



WHISPER AIR

Enjoy the silence.

2V V product presentation

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WHISPER AIR

Compact decentralized HRU



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HANDLING
HEAT RECOVERY
UNITS

HVAC COMPONENTS

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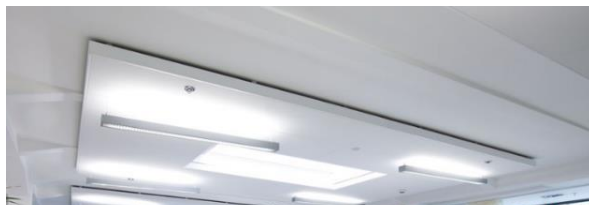
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Applications

- Class rooms
- Conference rooms
- Offices



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Technical parameters

- **3 sizes** according to nominal air volume:
 - Size 400 (boost: 700)
 - Size 700 (boost: 900)
 - Size 1000 (boost: 1400)
- Electric preheater
- Electric post heater
- Water post heater



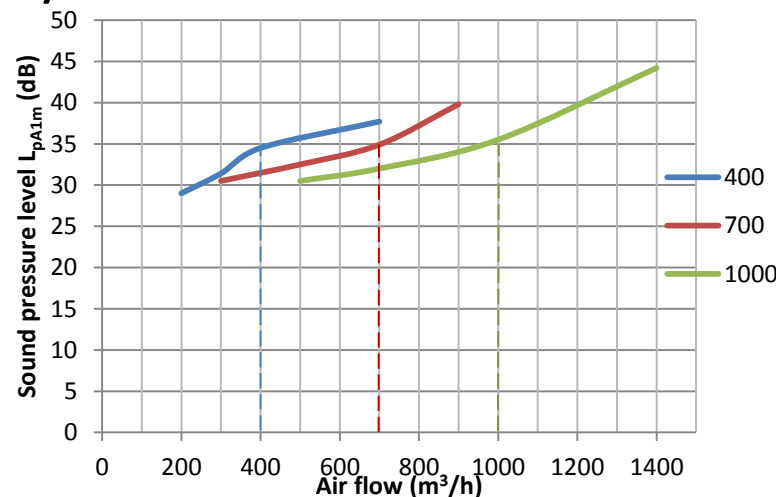
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Technical parameters

Silent operation

- Max. $L_{PA1m} = 35$ dB at nominal air flow
- Special configuration of components
- Acoustic insulation (casing, bottom panel)
- Low internal pressure losses and air velocities
- Labyrinthine & honeycomb attenuators



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Technical parameters

Energy efficient

- EC fans
- Heat recovery
 - Aluminium plate counter-flow heat exchanger
 - Min. dry thermal efficiency 80% (EN 308)
 - Fluent by-pass 0-100%
- Filters
 - F7/G4
 - Large surface
 - Clogging indicated by direct measurement of pressure difference

ebm

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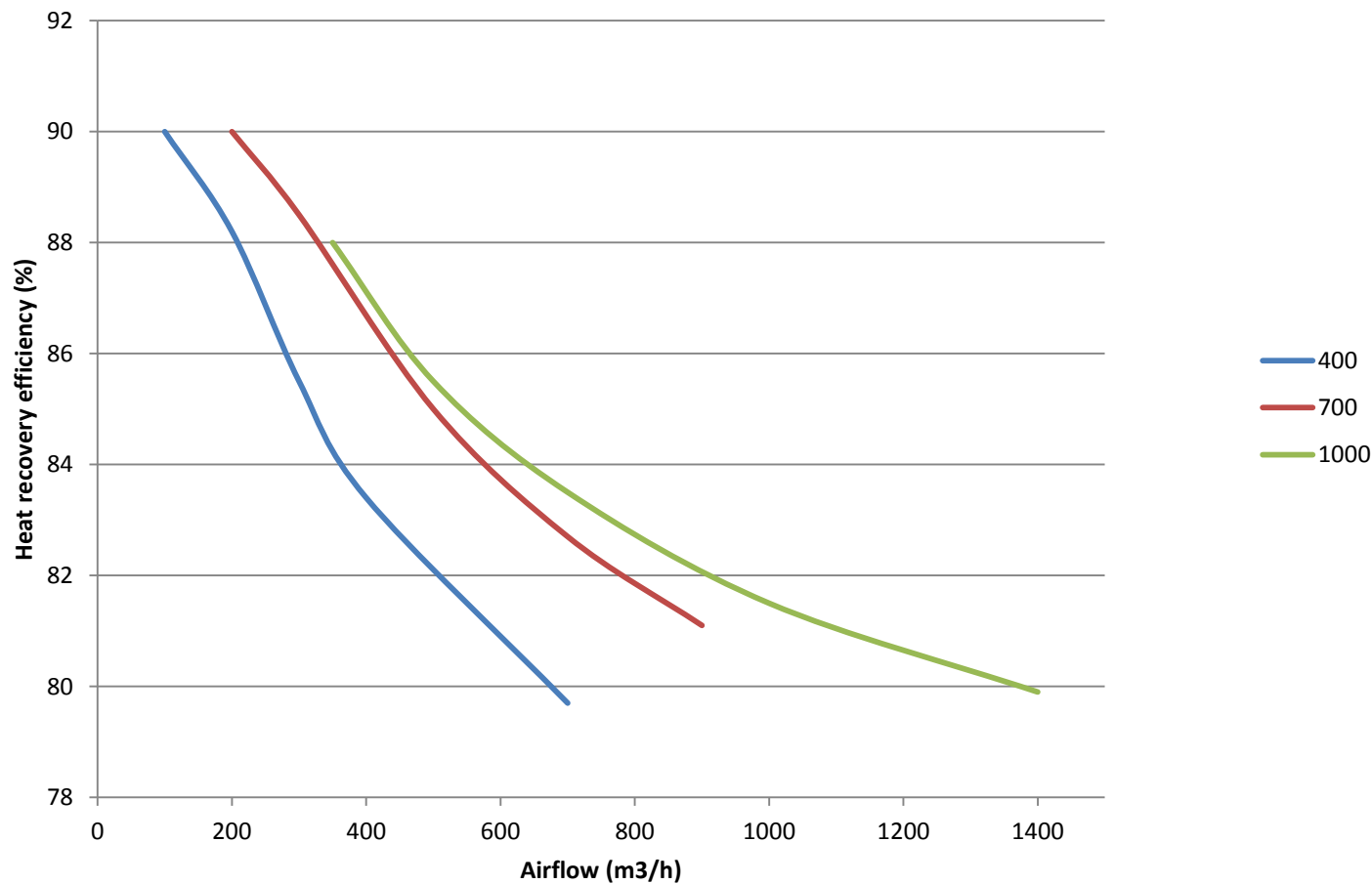
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Heat recovery

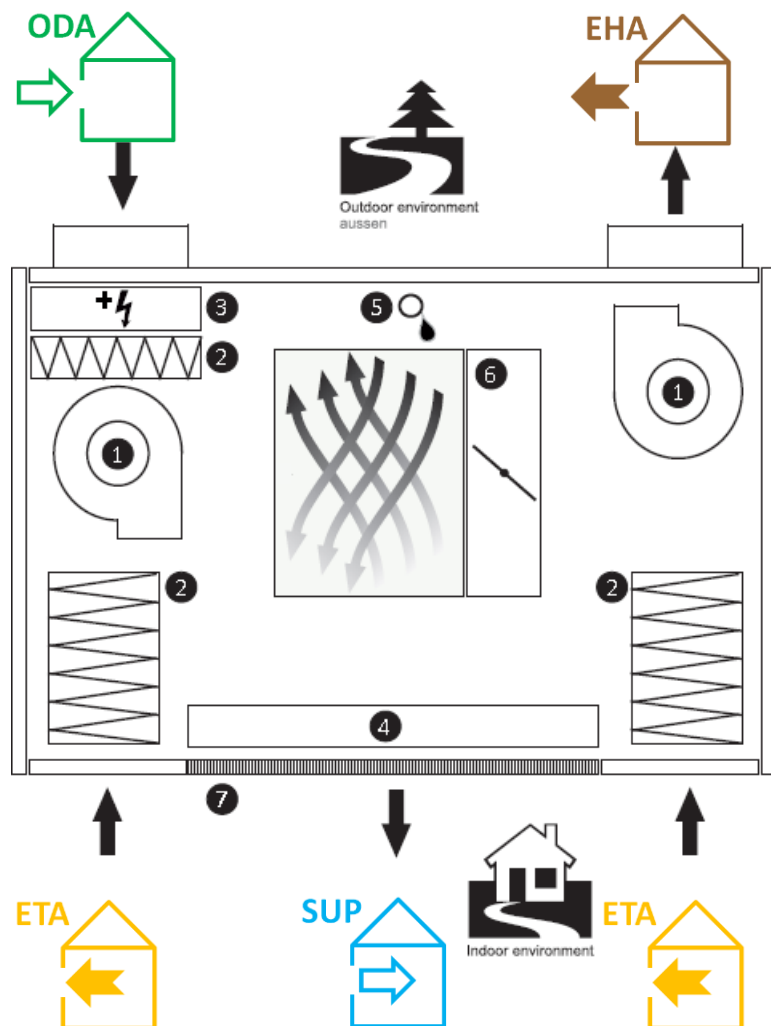
- Thermal efficiency diagram



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Principle



	EN
1	Fan
2	Filter
3	Preheater
4	Afterheater
5	Condensate drain
6	Heat exchanger with by-pass damper
7	Straw system

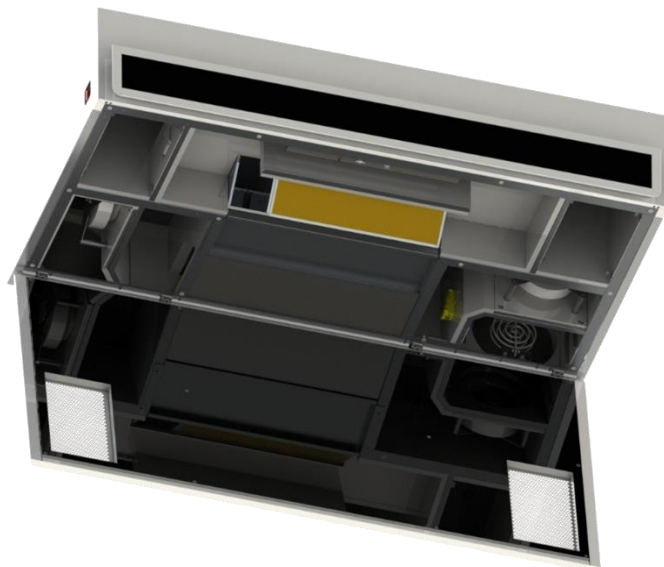


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Installation & Maintenance

- Compact Plug&Play unit
- Exposed or semi-recessed installation
- Aluminium casing -> low weight
- Wall frame available as accessory
- Easy access – bottom panel on hinges

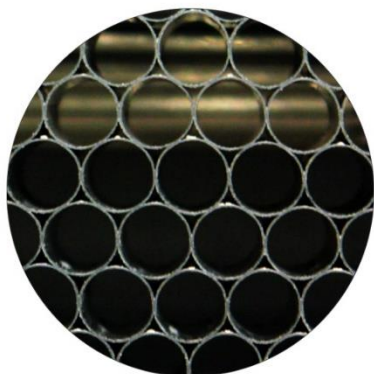
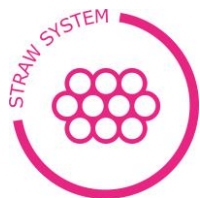


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Straw system

- Performing laminar airflow
- Maximizing air throw distance



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Preheater

- Electric
 - 1,5kW
 - 2,0kW
 - 3,0kW

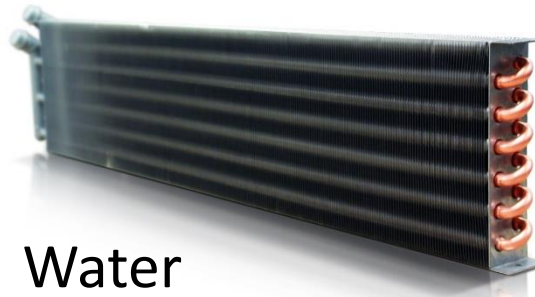


Post heater



- Electric
 - 1,5kW
 - 2,25kW
 - 3,0kW

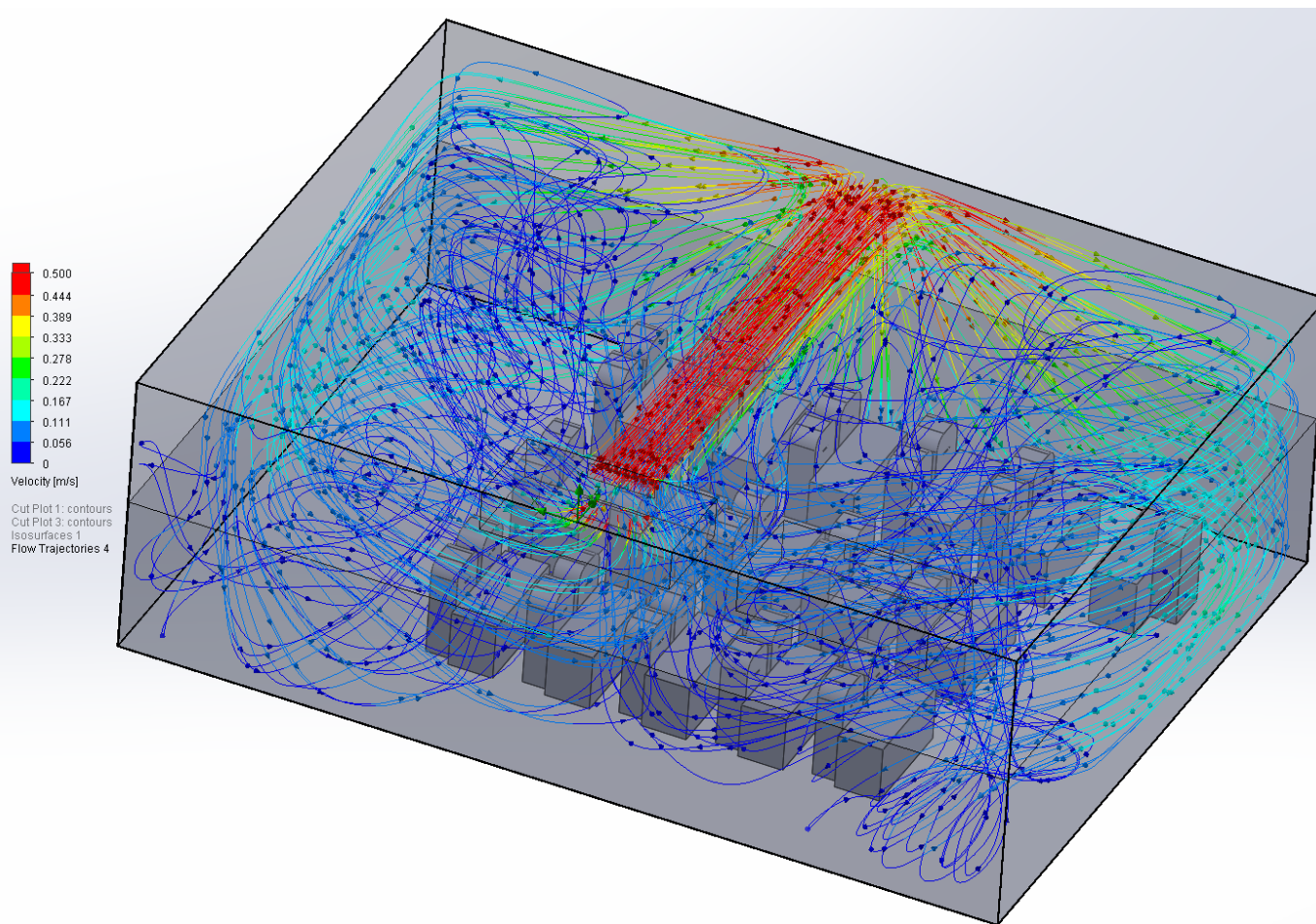
- Water



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Air velocity simulation

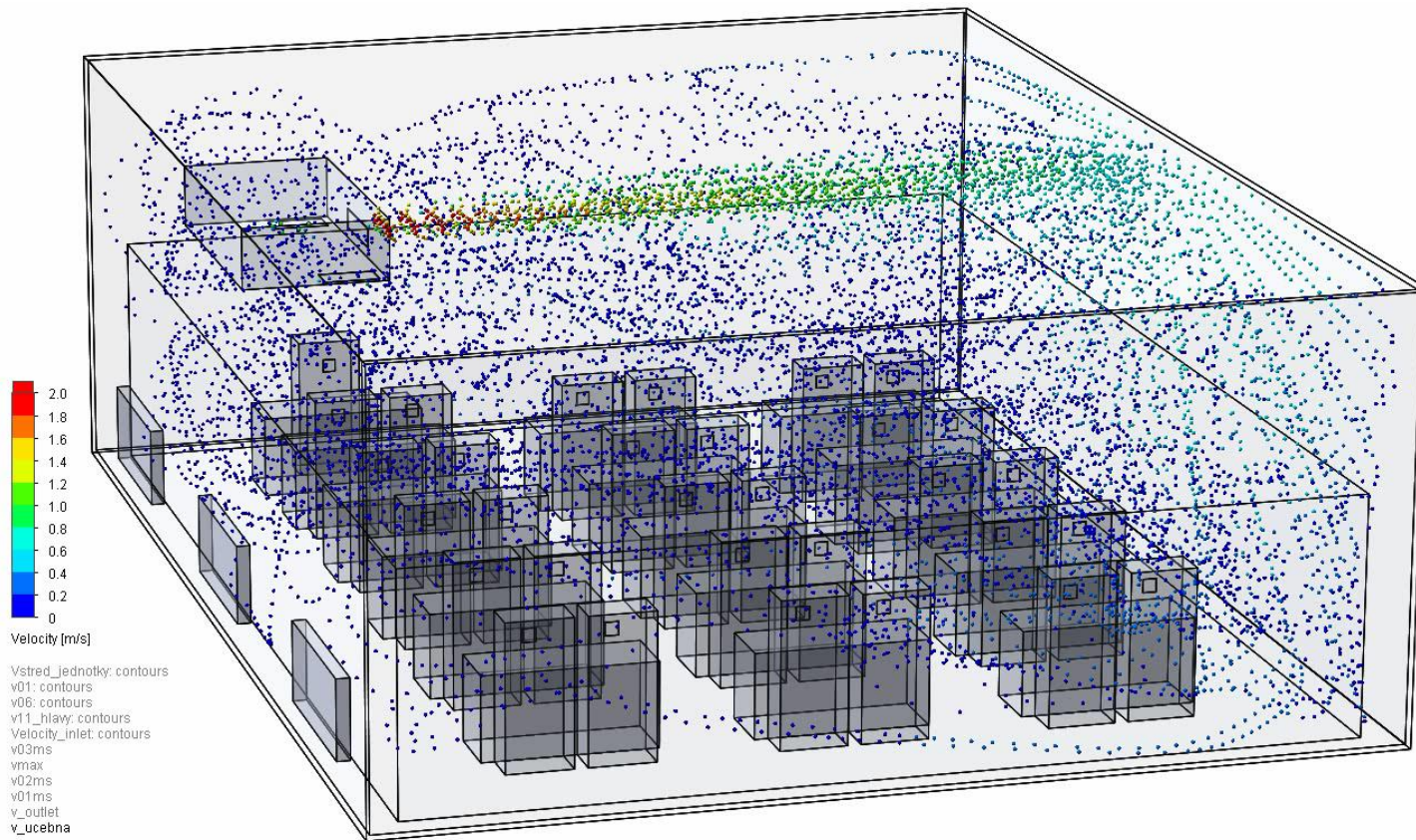


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Air velocity simulation

- Ideal position of unit = middle of longer wall
-> equal air distribution at low velocities + Coanda effect

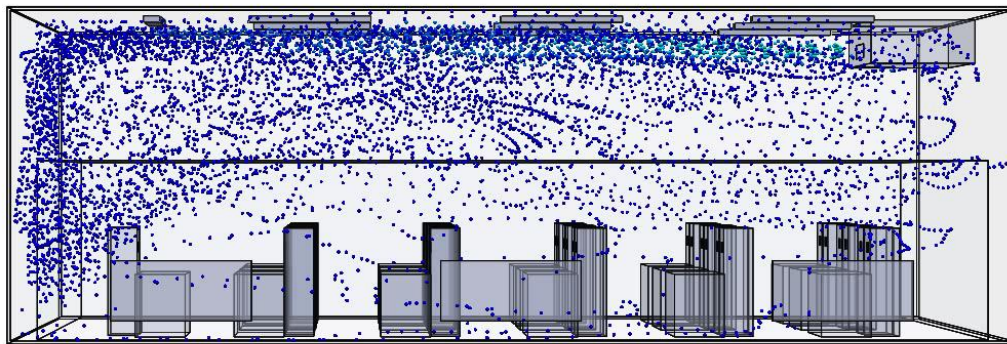


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Control Comfort



- Design controller with touch-screen display
- CO₂ sensor inbuilt (DCV)
- Fluent fan and heaters control
- Clogged filters indication (pressure loss measurement)
- Boost regime
- Fluent by-pass
 - Anti-freeze protection
 - Temperature control (freecooling)
- Integrated timer (week, day)
- Option for BMS control (ModBUS RTU)

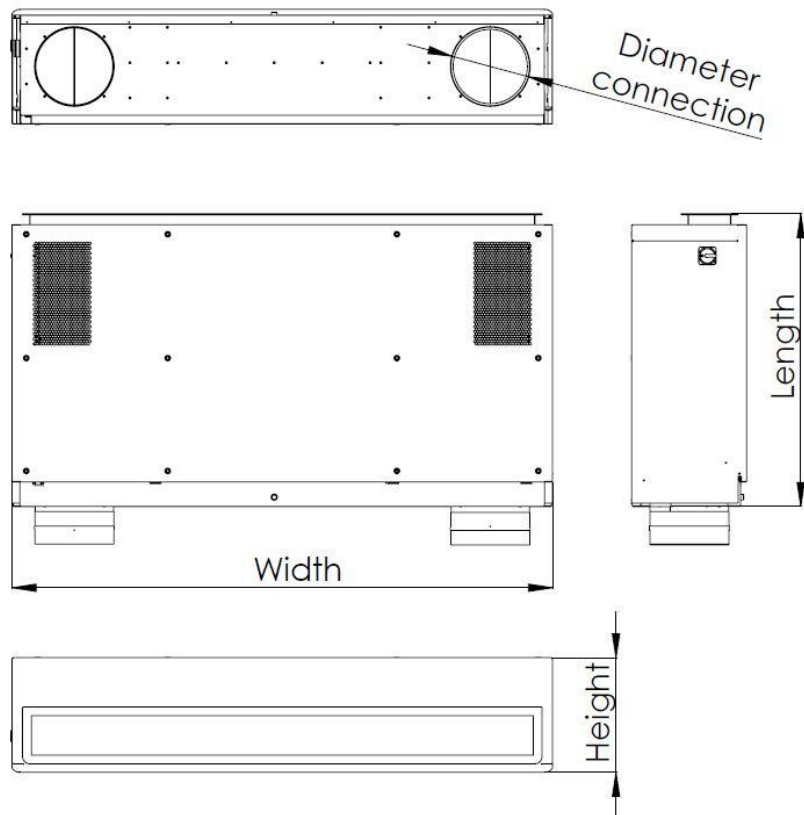


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Dimensions

- Size 400: W=1875mm, L=990 mm, H=400 mm, D= 250 mm
- Size 700: W=2145 mm, L=1160 mm, H=455 mm, D=315 mm
- Size 1000: W=2475 mm, L=1315 mm, H=570 mm, D=315 mm



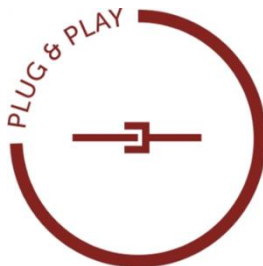
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Summary

- Ecodesign 2018 compliance
- High efficiency
- **Ultra quiet operation ($L_{PA1m} = 35$ dB)**
 - Confirmed by accredited testing lab
- Option for integrated preheater and post heater
- Easy installation and maintenance
- Modern control system with touch-screen display

Etelab



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Thank you for your attention!

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