# VAV USD BOX FOR SUPPLY AND EXTRACT AIR





### **Product description**

The Vav-USD-BOX for  $\emptyset$  100 / 125 is a combined supply and extract air box with installed efficient redirecting sound attenuating baffle plates comprises:

- an inner section as a deflection chamber with flowand acoustically optimised baffle plates
- baffle plates with non-combustible, wear-resistant and moisture repellent surfaces with elements for absorption and resonance for optimal sound absorption
- galvanised sheet steel enclosure with installed flow control flap and shut-off function
- flow control flap with circumferential, wear-resistant and permanently elastic seal
- measurement sensor with averaging differential pressure sensor and control components
- flow control flap, airtight in shut-off position Class 3 in acc. with ÖNORM EN 1751
- connecting piece for simple plug-in pipe assembly with double lip seal
- supplied with cap on the connectors for protection from dirt and dust
- removable inspection cover
- VAV/CAV Compact controller removable via connecting collar, for easy maintenance & cleaning, no additional inspection chamber is necessary
- connection socket for WRR3A2 room controller

- Optional: Integrated MP bus interface
- Optional: Including active/passive sensors or switches via MP bus

Factory-set customised pre-adjustment of control parameters such as airflow  $V_{\text{min}}$ ,  $V_{\text{max}}$  and  $V_{\text{comfort}}$  and checking the performance of each unit on the test rig. Subsequent adjustment of parameters during commissioning on site is easy.

### **EXTERNAL INSPECTION**

The construction design complies with hygiene requirements as stipulated in the guidelines contained in VDI 6022 (Blatt 1 07/2011), SWKI VA104-01 (04/2006), DIN 1946-4 (12/2008), ÖNORM H 6021 (09/2003), ÖNORM H 6020 (03/2015) and ÖNORM H 6038 (02/2014), and is in accordance with performed expert appraisals on hygiene.



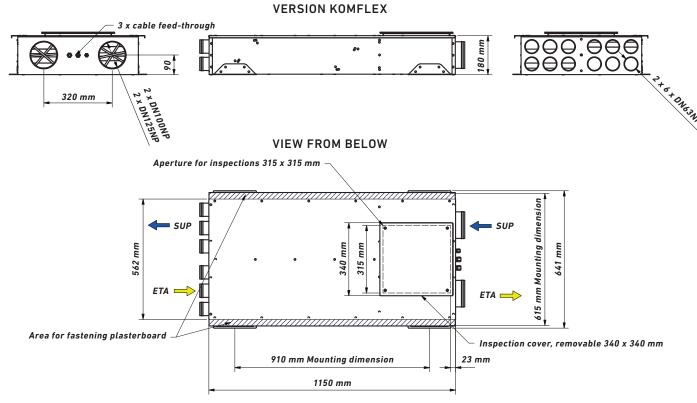
## **Applications**

Compact VAV USD BOX with sound suppressor function and fitted VAV/CAV compact regulator, with optionally integrated MP bus interface, is suitable for variable or constant air flow systems with flow control flap

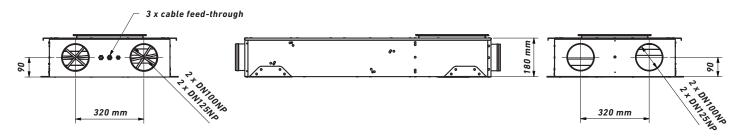
and airtight shut-off function, suited for room air, for installation in supply or extract air ducting regardless of positioning.

# **Design drawing**

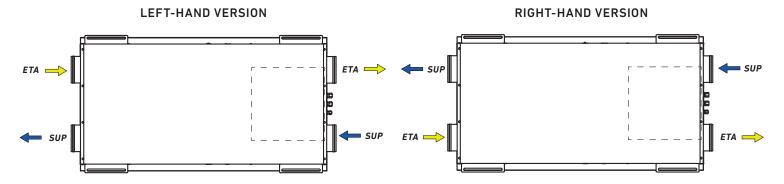
### VERSION KONELI



### **VERSION SPIRO**



### **VIEW FROM ABOVE**



# **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

- With integrated transformer (07TBD2) 230/24 V for room controller
- With integrated transformer (07TBD2) 230/24 V for room controller & with integrated PI-Air2 VAV module MP — Zone module for PI-Optimizer VAV systems

Version	Left-handed type	Right-handed type
Article no. w/o MP bus interface with integrated transformer (07TBD2) 230/24 V for room controller	10VAVUSDTL100100, 10VAVUSDTL125125 or 10VAVTL1001263, 10VAVTL1251263	10VAVUSDTR100100,10VAVUSDTR125125 or 10VAVTR1001263, 10VAVTR1251263
Article no. with MP bus interface, with integrated PI-Air2 VAV module MP – zone module for PI-Optimizer VAV systems & integrated transformer (07TBD2) 230/24 V for room controller	10VAVBUSDTL100100, 10VAVBUSDTL125125 or 10VAVBTL1001263, 10VAVBTL1251263	10VAVBUSDTR100100, 10VAVBUSDTR125125 or 10VAVBTR1001263, 10VAVBTR1251263
1 Supply air 2 Extract air	Top view 2	Top view 1



### **Technical data**

### VAV USD Box 100100 dimensions:

(w x h x l) 560 x 180 x 1150 mm Supply/extract air connections (air inlet) each 1x ILU Ø 100 mm Supply/extract air connections (air outlet) each 1x ILU Ø 100 mm with / without MP-Bus

### VAV USD Box 125125 dimensions:

(w x h x l) 560 x 180 x 1150 mm Supply/extract air connections (air inlet) each 1x ILU Ø 125 mm Supply/extract air connections (air outlet) each 1x ILU Ø 125 mm with / without MP-Bus

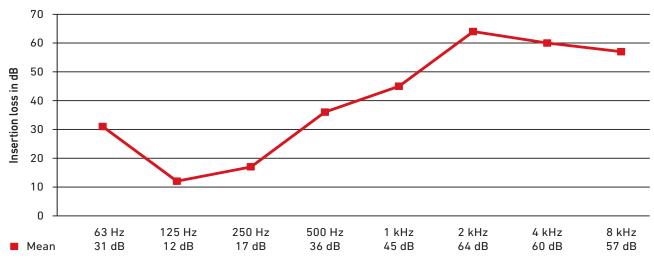
### VAV USD Box 1001263 dimensions:

(w x h x l) 560 x 180 x 1150 mm Supply/extract air connections (air inlet) each 1x ILU Ø 100 mm Supply/extract air connections (air outlet) each 6x ILU Ø 63 mm with / without MP-Bus

### VAV USD Box 1251263 dimensions:

(w x h x l) 560 x 180 x 1150 mm Supply/extract air connections (air inlet) each 1x ILU Ø 125 mm Supply/extract air connections (air outlet) each 6x ILU Ø 63 mm with / without MP-Bus

### **INSERTION LOSS FOR VAV USD BOX 100**











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

### **Accesories**

### **DEMAND-ORIENTED VENTILATION CONTROL**

 ${\rm CO}_2$  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	07RC0248330

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 VDC

### **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)

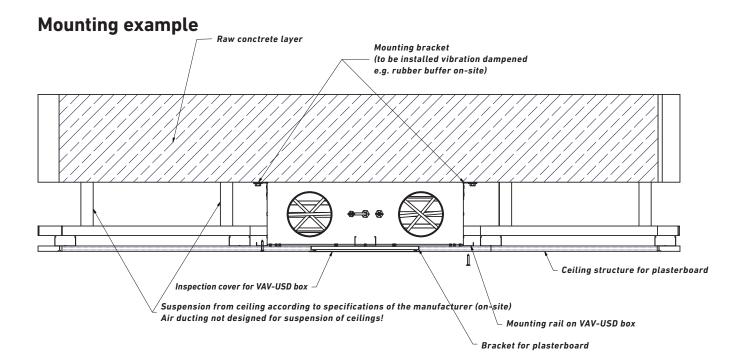
Item	Item number
Room controller Pichler 3-A2, with module selection, without control knob	08WRR3A2
Room controller Pichler 3S-A2, with module selection and control knob	08WRR3SA2

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

### 11EPF0063 END CAP FOR THE VERSION KOMFLEX

If not all connections are required, the surplus connections may be sealed airtight using  $1 \times 11EPF0063$ .







# GERMANY ÖSTERREICH Klagenfurt HUNGARY Maribor SLOVAKIA BOSNIA AND HERZEGOVINA BERBIA

Your partner/installer:







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