

I-AHU 3DPRO

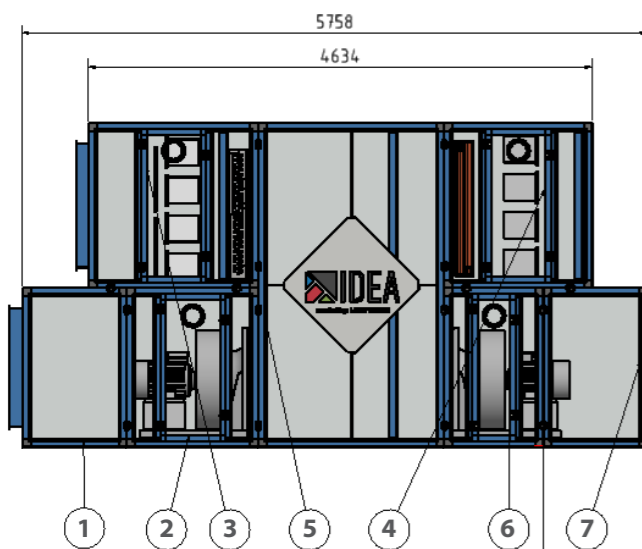
SOFTWARE STRUCTURE

I-AHU 3DPRO is not limited to generate only database defined unit sizes, but can allow full customisation because it's 3D assembly has a parametric structure and NEW FILTER OPTIMISATION DLL.

DATASHEETS

The drawings are automatically made, and can be further edited by an authorized user. Any change made to the automatic generated 3D assembly will affect also the drawings, and refresh them to include new updates. The user can control which parts he would like to export and in which format. The standard is to give pdf files for bending and assembly documentation and dxf files for the sheet metal processing.

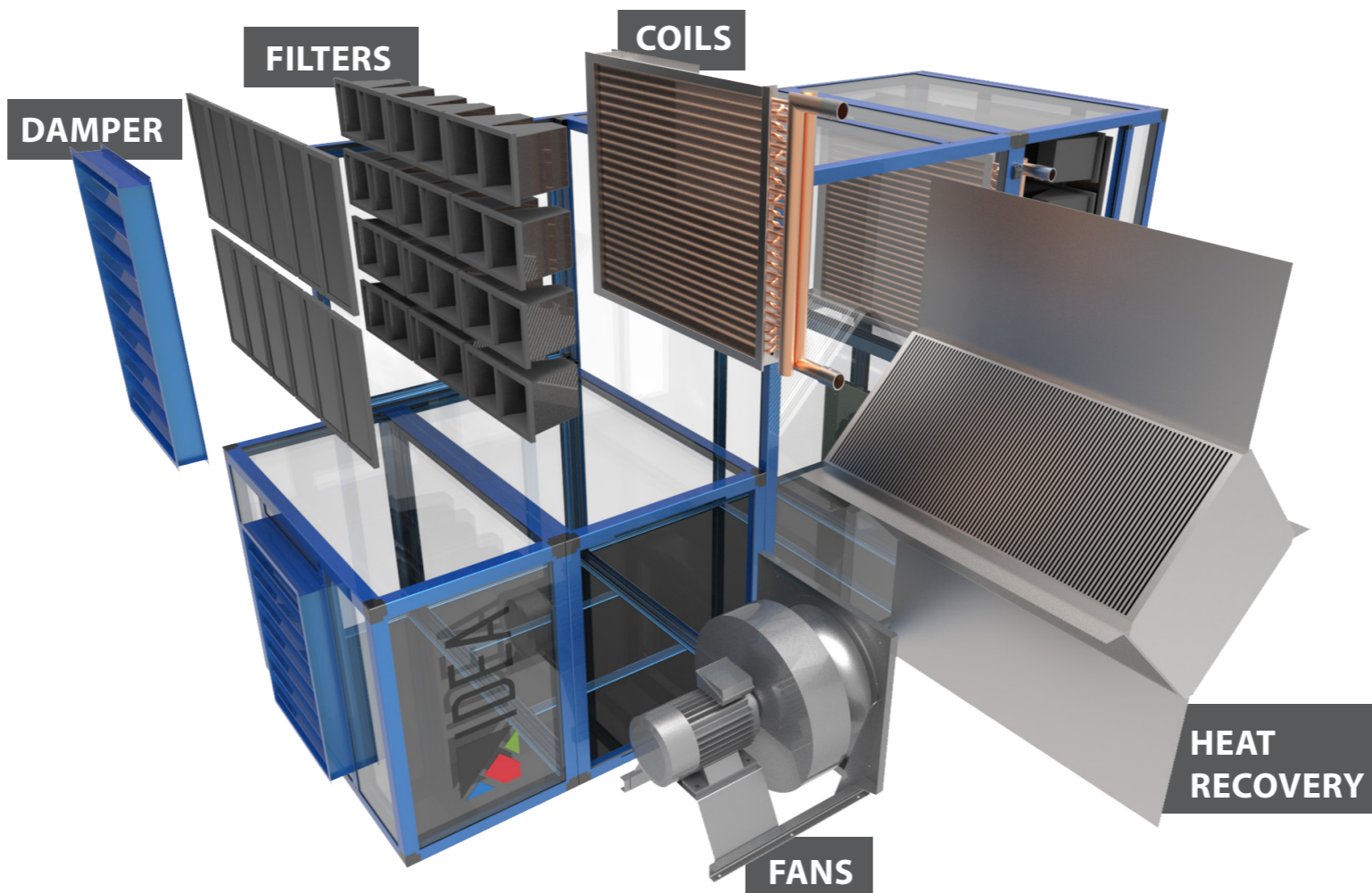
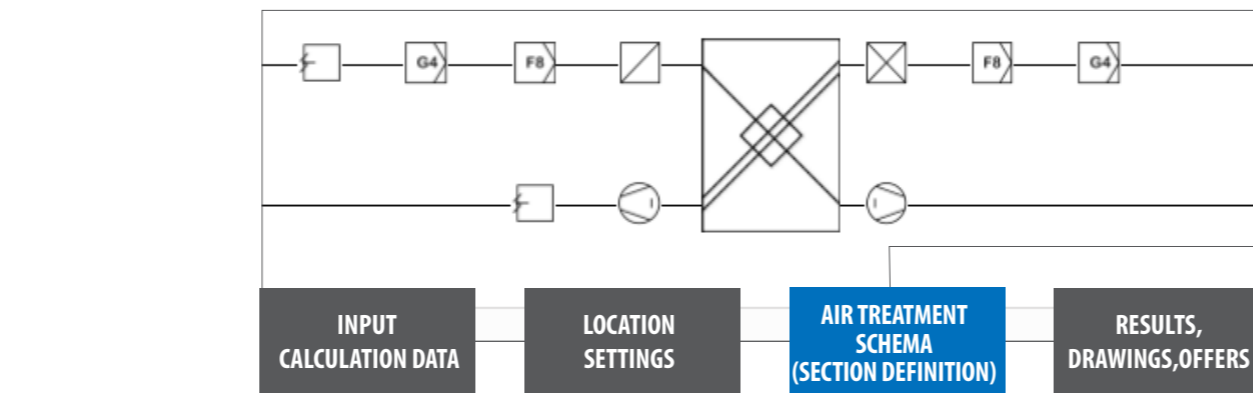
- Documentation for cutting lists, BOM and part is available.
- Nesting module for profile cutting optimization can be applied in order to lower material waste.



- | | |
|---|---|
| 1. Section with one damper | 4. Section with damper, panel and bag filter and heat exchanger |
| 2. Fan section | 5. Recuperator section |
| 3. Section with damper, panel and bag filter and heat exchanger | 6. Fan section |
| | 7. Section with panel |

TYPE OF CALCULATION

The user has the possibility to make fast or precise calculation. Fast calculation is based on default input and calculation data. It enables final calculation without the need of any intermediate calculations where the user receives an optimized AHU. Precise calculation allows to the user to edit immediately each section separately. He has the full control of the complete selection process.



FILTER

I-AHU optimise the size of units in function of standard filter dimensions and air flow. User receives different solutions with different ratio of height / width and different air speed. This approach allow to the user to create non standard AHU which will fit the installation space.

FANS

I-AHU use the dll of the main european producers, where it can also be customised to use specific dll, required by the producer. As alternative it is possible to introduce our own dll.

COILS

are calculated with our dll, where it is possible to add tools for the production like circuitation, header drawings, etc. This approach allow to speed up the purchasing process, by giving to the producer exact needed coil dimensions. Implementation of other supplier dll's is possible.

HEAT RECOVERY

I-AHU include cross flow and rotary heat recovery. It is also possible to select twin coils systems using our dll for coils.

DAMPER

can be selected from a database of standard sizes, or in function of the rules given by the producer.

I-AHU WEB

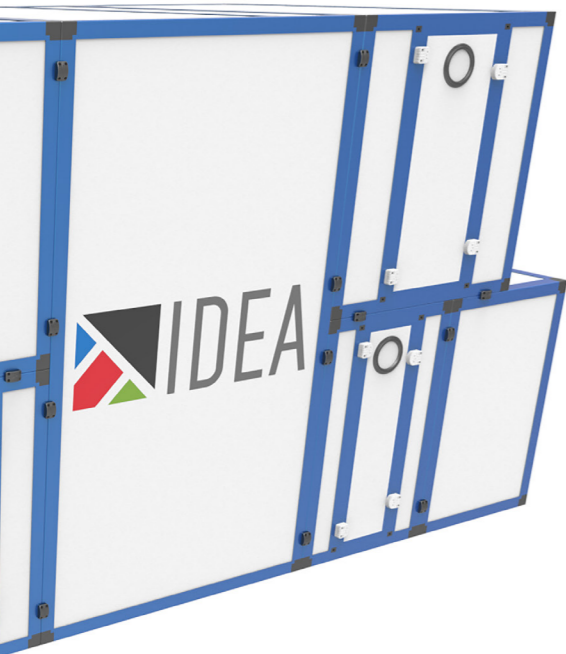
CALCULATION PROCESS

- 1 User chooses the configuration of AHU as a unit composed by sections positioned on one or two levels. The configuration is defined as one air treatment schema, and can be saved for future usage. It is also possible to define configurations with sections of heat recovery.
- 2 Based on the requested air flow and air speed (\pm tolerance), the software highlights the range of units suitable for the request considering predefined filter sizes from the database. This approach allows to the user to have more solutions than just catalogue sizes. User sets temperature and relative humidity of the internal, external and immission air. The definition of the percentage of fresh air allows the software to automatically calculate mixtures of air entering to heat exchangers.
- 3 The characteristics of the structure can be set through the definition of profiles, panels, materials and omegas.
- 4 After inserting the standard definitions, the program displays graphically the unit and allows you to define the characteristics of individual sections, size the dampers and heat exchangers (finned coils and heat recovery), fans, motors and transmissions, as a function of the operating conditions indicated in point 2. Different supplier dll's are integrated in the software.
- 5 The humidification system can be selected according to the efficiency calculated. An option to allow the automatic selection of fast calculation of all the components of the AHU can be done referring to the default values set by the user.
- 6 The user can edit the unit by adding, changing or deleting any section.
- 7 A print-out of the technical data including detailed diagrams of the air processing and the chart of the fans with an indication of the operating point is available. Dimensional drawing of complete configured unit is included.
- 8 The software allows to print economic offers with the total price of the unit and / or detail of the individual sections and accessories or dimensional drawing.



One solution to make everything!

I-AHU WEB



I-AHU WEB is WEB based selection software for air handling units design and selection, with optional module for the production

Main features

- Web Based software (no installation)
- Cloud server
- Supports process from offer till order
- Technical calculation
- Price list
- Datasheet (multi brand's)
- Integration of dll's (fans, coils, etc.)
- Customized (rules, data, 3D parts)
- Energetic Analysis
- Erp

SHIPPING COST ESTIMATION

Considering the volume of an air handling unit, where in a lot of cases you are shipping empty boxes, we can offer our custom procedure which allows simulation of different shipping scenarios.

This means either to ship the unit assembled or in pieces, considering following factors:

- complete AHU assembly volume
- precise dimensions of all disassembled parts
- assembly cost at factory and delivery location
- transportation cost per truck size
- rules which parts can be packed together
- additional costs (customs, forklifts, etc.)
- detailed assembly instructions The user has the possibility to make fast or precise calculation.

Fast calculation is based on default input and calculation data. It enables final calculation without the need of any intermediate calculations where the user receives an optimized AHU.

Precise calculation allows to the user to edit immediately each section separately. He has the full control of the complete selection process.

ENERGETIC ANALYSIS

IDEA is specialized in the HVAC businesses, with a lot of years working on specific Energetic analysis calculations. Therefore, also our I-AHU WEB can be extended to calculate the unit price based on different energetic analysis costs.

ENERGY CLASS OPTIMIZATION

The software allows to optimize the components (filter, coils, fans, heat recovery) to obtain the energetic class required by the user. The calculation process will suggest changes to the user till it meets the required energy class. During the 'software loop for optimization' several optimization points are possible, where the software can be set up in order to define the optimization priority (size, coils, fans, etc.).

EUROVENT REQUIREMENTS

On request, we are able to give also full certification support. Our support consists of one person who is dedicated to Customers company, and would manage the complete certification process. He would be like 'Your employee' during this period, acting to protect all Your company interests and planning everything to finish on time and within budget.

ErP - TIGHTENED EFFICIENCY REQUIREMENTS

I-AHU WEB evaluates the designed unit performance according to the ErP normative. A detailed report is generated in order to give additional information for which Stage (2016, 2018) the unit is certified.

From selection to production

I-AHU 3DPRO



I-AHU 3DPRO is the air handling unit production module, specially designed as an extension of I-AHU WEB selection software.

Main features

- supported by professional CAD software
- connected to I-AHU WEB
- process from order till production
- automatic production documentation
- automatic 3D assembly
- no limitation regarding unit sizes
- integration with in-house ERP
- customized (rules, data, 3D parts)
- same WEB user management



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