CLEANABLE AIR HANDLING

Hygienic air handling units

VLT-AHU-HYG

ACCESS / FILTRATION / THERMAL & HUMIDITY CONTROL



2,400-15,000

m^3/h / ten-model nominal schedule

01 / THE HYGIENIC RANGE

Access and cleanability, designed in.

Air treatment for projects with defined filtration, cleaning and maintenance requirements.

The recorded range covers ten model sizes, from 2,400 to 15,000 m³/h. Plan the filtration, temperature and humidity treatment around the room brief and the available building services.



DESIGNED AROUND SERVICE ACCESS

Smooth stainless-steel inner surfaces, accessible filter and coil runners, inspection windows and a drainage-focused layout support the cleaning and service strategy. Specify the actual materials and equipment for the project.

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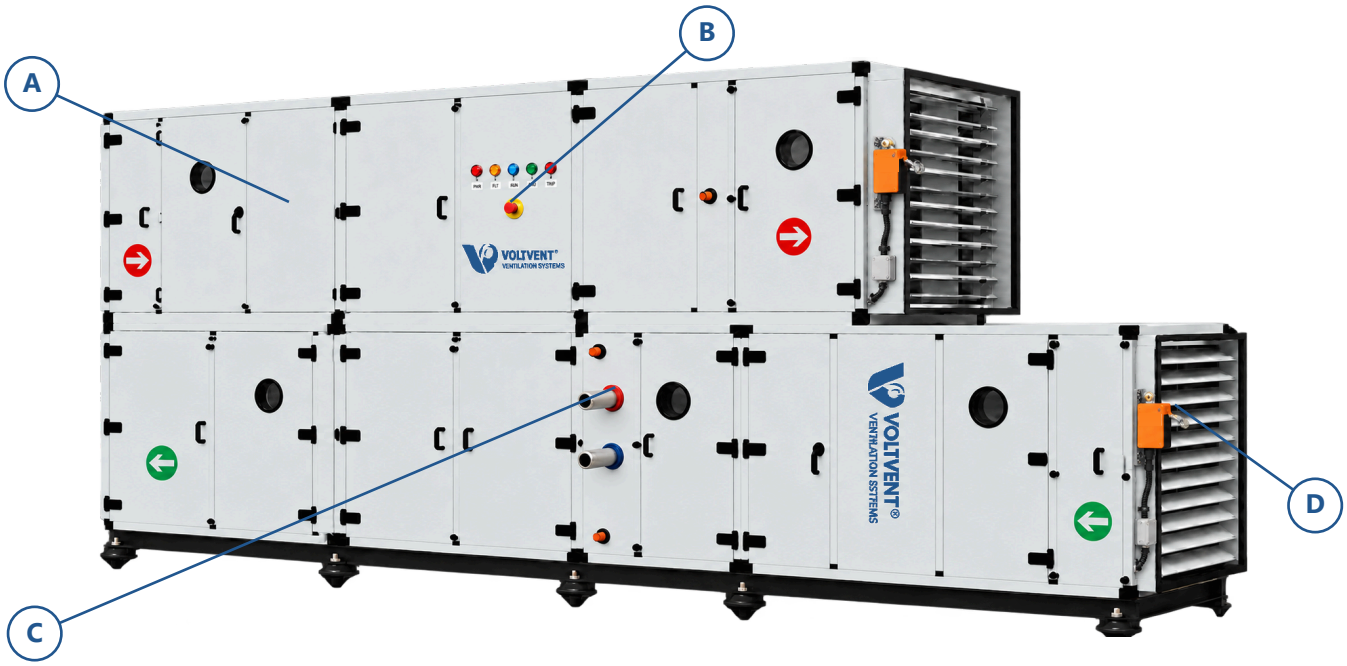
02 / ACCESS & CLEANABILITY

Make the air path serviceable.

Cleanability depends on access to the selected components, surfaces, drainage and service interfaces.



Configuration example. Final component scope, service access and connection details follow the selected unit.

A Access & inspection

Gasketed doors and viewing points support inspection. Keep the complete removal route clear.

B Controls & operation

Place isolation, monitoring and service controls where they remain accessible.

C Coil interfaces

Coordinate water-side connections, drainage and access to the selected treatment section.

D Motorised dampers

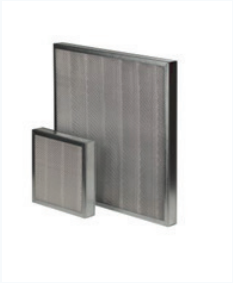
Coordinate actuator access and the damper operating sequence with the control package.

03 / FILTRATION & SURFACES

Select the stage. Keep it accessible.

The filtration strategy follows the application, air quality brief and the room-specific system design.

01



Panel filtration

A first stage protects downstream sections. Specify grade, seating and access.

02



Bag / compact stage

Select the required efficiency and sealed seating; confirm the removal envelope.

STAINLESS-STEEL INTERNAL CONSTRUCTION

The existing range description specifies smooth AISI 304 stainless-steel inner surfaces and accessible stainless filter/coil runners. Confirm the ordered build-up, joints, surface finish and cleaning compatibility for the installation.

1 **Account for filter loading**

Include clean and final filter resistance in fan selection and monitoring.

2 **Protect service access**

Plan filter withdrawal, safe handling and inspection access before installation.

Component images illustrate filter types; they do not establish the supplied filter class or material. A HEPA stage, room cleanliness class or hygienic certification is not implied by the model name.

04 / THERMAL & MOISTURE TREATMENT

Coordinate temperature and humidity.

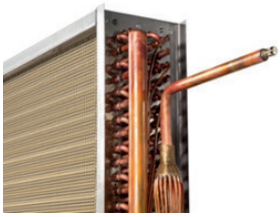
The recorded schedule lists heating, cooling and humidification quantities separately for each model.



01 / HEATING

Match the available circuit.

Select the coil or other offered heating arrangement from entering/leaving air conditions, available services, fluid temperatures and pressure loss. Confirm freeze protection and service withdrawal.



02 / COOLING

Plan the wet section.

Cooling treatment needs selected air conditions, coil duty, condensate collection and a coordinated drain connection. Confirm coating, droplet control and access for cleaning.

03 / HUMIDIFICATION

The model schedule states moisture output in kg/h. Select the process, water quality, absorption space, control sensors and drainage for the application; the schedule alone does not define the supplied humidifier.

Use the AHU selection program to verify air-side and fluid-side duties. Published schedule values do not include complete rating conditions; confirm capacities at the actual project conditions.

05 / FANS, CONTROLS & ACCESSORIES

Coordinate the complete operating unit.

Air movement, monitoring and accessible controls form one project-specific equipment package.

01



Direct-drive fan

The existing range description uses direct-drive plug fans. Confirm the actual duty and drive.

02



Control panel

Agree the operating sequence, isolators, alarms, sensors and building interface.



Pressure monitoring

Coordinate filter differential pressure and fan-proving points.



Inspection access

Viewing windows and service lighting follow the ordered configuration.

SELECT THE ACTUAL FAN DUTY

Enter airflow, external static pressure and internal component losses in the selection program. Motor ratings, absorbed power, sound and the selected speed range are distinct quantities.

A direct drive does not automatically identify an EC motor. Confirm electrical supply, protection, control method and BMS capability for the offered assembly.

06 / AIRFLOW & ELECTRICAL SCHEDULE

Ten models. Recorded ratings.

Nominal airflow and recorded power entries. Electrical reference for all ten models: 380 V / 50 Hz.

Model	Airflow m^3/h	Supply motor kW	Extract motor kW	Compressor entry* kW	Comp. qty
VLT-AHU-HYG1	2,400	2.2	2.2	6	2
VLT-AHU-HYG2	3,500	3	3	9	2
VLT-AHU-HYG3	4,500	4	4	9	2
VLT-AHU-HYG4	5,500	5.5	5.5	13.4	2
VLT-AHU-HYG5	6,500	7.5	7.5	16.4	2
VLT-AHU-HYG6	7,500	7.5	7.5	16.4	2
VLT-AHU-HYG7	8,500	7.5	7.5	18.6	2
VLT-AHU-HYG8	10,000	11	11	24	2
VLT-AHU-HYG9	12,000	11	11	24	2
VLT-AHU-HYG10	15,000	15	15	24	2

*The compressor power entry is retained with the listed quantity of two. Its per-compressor or aggregate basis requires confirmation. Do not infer total installed or absorbed input by summing the entries.

Motor values are recorded in kW. Airflow duty pressure, fan curves, full-load current and auxiliary electrical loads require the unit-specific selection report.

07 / THERMAL & MOISTURE SCHEDULE

Read each duty separately.

Heating and cooling entries are in kW; humidification is the recorded moisture output in kg/h.

Model	Airflow m^3/h	Heating kW	Cooling kW	Humidification kg/h
VLT-AHU-HYG1	2,400	40	24	18
VLT-AHU-HYG2	3,500	55	36	30
VLT-AHU-HYG3	4,500	70	44	45
VLT-AHU-HYG4	5,500	85	54	45
VLT-AHU-HYG5	6,500	100	64	55
VLT-AHU-HYG6	7,500	115	74	60
VLT-AHU-HYG7	8,500	130	83	70
VLT-AHU-HYG8	10,000	155	92	90
VLT-AHU-HYG9	12,000	185	120	110
VLT-AHU-HYG10	15,000	230	140	130

RATING CONDITIONS TO CONFIRM

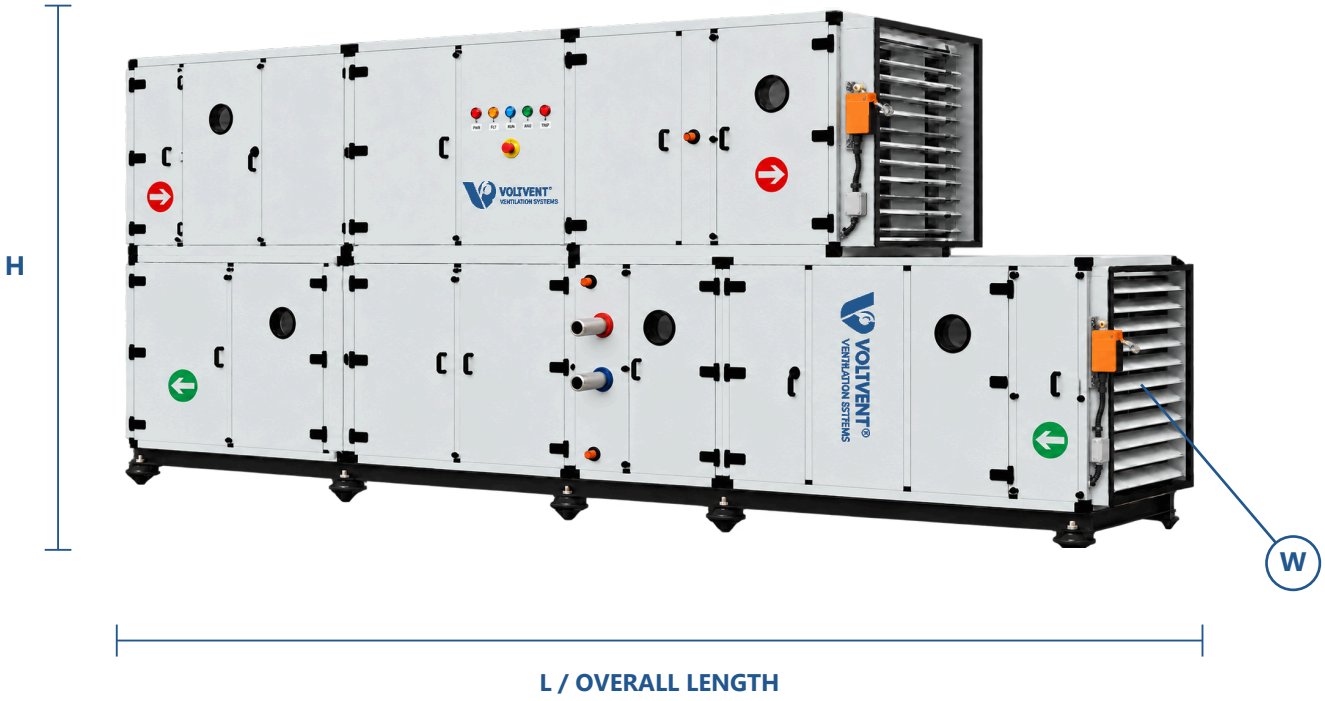
Outdoor and entering air, leaving-air temperature/humidity, circuit conditions, coil pressure losses and humidifier operating conditions belong in the project selection. No COP, efficiency or room humidity result is derived from this table.

Nominal range data. Confirm the selected duties before manufacture or project specification.

08 / DIMENSIONS & INTERFACES

Plan the unit and its surroundings.

The dimensional schedule gives overall L / W / H in mm for the ten recorded models.



L = overall length; W = overall width; H = overall height. Perspective illustration is not to scale. Module splits, duct openings, base detail and service clearances need the final project drawing.

1 Separate equipment and access

Add the required door opening, filter/coil withdrawal and service routes outside the scheduled envelope.

2 Coordinate the connections

Confirm duct faces, coil circuits, drain positions and electrical access with the final drawing.

Support points, section weights, lifting splits and base details are project-specific. The product image is not a scaled manufacturing drawing.

09 / DIMENSIONAL SCHEDULE

Overall dimensions by model.

Recorded overall dimensions in mm. Airflow remains visible alongside each model.

Model	Airflow m³/h	L mm	W mm	H mm
VLT-AHU-HYG1	2,400	2,650	900	2,100
VLT-AHU-HYG2	3,500	2,750	950	2,150
VLT-AHU-HYG3	4,500	2,750	1,000	2,200
VLT-AHU-HYG4	5,500	2,800	1,100	2,300
VLT-AHU-HYG5	6,500	2,950	1,300	2,400
VLT-AHU-HYG6	7,500	3,400	1,300	2,500
VLT-AHU-HYG7	8,500	3,400	1,300	2,500
VLT-AHU-HYG8	10,000	3,500	1,300	2,900
VLT-AHU-HYG9	12,000	3,500	1,450	2,900
VLT-AHU-HYG10	15,000	3,650	1,550	3,200

PROJECT DRAWING

Confirm module lengths, delivery splits, base arrangement, mass, duct openings, coil connections, drainage and full service clearances for the selected configuration. These items are not supplied by the range envelope table.

VLT-AHU-HYG3 overall width: 1,000 mm.

10 / PROJECT SELECTION

Define. Configure. Review.

Use the AHU selection program to coordinate the exact duty, component arrangement and installation envelope.

Selection stage	Project information to verify
01 / Define the duty	Supply/extract airflow, external pressure, entering-air conditions, operating hours and room requirements.
02 / Select the components	Fan and coil duties, filtration, humidity treatment, materials and cleaning access.
03 / Coordinate the unit	Module arrangement, service withdrawal, connections, dimensions, controls and electrical supply.
04 / Review the report	Selected fan curves, thermal/moisture calculations, actual unit drawing and control documentation.

Selection workflow. A project-specific software result or manufacturing drawing has not been issued for the range described in this document.

1 Keep the listed conditions

Record air/fluid conditions, filter loading and the agreed operating modes.

2 Review the offered assembly

Use the report and drawing for the actual supplied configuration.

Request a dated selection report for the exact offered unit. Document design review does not establish fan, thermal or hygiene validation.

11 / INSTALLATION & MAINTENANCE

Build service into the installation.

Delivery, accessible plant space, drainage and a documented operating sequence support maintainable equipment.



Coordination item	Project action
Delivery & support	Confirm section splits, lifting points, mass and structural support.
Accessible servicing	Keep doors, filter runners, coils, fans and control points reachable.
Wet-section drainage	Coordinate drain connections, traps and the installation level.
Commissioning	Verify airflow, pressures, drain function, sensors and the agreed sequence.
Maintenance plan	Document isolation, cleaning compatibility, filter replacement and inspection.

No anchor, load, torque, trap dimension or maintenance interval is assumed. Follow the final unit documentation and project requirements.

12 / PROJECT SELECTION REPORT

Specify the exact configuration.

The range catalogue is a starting point. The offered unit needs its own coordinated technical package.

Selection topic	Information to confirm
Application	Room/system brief, filtration strategy, cleaning access and operating hours.
Air-side duty	Supply/extract airflow, external pressure and internal pressure losses.
Thermal & humidity	Entering/leaving air, circuit conditions and selected treatment duties.
Materials & filtration	Inner surfaces, coatings, filter grades, seals and cleaning compatibility.
Electrical & controls	Actual motor/auxiliary loads, protections, included sensors and BMS scope.
Dimensions & service	Overall envelope, module splits, mass, connections and withdrawal routes.
Supporting documents	Selected fan curves, coil reports, drawings, wiring and maintenance information.

Any project-required hygiene assessment, room classification or certification must be supported by the relevant documentation for the exact offered assembly. Catalogue preparation does not establish such approval.

English review issue. Technical and engineering validation remain separate from catalogue design approval.

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