

**Round Pre-Insulated Ductwork** 

Product data sheet



## ComfoPipe Plus ø 160 mm

The ComfoPipe Plus ø 160 mm self-seal insulated ducting is perfect for exceeding Building Regulations for insulation whilst minimising air leakage making it ideal for premium self build projects or PassivHaus developments. The lightweight and robust ductwork along with the self-seal connection mean this can be installed much faster than conventional rockwool insulation.

The thermal bridge free connections eliminate the need for tape, sealant and screws and also meets the requirements set out in DIN 1946-6 with a much thinner wall thickness (43 mm reduced from 60 mm).



### **Key Features**

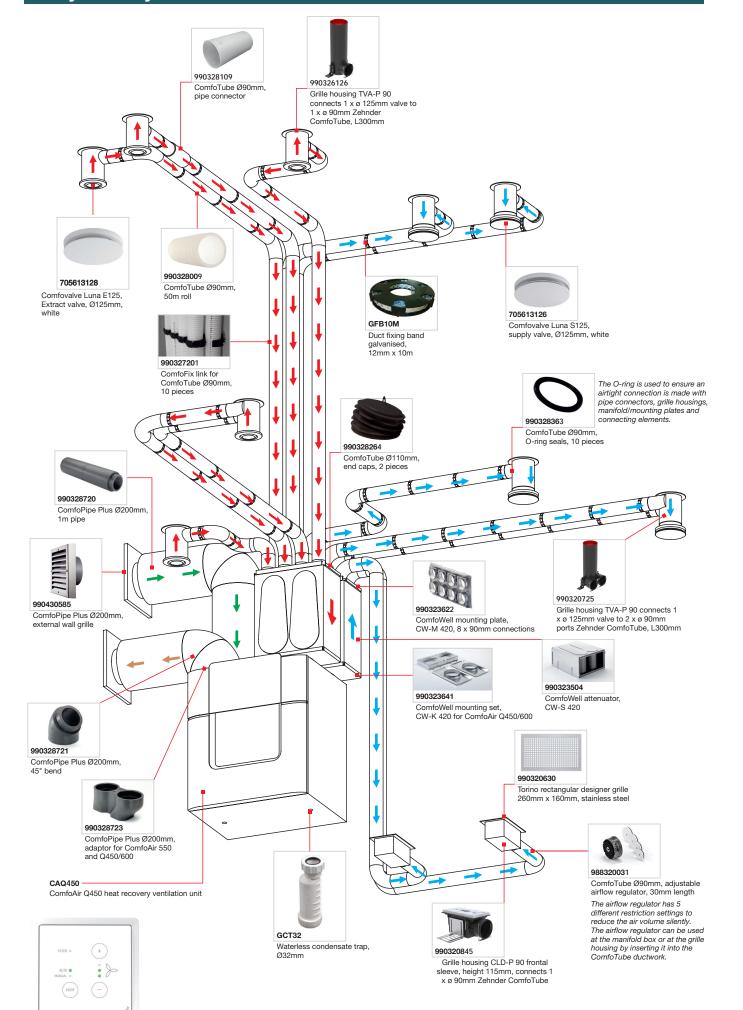
- Easy and quick to install
- Airtight
- Exceeds Building Regulations
- Perfect for premium self-build or PassivHaus developments
- Simple push fit connection
- Lightweight and easy to handle
- No sealant or tape required
- Minimal components to simplify installation

Article Numbers	
Description	Product Code
ComfoPipe Plus ø 160 mm, 1 m duct	990 328 700
ComfoPipe Plus ø 160 mm, 45° bend	990 328 701
ComfoPipe Plus ø 160 mm, 45° bend adaptor for ComfoAir Flex 250/350, 2 Pieces	990 328 704
ComfoPipe Plus ø 160 mm, duct connector	990 328 702
Steel ducting ø 160 mm, centric male duct connector with gasket seals, galvanised	MC160G
ComfoPipe Plus ø 160 mm, external wall grille	990 430 584
Combined external wall grille, 2 x ø 160 mm connections, right-hand	990 430 594
Combined external wall grille, 2 x ø 160 mm connections, left-hand	990 430 595

<b>Technical Specification</b>	
Material	Expanded Polypropylene (EPP)
Recycled material content	30%
Operating temperature range	-25 to +80°C
Maximum recommended air volume	83.3 l/s (300 m³/h)
Free area	20,106 mm <sup>2</sup>
Thermal conductivity	0.035 W/mK
Thickness	43 mm
Thermal Resistance	1.229 m <sup>2</sup> K/W
Fire rating in accordance with EN 13501-1	E
Meets DIN 1946-6	Yes

ComfoPipe Plus ø 160 mm

## 3D System Layout



#### ComfoPipe Plus ø 160 mm

Article number: 990 328 700

#### **Description**

#### Insulated duct:

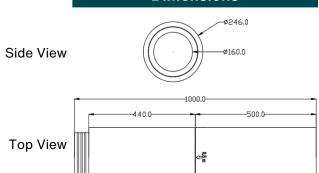
Insulated duct available in 1 m lengths. Each length comes complete with a premoulded single male duct to duct connector to fit into the next straight length of duct or a 45° bend.

#### **Technical Specification**

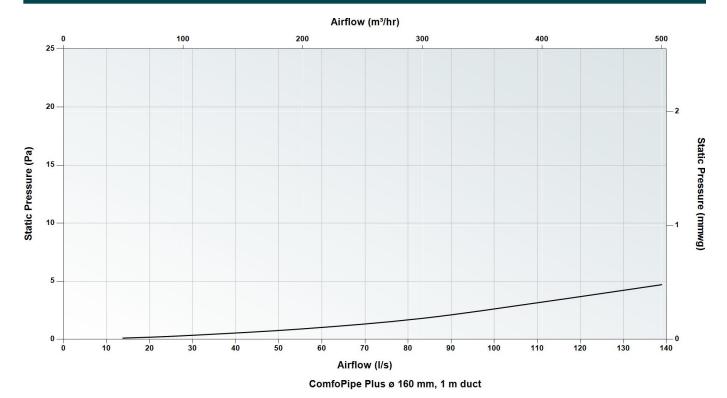
Outside diameter	246 mm
Inside diameter	160 mm
Length	1000 mm
Weight	1.082 kg



#### **Dimensions**



## **Pressure Curve**



## ComfoPipe Plus ø 160 mm 90° / 45° Bend

Article number: 2 x 990 328 701 combined / 990 328 701

#### **Description**

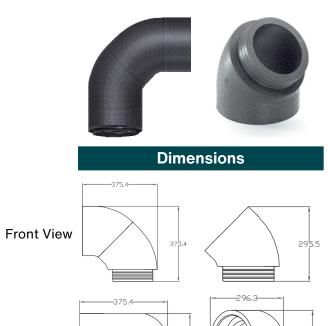
#### Insulated bend:

ComfoPipe Plus ø 160 mm

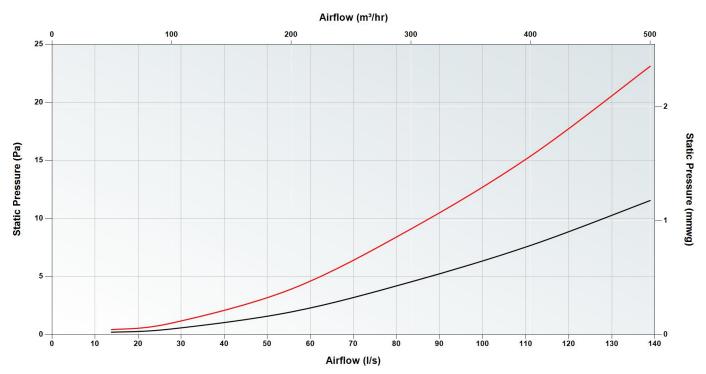
Insulated bend available in 45°, two can be combined to form 90°. Each bend comes complete with a premoulded single male connector to securely connect to a straight length of insulated duct or another 45° bend.

#### **Technical Specification**

Angle	90° / 45°
Height	375.4 mm / 295.5 mm
Width	375.4 mm / 296.3 mm
Depth	246 mm
Weight	0.410 kg / 0.205 kg



## **Pressure Curve**



Top View

ComfoPipe Plus ø 160 mm, 45° bend —— 2 x Zehnder ComfoPipe Plus ø 160 mm, 45° bend

## ComfoPipe Plus ø 160 mm, 45° bend adaptor for ComfoAir Flex 250/350, 2 Pieces

Article number: 990 328 704

#### Description

#### Insulated adaptor:

Insulated adaptor for use with ComfoAir Flex 250/350. Each bend comes complete with a premoulded single male connector to securely connect to the ComfoAir Flex 250/350.

#### **Technical Specification**

Angle	45°
Height	256.1 mm
Width	296.2 mm
Depth	246 mm
Weight	0.18 kg



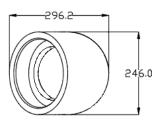
#### **Dimensions**





Front View





#### ComfoPipe Plus ø 160 mm, duct connector

Article number: 990 328 702

## Description

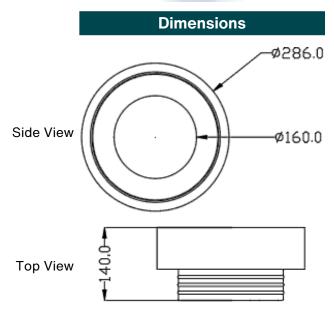
#### Coupling:

Coupling for insulated duct system to securely connect a cut length of ductwork to another straight length of insulated duct or another 45° bend.

## **Technical Specification**

Length	140 mm
Diameter	286 mm
Weight	0.110 kg







## Steel ducting ø 160 mm, centric male duct connector with gasket seals, galvanised

Article number: MC160G

#### Description

#### Coupling:

Coupling to securely connect a length of 160 mm ductwork to another straight length of duct or MVHR unit with 160 mm ø spigots. Make good with additional insulation if connecting to insulated ductwork.

#### **Technical Specification**

Diameter	160 mm
Weight	0.190 kg



#### ComfoPipe Plus ø 160 mm

#### ComfoPipe Plus ø 160 mm, external wall grille

Article number: 990 430 584

#### Description

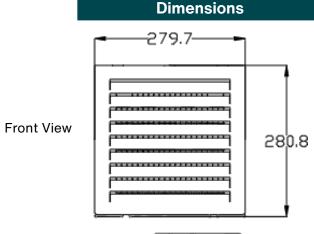
#### **Termination:**

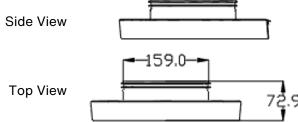
Termination for insulated duct system to securely connect to a straight length of insulated duct. Fly mesh included.

#### **Technical Specification**

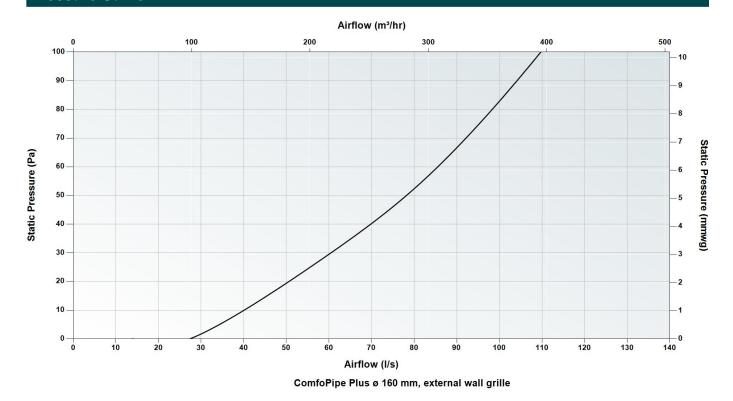
280.8 mm
279.7 mm
72.9 mm
1.39 kg
Stainless steel
50,124 mm <sup>2</sup>
250 mm







## **Pressure Curve**



## Combined external wall grille, 2 x $\emptyset$ 160 mm connections, right-hand

Article number: 990 430 594

#### Description

#### **External termination:**

Combined intake and exhaust external termination for insulated duct system to connect to 2 x lengths of ComfoPipe Plus 160 mm (990 328 700) or Ø 160 mm self-seal insulated ducting (GD913.1I / GD913.2I). The termination is weather proof with a low pressure drop and tested to ensure recirculation is kept to a minimum.

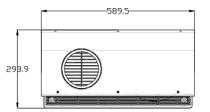
#### **Technical Specification**

Handing	Right
Height	289.9 mm
Width	589.5 mm
Depth	239.3 mm
Weight	2.9 kg
Material	Stainless steel
Free area	61,066 mm <sup>2</sup>
Core drill diameter (GD913.1I / ComfoPipe Plus 160 mm)	2 x 202 mm / 2 x 250 mm
Other info	Recirculation <5% @ 5 m/s



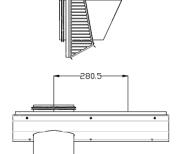
#### **Dimensions**

Front View



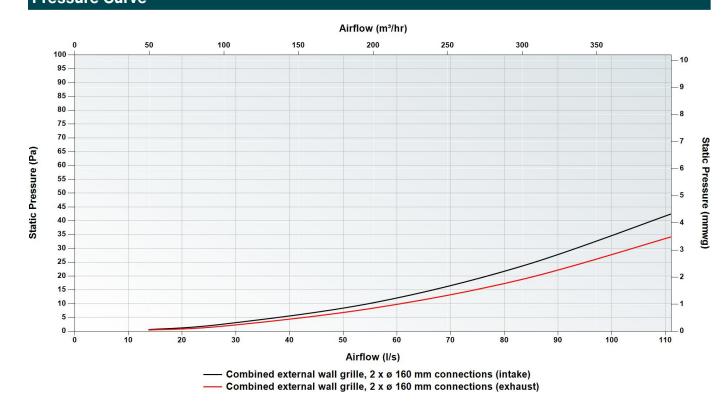
-239.3

Side View



Top View

## **Pressure Curve**



Article number: 990 430 595

#### **Description**

#### **External termination:**

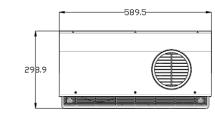
Combined intake and exhaust external termination for insulated duct system to connect to 2 x lengths of ComfoPipe Plus 160 mm (990 328 700) or Ø 160 mm self-seal insulated ducting (GD913.1I / GD913.2I). The termination is weather proof with a low pressure drop and tested to ensure recirculation is kept to a minimum.

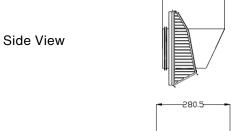
#### **Technical Specification**

•	
Handing	Left
Height	289.9 mm
Width	589.5 mm
Depth	239.3 mm
Weight	2.9 kg
Material	Stainless steel
Free area	61,066 mm <sup>2</sup>
Core drill diameter (GD913.1I / ComfoPipe Plus 160 mm)	2 x 202 mm / 2 x 250 mm
Other info	Recirculation <5% @ 5 m/s
-	



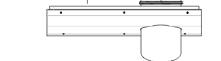
## Dimensions



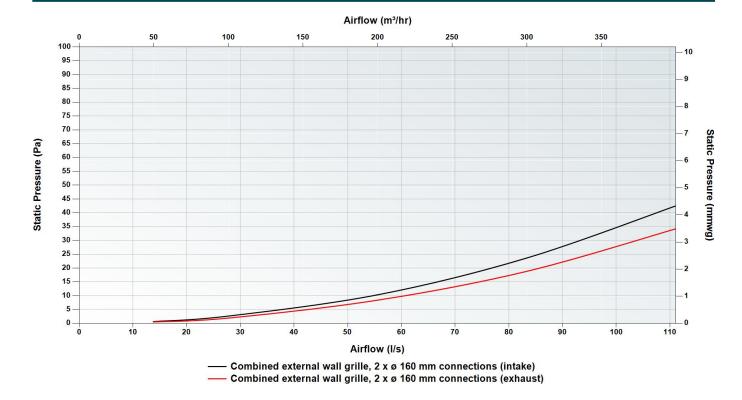




Front View



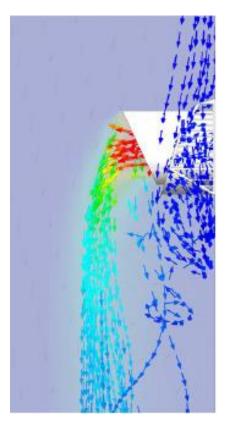
## **Pressure Curve**



ComfoPipe Plus ø 160 mm

## **Airflow Circulation Diagram**

The combined external wall grilles are designed to ensure virtually no recirculation of air occurs. With a combined grille, external ductwork can remain short helping to limit thermal losses and maximise comfort and efficiency.



## **BIM/CAD Components**

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### **Consultant Specification**

#### **Specification**

The ComfoPipe Plus self-seal insulated ductwork shall be constructed of Expanded Polypropylene (EPP) with a thermal resistance of 1.229 m<sup>2</sup>K/W. It shall be fully tested to meet the thermal conductivity requirements of DIN 1946-6 and have a fire rating of E in accordance with EN 13501-1.

It shall have an operating temperature range of -25 to  $+80^{\circ}$ C and not be designed to exceed flowrates with a velocity in excess of 3 m/s.

The ductwork shall be manufactured by Zehnder.

ComfoPine Plus 160 Technical Specification 203