

Duct air-handling units



Duct air-handling units

Why Vento?

Duct units Vento are constructed to help to implement comprehensive but simple air handling devices at the same time. Only Vento offers You **10 advantages**:

① Variability and compactness of products – possibility to create even complex devices

- Air inlet and exhaust
- Heating and cooling
- Heat recovery and mixing
- Control

② Placing options – saves space and costs

- Can be installed in any position
- Separate components can be installed to the duct
- Installation by suspending under the ceiling in service rooms of buildings eliminates need of machine room
- Using existing supplies distribution lowers installation costs

③ Optional material types – satisfy every requirement

- All products can be made of stainless metal-sheets
- Attested fan for environment with explosion risk
- Coloured finish at request

④ Convenient for use in demanding operations

- Regarding operation, maintenance and control the devices are comparable with air-handling units
- Proper installation satisfies even demanding requirements for comfort (for example. noise)
- Ideal for reconstructions and spatially complicated buildings
- Noise insulated fans

⑤ Excellent price – cheapest air handling and air conditioning system

- Low price of separate components
- Standard design of roof fans made of aluminium
- Complex delivery from one supplier lowers purchase costs

⑥ Exceptional speed and quality of deliveries – in time and with guarantee

- Fast complex deliveries from stockhouse

⑦ Very easy installation – fast and cheap installation

- Low weight of device
- Simple connection of components
- Easy handling without handling devices
- Possibility of additional PE insulation

⑧ High quality – operation without any problems

- Used only proofed materials and componens
- Long service life (fans: 40 000 hours of operation)
- Easy change of filters
- Low operation costs (output power control, low input power)
- Up to 5 years of guarantee

⑨ Excellent adjustability optimizes coziness of air-conditioned rooms

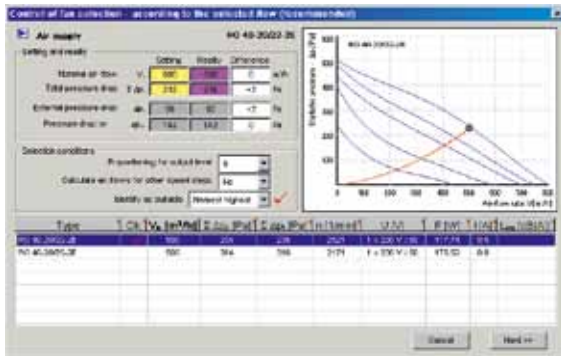
- 5 stage fan speed control – voltage controller, frequency inverter (WebClima or VCB control unit)
- Perfectly controlable heating and cooling
- Complex control and regulation systems
- Simple implementation of the equipment with automatic control

⑩ Selection of parts and project processing – software AeroCAD with elements of virtual reality

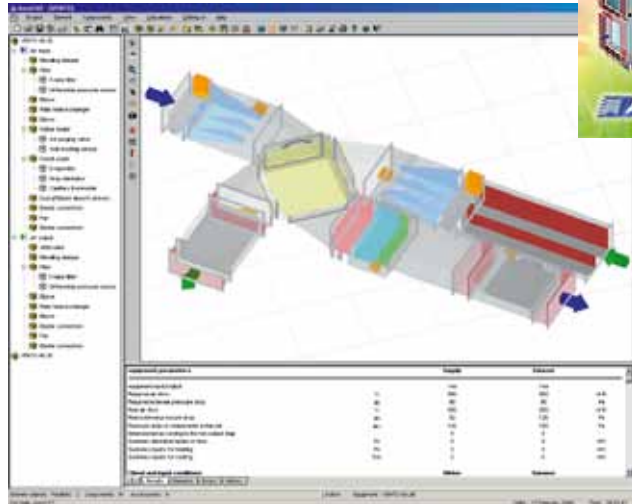
- Optimal placing of device to the room of installation
- Calculation of all output parameters – power outputs, pressures, temperatures, noises, pressure losses and gains of separate components, relative and specific humidity, density, enthalpy, real and mass air flow rate etc.
- Professional 2D, 3D pictures for import to CAD systems
- Individual processing of quotations
- Comprehensive graphically processed calculations
- Automatic projection of control saves costs on project of measuring and control

Perfect and comprehensive project

Unique comprehensive graphical projecting and calculation program **AeroCAD** is at your disposal when projecting Vento units.



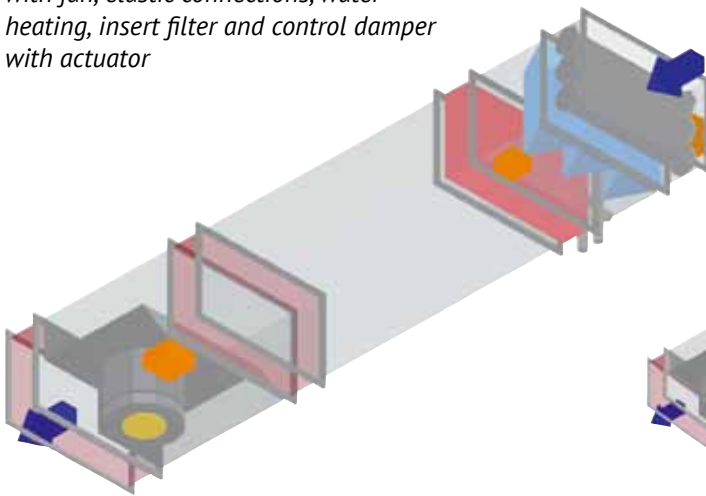
Calculation of fan parameters



Projected device

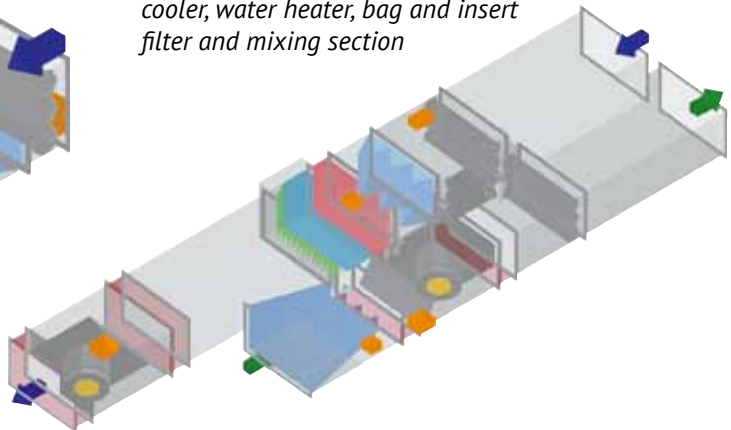
example of arrangement

with fan, elastic connections, water heating, insert filter and control damper with actuator



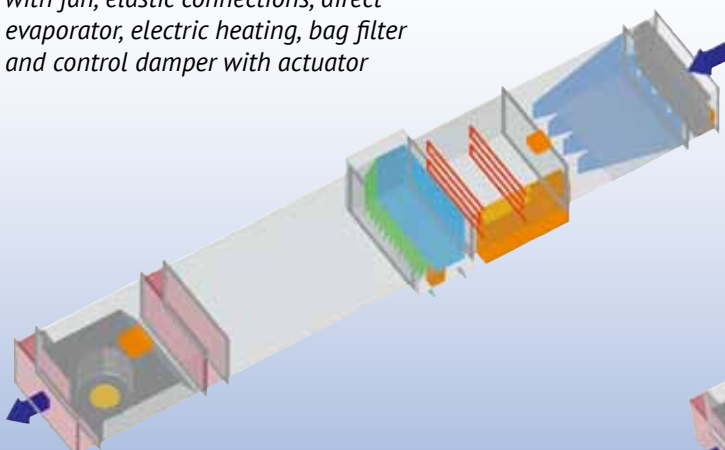
example of arrangement

with 2 fans, elastic connections, water cooler, water heater, bag and insert filter and mixing section



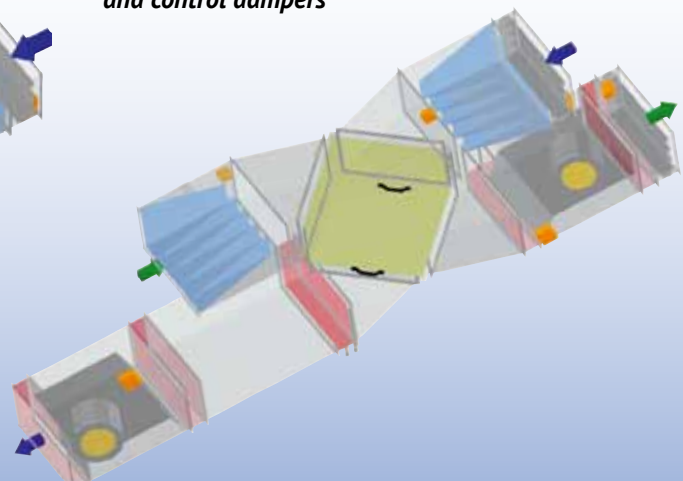
example of arrangement

with fan, elastic connections, direct evaporator, electric heating, bag filter and control damper with actuator



example of arrangement

with 2 fans, elastic connections, plate heat exchanger, water heating, cooling and control dampers



Duct air-handling units

Vento
SYSTEM

Shutting damper
LKS



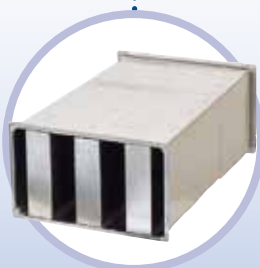
Radial fan
RP



Elbows
OBL



Water heater
VO



Noise attenuator
TKU



Bag filter
KFD

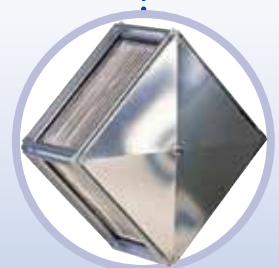
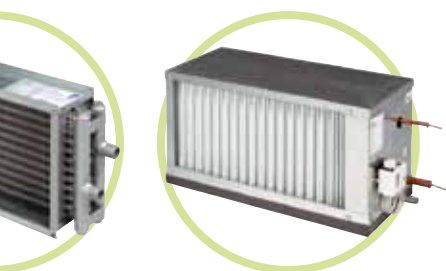


Plate heat exchanger
HRV

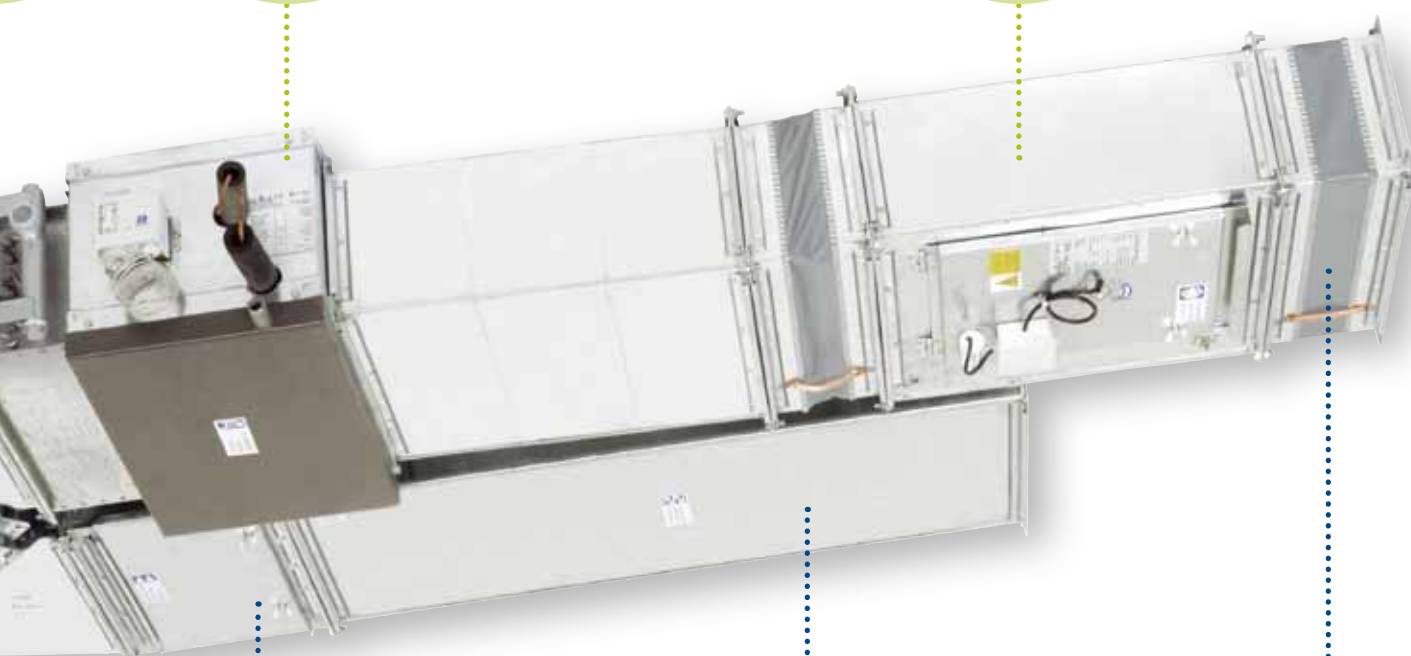
Duct air-handling units

Vento
SYSTEM

Cooler – direct evaporator
CHF



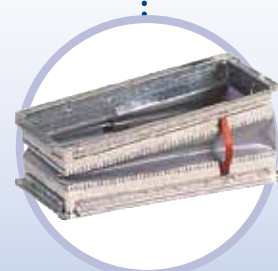
Radial fan
RO



Insert filter
VFK



Noise attenuator
TKU



Elastic connection
DV

Duct air-handling units

Vento
SYSTEM



motors can be easily cleaned



explosion proof fan types



radial spiral fans



easily changeable filters



*mixing sections with
continuous mixing control*



*el. heaters with built-in
switching elements (SSR)*

Duct air-handling units

Vento
SYSTEM



roof fans for air outlet



motors are wired to terminals which makes wiring easy



control and regulation are provided by linked systems with comprehensive protection elements



water heaters with automatic deaeration



coolers with built-in anti-freeze protection and condensate drain kit

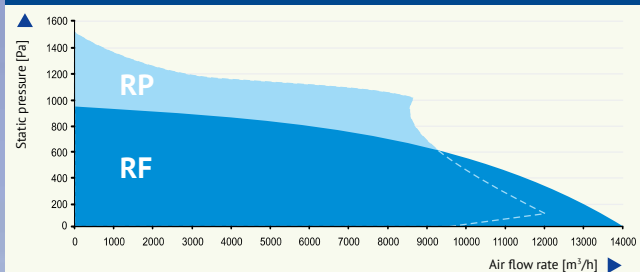


high-performance drop eliminators

Duct air-handling units

Vento
SYSTEM

Air flow rate and pressure loss

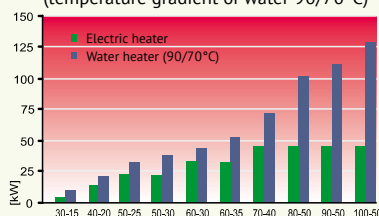


Sizes and dimensions

size	connecting dimensions (mm)	Connecting cross section AxB (mm)
30-20	300-200	
40-20	400-200	
50-25	500-250	
50-30	500-300	
60-30	600-300	
60-35	600-350	
60-35	600-350	
70-40	700-400	
80-50	800-500	
90-50	900-500	
100-50	1000-500	

Heating

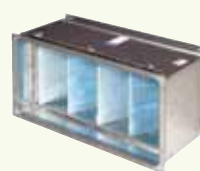
Nominal output powers of heaters
(temperature gradient of water 90/70°C)



Filtration



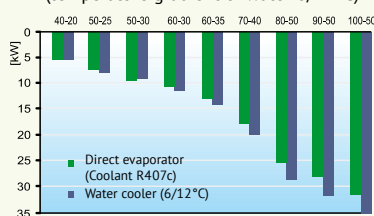
Bag filter
Filtration class EU3-EU7



Insert filter
Filtration class EU3

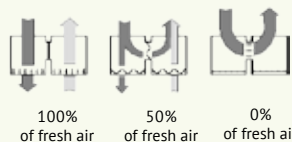
Cooling

Nominal output powers of coolers
(temperature gradient of water 6/12°C)



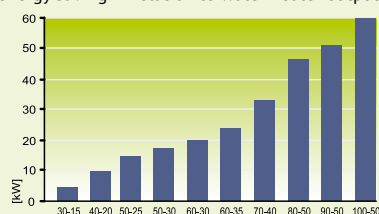
Mixing

Illustration of mixing function



Heat recovery

High-performance heat exchanger
(energy saving in relation to water heater output power)



Noise attenuation

Attenuation of noise attenuators

