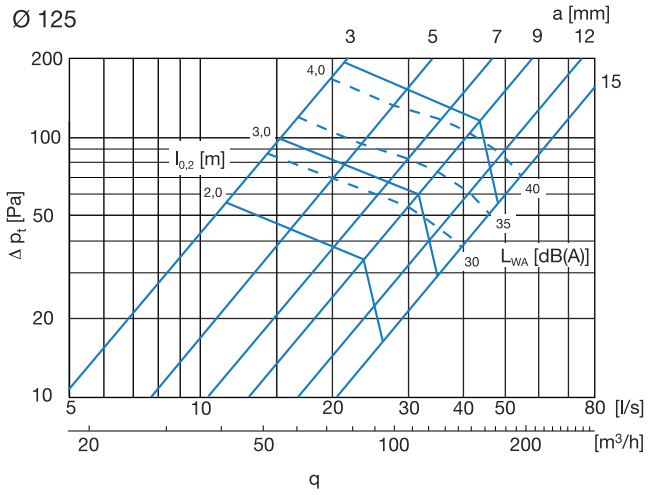
Measurement of airflow











Ordering example

KI	125	9003
Product		
Dimension Ød$_1$		
Colour		

Exhaust valve KSU

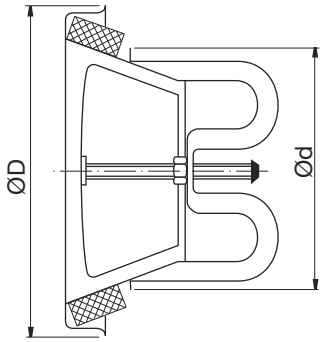
Description

Valve for exhaust air.
Designed for wall or ceiling mounting.
Bayonet holders connect to socket VRGU, VRGL, or VRGM.

Materials and finish

Material:	Coated galvanised sheet metal.
Colour:	White RAL 9003, gloss 30 or white RAL 9010 gloss 30.

Dimensions



Ød nom mm	ØD nom mm	kg
100	130	0.30
125	160	0.39
150	188	0.52
160	190	0.52
200	235	0.78

Ordering example

KI	125	9003
Product		
Dimension $Ød_1$		
Colour		

Technical data

Airflow, q [l/s] and [m³/h], total pressure drop, Δp_t [Pa], and A-weighted sound power level, L_{WA} [dB], for different settings, a [mm], are shown in the graphs.

Sound power level, L_{Wok} [dB], in octave bands

is calculated as $L_{WA} + K_{ok}$. K_{ok} is found in the table below.

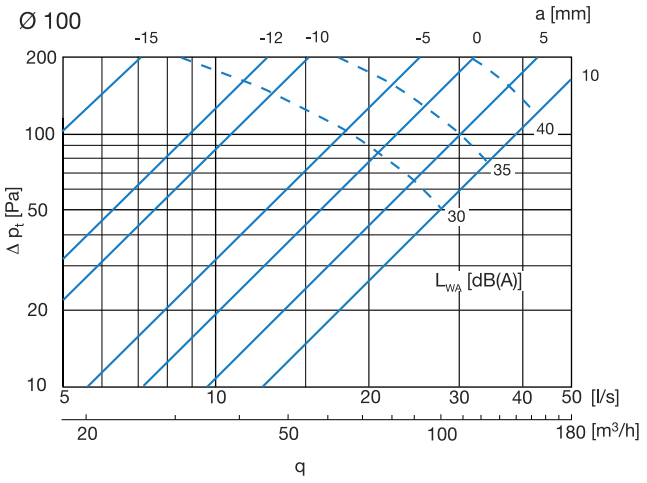
Ød nom mm	Valve mounted in	Centre frequency Hz 63	125	250	500	1k	2k	4k	8k
100	Duct	-6	-6	-3	-3	-4	-9	-13	-27
125	Duct	-7	-7	-6	-5	-8	-4	-12	-28
160	Duct	-3	-3	-7	-5	-2	-12	-16	-29
200	Duct	-5	-5	-7	-8	-2	-9	-13	-30
Tolerance		±3	±2	±2	±2	±2	±2	±2	±3

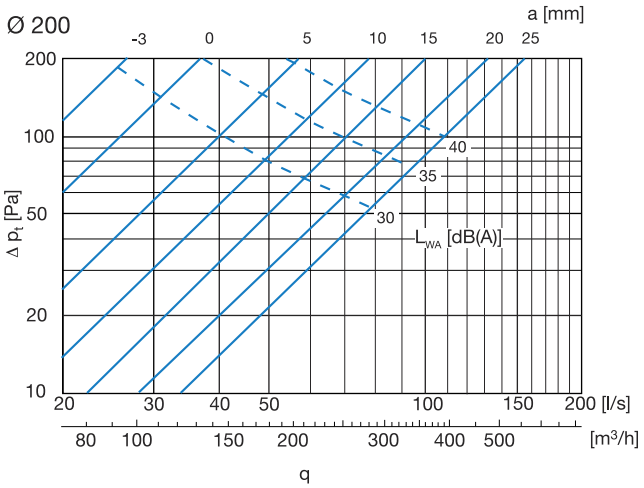
Sound attenuation, ΔL, [dB]

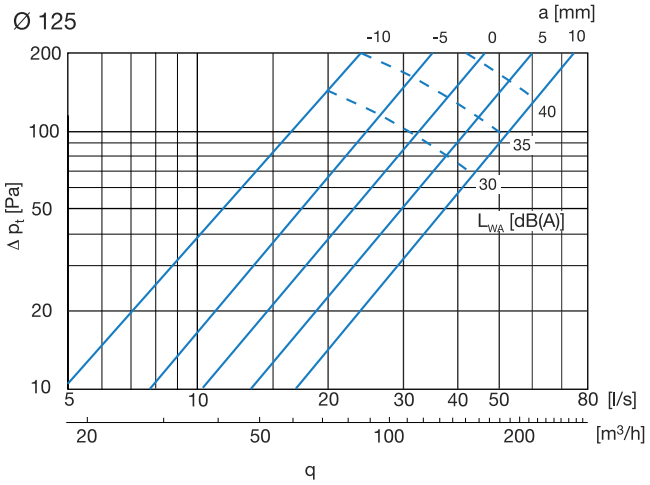
Ød nom mm	Valve mounted in	Centre frequency Hz 63	125	250	500	1k	2k	4k	8k
100	Duct	23	18	14	12	12	14	5	6
125	Duct	21	17	12	11	12	11	7	6
160	Duct	19	14	12	11	11	14	5	7
200	Duct	15	13	11	11	13	12	7	7
Tolerance		±6	±3	±2	±2	±2	±2	±2	±3

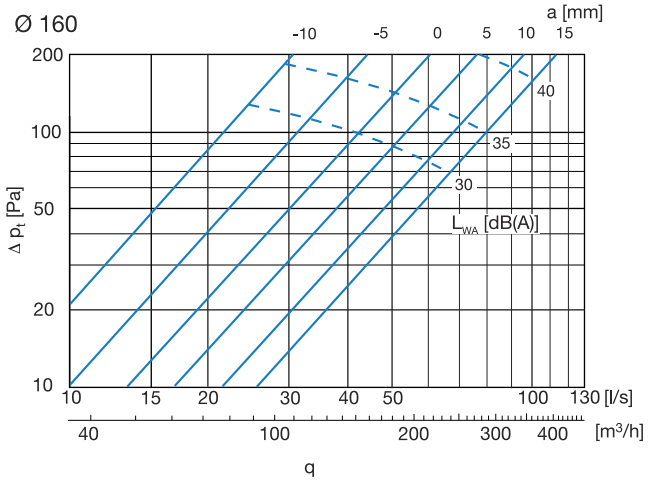
Tel: 02380 240958 Fax: 02380 262595

Measurement of airflow









External wall grille YGC

Description

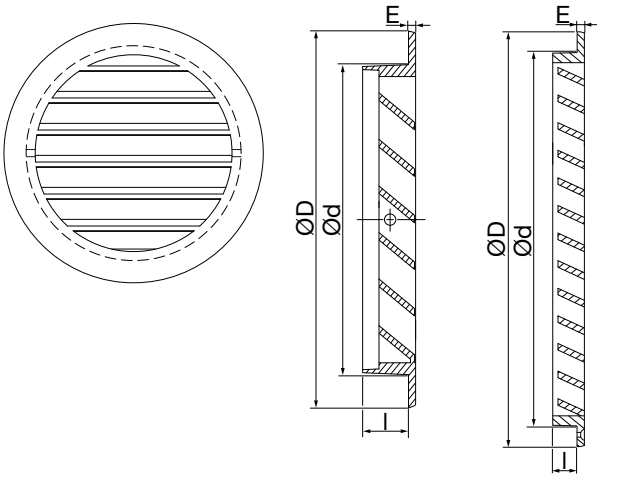
Valve for outdoor air intake and extract air discharge. Designed with a fixed louvre. Ø 80–500 is equipped with net. Ø 630–1250 can be delivered with net to order. Mesh width 10×10 mm. Screws or nails connect to an external wall.

Maintenance

The grille should be removed to gain access to the duct. The external parts should be wiped with a damp cloth.

Dimensions

Ø 80 - Ø 250 Ø 315 - Ø 1250



Ød nom mm	ØD mm	l mm	E mm	A_f (m^2)	kg
80	98	10	3.5	0.002	0.10
100*	131	22	3.5	0.004	0.17
125*	151	22.5	3.5	0.007	0.25
160*	188	21.5	3.5	0.012	0.39
200*	230	21.5	3.5	0.020	0.51
250*	278	24.5	3.5	0.031	0.83
315*	350	15.5	6.5	0.047	1.81
400	430	34	6.5	0.075	3.00
500	530	34	6.5	0.118	5.50
630	660	50.5	1.5	0.187	8.80
710	740	52	1.5		10.8
800	830	50.5	1.5	0.300	14.6
1000	1030	50.5	1.5	0.470	21
1250	1280	50.5	1.5	0.740	35

* The grill has 2 x Ø 4.2 mm screw holes on the side for mounting.

** The grill has 3 x Ø 4.0 mm screw holes on the front for mounting.

Ød > 315 mm, no pre-drilled holes for mounting. A_f (m^2) = Free area.

Materials and finish

Grille:	Ø80-500 Cast aluminium
Grille:	Ø630-1,250 Galvanised steel
Standard finish:	Untreated

Can be supplied powder-coated. Contact Lindab's sales department for further information.

Ordering example

Product	**YGC**	**160**
Type		
Size Ød		

Tel: 02380 240958 Fax: 02380 262595

Technical data

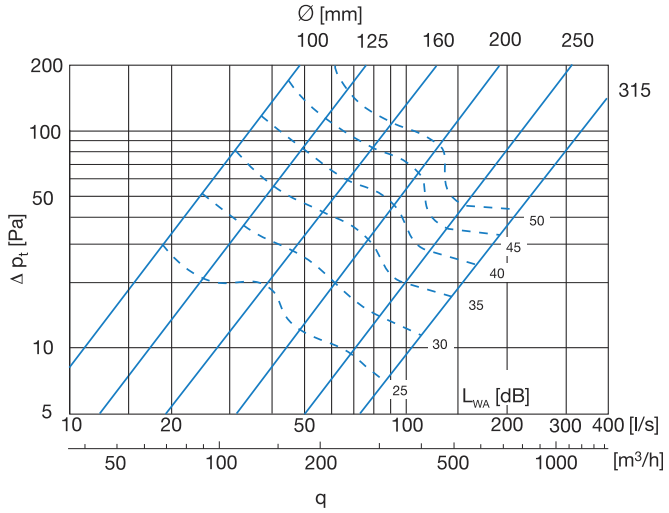
Capacity

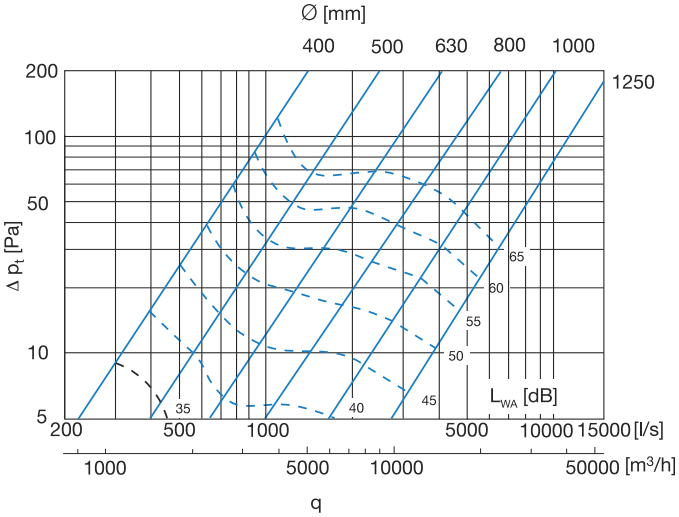
Airflow, q [l/s] and [m³/h], total pressure drop, Δp_t [Pa], can be seen in the diagrams below.

Sound level in free field (1/4 spherical)

The sound effect level LWA is shown in the diagram below. For sound level at distance X [m], $L_A = L_{WA}$ - K, see table below.

X [m]	1	2	3	4	5	10	20
K [db]	-5	-12	-15	-17	-19	-25	-30





Fire Protection

Building regulations impose fire-stopping requirements on all services passing through fire compartment walls and floors.

Lindab simplify fire protection with a range of specially selected products for use with InDomo and TecDuct systems which have been tested to British and European standards and provide up to two hours fire resistance.

www.lindab.co.uk

Lindab®

Fire rated ceiling valves – supply and exhaust air **FRSV/FREV**

Description

Fire rated ceiling valves offer a fire rated solution where recessed ceiling valves are to be installed in fire-rated ceilings.

Fire rated valves are required in many residential properties including apartments, hotels and multiple occupancy buildings.

Integral intumescent material rapidly expands in a fire situation to seal off the air valve and limit the risk of fire spreading through the building.

The intumescent material does not restrict airflow of the air valves in normal use.

Available in FRSV supply and FREV exhaust versions.

Compliance

Satisfies the requirements of Approval Document B of the Building Regulations.

Successfully tested for 60 minutes of integrity according to BS EN 1365-2:1999 & BS476: Part 20: 1987.

Installation

Fire rated ceiling valves are installed in the same way as a normal air valve, no additional supports or fixing is required.

Dimensions

Extract Ø mm	Supply Ø mm
80	80
100	100
125	125
160	160
200	200

Intumescent fire sleeves QRS

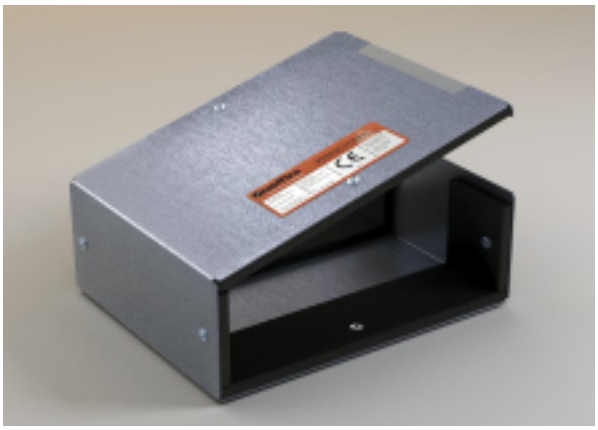
Description

Quelfire QRS intumescent fire sleeves provide up to 2 hours resistance to InDomo and Tecduct ventilation ducts where they penetrate fire compartment walls.

Quelfire fire sleeves consist of a flexible galvanised steel shell containing a graphite based intumescent material.

Integral intumescent material rapidly expands in a fire situation to seal off the duct and limit the risk of fire spreading through the building.

QRS Intumescent Fire Sleeve – Circular



QRS Intumescent Fire Sleeve – Rectangular

Compliance

Satisfies the requirements of Approval Document B of the Building Regulations.

Tested to BSEN 1366-3: 2009.

Tested to Type X durability – unaffected by weathering.

CE Marked.

Installation

Quelfire QRS intumescent fire sleeves must be installed strictly in accordance with the manufacturer's instructions, copies of which are available on request.

Dimensions

Reference	Duct Size mm	External Dimensions mm	Length mm	Fire Rating	Min Annular Space required around Duct mm
QRS75/CE	LFPE Ø63	Ø95	140	Up to 2 hrs	12
QRS110/54/CE	110 x 54	130 x 76	140	Up to 2 hrs	12
QRS205/60/CE	205 x 60	225 x 80	180	Up to 2 hrs	12
QRS110*	Ø100	Ø130	180	Up to 2 hrs	12
QRS130*	Ø125	Ø170	180	Up to 90 mins	20

*QRS110 and QRS130 are not currently CE marked.

Tel: 02380 240958 Fax: 02380 262595

Intumescent fire collars QWR

Description

Quelfire QWR intumescent fire collars provide up to 4 hours resistance to InDomo and Tecduct ventilation ducts where they penetrate floors.

Quelfire CE marked fire collars consist of a flexible stainless steel shell containing a graphite based intumescent material.

Integral intumescent material rapidly expands in a fire situation to seal off the duct and limit the risk of fire spreading through the building.

QWR – Circular

QRW – Rectangular

Compliance

Satisfies the requirements of Approval Document B of the Building Regulations.

Tested to BSEN 1366-3: 2009.

Tested to Type X durability – unaffected by weathering.

CE Marked.

Installation

Quelfire QWR intumescent fire collars must be installed strictly in accordance with the manufacturer's instructions, copies of which are available on request.

Dimensions

Reference	Duct Size mm	External Dimensions mm	Length mm	Fire Rating	Min Annular Space required around Duct mm
QWR82/CE	LFPE Ø63	Ø122	50	Up to 4 hrs	40
QWR110/54/CE	110 x 54	130 x 76	50	Up to 4 hrs	45
QWR205/60/CE	205 x 60	225 x 80	50	Up to 30 mins	45
QWR110/CE	Ø110	Ø130	50	Up to 4 hrs	40
QWR125/CE	Ø125	Ø170	50	Up to 4 hrs	45

Air Movement

Being an independent fan distributer and stockist puts Lindab in an ideal position to be your design and supply partner for residential ventilation projects.

Lindab are able to use our ventilation experience and expertise to select MVHR and MEV units from industry leading suppliers such as Vent Axia, Vectaire, Zehnder, PAUL, Helios, Soler & Palau and our own Lindab range, giving you a truly bespoke solution to meet your needs precisely.

www.lindab.co.uk

PAUL vectaire zehnder S&P Vent-Axia Helios Lindab®

Vent-Axia MVHR Units

LO-CARBON SENTINAL KINETIC BH

Description

The Lo-Carbon Sentinal Kinetic BH unit is compact, ultra-quiet and can support a whole house heat recovery system. The unit is designed with space-saving in mind and can fit in a kitchen cupboard.

Kinetic units are designed for continuous 24 hour exhaust ventilation of stale moist air from bathrooms, kitchens and wet rooms. As the stale air is extracted, a heat exchanger within the unit transfers up to 90% of the heat into the supply air entering the bedrooms and living rooms.

The lightweight, easy to install Kinetic BH unit can be fixed on a wall or surface mounted.

A fault code indicator, clean filter indicator and easy access filters simplify maintenance.

Volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of controllers – humidistats, timers, light switch and wireless remotes.

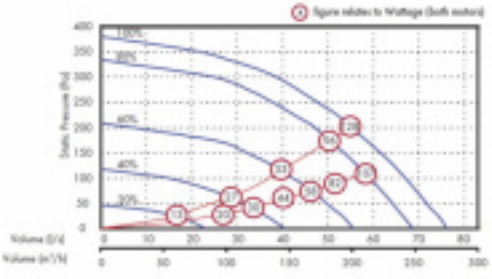
Summer bypass operates when the external temperature is below the internal temperature, allowing the cooler outside air to help cool the dwelling.

Technical Data

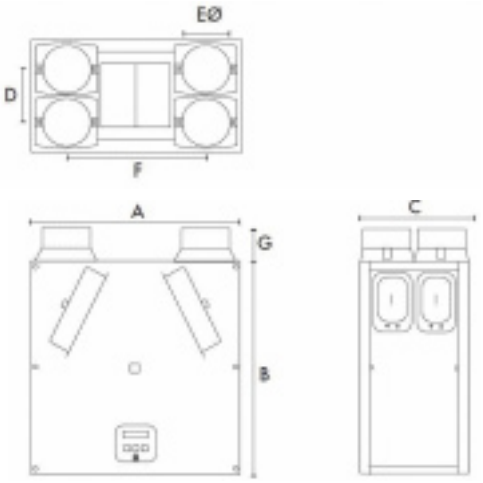
Airstream Temperature: -20°C to 45°C

dB(A) Level: 39

Stated dB(A) level at 3m with spherical propagation at a reference level of 2 x 10^{-1} ^{2}Pa



Dimensions



A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
550	550	285	140	125	360	90	15

Compliance

Building Regulations ADF and ADL compliant

Recognised in SAP Appendix Q

Vent-Axia MVHR Units

LO-CARBON SENTINAL KINETIC PLUS

Description

The Sentinel Kinetic Plus benefits from the latest high efficiency, backward curved impeller design, ensuring the lowest possible energy consumption, ultra-quiet operation and an exceptional performance range covering small one bed apartments to the largest of houses.

The unit can support a whole house heat recovery system with up to 90% energy efficiency.

The lightweight, easy to install Kinetic Plus unit can be fixed on a wall or surface mounted.

A fault code indicator, clean filter indicator and easy access filters simplify maintenance.

Volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of controllers – humidistats, timers, light switch and wireless remotes.

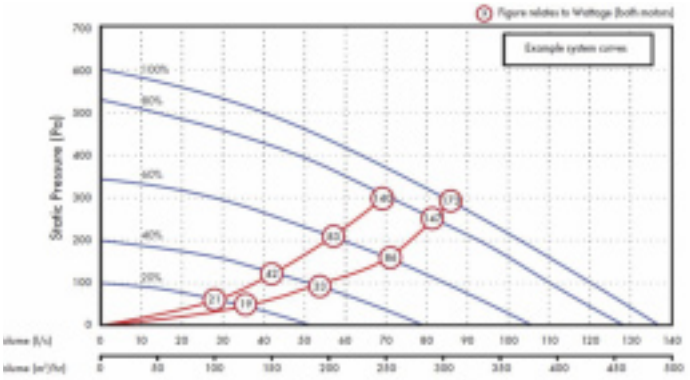
Summer bypass operates when the external temperature is below the internal temperature, allowing the cooler outside air to help cool the dwelling.

Technical Data

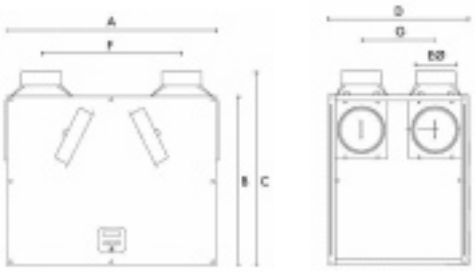
Airstream Temperature: -20°C to 45°C

dB(A) Level: 39

Stated dB(A) level at 3m with spherical propagation at a reference level of 2 x 10^{-1} ^{2}Pa



Dimensions



A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
785	635	722	550	150	520	275	24

Compliance

Building Regulations ADF and ADL compliant

Recognised in SAP Appendix Q

Tel: 02380 240958 Fax: 02380 262595

Vent-Axia MVHR Units

LO-CARBON SENTINAL KINETIC HIGH FLOW

Description

The Sentinel Kinetic High Flow benefits from the latest high efficiency, backward curved impeller design, ensuring the lowest possible energy consumption, and an exceptional performance range covering small one bed apartments to the largest of houses.

The unit can support a whole house heat recovery system with up to 90% energy efficiency.

The lightweight, easy to install Kinetic High Flow unit can be fixed on a wall or surface mounted.

A fault code indicator, clean filter indicator and easy access filters simplify maintenance.

Volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of controllers – humidistats, timers, light switch and wireless remotes.

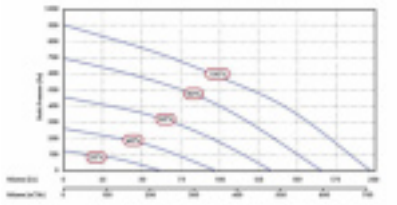
Summer bypass operates when the external temperature is below the internal temperature, allowing the cooler outside air to help cool the dwelling.

Technical Data

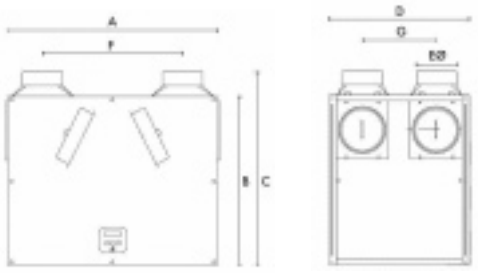
Airstream Temperature: -20°C to 45°C

dB(A) Level: 48

Stated dB(A) level at 3m with spherical propagation at a reference level of 2 x 10^{-1} ^{2}Pa



Dimensions



A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
785	635	722	550	180/200	520	275	34

Compliance

Building Regulations ADF and ADL compliant

Recognised in SAP Appendix Q

Vent-Axia MVHR Units

LO-CARBON SENTINAL KINETIC ADVANCE

Description

The award winning Lo-Carbon Sentinel Kinetic Advance is the next generation of heat recovery ventilation systems. It is designed to offer the highest level of comfort and control available ensuring the best possible customer experience.

A range of filter options ensures that even homes in heavily urbanised areas have the opportunity to filter out impurities and help protect their family from respiratory issues.

The lightweight, easy to install Kinetic Advance unit operates at very low noise levels and can be fixed on a wall or surface mounted.

A fault code indicator, clean filter indicator and easy access filters simplify maintenance.

Volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of controllers. From an App which provides instant access wherever you are, to full on-board touch screen controls, an option will be available to suit your needs.

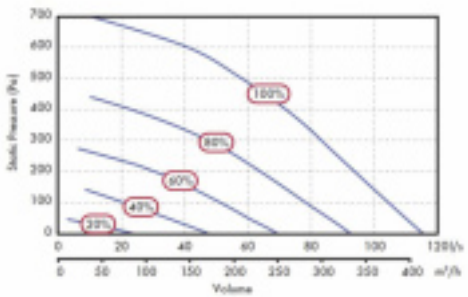
Summer bypass operates when the external temperature is below the internal temperature, allowing the cooler outside air to help cool the dwelling.

Technical Data

Airstream Temperature: -20°C to 45°C

dB(A) Level: 48

Stated dB(A) level at 3m with spherical propagation at a reference level of 2 x 10^{-1} ^{2}Pa

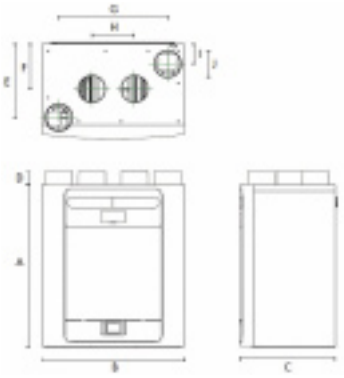


Compliance

Building Regulations ADF and ADL compliant

Recognised in SAP Appendix Q

Dimensions



A mm	B mm	C mm	D mm	E mm	F mm
760	660	443	63	343	210

G mm	H mm	I mm	J mm	Weight kg
503	197	93	125	24

Tel: 02380 240958 Fax: 02380 262595

Vent-Axia MVHR Units

INTEGRA PLUS EC

Description

The Integra Plus heat recovery unit has been specially designed to provide balanced ventilation for flats or internal rooms in large residential, commercial, educational or leisure applications.

The unit includes two integral centrifugal speed controllable EC fans plus a high efficiency polymeric heat exchanger.

The Integra Plus EC boasts a temperature efficiency of up to 70%. The compact cube interleaves outgoing moist air with incoming fresh air, allowing the heat from one to warm the other without the two air streams mixing. Energy is saved on room heating, with no power being used by the cube itself.

The unit is designed for mounting in ceiling voids, lofts and above a suspended ceiling.

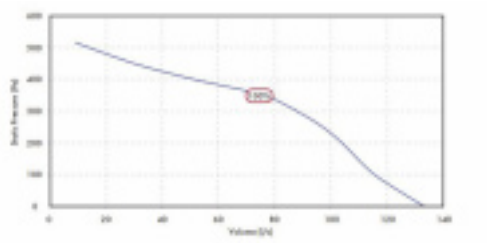
A range of controllers include humidistat, PIR and timers.

Summer bypass operates when the external temperature is below the internal temperature, allowing the cooler outside air to help cool the dwelling.

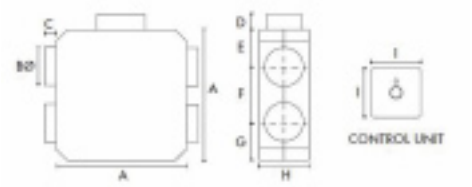
Technical Data

dB(A) Level: 34

Stated dB(A) level at 3m with spherical propagation at a reference level of 2 x 10^{-1} ^{2}Pa



Dimensions



A mm	B mm	C mm	D mm	E mm	F mm
580	150	100	64	125	350

G mm	H mm	I mm	Weight kg
125	305	85	17.7

Compliance

Building Regulations ADF and ADL compliant

Recognised in SAP Appendix Q

Vectaire MVHR Units

STUDIO WITH BYPASS

Description

The Studio horizontal heat recovery unit is an efficient, low energy solution to controlling condensation and pollution in 1or 2 bedroom apartments, hotel rooms, student accommodation, extra care facilities, multi-occupancy establishments etc.

The Studio runs continuously, ventilating a kitchen and up to 5 wet rooms. With up to 80% heat exchange efficiency it minimises heat loss and quietly provides a good indoor air quality. Specific fan power is from 0.91 W/l/s.

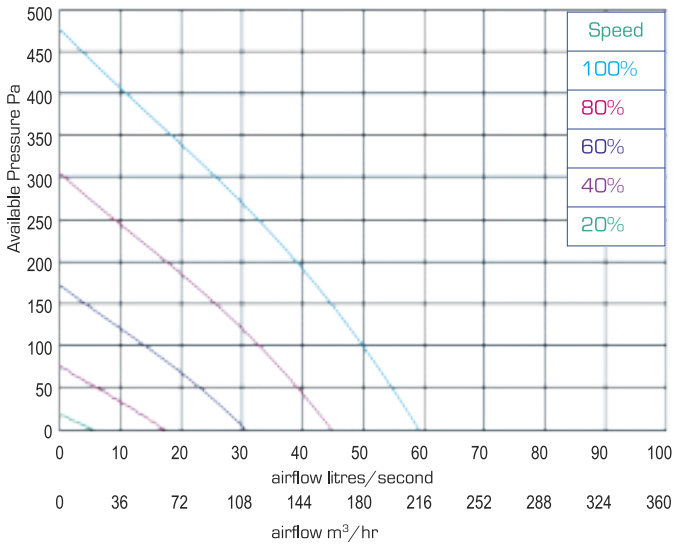
The Studio incorporates both automatic summer bypass and frost protection. Models with an integral humidistat are available.

Easy to fit in-line on the ceiling or in loft or void, it has a variable choice of low (trickle), boost and purge speeds at installation, and is pre-wired for easy electrical connection. It is commissioned via a remote LCD commissioning unit which gives the installer (and user) a wide range of options to ensure that the Studio provides quiet, low cost and efficient ventilation at all times.

Technical Data

Airflow l/sec					Total Power – Watts				
100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
59	45	30	17	6	100	57	25	10	2

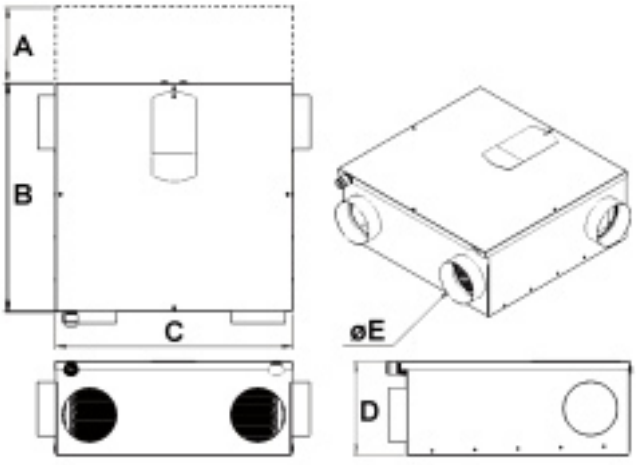
Airflow l/sec				
100%	80%	60%	40%	20%
59	45	30	17	6
The breakout figures quoted hemispherical				



Compliance

The Studio model range is SAP PCDB Listed, CE marked and fully compliant with all Building Regulations. It is UK manufactured to ISO19001.

Dimensions



A mm	B mm	C mm	D mm	E mm	Weight kg
200	534	552	220	125	17

Tel: 02380 240958 Fax: 02380 262595

Vectaire MVHR Units

MAXI-BY-AT WITH ACOUSTIC ATTENUATION

Description

The Maxi-BY-AT vertical heat recovery unit is an efficient, low energy solution to controlling condensation and pollution in residential properties. Its acoustic lining ensures very low noise levels.

The Maxi-BY-AT runs continuously, ventilating a kitchen and up to 7 wet rooms. With up to 92% heat exchange efficiency it minimises heat loss and provides a good indoor air quality. Specific fan power is from O.40 W/l/s.

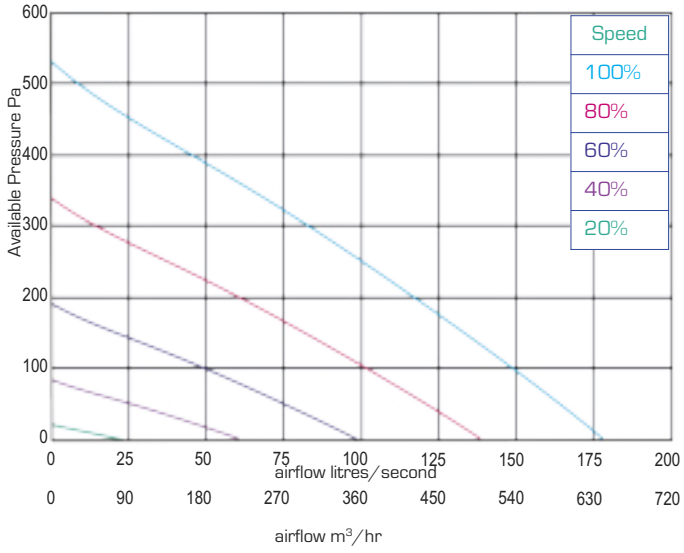
The Maxi-BY-AT incorporates both automatic summer bypass and frost protection. A model with an integral humidistat is available.

Easy to fit on the wall, in a cupboard or loft, it has a variable choice of low (trickle), boost and purge speeds at installation. It incorporates an integral state-of-the-art touch screen LCD control which gives the installer and user a wide range of options to ensure that the Maxi-BY-AT provides extremely quiet, low cost and efficient ventilation at all times.

Technical Data

Airflow l/sec					Total Power – Watts				
100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
177	138	99	60	23	176	97	44	17	4

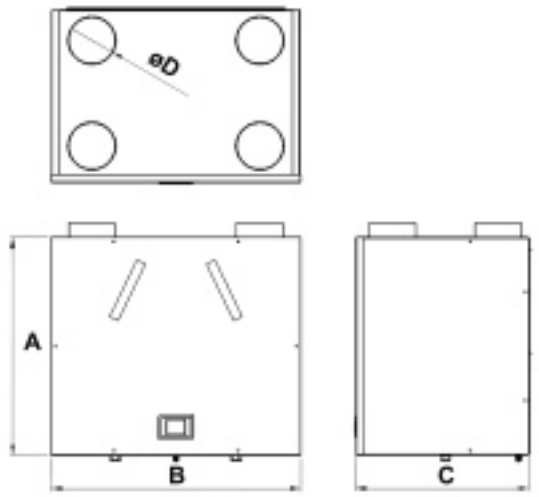
Sound Pressure dB(A) @ 3m				
100%	80%	60%	40%	20%
28.9	23.2	20.4	15.9	13.2
The breakout figures quoted hemispherical				



Compliance

The Maxi range is SAP PCDB Listed, CE marked, and fully compliant with all Building Regulations. It is UK manufactured to ISO19001.

Dimensions



A mm Ø	B mm	C mm	D mm	Weight kg
703	802	560	150	42

Vectaire MVHR Units

MAXI-PLUS-BY-AT WITH ACOUSTIC ATTENUATION

Description

The Maxi-Plus-BY-AT vertical heat recovery unit is an efficient, low energy solution to controlling condensation and pollution in residential properties. Its acoustic lining ensures very low noise levels.

The Maxi-Plus-BY-AT runs continuously, ventilating a kitchen and up to 7 wet rooms. With up to 89% heat exchange efficiency it minimises heat loss and provides a good indoor air quality. Specific fan power is from O.46 W/l/s.

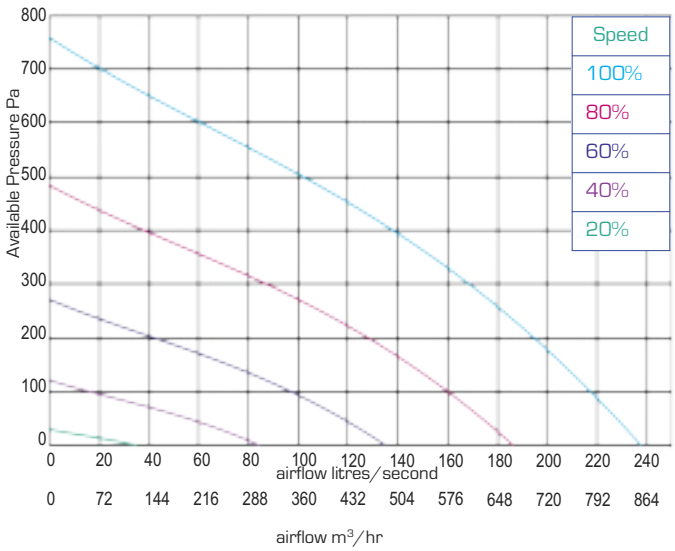
The Maxi-Plus-BY-AT incorporates both automatic summer bypass and frost protection. A model with an integral humidistat is available.

Easy to fit on the wall, in a cupboard or loft, it has a variable choice of low (trickle), boost and purge speeds at installation. It incorporates an integral state-of-the-art touch screen LCD control which gives the installer and user a wide range of options to ensure that the Maxi-Plus-BY-AT provides extremely quiet, low cost and efficient ventilation at all times.

Technical Data

Airflow l/sec					Total Power – Watts				
100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
238	186	135	84	35	355	184	85	32	8

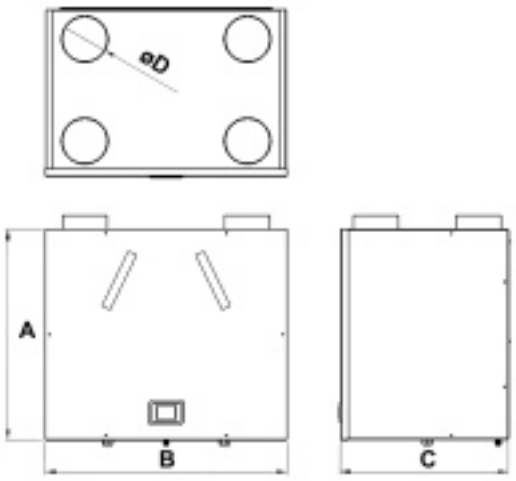
Sound Pressure dB(A) @ 3m				
100%	80%	60%	40%	20%
34.1	29.1	25.0	19.8	14.4
The breakout figures quoted hemispherical				



Compliance

The Maxi-Plus range is SAP PCDB Listed, CE marked and fully compliant with all Building Regulations. It is UK manufactured to ISO19001.

Dimensions



A mm Ø	B mm	C mm	D mm	Weight kg
703	802	560	150	42

Tel: 02380 240958 Fax: 02380 262595

Zehnder MVHR Units

COMFOAIR Q

Description

With Zehnder ComfoAir Q, you are provided with the highest level of living comfort. The innovative ventilation units contribute significantly to comfortable room ventilation, guaranteed quiet operation, ensure healthy, dust-free air and protect against excessive humidity.

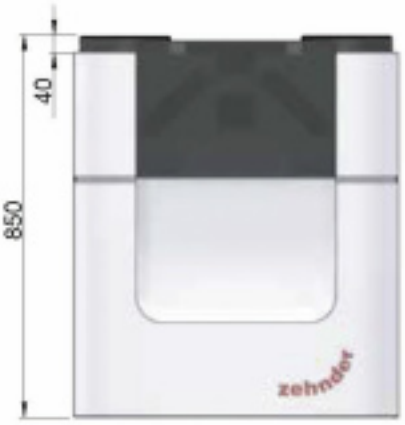
- World class heat recovery of 96%
- 3 models available – 350m^3/hr, 450m^3/hr and 600m^3/hr
- Suitable for medium and large size properties:
  Q350 – up to 160m^2
  Q450 – up to 180m^2
  Q600 – up to 230m^2
- Left or right hand unit configuration combined in one device for installation flexibility
- Enthalpy models available and versions with or without pre-heater
- Wall mounted or free standing on mount
- Condensate connection: 32mm
- Ducting:
  – 160mm: Q350
  – 180mm: Q450/Q600
- Fans: EC
- Filters: G4/G4 or G4 extract F7 supply

Compliance

All units have been certified as an official Passive House Component by the Passivhaus Institute.

Dimensions

All measurements in mm unless otherwise indicated



Dimensions are the same across all models

Weight kg
50

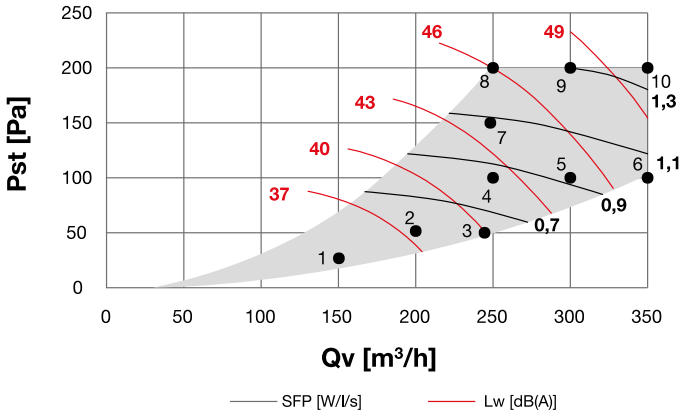
Zehnder MVHR Units

COMFOAIR Q

Technical Data

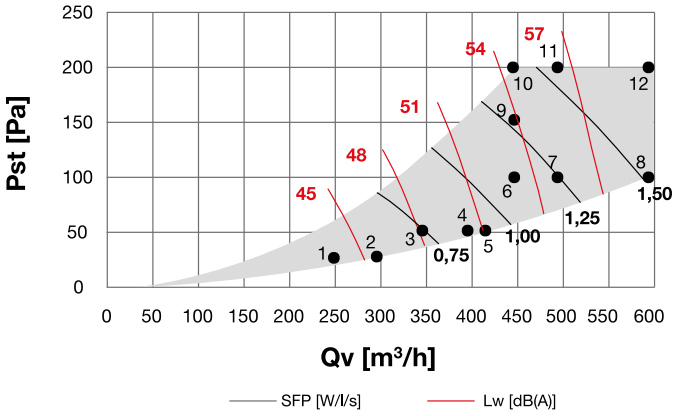
Zehnder ComfoAir Q350

Airflow [m3/h]	Pa	P [W]	Sound Pressure level @3m [dB(A)]
150	25	16	16.0
200	50	31	20.1
245	50	43	22.6
250	100	59	24.9
300	100	77	27.6
350	100	98	30.5
250	150	74	26.9
250	200	88	28.9
300	200	108	31.0
350	200	131	33.4



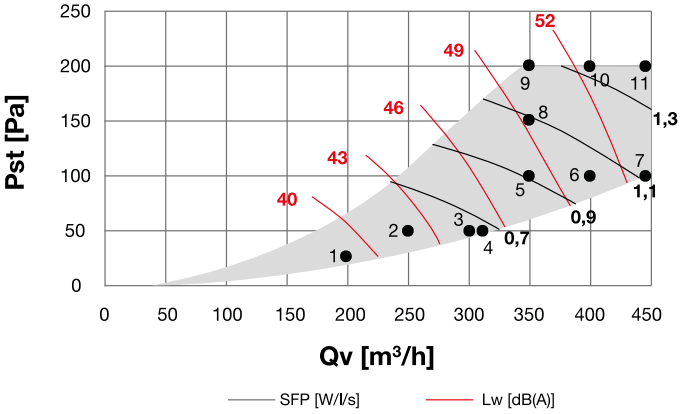
Zehnder ComfoAir Q450

Airflow [m3/h]	Pa	P [W]	Sound Pressure level @3m [dB(A)]
200	25	19	22.0
250	50	37	25.0
300	50	53	27.3
315	50	59	28.0
350	100	89	30.8
400	100	113	33.1
450	100	140	35.6
350	140	106	31.9
350	200	122	33.0
400	200	148	35.2
450	200	177	37.5



Zehnder ComfoAir Q600

Airflow [m3/h]	Pa	P [W]	Sound Pressure level @3m [dB(A)]
250	25	28	26.3
300	25	44	28.3
350	50	72	30.9
400	50	97	33.0
420	50	107	33.9
450	100	143	35.9
500	100	176	38.1
600	100	254	42.7
450	150	162	36.7
450	200	180	37.5
500	200	215	39.6
600	200	296	43.9



Tel: 02380 240958 Fax: 02380 262595

Zehnder Air Tempering Unit

COMFOCOOL Q600

Description

In combination with a Zehnder ComfoAir Q600, the ComfoCool Q600 is designed to regulate to comfortable levels the temperature and humidity of the fresh air supplied to your home. This system provides a comfortable and pleasant indoor climate.

ComfoCool helps to reduce humidity along with the intake air temperature to help improve the internal environment and comfort levels. It is easily integrated into the ventilation system to provide filtered fresh supply air whilst consuming a low amount of energy and at low noise levels.

- Cooling is automatically activated by a user defined comfort temperature in combination with monitoring both intake air and internal air temperatures.
- Equipped with a compression cooling system, as is used in refrigerators to reduce the temperature, in this case of the incoming supply of filtered air.
- Max. 2.4kW cooling capacity

The ComfoCool Q600 works differently to an air conditioner:

- An air conditioner recirculates air present in your home but does not help to ventilate it. The ComfoCool unit supplies outdoor air and is integral to the ventilation system.
- An air conditioner only works in the room in which it is located. The ComfoCool tempers air throughout the home.
- The unit uses the air performance of the MVHR system to deliver the available cooling power.

Displayed with Zehnder ComfoAir Q600 unit

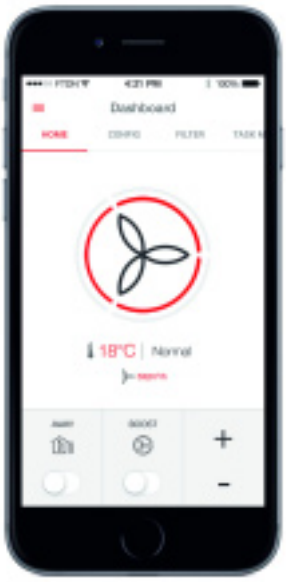
Compliance

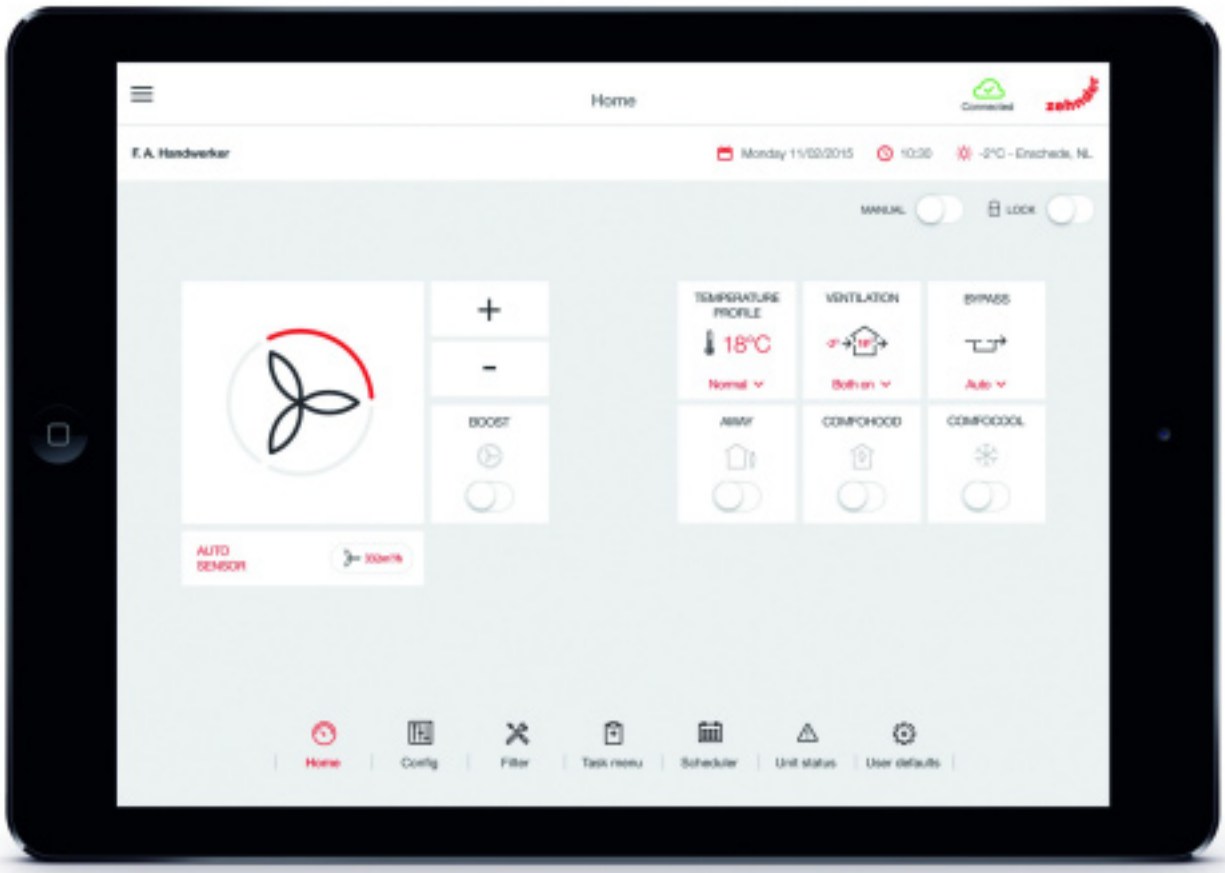
Unit has been certified as an official Passive House Component by the Passivhaus Institute.

Zehnder control Options

Anything is possible – from a simple display on the unit, to a practical app that can be used on the go, right through to fully automated, demand-based ventilation using sensors. You can also integrate Zehnder ComfoAir Q into a building control system via the KNX interface.

You can monitor the installed systems easily via remote access on the Zehnder web portal. The log allows viewing of the current status of the system and takes a proactive approach to maintenance. What's more, the units give easy access to all components that require cleaning.





Tel: 02380 240958 Fax: 02380 262595

PAUL MVHR Units

NOVUS (F) 300/450

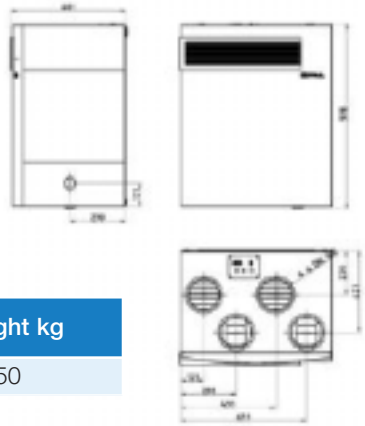
Description

Universal heat recovery unit with high performance counter-flow heat exchanger for the central comfort ventilation for dwellings up to 220 m^2 floor area (NOVUS 300) or up to 350m^2 floor area (NOVUS 450)

Volume flow rates:
45 up to 300 m^3/h (NOVUS 300)
50 up to 450 m^3/h (NOVUS 450)

- Automatic bypass control with motorised 100% bypass flap for the summer bypass operation
- Optional humidity recovery (enthalpy exchanger)
- Optional integrated defrost pre-heater
- Can be mounted vertically or horizontally on wall bracket or floor standing frame
- Left and right unit versions
- Equipped as standard with intake air filter and extract air filter of the filter class G4, optional pollen filter F7
- TFT touch panel with colour display, optional: LED control panel
- Good noise protection

Dimensions



Weight kg
50

Compliance

Passive house certified heat recovery rate up to 94,4 % in an electric efficiency of 0,24 Wh/m^3 (NOVUS 300)

Appendix Q performance up to 93% heat recovery rate

Technical Data

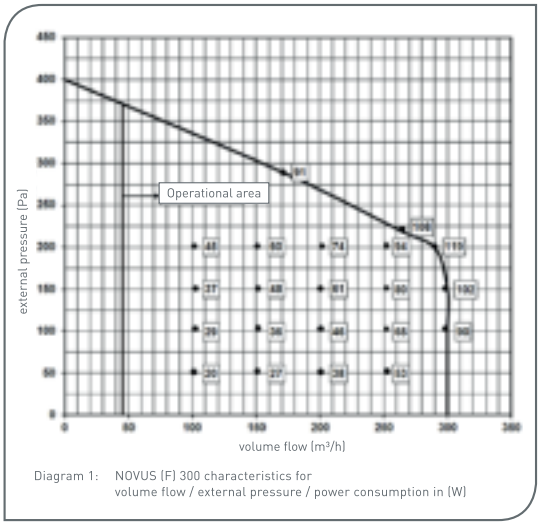


Diagram 1: NOVUS (F) 300 characteristics for volume flow / external pressure / power consumption in [W]

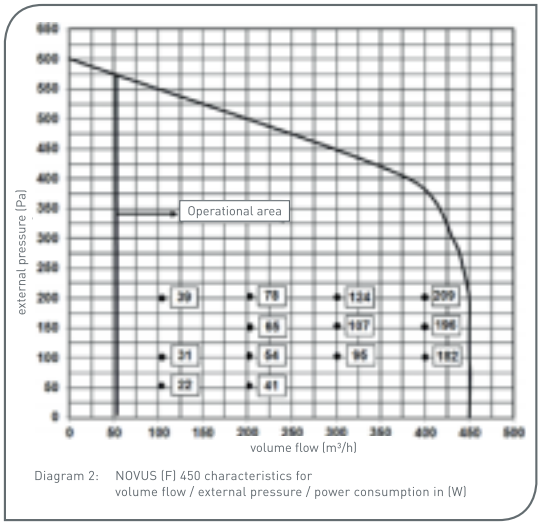


Diagram 2: NOVUS (F) 450 characteristics for volume flow / external pressure / power consumption in [W]

Note: the figured number values in the diagram of the p-V-characteristic curve give the power consumption in [W] in the corresponding operating points and are valid for NOVUS 300 (diagram 1) or NOVUS 450 (diagram 2) respectively with standard heat exchanger without integrated defroster.

Lindab Air Movement

AGF/AGS AXIAL FANS WITH GRILLE FASCIA

Description

An axial fan with grille fascia to extract the air directly through the wall or ceiling with little or no duct run.

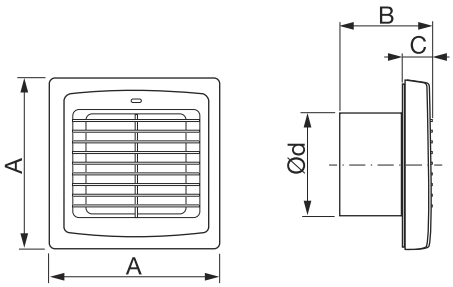
AGF model without shutter and AGS model with shutter have options for timer, humidity sensor and PIR sensor.

Compliance

Conform to European Directives for safety and security 2004/108/EC and 2006/95/EC IP24/ IP34 protection.

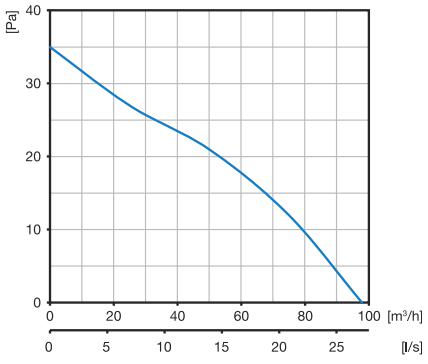
Dimensions

Product	Ød mm	A mm	B mm	C mm	kg
AGF100	100	166	90	40	0.51
AGF125	125	186	96	40	0.68
AGF150	150	210	112	40	0.80
AGS100	100	166	90	30	0.65
AGS125	125	186	98	33	0.75
AGS150	150	210	115	34	1.02

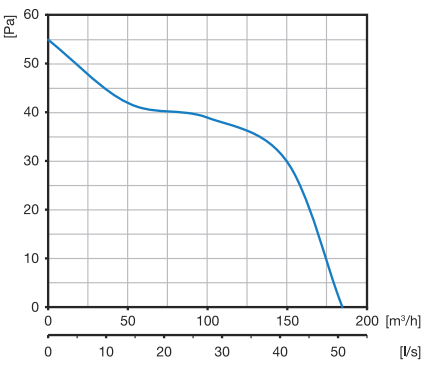


Technical data

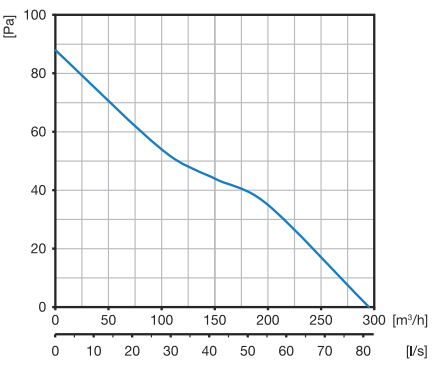
AGF/ AGS 100



AGF/ AGS 125



AGF/ AGS 150



Product	Frequency Hz	Voltage V	Electric power input W	Current A	r.p.m.	Maximum air capacity m³/h	Sound pressure level** dB(A)	Max. Operating temp °C	SEC class	IP
AGF100	50	220-240	14	0.085	2300	98	34	+45	*	34
AGF125	50	220-240	16	0.100	2400	185	35	+45	*	34
AGF150	50	220-240	24	0.130	2400	295	39	+45	*	34
AGS100	50	220-240	18	1.085	2300	98	34	+45	*	24
AGS125	50	220-240	22	0.100	2400	185	35	+45	*	24
AGS150	50	220-240	26	0.130	2400	295	39	+45	*	24

* : Regulation 1254/2014 does not apply if electric power input <30W, **Sound pressure level at 3m

Tel: 02380 240958 Fax: 02380 262595

Lindab Air Movement

ASF AXIAL FANS WITH SMOOTH FASCIA

Description

An axial fan with smooth fascia to extract the air directly through the wall or ceiling with little or no duct run.

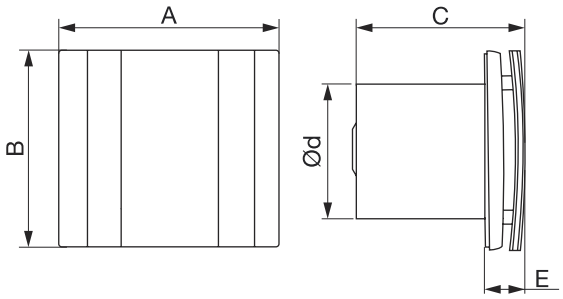
With options for timer and humidity sensor.

Compliance

Conform to European Directives for safety and security 2004/108/EC and 2006/95/EC IP24/ IP34 protection.

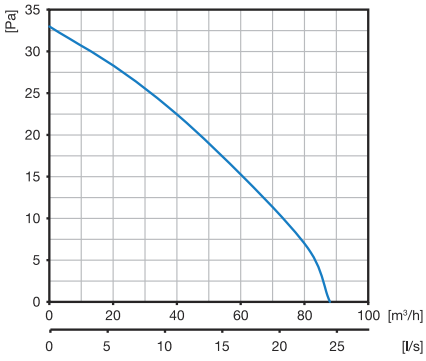
Dimensions

Product	Ød mm	A mm	B mm	C mm	E mm	kg
ASF100	100	171	151	128	32	0.75
ASF125	125	201	178	136	35	0.98
ASF150	150	265	207	157	38	1.29

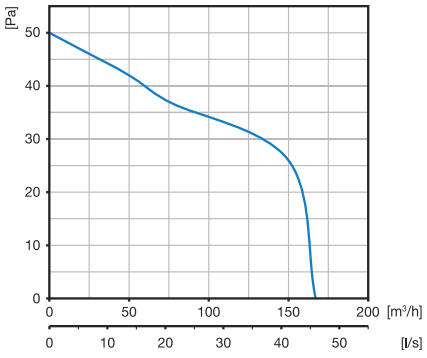


Technical data

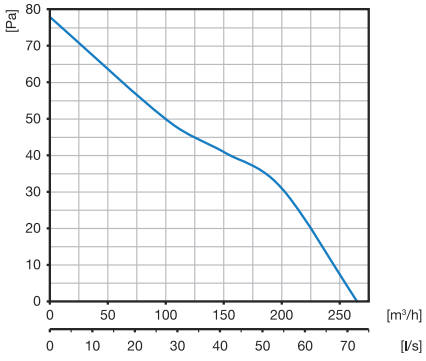
ASF 100



ASF 125



ASF 150



Product	Frequency Hz	Voltage V	Electric power input W	Current A	r.p.m.	Maximum air capacity m³/h	Sound pressure level** dB(A)	Max. Operating temp °C	SEC class	IP
ASF100	50	220-240	14	0.085	2300	98	33	+40	*	34
ASF125	50	220-240	16	0.100	2400	167	34	+40	*	34
ASF150	50	220-240	24	0.130	2400	265	37	+40	*	34

* : Regulation 1254/2014 does not apply if electric power input <30W, **Sound pressure level at 3m

Alternative Versions

-B Standard

-T Automatic run on timer with setting of 2-30 minutes

AGF-TH / AGS-BH / ASF-HT

Automatically starts the fan when humidity raises above the preset level. Settings available from 60%-90% RH.

Conform to European Directives for safety and security:

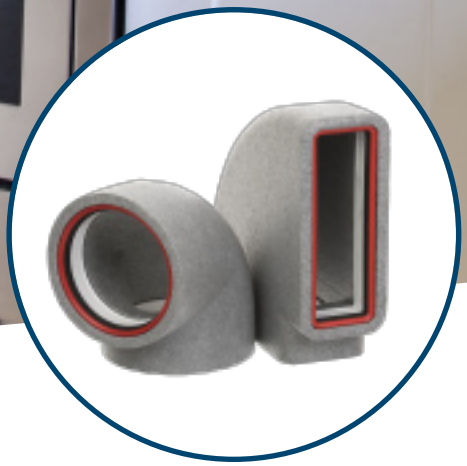
2004/108/EC

2006/95/EC

Declarations of conformity available on request

Made of ABS material

IP24/IP34 protection



Lindab **Tecduct**

Rigid plastic ducting

www.lindab.co.uk

Lindab®

Lindab Tecduct rigid plastic ducting

For those occasions when you are working with intermittent extract fans lindab also offer a range of rigid plastic ventilation ducting available in 110 x 54mm (100mm dia equivalent) and 204 x 60mm (125mm dia equivalent). Tecduct rigid ducting is manufactured from flame retardant self-extinguishing materials and offers a wide range of components to meet any residential ventilation need.

Description

Lindab Tecduct range of plastic domestic/light commercial ducting offers the installer a comprehensive range of flat ducting components in a range of 6 sizes and circular plastic ducting in a range of 2 sizes. These ducting components are complemented by a variety of air terminal devices available in 5 colours to suit any building or application.

Quality

The quality of our products and service have always been of great importance to us. Lindab is a quality assured company and is accredited to BSEN ISO 9001:2000.

Materials

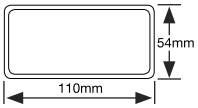
Lindab Tecduct circular and flat duct is manufactured from high grade flame retardant, self-extinguishing materials conforming to UL94 V2 and DIN 4102 B1. External grilles and louvers are manufactured from UV stabilised materials to reduce colour degradation.

Rectangular Ducting & Fittings

Technical Information

Maximum Temperature:	+60°C
Minimum Temperature:	-15°C
Flat Channel Material:	UPVC

Duct Dimensions



110 x 54mm Rectangular Ducting System

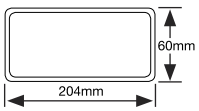
The 110 x 54mm rectangular ducting is especially designed for short duct runs that are concealed above wall units or in ceiling voids due to its low profile. This specific system is ideal for installations which require lower extraction rates such as bathrooms, toilets and utility rooms.

Colour Key:

W White B Brown BE Beige T Terracotta

Accessories Material:	Polystyrene/Polypropylene
Grille Colour:	W B BE T
Ducting Colour:	W

Duct Dimensions



204 x 60mm Rectangular Ducting System

The 204 x 60mm rectangular ducting system is one of the most popular system sizes used in the market today. The low profile geometry of the system means that it can be easily concealed where space is restricted whilst still retaining the ability to handle high extraction rates. The 204 x 60mm rectangular system is most commonly used for whole house ventilation and heat recovery installations whilst still remaining a good choice for single extract requirements such as kitchens, bathrooms and utility rooms.

Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
1m Flat Channel	VKC249	5,424	2.21	8.56	33.10	VKC5604	11,452	0.54	1.97	7.21
1.5m Flat Channel	VKC240	5,424	3.32	12.84	49.65	VKC5628	11,452	0.81	2.96	10.82
2m Flat Channel	VKC297	5,424	4.42	17.12	66.20	VKC5629	11,452	1.08	3.94	14.42

Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Flat Channel Straight Connector	VKC235	N/A	0.03	1.40	6.30	VKC5608	N/A	0.10	0.29	1.06

Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Flat Channel Clip	VKC230	N/A	N/A	N/A	N/A	VKC5610	N/A	N/A	N/A	N/A

Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Equal T Piece	VKC228	N/A	N/A	N/A	N/A	VKC5630	N/A	N/A	N/A	N/A

Tel: 02380 240958 Fax: 02380 262595

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Horizontal 90° Bend	VKC238	N/A	9.80	39.80	161.90	VKC5605	N/A	1.82	7.46	30.60

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Vertical 90° Bend	VKC239	N/A	15.60	62.80	252.70	VKC5612	N/A	1.14	4.52	17.94

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Horizontal 45° Bend	VKC227	N/A	3.66	15.53	65.83	VKC5616	N/A	0.55	2.71	13.22

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Vertical 45° Bend	VKC226	N/A	2.57	12.72	62.99	VKC5617	N/A	0.55	2.71	13.36

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Flexible Bend	VKC229	N/A	N/A	N/A	N/A	VKC5627	N/A	N/A	N/A	N/A

Description	110 x 54 mm to 100mm Ø					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Male 90° Elbow Bend	VKC237	N/A	8.10	33.10	136.40	–	–	–	–	–
Female 90° Elbow Bend	VKC236	N/A	8.10	33.10	136.40	–	–	–	–	–

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Elbow Bend with 100mm Fixed Spigot	–	–	–	–	–	VKC5644	N/A	1.40	5.30	19.90
Elbow Bend with 125mm Fixed Spigot	–	–	–	–	–	VKC5645	N/A	1.70	6.90	27.10
Elbow Bend with 150mm Fixed Spigot	–	–	–	–	–	VKC5646	N/A	1.80	7.40	29.80

Rectangular Ducting & Fittings

Technical Information

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Elbow Bend with 100mm Rotating Spigot	–	–	–	–	–	VKC5625	N/A	2.35	8.71	32.30
Elbow Bend with 125mm Rotating Spigot	–	–	–	–	–	VKC5606	N/A	1.60	6.28	24.69
Elbow Bend with 150mm Rotating Spigot	–	–	–	–	–	VKC5626	N/A	1.46	5.85	23.46

Description	110 x 54 mm to 100mm Ø									
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Offset Straight Round to Rectangular Adapter	VKC253F	N/A	3.70	14.60	58.0	–	–	–	–	–

Description	110 x 54 mm					204 x 60 mm to 125mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Straight Round to Rectangular Adapter 125mm	–	–	–	–	–	VKC5613	N/A	0.96	3.84	15.41

Description	110 x 54 mm					204 x 60 mm to 100mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Straight Round to Rectangular Adapter 100mm	–	–	–	–	–	VKC5615	N/A	6.70	21.30	84.70

Description	110 x 54 mm to 100mm Ø					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Short Male Round to Rectangular Adapter	VKC207	N/A	4.80	20.40	86.20	–	–	–	–	–
Short Female Round to Rectangular Adapter	VKC241	N/A	4.80	20.40	86.20	–	–	–	–	–

Description	110 x 54 mm					204 x 60 mm to 100mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Adapter to System 220 (204 x 60 to 220 x 90)	–	–	–	–	–	VKC5643	N/A	0.80	4.2	14.7

Tel: 02380 240958 Fax: 02380 262595

Description	110 x 54 mm					204 x 60 mm to 125 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
T Piece with 125mm Rotating Spigot	–	–	–	–	–	VKC5649	N/A	N/A	N/A	N/A

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Rectangular Wall Plate	VKC206	N/A	N/A	N/A	N/A	VKC5601	N/A	N/A	N/A	N/A

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Airbrick Adapter (209 x 64mm to 110 x 54mm)	VKC247	N/A	N/A	N/A	N/A	–	–	–	–	–

Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Double Airbrick Adapter	–	–	–	–	–	VKC5633	11,200	N/A	N/A	N/A

W B BE T Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Double Airbrick Adapter with Grilles fitted	–	–	–	–	–	VKC5633G	15,360	0.90	3.30	8.40

W B BE T Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Single Airbrick	–	–	–	–	–	VKC5631	7,680	6.50	18.40	78.00

W B BE T Description	110 x 54 mm					204 x 60 mm				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Airbrick Grille (210 x 65mm)	VKC704	7,680	6.00	18.40	71.90	VKC704	7,680	6.00	18.40	71.90
Airbrick Grille with Surround (230 x 85mm)	VKC714	7,680	6.00	18.40	71.90	VKC714	7,680	6.00	18.40	71.90

Rectangular Ducting & Fittings

Technical Information

W B BE T Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Airbrick with fitted Grille and Surround	–	–	–	–	–	VKC5635	7,680	6.50	18.40	78.00

W B BE T Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Rectangular Louvred Grille	VKC233 Add F/S for flyscreen	2,600	15.00	48.10	186.90	–	–	–	–	–

W B BE T Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Rectangular Gravity Outlet	VKC231	5,800	4.81	15.71	51.40	–	–	–	–	–

W B BE T Description	110 x 54 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	204 x 60 mm Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Rectangular Cowl with Non-Return Flap	VKC232	5,800	8.35	30.42	110.82	–	–	–	–	–

Tel: 02380 240958 Fax: 02380 262595

Self-Seal Couplings

Technical Information

Self-seal couplings eliminates the need for sealant and tape by ensuring that the air leakage in or out of the duct joint is kept to an absolute minimum.

This unique design provides consistent joint quality and integrity and couples conventional ducting and fittings together to form an almost airtight installation. It significantly reduces installation time and can be removed and re-made for alteration, maintenance and cleaning.

The sealing ability of the couplings has been independently tested by the Building Research Establishment in Test Reports 285430, 691696, 288446, 291695, 691697 and 298279, which are available on request. Please note that the self-seal couplings have been designed to suit Lindab ducting only.

Description	125 mm Pipe to Fitting				
	Code	System Size	Static Pressure Drop (Pa)		
			15 l/s	30 l/s	60 l/s
Self-Seal Coupling	VSSC125PF	125 Round	0.34	1.41	4.36

Description	125 mm Pipe to Pipe				
	Code	System Size	Static Pressure Drop (Pa)		
			15 l/s	30 l/s	60 l/s
Self-Seal Coupling	VSSC125PP	125 round	0.18	0.55	1.65

Description	204 x 60 mm Duct to Fitting				
	Code	System Size	Static Pressure Drop (Pa)		
			15 l/s	30 l/s	60 l/s
Self-Seal Coupling	VSSC204DF	System 204	0.22	0.92	3.39

Description	204 x 60 mm Duct to Duct				
	Code	System Size	Static Pressure Drop (Pa)		
			15 l/s	30 l/s	60 l/s
Self-Seal Coupling	VSSC204DD	System 204	0.34	1.17	3.20

INDEPENDENTLY TESTED AT BRE

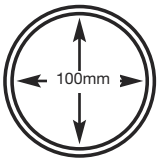
Round Ducting & Fittings

Technical Information

Maximum Temperature:	+60°C
Minimum Temperature:	-15°C
Round Pipe Material:	UPVC

Accessories Material:	Polystyrene/Polypropylene
Grille Colour:	W B BE T
Ducting Colour:	W

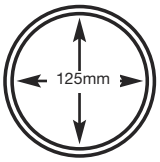
Duct Dimensions



System 100: 100mm Round Ducting & Fittings

The System 100 round pipe provides superior airflow performance when compared with the System 100 rectangular duct and should always be considered as a first option if space allows. This system is suitable for small extractor fans and low powered cooker hoods and comes with an extensive range of fittings, outlets and grilles.

Duct Dimensions

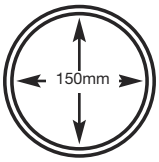


System 125: 125mm Round Ducting & Fittings

The System 125 round pipe provides superior airflow performance when compared with the System 125 rectangular duct and should always be considered as a first option if space allows. For round pipes, it is the most popular size used in the market today and is ideal for long ducting runs for whole house ventilation, passive stack ventilation and heat recovery systems.

It is also suitable for similar sized extractor fans and medium to high powered cooker hoods and comes with an extensive range of fittings, outlets and grilles.

Duct Dimensions



System 150: 150mm Round Ducting & Fittings

The System 150 round pipe provides superior airflow performance when compared with the System 150 rectangular duct and should always be considered as a first option if space allows.

The 150mm Round Pipe is our most efficient ducting system and can be used for very high powered cooker hoods of 800 m^3/h and above and long ducting runs where pressure drop needs to be minimised.

Colour Key:

W White B Brown BE Beige T Terracotta

Tel: 02380 240958 Fax: 02380 262595



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Pipe 350mm	VKC242	7,855	0.18	0.50	1.09	VKC266	12,273	0.07	0.25	0.67	VKC660	17,673	0.04	0.14	0.42
Round Pipe 1m	VKC250	7,855	0.50	1.40	3.10	VKC267	12,273	0.20	0.70	1.90	VKC670	17,673	0.10	0.40	1.20
Round Pipe 1.5m	VKC299	7,855	0.75	2.10	4.65	VKC269	12,273	0.30	1.05	2.85	VKC671	17,673	0.15	0.60	1.80
Round Pipe 2m	VKC2992	7,855	1.00	2.80	6.20	VKC2692	12,273	0.40	1.40	3.80	VKC673	17,673	0.20	0.80	2.40


Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Pipe Straight Connector	EK0028	N/A	0.90	4.20	20.40	VKC355	N/A	0.20	0.90	4.30	VKC365	N/A	0.10	0.20	1.10



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Pipe Fixing Clip	VKC304C	N/A	N/A	N/A	N/A	VKC354C	N/A	N/A	N/A	N/A	VKC442C	N/A	N/A	N/A	N/A

Round Ducting & Fittings

Technical Information

Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Elbow 90° Bend	VKC300	N/A	5.60	21.10	80.10	VKC350	N/A	2.00	8.40	34.90	VKC360	N/A	1.00	4.20	18.20



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Elbow 45° Bend	VKC301	N/A	2.10	8.20	31.40	VKC351	N/A	0.70	2.90	12.20	VKC361	N/A	N/A	N/A	N/A


Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Equal T Piece	VKC302	N/A	N/A	N/A	N/A	VKC352	N/A	N/A	N/A	N/A	VKC362	N/A	N/A	N/A	N/A

Tel: 02380 240958 Fax: 02380 262595



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Wall Plate	VKC19	N/A	N/A	N/A	N/A	VKC618	N/A	N/A	N/A	N/A	VKC661	N/A	N/A	N/A	N/A


Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
100/110mm Condensation Trap with Overflow	VKC434	N/A	N/A	N/A	N/A	–	–	–	–	–	–	–	–	–	–
Condensation Trap with Overflow	–	–	–	–	–	VKC445	N/A	N/A	N/A	N/A	–	–	–	–	–



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Telescopic Pipe 200-350mm with Reducing Ring	VKC307	N/A	N/A	N/A	N/A	VKC357	N/A	N/A	N/A	N/A	VKC367	N/A	N/A	N/A	N/A

Round Ducting & Fittings

Technical Information

Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Offset Reducer	–	–	–	–	–	VKC621	N/A	N/A	N/A	N/A	–	–	–	–	–



Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
125mm to 100mm Reducer	VKC603	N/A	1.50	5.90	24.00	VKC603	N/A	1.50	5.90	24.00	–	–	–	–	–
150mm to 100mm Reducer	VKC437	N/A	N/A	N/A	N/A	–	–	–	–	–	VKC437	N/A	N/A	N/A	N/A
150mm to 125mm Reducer	–	–	–	–	–	VKC619	N/A	0.60	2.20	8.80	VKC619	N/A	0.60	2.20	8.80
200mm to 150mm Reducer	–	–	–	–	–	–	–	–	–	–	VKC436	N/A	N/A	N/A	N/A

Tel: 02380 240958 Fax: 02380 262595


MALE


FEMALE

Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Male Threaded Hose Connector	VKC10	N/A	N/A	N/A	N/A	–	–	–	–	–	–	–	–	–	–
Female Threaded Hose Connector	VKC11	N/A	N/A	N/A	N/A	–	–	–	–	–	–	–	–	–	–
Threaded Hose Connector	–	–	–	–	–	VKC271	N/A	N/A	N/A	N/A	VKC659	N/A	N/A	N/A	N/A

W B Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Round Grille with Flyscreen	VKC256	4,007	22.50	75.80	291.90	VKC617	5,970	12.00	40.30	167.50	–	–	–	–	–

W B BE T Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Louvred Grille Round Spigot	VKC244 Add F/S for Flyscreen	3,809	6.00	19.80	79.10	VKC268 Add F/S for Flyscreen	6,123	4.60	18.37	73.41	VKC275 Add F/S for Flyscreen	11,440	0.73	3.00	12.33

Round Ducting & Fittings

Technical Information



W B BE T Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Gravity Outlet Round Spigot	VKC243	7,200	10.94	18.59	24.21	VKC270	11,600	6.43	9.91	11.25	VKC292	16,000	6.91	8.76	11.10



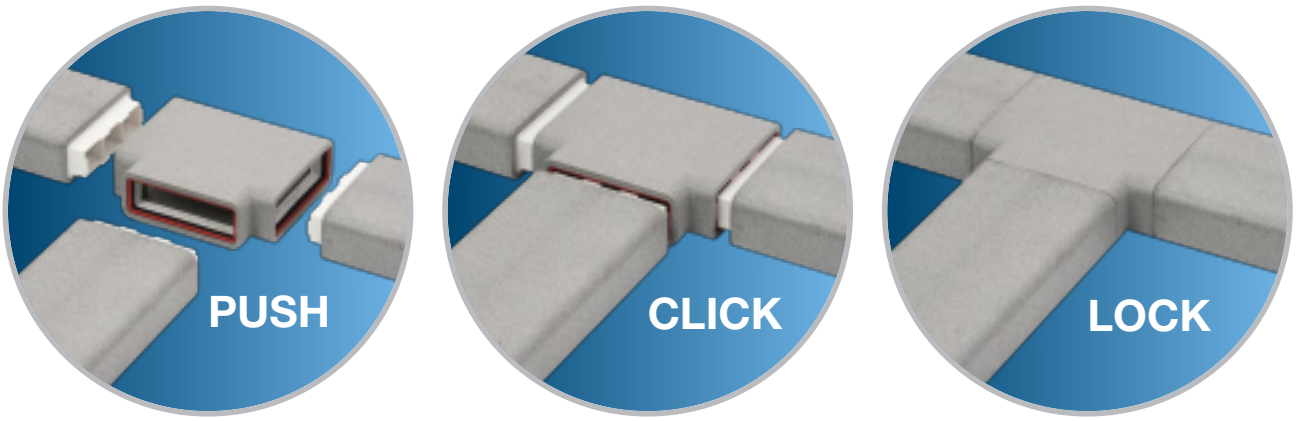
W B BE T Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
Cowled Outlet with Non-Return Flap Round Spigot	VKC245	7,200	4.72	17.18	62.48	VKC289	6,560	5.24	19.83	74.99	VKC280	N/A	N/A	N/A	N/A

W B BE T Description	100 mm Ø					125 mm Ø					150 mm Ø				
	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s	Code	Free Area mm²	Static Pressure Drop (Pa) 15 l/s	30 l/s	60 l/s
High Rise Ventilator	VVK200	6,499	0.05	4.20	15.00	–	–	–	–	–	–	–	–	–	–

Tel: 02380 240958 Fax: 02380 262595

Self-Seal Thermal Ducting

A range of insulated plastic ducting which is design to retain heat within your residential ventilation system whilst being quick and easy to install.



Reducing Energy Loss

Self-seal thermal ducting is manufactured for use within unheated areas in residential application such as loft space and ceiling voids. The insulated ducting has high thermal properties which minimises heat transfer from the ductwork saving energy and preventing condensation forming in or on the duct.

Designed in a variety of dimensions; 204 x 60mm, 220 x 90mm, Ø125mm and Ø160mm to provide designers and specifiers with options to minimise system resistance and gain maximum airflow performance.

A comprehensive range of fittings are available for each system size to provide a cost effective solution with minimal waste. The range is compatible for use with Lindab Tecduct standard ducts and fittings

High Quality Materials

Self-seal thermal ducting from Lindab is manufactured from Neopor® graphite impregnated expanded polystyrene (EPS) with infrared absorbers and reflectors which significantly improves the thermal resistance of the material compared with standard EPS.

Neopor® is fully tested to meet the thermal conductivity requirements of EN13163 and is flame retardant to DIN 4102 B1. Neopor® is a registered trademark of BASF SE

Building Regulation Compliant

Self-seal thermal ducting from Lindab exceeds the requirements of Part F 2010 Domestic Ventilation Compliance Guide and NHBC Guidance Document Chapter 3.2 and offers thermal resistance values in the range of 0.666 to 0.750m2K/W subject to the system size chosen.

Joint integrity exceeds the requirements set out in DW/143 Class A Leakage Test and DW/154 ductwork standards. The full range has also been independently airflow performance tested.

Installer Friendly

Using the unique click and lock sealing mechanism, the self-seal thermal ducting system helps to prevent leakage within the duct compared to traditional methods such as tape, sealant and fixing screws.

This lightweight yet robust ducting solution allows large ducting systems to be built by a single installer. Pre-moulded connections provide added strength and rigidity. The simple click and lock mechanism provides a neat joint significantly improving the quality of the installation.

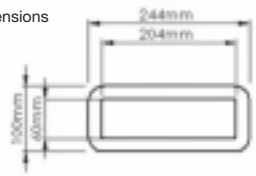
Rectangular Self-Seal Thermal Ducting

Technical Information

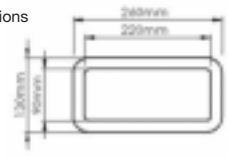
Maximum Temperature:	+60°C
Minimum Temperature:	-15°C

Material:	Graphite Impregnated Expanded Polystyrene (EPS)
Colour	Graphite Grey

Duct Dimensions



Duct Dimensions



204 x 60mm

Rectangular Self-Seal Thermal Ducting System

Site constraints such as shallow ceiling void spaces can be overcome with low profile 204 x 60mm rectangular ducting.

220 x 90mm

Rectangular Self-Seal Thermal Ducting System

High airflow ducting requirements to combat today's apartment purge ventilation needs can be achieved using 220 x 90mm rectangular ducting.

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
1m length with male duct to duct connector	SST2041M	0.40	1.60	6.00	SST2201M	0.10	0.40	1.50
2m length with male duct to duct connector	SST2042M	0.40	1.70	6.00	SST2202M	0.20	0.90	3.20
	Free Area	12,232mm²			**Free Area**	19,752mm²		

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
Horizontal 90° bend with female click and lock fittings	SST20490HB	0.60	4.70	19.80	SST22090HB	0.40	1.90	6.90

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
Horizontal 45° bend with female click and lock fittings	SST20445HB	-0.10	1.30	6.70	SST22045HB	0.10	0.50	2.10

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
T-Piece with female click and lock fittings	SST204TP	N/A	N/A	N/A	SST220TP	N/A	N/A	N/A

Tel: 02380 240958 Fax: 02380 262595

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Vertical 90° bend with female click and lock fittings	SST20490VB	0.30	3.60	15.60	SST22090VB	0.40	1.70	6.40

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Vertical 45° bend with female click and lock fittings	SST20445VB	-0.20	0.40	2.20	SST22045VB	0.10	0.20	1.00

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Male duct to duct connector	SST204DDCON	N/A	N/A	N/A	SST220DDCON	N/A	N/A	N/A

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Male duct to fitting click and lock connector	SST204DFCCON	N/A	N/A	N/A	SST220DFCCON	N/A	N/A	N/A

Description	204 x 60mm				220 x 90mm			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
125mm Ø Plenum with female click and lock fittings	SST204PL	1.60	7.90	29.20	SST220PL	1.80	8.40	30.80

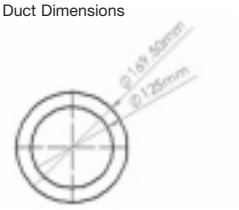
Round Self-Seal Thermal Ducting

Technical Information

Maximum Temperature:	+60°C
Minimum Temperature:	-15°C

Material:	Graphite Impregnated Expanded Polystyrene (EPS)
Colour	Graphite Grey

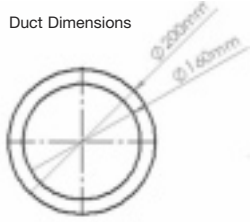
Duct Dimensions



125mm Round Self-Seal Thermal Ducting System

Versatile and commonly used 125mm diameter ducting offers a low resistance solution for small to medium properties.

Duct Dimensions



160mm Round Self-Seal Thermal Ducting System

For larger homes and private developments the 160mm diameter ducting provides the ideal solution to maximise fan performance.

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
1m length with male duct to duct connector	SST1251M	0.20	0.80	3.10	SST1601M	0.00	0.30	1.10
2m length with male duct to duct connector	SST1252M	0.40	1.70	1.70	SST1602M	0.10	0.50	2.00
	Free Area	12,273mm²			Free Area	20,108mm²		

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
90° bend with female click and lock fittings	SST12590B	1.00	4.90	19.20	SST16090B	0.30	1.50	5.70

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
45° bend with female click and lock fittings	SST12545B	0.30	1.50	5.20	SST16045B	0.10	0.40	1.60

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s	Code	Static Pressure Drop (Pa) 13 l/s	30 l/s	60 l/s
T-Piece with female click and lock fittings	SST125125TP	N/A	N/A	N/A	SST125160TP	N/A	N/A	N/A

Tel: 02380 240958 Fax: 02380 262595

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Condensation Trap with male duct to duct connectors and 22mm Ø condensate connection	SST125TRAP	0.40	1.8	6.60	SST160TRAP	0.10	0.70	3.10

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Male duct to duct connector	SST125DDCON	N/A	N/A	N/A	SST160DDCON	N/A	N/A	N/A

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
Male duct to fitting click and lock connector	SST125DDCON	N/A	N/A	N/A	SST160DFCON	N/A	N/A	N/A

Description	125mm Ø				160mm Ø			
	Code	Static Pressure Drop (Pa)			Code	Static Pressure Drop (Pa)		
		13 l/s	30 l/s	60 l/s		13 l/s	30 l/s	60 l/s
160mm Ø to 150mm Ø Adapter	–	–	–	–	SST160ADAPTER	N/A	N/A	N/A

Your complete ventilation partner

Whether you are upgrading an existing extract fan or planning a fully integrated heat recovery system, Lindab can support you at every stage of your residential ventilation project.

At Lindab we offer the complete ventilation solution for new and existing homes from energy-efficient luxury homes to cost-effective student accommodation or low-maintenance social housing developments.

With over 50 years of ventilation experience we can offer advice to first-time self-builders and qualified engineers alike.

The InDomo radial ducting system can be used with a wide range of fans from industry leading manufacturers. As an independent supply partner with air movement expertise we can help you select the system which truly meets the unique challenges of your project.

We understand the many challenges that modern ventilation systems must meet, our full service simplifies the process with you in mind.

Our BPEC trained specialist team have both practical and theoretical knowledge of applications and can support with specification, installation and commissioning.

We have a range of software designed to enable selection of products to best suit individual requirements.

Lindab's dedicated residential ventilation technical office team will work with you and your drawings to create a bespoke solution.

- **Full system design**
- **Product selection and specification**
- **Legislation and SAP advice**
- **Compliance with building regulations and planning conditions**
- **The most energy efficient solution**
- **System performance calculations**
- **Airflow and sound data**
- **Detailed bill of materials**
- **Transparent costing**
- **Regional support team**
- **Nationwide network of distribution branches**

The following pages illustrate some example drawings and give a typical design for 2 and 4 bedroom properties.

Room Sizes:

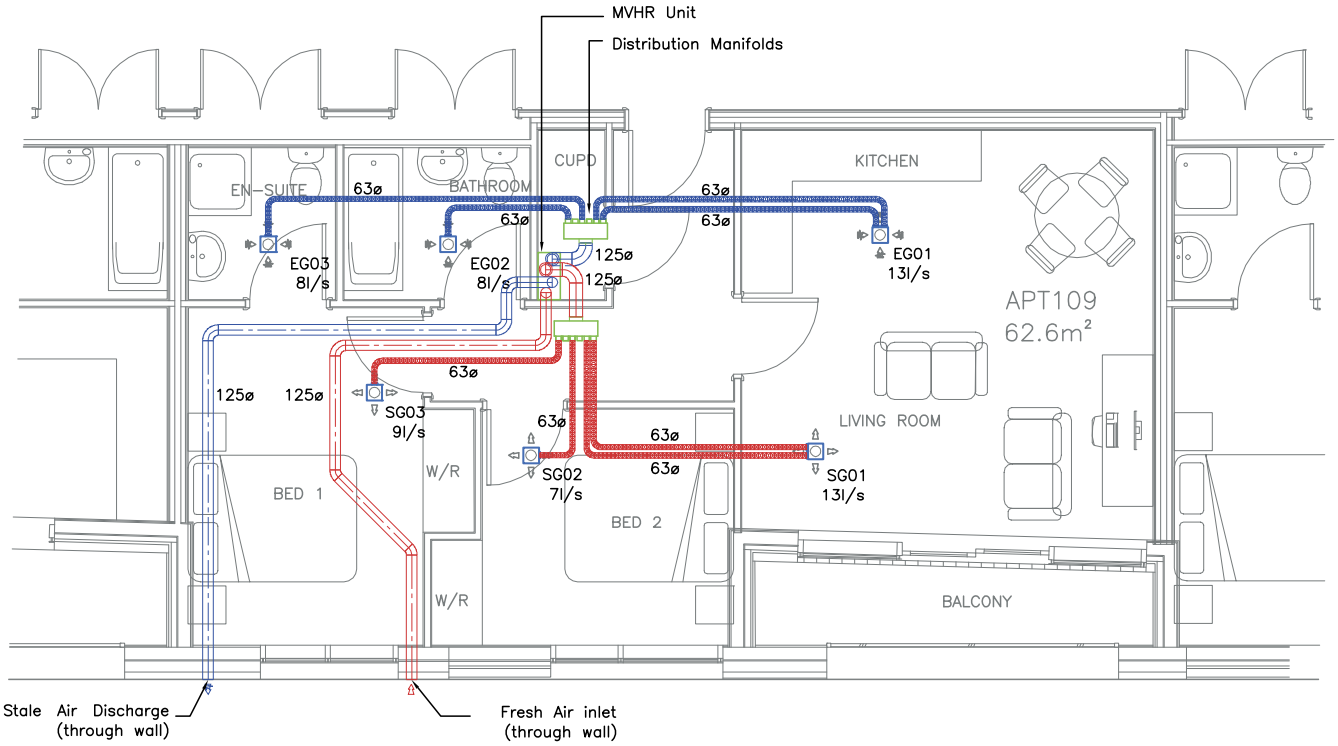
1. Kitchen = 8m²
2. Bathroom = 4m²
3. Ensuite = 3m²
4. Bedroom 1 = 11.1m²
5. Bedroom 2 = 9m²
6. Living room = 15.5m²

Assumptions:

1. Ceiling height 2.4m
2. Total Floor Area of 62.6m²
3. 3 person occupancy
4. Design air permeability of ≤3m³/hr/m² @ 50Pa
5. MVHR Unit Duty – Trickle rate 18l/s ; boost rate 29l/s @ 150Pa

Equipment list:

	Description	Qty
1.	MVHR Unit	1
2.	6–way Manifold – MHU–160–63–6–0	2
3.	Single plenum boxes – PLVCU–125–63–1	4
4.	Double plenum boxes – PLVCU–125–63–2	2
5.	Supply Airy Valves cw bodies	3
6.	Extract Airy Valves cw bodies	3
7.	63mm Semi–rigid duct – 50m coil (LFPE/63)	1
8.	125ø Spiral Tube – 3m length	7
9.	125ø Safe 90° Bends	11
10.	125ø Safe 45° Bends	2
11.	160ø–125ø Safe Concentric short pressed reducer	2
12.	160ø Safe Female coupling	2
13.	Clamps red/blue – 48/bag	1
14.	Insulation ductwrap – 25mm thick – 13m length	1
15.	Circular external louvre ø125	2
16.	Suspension rings ø125	15



LEGEND:

= Supply Airy Valve

= Extract Airy Valve

= Semi–rigid Extract Duct
= Semi–rigid Supply Duct
= Rigid Extract Duct
= Rigid Supply Duct

Notes

1. This document has been produced for training purposes only and should be treated as such.
2. The calculations have been produced using both the BPEC training guide and part F of the building regulations.

Typical example of a two bedroom apartment


MVHR Unit


Airy Valve

LFPE Semi-Rigid Ducting


MHU Distribution Manifold


PLVCU Plenum Box

TITLE: Typical Example of a Two Bedroom Apartment		
DRAWN BY: MT	CHECKED: WC	DATE: MAR 18
SCALE: TO FIT @A4	CAD REF: N/A	X REF: N/A
DRAWING No: 1033/M/101		REVISION: B

Lindab®

Room Sizes:

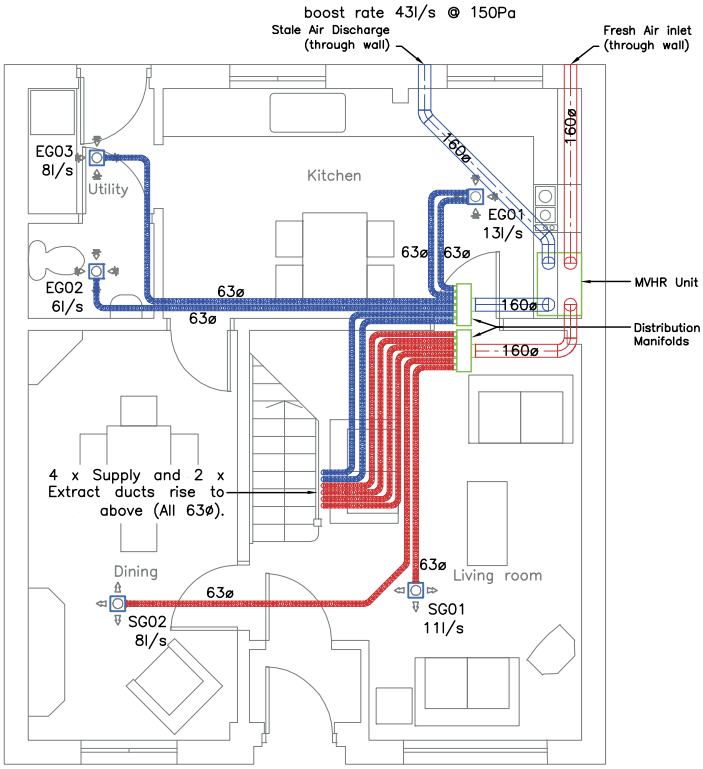
1.	Kitchen	= 14.5m²
2.	Bathroom	= 3.5m²
3.	Ensuite	= 2.6m²
4.	WC	= 1.8m²
5.	Utility	= 2.4m²
6.	Bedroom 1	= 13.3m²
7.	Bedroom 2	= 11m²
8.	Bedroom 3	= 7.7m²
9.	Bedroom 4	= 5.8m²
10.	Living room	= 18.6m²
11.	Dining room	= 12.6m²

Assumptions:

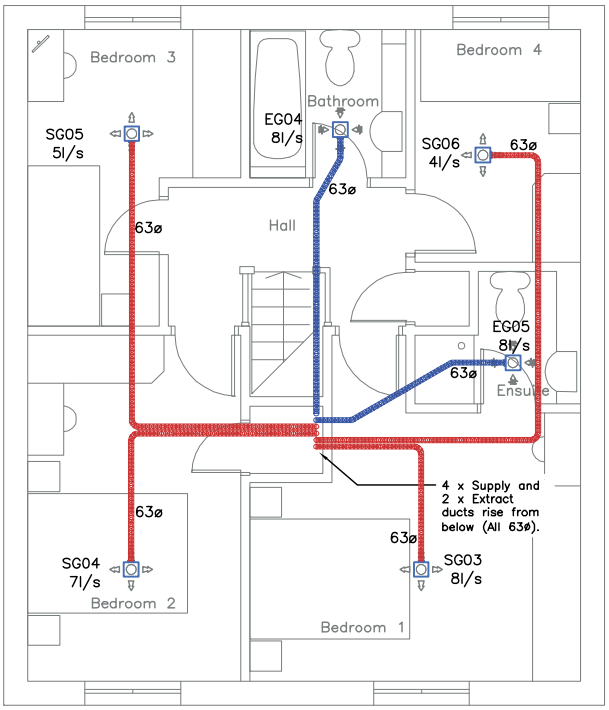
1. Ceiling height 2.4m
2. Total Floor Area of 108m²
3. 5 person occupancy
4. Design air permeability of ≤3m³/hr/m² @ 50Pa
5. MVHR Unit Duty – Trickle rate 32l/s ; boost rate 43l/s @ 150Pa

Equipment list:

	Description	Qty
1.	MVHR Unit	1
2.	6–way Manifold – MHU–160–63–6–0	2
3.	Single plenum boxes – PLVCU–125–63–1	10
4.	Double plenum boxes – PLVCU–125–63–2	1
5.	Supply Airy Valves cw bodies	6
6.	Extract Airy Valves cw bodies	5
7.	63mm Semi–rigid duct – 50m coil (LFPE/63)	2
8.	160ø Spiral Tube – 3m length	3
9.	160ø Safe 90° Bends	5
10.	160ø Safe 45° Bends	2
11.	Clamps red/blue – 48/bag	3
12.	Insulation ductwrap – 25mm thick – 13m length	1
13.	Circular external louvre ø160	2
14.	Suspension rings ø160	10



GROUND FLOOR



FIRST FLOOR

LEGEND:

= Supply Airy Valve

= Extract Airy Valve

= Semi–rigid Extract Duct
= Semi–rigid Supply Duct
= Rigid Extract Duct
= Rigid Supply Duct

Notes

1. This document has been produced for training purposes only and should be treated as such.
2. The calculations have been produced using both the BPEC training guide and part F of the building regulations.

Typical example of a four bedroom house


MVHR Unit


Airy Valve

LFPE Semi-Rigid Ducting


MHU Distribution Manifold


PLVCU Plenum Box

TITLE: Typical Example of a Four Bedroom House		
DRAWN BY: MT	CHECKED: WC	DATE: MAR'18
SCALE: TO FIT @A4	CAD REF: N/A	X REF: N/A
DRAWING No: 1033/M/103		REVISION: B

Lindab

Tel: 02380 240958 Fax: 02380 262595

Simplifying specification

A general guidance framework for a specification for Lindab residential ventilation is provided below. You can simply copy and paste into your project details.

For a full NBS specification visit www.ribaproductselector.com/lindab, for further project specification advice contact residential@lindab.co.uk

U90 Domestic Ventilation

GENERAL

- Radial ductwork system which simplifies MEV and MVHR solution integration
- Complies with building regulation guidelines and is SAP Appendix Q listed
- Suitable for use in domestic buildings including single flats, multiple occupancy dwellings and large homes
- Consult technical literature for details on individual products and their performance

MANUFACTURER

Lindab Ltd Web: www.lindab.co.uk Tel: 01604 788350

PRODUCT SPECIFICATION	
Specification Clause:	150 WHOLE HOUSE MECHANICAL VENTILATION 420 FLEXIBLE DUCTWORK AND FITTINGS
NBS Create Clause:	90-45-25/430 Flexible ductwork 90-45-25/310 Circular plastics ductwork and fittings
Product reference:	InDomo radial ductwork system
PRODUCTS	
Ducting:	LFPE Semi-rigid duct 63/ 76mm
Clamp:	CLAMP Fixing clamp Blue/ Red 63/ 76mm
Manifold Box:	MCU Class D manifold 125-200mm 63/ 76mm 6-0/ 6-4/ 8/ 8-0/ 10-0/ 10-4 MHU Class D manifold 100-200mm 63/ 76mm 2-0/ 3-0/ 4-0/ 6-0/ 6R/ 6L/ 8-0/ 10-0/ 16-0 MRU/ MLU Handed Class D manifold 125-160mm 63/ 76mm 4-0/ 6-0/ 8-0/ 10-0/ 12-0
Plenum Box:	PLVCU/ PVCU 100-160mm 63/ 76mm Type 1/ 2/ 3
Coupling:	NPULFPE Class D coupling 63/ 76mm
Bend:	BU90LFPE Class D bend 63/ 76mm
Air Brick:	ABA Air brick adapter 63mm VPAB Fascia Brown/ Cotswold Stone/ White/ Terracotta
Silencer:	SLXU50 Circular straight silencer 100-250mm LRCA Low-built straight silencer 100-400mm
Air Valve:	AIRYB Valve body 100-160mm Galvanised steel/ RAL 9003/ RAL 9010 AIRYFP Valve face plate 100-160mm ROUND/ BOW/ SQUARE/ ELLIPSE/ RECTANGLE Galvanised steel/ RAL 9003/ RAL 9010/ Stainless Steel ILVRU/ VRGU/ VRGM/ VRFU/ VRFM Valve frame 100- 160mm KI Supply air valve 80-200mm RAL 9003/ RAL 9010 KSU Exhaust air valve 100-200mm RAL 9003/ RAL 9010 FRSV/ FREV Fire rated valves 80-200mm
Grille:	YGC External wall grille 80-500mm cast aluminium/ 630-1,250mm galvanised steel
Fire Sleeve:	QRS Intumescent fire sleeve 63-125mm

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate

Lindab Ltd
Lindab Ventilation Branches

Aberdeen	01224 708582	Exeter	01626 835032	Manchester	0161 876 0688
Basildon	01268 532016	Gateshead	0191 482 5995	Norwich	01603 747532
Belfast	02890 781607	Glasgow	0141 419 3800	Nottingham	0115 985 1923
Birmingham	0121 552 6100	High Wycombe	01494 463490	Sheffield	0114 244 5444
Bristol	0117 977 1345	Kent	01474 579800	Southampton	02380 262111
Cardiff	02920 794503	Leeds	0113 297 1111	Stoke-on-Trent	01782 383460
Croydon	0208 603 0850	Leicester	0116 255 6044		
Enfield	0208 805 3656	Lincoln	01522 567087		

Lindab Ltd
Residential Ventilation
Technical Support Office

Tel: 02380 262595
Email: residential@lindab.co.uk
Web: lindab.co.uk/residential

Lindab®