

GUIDE, VDI 6022

GOLD/SILVER C

Hygienic design



Introduction

This guide presents Swegon's implementation of current regulations in the German standard VDI 6022.

VDI 6022 is a standard for hygienic design, especially accepted and used in Germany, Switzerland and Austria.

The purpose of the standard is to increase interdisciplinary knowledge and avoid contamination with microorganisms and harmful substances in the air conditioning system.

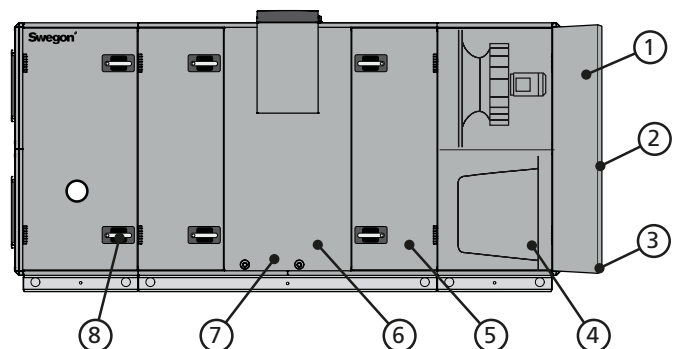
The demands set out in VDI 6022 can be divided into three parts; demands on the manufacturer, planners and installers.

This guide addresses the requirements on the manufacturer and planners. For demands on installers, see the separate instructions for installation, operation and maintenance of the air handling unit.



GOLD/SILVER C, hygienic design

1. All surfaces of the casing are smooth and easy to clean.
2. The casing's sealing strips are made of EPDM.
3. No sharp edges, ensure cleaning without the risk of personal injury.
4. Filter seals of EPDM-foam, made especially to give a tight fit.
5. Cables and hoses are easily accessible and simple to clean.
6. Insulation material in PE-foam with closed cells.
7. Condensate drip tray is made of corrosion resistant material and designed to ensure self-drainage.
8. Handles in air and waterproof design.



Internal components.

Condensate drip tray

- Designed to ensure self-drainage
- Equipped with drainage pipe.
- Corrosion resistant material



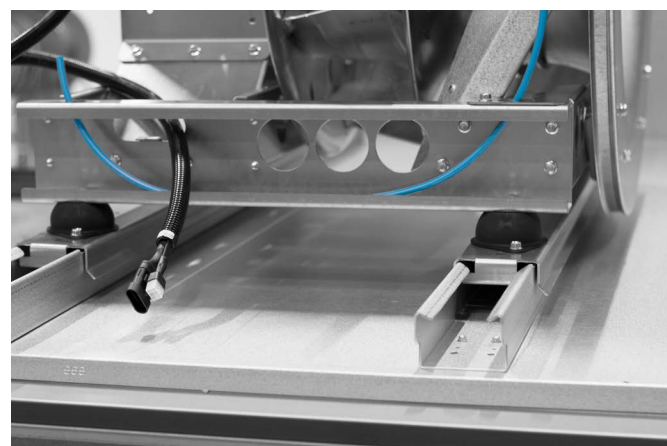
Filters

- Glass fibre
- Easy to replace
- Frame conforms to air tightness class F9
- Simple to clean



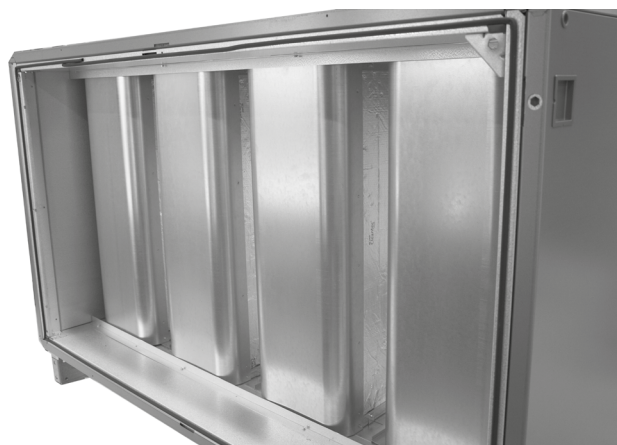
Fan

- Extendable on rails
- Easy to replacement
- Cables with quick connectors
- Possibility to clean



Sound attenuator

- Removable baffles
- Surface layer that prevents fibres detaching
- Possibility to clean



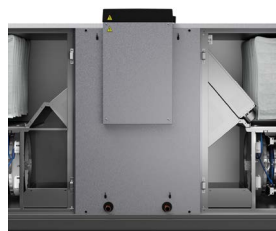
Air cooler

- Condensate drip tray designed to ensure self-drainage
- Corrosion class C4



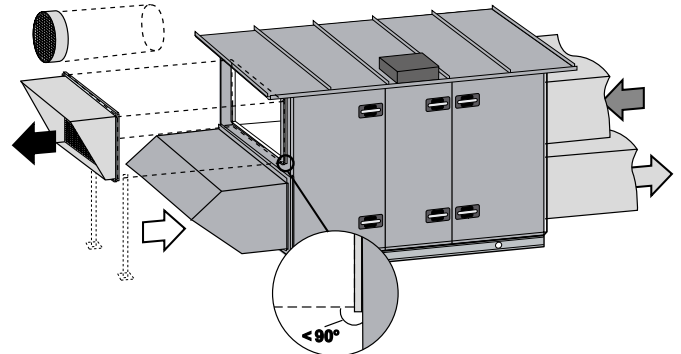
Heat exchanger

- Three alternatives: rotary heat exchanger, plate heat exchanger (counter-flow) or coil heat exchanger
- Accessible and possibility to clean



Project planning

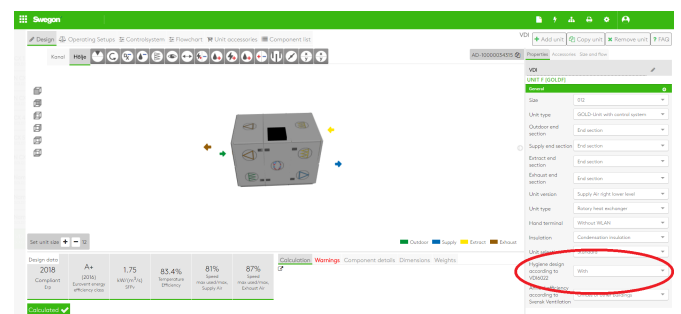
- Ensure that all components are possible to clean from the inlet and outlet sides
- It is recommended that the exhaust hood is moved a suitable distance from the air handling unit to prevent transfer leakage of exhaust air to the outdoor air's inlet, see the illustration.
- Prevent water entrainment in the airflow
- Do not place the sound attenuator in unfiltered outdoor airflow
- Do not place the sound attenuator directly after the air cooler with dehumidifying function
- Ensure filtering of incoming outdoor air
- Secure the area between the air heater and air cooler for cleaning
- For GOLD/SILVER C size 100/120 requires windows and lighting
- If a humidifier (not Swegon) is to be installed, it must conform to the requirements set out in VDI 6022. Installation is to be carried out according to the instructions from the supplier.



AHU Design

Selection of GOLD/SILVER C according to VDI 6022 is carried out simply by selecting hygienic design in the product selection program AHU Design. The right configuration is implemented automatically. Correct order and cost is shown in AirPortal.

It is not possible to remove parts and components required for a air handling unit in hygienic design.



Declaration of hygienic design



DECLARATION OF HYGIENIC DESIGN

Manufacturer (and whenever applicable its authorized representative):

Company: Swegon Operations AB
Address: Box 300, SE-53523 Kvånum, Sweden

Declares that:

Type of machine: Air handling unit
Machine No.: GOLD and SILVER, Type: RX, PX, CX, SD and RX/HC

Complies with hygiene requirements according to the standards set out below:

- European standard
EN 13779 (09/2007) Air Handling – Performance requirements for ventilation and room-conditioning systems
- German standard
VDI 6022, part 1 (01/2018) Ventilation and indoor quality – Hygienic standards for ventilation and air conditioning systems

Person qualified to compile the documentation:

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Signature:

Place/Date: Kvånum 27/09/2023 Kvånum 27/09/2023

Name:  

Clarification of: Annika Sedwall Martin Östling
signature

Position: Product Manager, Kvånum Plant Manager, Kvånum



The document was originally written in Swedish, other languages are translated copies.