

Zehnder ComfoWell 420

Modular manifold for use with semi-rigid ductwork

Product data sheet

always the best climate



ComfoWell 420

The Zehnder ComfoWell 420 is a modular system consisting of attenuators, fine grade filters and active carbon filters all integrated for use with a rigid or semi-rigid ductwork approach. With a width of 420 mm it can be used for connecting up to 8 ComfoTube connections. The systems compact dimensions ensure good sound absorption and also make it easy to clean. Rigid pipe can be connected to the end plate securely by utilising the gasket seal connection. All other components are fitted using the RapidLock® connections to quickly form an air tight and robust seal by simply push-fitting the semi-rigid ductwork.

Noise reduction can be improved by combining two attenuators together. Filters are available in [ISO ePM1 \(F9\)](#) grade in addition to an odour neutralising active carbon filter.



Key Features

- Attenuator, fine grade filter, active carbon filter and manifold all combined into one space saving combination with the option to bespoke build exactly what's required.
- Easy to assemble thanks to its modular and compact design.

Article Numbers

| Description | Product Code |
|-------------------------------------------------------------------------------------------------------------|-----------------------------|
| Attenuator Zehnder ComfoWell attenuator, CW-S 420 | 990 323 504 |
| Manifold Zehnder ComfoWell manifold box, CW-D 420 | 990 323 620 |
| Filter Housing Zehnder ComfoWell filter housing, CW-F 420 | 990 323 554 |
| Mounting Plates Zehnder ComfoWell mounting plate, CW-M 420, 8 x 75 mm connections | 990 323 621 |
| Zehnder ComfoWell mounting plate, CW-M 420, 8 x 90 mm connections | 990 323 622 |
| End Plates Zehnder ComfoWell end plate, CW-P 420, ø 125 mm | 990 323 625 |
| Zehnder ComfoWell end plate, CW-P 420, ø 160 mm | 990 323 627 |
| Zehnder ComfoWell end plate, CW-P 420, ø 180 mm | 990 323 628 |
| Zehnder ComfoWell end plate, CW-P 420, ø 200 mm | 990 323 629 |
| Spacer Frame Zehnder ComfoWell spacer frame, CW-DF 420 | 990 323 624 |
| Mounting Set Zehnder ComfoWell mounting Set, CW-K 420, for Zehnder ComfoAir Q350 | 990 323 648 |
| Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Q450/600 | 990 323 641 |
| Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Flex 250/350 | 990 323 712 |
| Filters Filter for ComfoWell 420, CW-F9 420, ISO ePM1 (F9) , 1 Piece | 990 323 651 |
| Filter for ComfoWell 420, CW-AC 420, active carbon filter, 1 Piece | 990 323 652 |

Technical Specification

| | |
|------------------------------------------------------|-------------------------------------------------|
| Housing | Galvanised sheet steel |
| Inner lining | Closed-cell melamine resin foam |
| Mounting Plates | High-density polyethylene (HDPE) |
| Operating temperature range | -25 to +60°C |
| Recommended maximum air volume | 88.8 l/s (320 m³/h) at normal ventilation level |
| Air tightness class to EN 1507:2006 | C |
| Air tightness class to EN 12237:2003 | C |
| Fire rating to EN 13501-1 | C |

Sound Data

| Combination | Octave Band (Hz) Insertion Loss, dB | | | | | | | |
|---------------------------------------------------------------------------------------------------------|-------------------------------------|-----|------|------|------|------|------|------|
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 1 x Attenuator (CW-S 420) with 2 x 160 mm end plates (CW-P 420) | 8.2 | 5.7 | 8.3 | 12.9 | 12.2 | 14 | 11.2 | 11.6 |
| 2 x Attenuator (CW-S 420) stacked with 2 x 160 mm end plates (CW-P 420) | 7.2 | 10 | 16.8 | 23.9 | 17.6 | 28.1 | 21.2 | 20.8 |
| 1 x Attenuator (CW-S 420) with 1 x 160 mm end plates (CW-P 420) and 1 x 75 mm mounting plate (CW-M 420) | 24 | 7.1 | 14.8 | 26.7 | 24.8 | 24.6 | 24.5 | 21.7 |

Acoustic performance measured according to [EN ISO 7235](#) (pink noise)



Example Connections

| Combination Options | ComfoAir Q350 right handed with mounting set, 2 x attenuators and 2 x 8 port ø 75mm mounting plates | Stand alone attenuator with 2 x ø 160mm end plates | Stand alone manifold with 1 x ø 160mm end plate and 8 x ø 75mm mounting plate | Stand alone filter housing with 2 x ø 160mm | Stand alone silencer and manifold combined with 1 x ø 160mm end plate and 8 x ø 75mm mounting plate | Stand alone 2 x attenuator with 1 x ø 160mm end plate and 8 x ø 75mm mounting plate |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Individual Components | | | | | | |
| Attenuator Article Number: 990 323 504 | 2 x Zehnder ComfoWell attenuator, CW-S 420 | 1 x Zehnder ComfoWell attenuator, CW-S 420 | — | — | 1 x Zehnder ComfoWell attenuator, CW-S 420 | 2 x Zehnder ComfoWell attenuator, CW-S 420 |
| Manifold Box Article Number: 990 323 620 | — | — | 1 x Zehnder ComfoWell manifold box, CW-D 420 | — | — | — |
| Filter Housing Article Number: 990 323 554 | — | — | — | 1 x Zehnder ComfoWell filter housing, CW-F 420 | — | — |
| Mounting Plate -ø75 Article Number: 990 323 621 | 2 x Zehnder ComfoWell mounting plate, CW-M 420, 8 x 75mm connections | — | 1 x Zehnder ComfoWell mounting plate, CW-M 420, 8 x 75mm connections | — | 1 x Zehnder ComfoWell mounting plate, CW-M 420, 8 x 75mm connections | 1 x Zehnder ComfoWell mounting plate, CW-M 420, 8 x 75mm connections |
| End Plate - ø 160 Article Number: 990 323 627 | — | 2 x Zehnder ComfoWell end plate, CW-P 420, ø 160mm | 1 x Zehnder ComfoWell end plate, CW-P 420, ø 160mm | 2 x Zehnder ComfoWell end plate, CW-P 420, ø 160mm | 1 x Zehnder ComfoWell end plate, CW-P 420, ø 160mm | 1 x Zehnder ComfoWell end plate, CW-P 420, ø 160mm |
| Mounting Set Article Number: 990 323 648 | 1 x Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Q350 | — | — | — | — | — |
| Filter Article Number: 990 323 604 | — | — | — | 1 x Filter for ComfoWell 420, CW-F9 420, ISO ePM1 >90% (F9), 1 Piece | — | — |

Zehnder ComfoWell attenuator CW-S 420

Article number: 990 323 504

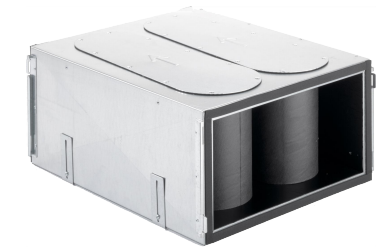
Description

Attenuator:

Zehnder ComfoWell attenuator CW-S 420. Rectangular compact attenuator with highly efficient sound insulation combined with low pressure losses. The attenuator can be used individually or in combination with all ComfoWell components. The airtight connection between components is via a clamping strip. For cleaning purposes the sound absorbing element can be removed. Mounting on the wall or ceiling is done using the supplied fully adjustable installation mounts.

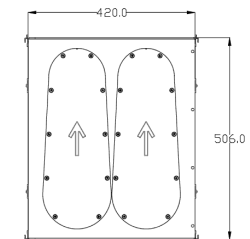
Technical Specification

| | |
|--------|--------|
| Height | 506 mm |
| Width | 436 mm |
| Depth | 235 mm |
| Weight | 6 kg |



Dimensions

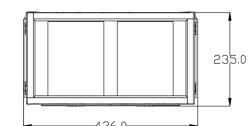
Front View



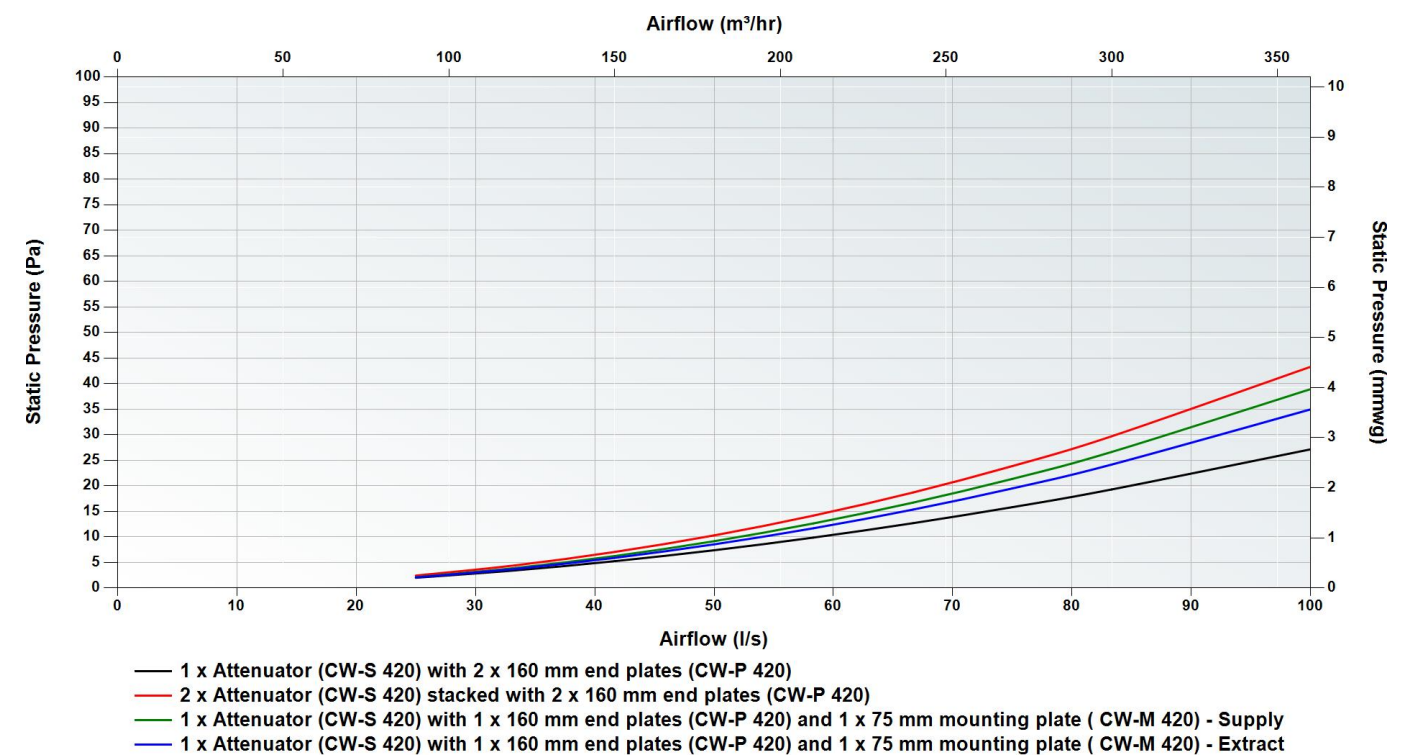
Side View



Top View



Pressure Curve



Zehnder ComfoWell manifold box CW-D 420

Article number: 990 323 620

Description

Manifold Box:

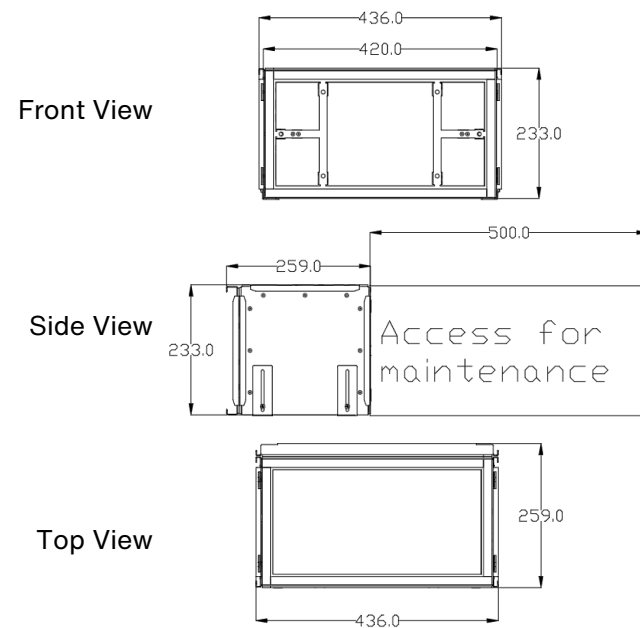
Zehnder ComfoWell manifold box CW-D 420. Rectangular compact design with closed pore internal lining. Suitable for use with the mounting plate for 8 x ComfoTube 75 mm connections or 8 x 90 mm connections. The mounting plate can be mounted on the top or side of the manifold box. The airtight connection between components is via a clamping strip. For cleaning purposes the manifold box side plate can be removed for easy access. Mounting on the wall or ceiling is done using the supplied fully adjustable installation mounts.

Technical Specification

| | |
|--------|--------|
| Height | 233 mm |
| Width | 436 mm |
| Depth | 259 mm |
| Weight | 4.7 kg |



Dimensions



Zehnder ComfoWell filter housing CW-F 420

Article number: 990 323 554

Description

Filter Housing:

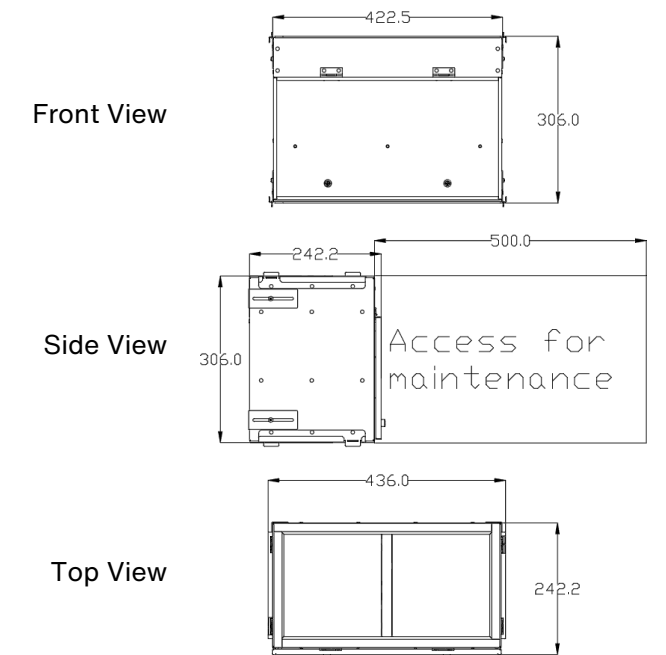
Zehnder ComfoWell filter housing CW-F 420. Rectangular compact design for use with a fine dust filter graded ISO ePM1 (F9) or an active carbon filter to neutralise odours in the supply air duct run. The filter elements are not included with the filter housing and need to be purchased separately, with only 1 filter per housing possible. The filter housing can be used individually or in combination with all ComfoWell components. The airtight connection between components is via a clamping strip. Mounting on the wall or ceiling is done using the supplied fully adjustable installation mounts.

Technical Specification

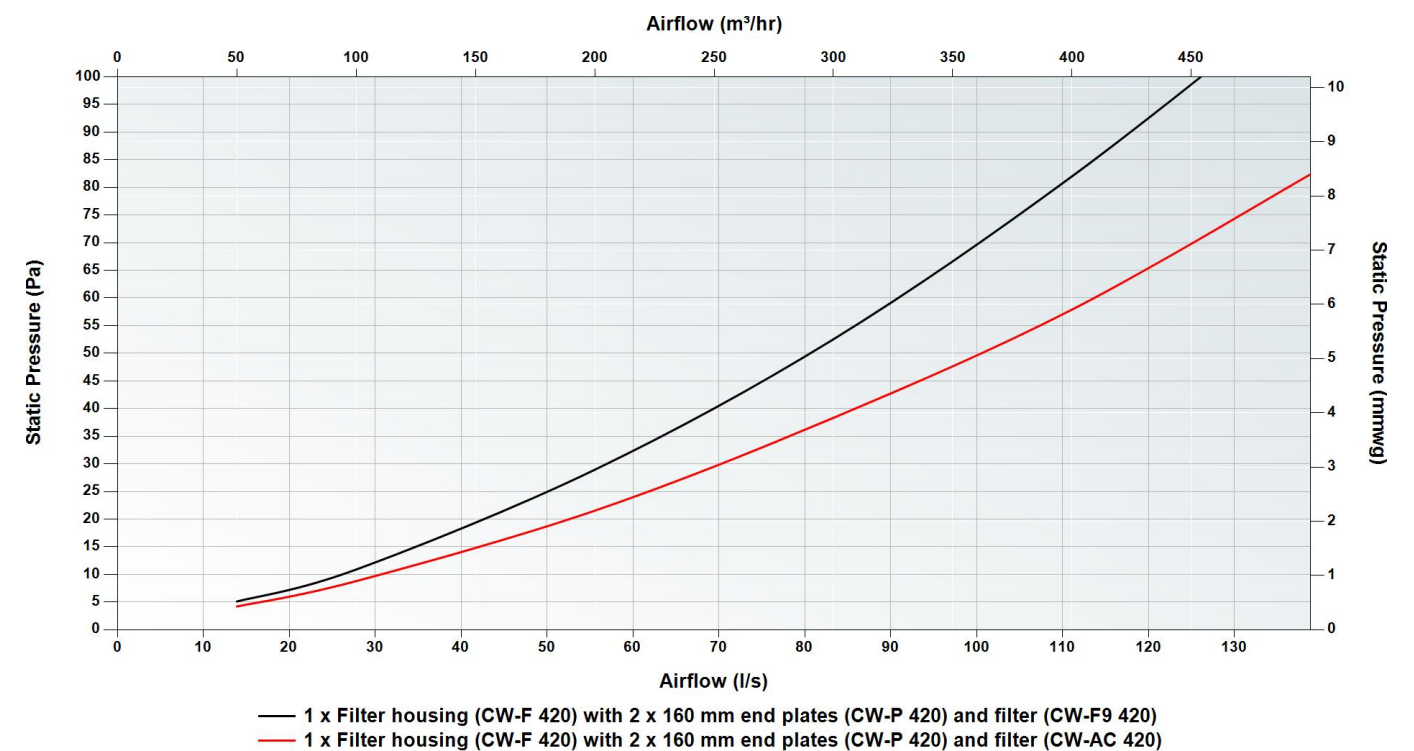
| | |
|---------|----------|
| Height | 306 mm |
| Width | 436 mm |
| Depth | 242.2 mm |
| Weight | |
| Housing | 5.85 kg |
| CW-F9 | 0.8 kg |
| CW-AC | 1.32 kg |



Dimensions



Pressure Curve



Zehnder ComfoWell mounting plate CW-M 420

Article number: 990 323 621 / 990 323 622

Description

Mounting Plate:

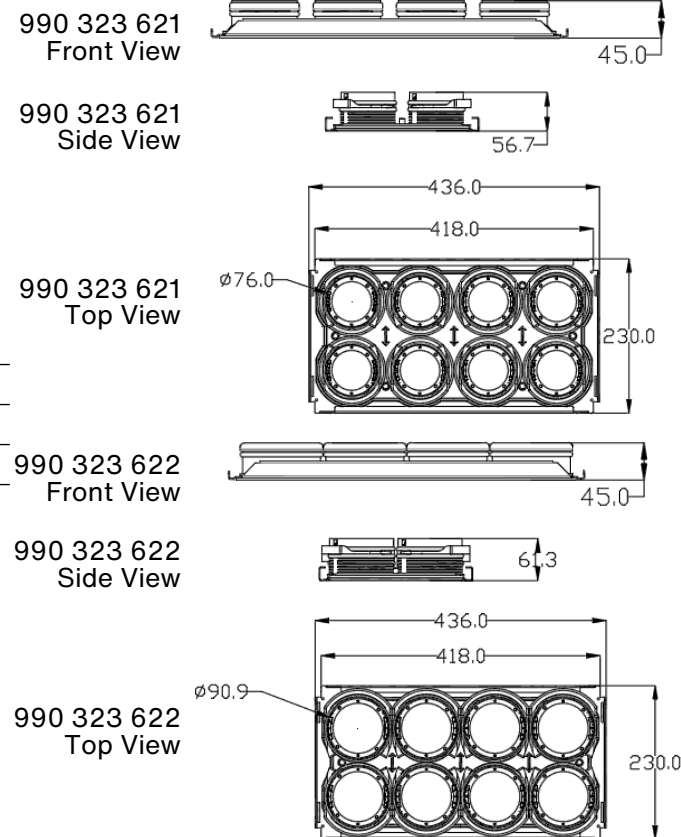
Zehnder ComfoWell mounting plate CW-M 420-8 x 75 or 90. Manifold mounting plate for connection of 8 x ComfoTube 75 mm or 90 mm semi-rigid ducting. The mounting plate includes a protective film and the necessary mounting accessories, including RapidLock® connections to quickly form an air tight and robust seal by simply push-fitting the semi-rigid ductwork.

Technical Specification

| | |
|--------|-------------------|
| Height | 56.7 mm / 61.3 mm |
| Width | 436 mm |
| Depth | 230 mm |
| Weight | <1.3 kg |



Dimensions



Zehnder ComfoWell end plate CW-P 420 - ø 125 / 160 / 180 / 200 mm

Article number: 990 323 625 / 990 323 627 / 990 323 628 / 990 323 629

Description

End Plate:

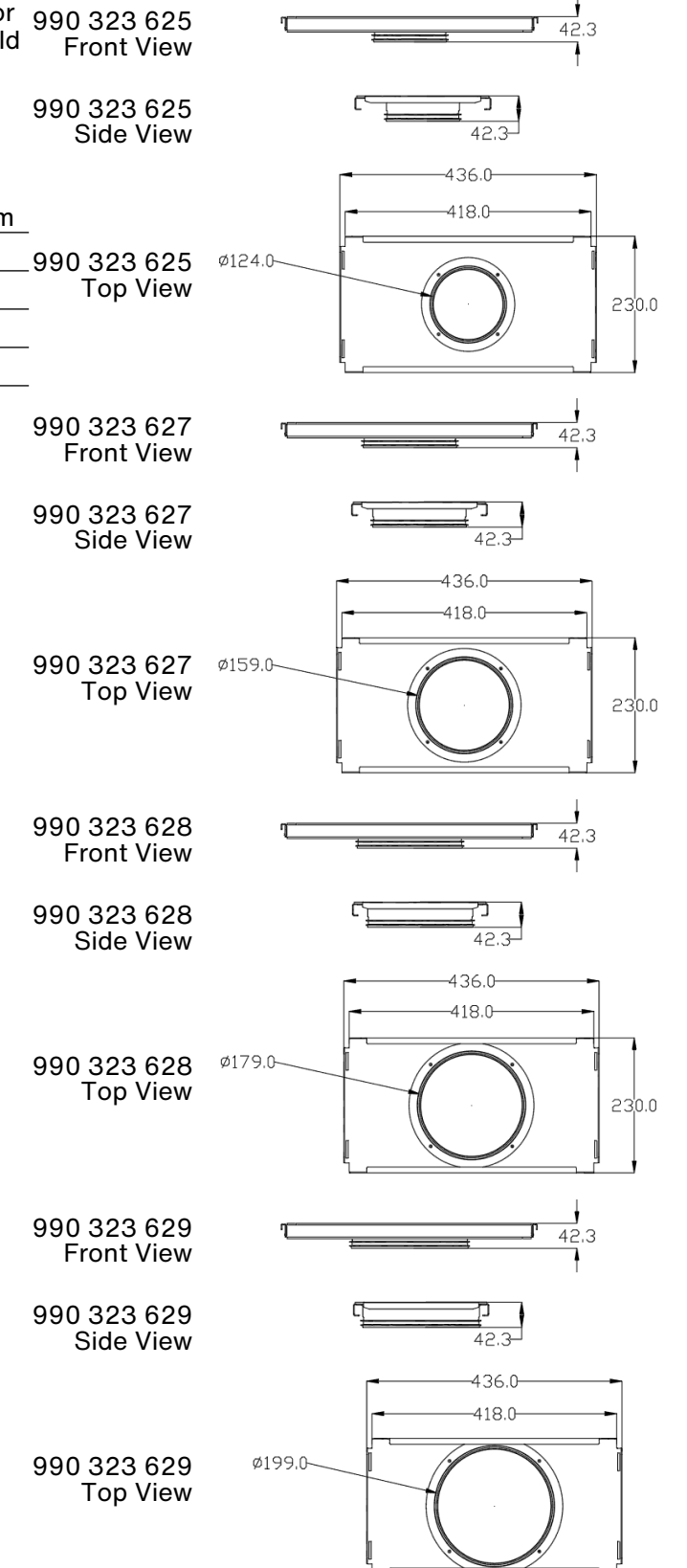
Zehnder ComfoWell end plate CW-P 420 - DN125 / DN160 / DN180 / DN200 (with centre connection) for the connection to the ComfoWell attenuator/manifold box or filter housing to the matching ducting size required. The end plate includes the necessary mounting accessories.

Technical Specification

| | |
|----------|-----------------------------------|
| Diameter | 125 mm / 160 mm / 180 mm / 200 mm |
| Height | 42.3 mm |
| Width | 436 mm |
| Depth | 230 mm |
| Weight | <1.25 kg |



Dimensions



Zehnder ComfoWell spacer frame, CW-DF 420

Article number: 990 323 624

Description

Spacer Frame:

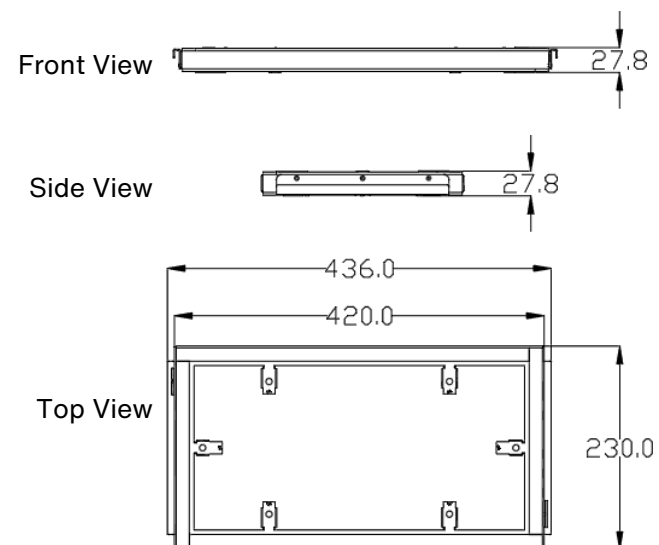
Zehnder ComfoWell spacer frame CW-DF420. Rectangular frame for use in the event of uneven surfaces when connecting components and mounting plate (concreted in place) are at 90 degrees. The spacer frame includes the necessary mounting accessories.

Technical Specification

| | |
|--------|---------|
| Height | 27.8 mm |
| Width | 436 mm |
| Depth | 230 mm |
| Weight | 1.12 kg |



Dimensions



Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Q350

Article number: 990 323 648

Description

Mounting set:

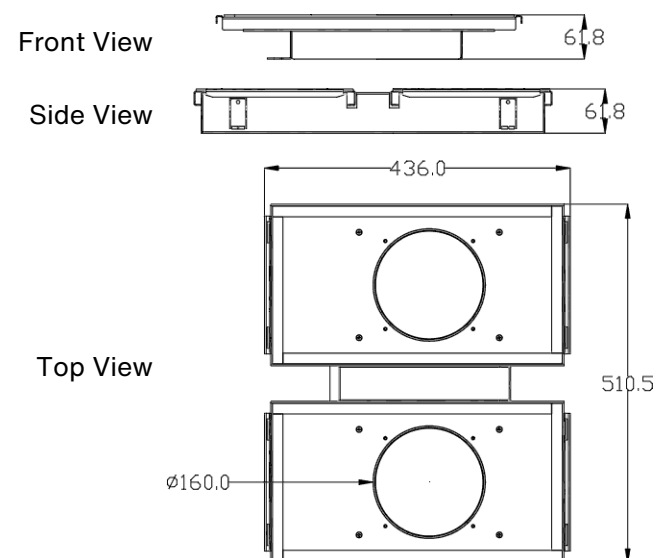
A range of special mounting sets are available for the Zehnder ComfoWell 420 for direct mounting to the ComfoAir Q350 / ComfoAir Q450 / ComfoAir Q600 ComfoAir Flex 250 / ComfoAir Flex 350 ventilation units. The mounting set includes all the necessary accessories (screws, brackets and mounting brackets).

Technical Specification

| | |
|--------|----------|
| Height | 61.8 mm |
| Width | 436 mm |
| Depth | 510.5 mm |
| Weight | 4.04 kg |



Dimensions



Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Q450/600

Article number: 990 323 641

Description

Mounting set:

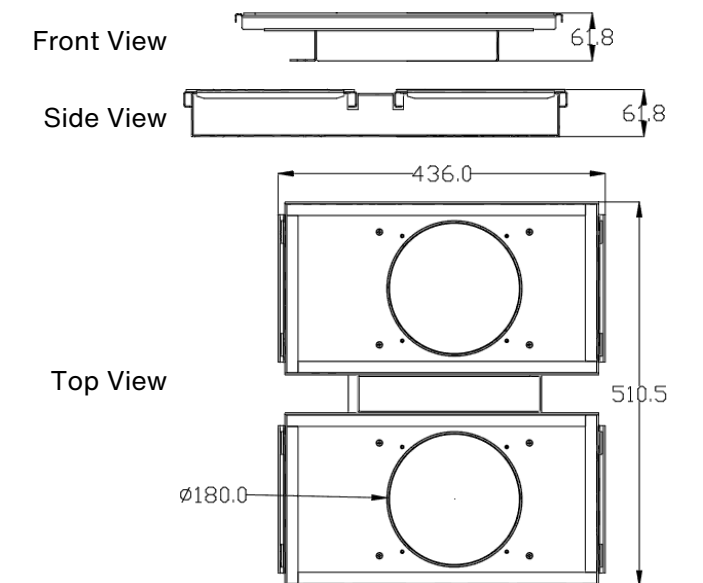
A range of special mounting sets are available for the Zehnder ComfoWell 420 for direct mounting to the ComfoAir Q350 / ComfoAir Q450 / ComfoAir Q600 ComfoAir Flex 250 / ComfoAir Flex 350 ventilation units. The mounting set includes all the necessary accessories (screws, brackets and mounting brackets).

Technical Specification

| | |
|--------|----------|
| Height | 61.8 mm |
| Width | 436 mm |
| Depth | 510.5 mm |
| Weight | 4.98 kg |



Dimensions



Zehnder ComfoWell mounting set, CW-K 420, for Zehnder ComfoAir Flex 250/350

Article number: 990 323 712

Description

Mounting set:

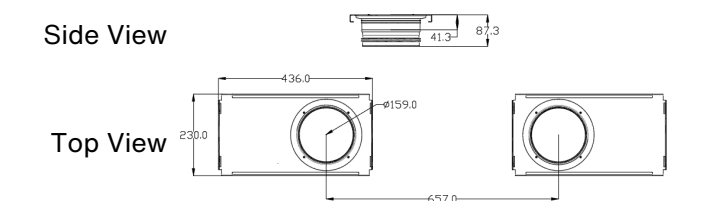
A range of special mounting sets are available for the Zehnder ComfoWell 420 for direct mounting to the ComfoAir Q350 / ComfoAir Q450 / ComfoAir Q600 ComfoAir Flex 250 / ComfoAir Flex 350 ventilation units. The mounting set includes all the necessary accessories (screws, brackets and mounting brackets).

Technical Specification

| | |
|--------|--------|
| Height | 87 mm |
| Width | 436 mm |
| Depth | 230 mm |
| Weight | 2.8 kg |



Dimensions



For use with

Our range of Comfowell units can be used in conjunction with our Zehnder ComfoTube \varnothing 75 mm and \varnothing 90 mm semi-rigid ductwork.



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BIM/CAD Components

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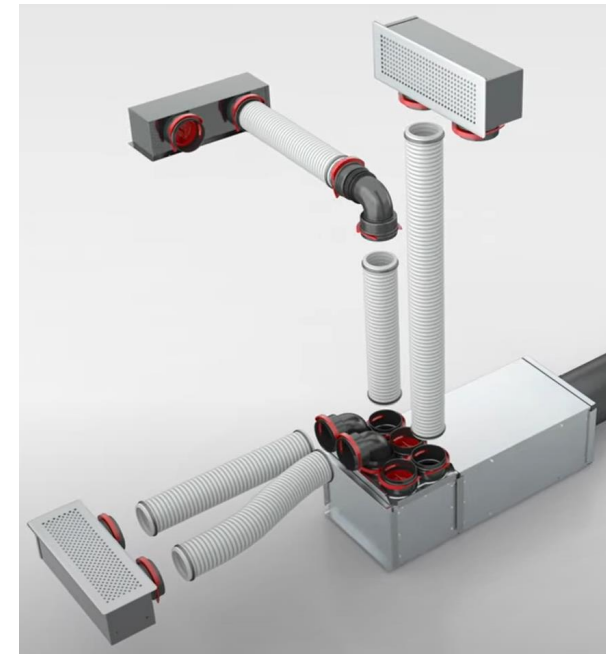
Installation Instructions

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Watch our video on the future of air distribution installation - Zehnder RapidLock®!

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Watch our video on how to clean the Zehnder ComfoTube ductwork.

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Consultant Specification

Specification

The semi-rigid ductwork manifold shall be constructed of galvanised sheet steel with a closed-cell melamine resin foam inner lining to prevent dust collection and have a fire class C according to [EN 13501-1](#).

It shall be of modular construction with options to combine attenuators, manifold box, filter housing with [ISO ePM1](#) (F9) or active carbon filters and end plates ranging from \varnothing 125 mm to \varnothing 200 mm.

It shall have the option of a mounting set for direct connection to the mechanical ventilation with heat recovery unit.

The components shall be tested to BS [EN 1507:2006](#) and BS [EN 12237:2003](#) for airtightness and have removable elements to provide access for cleaning.