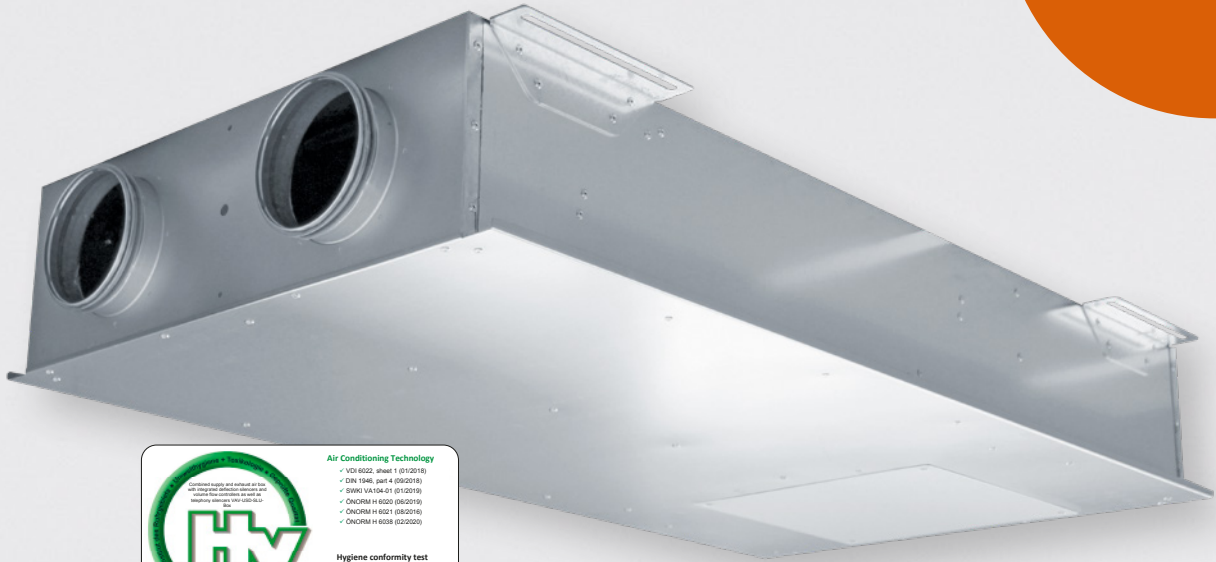


# VAV USD BOX FOR SUPPLY AND EXTRACT AIR

WITH OR WITHOUT ADDITIONAL  
CROSS-TALK-SOUND SILENCER

**COMFORT  
VENTILATION**



 **PICHLER**

*Systematic ventilation.*

## Product description

### **Combined supply and exhaust air box with two integrated VAV / CAV compact controllers and integrated deflection silencers, in left- or right-handed version**

Square housing made of galvanized sheet steel, with integrated VAV / CAV compact controllers and an integrated acoustic insulation. Can be used for variable or constant volume flow systems.

Compact controllers consisting of control dampers or airtight butterfly valves, readings recorder with averaging differential pressure sensor and control components. Dynamic differential pressure sensor for normal indoor air with an electronic controller.

Optional connection of active/passive sensors or switches. Connection socket for room heating controls. Diagnostic socket for control and adjustment units on the drive.

For cleaning as well as for maintenance and service work, the VAV / CAV compact controllers can be removed through a bolted inspection cover. The VAV / CAV compact controllers are mounted via removable connection collars.

The materials used are non-combustible and feature a high-strength, abrasion-resistant and moisture-repellent surface of glass silk. The housing is provided with connectors with double lip seals for plug-in fitting (SAFE system).

10VAVB\* versions with an integrated MP bus interface for communication with the Pichler System Optimizer or with other MP System Optimizer controllers.

Delivered with protective covers on the connectors to protect against soiling and dust.

Height-adjustable mounting rail for connecting the drywall ceiling.

#### **Including the following installation parts:**

- Diagnostic socket on the housing of the drive for control and adjustment units
- Removable inspection cover
- Easily removable VAV / CAV compact controllers
- Cable feed-throughs and terminals for power supply and, for example, for room heating controls
- Connectors with double lip seals for easy tube plug-in fitting (SAFE system)
- Integrated transformer 230 / 24 V

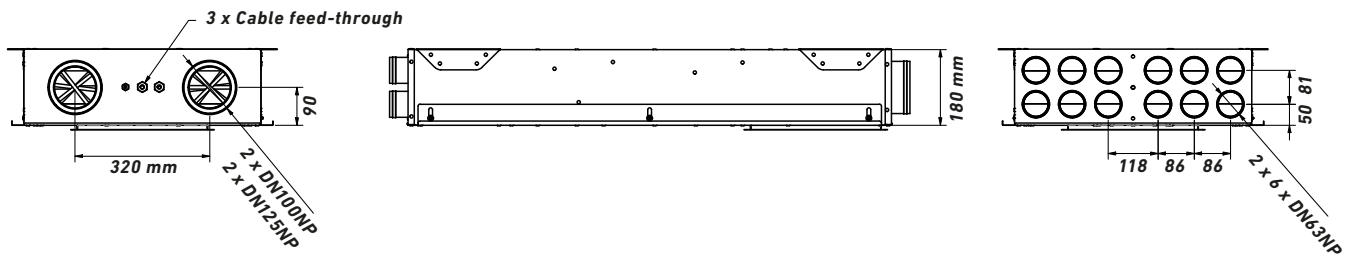
#### **Design types:**

For Spiro/Spiro with deflection silencer or for Spiro/Komflex with deflection & cross-talk sound silencer.

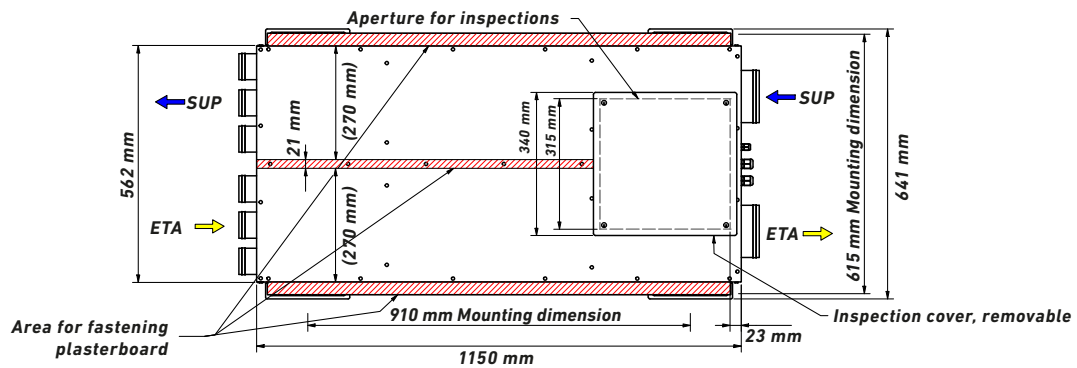


## Design drawing

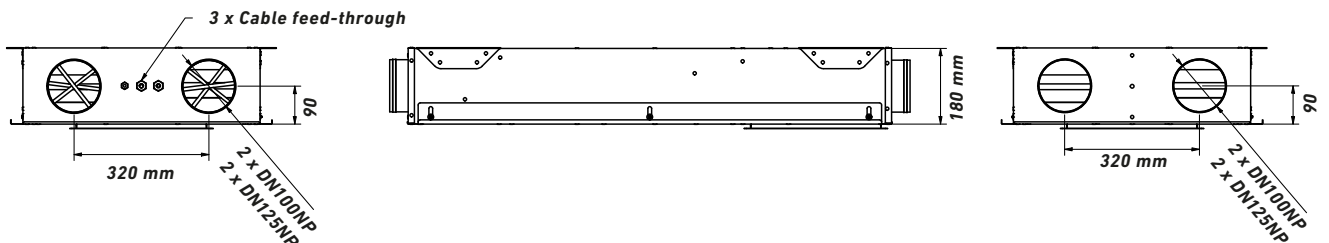
### VERSION SPIRO/KOMFLEX



### VIEW FROM BELOW

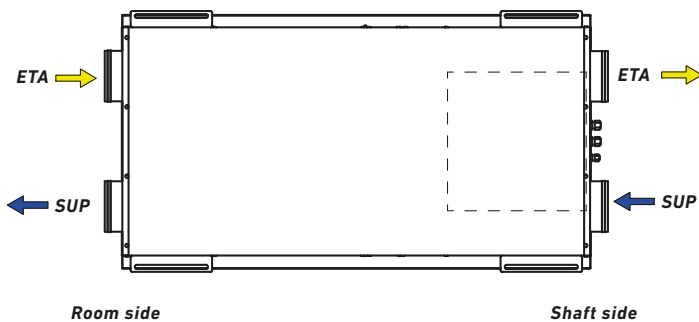


### VERSION SPIRO/SPIRO

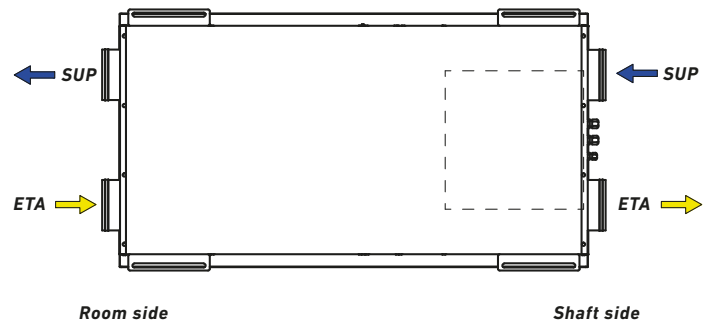


### VIEW FROM ABOVE (Inspection cover)

#### LEFT-HAND VERSION



#### RIGHT-HAND VERSION

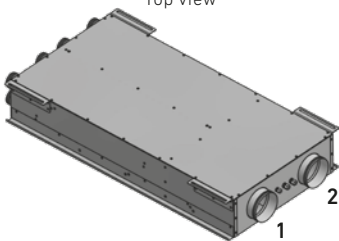
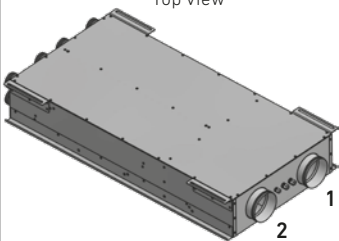


## Design types

The VAV USD BOX is available in different designs:

- Right or left, depending on position of supply air connection

- With or without MP bus interface
- For Spiro/Spiro with deflection silencer or for Spiro/Komflex with deflection & cross-talk sound silencer

Version		Left-handed version	Right-handed version
SPIRO/KOMFLEX version (with deflection & cross-talk sound silencer)	Without MP bus (type: VAV-USD-SLU box)	10VAVSL1001263 10VAVSL1251263	10VAVSR1001263 10VAVSR1251263
	With MP bus (type: VAVB-USD-SLU box)	10VAVBSL1001263 10VAVBSL1251263	10VAVBSR1001263 10VAVBSR1251263
SPIRO/SPIRO version (with deflection silencer)	Without MP bus (type: VAV-TR box)	10VAVL100100 10VAVL125125	10VAVR100100 10VAVR125125
	With MP bus (type: VAVB-TR box)	10VAVBL100100 10VAVBL125125	10VAVBR100100 10VAVBR125125
<b>1 Supply air</b> <b>2 Extract air</b>		Top view 	Top view 

## Details regarding the versions:

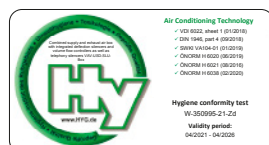
### 1. SPIRO/SPIRO: VAV-USD box with deflection silencers for insertion attenuation. With or without MP bus interface, in left- or right-handed version.

Integrated deflection silencers for supply and exhaust air, with efficient and flow-optimised as well as acoustically optimised deflection silencers with absorption and response elements for optimum sound insulation.

#### EXTERNAL INSPECTION

##### (Hygieneinstitut des Ruhrgebiets)

The construction design complies with hygiene requirements as stipulated in the guidelines contained in VDI 6022, sheet 1 (01/2018), DIN 1946, part 4 (09/2018), SWKI VA104-01 (01/2019), ÖNORM H 6020 (06/2019), ÖNORM H 6021 (08/2016) and ÖNORM H 6038 (02/2020) is in accordance with performed expert appraisals on hygiene.



### 2. SPIRO/KOMFLEX: VAV-USD-SLU box with deflection silencers for insertion attenuation and integrated duct silencers for cross-talk attenuation. With or without MP bus interface, in left- or right-handed version.

In addition to the integrated deflection silencers for supply and exhaust air, integrated duct silencers, additionally providing for acoustic cross-talk attenuation between the individual rooms of a flat.

#### EXTERNAL INSPECTION

##### (Hygieneinstitut des Ruhrgebiets)

The construction design complies with hygiene requirements as stipulated in the guidelines contained in VDI 6022, sheet 1 (01/2018), DIN 1946, part 4 (09/2018), SWKI VA104-01 (01/2019), ÖNORM H 6020 (06/2019), ÖNORM H 6021 (08/2016) and ÖNORM H 6038 (02/2020) is in accordance with performed expert appraisals on hygiene.



## Technical data

**Dimensions:** W x H x L = 560 x 180 x 1150 mm

**Nominal voltage:** 230 V AC 50 / 60 Hz

**Operating mode:** DC 2 - 10 V (option: DC 0 - 10 V)

**Power consumption:** 6 W

**Manual adjustment:** with pushbutton

**Button:** Adaption / addressing / service

**LED display:** 24 V supply / status / service function

**Angle of rotation:** 95 degrees, mechanically or electronically adjustable

**Volume flows:** The control parameters (e.g.: Vmin, Vmax and Vmit) are preset by the factory according to the table and, in the course of the commissioning process, can be easily adjusted by means of the adjustment and diagnostic unit.

Volume flows	Vnom [m³/h]	Vmin [m³/h]	Vmax [m³/h]
DN 100	150	30	80
DN 125	250	40	120

## DRIVE

**Nominal voltage:** 24 V AC / DC 50 / 60 Hz

**Protection class:** III Safety extra-low voltage

**Degree of protection:** IP54

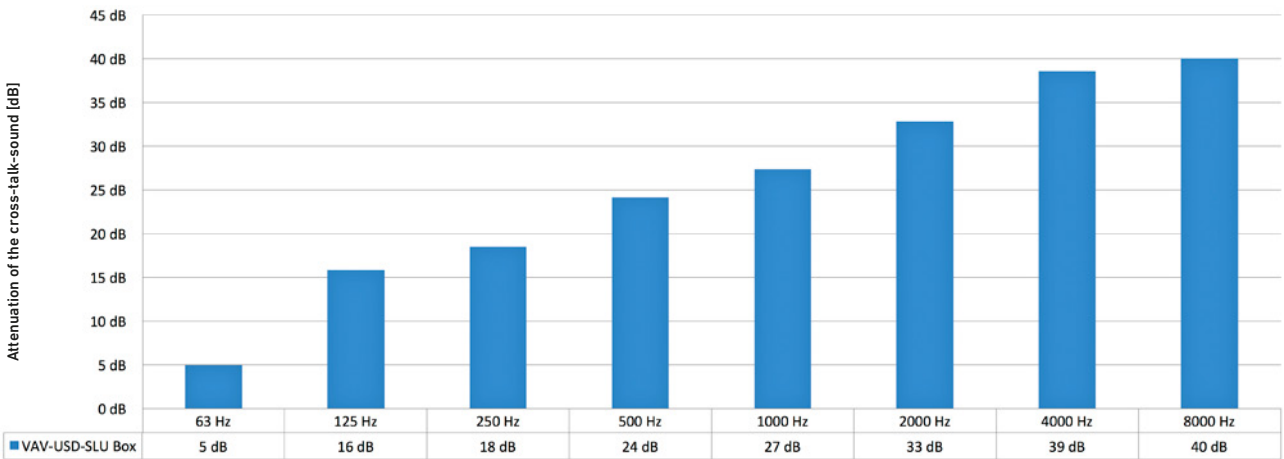
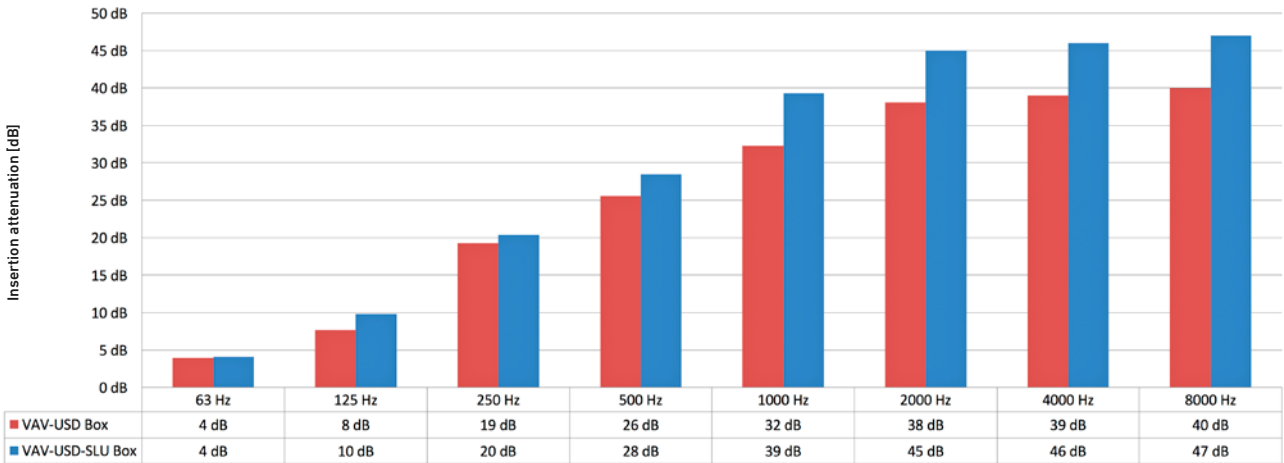
**Operating temperature:** + 0 °C bis + 50 °C

Version		Air connections	Air connections			
			Supply air		Extract air	
			Air inlet	Air outlet	Air inlet	Air outlet
SPIRO / KOMFLEX version (with deflection & cross-talk sound silencer)	Without MP bus (type: VAV-USD-SLU box)	2x ILU ø100, 12x ILU ø63 mm mont.	1 x ø100	6 x ø63	6 x ø63	1 x ø100
		2x ILU ø125, 12x ILU ø63 mm mont.	1 x ø125	6 x ø63	6 x ø63	1 x ø125
	With MP bus (type: VAVB-USD-SLU box)	2x ILU ø100, 12x ILU ø63 mm mont.	1 x ø100	6 x ø63	6 x ø63	1 x ø100
		2x ILU ø125, 12x ILU ø63 mm mont.	1 x ø125	6 x ø63	6 x ø63	1 x ø125
SPIRO / SPIRO version (with deflection silencer)	Without MP bus (type: VAV-TR box)	4x ILU ø100	1 x ø100	1 x ø100	1 x ø100	1 x ø100
		4x ILU ø125	1 x ø125	1 x ø125	1 x ø125	1 x ø125
	With MP bus (type: VAVB-TR box)	4x ILU ø100	1 x ø100	1 x ø100	1 x ø100	1 x ø100
		4x ILU ø125	1 x ø125	1 x ø125	1 x ø125	1 x ø125



Technical data

SOUND DATA



**CO<sub>2</sub> sensor****Room controller WRR3A2****Room controller WRR3SA2**

## Accessories

### DEMAND-ORIENTED VENTILATION CONTROL

CO<sub>2</sub> sensors for demand-oriented ventilation control. The ventilation unit will automatically increase or reduce the air volumes depending on the quality of the air in the room. The sensors are designed for flush and surface mounting.

Item	Item number
CO <sub>2</sub> sensor	07RCO248330

Colour	white
Dimensions H x W x D	85 x 85 x 35 mm
Ambient temperature	10-50° C
Measuring range	0-2000 ppm
Sensor supply voltage	24 V AC/DC

### ROOM CONTROLLER

A connection socket for WRR3A2 is being provided. The room controller is a simple 3-level room controller, with or without setpoint. Three operating modes can be chosen: Max. (Party mode, push ventilation) – Comfort (operating volume flow) – Min. (Absence mode)

Item	Item number
Room controller Pichler 3-A2, with module selection, without control knob	08WRR3A2
Room controller Pichler 3S-A2, with module selection and control knob	08WRR3SA2

Supply voltage	24V AC/DC
Output signal	2-10V

### END CAP FOR THE VERSION KOMFLEX

If not all connections are required, the surplus connections may be sealed airtight using 1 x 11EPF0063

Item	Item number
EPF end cover for the KomFlex 75 version round tube with an inside diameter of 63 mm	11EPF0063

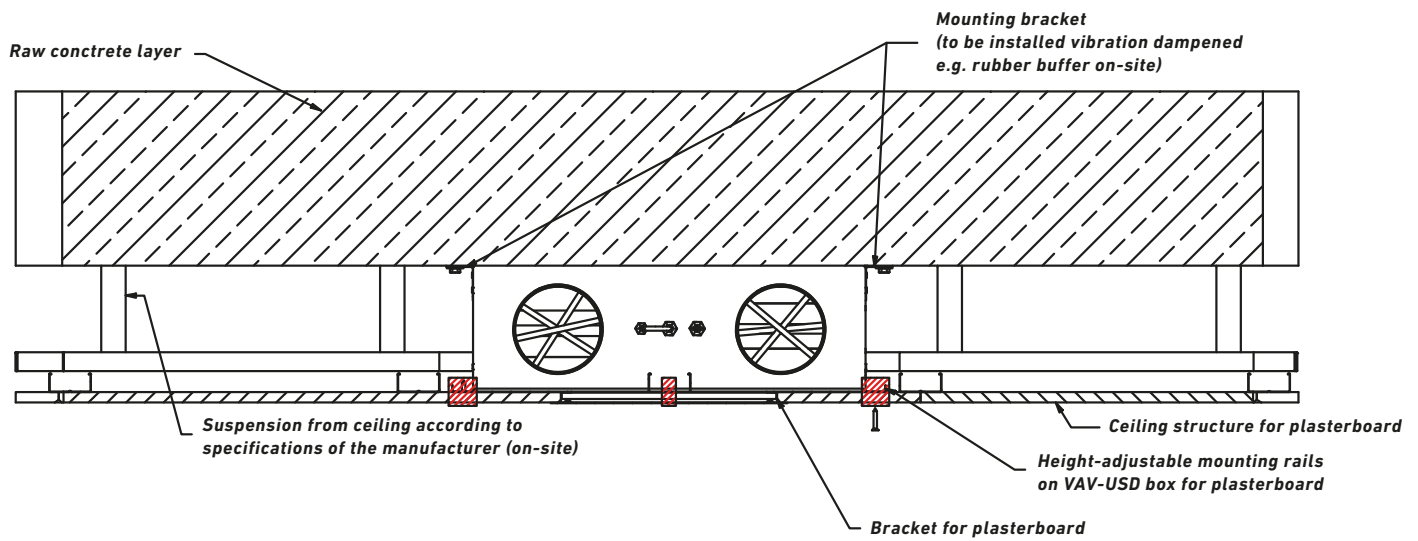
### ADJUSTMENT AND DIAGNOSTIC UNIT

Service tool for parameterisable and communicative drives and VAV controllers.

Item	Item number
Adjustment and diagnostic unit	10ZTHEU



## Mounting example



Your partner/installer:

**klimaaktiv**  
Partner

**PASSIVHAUS**  
Austria

Mitglied  
**NETZWERK**  
**PASSIVHAUS**  
www.passivhaus.at

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