

VALLOX

Document
D10952

Valid from
24.03.2022

Updated
24.03.2022

Vallox
Pureo

Manual

Duct Cooling Coil

CONTENTS

INTRODUCTION 2

Safety	3
Installation	3
Disassembly and re-assembly	3
Guarantee	3
Safety signs used in the instructions	4
Regulations - Guidelines	4
Disposal	4
Shipping	5
Receipt	5
Storage	5
Field of application - Intended use	5
Main parts	6
Contents of the delivery	6
Package dimensions	6
Functional description	7
Dimensions	7

INSTALLATION 8

Mechanical assembly	8
Assembly area	8
Installation	9

MAINTENANCE 11

Service and maintenance	11
Condensate tray	11
Water coil	13

SAFETY

Safe and appropriate handling requires knowledge of the basic safety regulations, and of the intended use of Vallox Pureo Duct Cooling Coil. Please read this manual before operating the duct cooling coil and keep it for later reference. If you lose this manual, it can be downloaded from our website.

This user manual contains all the information necessary for the safe operation of the system. All persons who operate and maintain Vallox Pureo Duct Cooling Coil must follow the instructions provided in this manual. Furthermore, all local accident prevention regulations must be observed.

Installation

Installation and setup should only be carried out by a qualified expert. Electrical installations and connections must only be carried out by an electrician and in compliance with local regulations.

DISASSEMBLY AND RE-ASSEMBLY

The Vallox unit must be isolated from the mains power supply before disassembly or re-assembly.



WARNING

Risk of personal injury and material damage!

The disassembly and re-assembly of the unit are not part of routine maintenance. The disassembly and re-assembly of the unit may only be carried out by a qualified specialist.



WARNING

Risk of material damage when installing the duct cooling coil!

The following must be taken into account when installing the duct cooling coil:

- Close all hydraulic stop valves.
- Isolate all connections and ensure that the unit is leak-free with regard to water
- Since the diameter of the cooling pipes is small, water may remain in the duct cooling coil after emptying. For safety reasons, compressed air should be blown through the system to remove the remaining water.

GUARANTEE

The guarantee and liability exclude damages resulting from:

- Inappropriate use of the ventilation system or the control unit
- Incorrect or inappropriate installation, setup, or use
- Neglect of instructions concerning transportation, installation, use, or maintenance
- Structural or electronic modifications, or changes made to the software



NOTE

For further information, go to www.vallox.com



DANGER

The electrical connection must be fully isolated from the mains power supply until the final assembly!



DANGER

Danger to life due to electric shock!

An electric shock may result in death or serious injury. Ensure that the Vallox unit is voltage-free and isolated from the mains power supply. Earth and short circuit the unit. Shield neighbouring live components.

SAFETY SIGNS USED IN THE INSTRUCTIONS



DANGER

Indicates a hazard that may result in death or serious injury if not avoided.



WARNING

Indicates a hazard that may result in death or serious injury if not avoided.



CAUTION

Indicates a hazard that may result in minor or moderate injury if not avoided.



IMPORTANT

Indicates a hazard that may result in damage to property or a loss of data if not avoided.



NOTE

Indicates essential information about the product.



TIP

Provides additional information about the use of the product and its benefits.

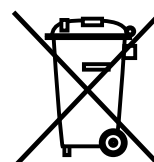
REGULATIONS - GUIDELINES

If the product is installed correctly and used in accordance with its intended purpose, it conforms to all applicable provisions and CE guidelines that were valid at the time of its manufacture. Vallox Pureo Duct Cooling Coil is compliant with the applicable ErP Directive 2018 (Ecodesign Directive).

DISPOSAL

Do not dispose of the electronic devices with household waste. Follow local laws and regulations on safe and ecological disposal of the product.

Ensure that the components are separated and sorted according to material types.



SHIPPING

The shipping must be carried out carefully. It is recommended to leave the unit in the original packaging until the installation, in order to avoid possible damages and contamination.

The shipping must be carried out by trained and experienced personnel and the necessary safety precautions should be taken to prevent overturning and slipping of the device. It should be ensured that the weight is evenly distributed when shipping the unit.



WARNING

Risk of personal injury and material damage!

RECEIPT

Please check the delivery immediately upon receipt for accuracy and damage. If damaged, please notify the carrier immediately. In case of delayed notification, any possible claim may be void.

STORAGE

When storing for a prolonged time, the following steps are to be taken to avoid damaging influences:

- Protection by dry, airtight, and dust-proof packaging (plastic bag with desiccant and humidity indicators).
- The storage place must be waterproof, vibration-free and free of temperature variations.

Damages due to improper transportation, storage or commissioning must be verified and are not liable for warranty.

FIELD OF APPLICATION - INTENDED USE

Vallox Pureo Duct Cooling Coil is exclusively intended as an accessory for ventilation units in Vallox Pureo TX series.

All duct cooling coils have been designed to provide cooling supply air to present no threat to the health of people and to maintain the structures of the building in good condition.

Duct cooling coils are energy-saving, low-noise, and ready-to-operate accessories for Vallox Pureo TX air handling units. Duct cooling coils are available in four different models that meet the volume flow rate requirement of up to 1800 dm³/s.

Duct cooling coils are only intended for the cooling of supply air.

Duct cooling coil with the standard equipment are designed to be installed and used in frost-free premises (room temperature > 0°C). The availability of a frost-free condensate outlet must be ensured on site. The corrosion resistance class of the housing is C4 in accordance with ISO12944. The unit can be used under these conditions.

Application limits:

- Ambient temperature 0-50 °C
- Humidity (max.) 95% RH



IMPORTANT

Material damage due to excessive load!



DANGER

Personal injury and/or material damage due to incorrect shipping!



WARNING

The unit is not intended for use by children under 8 or by persons with reduced sensory, physical or mental capabilities, or whose lack of knowledge and experience do not ensure safe operation of the unit.

Such persons may use the unit under supervision, or by following the instructions of someone who is responsible for their safety.

Children must be supervised and not be allowed to play with the device.



IMPORTANT

Material damage due to the unit freezing!

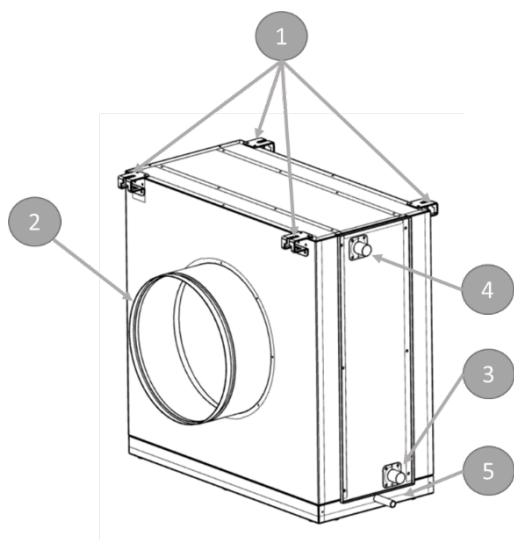


NOTE

Any use other than the intended use is prohibited!

MAIN PARTS

Duct Cooling Coil 500/900



Mounting brackets

1

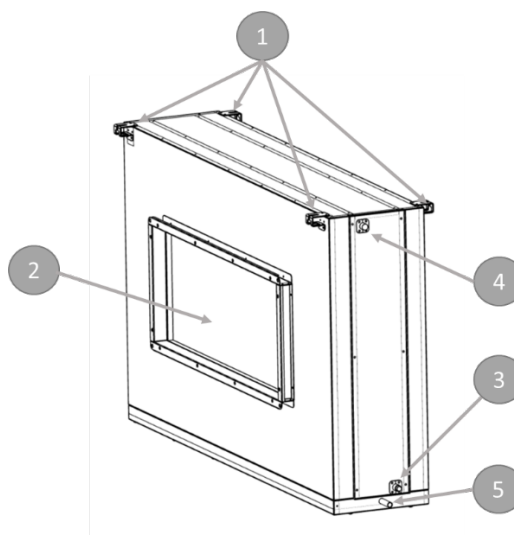
Spigot

2

Fluid inlet

3

Duct Cooling Coil 1300/1800



Fluid outlet

4

Condensate pipe

5

CONTENTS OF THE DELIVERY

The delivery contains one of the following unit types:

- Vallox Pureo Duct Cooling Coil 500
- Vallox Pureo Duct Cooling Coil 900
- Vallox Pureo Duct Cooling Coil 1300
- Vallox Pureo Duct Cooling Coil 1800



NOTE

Check the delivery immediately upon receipt for accuracy and damage. If damaged, notify the carrier immediately. In case of a delayed notification, any claims may be void.

PACKAGE DIMENSIONS

	No. of packages	Package dimensions (l x w x h)
Vallox Pureo Duct Cooling Coil 500	1	900 x 650 x 600 mm
Vallox Pureo Duct Cooling Coil 900	1	1000 x 650 x 700 mm
Vallox Pureo Duct Cooling Coil 1300	1	1500 x 450 x 900 mm
Vallox Pureo Duct Cooling Coil 1800	1	1800 x 450 x 1050 mm



IMPORTANT

Before offloading the units, ensure that the means of transport and lifting have sufficient capacity for the required weight.

FUNCTIONAL DESCRIPTION

Vallox Pureo Duct Cooling Coil is designed for external installation on the supply air ducts of the respective Vallox Pureo TX unit. External duct cooling coil is used to reduce supply air temperature.

Duct cooling coil is not a replacement for an air conditioning system!

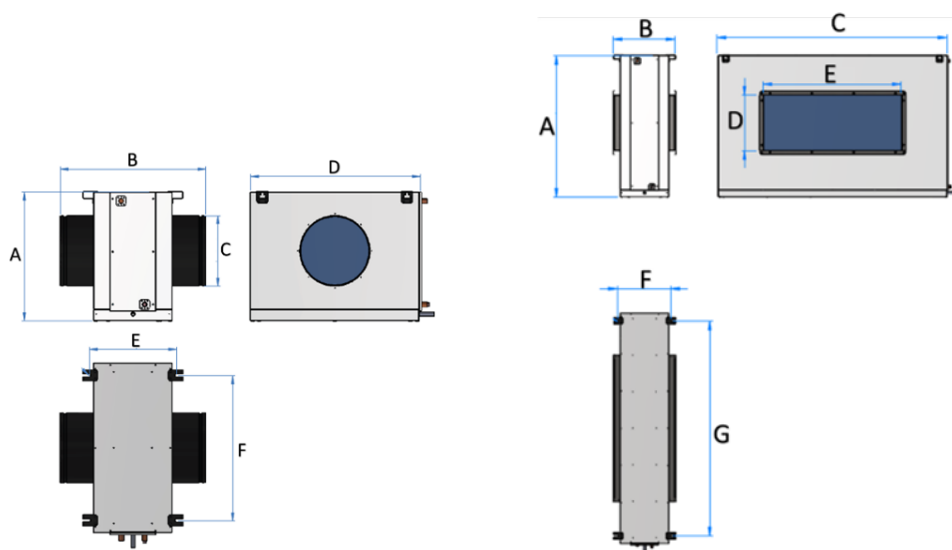
The capacities and weights of the duct cooling coils are shown in the table below:

	Cooling Capacity (kW)	Liquid Inlet/Outlet Temperature (°C)
Vallox Pureo Duct Cooling Coil 500	9,72	7/12
Vallox Pureo Duct Cooling Coil 900	16,41	7/12
Vallox Pureo Duct Cooling Coil 1300	24,83	7/12
Vallox Pureo Duct Cooling Coil 1800	35,47	7/12

DIMENSIONS

	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
Vallox Pureo Duct Cooling Coil 500	571,8	648	315	755	387,8	645
Vallox Pureo Duct Cooling Coil 900	771,8	683	398	775	422,8	665

	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
Vallox Pureo Duct Cooling Coil 1300	871,8	451	1405	400	804,4	387,8	1415
Vallox Pureo Duct Cooling Coil 1800	1021,8	447	1660	400	1000	387,8	1550



Duct Cooling Coil 500/900

Duct Cooling Coil 1300/1800

MECHANICAL ASSEMBLY



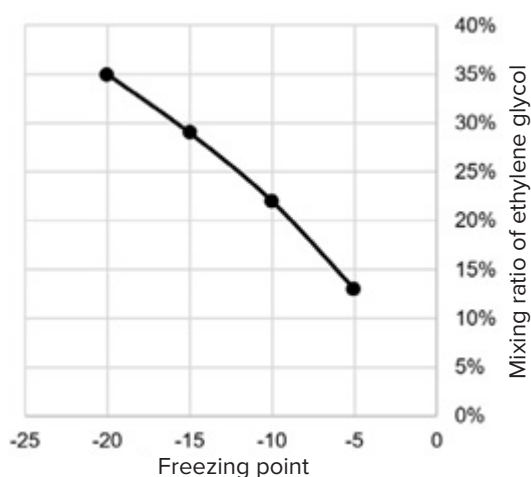
DANGER

Danger to life due to electric shock!

The installation and connection of the Vallox unit may only be carried out by a qualified specialist. The electrical connections must be carried out by a person who has proper professional training and experience in the relevant accident prevention regulations, as well as other generally recognized safety and occupational health codes, with authorization to perform work on the unit.

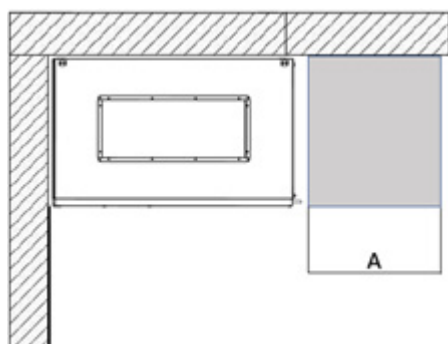
The air ducts behind the cooling register must be insulated. The flow and return pipes must be insulated.

If the water temperature falls below 0 °C, the freezing temperature of the water can be reduced by adding ethylene glycol. The mixing ratio of ethylene glycol is shown in the illustration below.



Assembly area

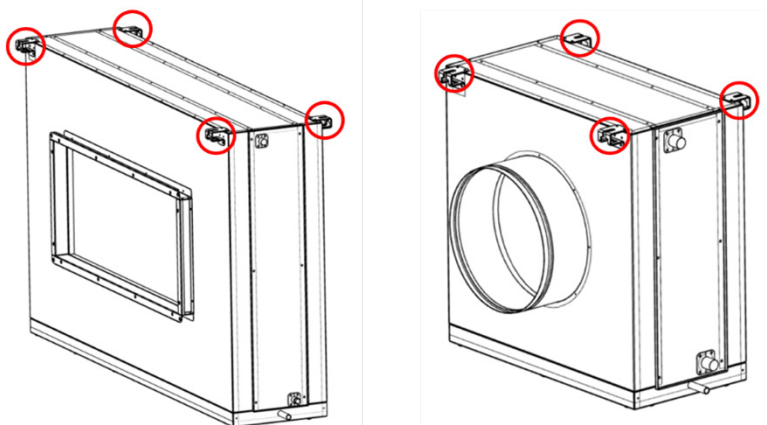
A: Minimum distance for servicing Vallox Pureo Duct Cooling Coil.



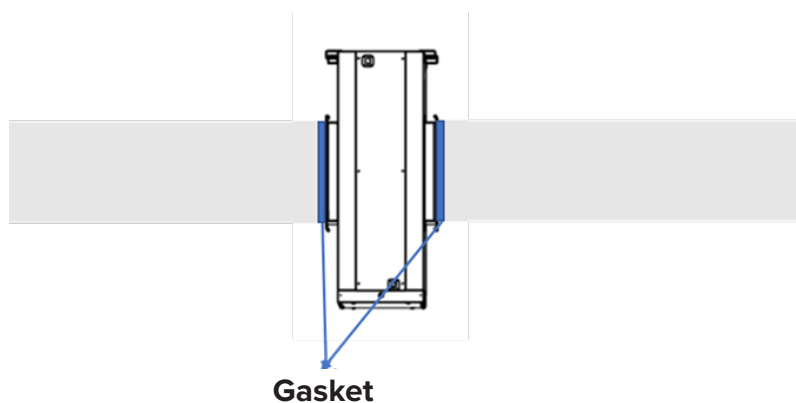
	A (mm)
Vallox Pureo Duct Cooling Coil 500	850
Vallox Pureo Duct Cooling Coil 900	1000
Vallox Pureo Duct Cooling Coil 1300	1550
Vallox Pureo Duct Cooling Coil 1800	1800

INSTALLATION

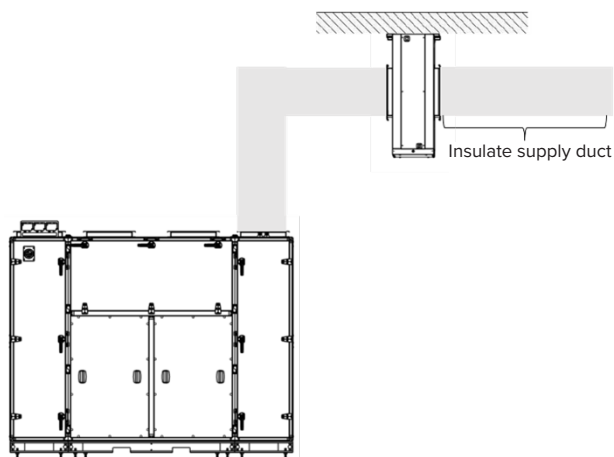
- Vallox Pureo Duct Cooling Coil has 4 mounting brackets for installation. Suspend the duct cooling coil with these mounting brackets, using the rubber dampers.



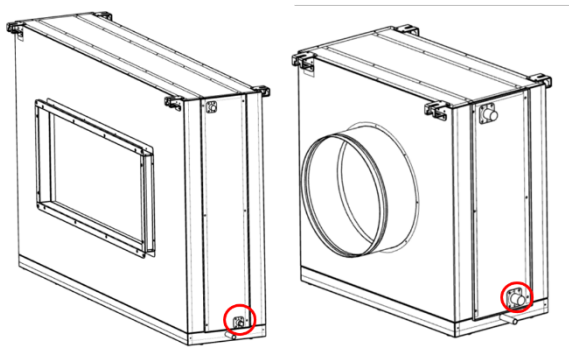
- Connect to the air duct with duct cooling coil spigots. Before the connection air duct use gasket for air leakage.



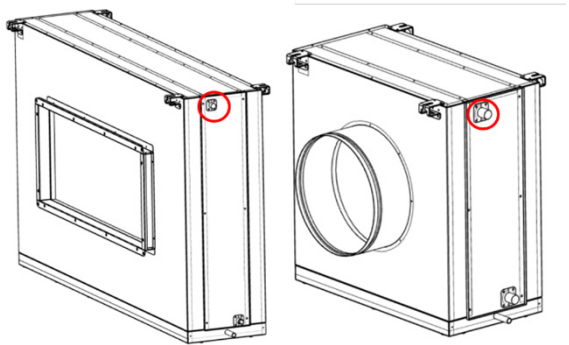
- The air ducts behind the duct cooling coil must be insulated.



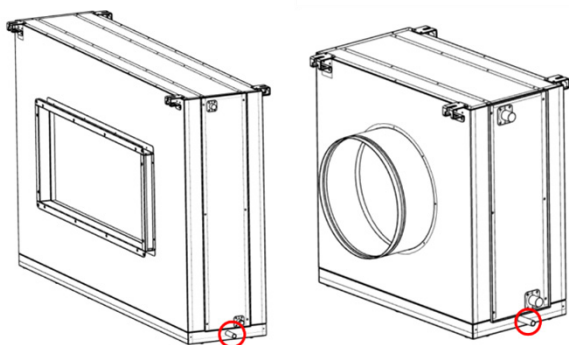
- The air ducts behind the duct cooling coil must be insulated.



- The air ducts behind the duct cooling coil must be insulated.



- The air ducts behind the duct cooling coil must be insulated.



	Water Inlet Diameter (") – (mm)	Water Outlet Diameter (") – (mm)	Condensate Pipe Diameter (") – (mm)
Vallox Pureo Duct Cooling Coil 500	3/4 – 26.9	3/4 – 26.9	3/8 – 17.2
Vallox Pureo Duct Cooling Coil 900	1 – 33.2	1 – 33.2	3/8 – 17.2
Vallox Pureo Duct Cooling Coil 1300	1 1/4 – 42.2	1 1/4 – 42.2	3/8 – 17.2
Vallox Pureo Duct Cooling Coil 1800	1 1/2 – 48.3	1 1/2 – 48.3	3/8 – 17.2

SERVICE AND MAINTENANCE

Cleaning and maintenance work may only be carried out by an electrician.



DANGER
Danger to life!

The Vallox unit must be fully isolated from the mains power supply before all maintenance and installation work! Danger of electric shock, moving parts (fan) and potentially hot surfaces of optional auxiliary heating registers.

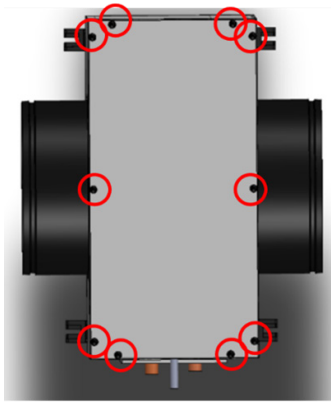
Condensate tray

The condensate tray must be cleaned every 6 months. There are two alternative ways to reach the condensation pan.

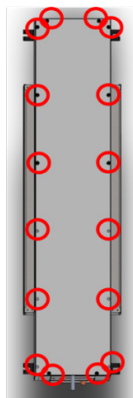
Option one:

- The condensate tray is located in the lower panel of the duct cooling coil. Loosen the screws and remove the panel. Carefully remove the panel because residual water may still be present.

Pureo 500-900

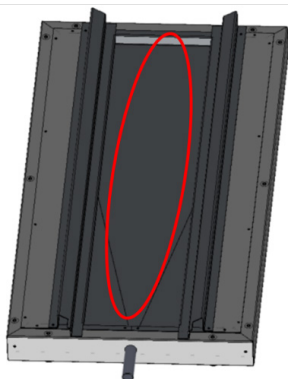


Pureo 1300-1800

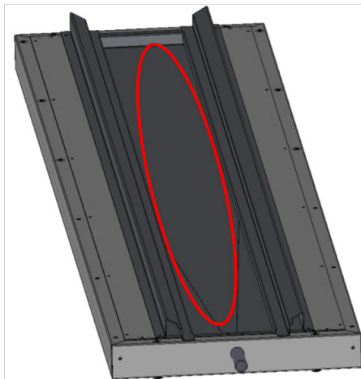


- Clean a condensate tray with a cloth.

Pureo 500-900



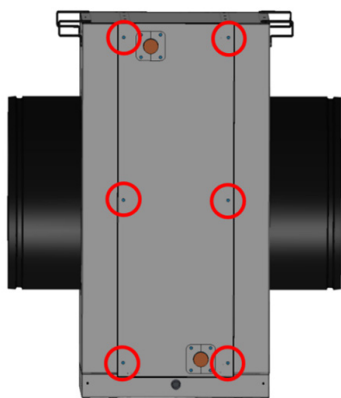
Pureo 1300-1800



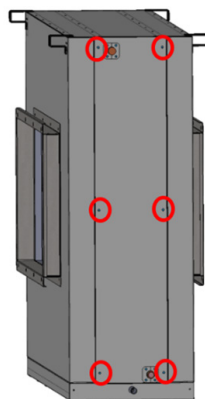
Option two:

- Loosen and remove the screws to remove the service door.

Pureo 500-900

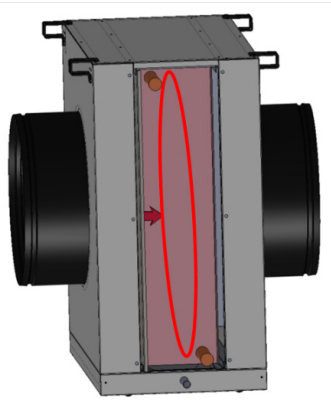


Pureo 1300-1800

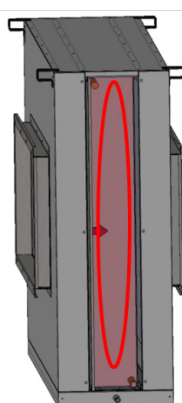


- Carefully remove the coil.

Pureo 500-900

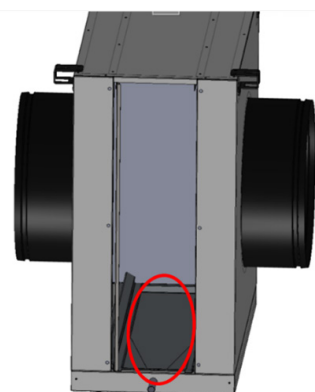


Pureo 1300-1800

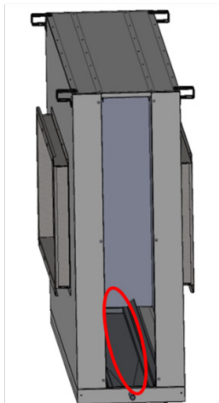


- Clean a condensate tray with a cloth.

Pureo 500-900



Pureo 1300-1800



Water coil

It is recommended to check the duct cooling coil for contaminations every 6 months.

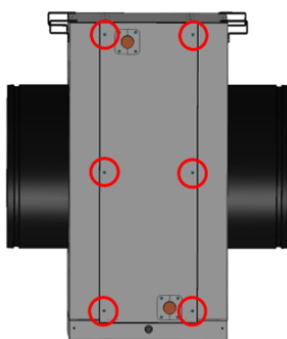
Vallox Pureo Duct Cooling Coil must be regularly checked for dirt and dust deposits. If there is dirt and dust on the cooling coil, these can be removed with water.

The cleaning can be carried out with water. Household cleaning agents can be used. Do not bend the fins!

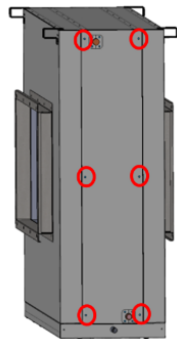
When cleaning, ensure that the coil is not damaged mechanically or chemically.

- Loosen and remove the screws to remove the service door.

Pureo 500-900

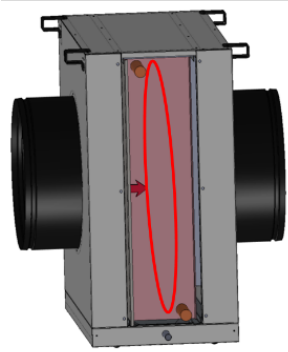


Pureo 1300-1800

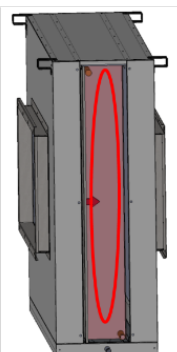


- Carefully remove the coil.

Pureo 500-900

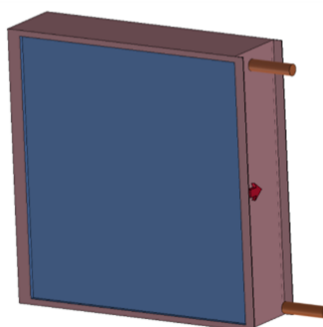


Pureo 1300-1800

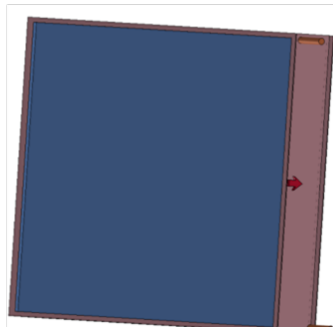


- Clean the coil.

Pureo 500-900



Pureo 1300-1800



VALLOX

www.vallox.com

Vallox Oy | Myllykyläntie 9-11 | 32200 LOIMAA | FINLAND

D10952/24.03.2022