

# Zehnder ComfoPost CW6



# ComfoPost CW6

The Zehnder ComfoPost is an air to water exchanger for use with ComfoWell air distribution connections. The ComfoWell connections allows for selection flexibility, offering a range of rigid circular ductwork or Zehnder ComfoTube semi-rigid ductwork to attached. The ComfoPost is available in a variety of sizes to heat or cool the air supplied by the Zehnder ventilation system.

The ComfoPost units are suitable for a wide range of airflows up to 166l/s (600m<sup>3</sup>hr), the CW6 is suitable for airflows up to 83.3l/s (300m<sup>3</sup>hr). The units are made of steel with aluminium and copper pipe forming the heating and cooling coils and are maintenance free.

# **Key Features**

- Ideal for use with reversible heat pumps or chillers to meet SAP 10 or TM59 overheating demands
- Low pressure losses
- Filtered fresh supply air, not recycled stale air
- Suitable for use with the unique modular ComfoWell manifolds
- Suitable for horizontal or vertical installation
- Condensation water tray and drain as standard
- Suitable for Passive House application
- Corrosion resistant

# **Article Numbers**

#### Description

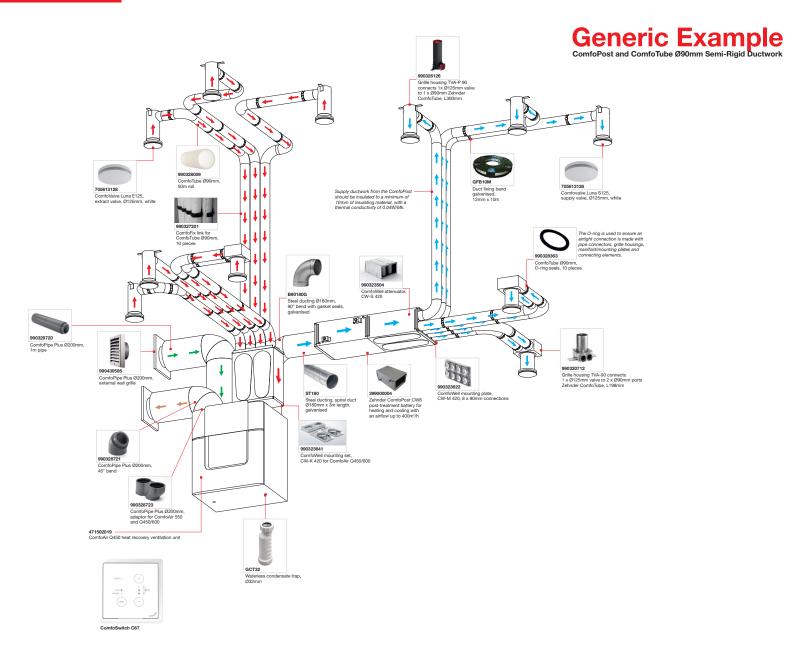
**Product Code** 

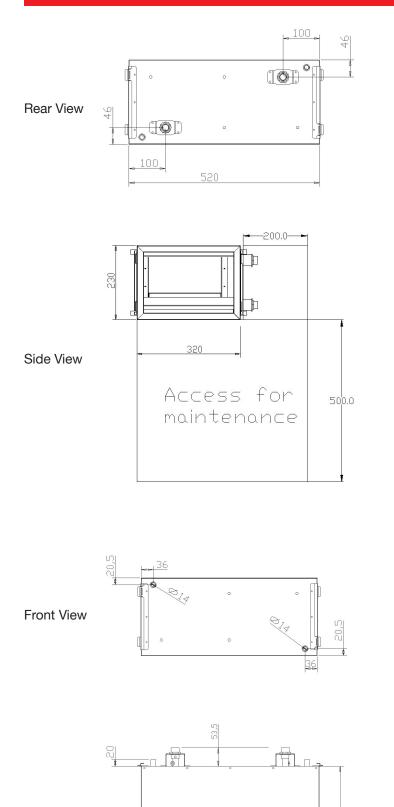
Zehnder ComfoPost CW6 post-treatment battery for heating and cooling with an airflow up to 300m <sup>3</sup> /h	398 480 002
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# Technical Specification

Height	230mm
Width	320mm
Depth	520mm
Water connection diameter (ø)	1/2"
Water connection type	BSPT male thread
Condensate drain diameter OD (ø)	14mm
Condensate connection type	Worm drive clip to fix to hose or crimped to copper pipe
ComfoWell range	ComfoWell 320
ComfoWell rigid round air connection options (ø)	125mm / 150mm / 160mm / 180mm
ComfoWell semi-rigid air connection options (ø)	6 x 75mm / 6 x 90mm / 2 x 90mm + 4 x 75mm
Material	Casing: Galvanised sheet steel Tubes: Copper Fins: Aluminium with hydrophilic treatment
Recommended operating water temperature range	7 to 55 °C
Recommended maximum operating air flow	<83.3l/s (<300m³hr)
Maximum thermal heating output	3.13kW*
Maximum thermal cooling output	2.8kW*
Maximum operating water pressure?	6 bar
Water volume capacity	0.6 Litres
Maintenance free	Yes
Weight	13.5 kg

# **3D System Layout**





Height	230mm
Width	320mm
Depth	520mm
Weight	13.5 kg

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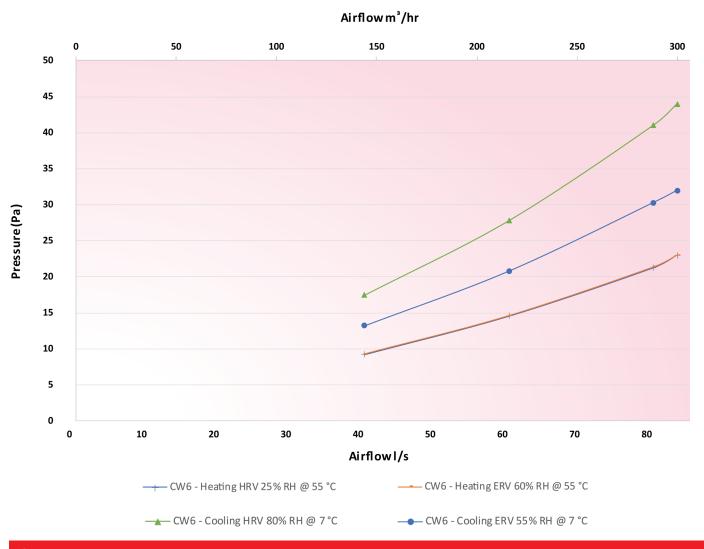
520

# **Performance Data**

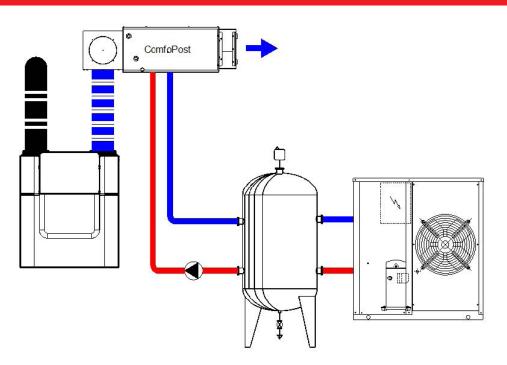
						Hea	ating				Cod	oling
				HRV ex	changer			ERV ex	changer		HRV	ERV
Air con	ditions IN to ComfoPost	T °C		18	°C			17	°C		27°C	28°C
		RH %		2	5%			6	0%		80%	55%
		AH		3.2	g/kg			7.3	g/kg		18.1 g/kg	13.1 g/kg
Wa	ater temperature IN	°C	55	50	45	40	55	50	45	40	7	7
	H <sub>2</sub> O flow	l/h		6	00			6	00		600	600
	H <sub>2</sub> O temperature <sub>OUT</sub>	°C	52	48	43	39	52	48	43	38	10	9
3 <sup>3</sup> /h)	$H_2O \Delta P$	kPa	9	10	10	10	9	10	10	10	12	12
44r	Air temperature OUT	°C	53	48	43	38	52	47	43	38	12	11
MUI /s (1	Air RH <sub>OUT</sub>	%	4	5	6	8	9	11	14	17	100	96
MINIMUM Air flow 40l/s (144m <sup>3</sup> /h)	Air AH <sub>OUT</sub>	g/kg	3.2	3.2	3.2	3.2	7.2	7.2	7.2	7.2	9.1	7.9
flov	Air ΔP	Pa	9	9	9	9	9	9	9	9	17	13
Air	Condensation	l/h	-	-	-	-	-	-	-	-	1.7	2.1
	Sensible power	kW	-	-	-	-	-	-	-	-	0.74	0.4
	TOTAL POWER	kW	1.73	1.5	1.26	1.03	1.79	1.55	1.32	1.08	1.88	1.52
	H <sub>2</sub> O flow	l/h		6	00			6	00		600	600
	H <sub>2</sub> O temperature <sub>OUT</sub>	°C	52	47	43	38	51	47	42	38	10	10
u3/h)	H <sub>2</sub> Ο ΔΡ	kPa	9	10	10	10	9	10	10	10	12	12
216n	Air temperature OUT	°C	50	46	41	37	50	46	41	37	14	13
Air flow 60/s (216m³/h)	Air RH <sub>OUT</sub>	%	4	5	7	8	9	12	15	19	100	93
v 60	Air AH <sub>OUT</sub>	g/kg	3.2	3.2	3.2	3.2	7.2	7.2	7.2	7.2	10.3	8.6
flo	Air ΔP	Pa	15	14	14	14	15	14	14	14	28	21
Air	Condensation	l/h	-	-	-	-	-	-	-	-	2.1	2.1
	Sensible power	kW	-	-	-	-	-	-	-	-	0.94	0.63
	TOTAL POWER	kW	2.35	2.03	1.71	1.39	2.43	2.1	1.78	1.46	2.35	1.94
	H <sub>2</sub> O flow	l/h			00				00		600	600
~	H <sub>2</sub> O temperature <sub>OUT</sub>	°C	51	46	42	38	51	46	42	37	11	10
m³/h	H <sub>2</sub> Ο ΔΡ	kPa	9	10	10	10	9	10	10	10	12	12
288	Air temperature <sub>OUT</sub>	°C	48	44	40	36	48	44	40	36	16	14
) I/s (	Air RH <sub>OUT</sub>	%	5	6	7	9	11	13	17	20	99	90
Air flow 80/s (288㎡/h)	Air AH <sub>OUT</sub>	g/kg	3.2	3.2	3.2	3.2	7.2	7.2	7.2	7.2	11.3	9.2
r flo	Air ∆P	Pa	21	21	21	21	21	21	21	21	41	30
Ā	Condensation	l/h	-	-	-	-	-	-	-	-	2.4	2.2
	Sensible power	kW	-	-	-	-	-	-	-	-	1.1	0.85
	TOTAL POWER	kW	2.93	2.53	2.13	1.73	3.03	2.62	2.22	1.82	2.74	2.29
	H <sub>2</sub> O flow	l/h	-		00	07	-		00		600	600
Ę	H <sub>2</sub> O temperature <sub>OUT</sub>	°C	51	46	42	37	51	47	42	38	11	10
MAXIMUM Air flow 83.31/s (300 m³/h)		kPa	10	10	10	10	10	10	10	10	12	12
UM	Air temperature <sub>OUT</sub>	°C	48	44	40	36	48	43	39	35	16	15
MAXIMUM 83.31/s (30	Air RH <sub>OUT</sub>	%	5	6	7	9	10	12	15	19	99	90
MA v 83	Air AH <sub>OUT</sub>	g/kg	3.2	3.2	3.2	3.2	7.2	7.2	7.2	7.2	11.4	9.3
flov	Air ΔP	Pa	23	23	23	22	23	23	23	22	44	32 2.2
Air	Condensation	l/h	-		-	-		-		-	2.4	
	Sensible power	kW	3.03	2.62	2.2	1.79	3.13	- 2.74	2.29	1.88	1.12 2.8	0.89
	TOTAL POWER	kW	3.03	2.62	2.2	т./9	3.13	2.71	2.29	1.88	2.8	2.34

Initial temperature and humidity outdoor/indoor: winter 2°C 70% R.H. / 20°C 60% R.H.; summer 35°C 50% R.H. / 25°C 50% R.H. The calculations include the cold recovery efficiency of an enthalpy exchanger as extrapolated from the results provided by the PHI certification

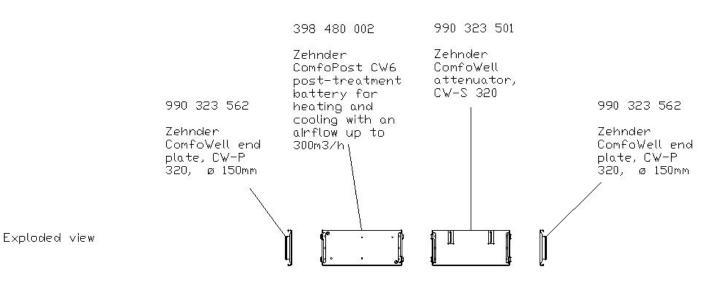
# **Performance Data**



# **Schematics**

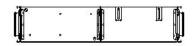


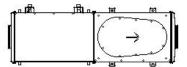
## **Example Connection**



Front view

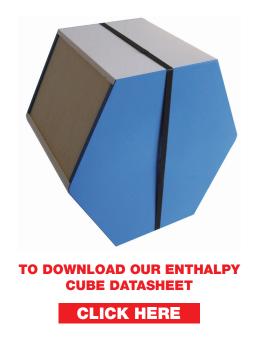
Top view





# For Use With

Our range of ComfoPost products can be used in conjunction with our ComfoAir units, complete with enthalpy cube for improved sensible cooling capacity. The unit shall be manufactured by Zehnder.



## **BIM/CAD** Components

If you would like to download the BIM / CAD files for this or any other of our products then please visit our BIM library.

## TO VISIT OUR BIM/CAD LIBRARY CLICK HERE

## **Installation Instructions**

If you would like to download the installation files for this or any other of our products then please visit our download page by clicking the link below.

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**CLICK HERE** 

# **Consultant specification**

Specification

The air to water exchanger shall be constructed of galvanised sheet steel with copper tubes and aluminum fins with hydrophilic treatment to enhance thermal transfer. It shall be connected to the MVHR units supply ductwork with options to combine attenuators, manifold box, filter housing with ISO ePM1 >80% (F7), ISO ePM1 >90% (F9) or active carbon filters and end plates ranging from ø 125mm to ø 200mm. It shall have the option for horizontal or vertical mounting.

The unit shall be manufactured by Zehnder.





# Zehnder ComfoWell 320





# Comfowell 320

The Zehnder ComfoWell 320 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 320mm it can be used for connecting up to 6 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 locking slide connections to form an airtight and robust seal.

Noise reduction can be improved by combining two attenuators together. Filters are available in ISO ePM1 >80% (F7) or ISO ePM1 >90% (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 is required.
- Easy to assemble thanks to its modular and compact design.

# **Article Numbers**

Description	Product Code
Attenuator	
Zehnder ComfoWell attenuator, CW-S 320	990 323 501
Manifold	
Zehnder ComfoWell manifold box CW-D 320	990 323 531
Filter Housing	
Zehnder ComfoWell filter housing CW-F 320	990 323 551
Mounting Plates	
Zehnder ComfoWell mounting plate, CW-M 320, 6 x 75mm connections	990 323 612
Zehnder ComfoWell mounting plate, CW-M 320, 6 x 90mm connections	990 323 613
End Plates	
Zehnder ComfoWell end plate, CW-P 320, ø 125mm	990 323 511
Zehnder ComfoWell end plate, CW-P 320, ø 150mm	990 323 562
Zehnder ComfoWell end plate, CW-P 320, ø 160mm	990 312 512
Zehnder ComfoWell end plate, CW-P 320, ø 180mm	990 312 527

# **Article Numbers**

#### Spacer Frame

Zehnder ComfoWell spacer frame, CW-DF 320	990 323 538
Mounting Set	
Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir 160	990 323 570
Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir 200	990 323 517
Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir Q350	990 323 647
Filters	
Filter for ComfoWell 320, CW-F7 320, ISO ePM1 >80% (F7), 1 Piece	990 323 603
Filter for ComfoWell 320, CW-F9 320, ISO ePM1 >90% (F9), 1 Piece	990 323 604

990 323 605

# **Technical Specification**

Filter for ComfoWell 320, CW-AC 320, active carbon filter, 1 Piece

Housing material	Galvanised Sheet Steel
Operating temperature range	-25 to +60 °C
Inner lining	Closed-cell melamine resin foam
Recommended maximum air volume	66.6l/s (240 m³/h) at normal ventilation level
Air tightness class to EN 1507:2006	В
Air tightness class to EN 12237:2003	В
Fire rating to ISO13501	C

# **Example Connections**

$\square$	ComfoAir 200 Left handed with mounting set, 2 x	Stand alone attenuator with 2x ø 160mm	Stand alone manifold with 1 x ø 125mm end plate and 6 x ø	Stand alone filter housing with 2 x ø 160m end plate	Stand alone attenuator and manifold combined with 1 x ø	Stand alone 2 x attenuator with 1 x ø 160mm end plate and
Combination Options		end plates	Ø 125mm end plate and 6 X Ø 75mm mounting plate	mar 2 x 12 room end plate	160mm end plate and 6 x ø 75mm mounting plate	6 x ø 75mm mounting plate
Individual Components						
Silencer	2 x Zehnder ComfoWell attenuator, CW-S 320	1 x Zehnder ComfoWell attenuator, CW-S 320			1 x Zehnder ComfoWell attenuator, CW-S 320	2 x Zehnder ComfoWell attenuator, CW-S 320
Manifold Box			1 x Zehnder ComfoWell manifold box, CW-D 320			
Filter Housing				1 x Zehnder ComfoWeil filter housing, CW-F 320		
Mounting Plate - 075	2 x Zehnder ComfoWell mounting plate, CW-M 320, 6 x 75mm connections		1 x Zehnder ComfoWell mounting plate, CW-M 320, 6 x 75mm connections		1 x Zehnder ComfoWell mounting plate, CW-M 320, 6 x 75mm connections	1 x Zehnder ComfoWell mounting plate, CW-M 320, 6 x 75mm connections
End Plate - ø 125			1 x Zehnder ComfoWell end plate, CW-P 320, ø 125mm			
End Plate - ø160		2 x Zehnder ComfoWell end plate, CW-P 320, ø 125mm		2 x Zehnder ComfoWell end plate, CW-P 320, ø 160mm	1 x Zehnder ComfoWell end plate, CW-P 320, ø 160mm	1 x Zehnder ComfoWell end plate, CW-P 320, ø 160mm
Mounting Set 200	1 x Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir 160					
Filter				1 x Filter for ComfoWell 320, CW-F9 320, ISO ePM1 >90% (F9), 1 Piece		

#### Zehnder ComfoWell attenuator, CW-S 320

Article number: 990 323 501

#### Description

#### Attenuator:

Zehnder ComfoWell attenuator CW-S 320. 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.

#### **Dimensions**

Height	506mm
Width	336mm
Depth	232.5mm
Weight	6.6 kg

#### Zehnder ComfoWell manifold box CW-D 320

Article number: 990 323 531

#### Description

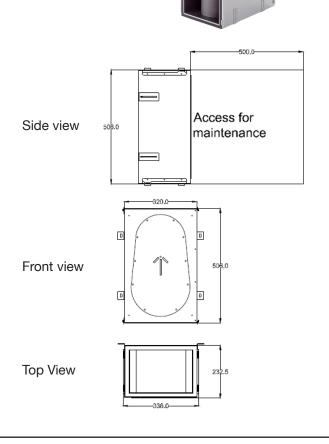
#### Manifold Box:

Zehnder ComfoWell manifold box CW-D 320. Rectangular compact design with closed pore internal lining. Suitable for use with the mounting plate for ComfoTube 75mm x 6 connections, 90mm x 6 connections or a combination of 90mm x 2 and 75mm x 4 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.

#### **Dimensions**

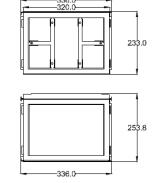
Height	233mm
Width	336mm
Depth	253.8mm
Weight	4.52 kg





Front view

Side view



#### Zehnder ComfoWell filter housing CW-F 320

Article number: 990 323 551

#### Description

#### Filter Housing:

Zehnder ComfoWell filter housing CW-F 220. Rectangular compact design for use with a fine pollen filter graded ISO ePM1 >80% (F7), a fine dust filter graded ISO ePM1 >90% (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. 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.



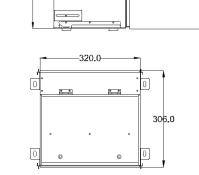
Front view



Access for

maintenance

500.0



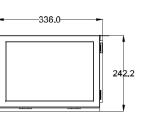
-242.2

306.0

#### Dimensions

Height	306mm
Width	336mm
Depth	242.2mm
Weight	4.73 kg

Top View



#### Zehnder ComfoWell mounting plate CW-M 320

Article number: 990 323 612

#### Description

#### Mounting Plate:

Zehnder ComfoWell mounting plate CW-M 320-6 x 75. Manifold mounting plate for connection of 6 x ComfoTube 75mm semi-rigid ducting. The mounting plate includes a protective film and the necessary mounting accessories.



Side view

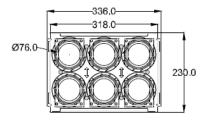






#### Dimensions

Height	45.1mm
Width	336mm
Depth	230mm
Weight	<1.53 kg



Zehnder ComfoWell mounting plate CW-M 320

Article number: 990 323 613

#### Description

#### Mounting Plate:

Zehnder ComfoWell mounting plate CW-M 320-6 x 90. Manifold mounting plate for connection of 6 x ComfoTube 90mm semi-rigid ducting. The mounting plate includes a protective film and the necessary mounting accessories.

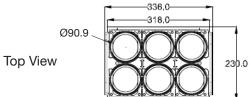












**Dimensions** 

Height	45.1mm
Width	336mm
Depth	230mm
Weight	<1.53 kg

#### Zehnder ComfoWell end plate CW-P 320 -ø 125

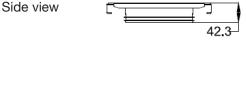
Article number: 990 323 511

#### Description

#### End Plate:

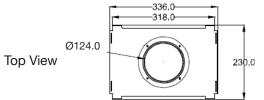
Zehnder ComfoWell end plate CW-P 320 - DN125 (with centre connection) for the connection to the ComfoWell attenuator/manifold box or filter housing to the matching ducting size required. The end plate includes the necessary mounting accessories.





Front view





#### Dimensions

Height	42.3mm
Width	336mm
Depth	230mm
Diameter	125mm

#### Zehnder ComfoWell end plate CW-P 320 -ø 150mm

Article number: 990 323 562

## Description

#### End Plate:

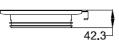
Zehnder ComfoWell end plate CW-P 320 - DN150 (with centre connection) for the connection to the ComfoWell attenuator/manifold box or filter housing to the matching ducting size required. The end plate includes the necessary mounting accessories.



Height	42.3mm
Width	236mm
Depth	230mm
Diameter	150mm

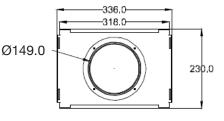


Side view



Front view





Zehnder ComfoWell end plate CW-P 320 -ø 160mm

Article number: 990 323 512

#### Description

End Plate:

Zehnder ComfoWell end plate CW-P 320 - DN160 (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.



Height	42.3mm
Width	236mm
Depth	230mm
Diameter	160mm

Zehnder ComfoWell end plate CW-P 320 -ø 180mm

Article number: 990 323 527

#### Description

#### End Plate:

Zehnder ComfoWell end plate CW-P 320 - DN180 (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.

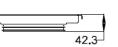
#### Dimensions

Height	42.3mm
Width	236mm
Depth	230mm
Diameter	180mm

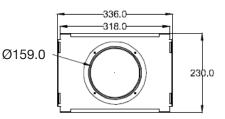
42.3

Front view

Side view



**Top View** 

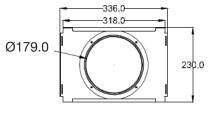


Side view



Front view











CW-DF 32	comfoWell spacer frame, 0 nber: 990 323 538		
Rectangula surfaces w mounting p degrees. Tl	comfoWell spacer frame CW-DF320. Ar frame for use in the event of uneven hen connecting components and plate (concreted in place) are at 90 he spacer frame includes the necessary accessories.	Side view	
		Front view	nî 27.8
Dimension	s		
Height	27.8mm		336.0
Width	336mm		320.0
Depth	230mm		
Weight	1.02 kg	Top View	230.0 (¶ (¶ )

Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir 160

Article number: 990 323 570

#### Description

#### Mounting set:

A special mounting set is available for the Zehnder ComfoWell 320 for direct mounting to the ComfoAir 160 ventilation unit. The mounting set includes all the necessary accessories (screws, brackets and mounting brackets)



94,3



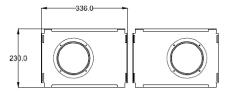
#### Dimensions

Height	94.3mm
Width	336mm
Depth	230mm
Weight	2.3 kg



Side view

Front view



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# **Dimensions**

Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAir 200 Article number: 990 323 517 Description Mounting set: Side view A special mounting set is available for the Zehnder ComfoWell 320 for direct mounting to the ComfoAir 200 ventilation unit. The mounting set includes all the necessary accessories (screws, brackets and mounting Front view 42.3 brackets). Dimensions 336,0 Height 42mm Width 336mm 230.0 œ Depth 230mm **Top View** Weight 1.8 kg Ø124.0

Zehnder ComfoWell mounting set, CW-K 320, for Zehnder ComfoAirQ 350

Article number: 990 323 647

#### Description

## Mounting set:

A special mounting set is available for the Zehnder ComfoWell 320 for direct mounting to the ComfoAir Q 350 ventilation unit. The mounting set includes all the necessary accessories (screws, brackets and mounting brackets).

#### Dimensions

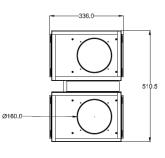
Height	61.8mm
Width	336mm
Depth	510.5mm
Weight	3.5 kg

Side view

Front view



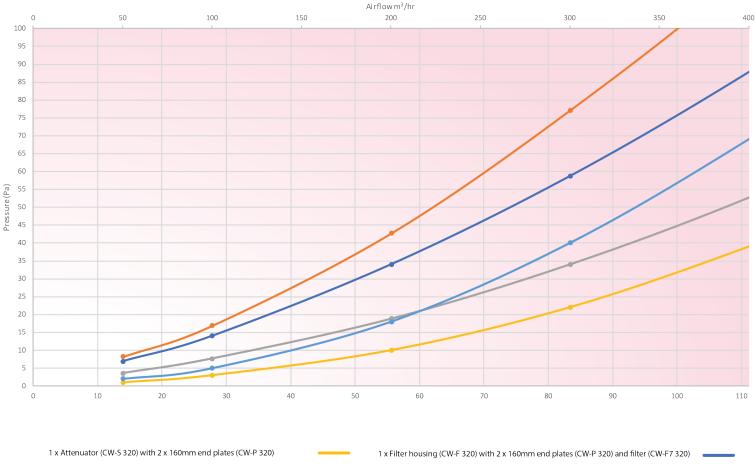




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# **Pressure Curve**

#### Comfowell 320



2 x Attenuator (CW-S 320) stacked with 2 x 160mm end plates (CW-P 320)

 1 x Filter housing (CW-F 320) with 2 x 160mm end plates (CW-P 320) and filter (CW-AC 320)

 1 x Filter housing (CW-F 420) with 2 x 160mm end plates (CW-P 420) and filter (CW-F9 320)

# Sound Data

#### Comfowell 320

Combination	Octave Band (Hz) Insertion Loss, dB							
	63	125	250	500	1000	2000	4000	8000
1 x Attenuator (CW-S 320) with 2 x 160mm end plates (CW-P 320)	4,6	5,6	9,2	6,5	4,6	23,0	17,4	23,8
2 x Attenuator (CW-S 320) stacked with 2 x 160mm end plates (CW-P 320)	6,0	10,4	17,8	14,1	13,6	47,4	36,8	34,9

# For use with

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



TO VIEW OUR COMFOTUBE INFORMATION

**CLICK HERE** 

# **BIM/CAD** Components

If you would like to download the BIM / CAD files for this or any other of our products then please visit our BIM library.

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# **Installation Instructions**

If you would like to download the installation files for this or any other of our products then please visit our download page by following the link below.

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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 rating according to EN ISO13501.

It shall be of modular construction with options to combine attenuators, manifold box, filter housing with ISO ePM1 >80% (F7), ISO ePM1 >90% (F9) or active carbon filters and end plates ranging from ø 125mm to ø 200mm.

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.

