AHU 8 - Archive management

Sommario

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AHU Software Purpose

AHU is our software for HVAC companies who build Air Handling Units. It lets you rate standard units or design customised units in the shortest time.

Simplify the ordinary work: AHU is a flexible selection software, that allows to make the work of your Sales Dept. easier, reducing the waiting times from the quotation to the development of the job order. Several types of printout models are available, depending of the details required by Sales Dept.

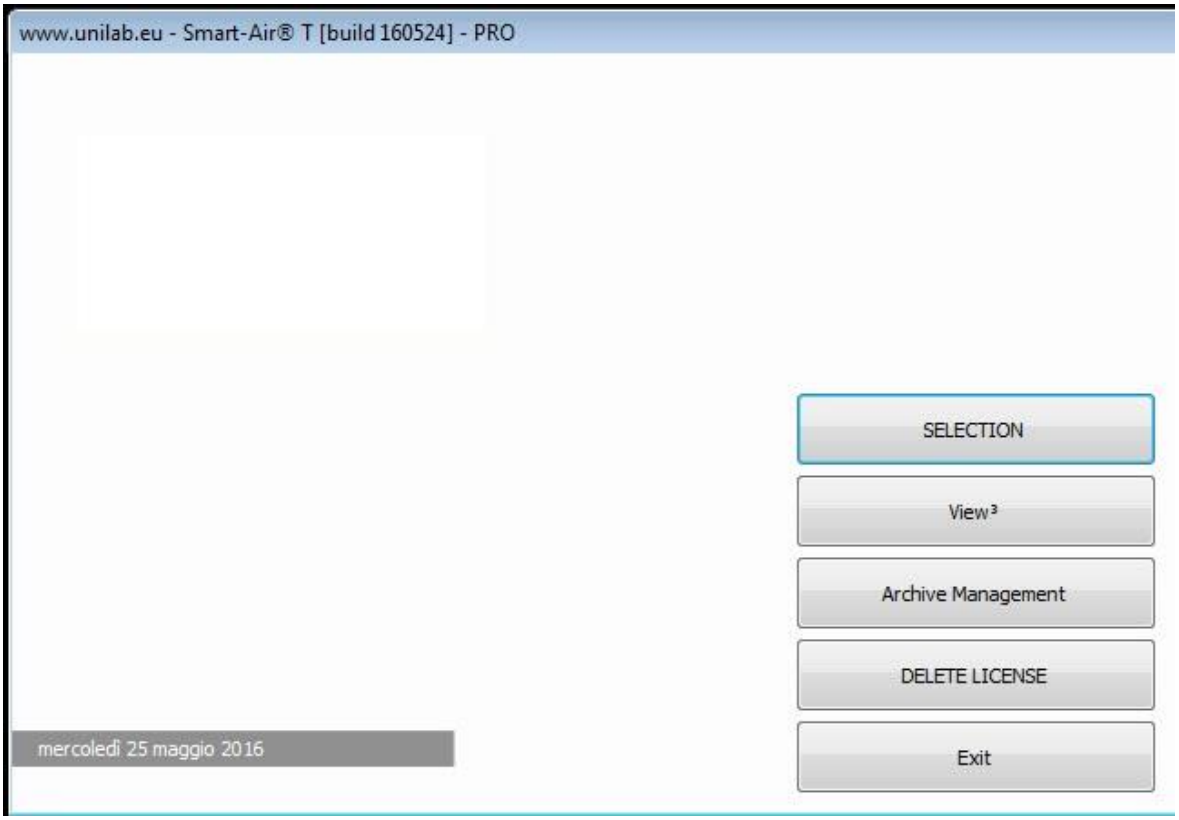
AHU is the result of twenty-five – years old experience, gained in HVAC field. UNILAB offers this qualified tool for AHU's suppliers.

Its main purpose is to be very useful utility for your Sales Dept. in the fact that quickly you can build your unit in a visual environment with a drag and drop technique and then easily you can calculate the Air Handling Unit and get to the printout at various details.
The main purpose of this manual is to show you through several example how to design and select various type of Air Handling Units.

We will start with a quick overview of the GUI of our software AHU, then we will continue explaining the main points of the four menus of the software, and at last, we will show through five standard units how to do the complete process from building a unit to printing its results.

I. AHU Software Overview

In this section we will have an overview of the software AHU.
When we run AHU this is what we get.



This is the first window you meet.

You have four options you can choose:

Selection: this button allows to access directly to selection software part. You can select a machine which characteristics you want, and do offers;

View3: this button allows to access directly to VIEW3 software part. You can see the machine you've selected in the "Selection" in 3D view. You can, also select a machine in this section and do offers;

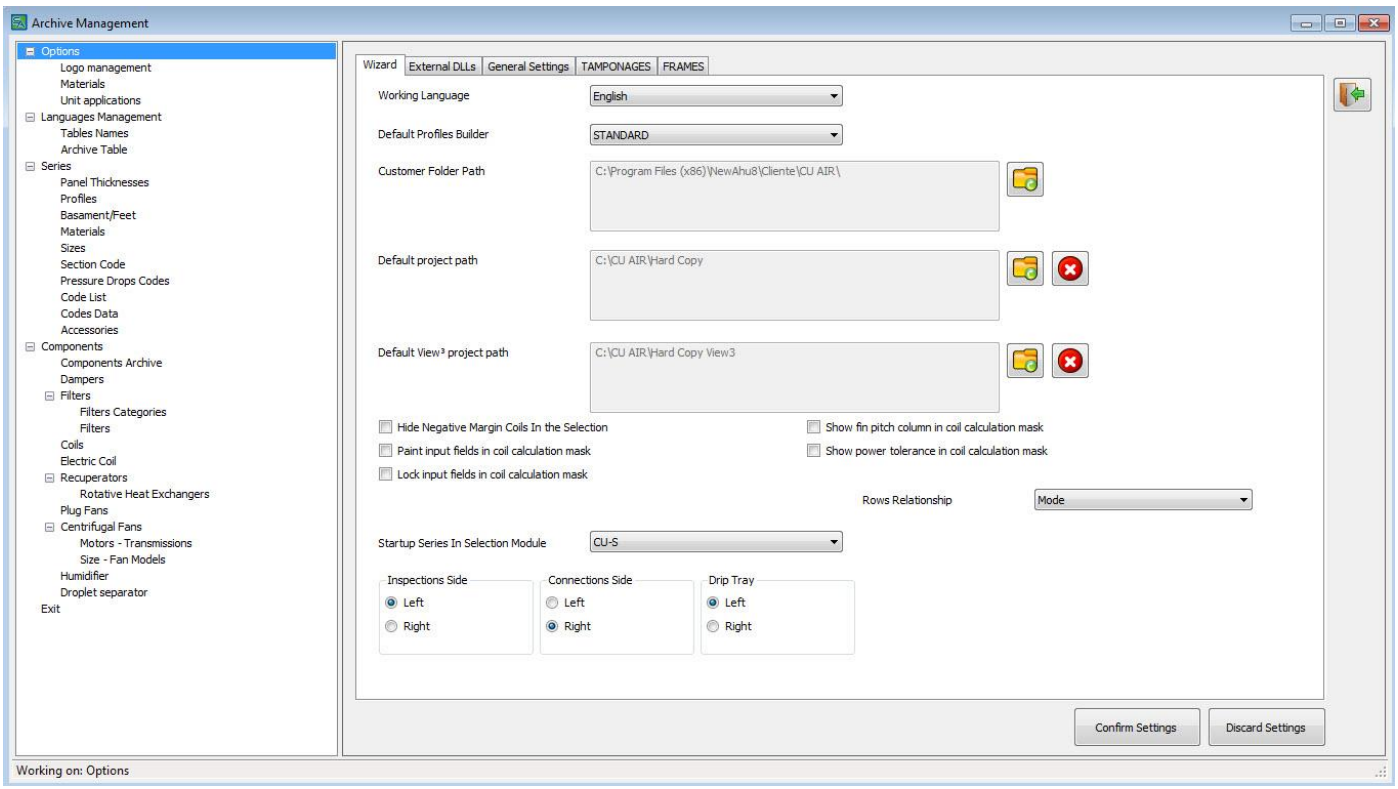
ARCHIVE MANAGEMENT : this button allows to access directly to "Archive Management" which is common called WIZARD. In this software part you can manage everything related to sections that make up a AHU. From the profiles and panels, to fans and coils;

EXIT : this button allows to exit from the software.

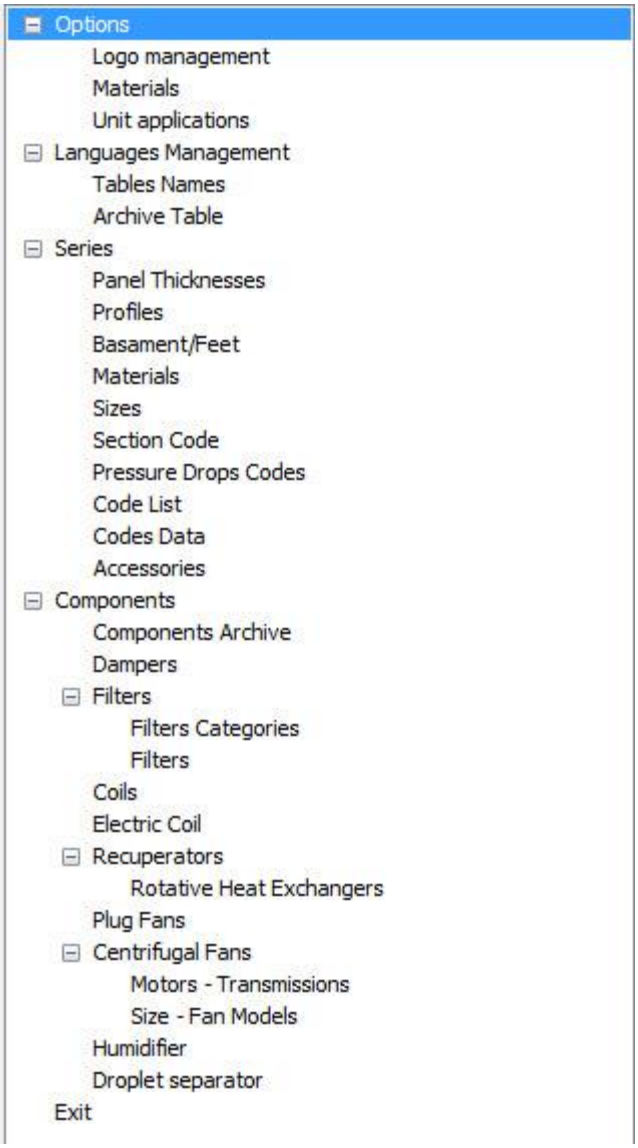
We choose "Archive management" to introduce data into the software.

II. Options

Clicking on " Archive Management", when the window opens, you can choose working options, as you can see:



Let's start to explore this window.
On the left side you can see the several step of WIZARD.



Now we are at "Options" and in this section you can choose has software works.

At bottom of window you have to buttons:

to click when you've done the modifies you need.

to click when you want to quit without saving.

At the top of the window you have several tabs:

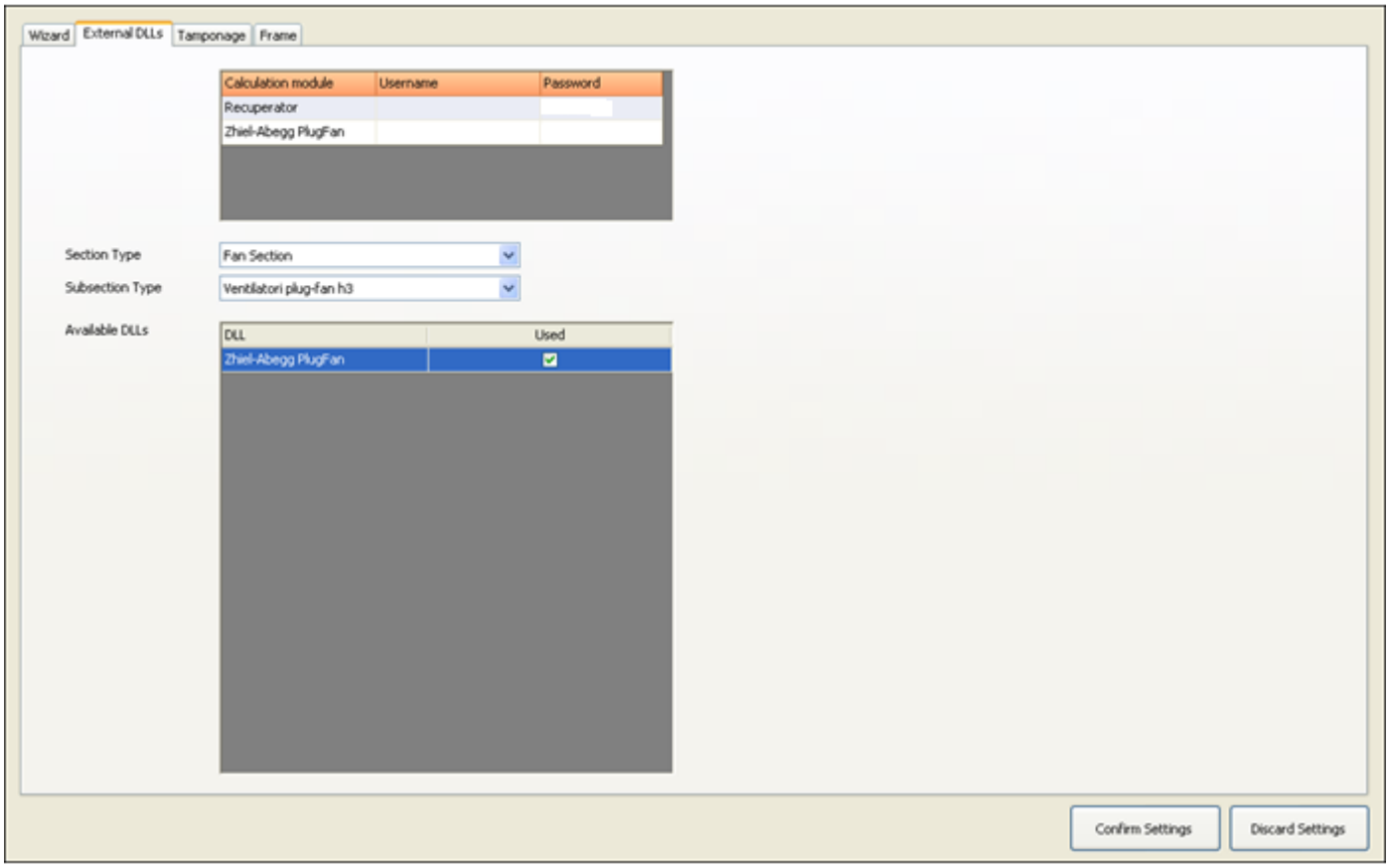
Now you're in the TAB "Wizard" where you can choose the default features of Wizard, as:

Default Working Languages

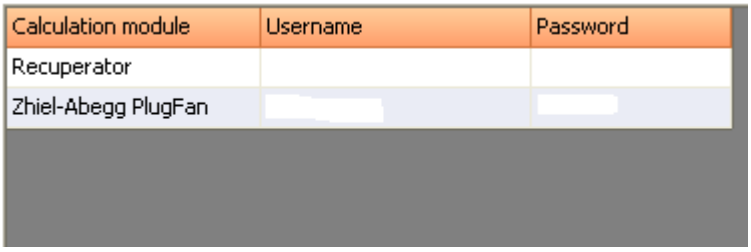
Default Profiles Builder

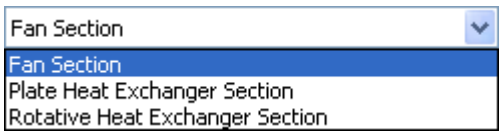
Customer folder Path.

Now you pass in the TAB "External DLLs" where you can choose the default features of working software:
(Please pay attention that only UNILAB S.r.l. technicians can introduce DLLs into the software)

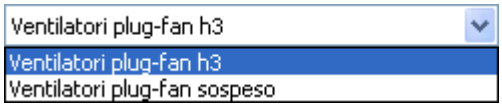


In the bottom of the window you can see the list of enabled DLLs:





Then for each kind of section (as you can see on the left image) you can use or less the other DLLs which are inside the software, but not yet enabled.

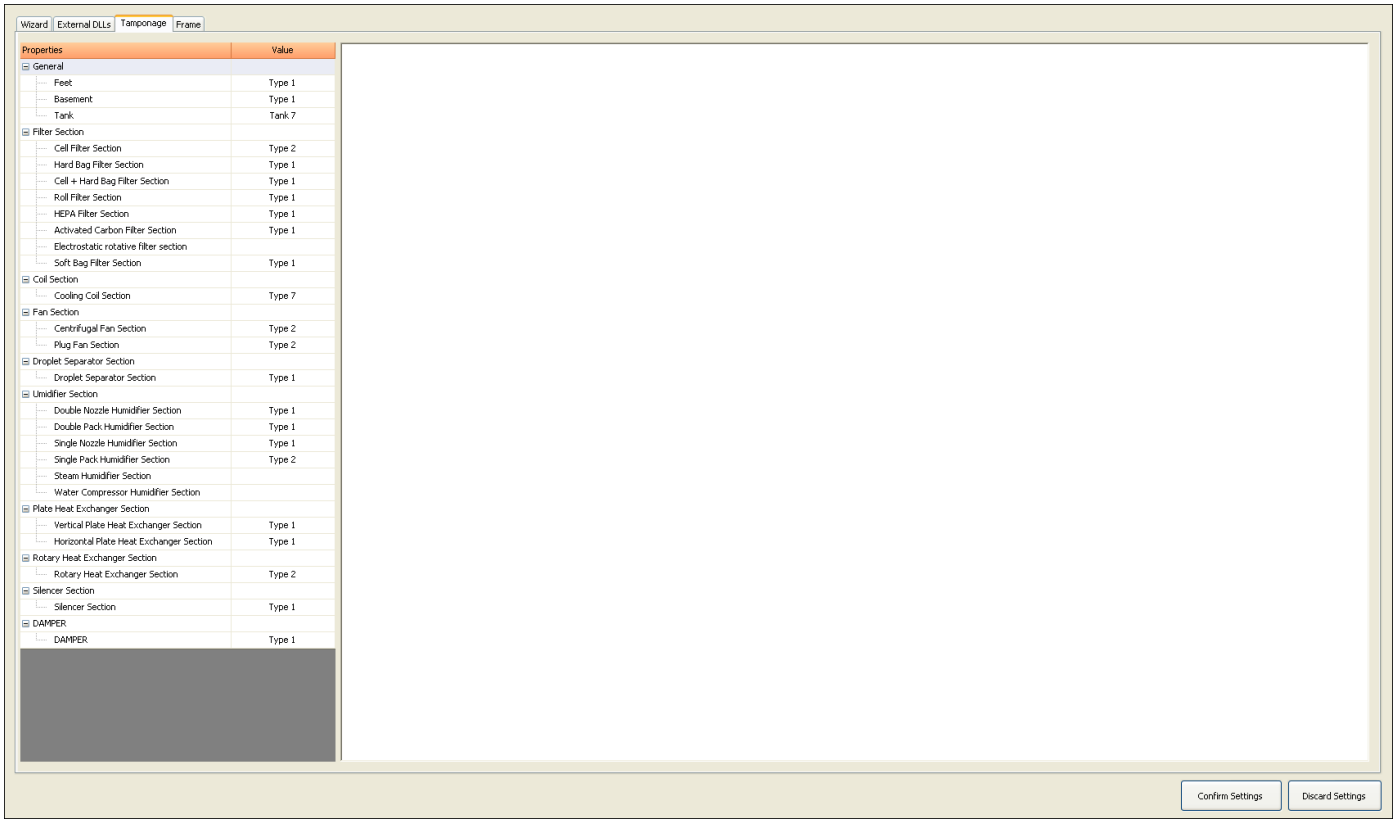


This drop down menu is visible only if you select before "Fan section". So you can select for each type of fan, the DLL to use.

Finally, you choose which DLL use for calculation. You can enable more than one DLL.

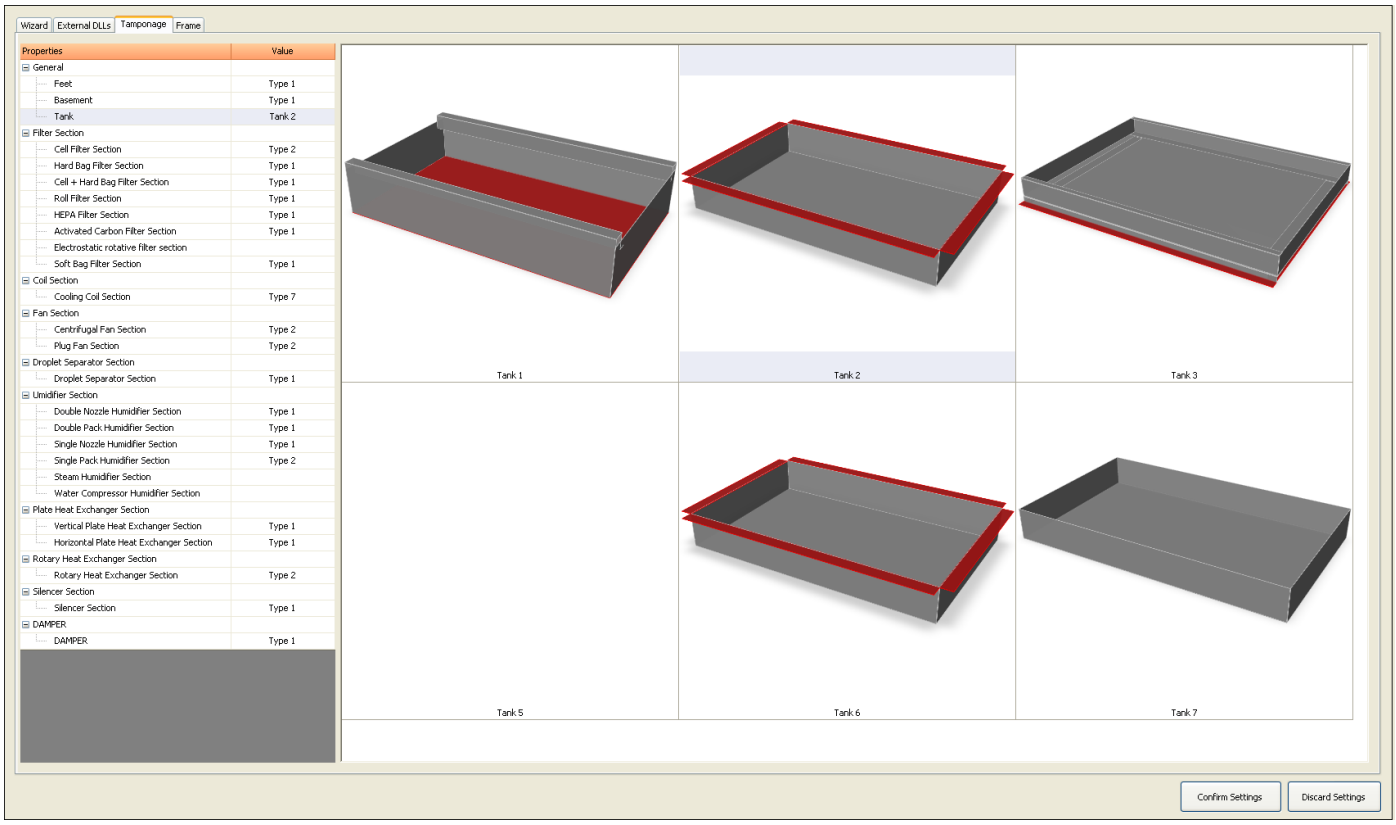
Now you pass in the TAB "Tampon age" where you can choose the kind of tamponage to use in the selection software:

You can see that tamponages are divided for type of section.



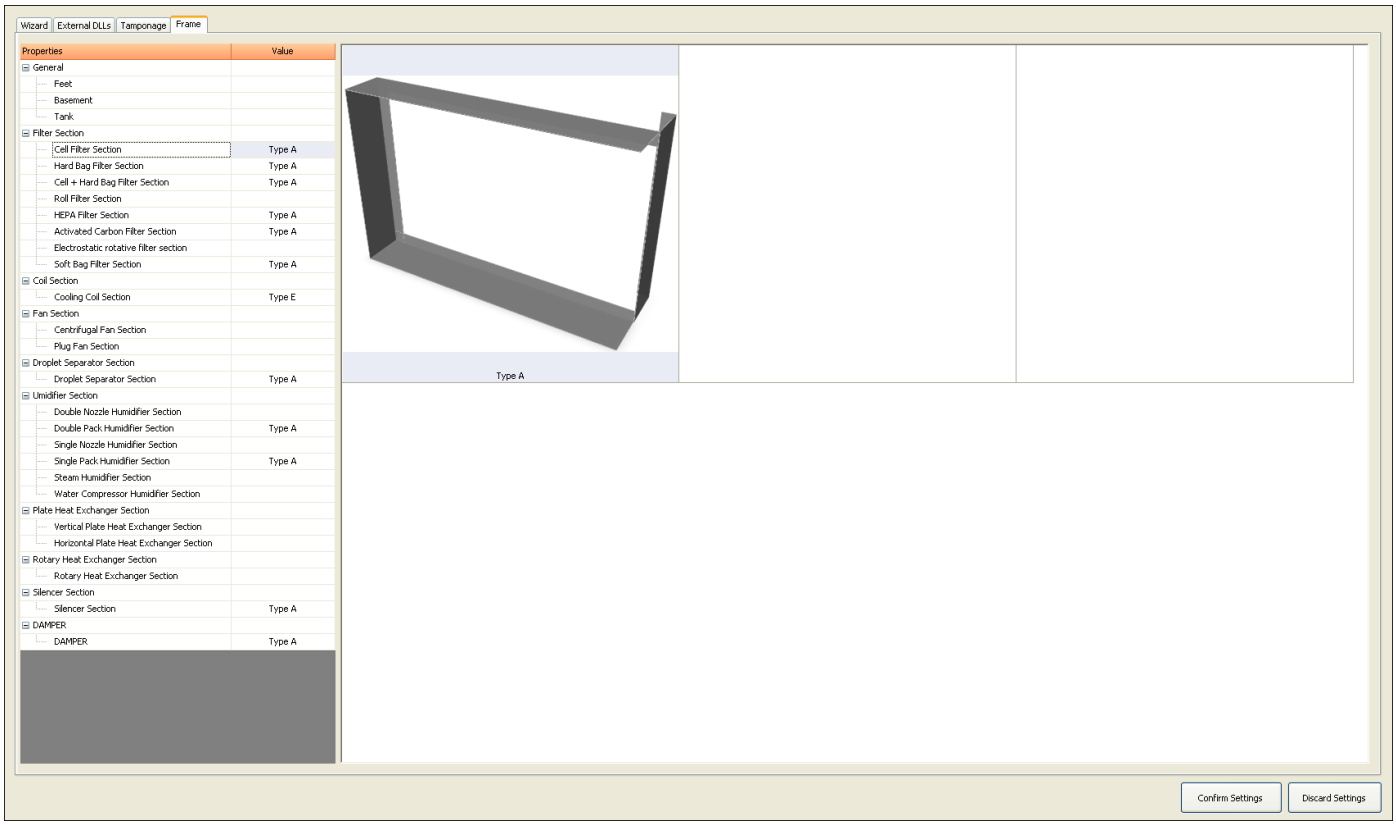
If you click on one of them, you can choose which kind of tamponage to use.
In fact, you, already can see that for each sections, there are values 1, 2, 3... etc.

In fact, for example, if you click on "Tank" you may have 5 type of tank to choose from:



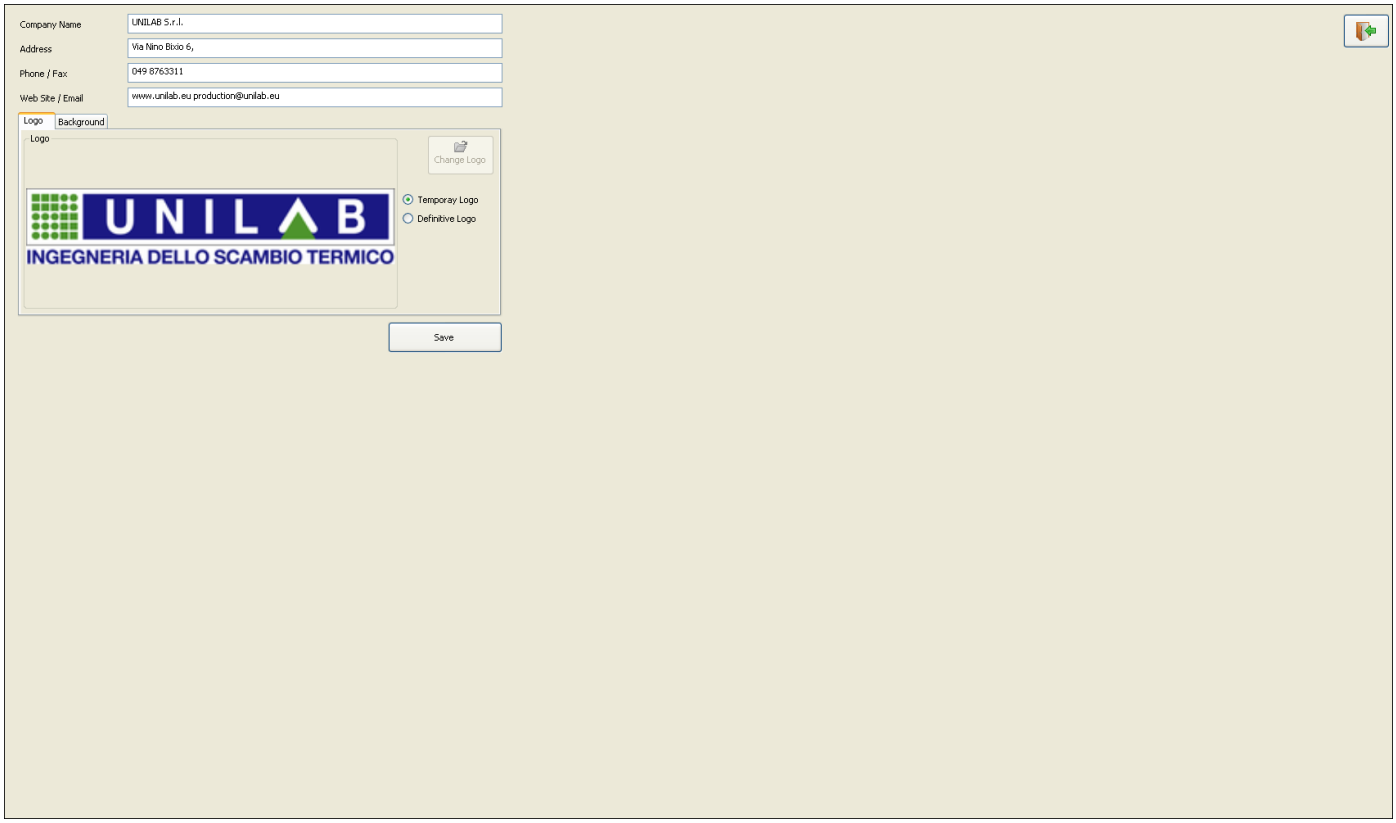
Now you pass in the TAB "Frame" where you can choose the kind of frames to use in the selection software:

You can see that frames are divided for type of section. And you have several type of frames to choose from.

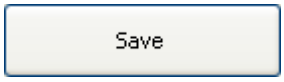


II. 1 Logo management

In this section you can change Company data (always), Company Logo (once a time) and the background splash.

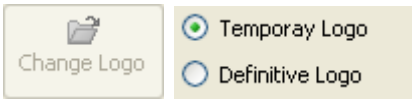


At the top right of window, you can quit from management

And on the bottom you can see the button 

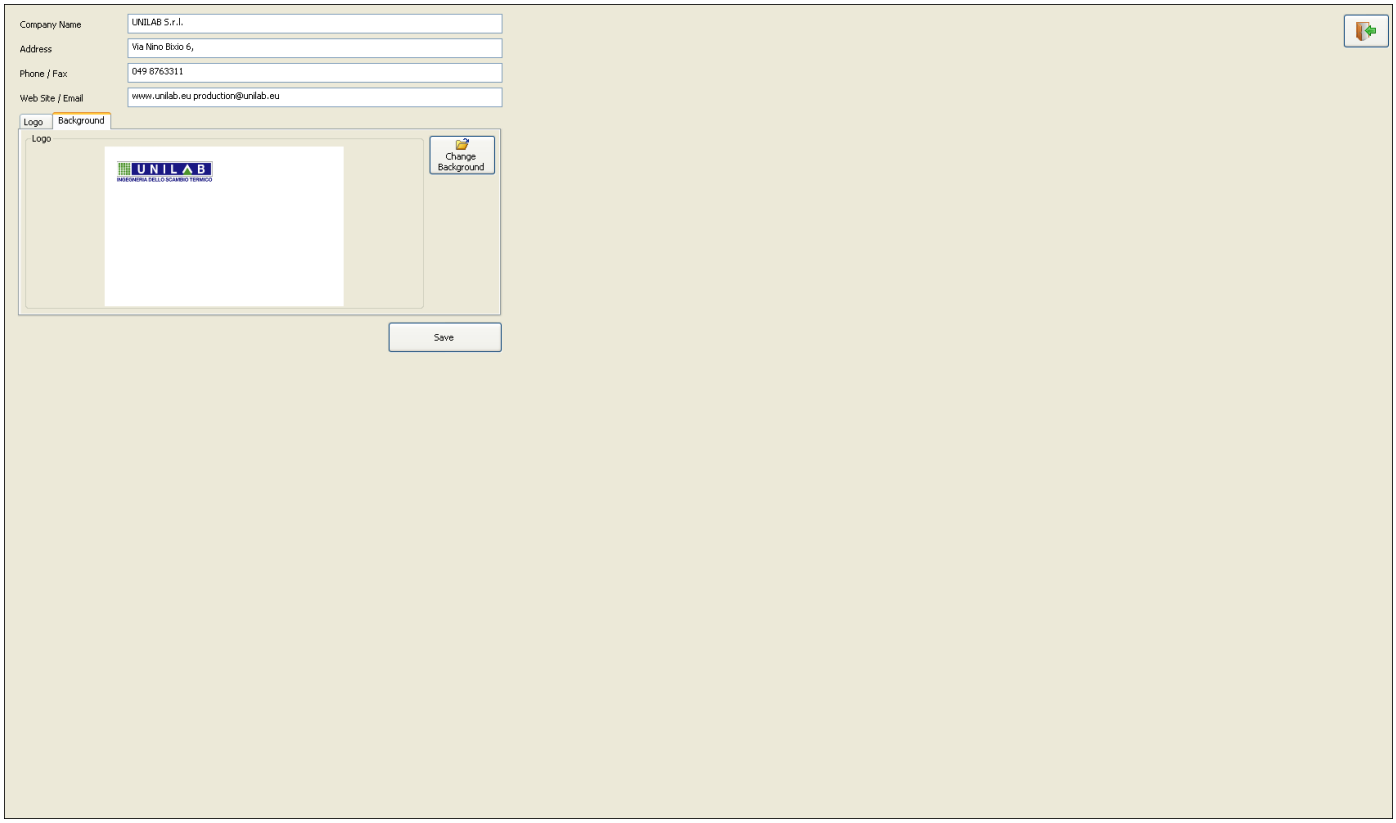
<u>Please remember always to save your work before leave the management.</u>

About logo:



If it's checked "Temporary Logo" you can change logo every time you want, but when you'll open the selection software it'll appear a message: "Temporary logo".
Instead if you click on "Definitive Logo" you can't no more change logo, but if you want to do it you've to contact UNILAB S.r.l.

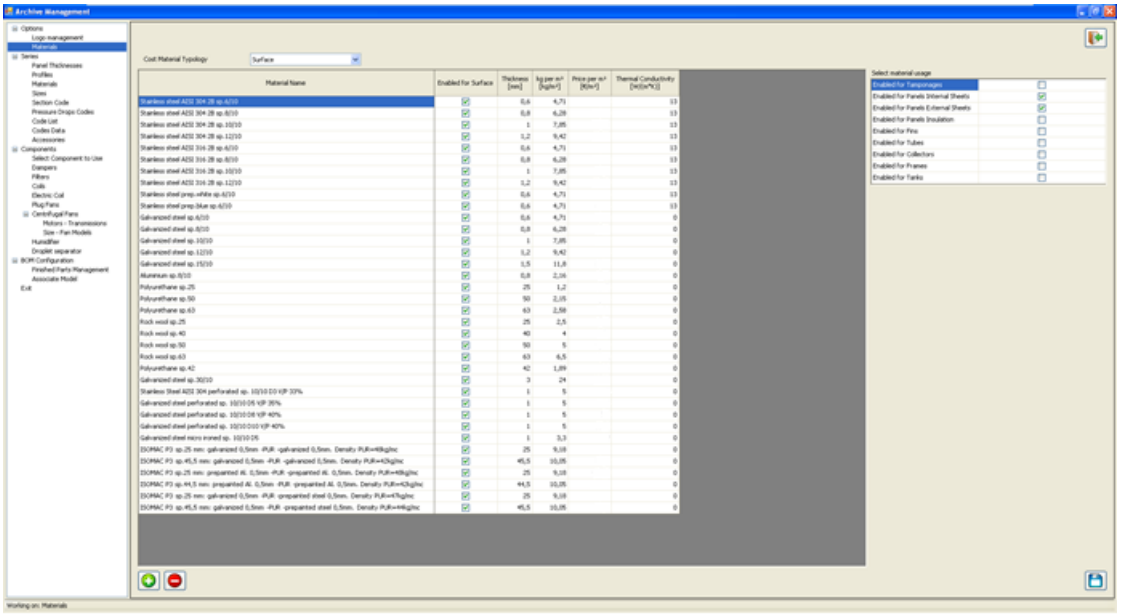
About, instead, background:



you can change it every time you want.

II. 2 Materials

In this section you can manage the materials used in the selection software.



*** Please note: prices and costs have been deleted from the images for privacy reasons.**

At the bottom of the window you find:

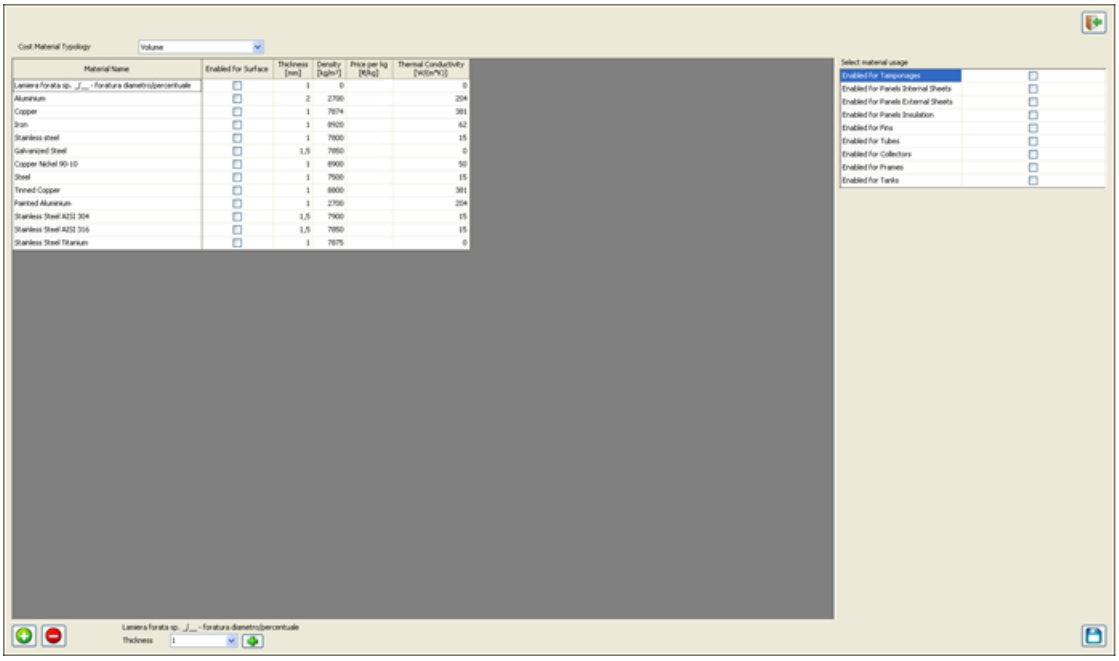
with this button you can add a new material.

with this button you can delete an inserted material.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

On the top of window, you can select if you want to calculate cost for surface or Volume. If you select "Volume" it will change the window. As you can see below:



*** Please note: prices and costs have been deleted from the images for privacy reasons.**

Considering "Cost Material Typology": Surface these are the values to introduce:

Material Name	Enabled for Surface	Thickness [mm]	kg per m² [kg/m²]	Price per m² [€/m²]	Thermal Conductivity [W/(m*K)]

Material Name — It's a description of material.

Enabled for Surface — If you check this option, it means that you use this material with calculation with Surface.

Thickness [mm] — Material thickness in [mm].

kg per m² [kg/m²] — Since you're using a Surface calculation you've to introduce the weight on Surface.

Price per m² [€/m²] Since you're using Surface calculation, you've to introduce the material price for Surface.

Thermal Conductivity [W/(m*K)] Thermal material conductivity in [W/mK].

Considering "Cost Material Typology": Volume, these are the values to introduce:

Material Name	Enabled for Surface	Thickness [mm]	Density [kg/m³]	Price per kg [€/kg]	Thermal Conductivity [W/(m*K)]

Material Name It's a description of material.

Thickness [mm] Material thickness in [mm].

Density [kg/m³] Since you're using a Volume calculation you've to introduce the material density.

Price per kg [€/kg] Since you're using Volume calculation, you've to introduce the material price for weight.

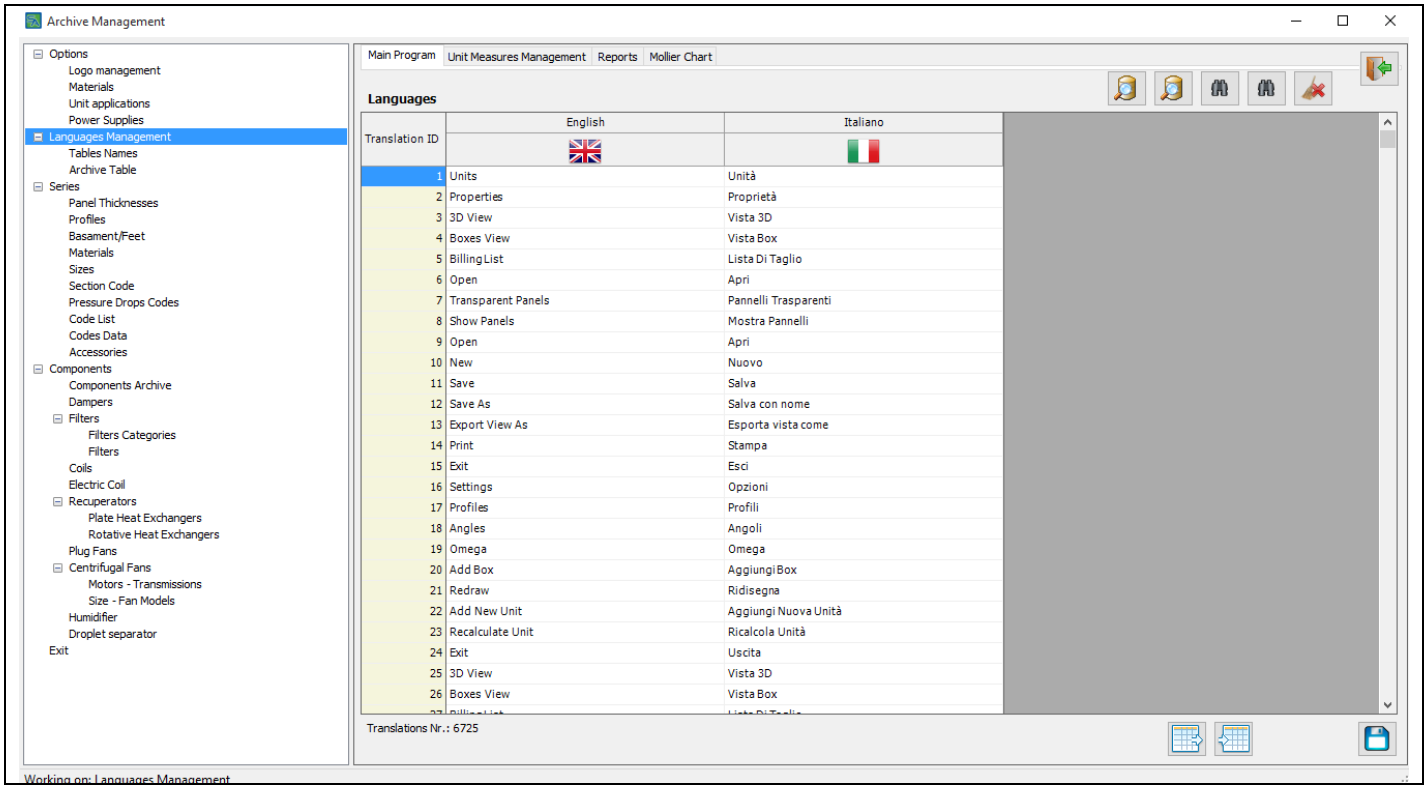
Thermal Conductivity [W/(m*K)] Thermal material conductivity in [W/mK].

Finally, on the right of the window you've to check the use of selected material.

Select material usage	
Enabled for Tamponages	☐
Enabled for Panels Internal Sheets	☑
Enabled for Panels External Sheets	☑
Enabled for Panels Insulation	☐
Enabled for Fins	☐
Enabled for Tubes	☐
Enabled for Collectors	☐
Enabled for Frames	☐
Enabled for Tanks	☐

III. Language Management

In this part, you can manage the words of the software.



with this button, you can search with the ID word

with this button, you can search text

with this button, you can clear research

At the bottom of the window you find:

this button let you to import an excel file;

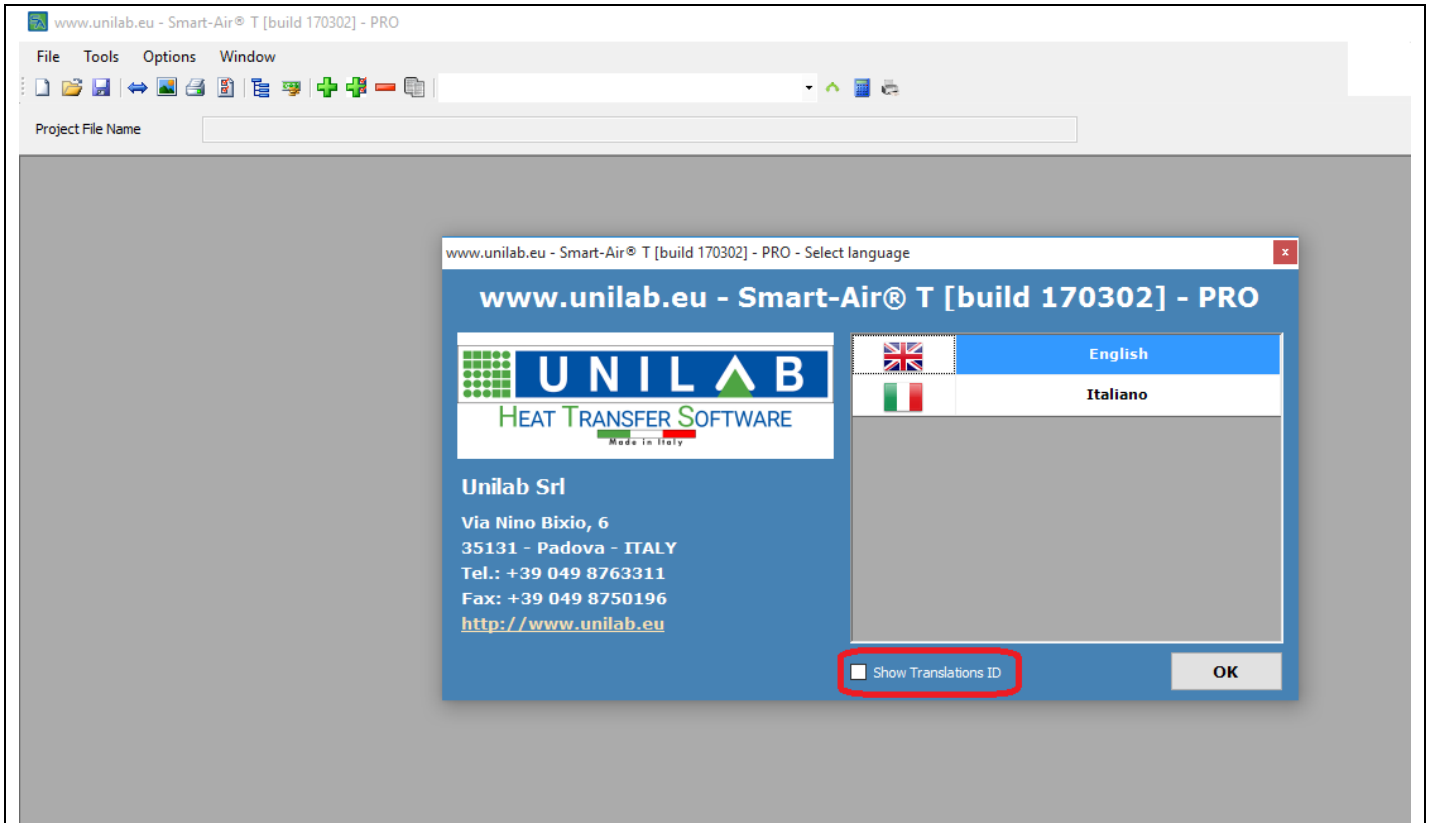
this button let you to export an excel file;

with this button, you can save modifies.

At the top right of window, you can quit from management

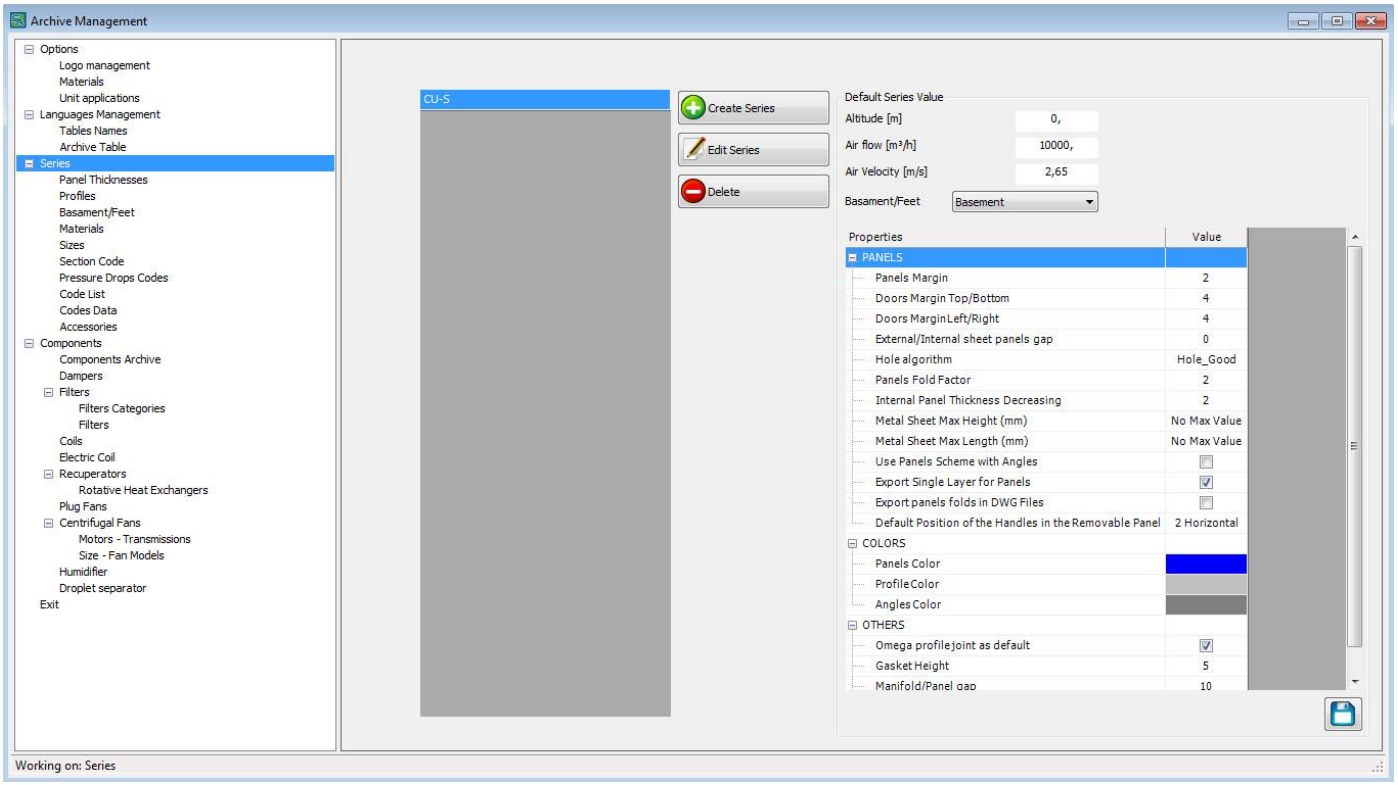
III.1 ID language management

In order to find inside the software the ID for words, you need to enter in the menu “Change Language” and check “Show translation ID”

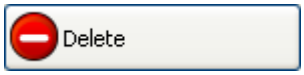


IV. Series

Clicking on "Series" you can finally create your own machine series.
To help you in this work, there is always a default series in the Management, so you can see what kind of values are necessary.

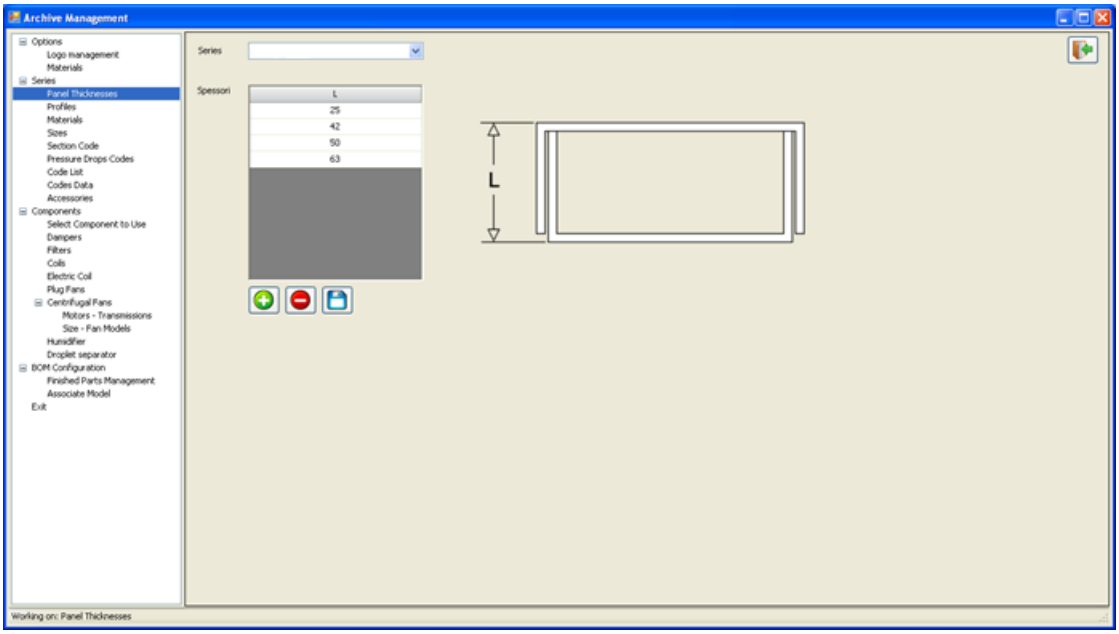


When you click on this button, software will duplicate the existing series.



If you click on this button, you'll delete the selected series.

IV. 1 Panel Thickness



At the top right of window, you can quit from management

At the bottom of the window you find:

with this button you can add a new thickness.

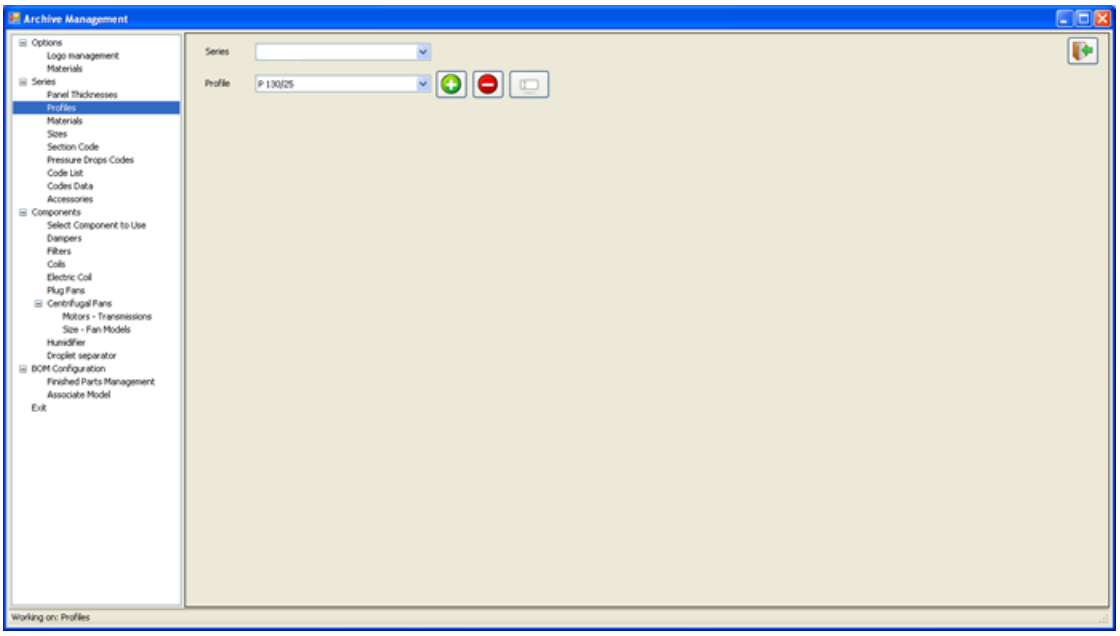
with this button you can delete an inserted thickness.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

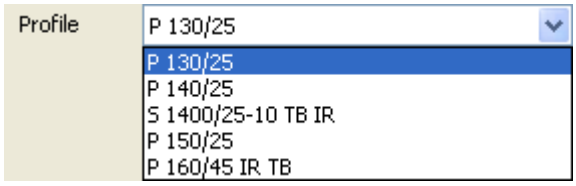
Besides, always in the middle of window you can see an illustrative image.

IV. 2 Profiles



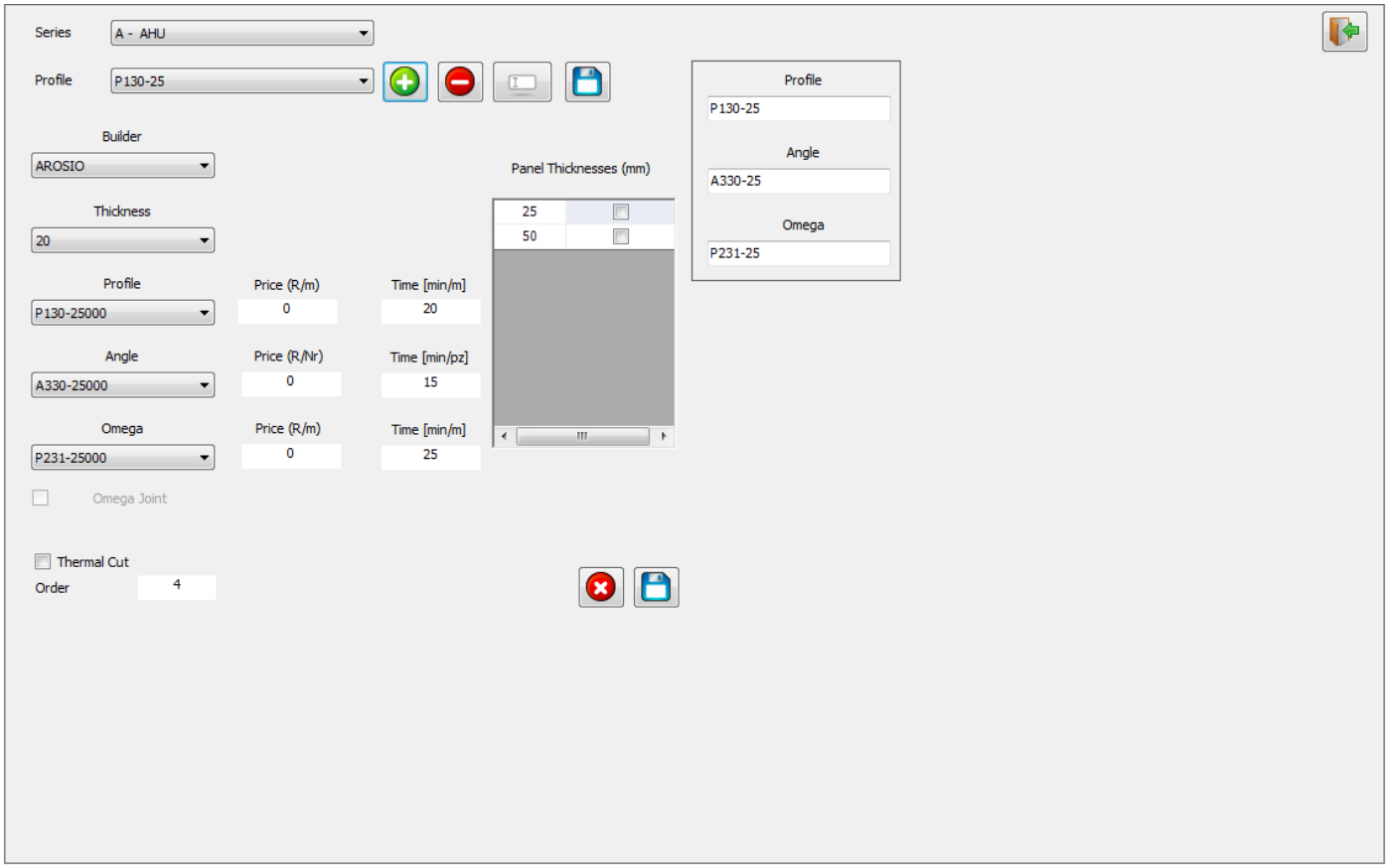
At the top right of window, you can quit from management

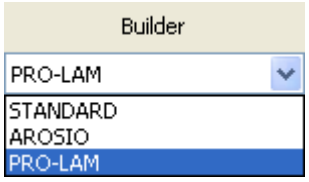
here you can choose the serie to which add/delete/modify profiles.



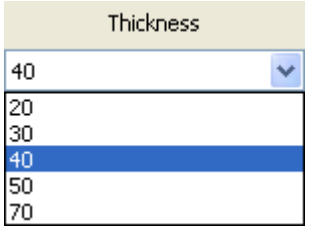
In this list you can see the possible profile, for the selected serie, you can choose to select the unit.

with this button you can add a new profile. If you click on it:

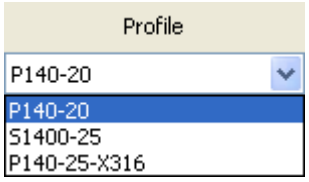




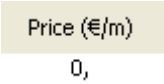
In this drop down menu you can choose the profile builder (Builders are uploaded into database by UNILAB S.r.l.)



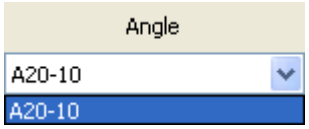
In this drop down menu you can choose the profile thickness (Thickness are uploaded into database by UNILAB S.r.l. and they are related to Builders)



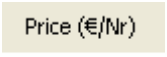
In this drop down menu you can choose the profiles (Profiles are uploaded into database by UNILAB S.r.l. and they are related to Builders)



Next to the "Profile" you can find the related price. You can insert the price you want related to profile.

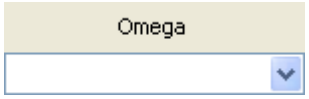


In this drop down menu you can choose the angle. (Angles are uploaded into database by UNILAB S.r.l. and they are related to Builders and profile thickness)



0,

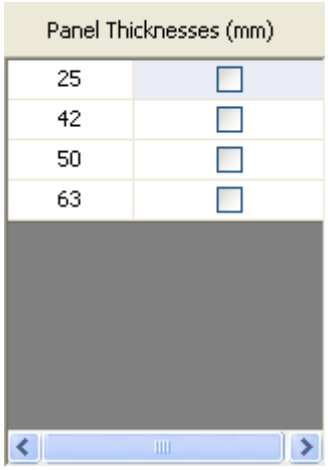
Next to the "Angle" you can find the related price. You can insert the price you want related to angle.



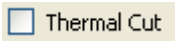
In this drop down menu you can choose the Omega (Omega are uploaded into database by UNILAB S.r.l. and they are related to Builders)

0,

Next to the "Omega" you can find the related price. You can insert the price you want related to profile



After you've created the new profile, you've to associate it to Panel Thickness. You can check more than one Panel Thickness.



If you check this option, the profile you've created will have Thermal cut.

1,

: This option let you to choose the position on Profile into the Profile drop down menu.

Once you've finished you can:

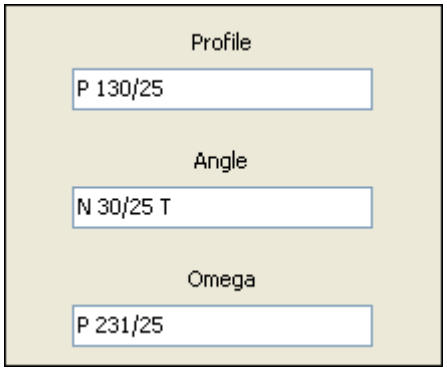
delete the created profile.

or save created profile.

<u>Please remember always to save your work before leave the management.</u>

with this button you can delete an inserted profile from Profile drop down menu.

With this button you can edit information profiles. In fact if you click on this button:

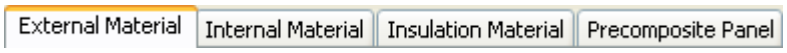


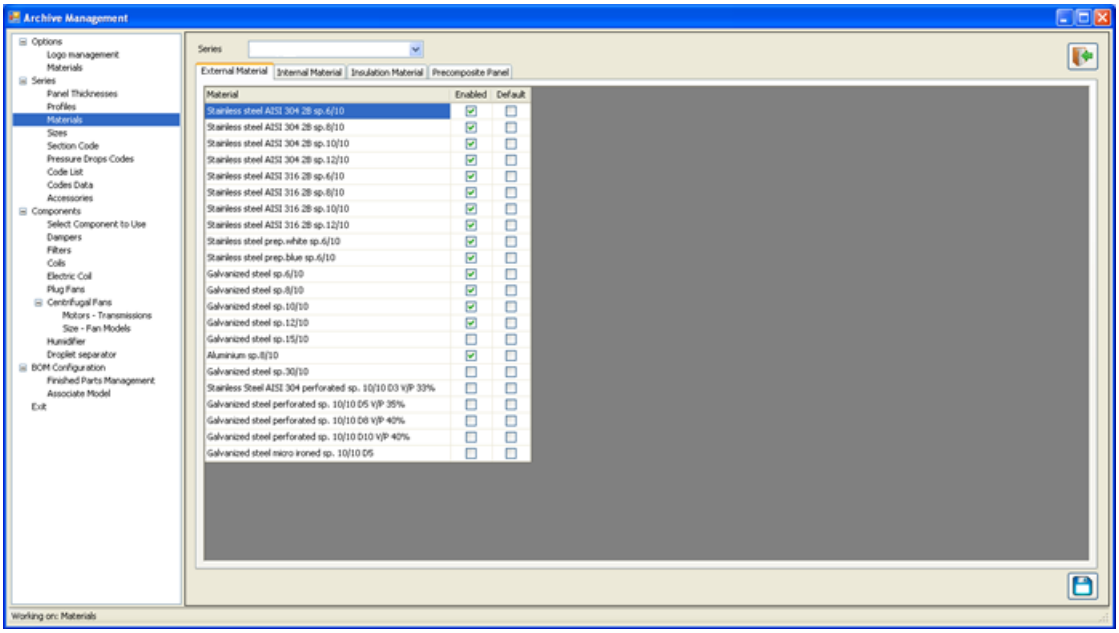
it will appear this window where you can edit descriptions of profile characteristics.

Finally, once you've modified, created profiles, please, remember always to:

IV. 3 Materials

Do you remember that in the section Option -> Materials you've inserted all materials you want to use into the software? And do you remember that you've associated each material to a use?
Well here you can find all material you've associated to External, Internal, Insulation Panel Material and Precomposite Panel.



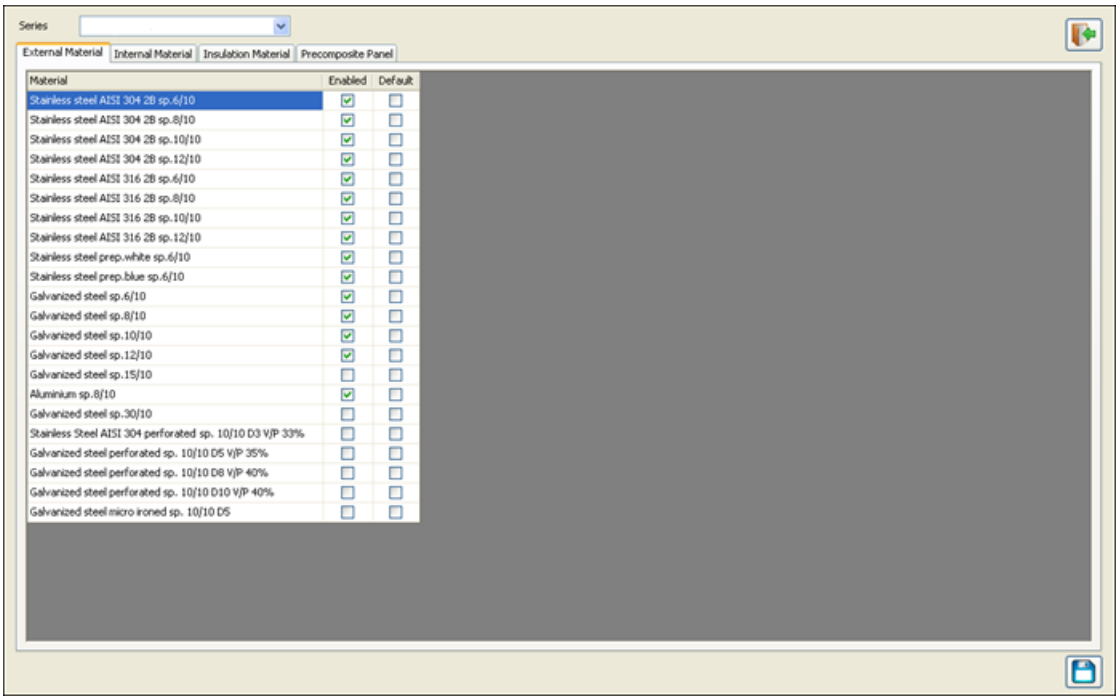


At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

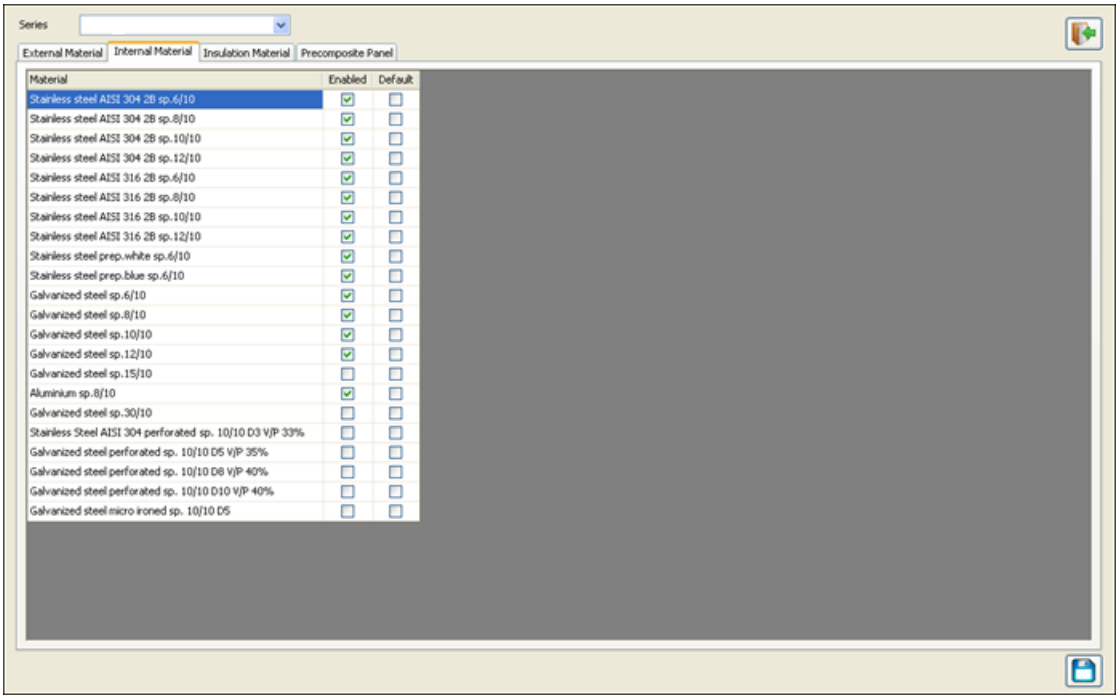
here you can choose the serie.



Here you can choose the External material.

Enabled If you check this option, it means that you find this material in the list of possible material used by Selection Software.

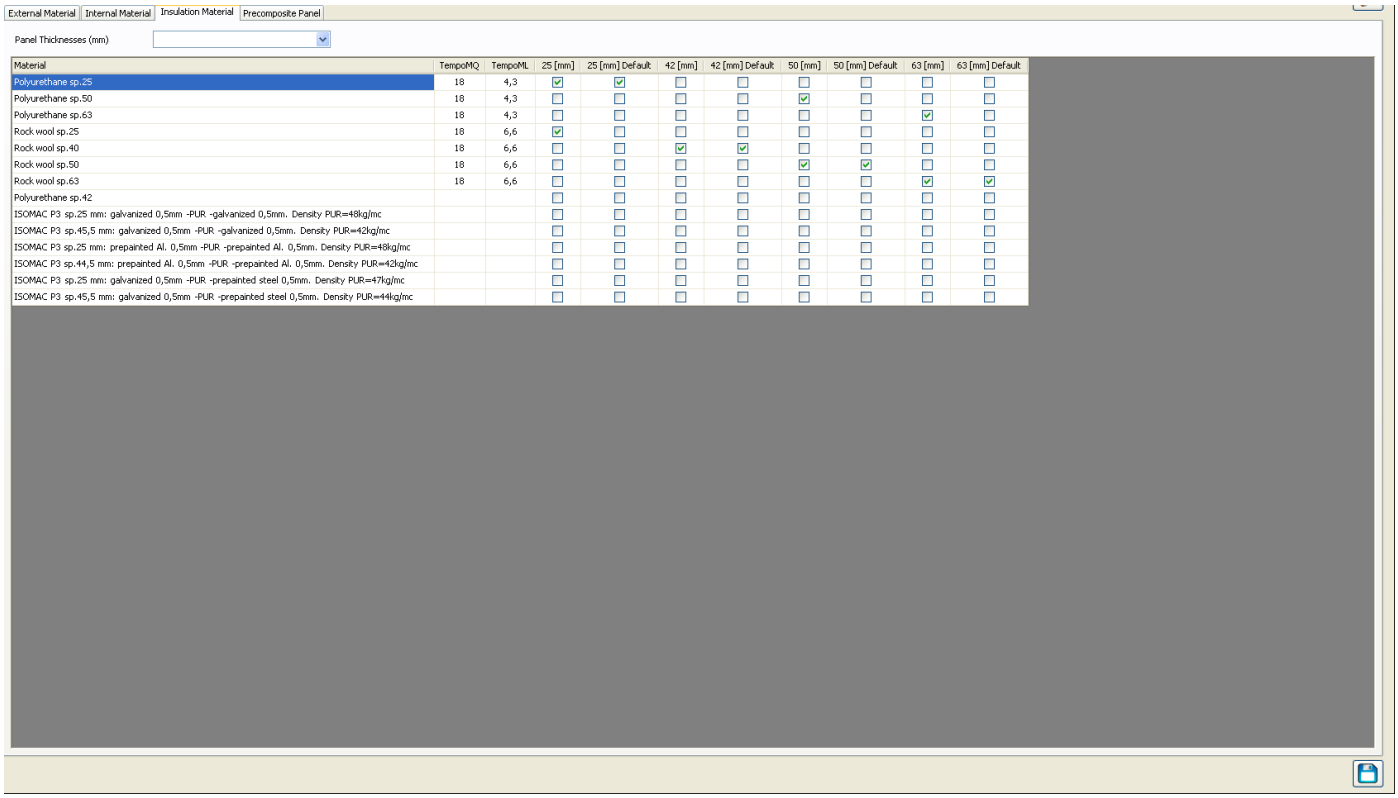
Default If you check this option, it means that this material is the Default material with which starts Selection Software. Obvious you can check only one material as Default.



Here you can choose the Internal material.

Enabled If you check this option, it means that you find this material in the list of possible material used by Selection Software.

Default If you check this option, it means that this material is the Default material with which starts Selection Software. Obvious you can check only one material as Default.



Material	TempoMQ	TempoML	25 [mm]	25 [mm] Default	42 [mm]	42 [mm] Default	50 [mm]	50 [mm] Default	63 [mm]	63 [mm] Default
Polyurethane sp.25	18	4,3	☑	☑	☐	☐	☐	☐	☐	☐
Polyurethane sp.50	18	4,3	☐	☐	☐	☐	☑	☐	☐	☐
Polyurethane sp.63	18	4,3	☐	☐	☐	☐	☐	☐	☑	☐
Rock wool sp.25	18	6,6	☑	☐	☐	☐	☐	☐	☐	☐
Rock wool sp.40	18	6,6	☐	☐	☑	☑	☐	☐	☐	☐
Rock wool sp.50	18	6,6	☐	☐	☐	☐	☑	☑	☐	☐
Rock wool sp.63	18	6,6	☐	☐	☐	☐	☐	☐	☑	☑
Polyurethane sp.42			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.25 mm: galvanized 0,5mm -PUR -galvanized 0,5mm. Density PUR=48kg/mc			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.45,5 mm: galvanized 0,5mm -PUR -galvanized 0,5mm. Density PUR=42kg/mc			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.25 mm: prepainted Al. 0,5mm -PUR -prepainted Al. 0,5mm. Density PUR=48kg/mc			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.44,5 mm: prepainted Al. 0,5mm -PUR -prepainted Al. 0,5mm. Density PUR=42kg/mc			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.25 mm: galvanized 0,5mm -PUR -prepainted steel 0,5mm. Density PUR=47kg/mc			☐	☐	☐	☐	☐	☐	☐	☐
ISOMAC P3 sp.45,5 mm: galvanized 0,5mm -PUR -prepainted steel 0,5mm. Density PUR=44kg/mc			☐	☐	☐	☐	☐	☐	☐	☐

Here you can check Insulation Material related to Panel Thickness.

Choosing one or another panel thickness you can view only the columns with the chosen Panel Thicknesses

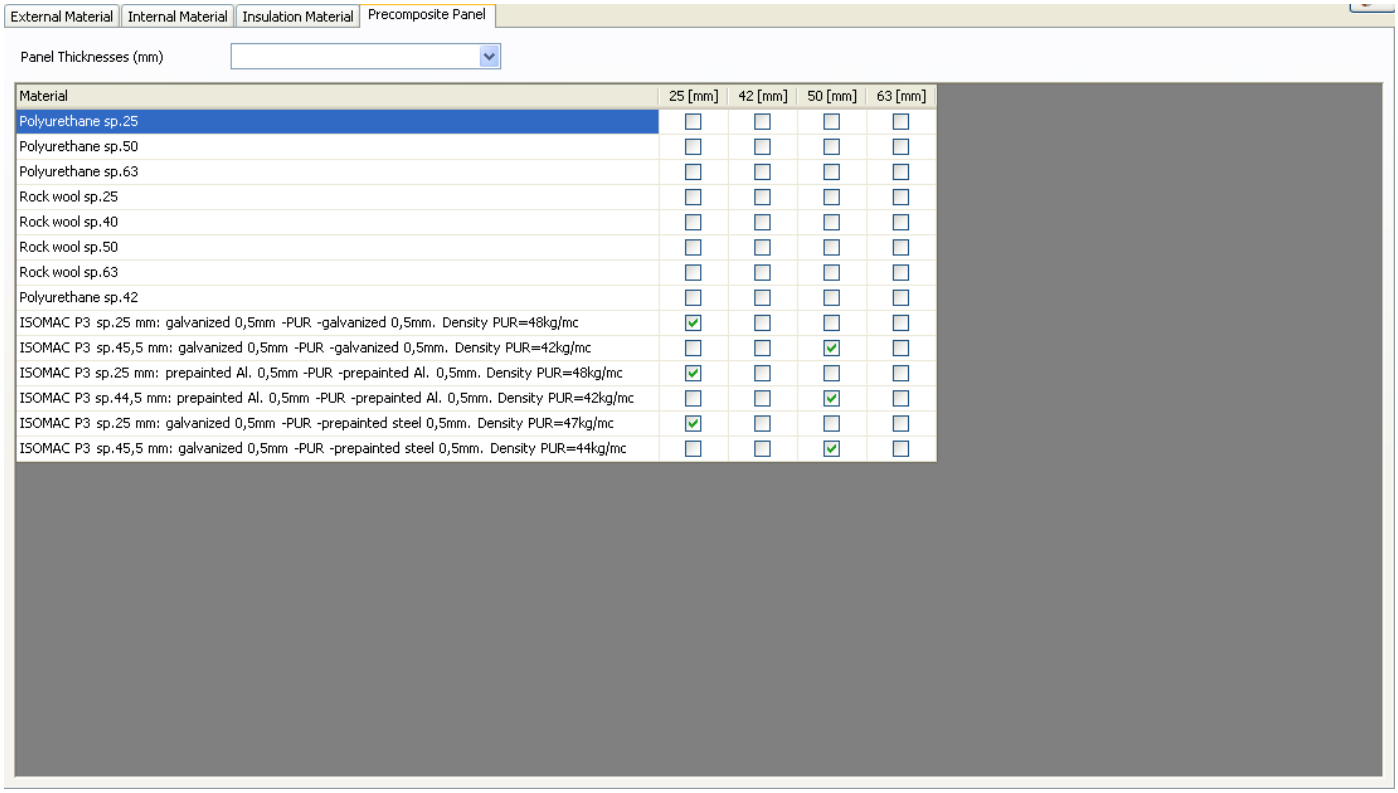
Material Here you can view the list of possible insulation material

TempoMQ Here you can input how many times take the material manufacturing per square meter.

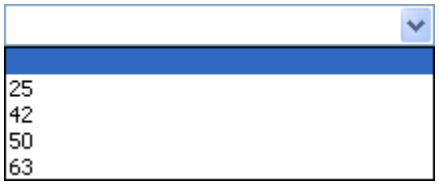
TempoML Here you can input how many times take the material manufacturing per linear meter.

25 [mm] If you check this kind of option, you can create a panel with the possible insulation material checked. You can make more than one check in the columns.

25 [mm] Default. If you check this kind of option you can create a Default panel, with this insulation material, to view at starting of Selection software. You can make only one check in the columns.



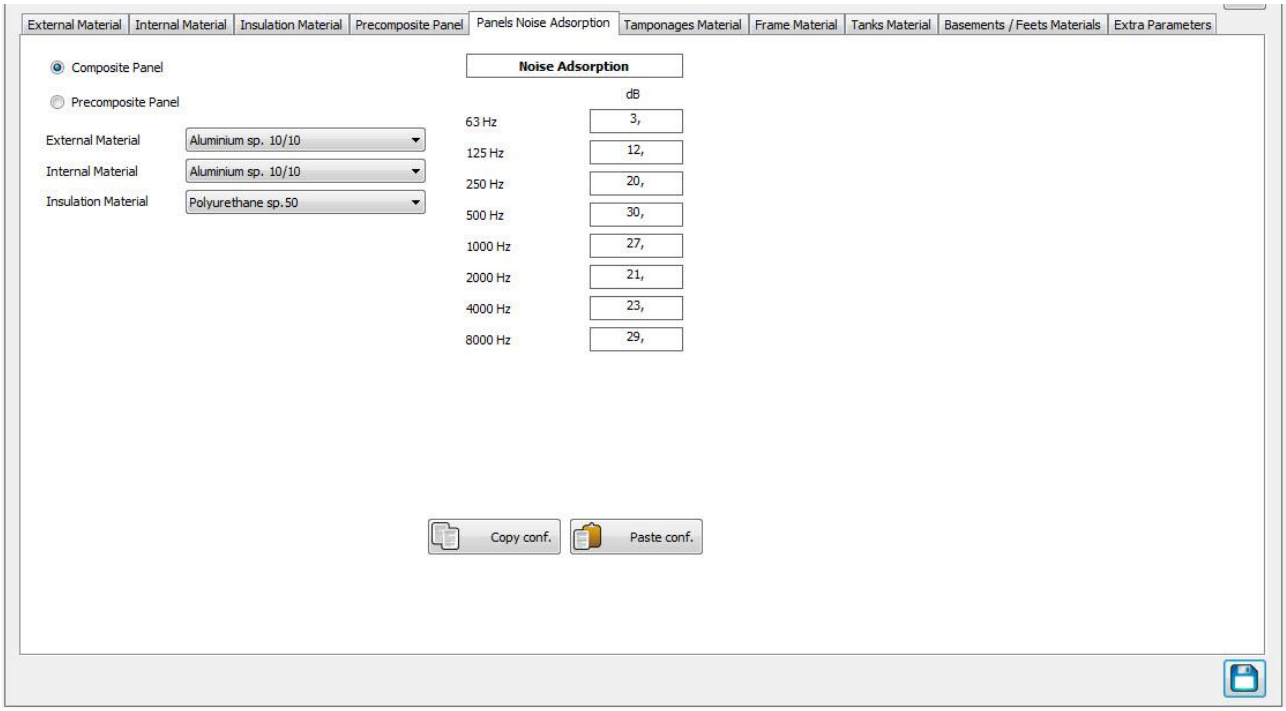
Here you can select the precomposite panels at changing of Panel thickness.



Choosing one or another panel thickness you can view only the columns with the chosen Panel Thicknesses.

IV.3.1 How to make sure that software calculates outside noise machine

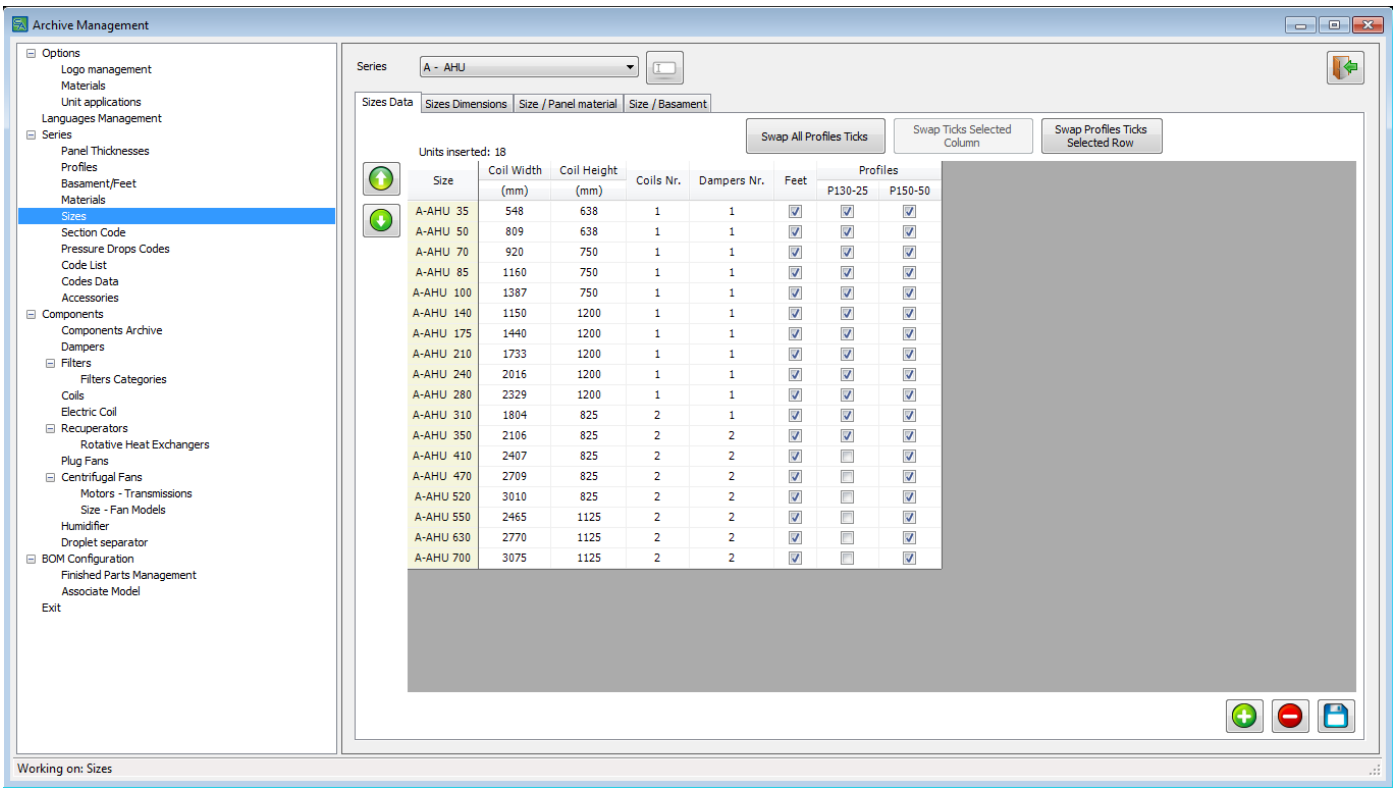
Leads through the fan DLL we can calculate the internal noise of the machine, but to make sure you get the external one, we have to insert the sound absorption panels.
At the step Wizard Series - >> Materials -> Panel Noise Adsorption



If the panels used are manufactured within its own Company, then for each combination of material used for the panels must insert the sound absorption.
Otherwise, if you use precomposed panels, the absorption should be inserted for each of them.

IV. 4 Sizes

In this section, you can add for the selected Series sizes.



At the top right of window, you can quit from management

At the bottom of the window you find:

with this button you can add a new size.

with this button you can delete an inserted size.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

here you can choose the serie.

If you click on this button, you can change the series name.

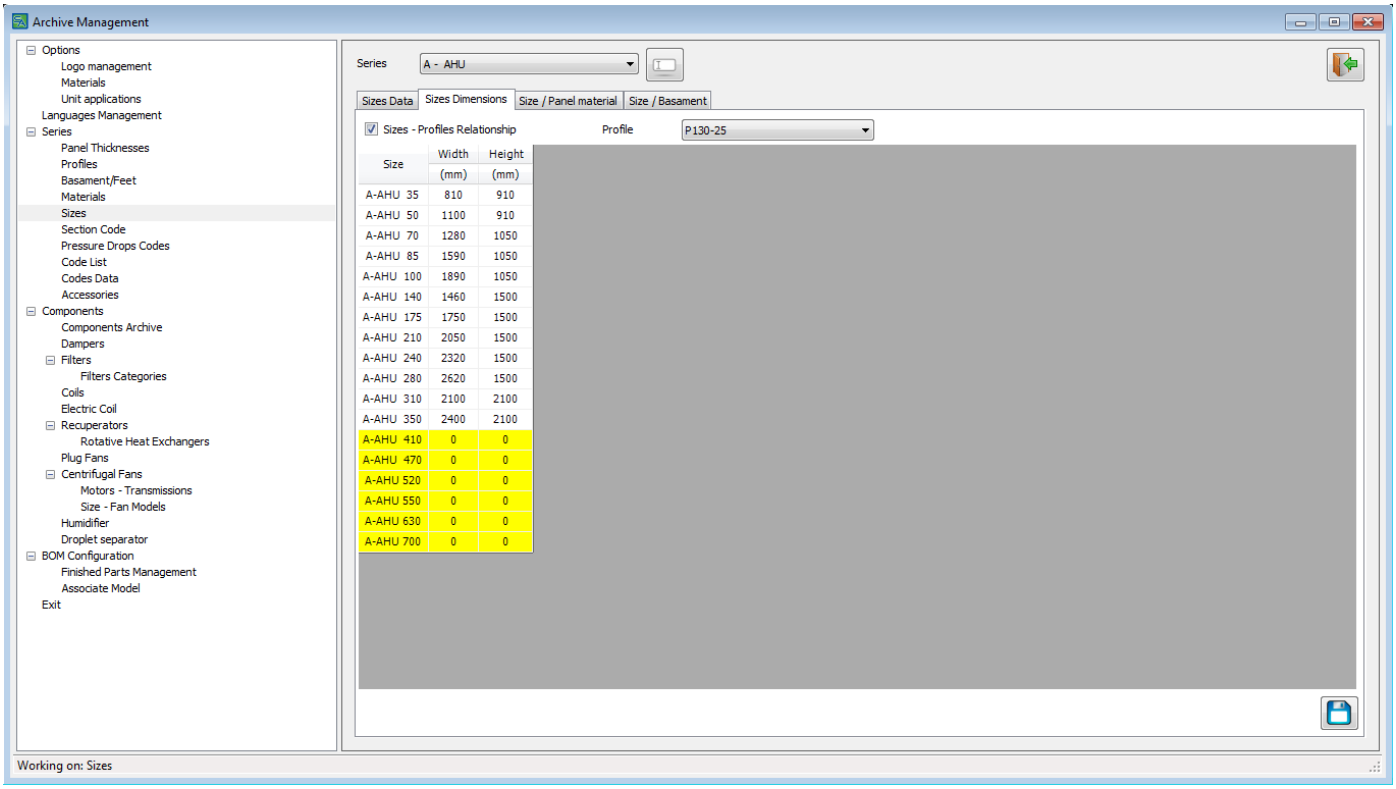
This button let you to uncheck all profiles.

This button let you to uncheck all profiles from the selected column.

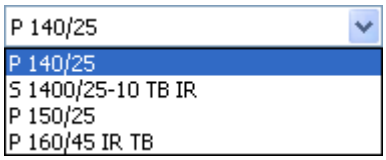
This button let you to uncheck all profiles from the selected row.

This button let you to move up the selected size.

This button let you to move down the selected size.

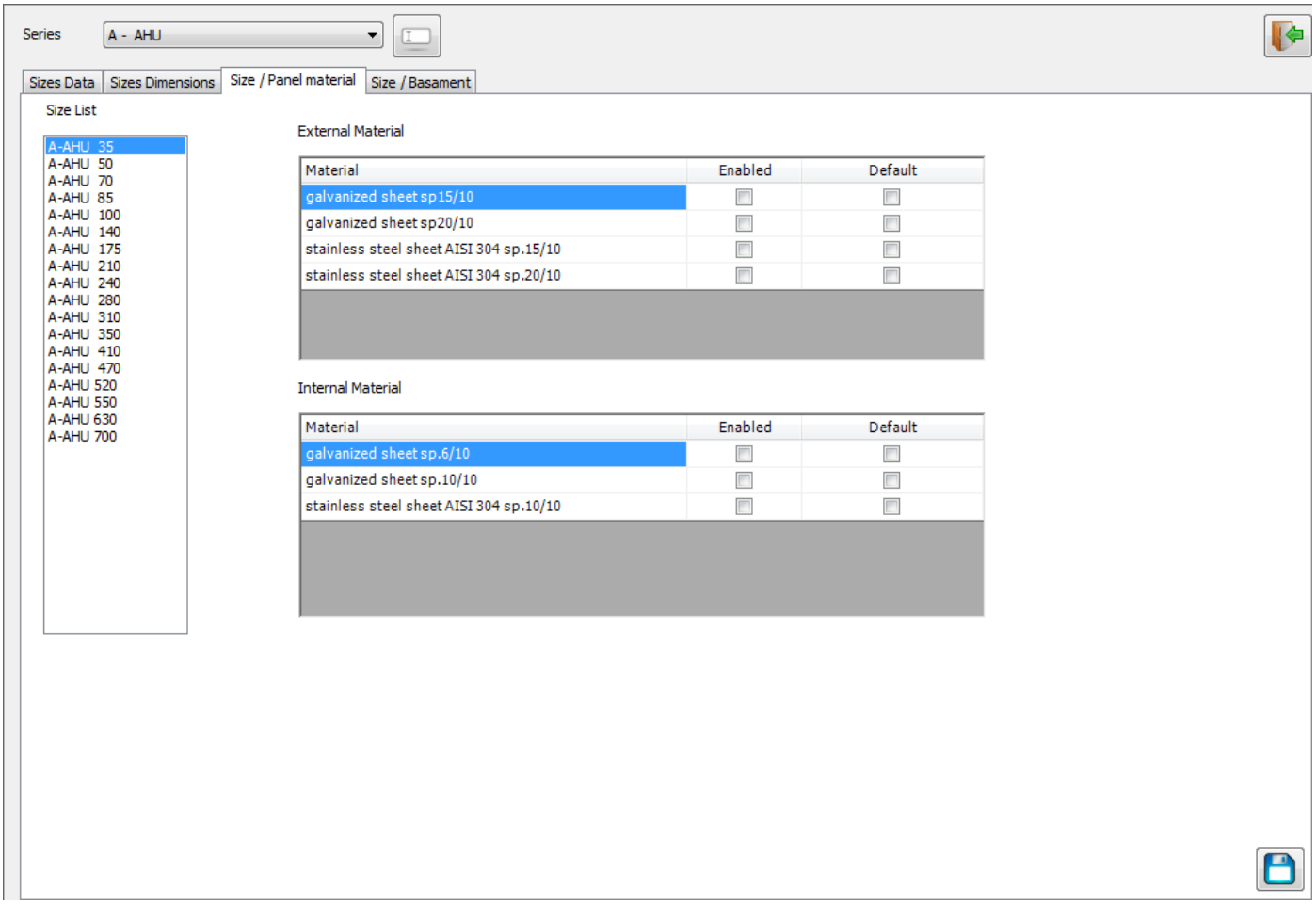


In the section "Sizes Dimensions" you've to input the external dimensions for each size, related to the chosen profile.



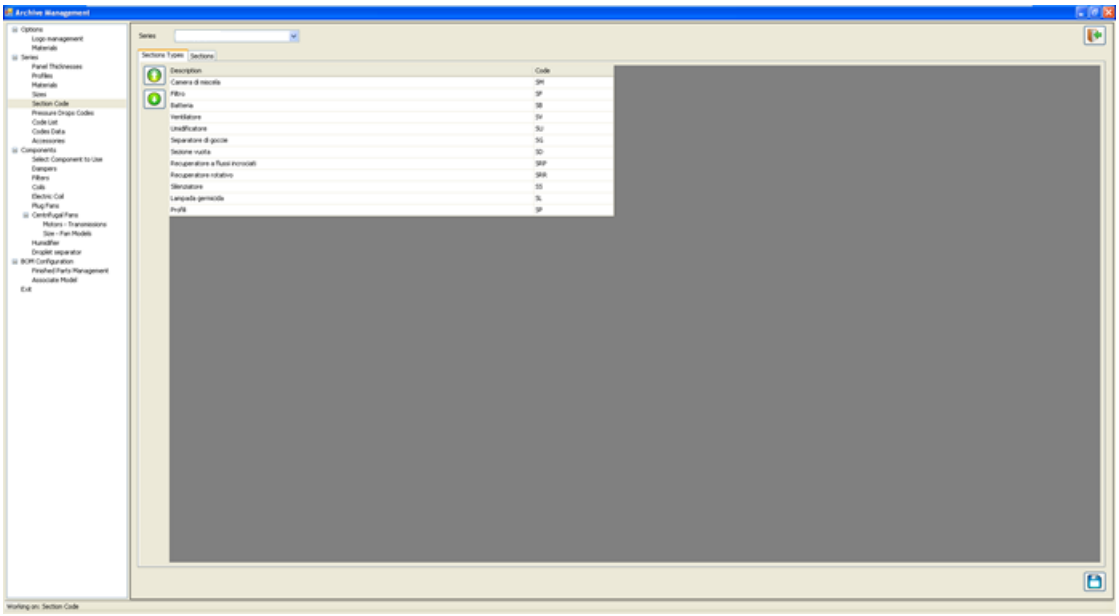
Possible profiles.

In Size/Panel material if you want to associate for each size different panel material, you can do it there.
The difference in Series -> Materials is that in this section the material is always the same for each size.



In Size/Basement you associate to different sizes or Feet or Base steel.
The difference with the section Series -> Basement/Feet is that there you associate to all unit size or basement or feet.

IV. 5 Section Code



At the top right of window, you can quit from management

At the bottom of the window you find:

with this button you can add a new thickness.

with this button you can delete an inserted thickness.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

Series here you can choose the serie.

This button let you to move up the selected Code.

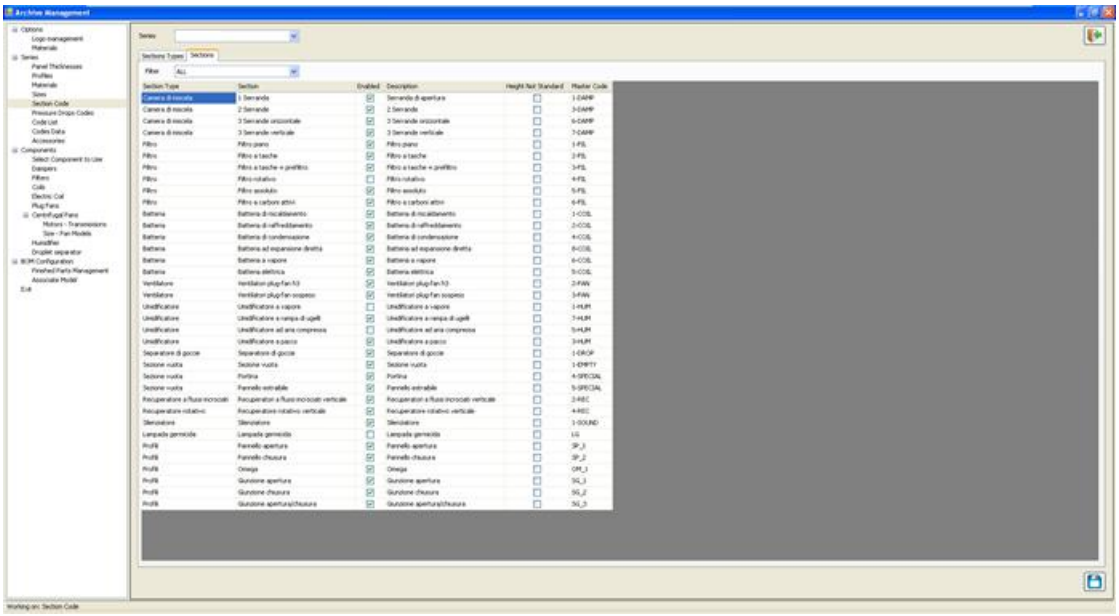
This button let you to move down the selected Code

In the main page:

Description: the code description. It's not modifiable.

Code: you can input the code for each section. This code will be visible in the selection software and it will be necessary to choose the section type.

In the section "Sections":



Section Type They have the same Description of Section Types, but for each typology there are more than one because in the Software selection there are more than one image related to the same kind of section.

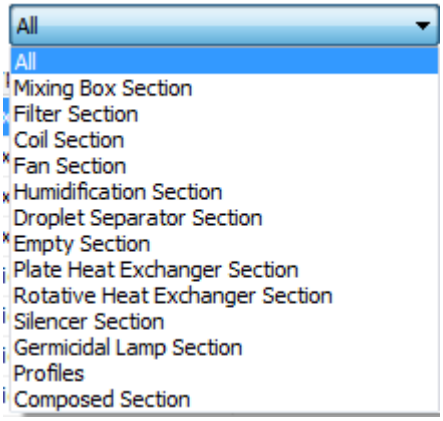
Section It' a description of the Section type.

Enabled If you check this option, you'll have the section in the software selection.

Description It' a description of the Section type and it's editable.

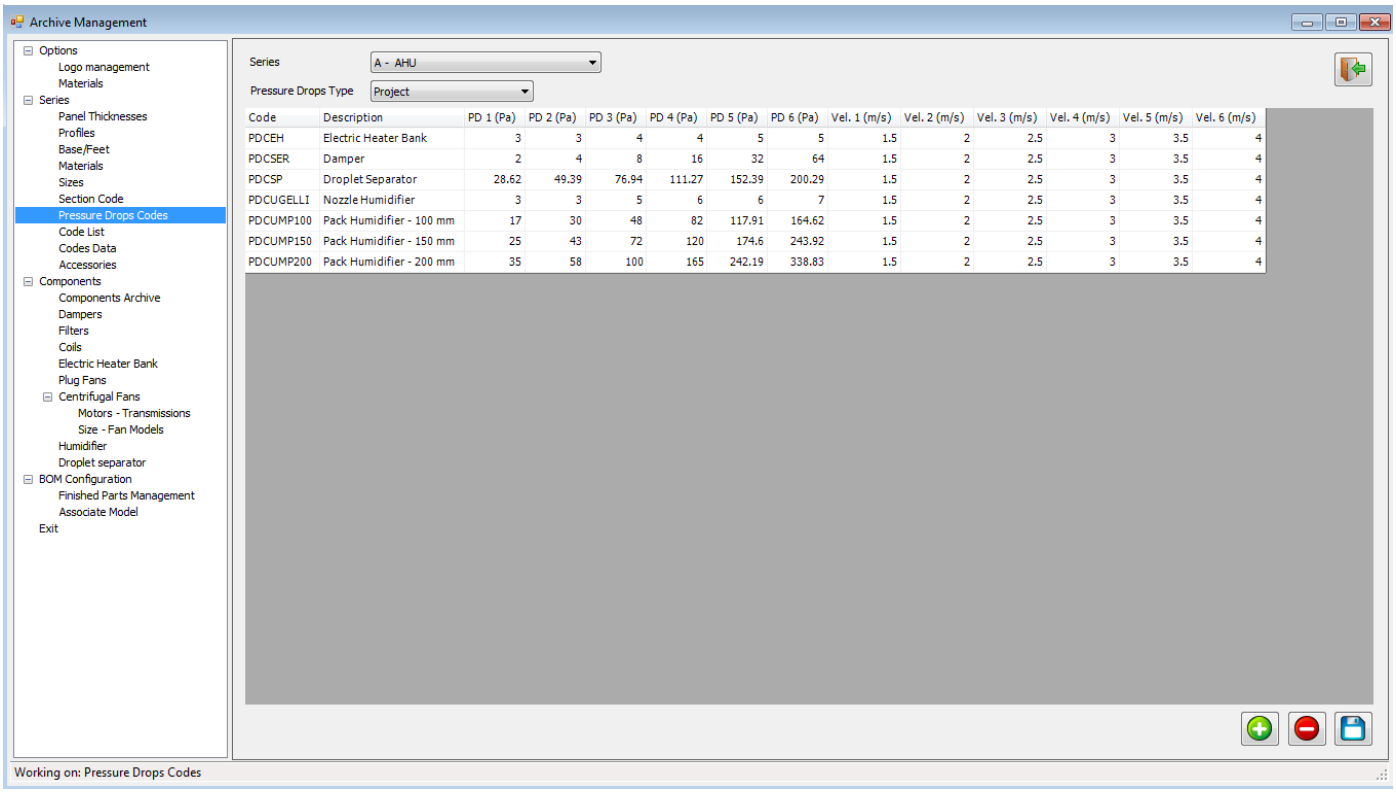
Height Not Standard If you check this option it means that if you have a Unit with two floors, the second floor has not the same height of the first one.

Master Code It' s the code to identify the single image of each kind of section.



If you select one of this filter, you can view only the selected kind of section.

IV. 6 Pressure Drops Codes



Code	Description	PD 1 (Pa)	PD 2 (Pa)	PD 3 (Pa)	PD 4 (Pa)	PD 5 (Pa)	PD 6 (Pa)	Vel. 1 (m/s)	Vel. 2 (m/s)	Vel. 3 (m/s)	Vel. 4 (m/s)	Vel. 5 (m/s)	Vel. 6 (m/s)
PDCEH	Electric Heater Bank	3	3	4	4	5	5	1.5	2	2.5	3	3.5	4
PDCSER	Damper	2	4	8	16	32	64	1.5	2	2.5	3	3.5	4
PDCSP	Droplet Separator	28.62	49.39	76.94	111.27	152.39	200.29	1.5	2	2.5	3	3.5	4
PDCUGELLI	Nozzle Humidifier	3	3	5	6	6	7	1.5	2	2.5	3	3.5	4
PDCUMP100	Pack Humidifier - 100 mm	17	30	48	82	117.91	164.62	1.5	2	2.5	3	3.5	4
PDCUMP150	Pack Humidifier - 150 mm	25	43	72	120	174.6	243.92	1.5	2	2.5	3	3.5	4
PDCUMP200	Pack Humidifier - 200 mm	35	58	100	165	242.19	338.83	1.5	2	2.5	3	3.5	4

At the top right of window, you can quit from management

At the bottom of the window you find:

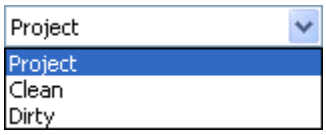
with this button you can add a new pressure drops.

with this button you can delete an inserted pressure drops.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

Series here you can choose the series.



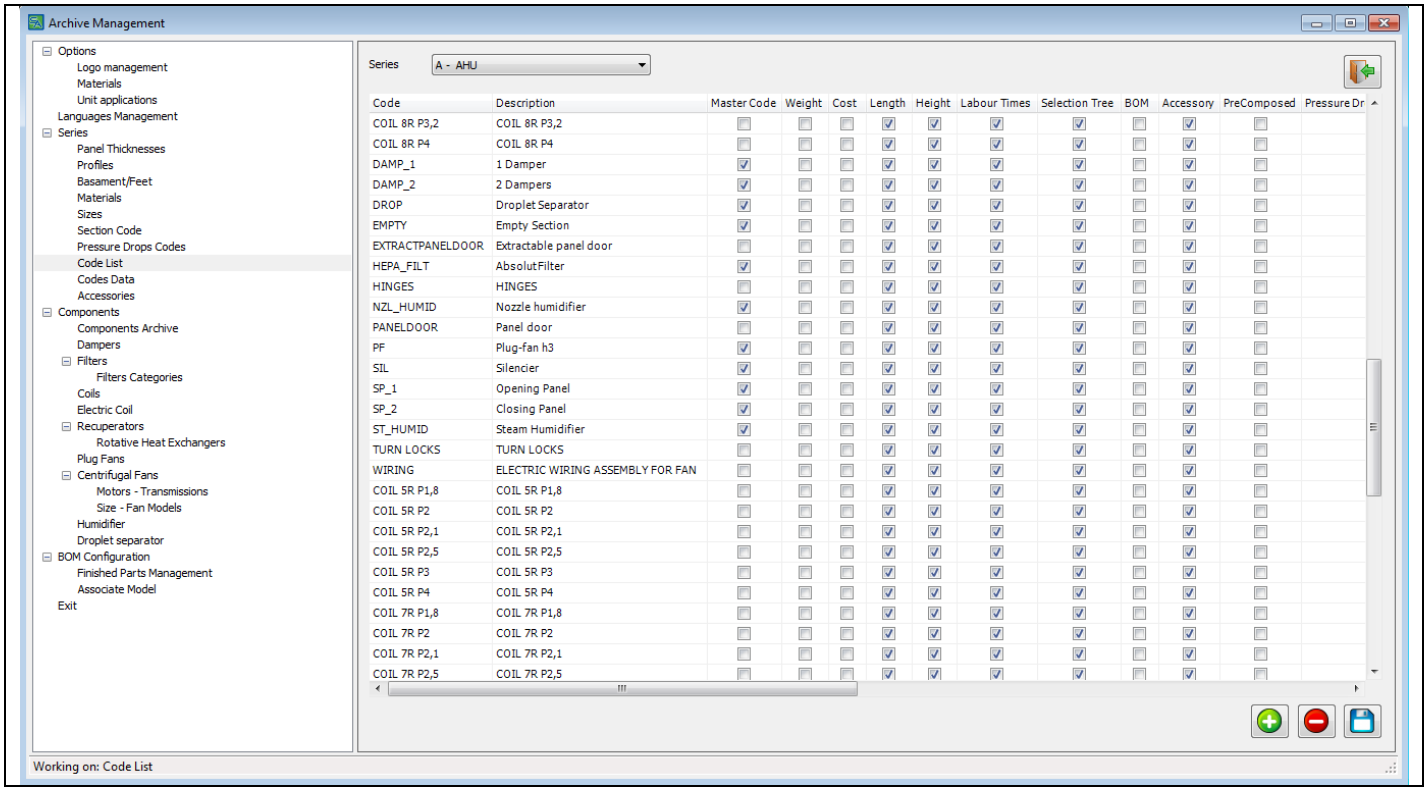
Here you can select the type of pressure drops you want to input.

Code : if you inset a new pressure drops, you have to input how you want to call this pressure drops.

Description : the description of the pressure drops.

PD 1 (Pa) PD 2 (Pa) PD 3 (Pa) PD 4 (Pa) PD 5 (Pa) PD 6 (Pa) you have to insert a pressure drops for each fluid velocity, which can you insert in this fields: Vel. 1 (m/s) Vel. 2 (m/s) Vel. 3 (m/s) Vel. 4 (m/s) Vel. 5 (m/s) Vel. 6 (m/s)

IV. 7 Code List



At the top right of window, you can quit from management

At the bottom of the window you find:

with this button you can add a new pressure drops.

with this button you can delete an inserted pressure drops.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

Series here you can choose the series.

Code You've the list of code for sections (see at "Section Code" -> Sections) and everything else you want to become a code (as for example filter - down, doors, etc.)

Description Code description

Master Code You've to check this option if you want that the code becomes a Master Code; Master Code are the section images of Selection software.

Weight You've to check this option if you want that in the table Weight (Codes Data -> Weight) you want to input the weight for this section.

Cost You've to check this option if you want that in the table Prices (Codes Data -> Prices) you want to input the cost for this section.

Length You've to check this option if you want that in the table Length (Codes Data -> Lengths) you want to input the Length for this section.

Height You've to check this option if you want that in the table Height (Codes Data -> Heights) you want to input the height for this section.

Labour Times You've to check this option if you want that in the table Labour Time (Codes Data -> Labour Time) you want to input the Labour Time for this section.

Selection Tree You've to check this option if you want that this section is visible in the table of Tree Creation.

BOM You've to check this option if you want that in the table BOM (BOM Configuration -> Associate Model) you want to obtain the BOM for this code.

Accessory You've to check this option if you want that in the table Accessories (Series -> Accessories) you want to become an accessory.

Pressure Drops Code you can associate to this code a pressure drops, created in the section Series - Pressure Drops Codes

Price per m² if you check this, then in the section Series -> Codes Data -> Prices you can insert the section price per m2 instead of the total price.

Code for Panel Door you need to check it only for code PANELDOOR

Code for Extractable Panel you need to check it only for code EXTRACTPANELDOOR

Unitary Data if you check this option you need to insert only one data (length or price or weight, etc., according to the other checks) for this component. It means that you don't have to insert as many data as the number of units.

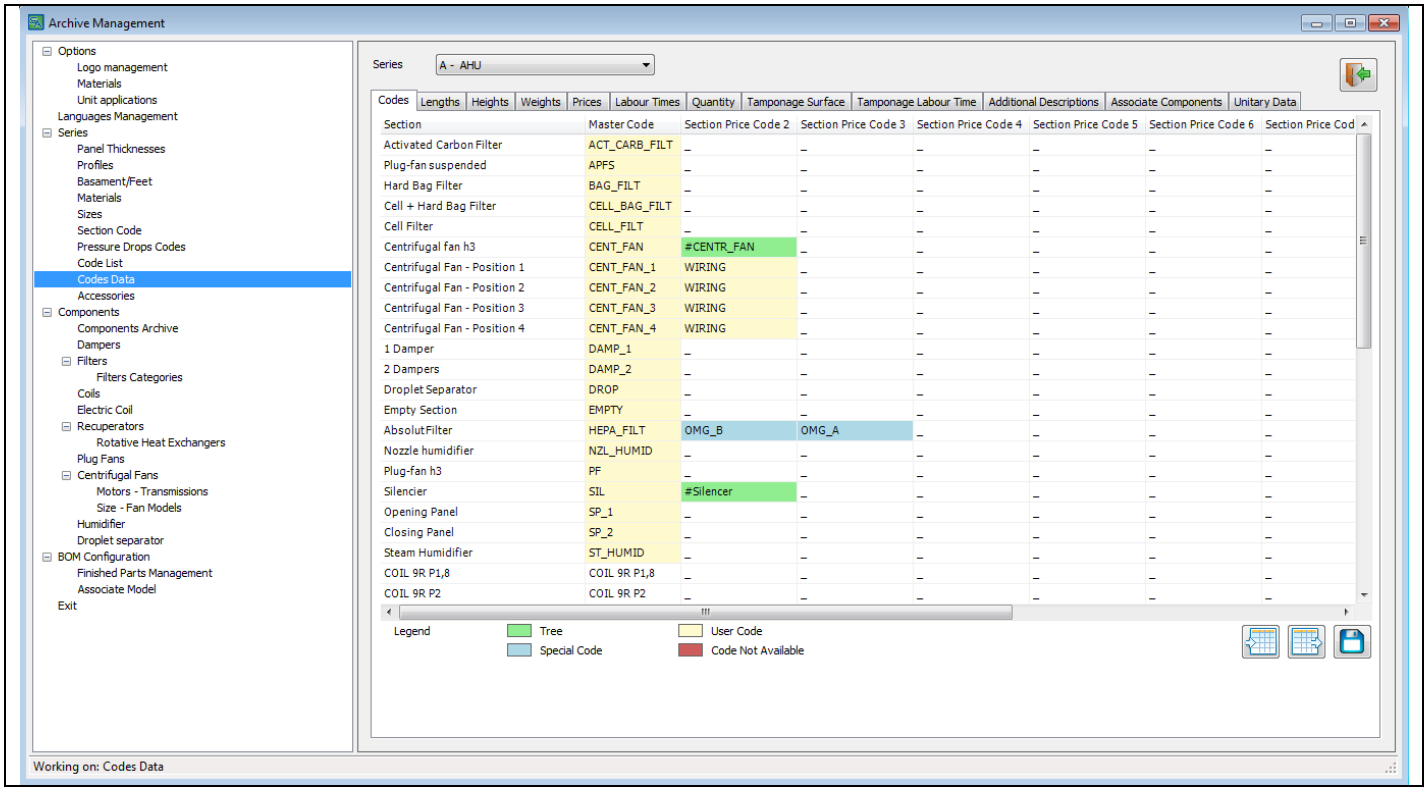
Global Accessory if you check this one, you need to check also "Accessory".
In any case if you check it, the accessory will be added to the management mask of each section. SO you will have the possibility to check or not it for each section.

Unit Accessory if you check this one, you need to check also "Accessory".
If you check it, you will be able to add this accessory to the Unit and not to one section. Beside you can choose it when you want to print the offer.

Code for Tank you need to check it only for code "TANK"

Not consider filter frame if you check it any data related to the filter frame (price, weight, etc.) will not be considered in the filter section.

IV. 8 Codes Data



At the bottom of the window you find:

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

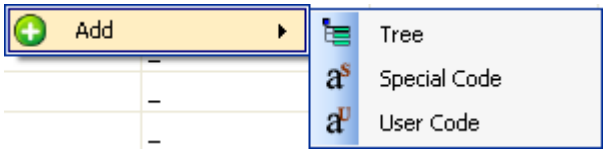
A legend to understand better the file.

At the top right of window, you can quit from management

here you can choose the series.

IV. 8.1 Codes

In this section you've the MASTER CODE that you've selected in the Code List, and several options with different colours.
To obtain this option you've to do right - click on a cell and:

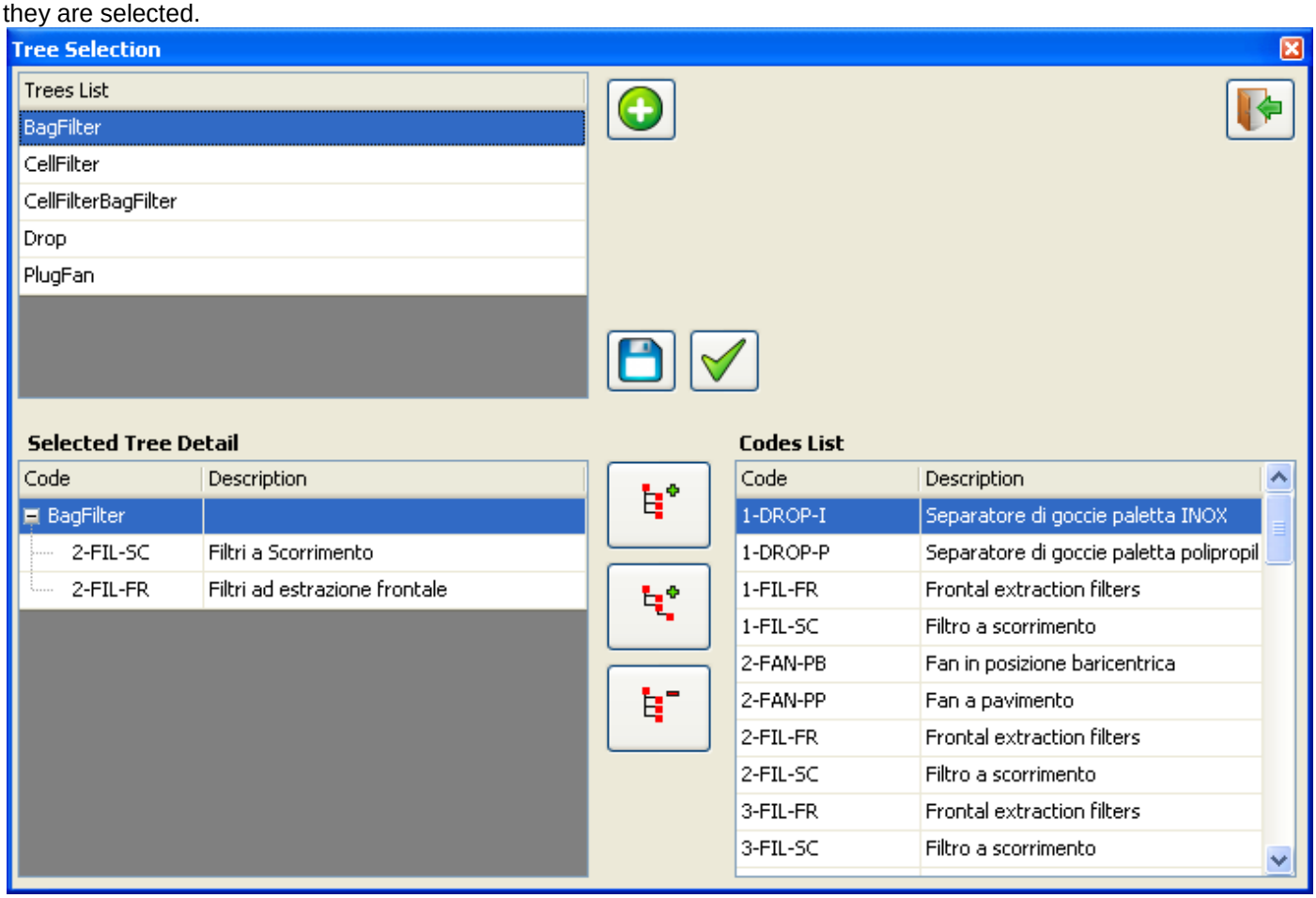


So you've 3 possibilities:
1) Create a Tree;
2) Insert a Special Code;
3) Insert a User Code;

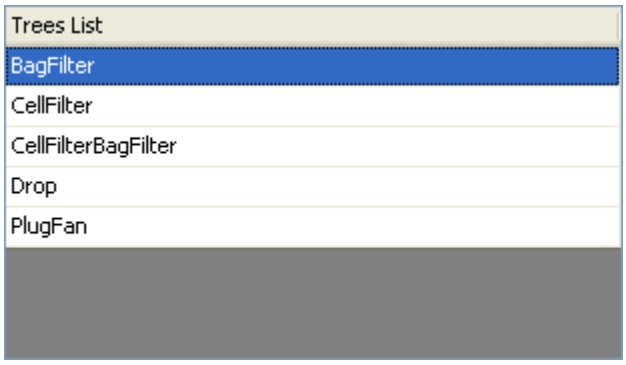
Special Code and User Code are codes of same nature.

Let's start from TREE CREATION:

Tree creation means that when you use a section (image) you can see the option which are in the tree branches, if they are selected.



This is the main page of tree list.



This is the possible trees list to whom add branches.

with this button you can add a new tree.

with this button you can save modifies.

with this button you can quit from the window, saving modifies.

At the top right of window, you can quit from management

Selected Tree Detail

Code	Description
BagFilter	
2-FIL-SC	Filtri a Scorrimento
2-FIL-FR	Filtri ad estrazione frontale

Here you can add branches to the tree or delete them.

Here you can add branches;

With this button you can add branches to branches;

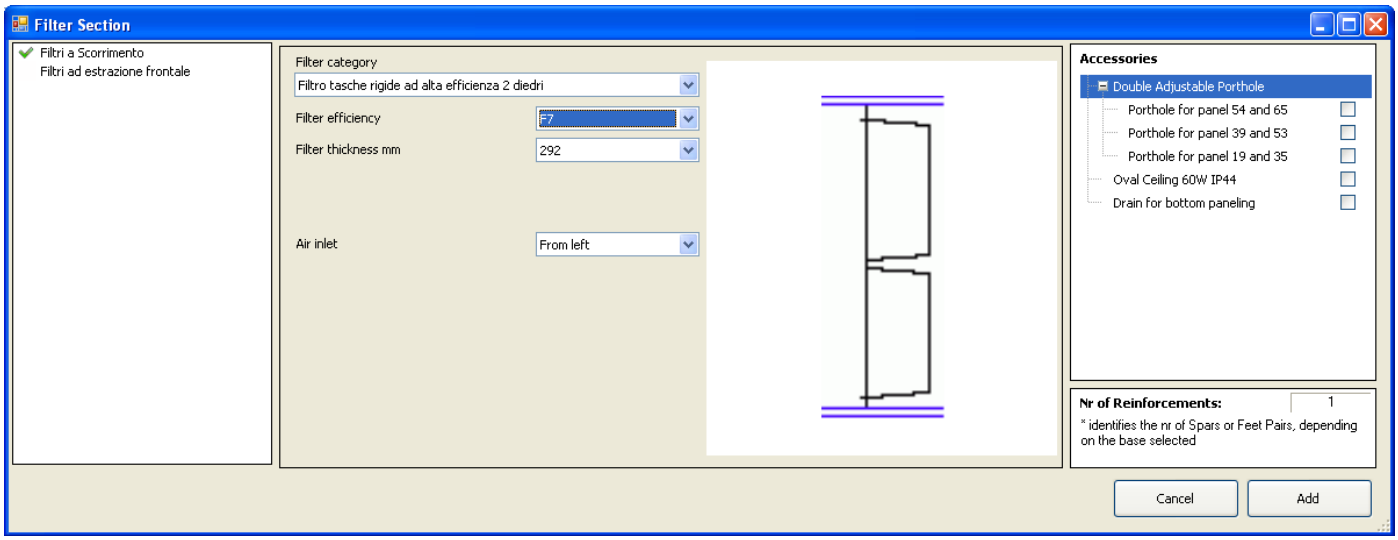
With this button you can delete branches.

Codes List

Code	Description
1-DROP-I	Separatore di goccie paletta INOX
1-DROP-P	Separatore di goccie paletta polipropil
1-FIL-FR	Frontal extraction filters
1-FIL-SC	Filtro a scorrimento
2-FAN-PB	Fan in posizione baricentrica
2-FAN-PP	Fan a pavimento
2-FIL-FR	Frontal extraction filters
2-FIL-SC	Filtro a scorrimento
3-FIL-FR	Frontal extraction filters
3-FIL-SC	Filtro a scorrimento

Here you can see the list of possible branches you can add. You can notice that are the same code of Series -> Code List BUT they are not Master Code.

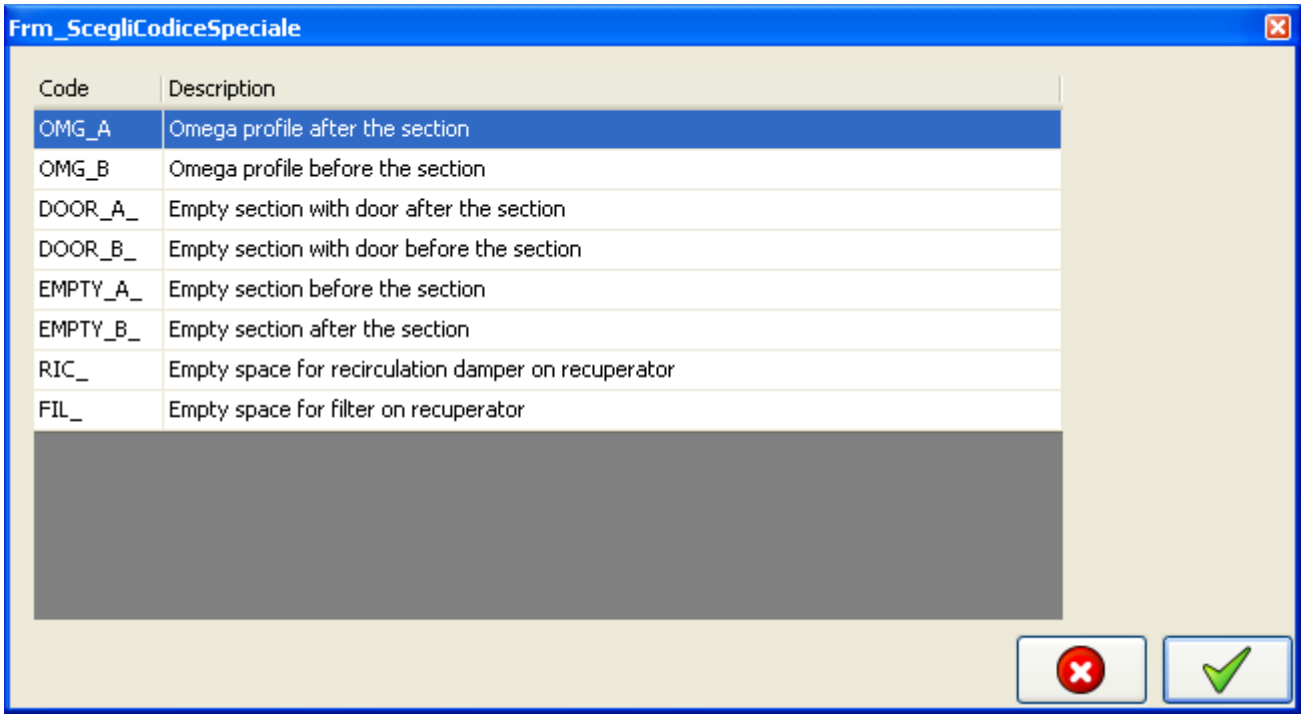
To see the result of a Bag Filter tree, in the selection software, is the follow:



On the left you can see the two options (branches) of the Bag Filter (tree)

INSERT A SPECIAL CODE

Clicking on Special Code, it appear this window:



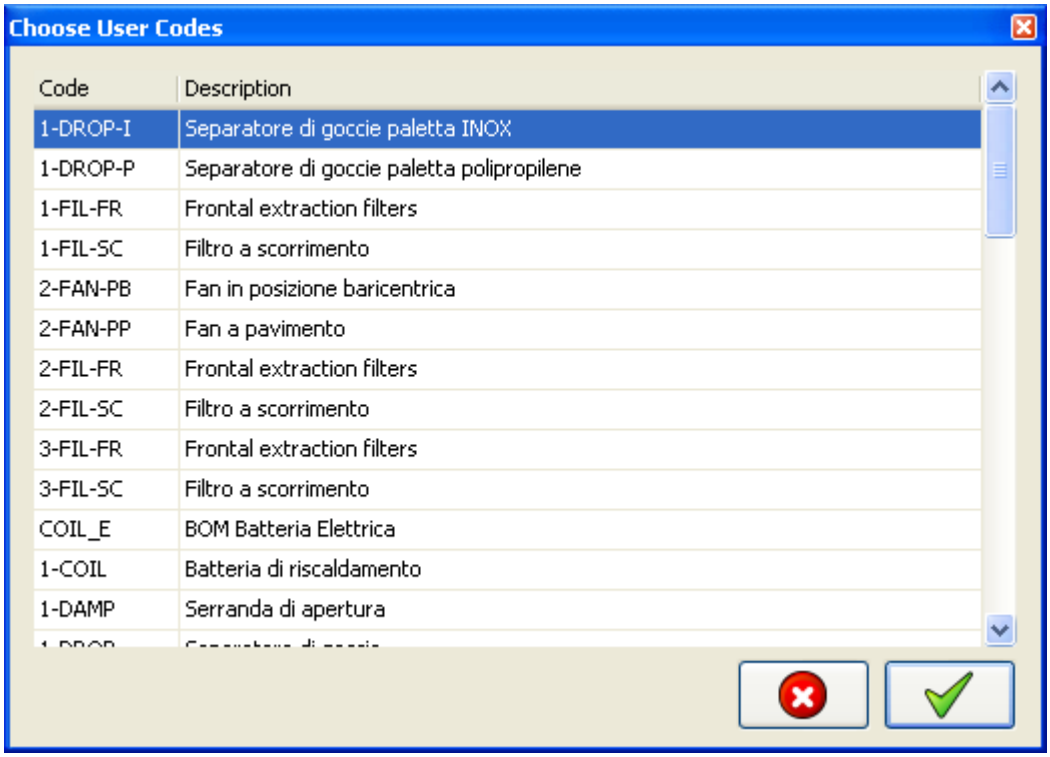
with this button you can quit without saving.

with this button you can quit from the window, saving modifies.

This codes have been inserted by UNILAB S.r.l. into the database.

INSERT AN USER CODE

Clicking on User Code, it appear this window:



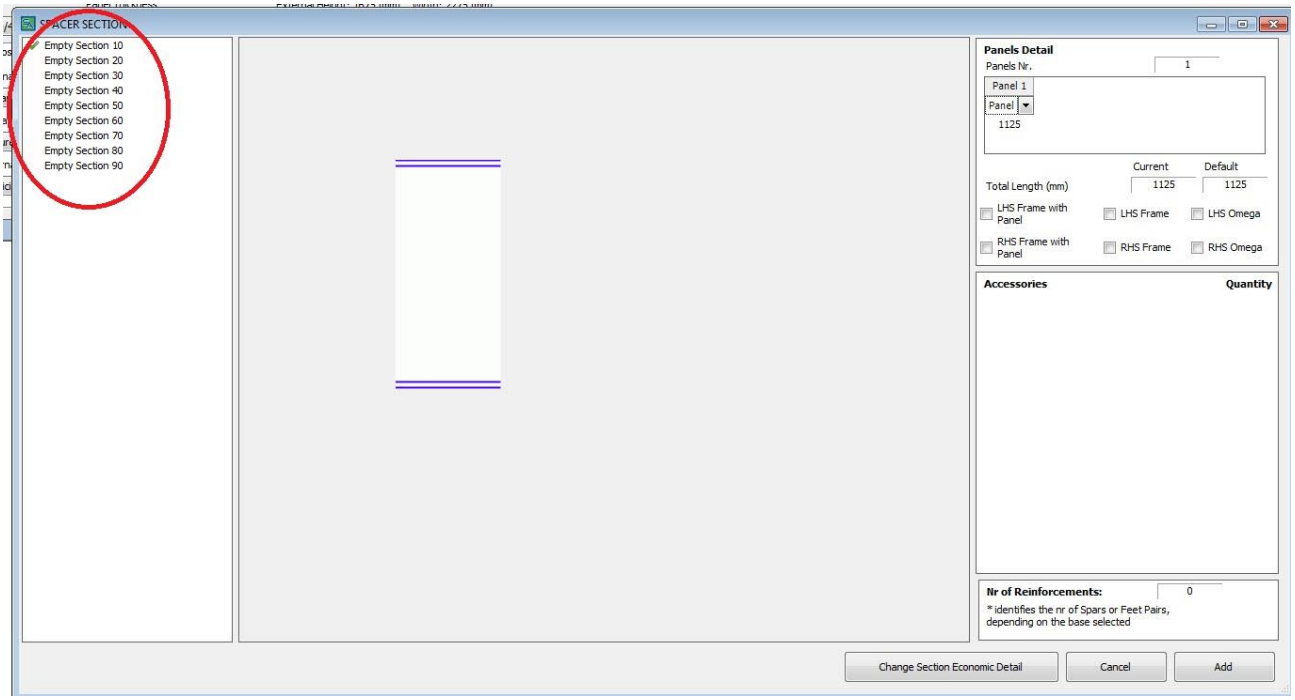
with this button you can quit without saving.

with this button you can quit from the window, saving modifies.

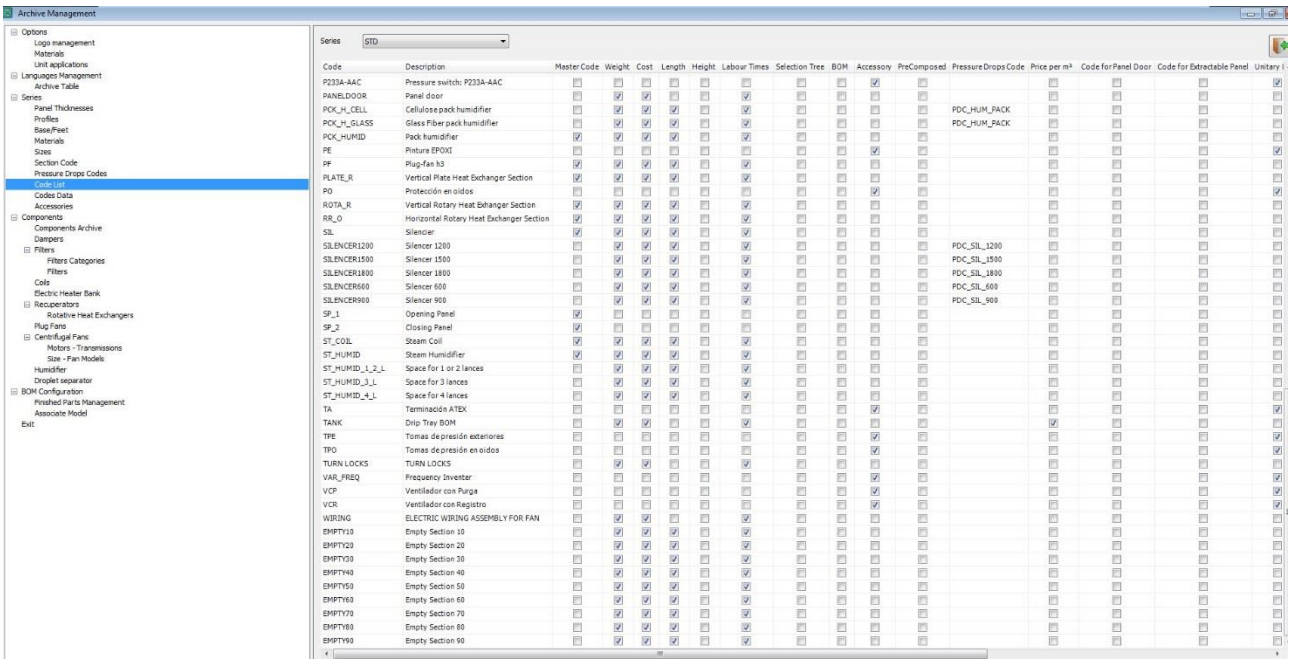
You've inserted these codes into Code List and they are not Master Codes.

IV. 8.1.1 Trick: How to create a tree inside the selection masks

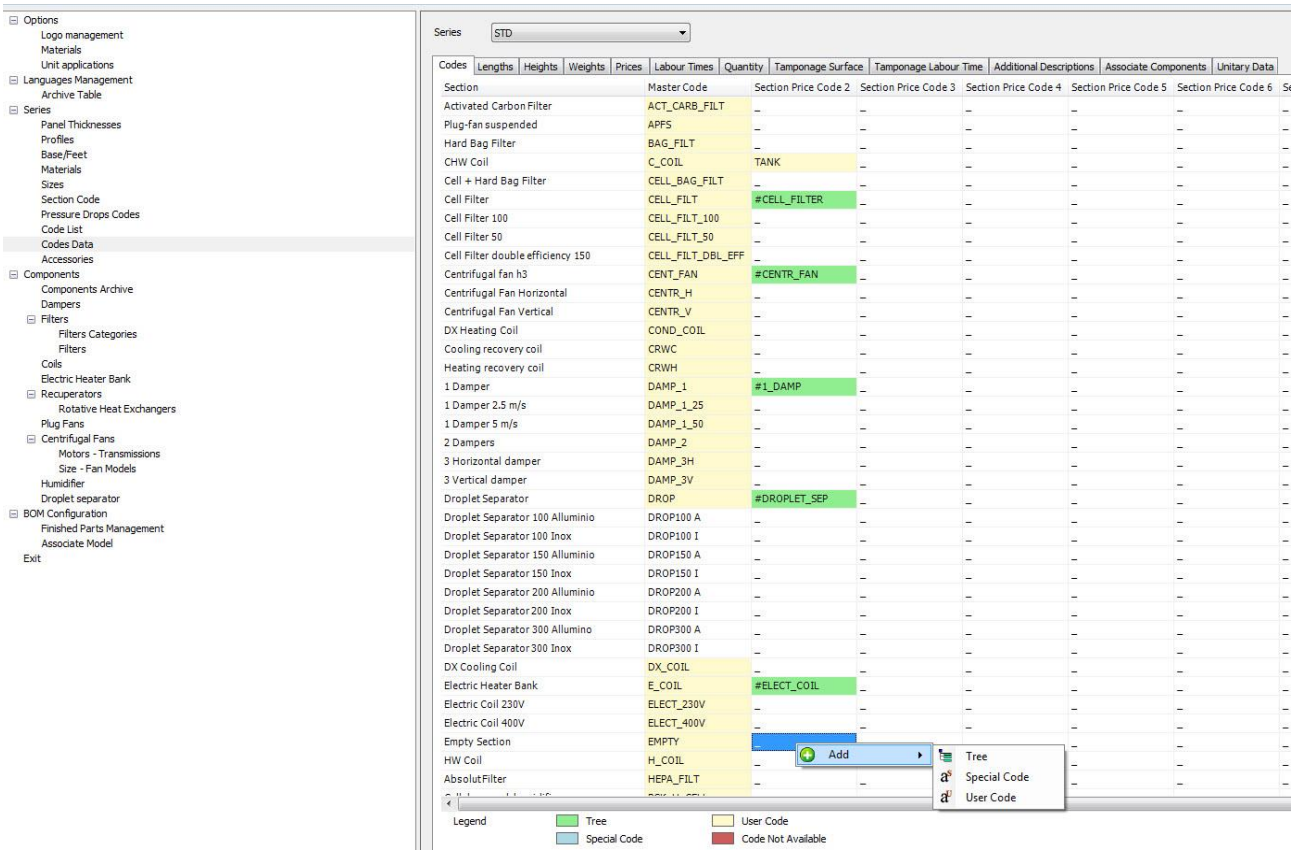
Practical Sample: we have a number of blank section prefatte, that have different lengths. And we want to choose one over the 'other when we introduce the image of the blank section.
We want to select this section blank from a tree and that, therefore, the mask is configured as in 'image below.



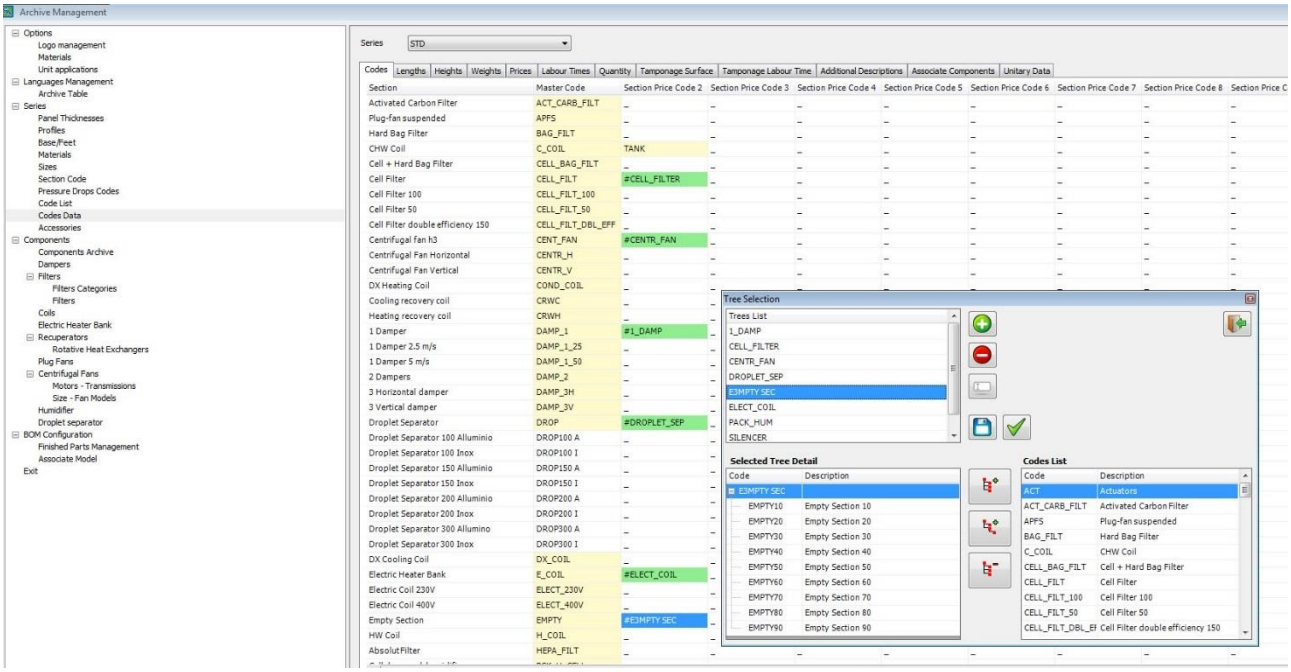
It must, first, introduce a code corresponding to each length, in the following form:



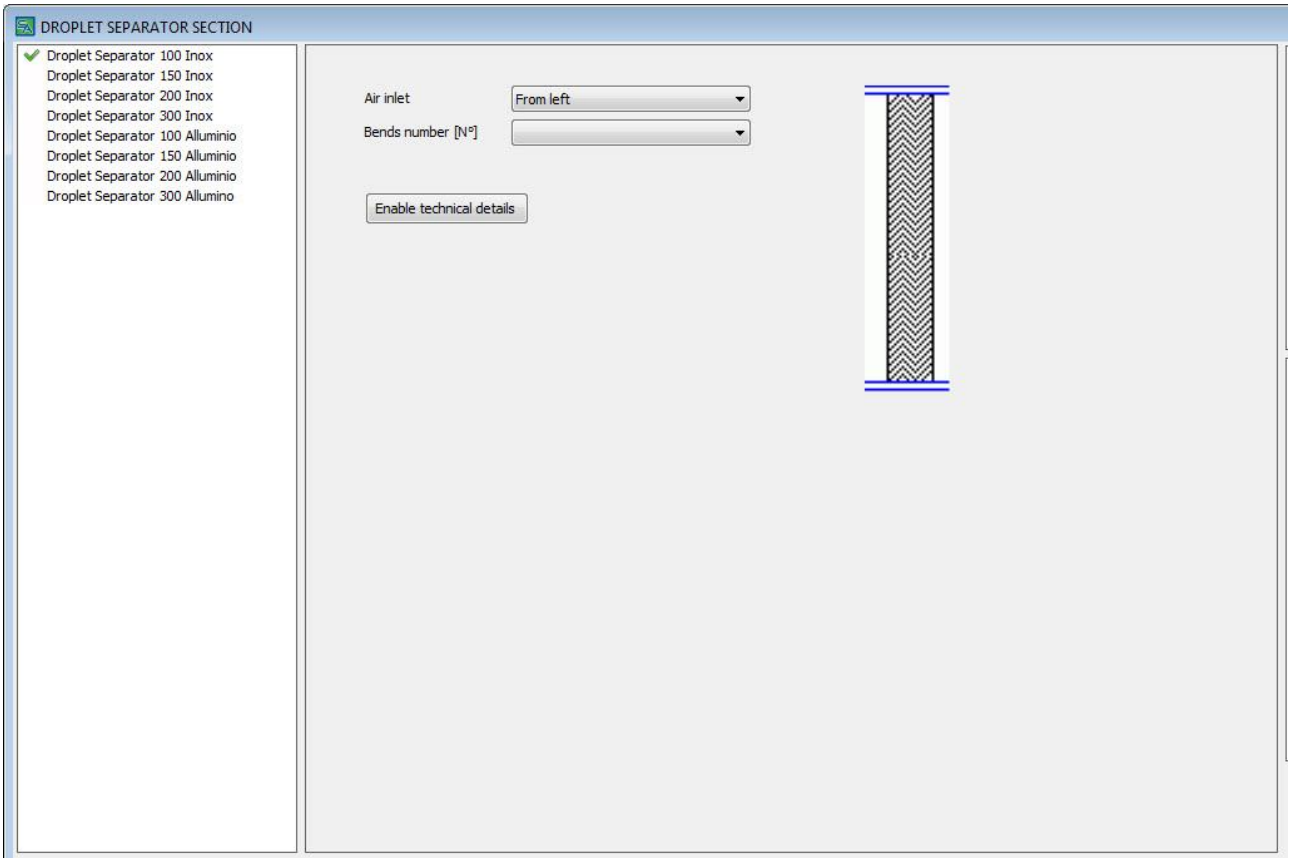
It should NOT be a MASTER type, and you have to select which data you want to introduce (lengths, weights, prices, etc.)
Once this step is complete you need to go in the following form:



Position itself in the first empty cell next to the empty section (the section to which you want to associate the tree), right key and select "Tree"
And in the following window you have to create the code tree and associating the codes that we just introduced



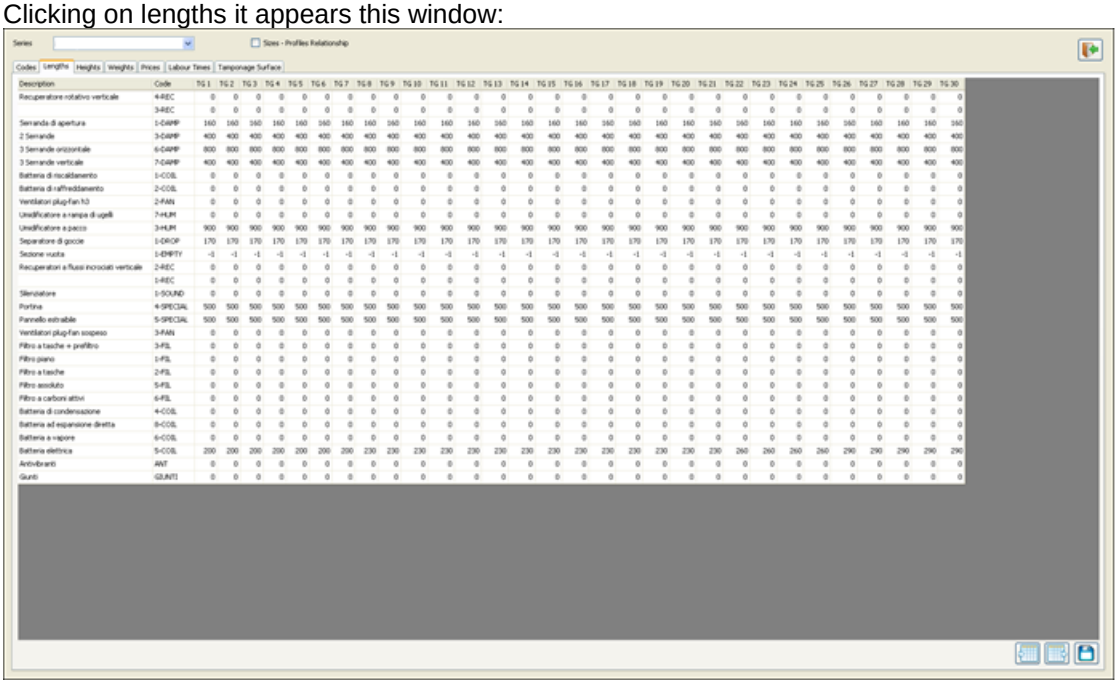
Save and then compile the next tab, which is in units of length, weight, price, etc.
You can create trees for different lengths of section or different materials:



IV. 8.2 Lengths

The lengths introduced into this section are the section lengths without profiles or omega.

Clicking on lengths it appears this window:



At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

In this window you'll see all sections you've selected in Series -> Code List -> Length
You've insert in [mm] the length of each section.

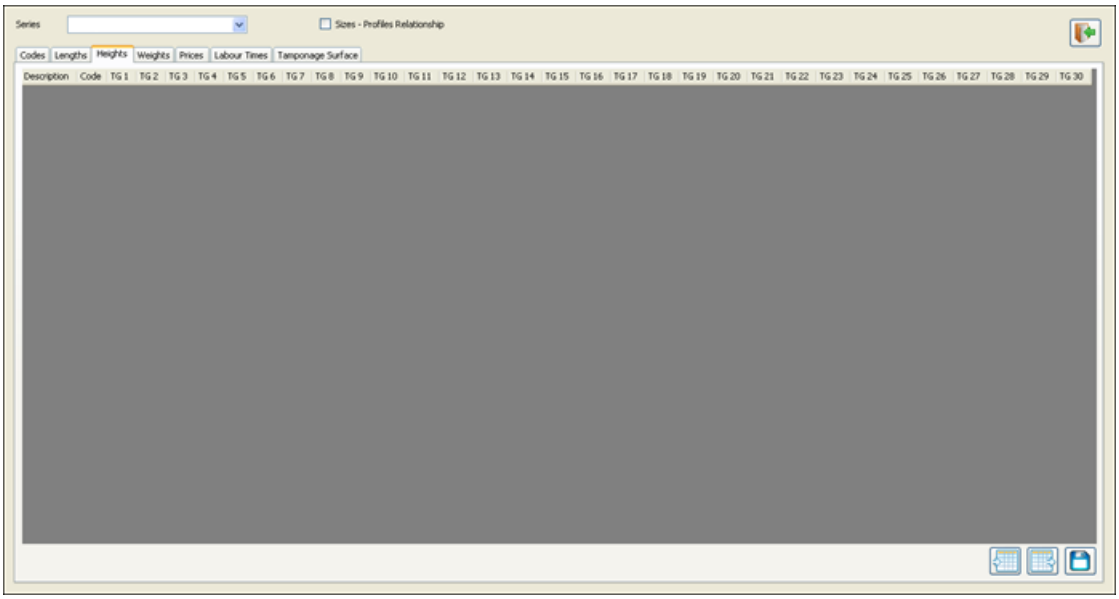
Checking this option

you'll associate each machine to each profile, and for that association insert a length.

IV. 8.3 Heights

The heights introduced into this section are the section lenghts without profiles or omega.
In this section you need to introduce only those section heights which are not standard.

Clicking on Heights it appears this window:



At the top right of window, you can quit from management

this button let you to import an excel file;

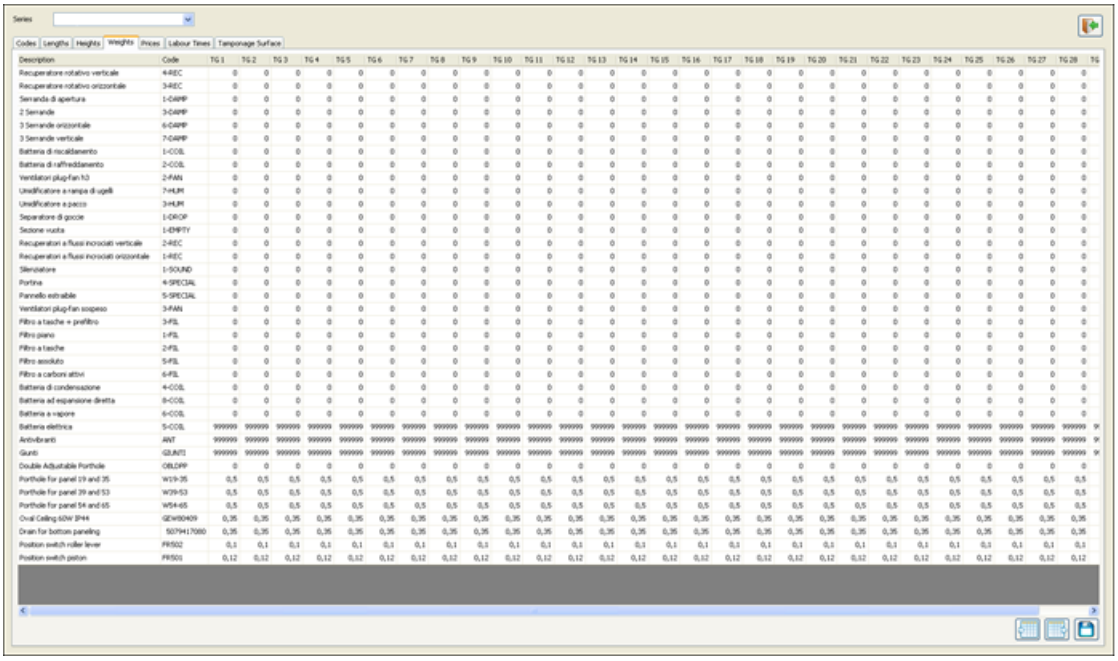
this button let you to export an excel file;

with this button you can save modifies.

In this window you can't see nothing because in our case, we've not checked Series -> Section code -> Sections -> Height Not Standard.

IV. 8.4 Weights

In this section you need to introduce the section weight without the profile, omega, panel weight. So you need to introduce the total weight of all component inside the section
Clicking on Weights it appears this window:



At the top right of window, you can quit from management

this button let you to import an excel file;

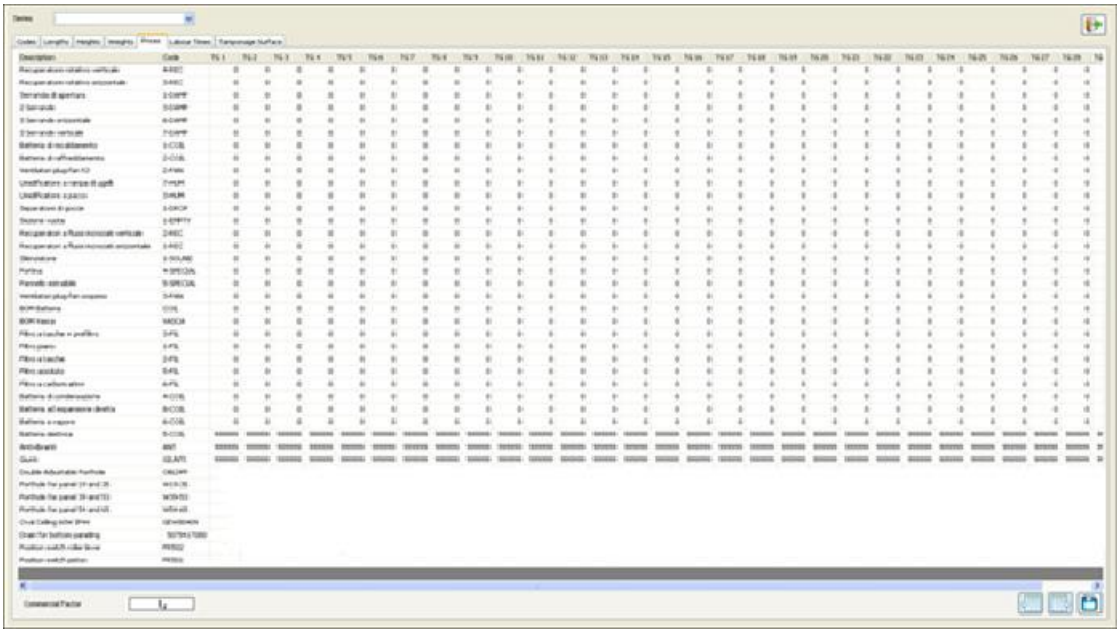
this button let you to export an excel file;

with this button you can save modifies.

In this window you'll see all sections you've selected in Series -> Code List -> Weight
You've insert in [kg] the weight of each section.

IV. 8.4 Prices

Clicking on Prices it appears this window:



*** Please note: prices and costs have been deleted from the images for privacy reasons.**

At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

In this window you'll see all sections you've selected in Series -> Code List -> Cost
You've insert in [Euro] the price of each section.

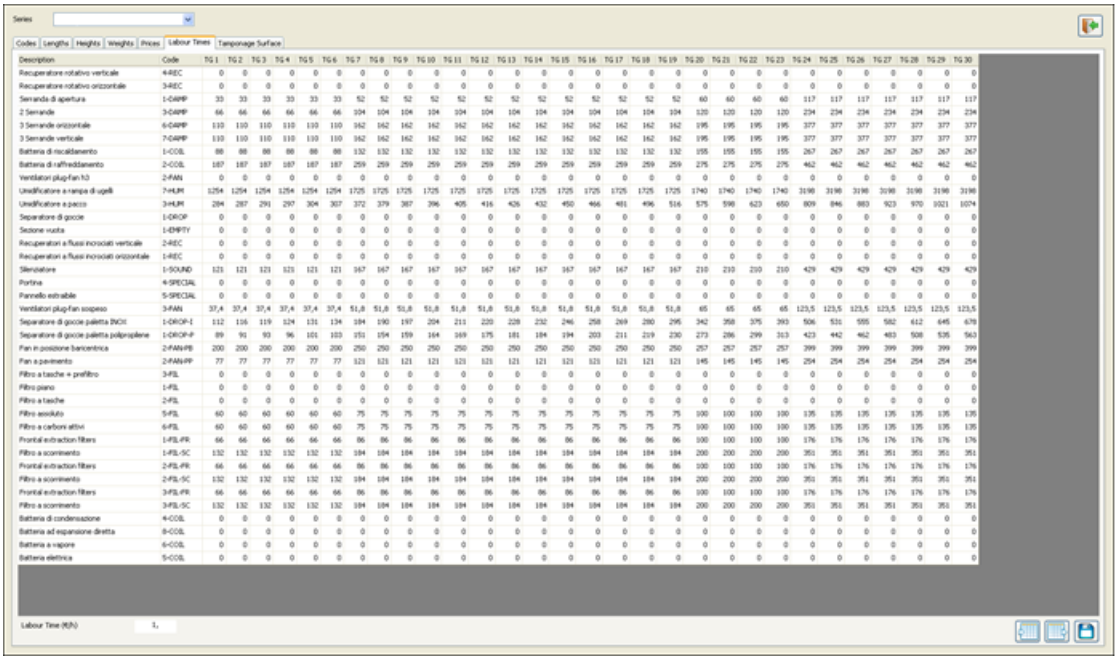
Commercial Factor 1,

Besides, if necessary, you can insert a commercial factor.

IV. 8.5 Labour Time

In this section you need to introduce the laor time of all section not considering the labor time of panels, omega or profiles and tamponage.

Clicking on Labour Time it appears this window:



At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

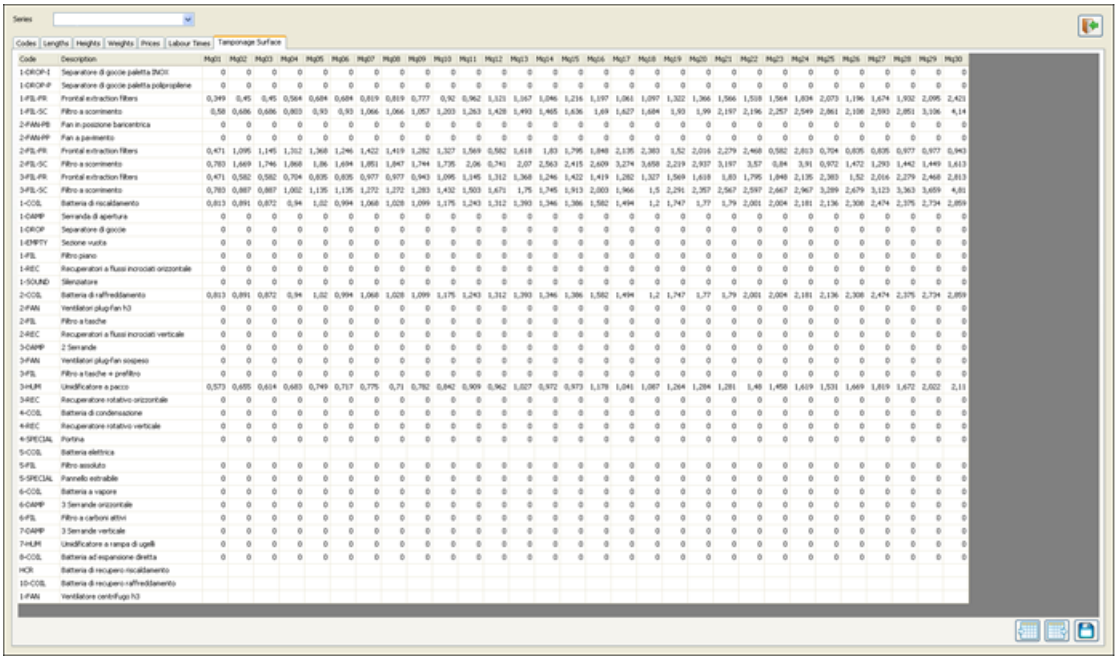
In this window you'll see all sections you've selected in Series -> Code List -> Labour Time
You've insert in [h] the Labour time of each section.

Labour Time (€/h) 1,

Beside you can insert also this value.

IV. 8.6 Tamponage Surfaces

In this section you need to introduce the Tamponage surface if it is present into the section.
Clicking on Tamponage Surface it appears this window:



At the top right of window, you can quit from management

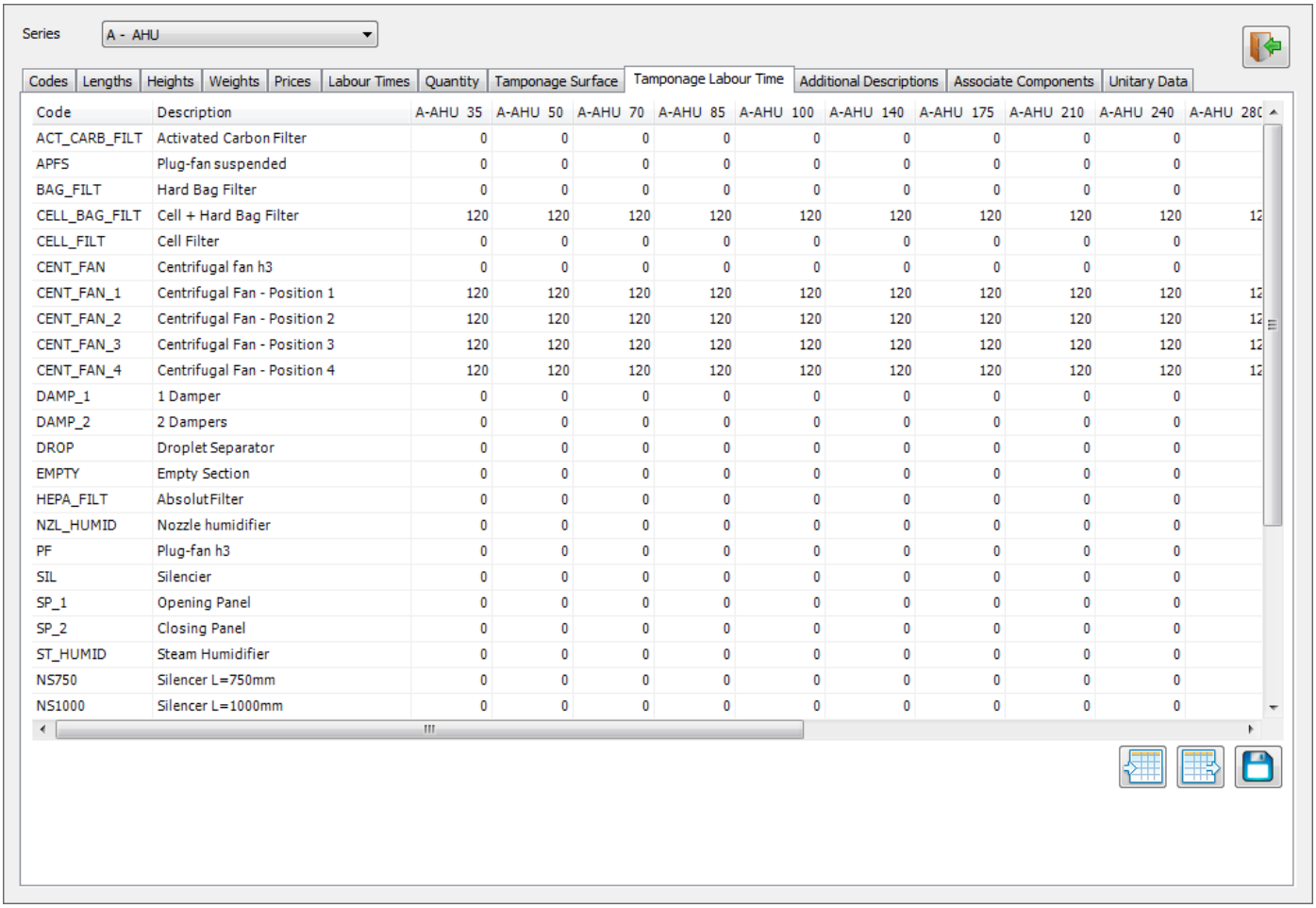
this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

IV. 8.7 Tamponage Labour Time

In this section you need to introduce the labor time of tamponage



Code	Description	A-AHU 35	A-AHU 50	A-AHU 70	A-AHU 85	A-AHU 100	A-AHU 140	A-AHU 175	A-AHU 210	A-AHU 240	A-AHU 280
ACT_CARB_FILT	Activated Carbon Filter	0	0	0	0	0	0	0	0	0	
APFS	Plug-fan suspended	0	0	0	0	0	0	0	0	0	
BAG_FILT	Hard Bag Filter	0	0	0	0	0	0	0	0	0	
CELL_BAG_FILT	Cell + Hard Bag Filter	120	120	120	120	120	120	120	120	120	12
CELL_FILT	Cell Filter	0	0	0	0	0	0	0	0	0	
CENT_FAN	Centrifugal fan h3	0	0	0	0	0	0	0	0	0	
CENT_FAN_1	Centrifugal Fan - Position 1	120	120	120	120	120	120	120	120	120	12
CENT_FAN_2	Centrifugal Fan - Position 2	120	120	120	120	120	120	120	120	120	12
CENT_FAN_3	Centrifugal Fan - Position 3	120	120	120	120	120	120	120	120	120	12
CENT_FAN_4	Centrifugal Fan - Position 4	120	120	120	120	120	120	120	120	120	12
DAMP_1	1 Damper	0	0	0	0	0	0	0	0	0	
DAMP_2	2 Dampers	0	0	0	0	0	0	0	0	0	
DROP	Droplet Separator	0	0	0	0	0	0	0	0	0	
EMPTY	Empty Section	0	0	0	0	0	0	0	0	0	
HEPA_FILT	AbsolutFilter	0	0	0	0	0	0	0	0	0	
NZL_HUMID	Nozzle humidifier	0	0	0	0	0	0	0	0	0	
PF	Plug-fan h3	0	0	0	0	0	0	0	0	0	
SIL	Silencier	0	0	0	0	0	0	0	0	0	
SP_1	Opening Panel	0	0	0	0	0	0	0	0	0	
SP_2	Closing Panel	0	0	0	0	0	0	0	0	0	
ST_HUMID	Steam Humidifier	0	0	0	0	0	0	0	0	0	
NS750	Silencer L=750mm	0	0	0	0	0	0	0	0	0	
NS1000	Silencer L=1000mm	0	0	0	0	0	0	0	0	0	

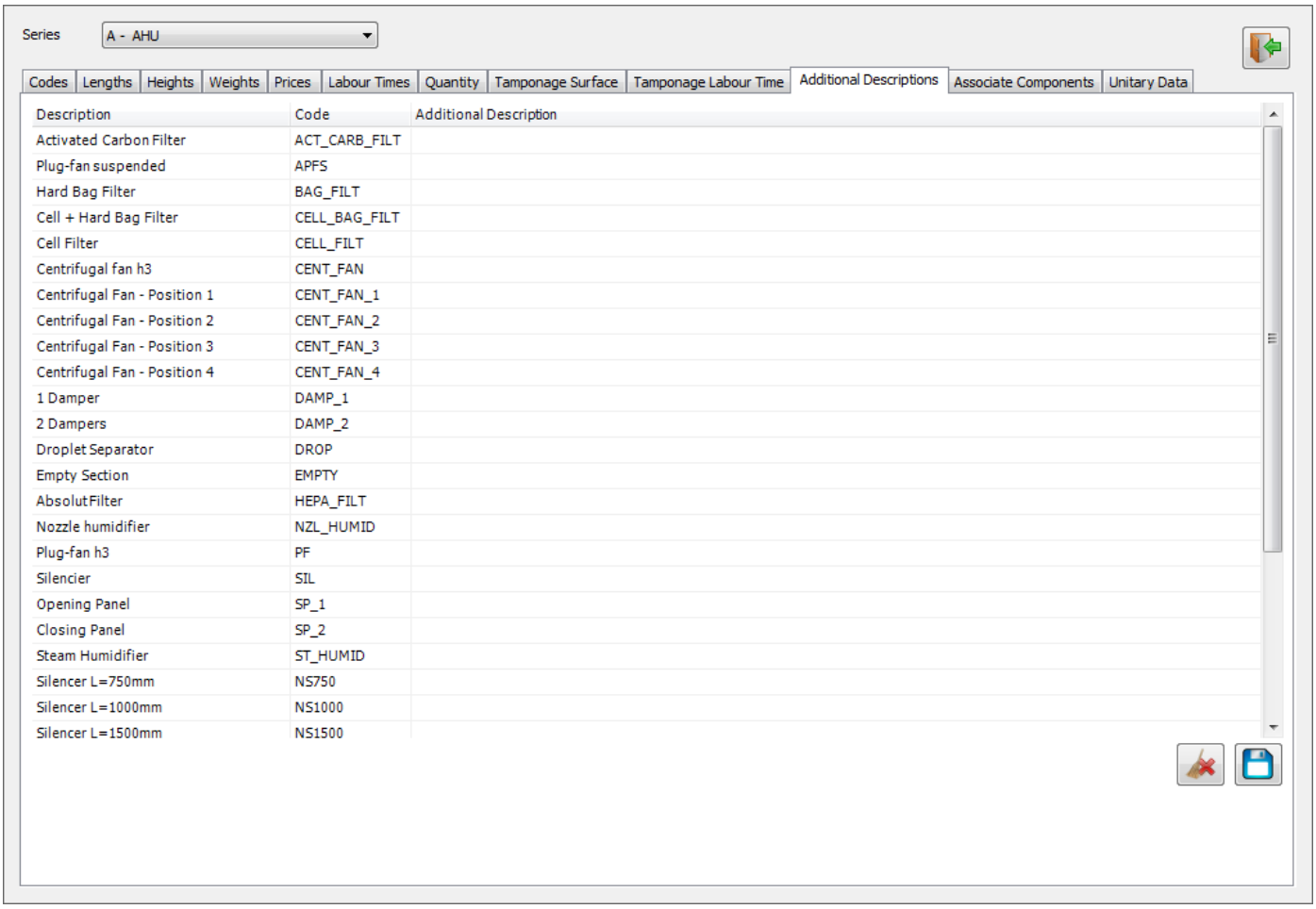
At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

IV. 8.8 Additional Descriptions



Description	Code	Additional Description
Activated Carbon Filter	ACT_CARB_FILT	
Plug-fan suspended	APFS	
Hard Bag Filter	BAG_FILT	
Cell + Hard Bag Filter	CELL_BAG_FILT	
Cell Filter	CELL_FILT	
Centrifugal fan h3	CENT_FAN	
Centrifugal Fan - Position 1	CENT_FAN_1	
Centrifugal Fan - Position 2	CENT_FAN_2	
Centrifugal Fan - Position 3	CENT_FAN_3	
Centrifugal Fan - Position 4	CENT_FAN_4	
1 Damper	DAMP_1	
2 Dampers	DAMP_2	
Droplet Separator	DROP	
Empty Section	EMPTY	
Absolut Filter	HEPA_FILT	
Nozzle humidifier	NZL_HUMID	
Plug-fan h3	PF	
Silencier	SIL	
Opening Panel	SP_1	
Closing Panel	SP_2	
Steam Humidifier	ST_HUMID	
Silencer L=750mm	NS750	
Silencer L=1000mm	NS1000	
Silencer L=1500mm	NS1500	

If you insert a description here, you will see it into the printout.

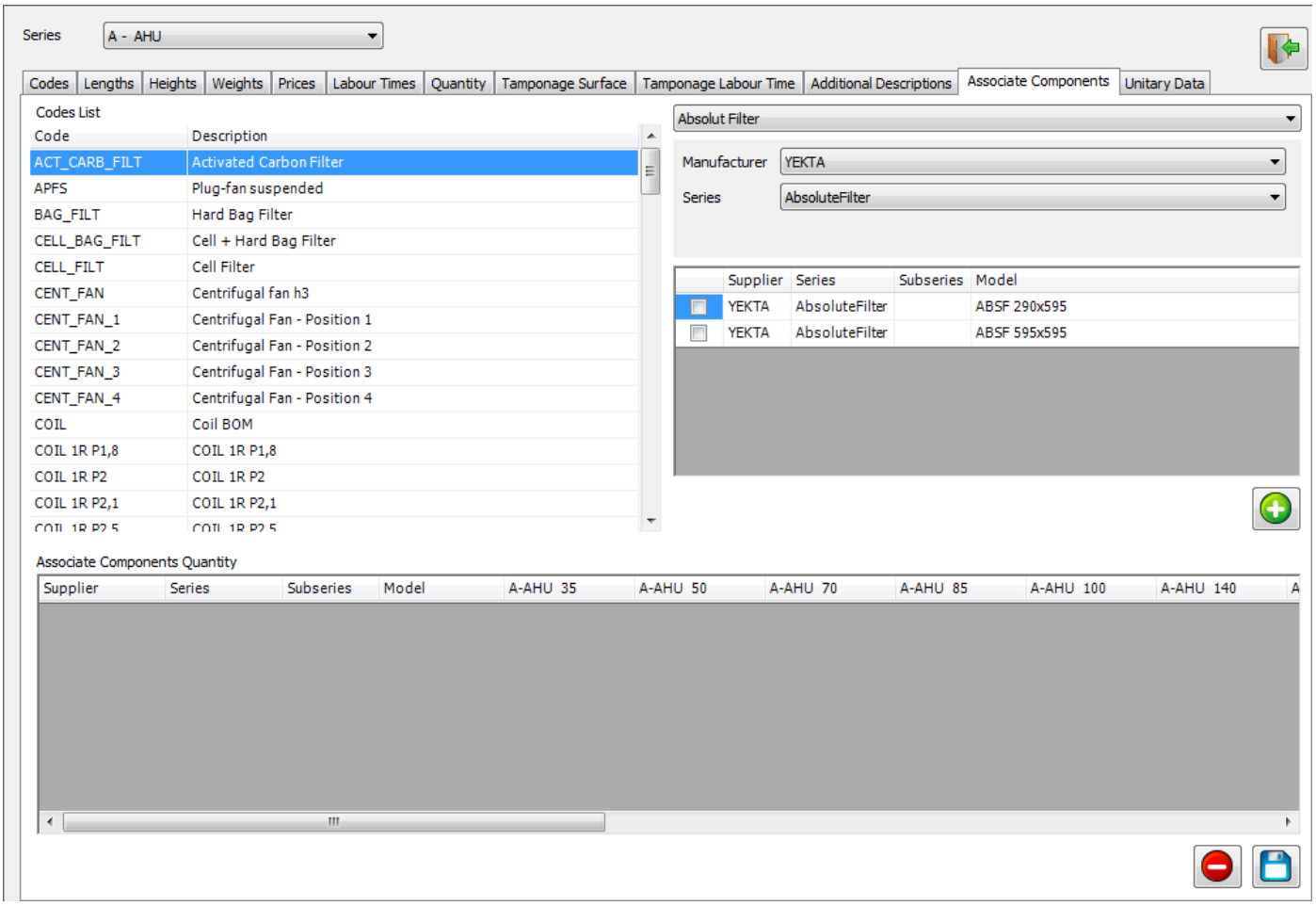
At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

IV. 8.9 Associate Components



In this section you can associate components to a section for each unit size. Example: you want to associate elements like hinges and handles to the door, you can do it here, because they are elements associated to other elements, but not accessories.

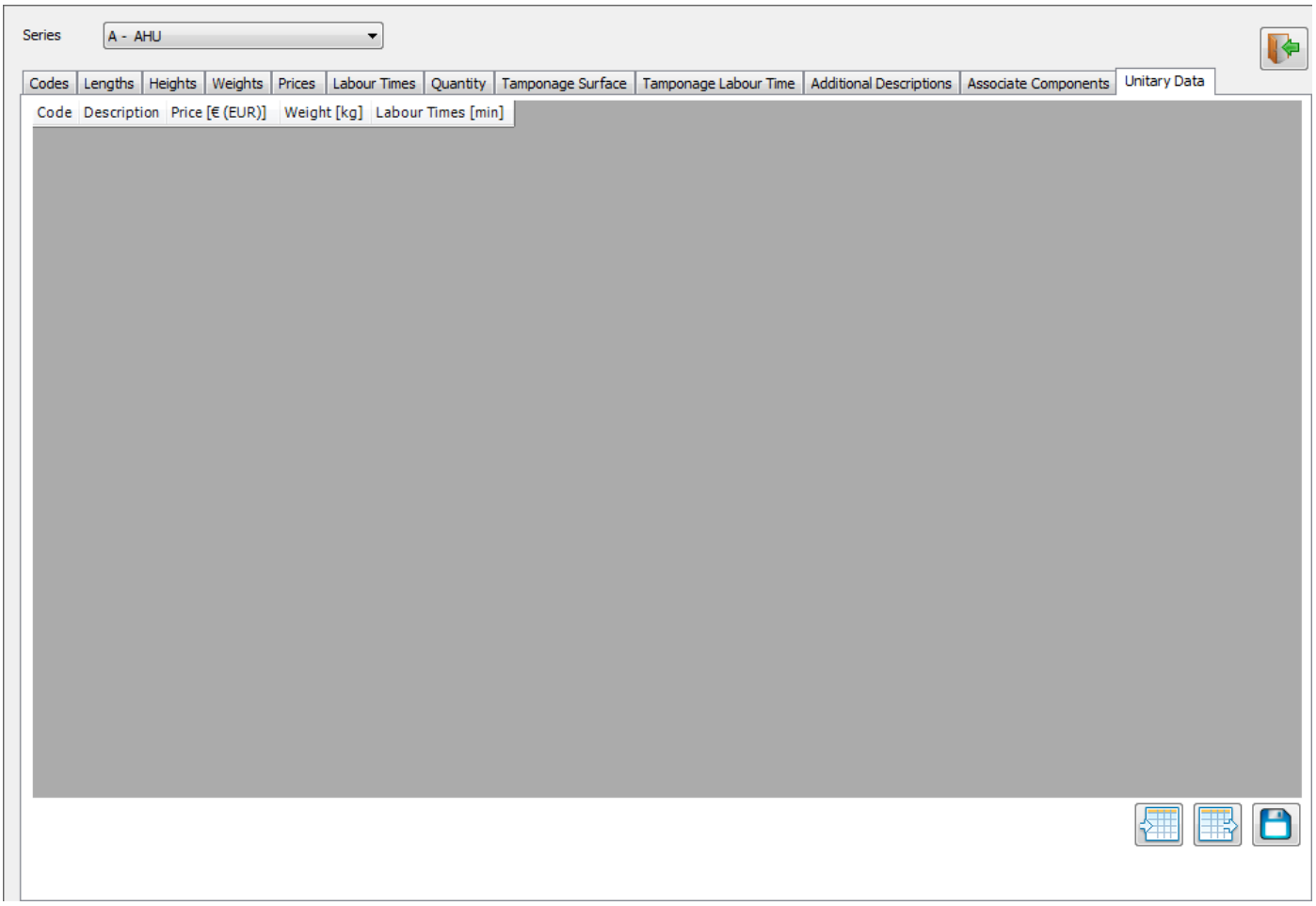
At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

IV. 8.10 Unitary Data



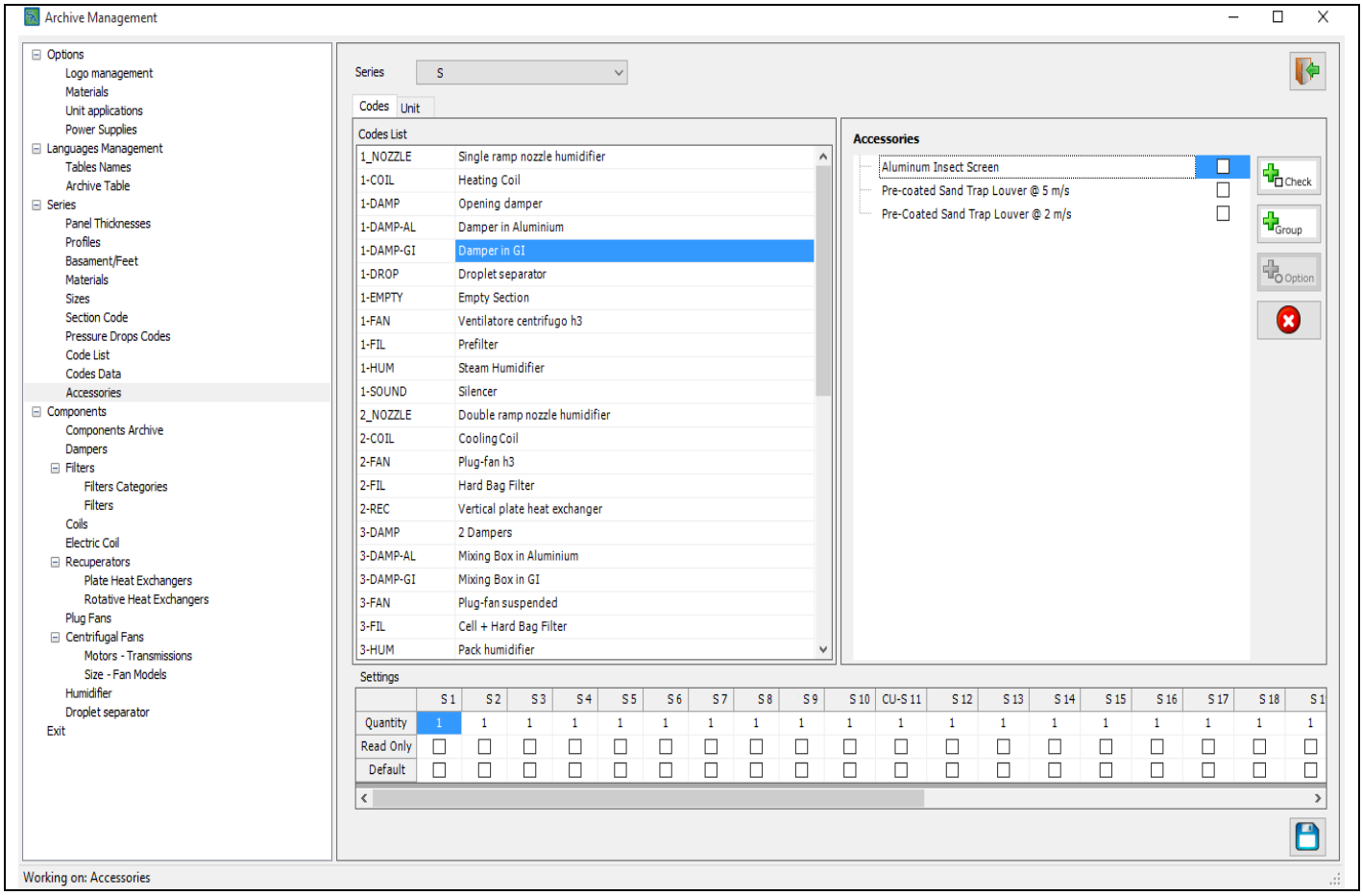
At the top right of window, you can quit from management

this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

IV. 9 Accessories



At the top right of window, you can quit from management

delete the created accessory.

or save accessories association.

here you can choose the series.

In this section you've the list of Master Code (images in Selection Software).
To each Master Code you can associate Accessories.

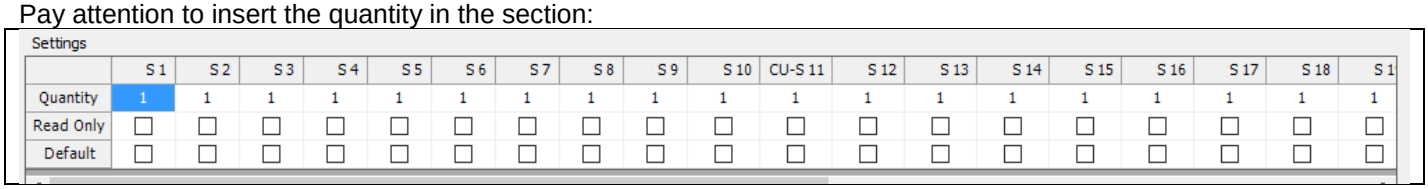
As you can see, as default, there are already associations.

With this option, you can add an accessory with possibility of check. I mean that if you check, in the selection software, the accessory, you'll have the accessory in your printout.

With this button, you can add an accessory without possibility of check. I mean that it is always checked.

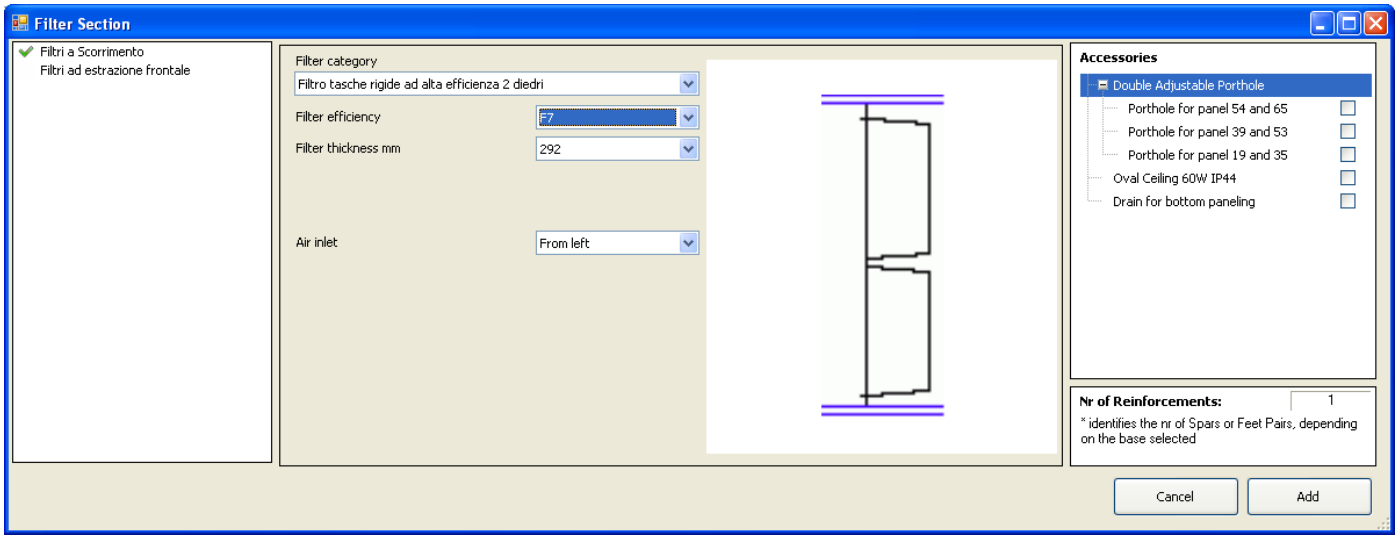
With this option, you can add a benchless to the tree of accessory.

Pay attention to insert the quantity in the section:



Otherwise you will not see any accessory in the selection Part.

An example of what you see in selection software for accessories is the follow:

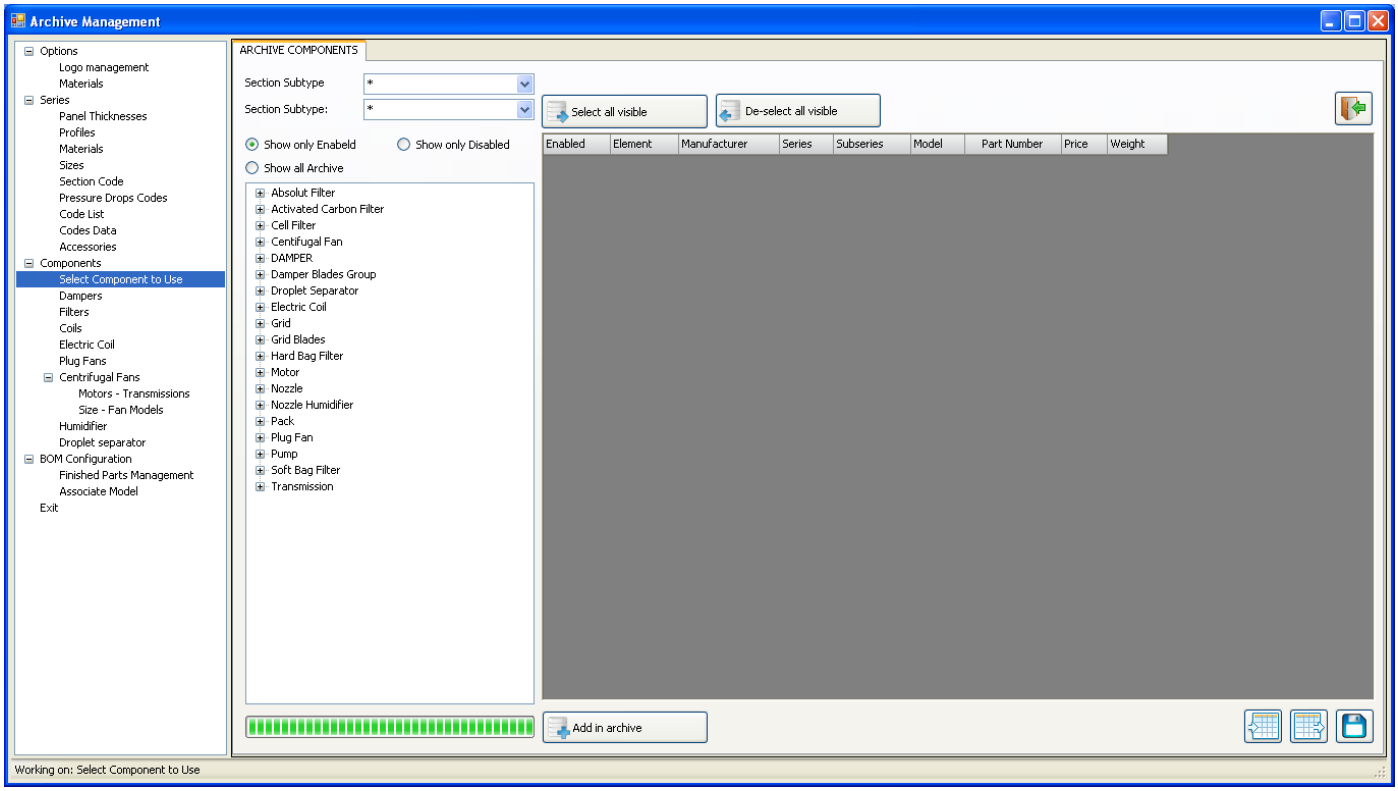


This is a bag filter and on the right side you can see the possible accessories.

V. Components

When you click on "Components" Wizard starts soon with "Select components to Use"

V. 1 Select Components to Use



In this section, you can select which components of which builders use, and which are not, and they just keep on file.

At the top right of window, you can quit from management

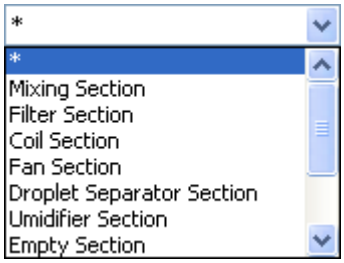
this button let you to import an excel file;

this button let you to export an excel file;

with this button you can save modifies.

In this drop down menu, you can select all possible sections of Units, as you can see in the follow window. If you leave " * " all sections will be visible in the below list.

Section default types are:



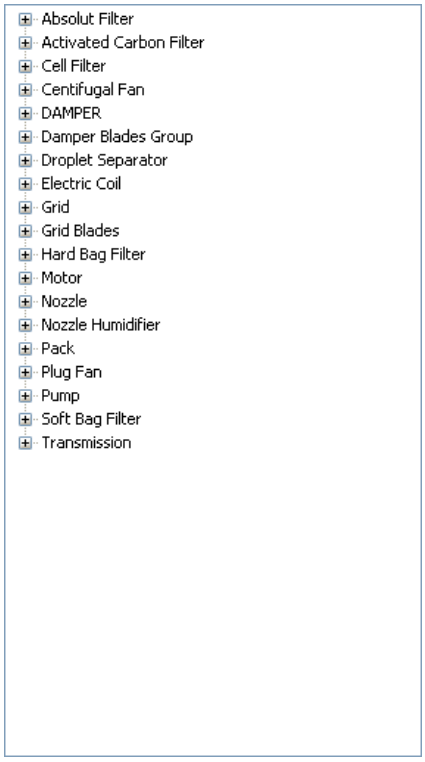
If you select one of this section, in the follow drop down menu you will have the subtype of selected section.

Subtype of selected section.

Show only Enabeld If you check this option, you'll see in the table only enabled sections. I mean these kind of element will be used by VIEW3 and BOM.

Show only Disabled If you check this option, you'll see in the table only disabled sections. I mean these kind of element won't be used by VIEW3 and BOM they should be set in warehouse stocks until you'll want to use them.

Show all Archive If you check this option you'll see all possible sections, enabled and disabled ones.



This is the section list you can see if you've checked "Show only enabled".

Next to this list you have a box with several columns.
Each column has a title:

Enabled You can see if this specific component is enabled or not;

Element What kind of component you've selected;

Manufacturer The component manufacturer;

Series The series component.

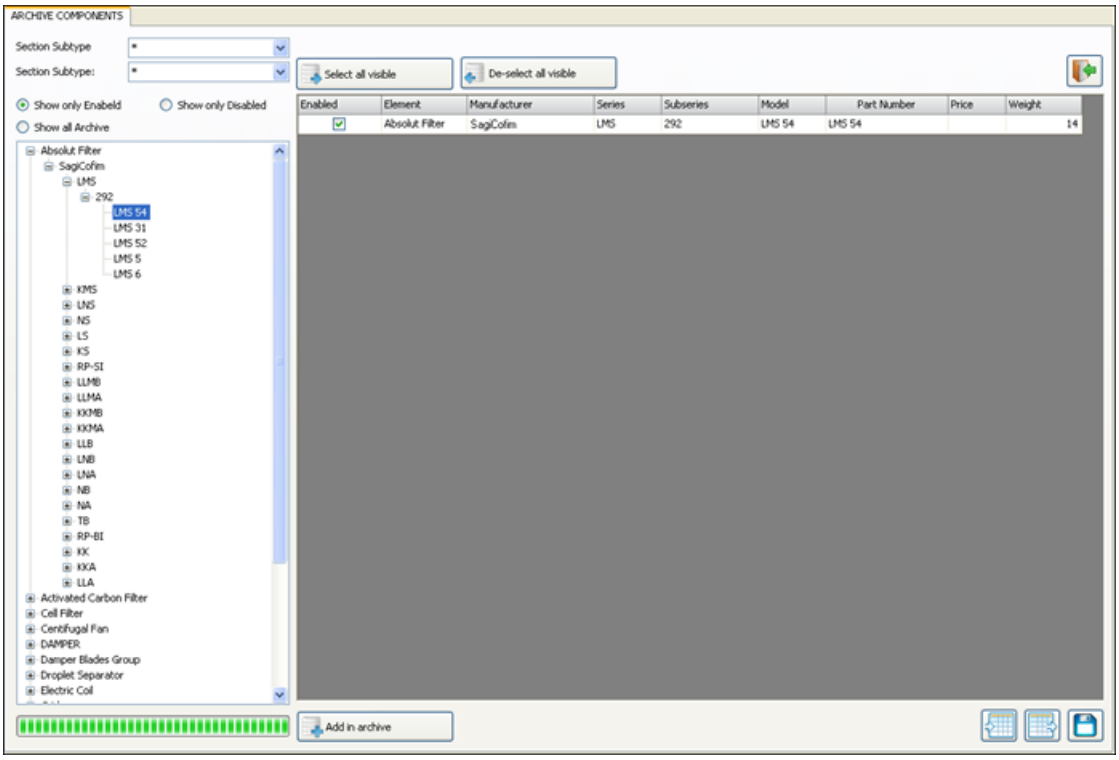
Subseries The subseries component.

Model The model component.

Part Number The part number component. This data is used into the BOM.

Price Component price.

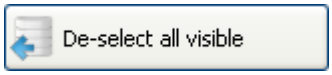
Weight Component weight.



*** Please note: prices and costs have been deleted from the images for privacy reasons.**

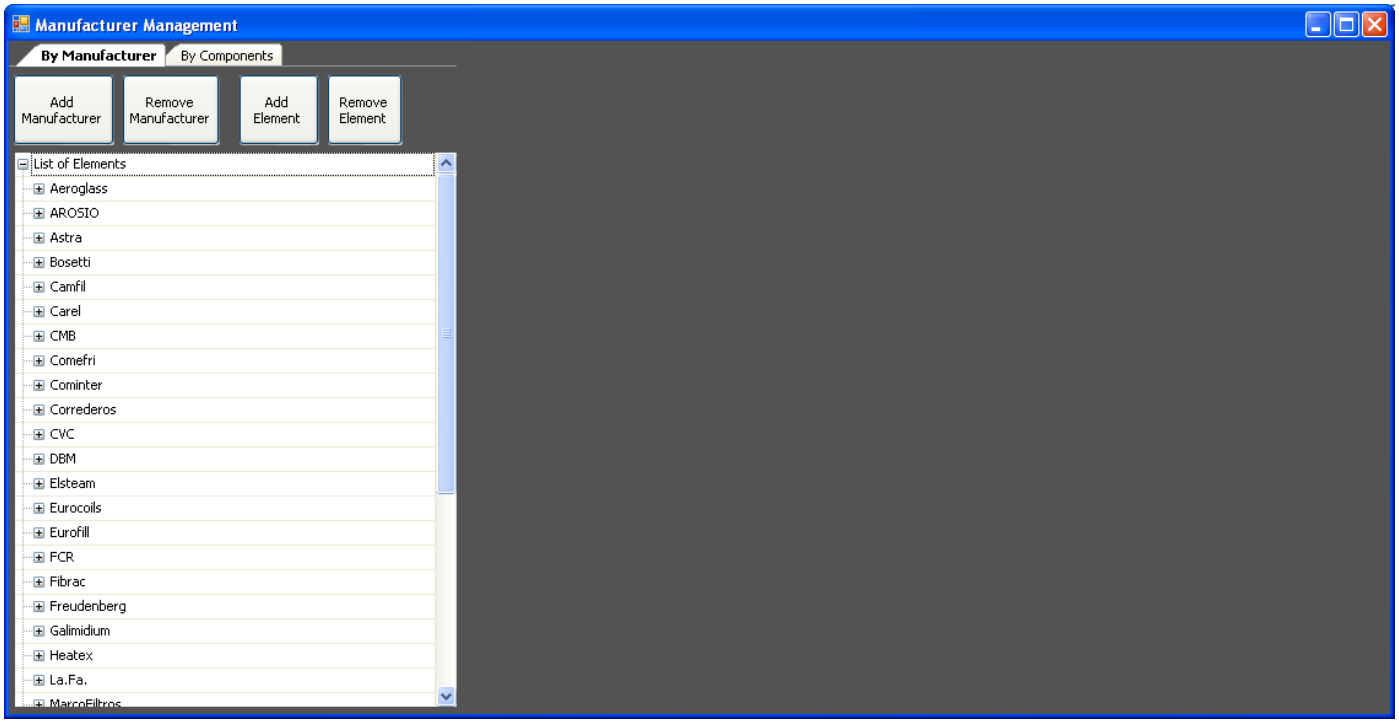
If you open the "plus" you can arrive to the model. For example, as you can see in the up image: Absolute Filter -> Manufacturer -> Series -> Subseries -> Model. And in in the table you can see more details.

If you click on this option, you can enable all components you can see in the table.

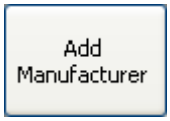


If you click on this option, you can disable all components you can see in the table.

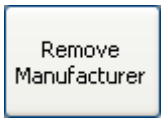
If you click on this option, you can add components to the archive.
If you click on it the follow window will open:



On this page you can add by skimming manufacturer or components.
Now you are in the section "By Manufacturer" as you can see on the tab.
In this section you have the option of adding a new manufacturer and hence the element that it produces, or you can add an item directly to an existing manufacturer.



If you click on this button, you can add a manufacturer to the list.



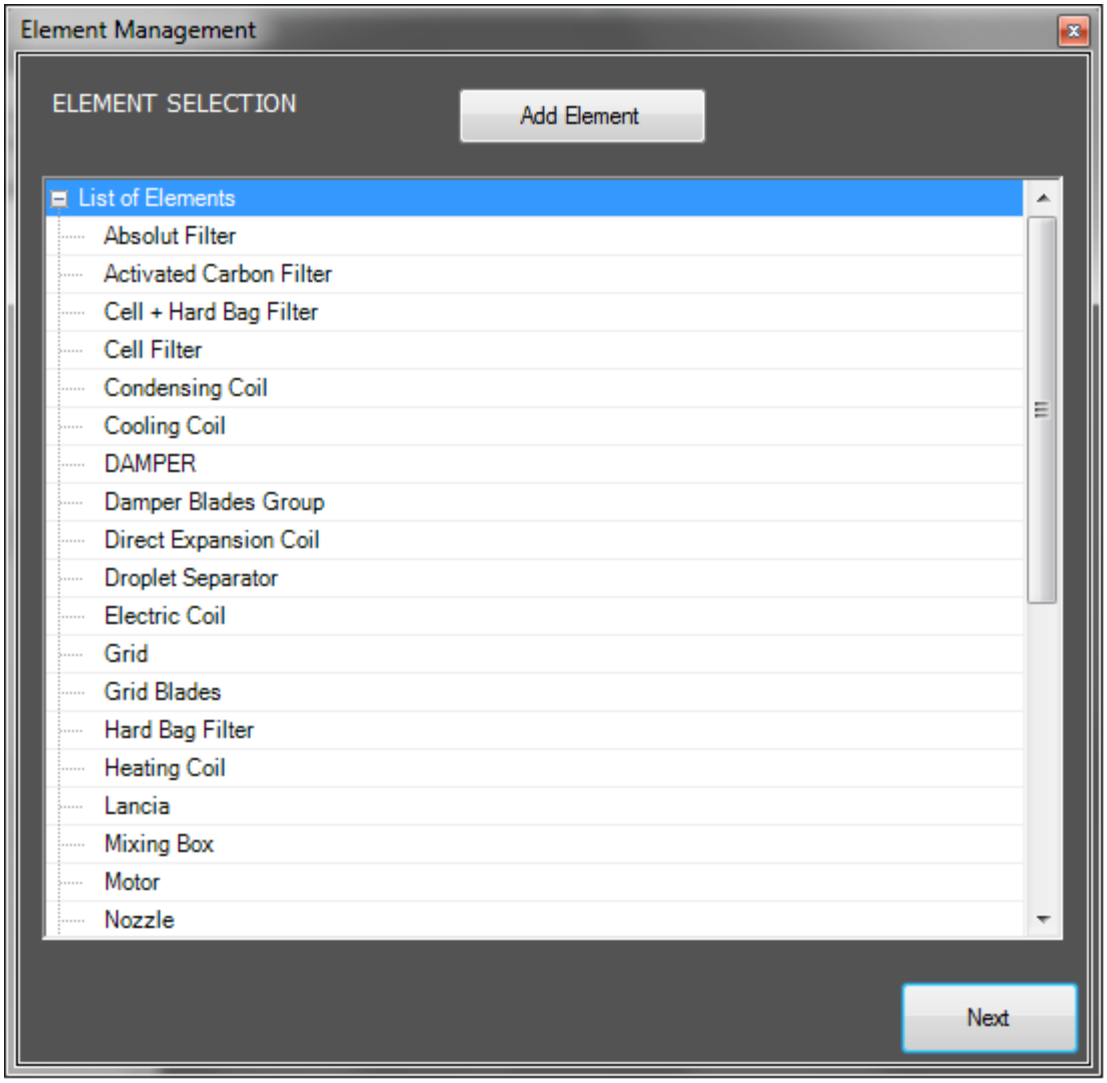
If you click on this button, you remove the selected manufacturer from the list.

If you click on this button, you can add an element to the selected manufacturer.

If you click on this button, you can delete an element from the selected manufacturer.

If you select a Manufacturer (for example AROSIO) and then on

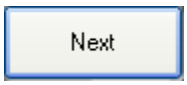
it will appear the follow window:



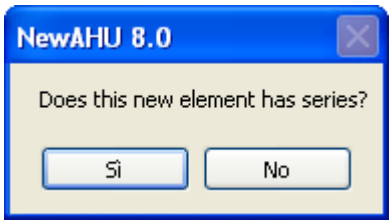
With this procedure you can add an item to a manufacturer.

if you click on this button you'll add an element to the list;

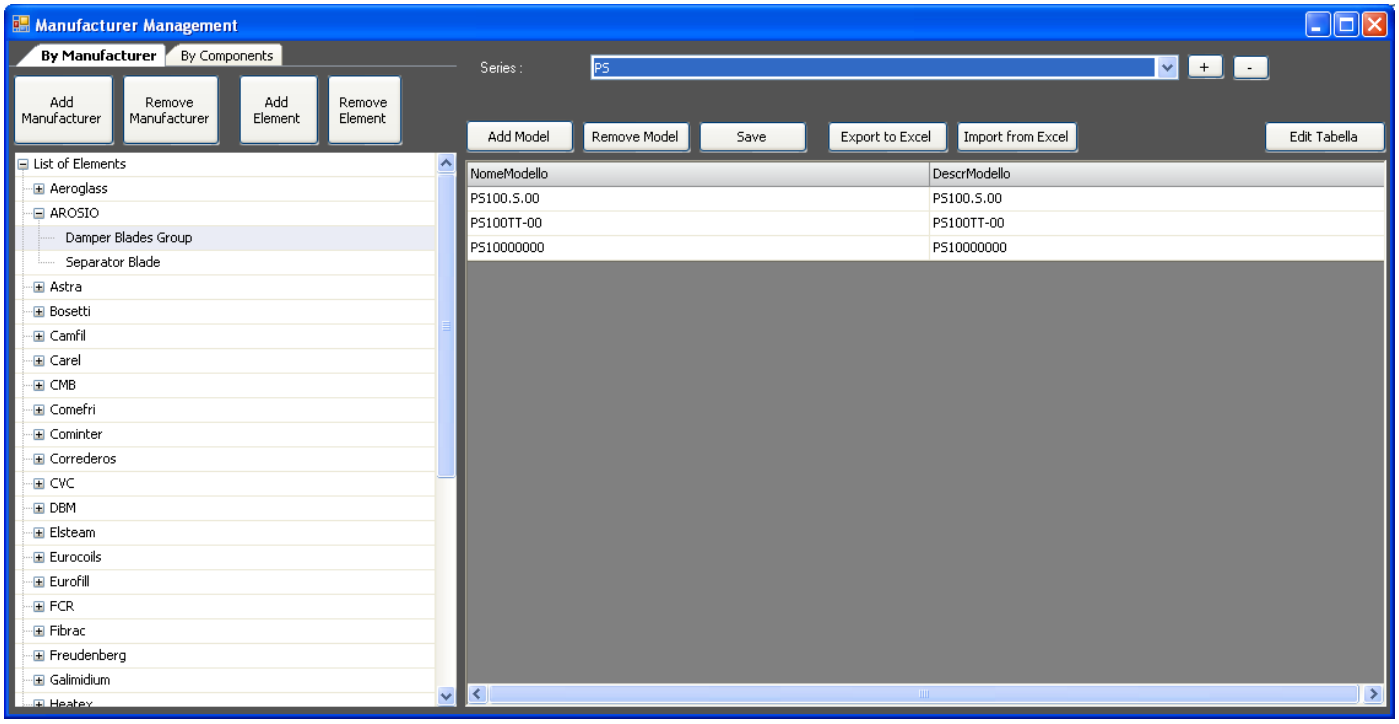
For example, if we want to add the element: Damper Blades Group:



Clicking on this button, it will appear the follow window, relative to the selected element:



if you click on " Yes" you'll obtain the follow image.



At the top of the window you can see a drop down menu with series list:

with this button you can add a series to the list;

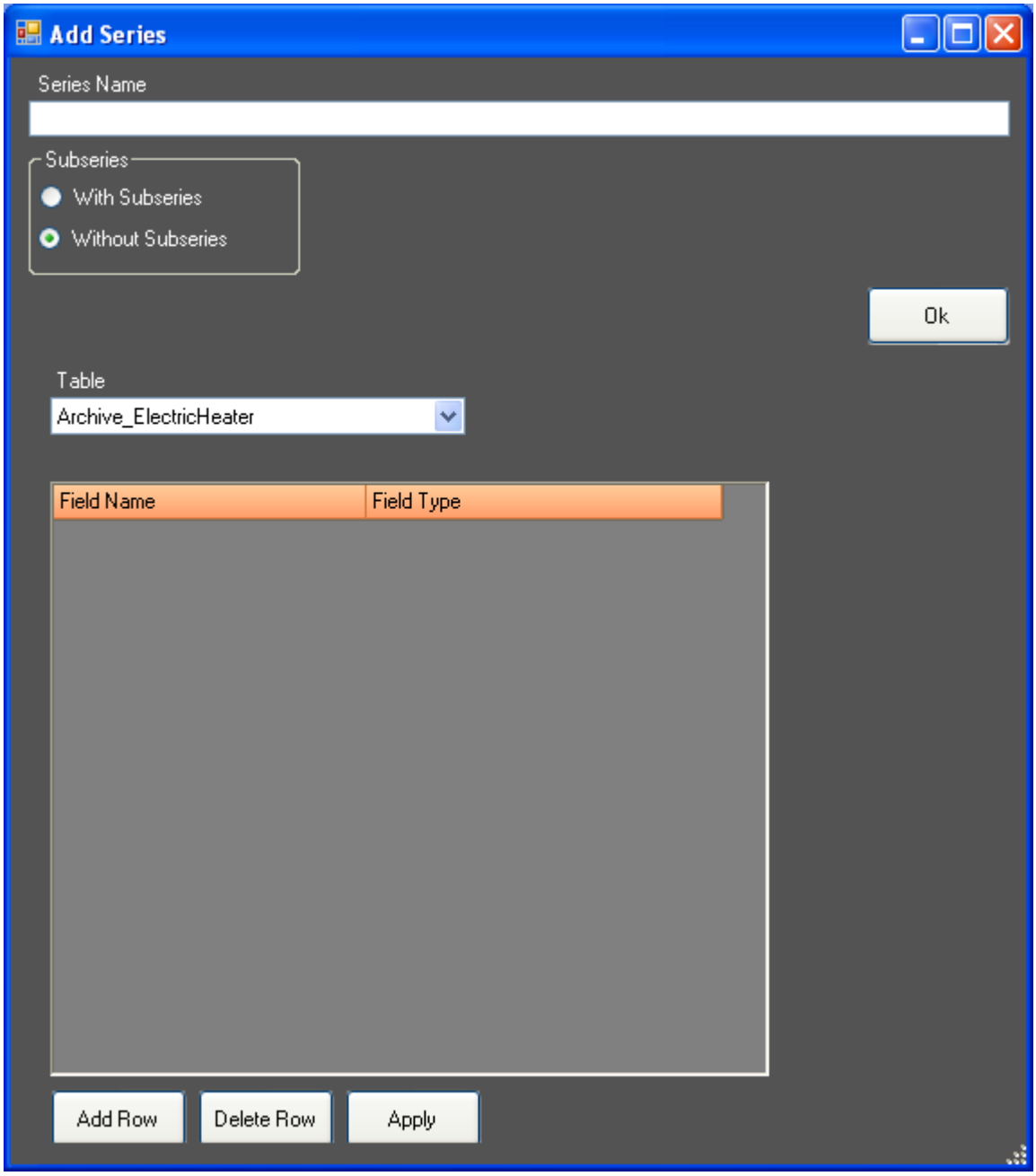
with this button you can remove a series from the list.

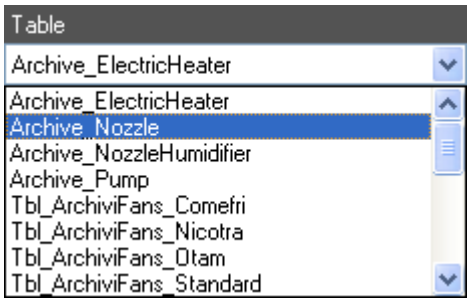
If you click on

you obtain the follow window:

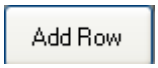
Where you can add series and then its Subseries (pay attention that it's checked as Default "With Subseries".

Instead if you check "Without subseries" it will appear the follow window:

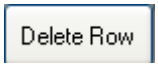




Here you can choose to which table add the elements of the series. Otherwise at the bottom of the drop down menu, you can add a New table and edit it as you prefer.

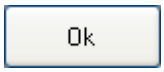


If you click on this button, you'll add a row to table.



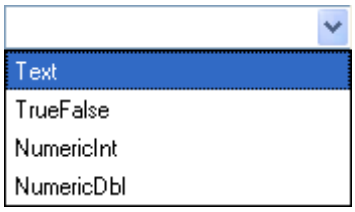
If you click on this button, you'll delete the selected row

If you click on this button, you'll apply modifies to the table.



If you click on this button, you'll quit from the window and you'll come back to the main page.

If you edit a new table or add a row to an existing one you've to write a Field Name and choose a Field Type:

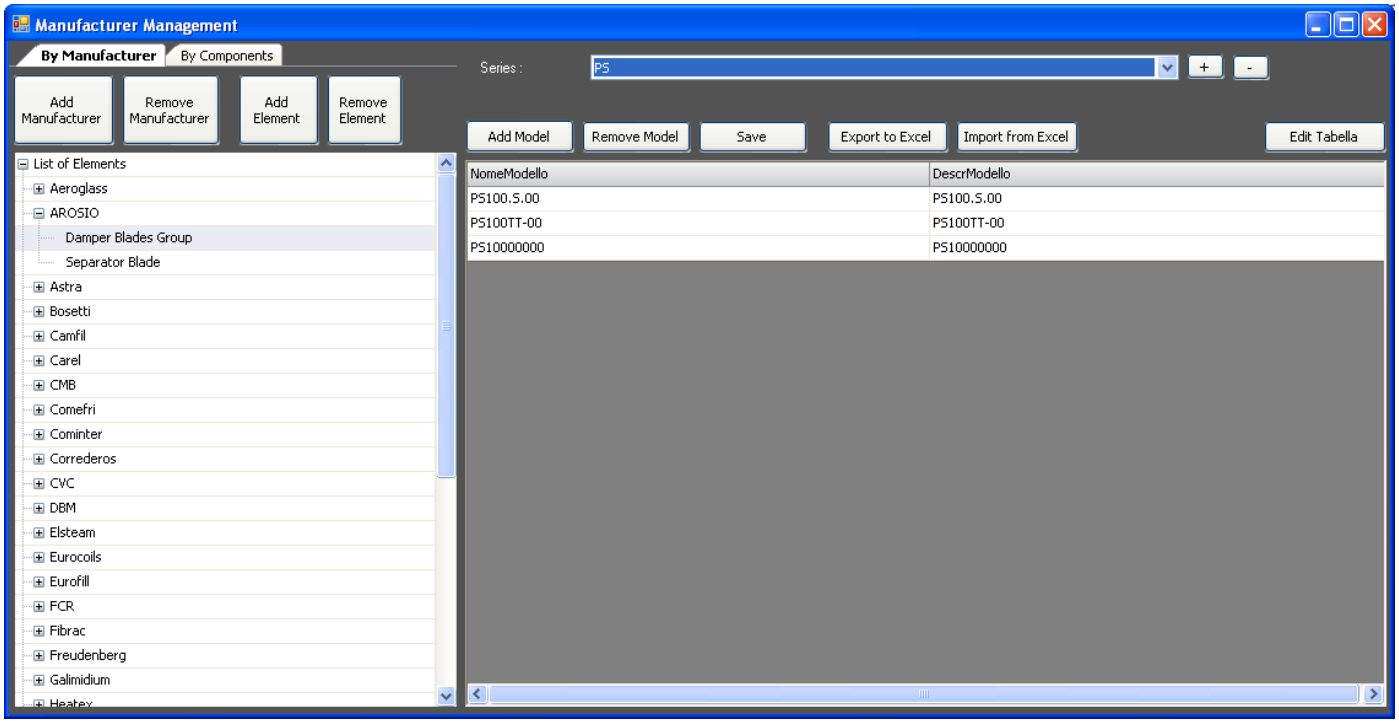


There are 4 possibilities for field type:

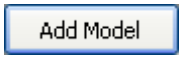
- Text: if you choose this type you can write text in the field;
- True False: if you choose this type it will appear a check in the table;
- NumericInt: if you choose this type you can write integers;
- NumericInt: if you choose this type you can write decimal numbers.

Once you've edit the table for the series, you can click on "apply" and on "Ok".

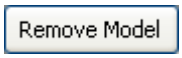
And you'll come back to the main window:



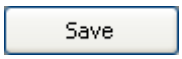
Now that you've selected a series you can:



Add a model to the series;



Delete a model from the series;

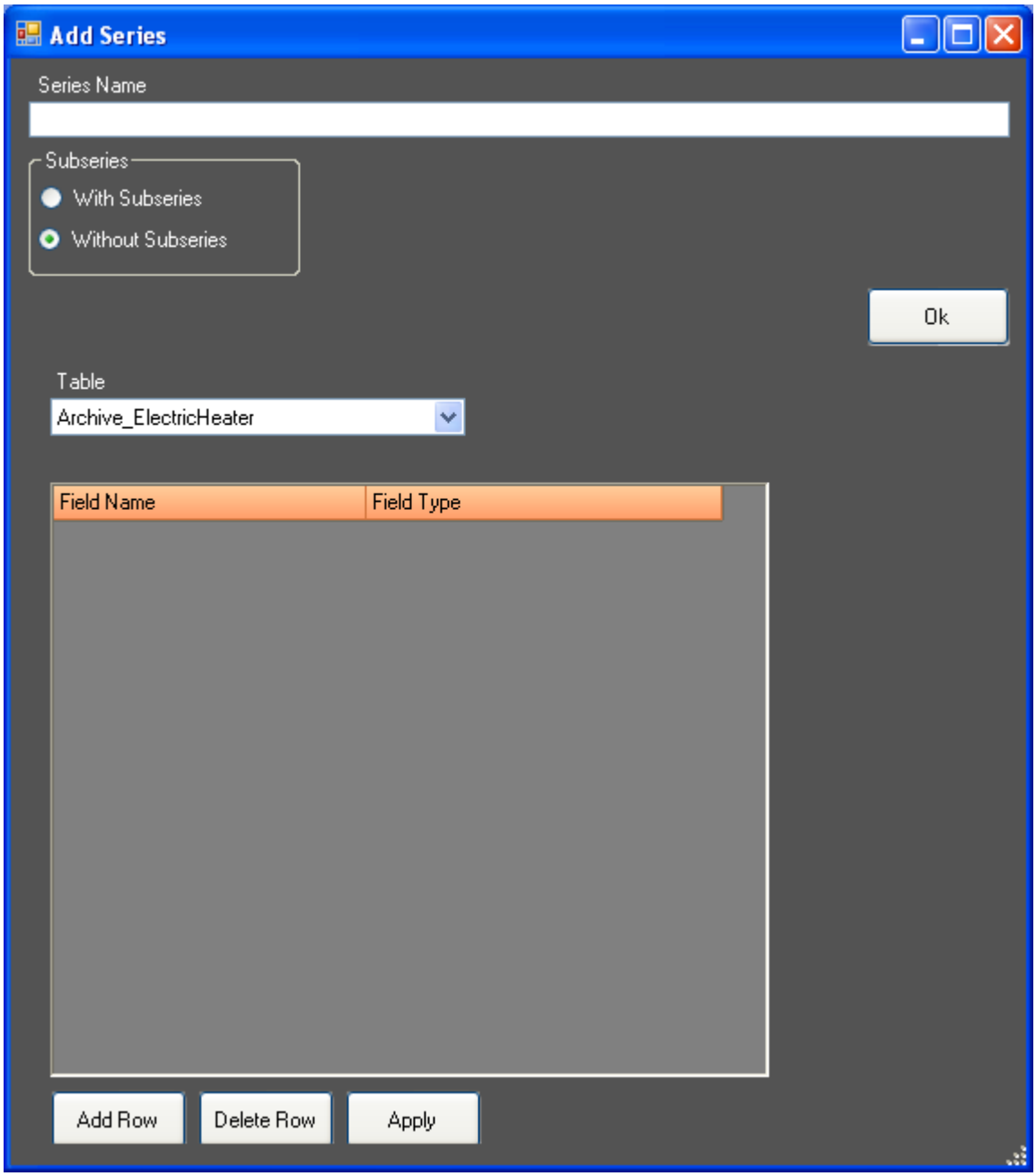


Save modifies.

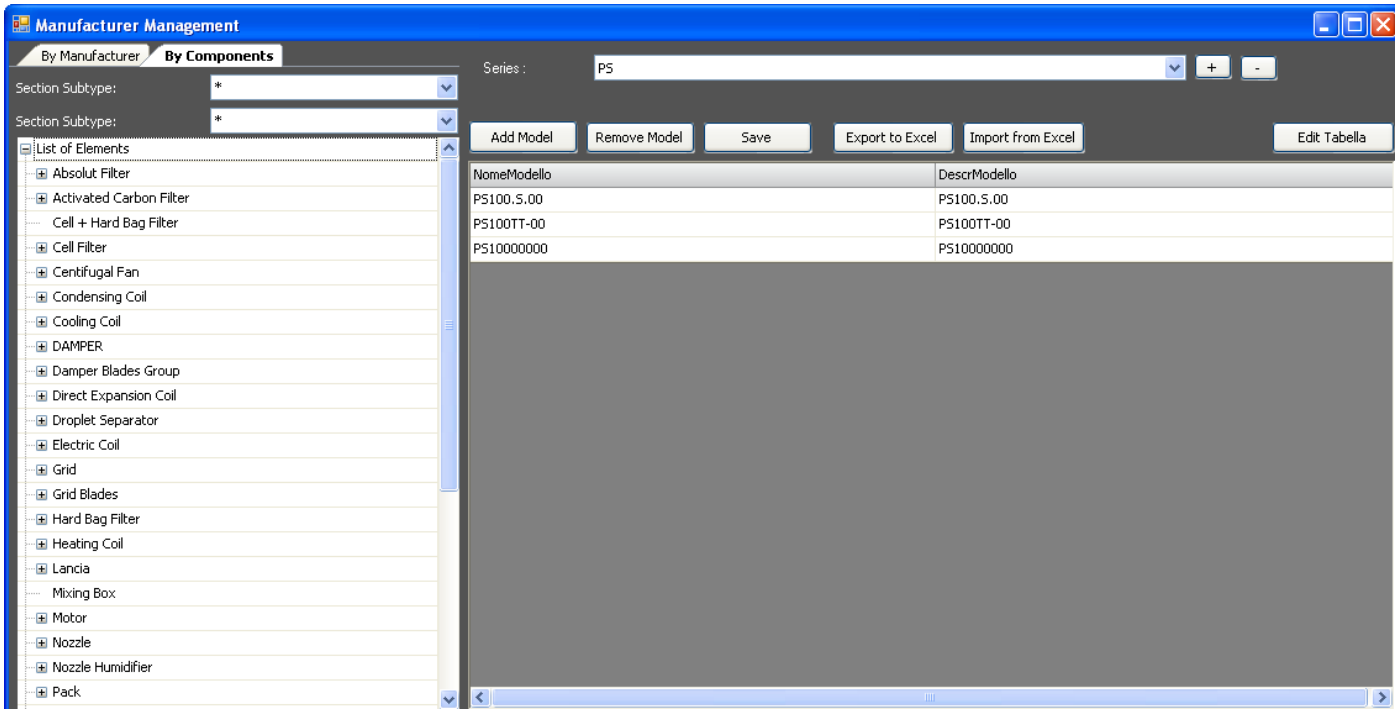
Export to Excel Export the table to an excel file;

Import from Excel Import a table from an excel file;

Edit Tabella Edit the table. I mean you can edit the table as in the follow image:



Clicking, instead, on the tab "By Components" you'll obtain the follow image:



If you click, for example on Active Carbon Filter -> Cell + Hard Bag Filter you can see in the table the list of model for that group.

At the top of the window you can see a drop down menu with series list:

with this button you can add a series to the list;

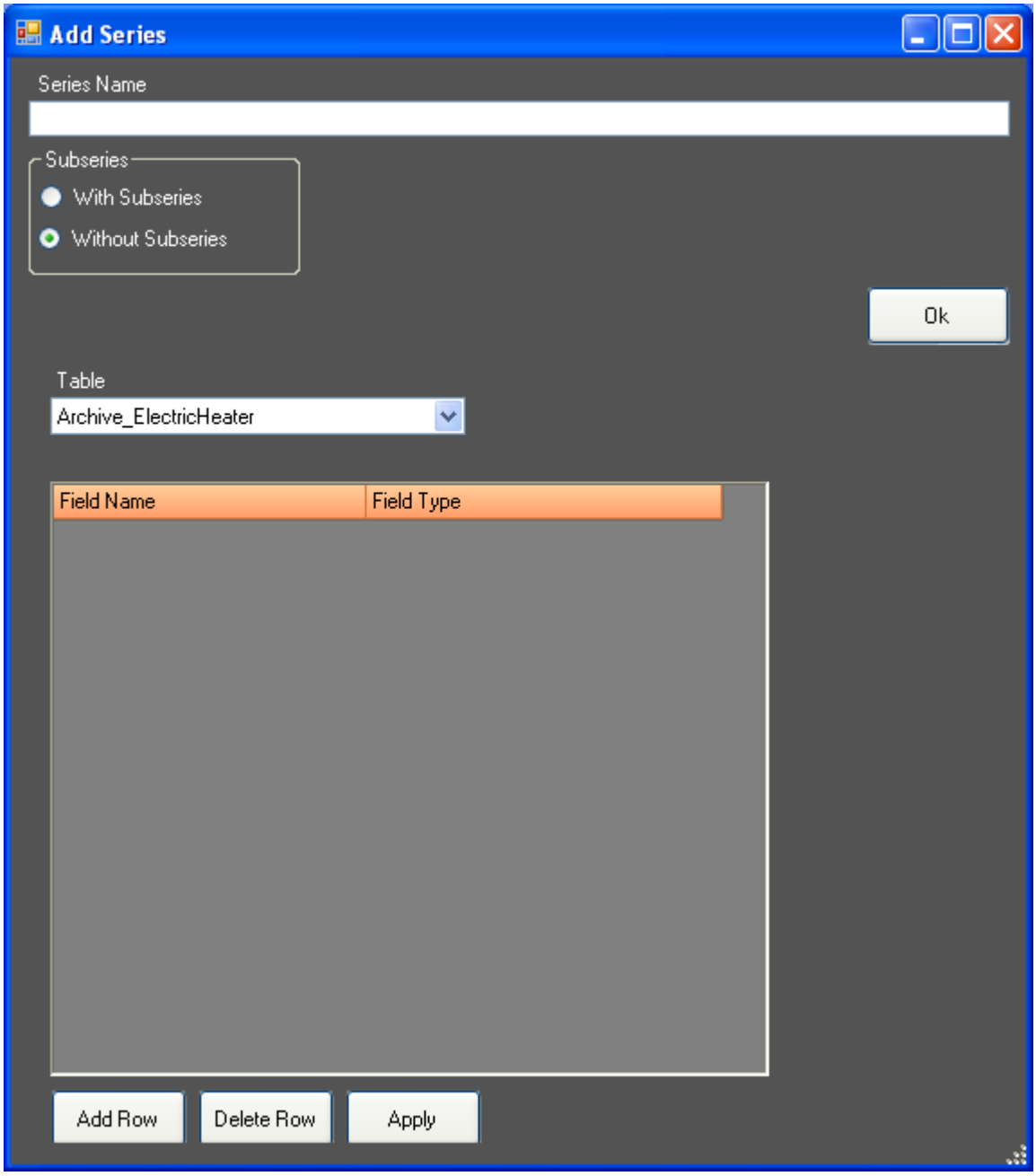
with this button you can remove a series from the list.

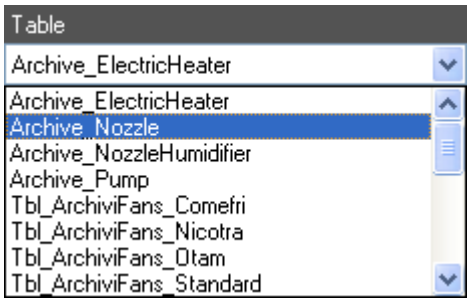
If you click on

you obtain the follow window:

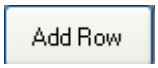
Where you can add series and then its Subseries (pay attention that it's checked as Default "With Subseries").

Instead if you check "Without subseries" it will appear the follow window:

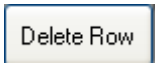




Here you can choose to which table add the elements of the series. Otherwise at the bottom of the drop down menu, you can add a New table and edit it as you prefer.

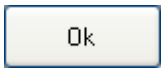


If you click on this button, you'll add a row to table.



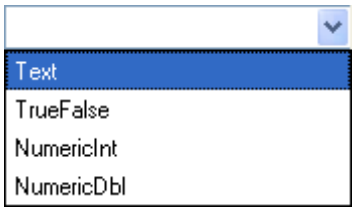
If you clock on this button, you'll delete the selected row

If you click on this button, you'll apply modifies to the table.



If you click on this button, you'll quit from the window and you'll come back to the main page.

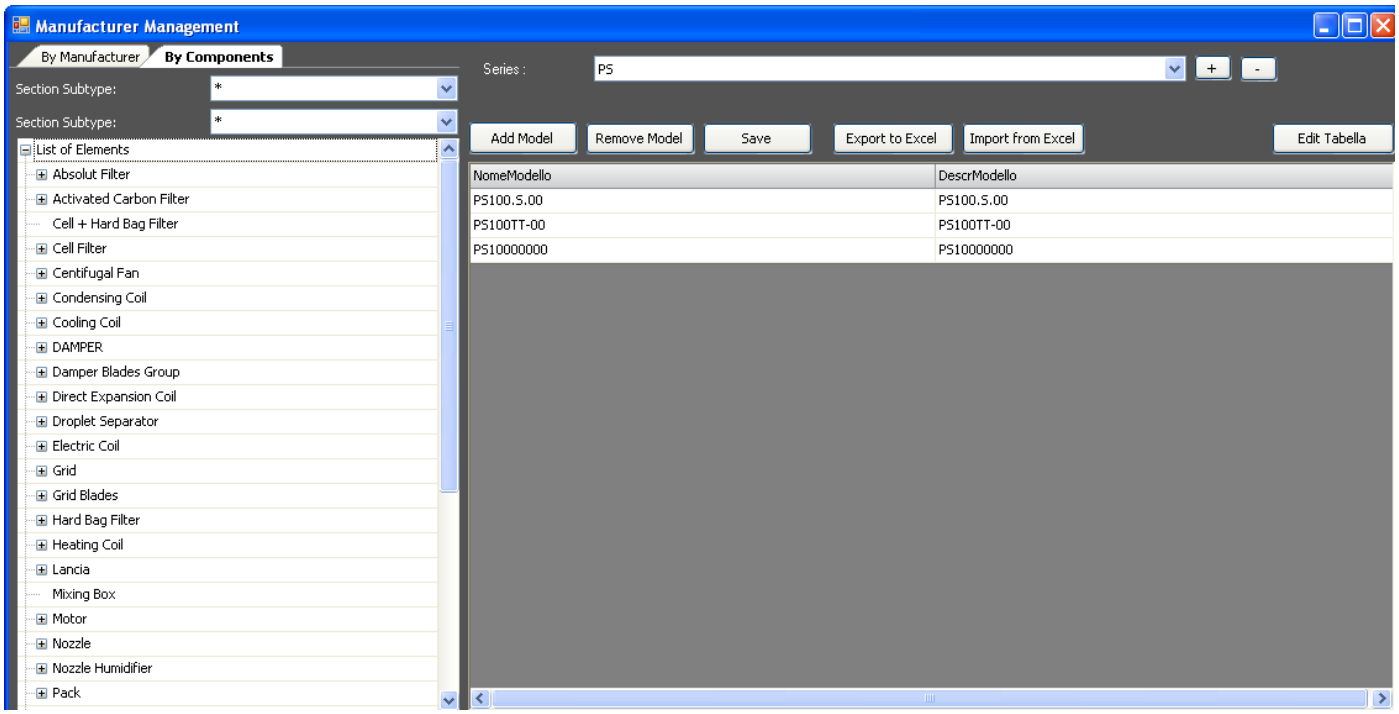
If you edit a new table or add a row to an existing one you've to write a Field Name and choose a Field Type:



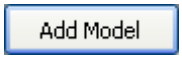
There are 4 possibilities for field type:

- Text: if you choose this type you can write text in the field;
- True False: if you choose this type it will appear a check in the table;
- NumericInt: if you choose this type you can write integers;
- NumericInt: if you choose this type you can write decimal numbers.

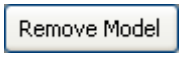
Once you've edit the table for the series, you can click on "apply" and on "Ok".



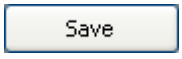
Now that you've selected a series you can:



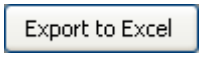
Add a model to the series;



Delete a model from the series;



Save modifies.



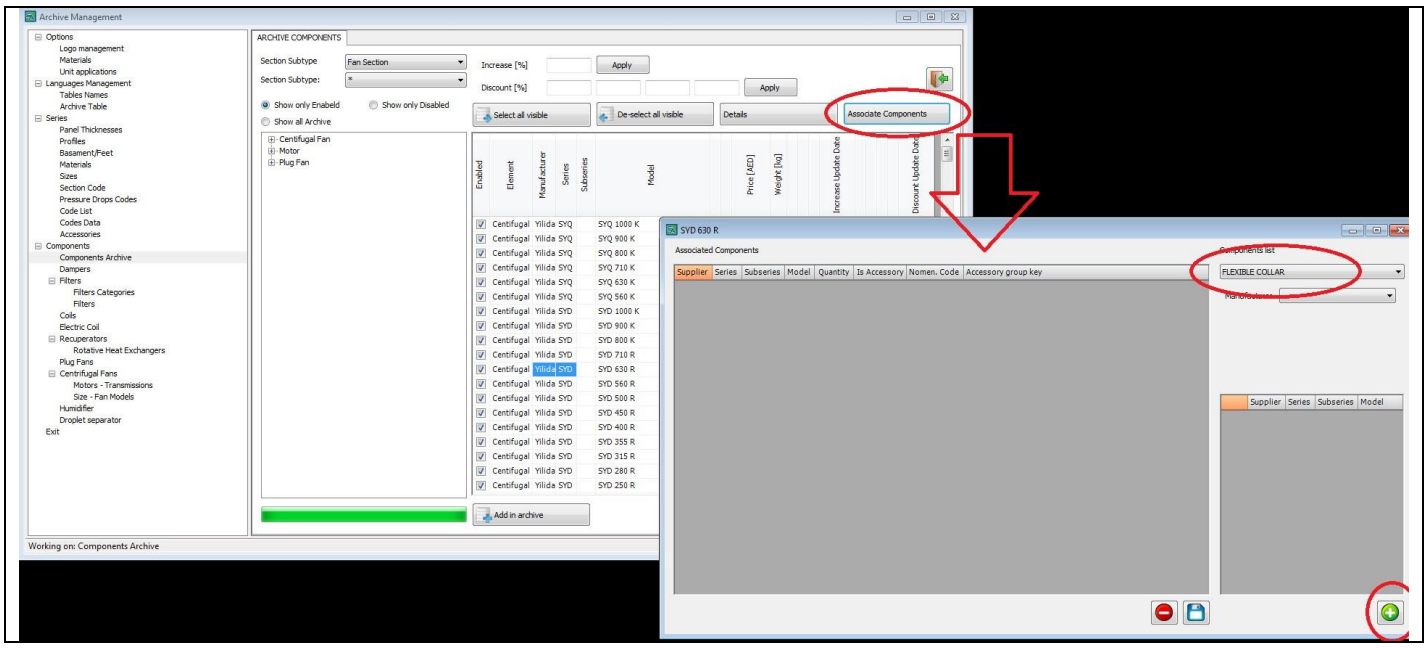
Export the table to an excel file;

Import from Excel Import a table from an excel file;

Edit Tabella Edit the table.

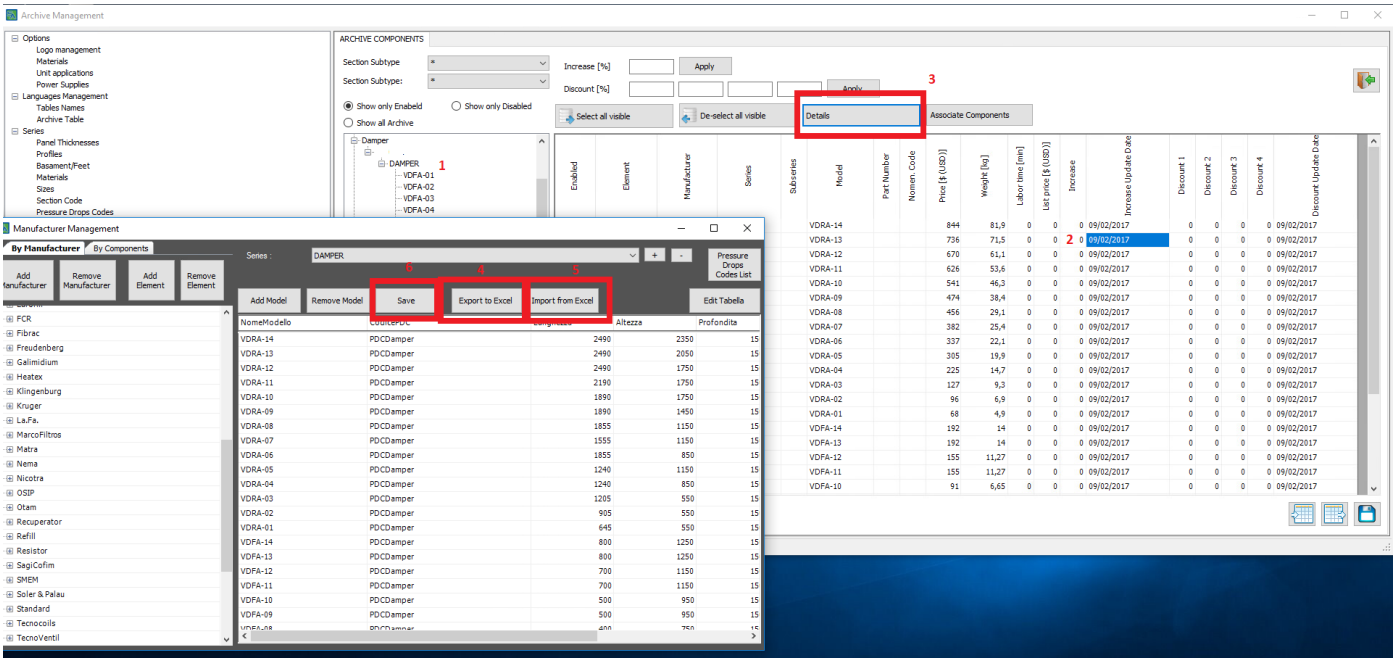
V. 1. 1. How to associate a component to another component.

For example, if you need to associate a Flexible collar to a Centrifugal fan.
First step: Introduce or enable both components into the Components archive.
Second step: Click on Associate Components and then in following mask choose the flexible collar to associate and save the association.



V. 1. 2. How to add new models in the Components Archive

If you need to add new models to an existing Series, follow the step below.



1. Select the Component to which you want to add new elements, for instance DAMPERS.
2. Select one element in the table
3. Click on Details so that it will open the table: Manufacturer Management.
4. Export the list on an excel file by clicking on Export to Excel.

4.1. In the Excel file you can only ADD new elements.

YOU CANNOT:

a. Delete lines

b. Delete Columns

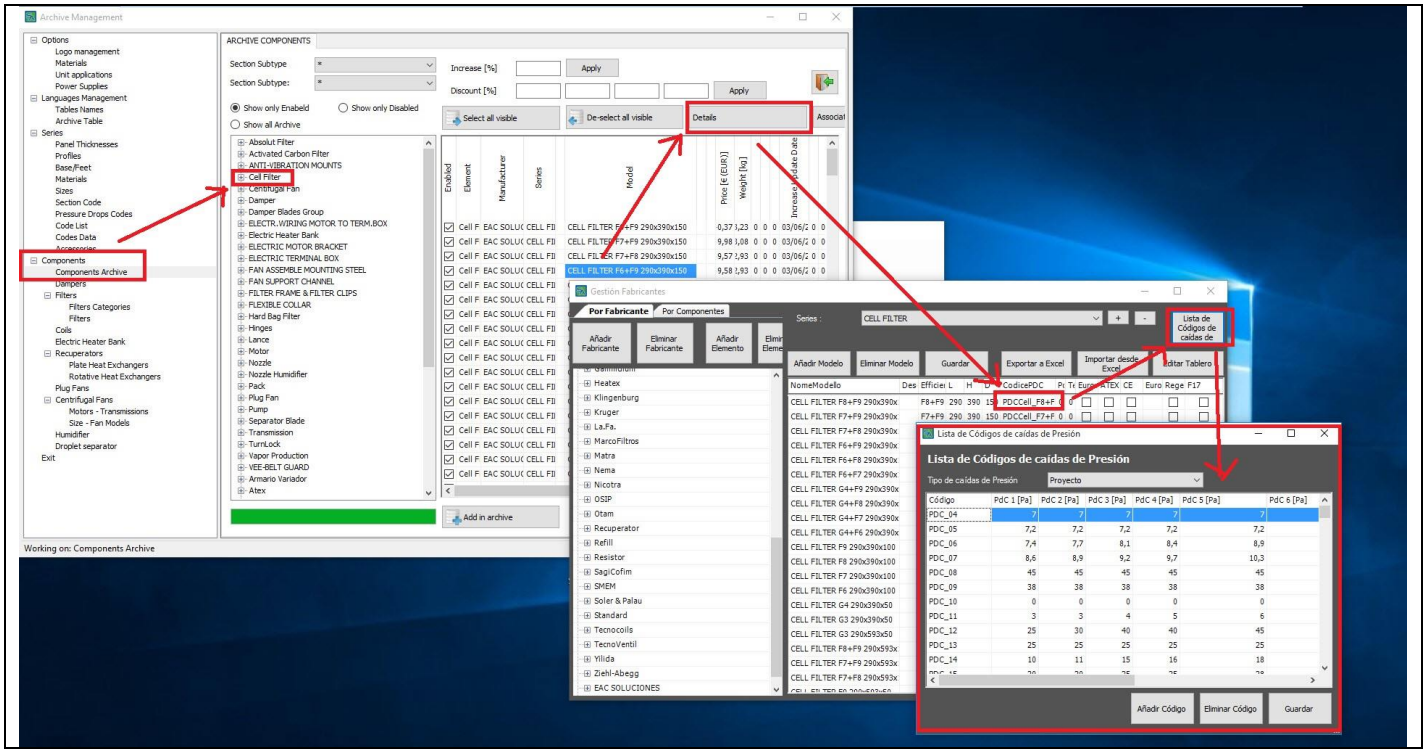
c. Change the order of lines or columns.

Once that you have added the elements, you can save and

5. Import from Excel by clicking on the button Import from Excel.
6. Save the Excel.

V. 1. 3. How to associate a pressure drops curve to a component.

If you need to associate a pressure drops curve to a new component inserted in the Archive or you want to check which is the pressure drops associated to the component you need follow the red arrows.

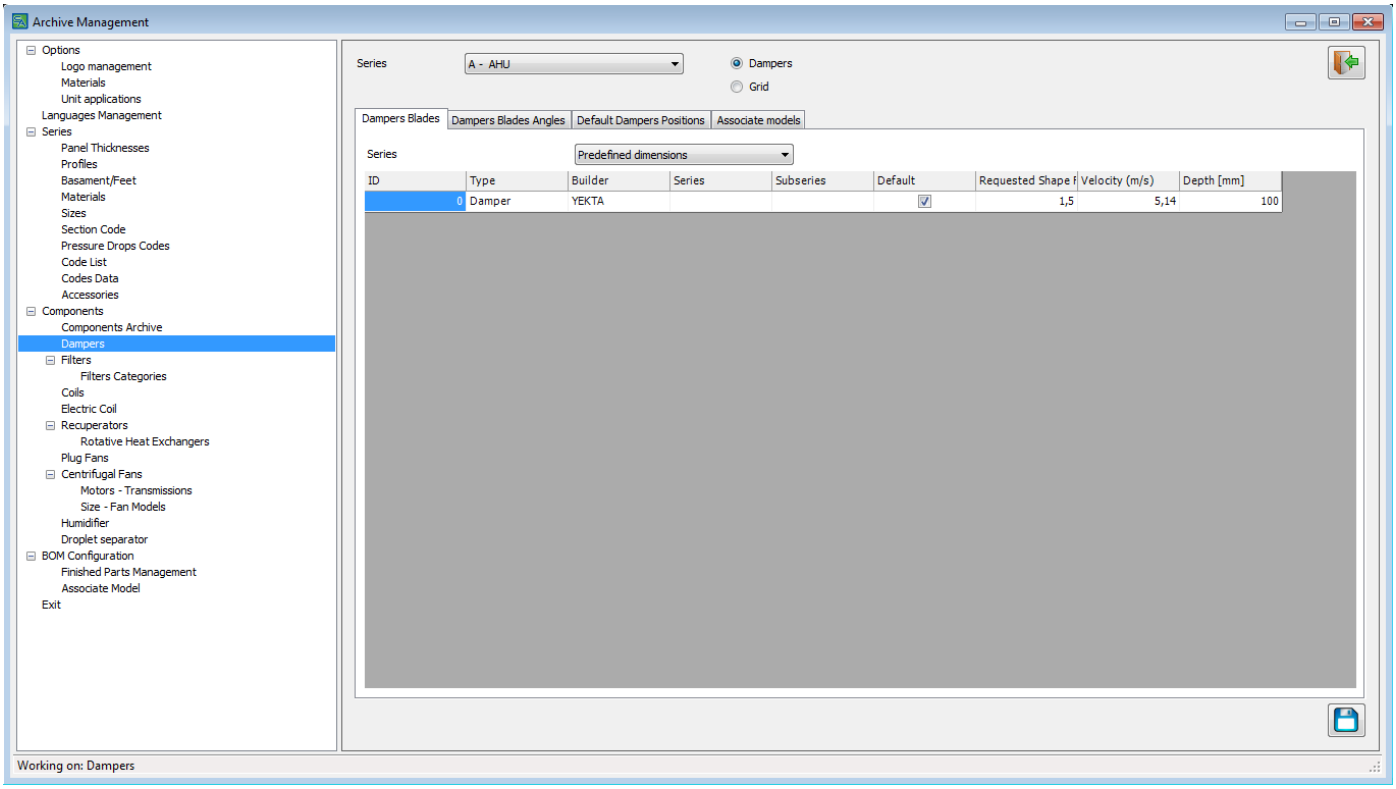


So, once selected the component or once inserted the new component, inside the mask of DETAILS you need to insert the "CodicePDC" (Pressure Drops Code). You can find this code inside List of pressure drops code. If you cannot find the pressure drops curves, you can insert it and then associate it to the component. Pay attention that you need to insert a curve for each Pressure drops type (Clean, Dirty and Design).

V. 1. 4 How to enable an element just added

When you insert a new element into the Archive, it is automatically set as DISABLE.
So, you have to enable it.
Click on Show Only Disabled, and then look for the elements added.
Select them as visible and Save them.
In this phase you can insert their prices and weights.
Once that you have saved, click on yes, on the message "Do you want to reload the data"? and once that the software has reloaded the data, click on Components on the tree menu on the left and check that all elements you have just added be enabled.

V. 2 Dampers



In this section you can see in the table the Dampers, damper blades and grid Serie you've enabled in the Section "Select Component to Use".

At the top right of window, you can quit from management

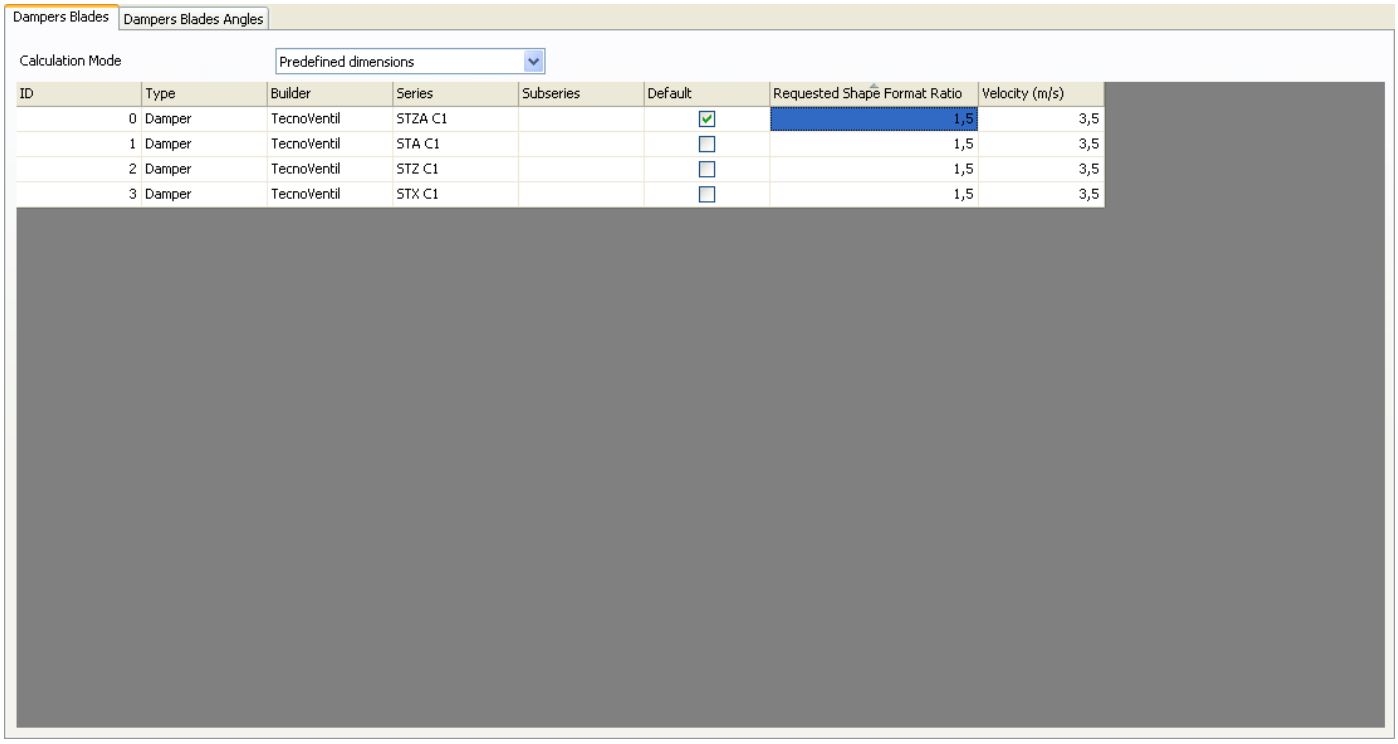
with this button you can save modifies.

here you can choose the Unit series.

If you check this option, you are in the section "Dampers".

If you check this option, you can go to section "Grid"

V. 2.1 Dampers blades



Here you can choose the Calculation Mode for dimensions.

In the table, instead, you can choose only Default, Requested Shape Format Ratio and Velocity. The other fields are filled by the software according to previous chooses.

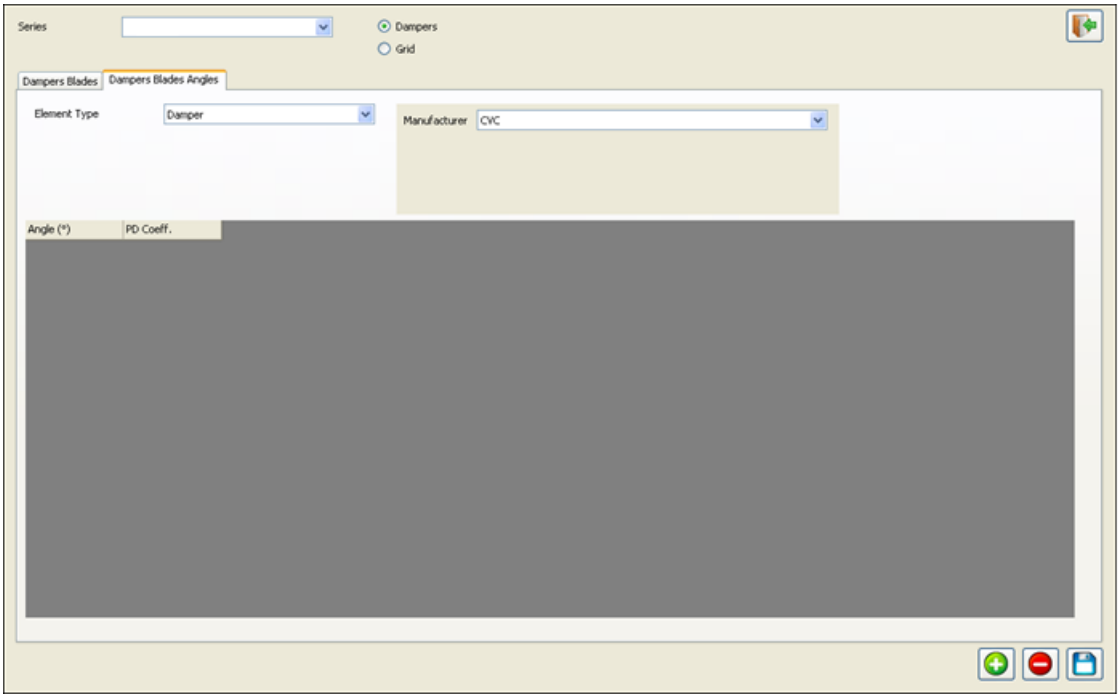
Please, rememeber always to enable the damper and to fullfill the fields:

- Request Shape Format Ratio
- Velocity
- Depth
-

If you have inserted a list of damper inside the Components Archive, we suggest to use "PREDEFINED DIMENSNIONS" and passing to tab ASSOCIATE MODELS.

V. 2.2 Dampers Blades Angles

If you click on the tab "Damper Blades Angle" you'll obtain the follow window:



In this window, for each manufacturer, you can insert the possible angle Damper and its Pressure Drops Coefficient.

At the top right of window, you can quit from management

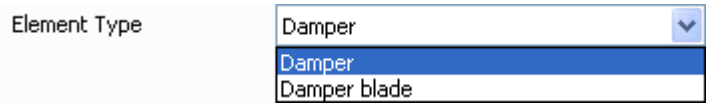
At the bottom of the window you find:

with this button you can add a new damper.

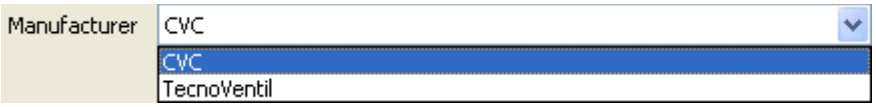
with this button you can delete an inserted damper.

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

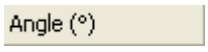


you can choose if you want to add Angles and Pressure Drops to Dampers or a damper Blades.



You can choose the manufacturer.

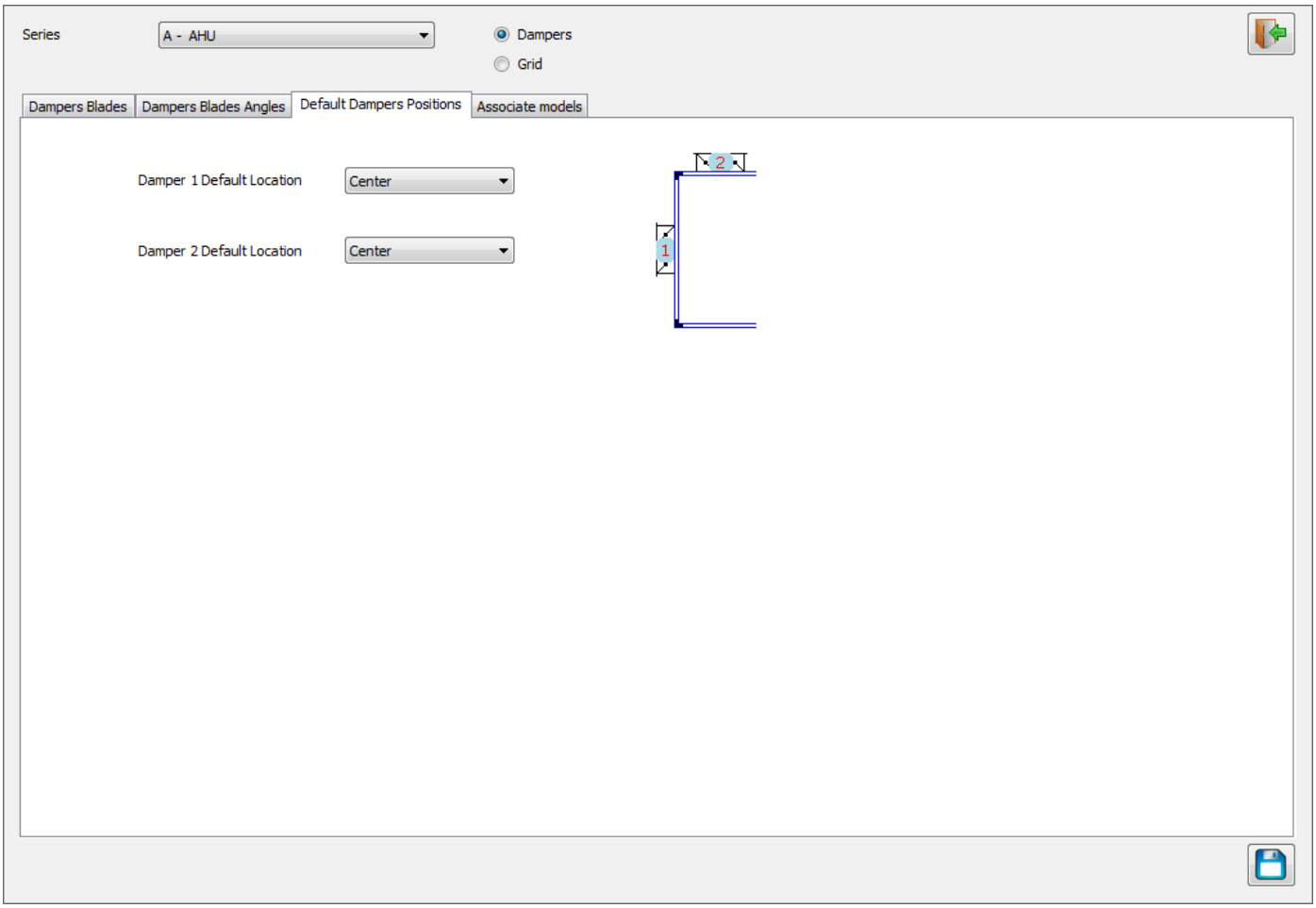
In the table, instead, you've to add:



Angle blades

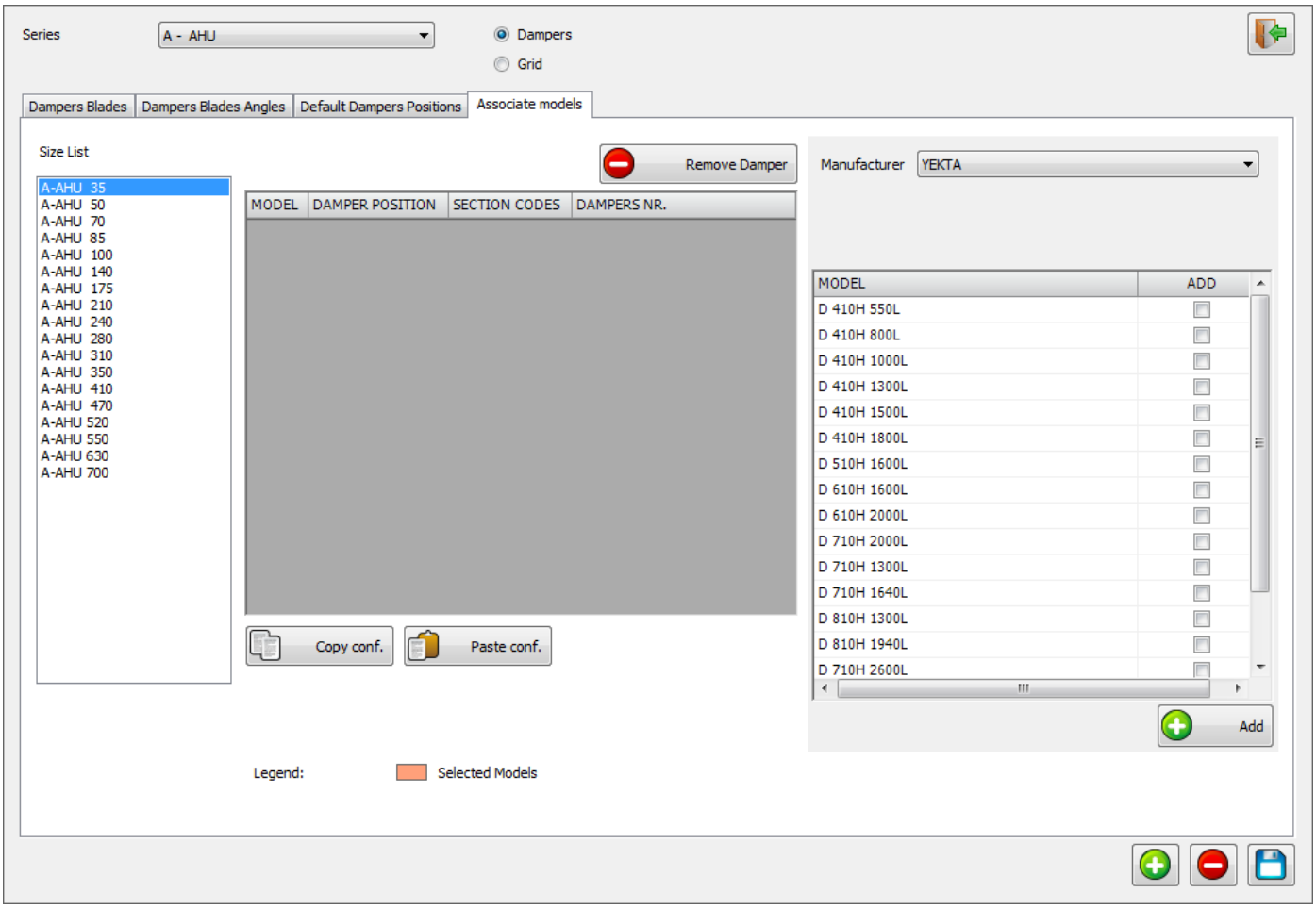
Pressure drop coefficient.

V. 2.3 Default Dampers Positions



In this section, you can decide where set dampers position in a mixing chamber.

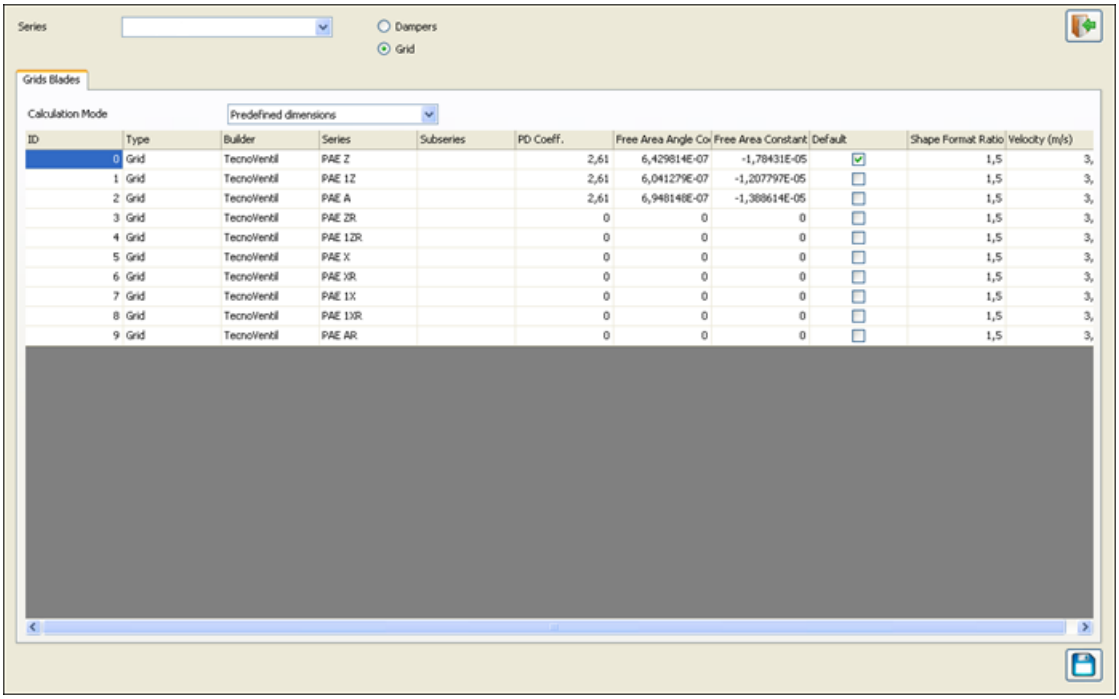
V. 2.4 Associate models



In this section, you can associate default dampers to each size.
So, the software when it will be necessary to select a damper, it will take it out from the list of associated dampers.
But Pay attention that if you have associated dampers TOO big for the panel dimensions, the software won't show you any damper.

V. 2.5 Grid

If you check the "Grid" option, you'll obtain the follow window:



ID	Type	Builder	Series	Subseries	PD Coeff.	Free Area Angle Co	Free Area Constant	Default	Shape Format Ratio	Velocity (m/s)
0	Grid	TecnoVentil	PAE Z		2,61	6,429814E-07	-1,78431E-05	☑	1,5	3,
1	Grid	TecnoVentil	PAE 1Z		2,61	6,041279E-07	-1,207797E-05	☐	1,5	3,
2	Grid	TecnoVentil	PAE A		2,61	6,948148E-07	-1,388614E-05	☐	1,5	3,
3	Grid	TecnoVentil	PAE ZR		0	0	0	☐	1,5	3,
4	Grid	TecnoVentil	PAE 1ZR		0	0	0	☐	1,5	3,
5	Grid	TecnoVentil	PAE X		0	0	0	☐	1,5	3,
6	Grid	TecnoVentil	PAE XR		0	0	0	☐	1,5	3,
7	Grid	TecnoVentil	PAE 1X		0	0	0	☐	1,5	3,
8	Grid	TecnoVentil	PAE 1XR		0	0	0	☐	1,5	3,
9	Grid	TecnoVentil	PAE AR		0	0	0	☐	1,5	3,

In this section you can see in the table the Grid Blades Serie you've enabled in the Section "Select Component to Use".

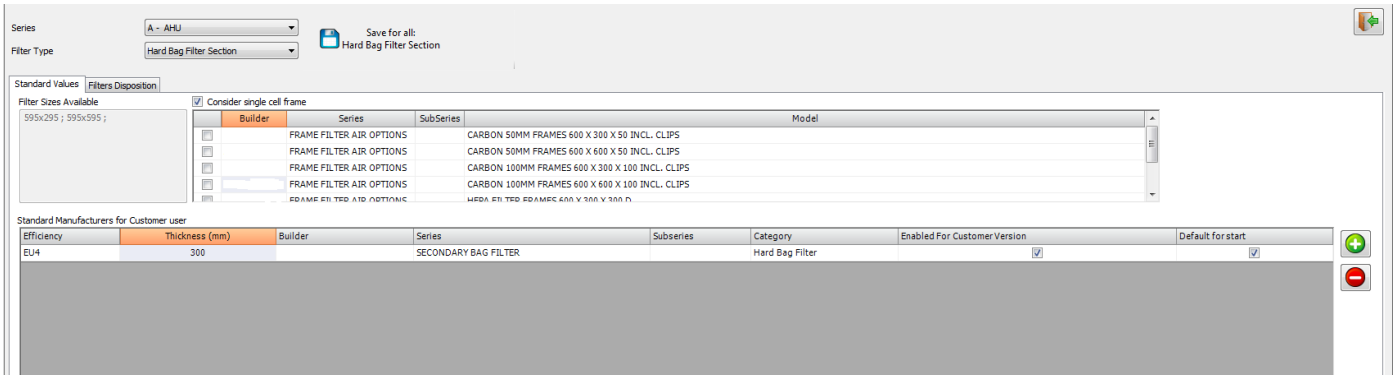
Beside you can check the Default to use in the BOM and VIEW3.

At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

V. 3 Filters



Builder	Series	SubSeries	Model
	FRAME FILTER AIR OPTIONS		CARBON 50MM FRAMES 600 X 300 X 50 INCL. CLIPS
	FRAME FILTER AIR OPTIONS		CARBON 50MM FRAMES 600 X 600 X 50 INCL. CLIPS
	FRAME FILTER AIR OPTIONS		CARBON 100MM FRAMES 600 X 300 X 100 INCL. CLIPS
	FRAME FILTER AIR OPTIONS		CARBON 100MM FRAMES 600 X 600 X 100 INCL. CLIPS

Efficiency	Thickness (mm)	Builder	Series	Subseries	Category	Enabled For Customer Version	Default for start
EU4	300		SECONDARY BAG FILTER		Hard Bag Filter	☑	☑

In this section you can see in the table the filters Serie you've enabled in the Section "Select Component to Use".

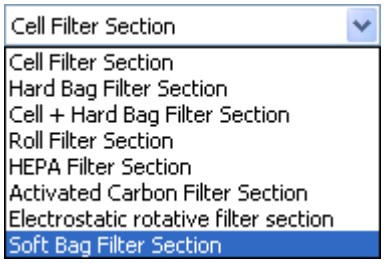
At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

here you can choose the series.

You can select filter type, and the typology are in the follow image:



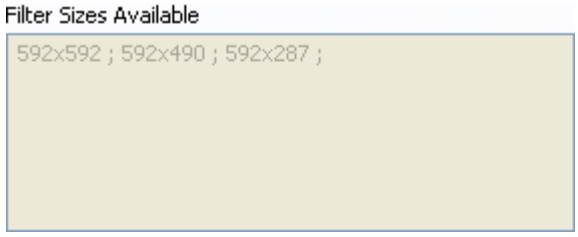
Filter typology.

Once selected one typology will appear the table with the enabled filters (see section "Select Component to Use") which the user has add to the list.

At the bottom of the window you find:

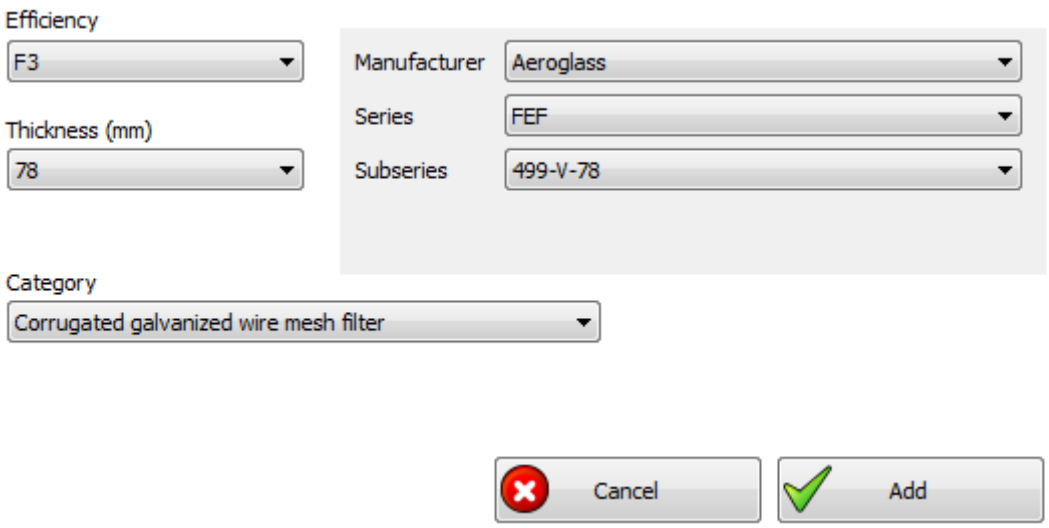
with this button you can add a new filter to the list. Pay attention that you can add to the list only enabled filters (see section "Select Component to Use")

with this button you can delete an inserted filter.



Pay attention on this table. You can see only a few dimensions. The reason is because these dimensions are the common dimensions to all filter of the list below.

If you click on it will appear this window:

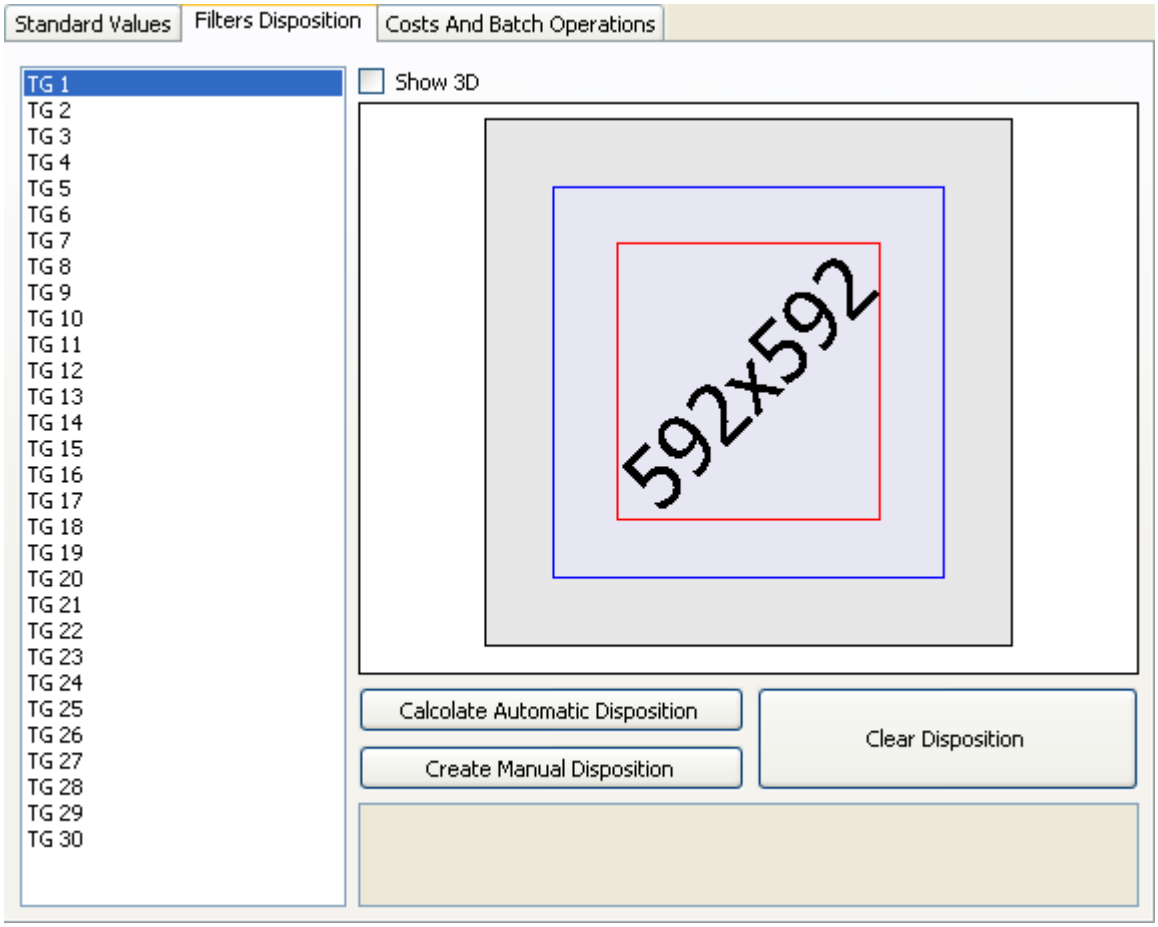


Where you've to choose, in order to insert an enabled filter, some parameters.

with this button you can quit without saving.

with this button you can quit from the window, saving modifies and so saving filter.

If you pass on tab "Filter disposition" you'll obtain the follow window:



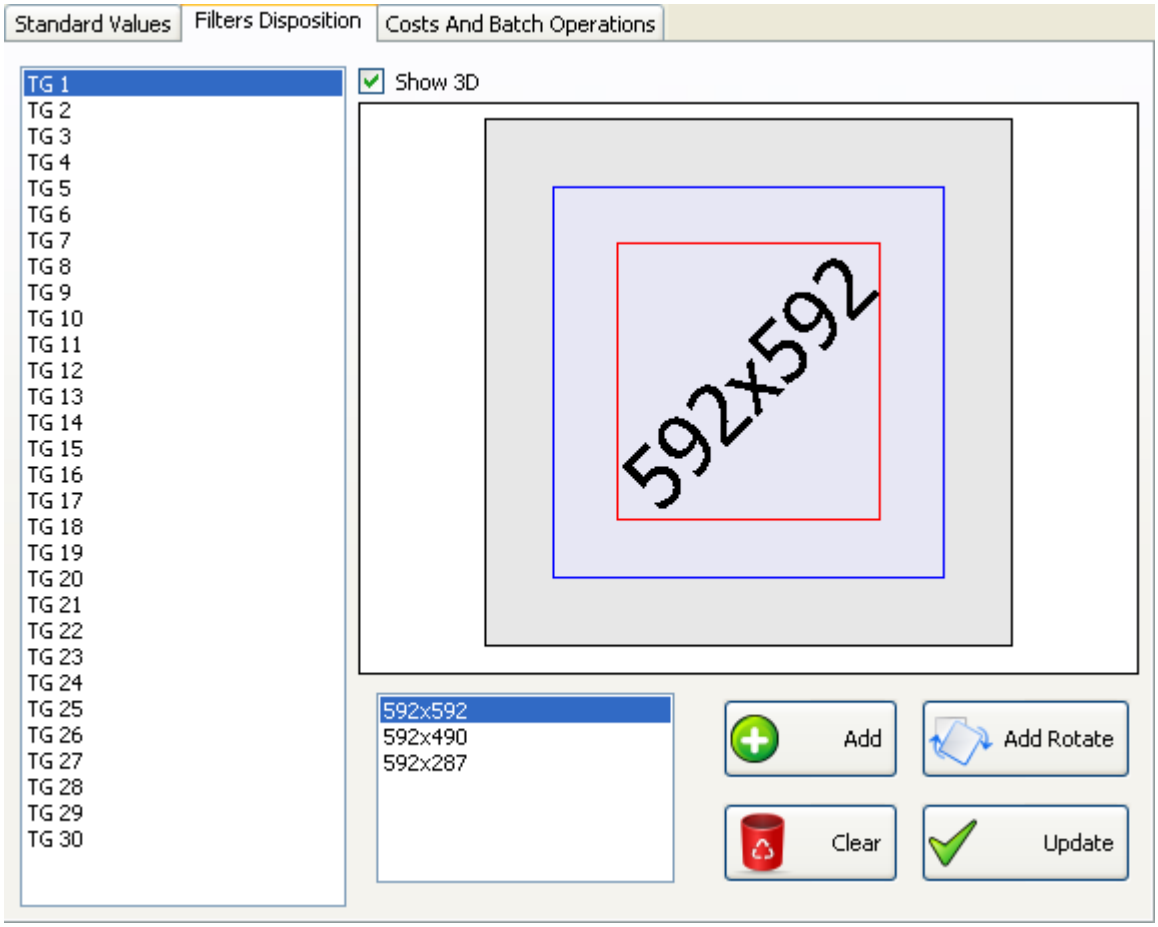
Here you associate to each size its filter and filter disposition.

Calcolate Automatic Disposition Software will calculate an automatic disposition;

Create Manual Disposition You can create by yourself a filter disposition;

Clear Disposition You can reset filter disposition.

If you click on, Create Manual Disposition you'll obtain the follow window:



The red line are limits for coil dimensions, and we know that is sufficient that filter cover frontal coil dimensions.
The blue line, instead is the filter.

For each size there is already, as default, a filter disposition.

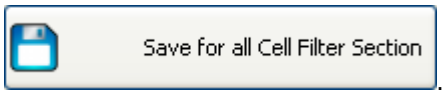
If you click on this button, you can add the selected filter to the drawing;

If you click on this button, you can rotate the filters;

If you click on this button, you can clear the filter disposition.

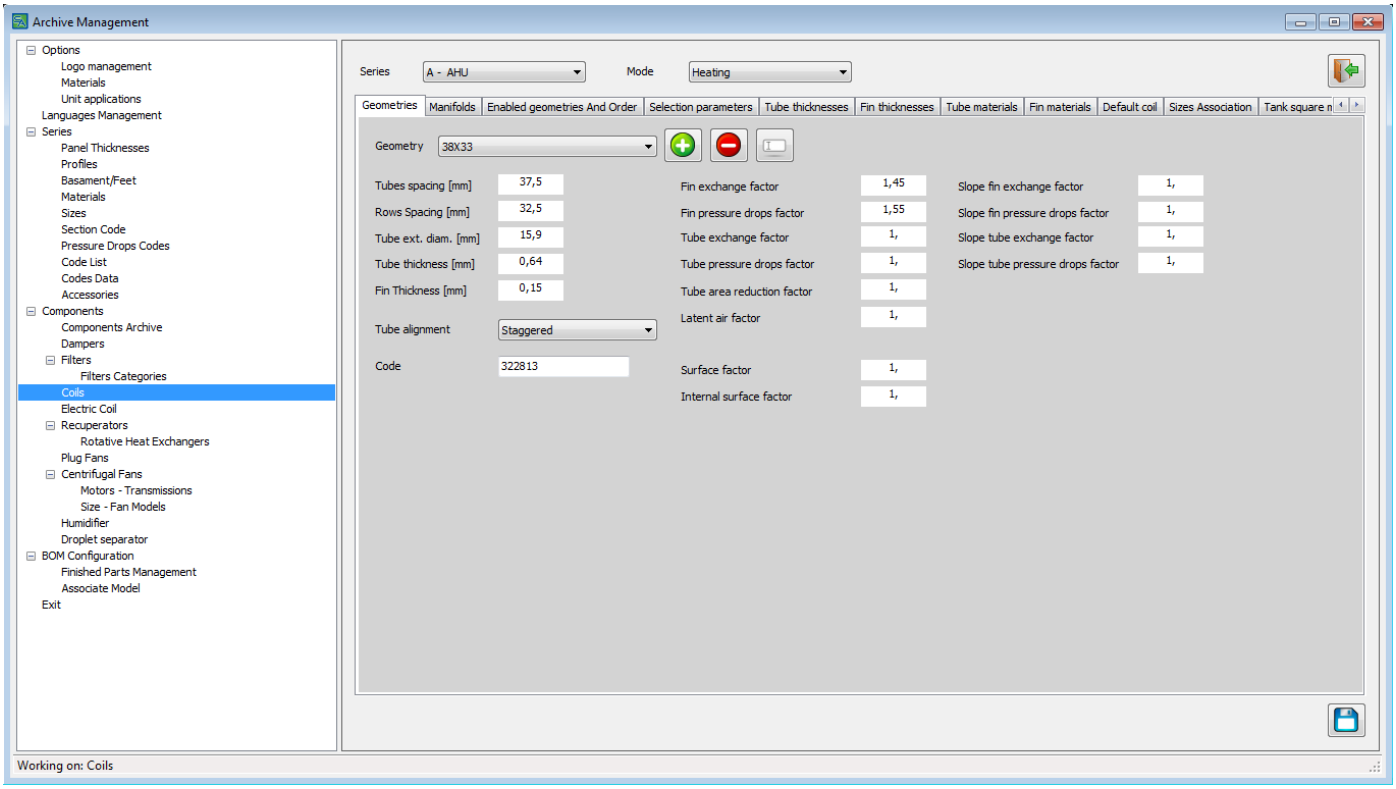
If you click on this button, the configuration will be saved.

If appear the written next to each size " Missing Disposition", the reason is because for the selected filter type you haven't enabled any filter.

Once you've done all necessary modifies, click on 

.

V. 4 Coils

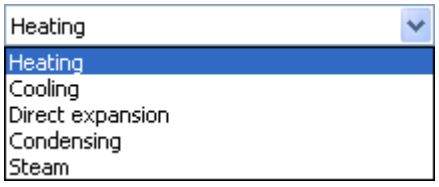


At the top right of window, you can quit from management

with this button you can save modifies.

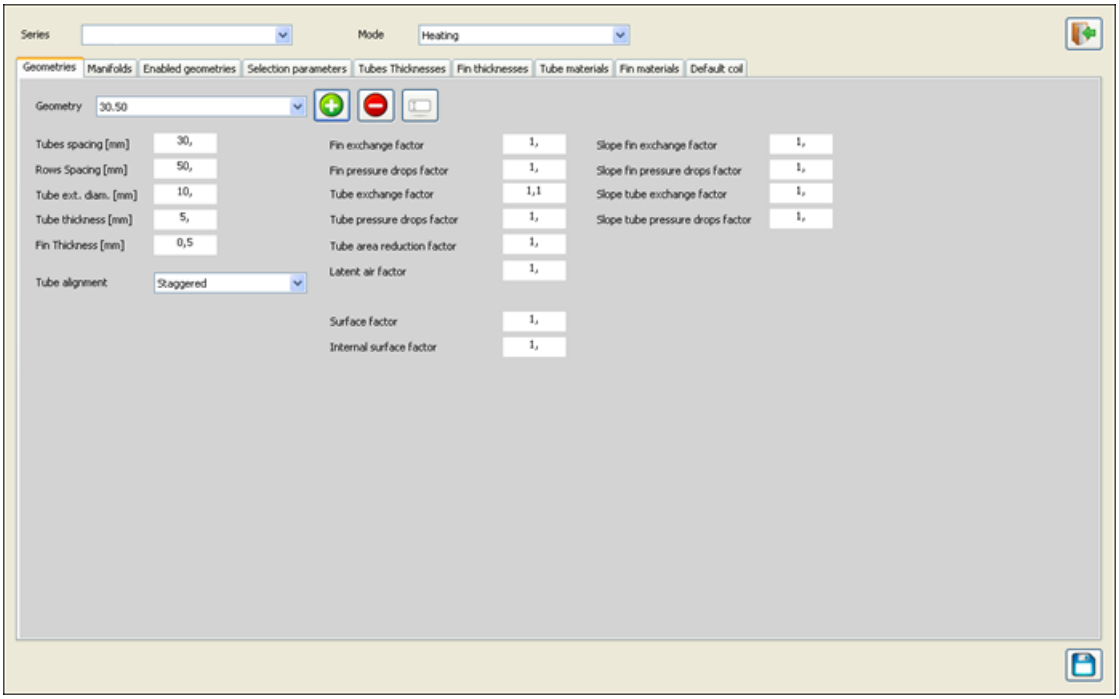
<u>Please remember always to save your work before leave the management.</u>

here you can choose the series.



You can choose coil type.

V. 4.1 Geometry



with this button you can add a new geometry.

with this button you can delete an inserted geometry.

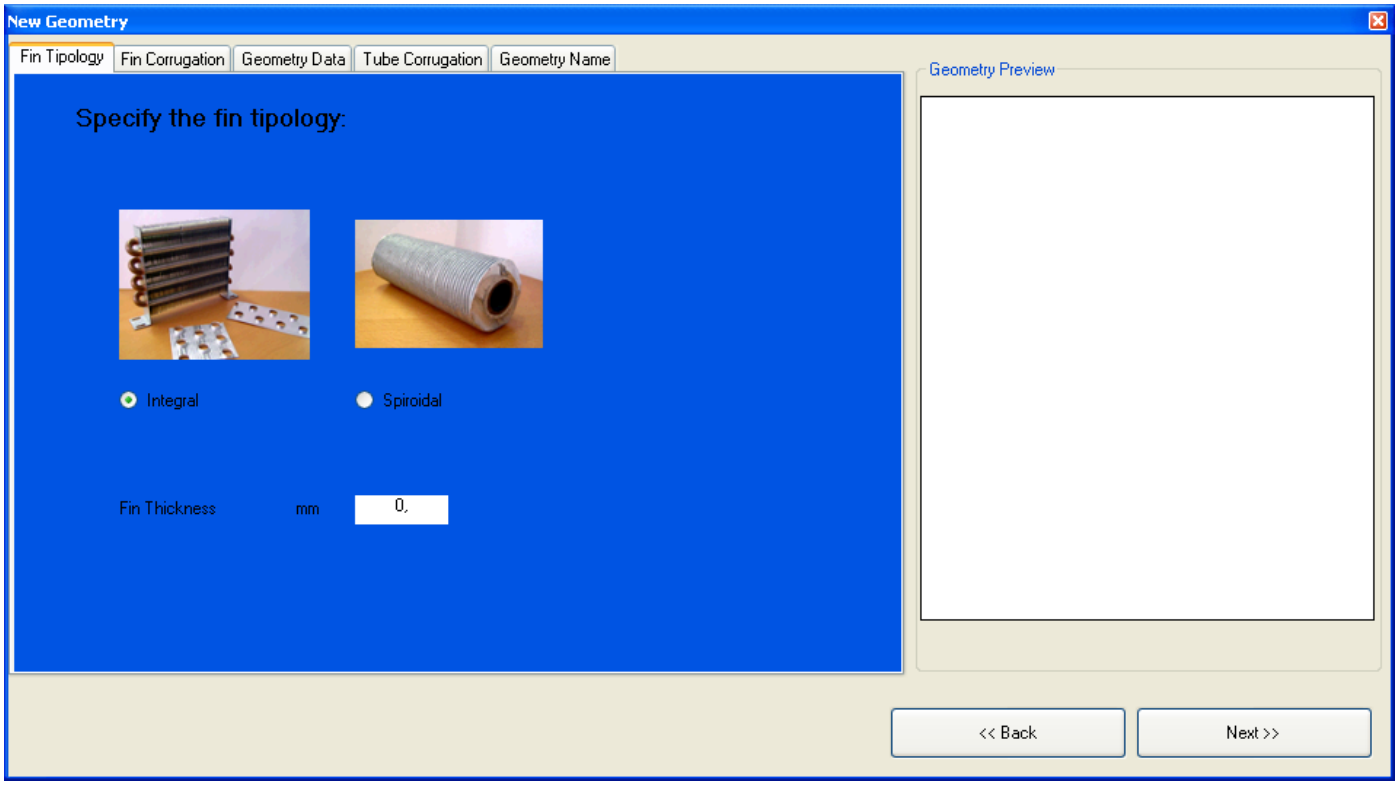
If you click on this button, you can change the geometry name.

In the up window, you can modify all values you can see in the mask.

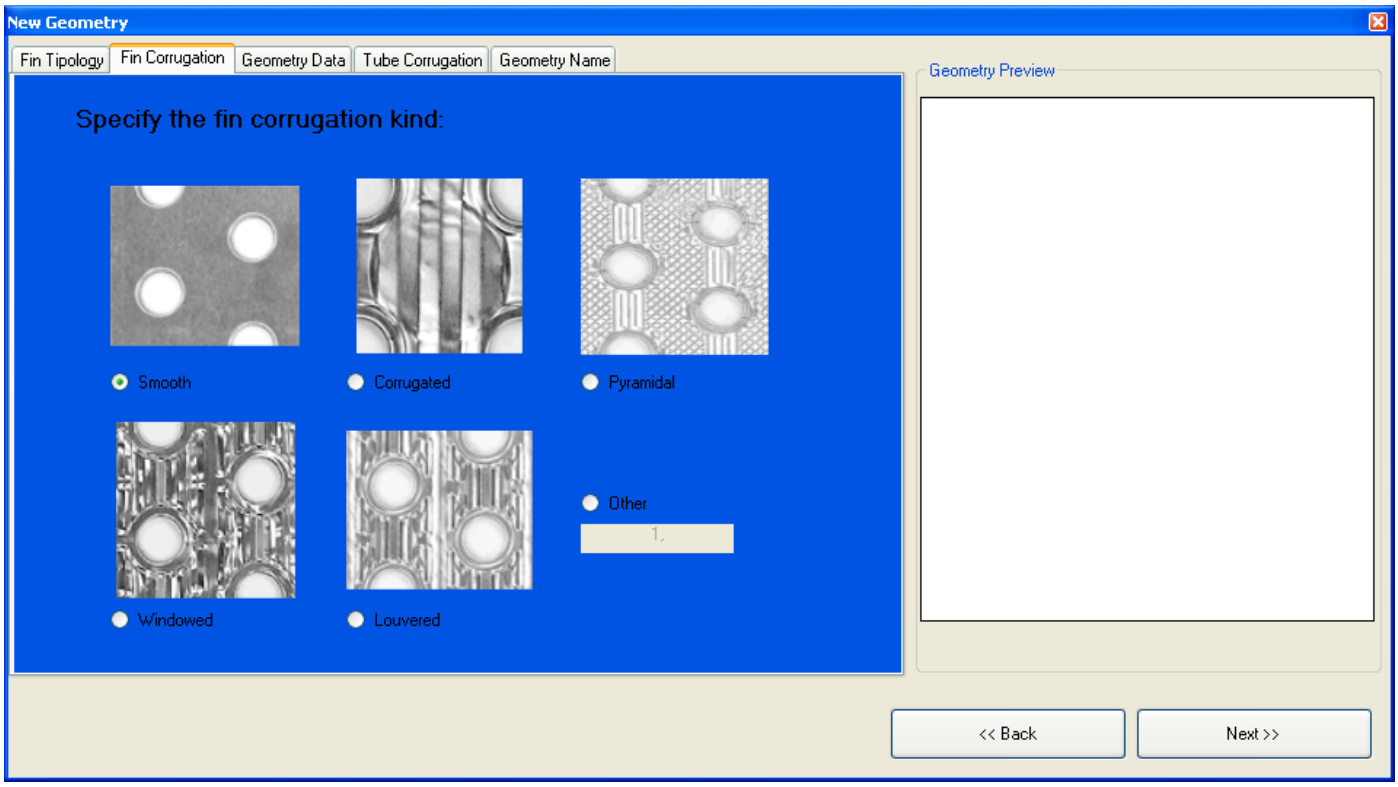
If you want to insert a new geometry you've to click on and it will start a wizard to insert a new geometry to the archive.

Let's follow together:

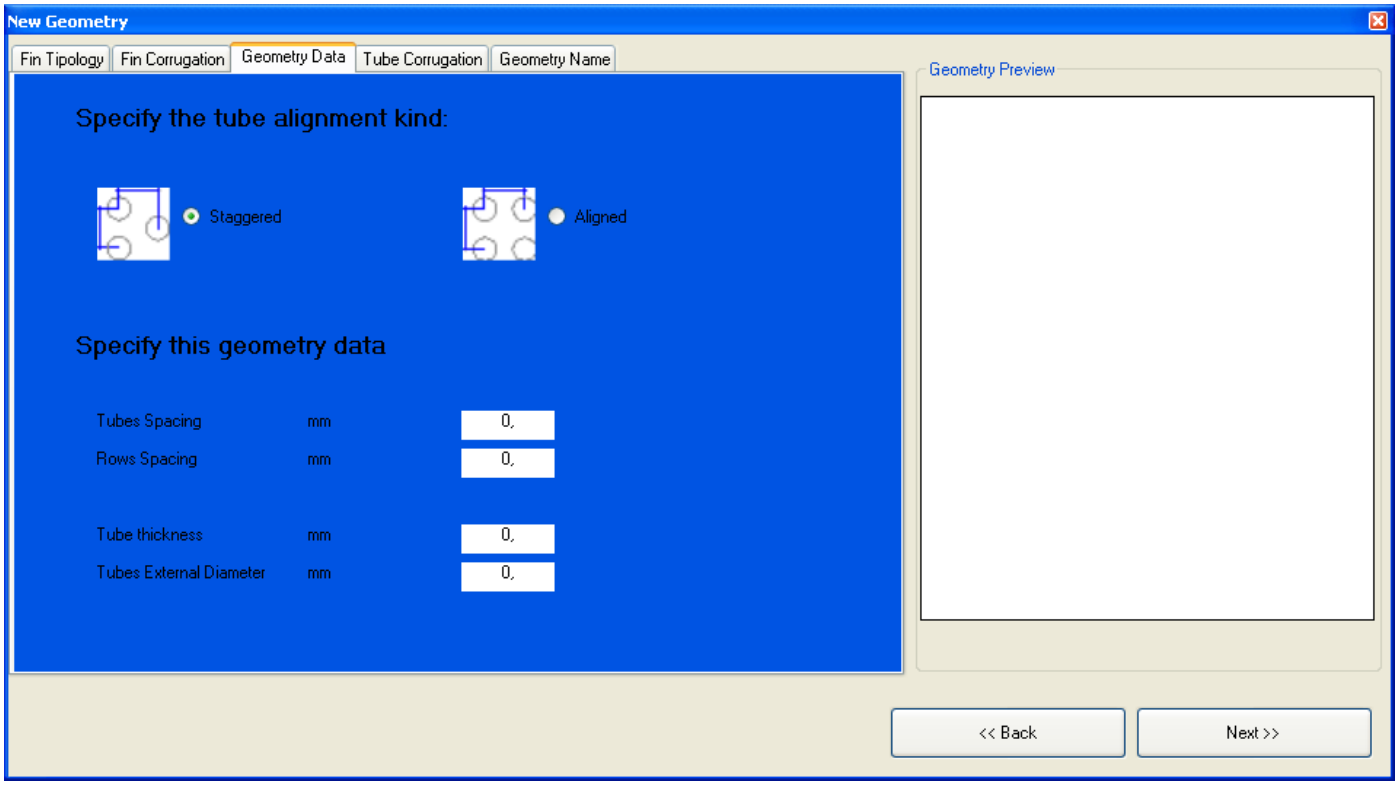
<u>Fin typology:</u>



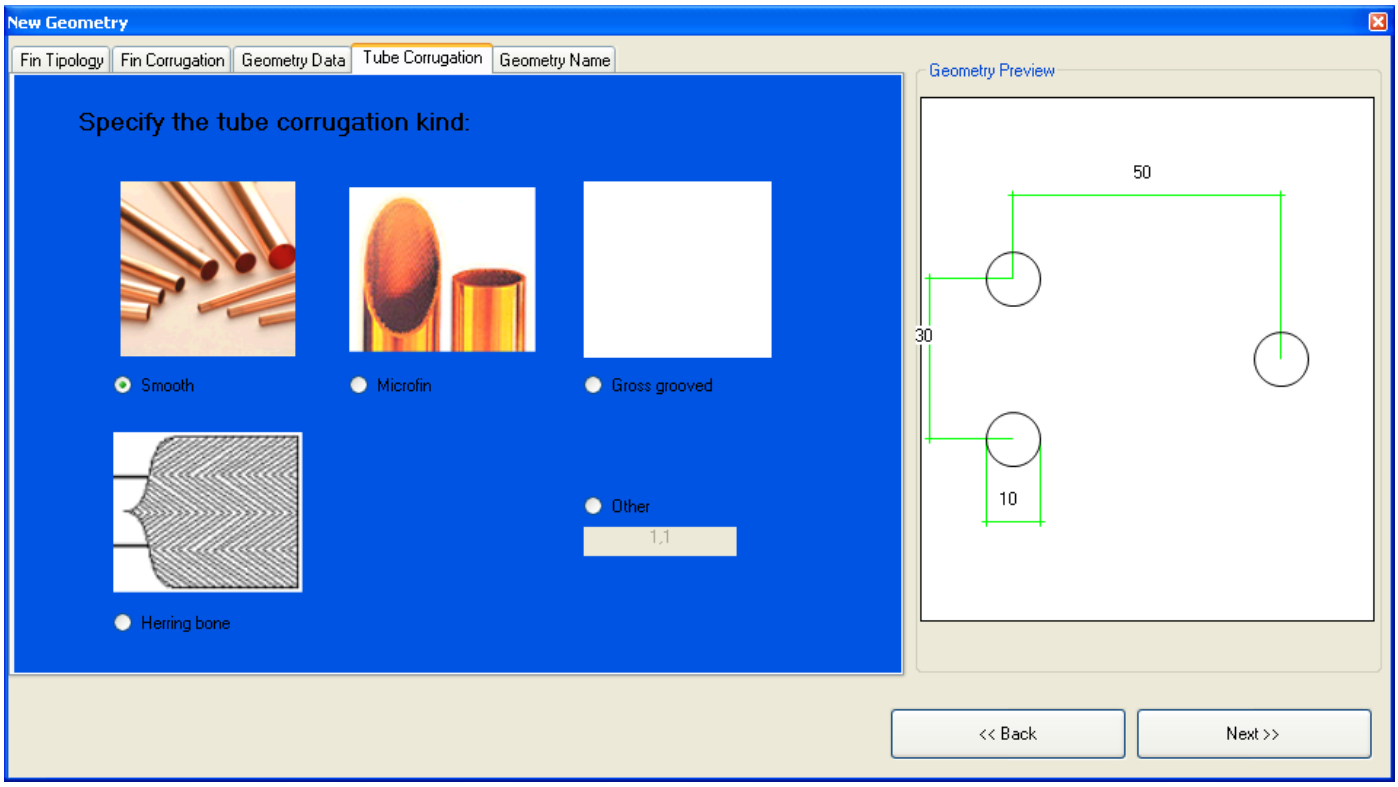
Fin Corrugation:



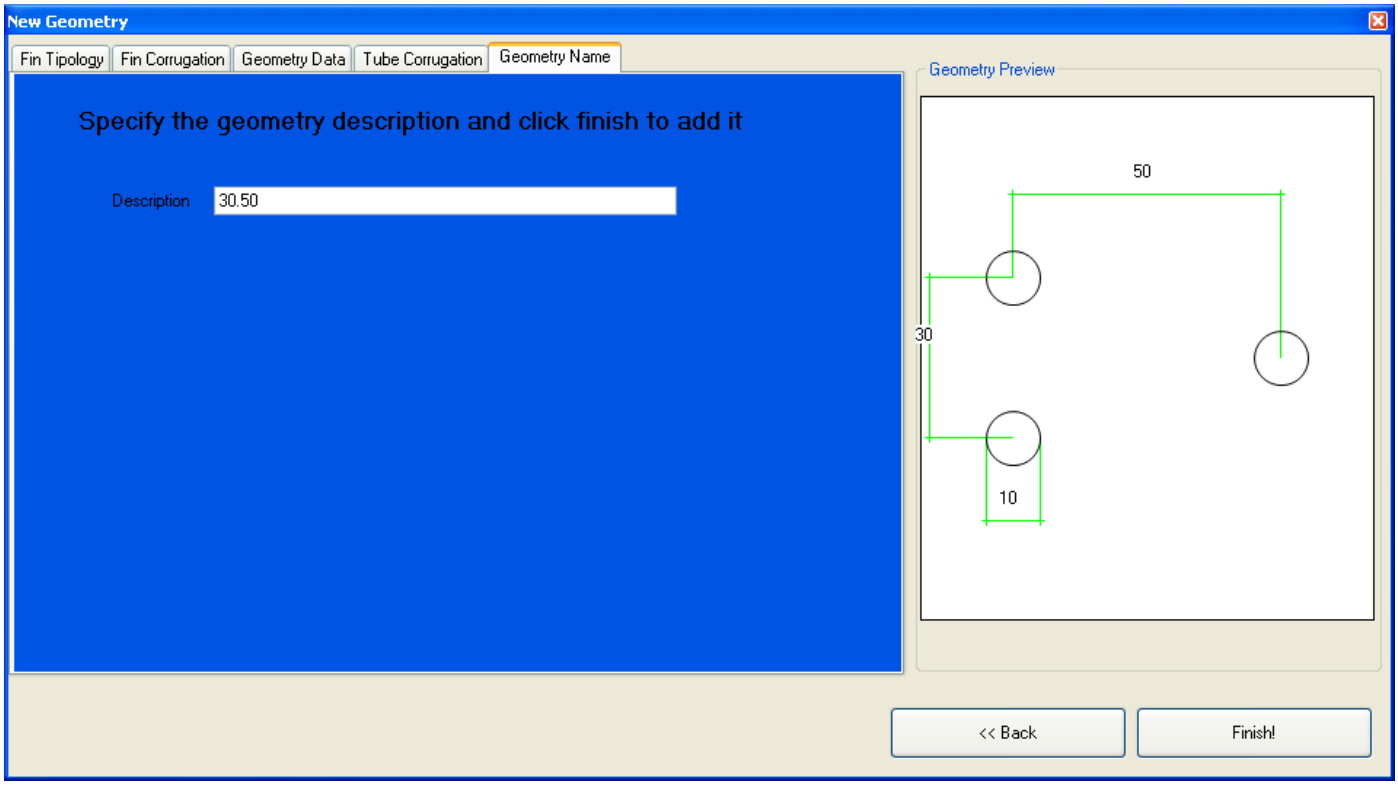
Geometry Data:



Tube Corrugation:

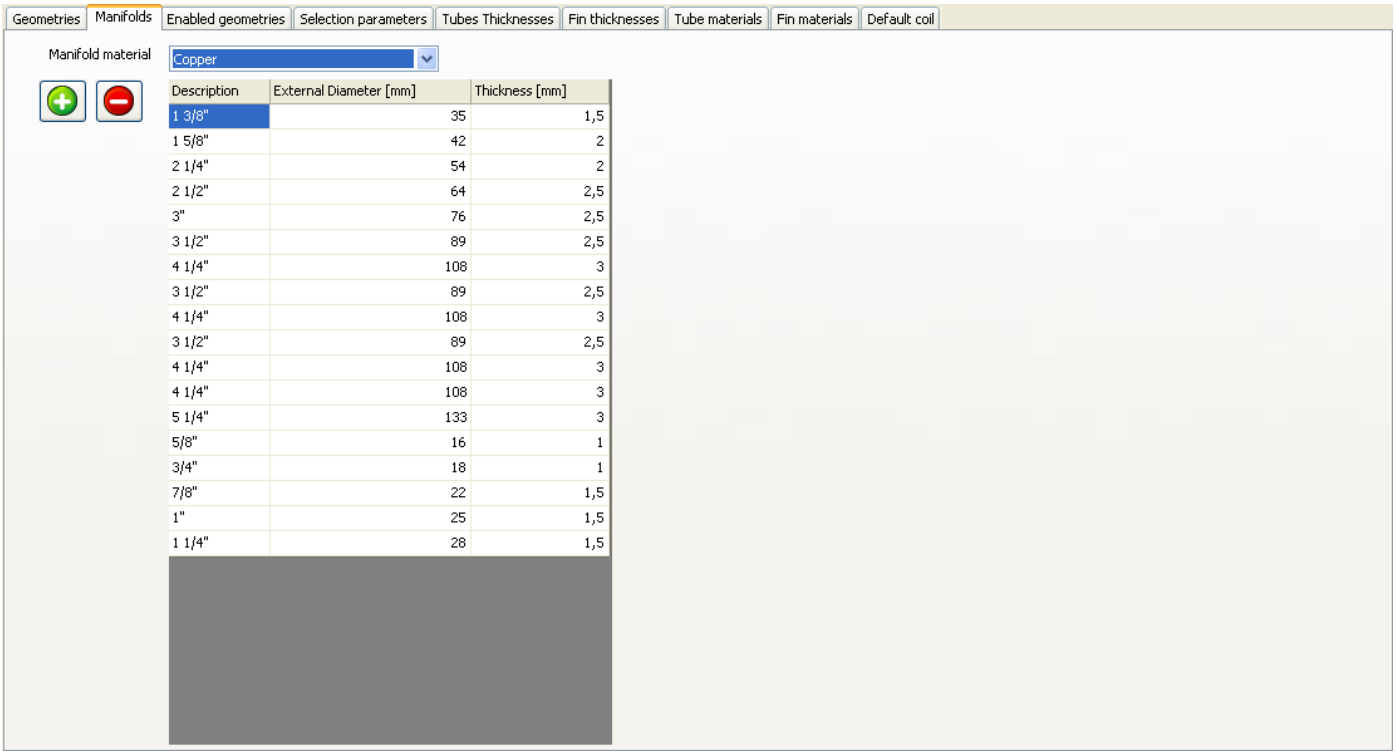


Geometry Name:



Once you've finished this process, a new geometry coil will be added to the list.

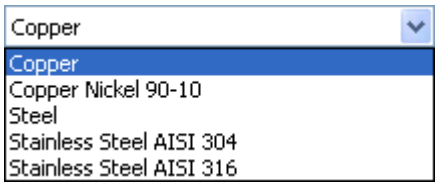
V. 4. 2 Manifolds



Description	External Diameter [mm]	Thickness [mm]
1 3/8"	35	1,5
1 5/8"	42	2
2 1/4"	54	2
2 1/2"	64	2,5
3"	76	2,5
3 1/2"	89	2,5
4 1/4"	108	3
3 1/2"	89	2,5
4 1/4"	108	3
3 1/2"	89	2,5
4 1/4"	108	3
4 1/4"	108	3
5 1/4"	133	3
5/8"	16	1
3/4"	18	1
7/8"	22	1,5
1"	25	1,5
1 1/4"	28	1,5

with this button you can add a new manifold.

with this button you can delete an inserted manifold.



you can choose manifold material.

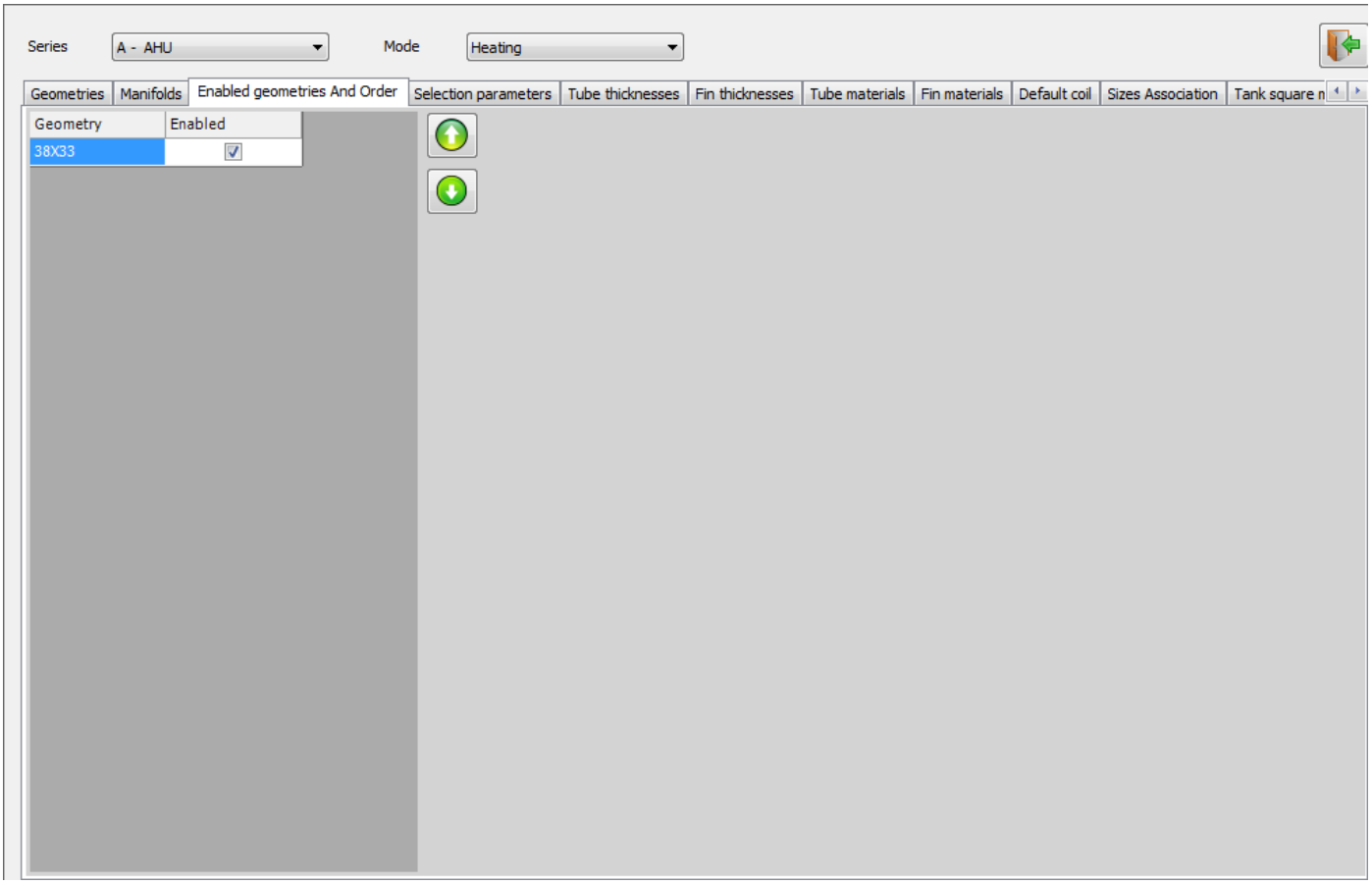
In the table you've to insert the follow parameters:

Description Manifold description; it's only a description associated to chosen manifold:

External Diameter [mm] Manifold external Diameter;

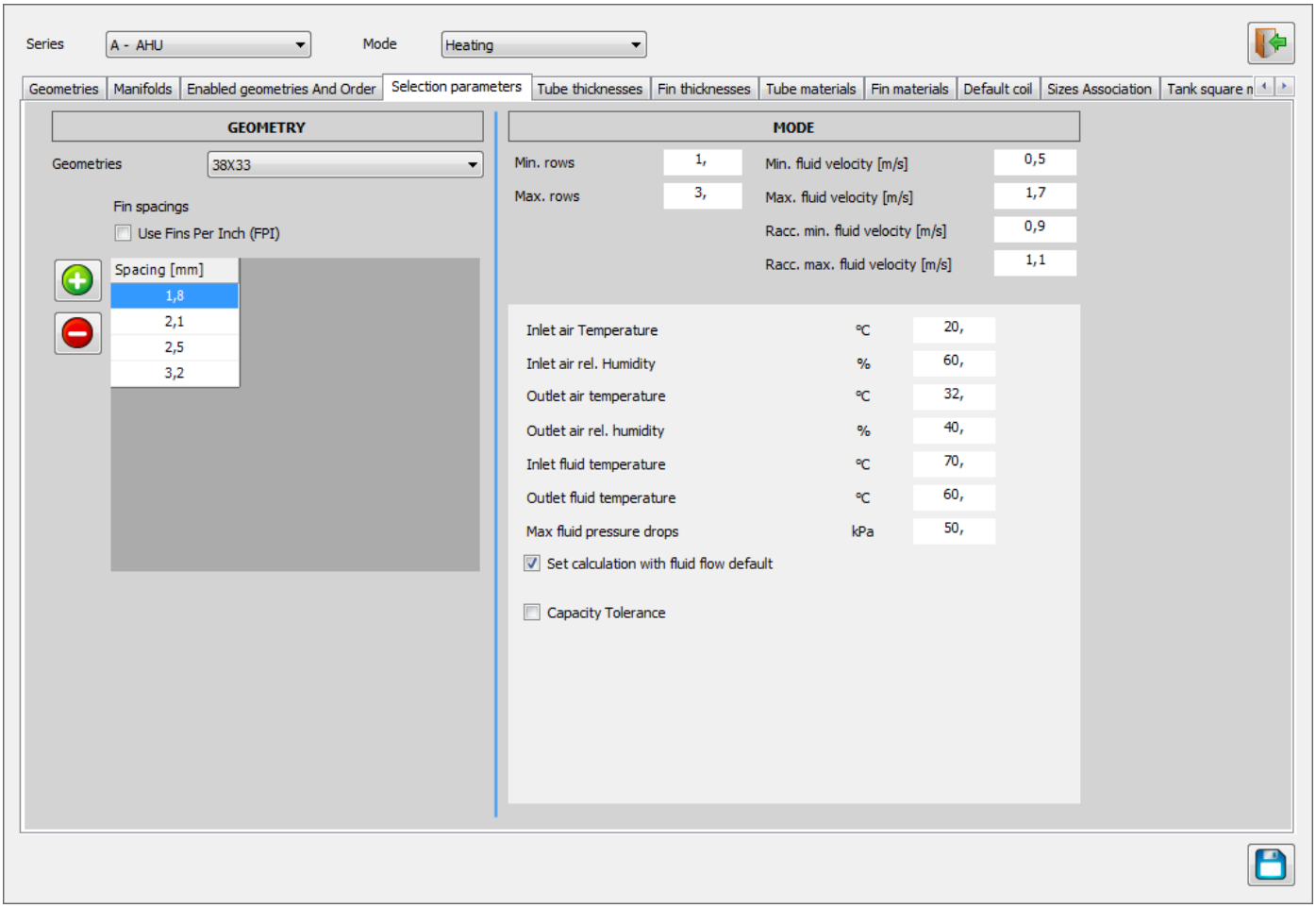
Thickness [mm] Manifold thickness.

V. 4. 3 Enabled Geometries and Order



In this section you have to choose which geometries you want to see in the Selection software.

V. 4. 4 Selection Parameters



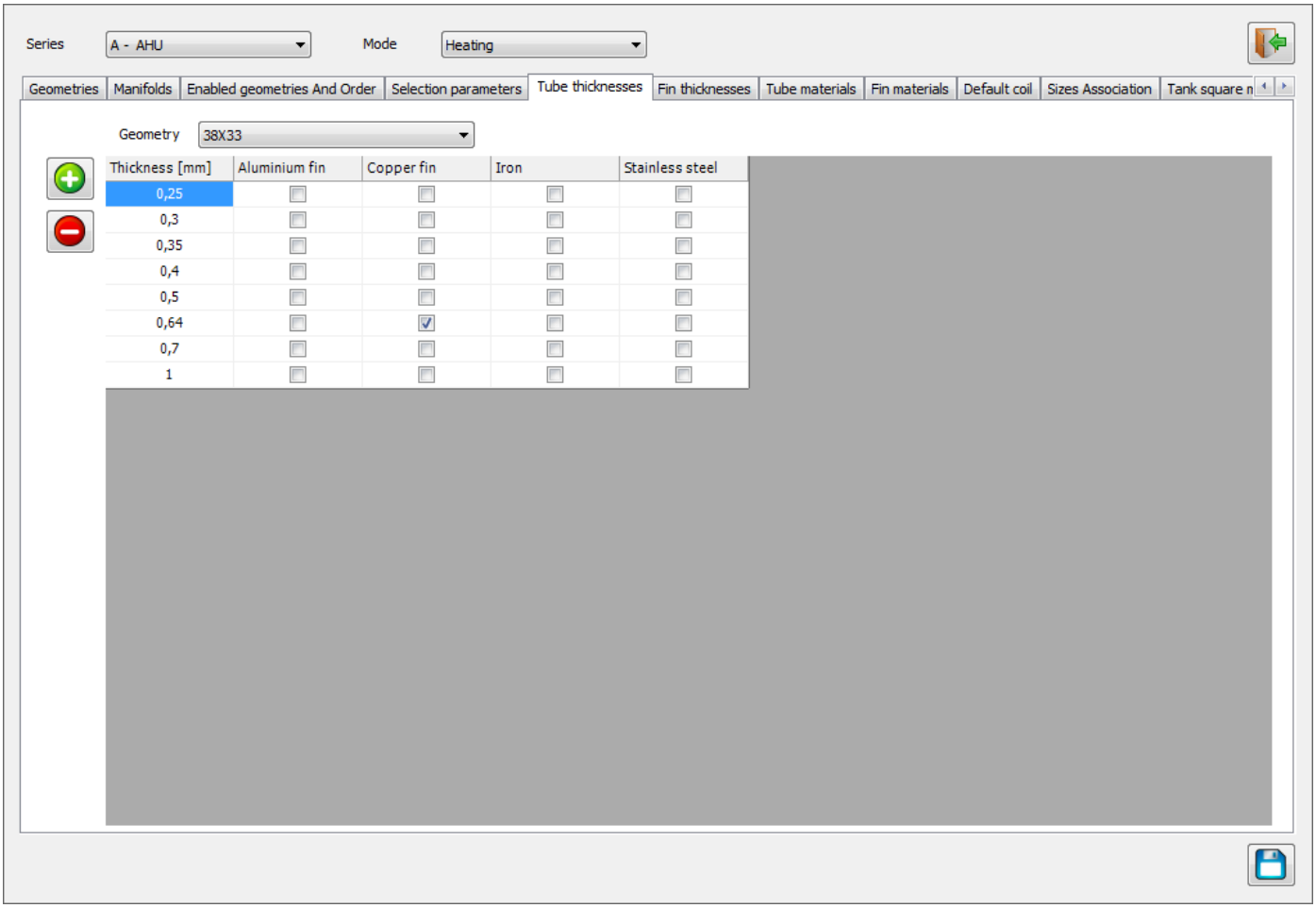
In this window you have to insert the values you want to open the calculation mask in the Selection Software to select coils.

with this button you can add a new fin spacing.

with this button you can delete an inserted fin spacing.

The list of possible fin spacing will be visible in the calculation mask to select the coil, in the selection software.

V. 4. 5 Tube Thickness



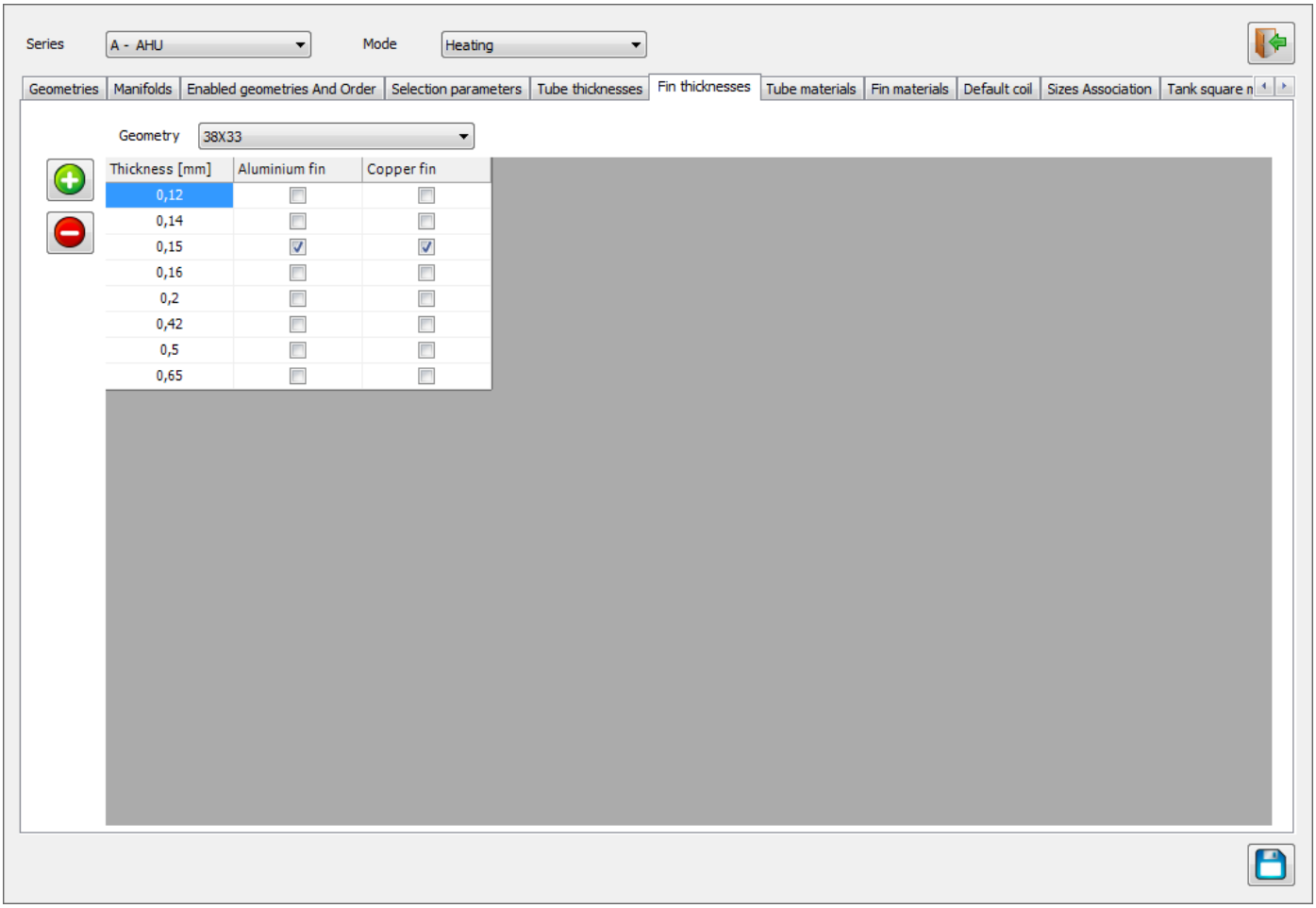
In this window you have to insert the values you want for tube thickness for each geometry.

with this button you can add a new tube thickness dimension.

with this button you can delete an inserted tube thickness.

The list of possible tube thickness will be visible in the calculation mask to select the coil, in the selection software.

V. 4. 6 Fin Thickness



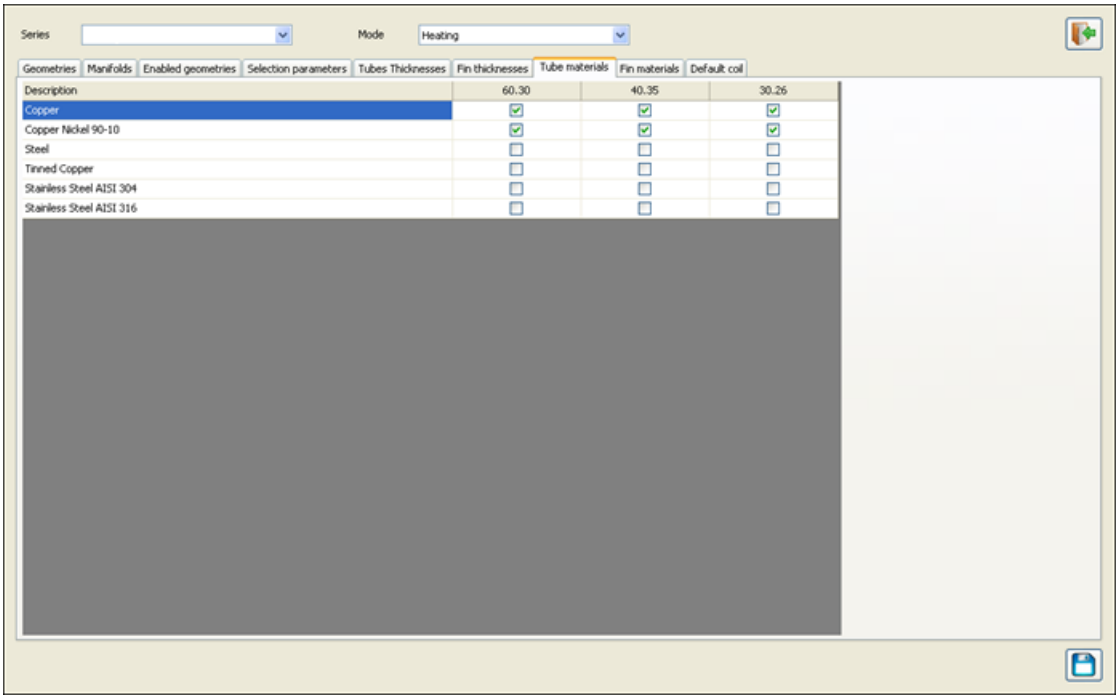
In this window you have to insert the values you want for fin thickness for each geometry.

with this button you can add a new fin thickness dimension.

with this button you can delete an inserted fin thickness.

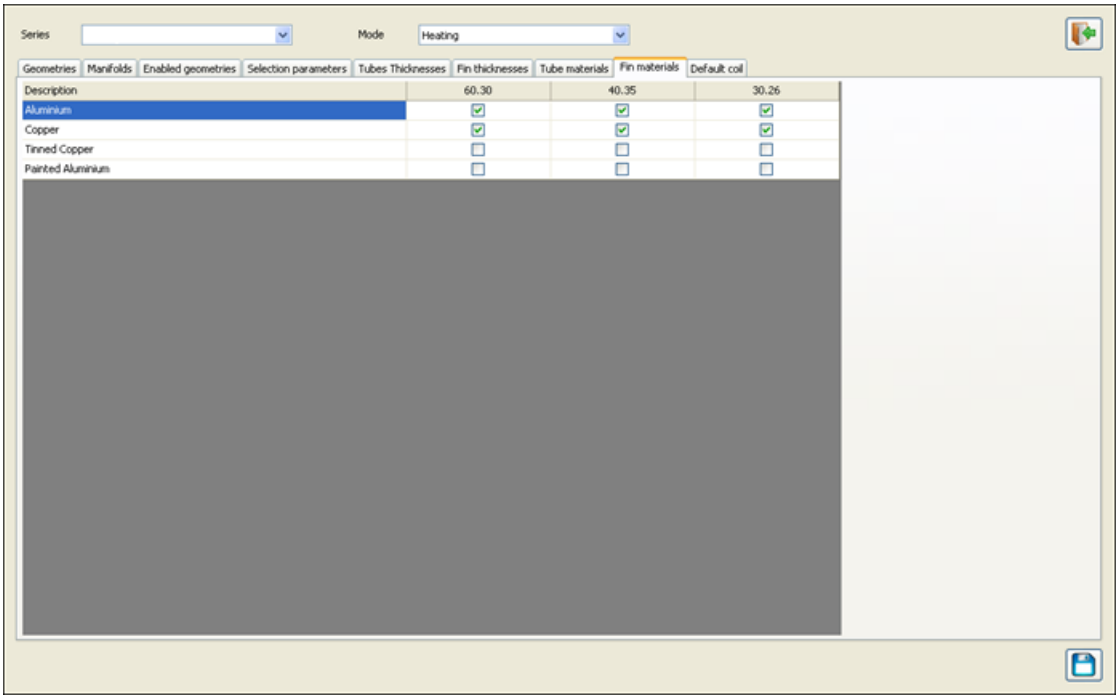
The list of possible fin thickness will be visible in the calculation mask to select the coil, in the selection software.

V. 4. 7 Tube materials



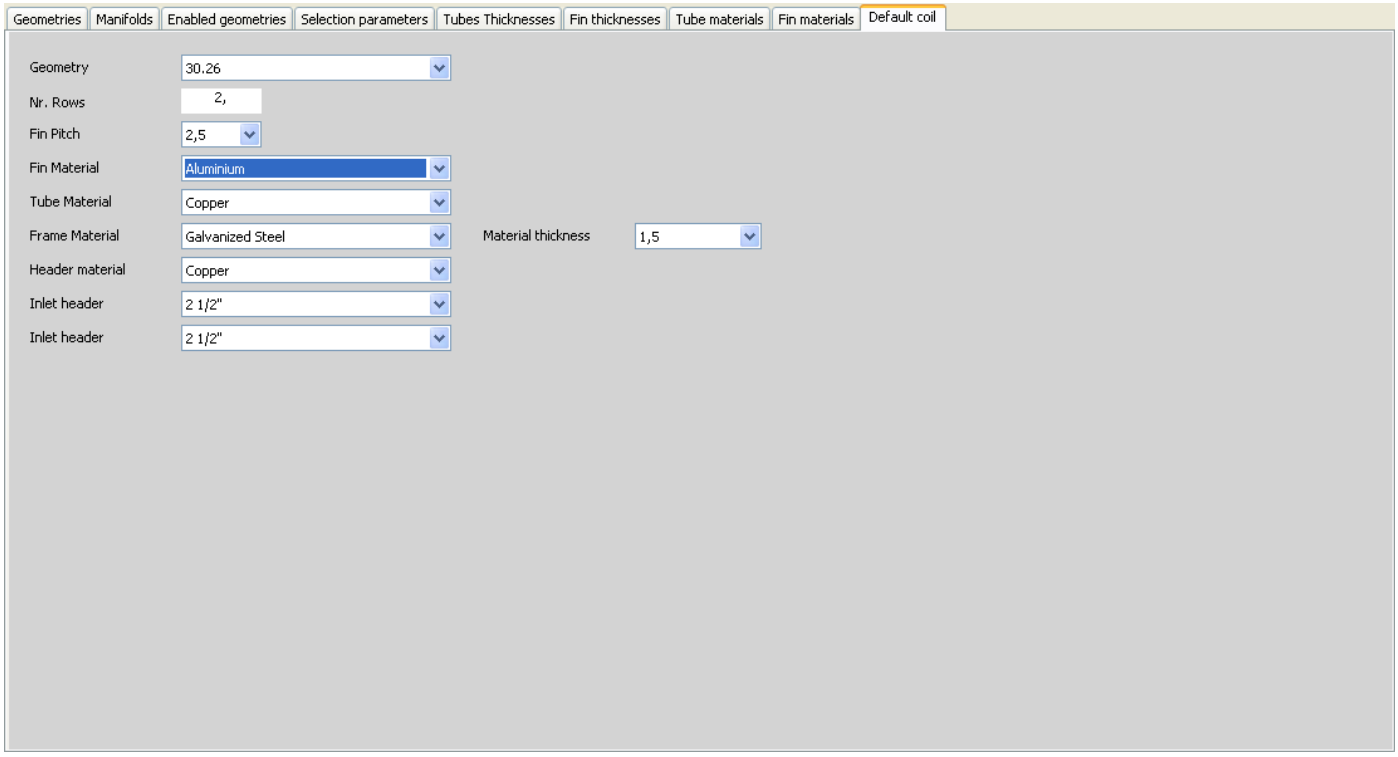
In this window you've to check the default tube material for each geometry.
The list of possible material will be visible in the calculation mask to select the coil, in the selection software.

V. 4. 8 Fin materials



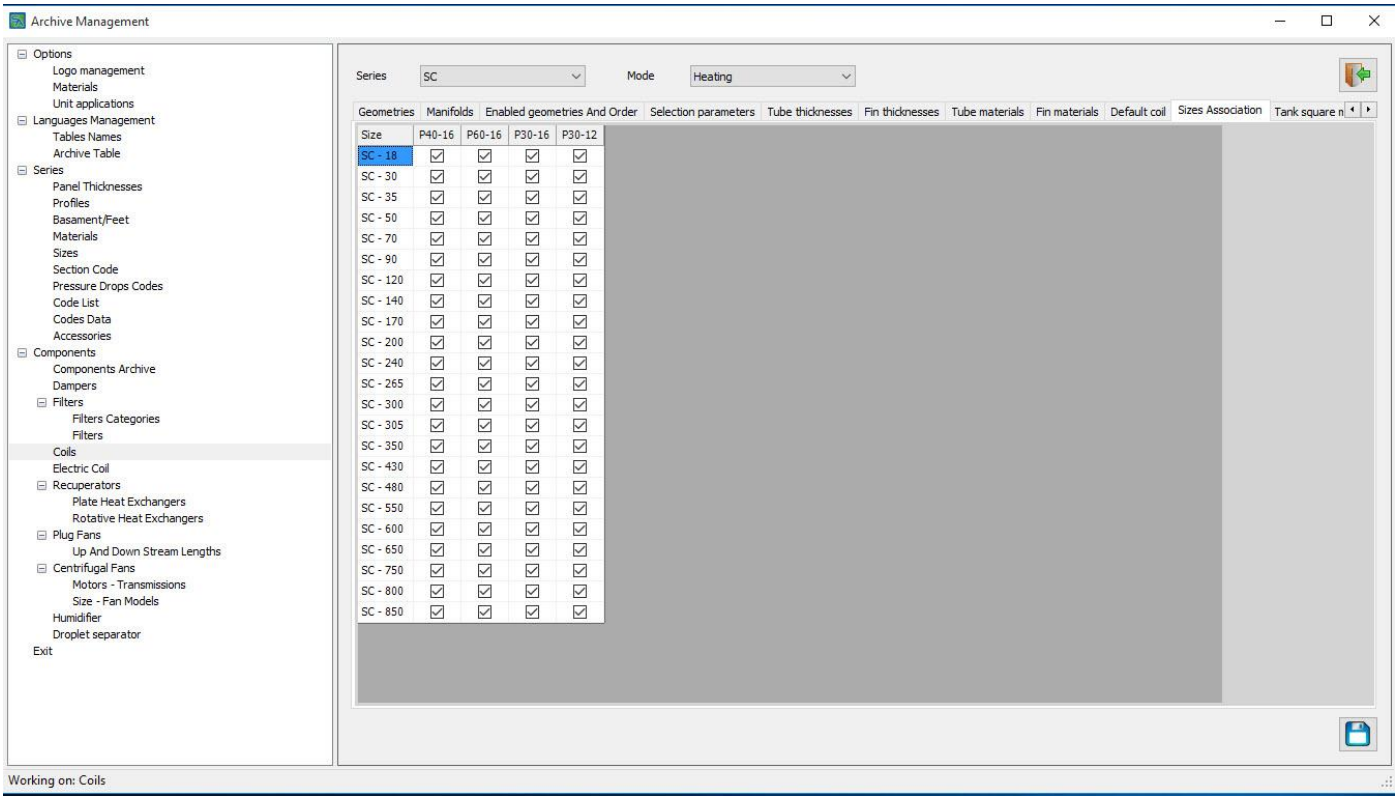
In this window you've to check the default tube material for each geometry.
The list of possible material will be visible in the calculation mask to select the coil, in the selection software.

V. 4. 9 Default Coil

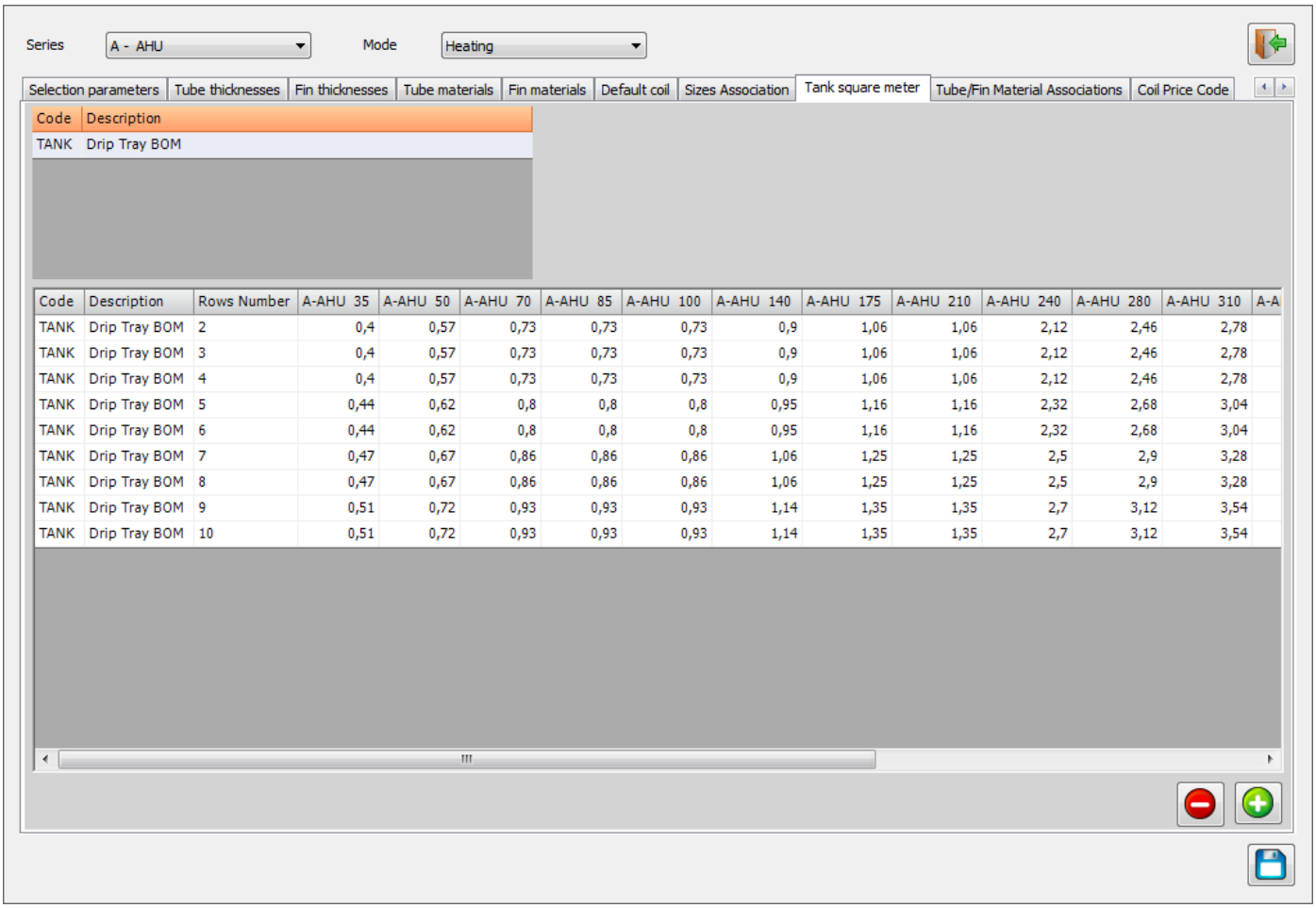


In this window you have to choose which default geometry and values you want as default when, in the selection software, you start to calculate a coil.

V. 4. 10 Sizes Associations



V. 4. 11 Tank Square meter

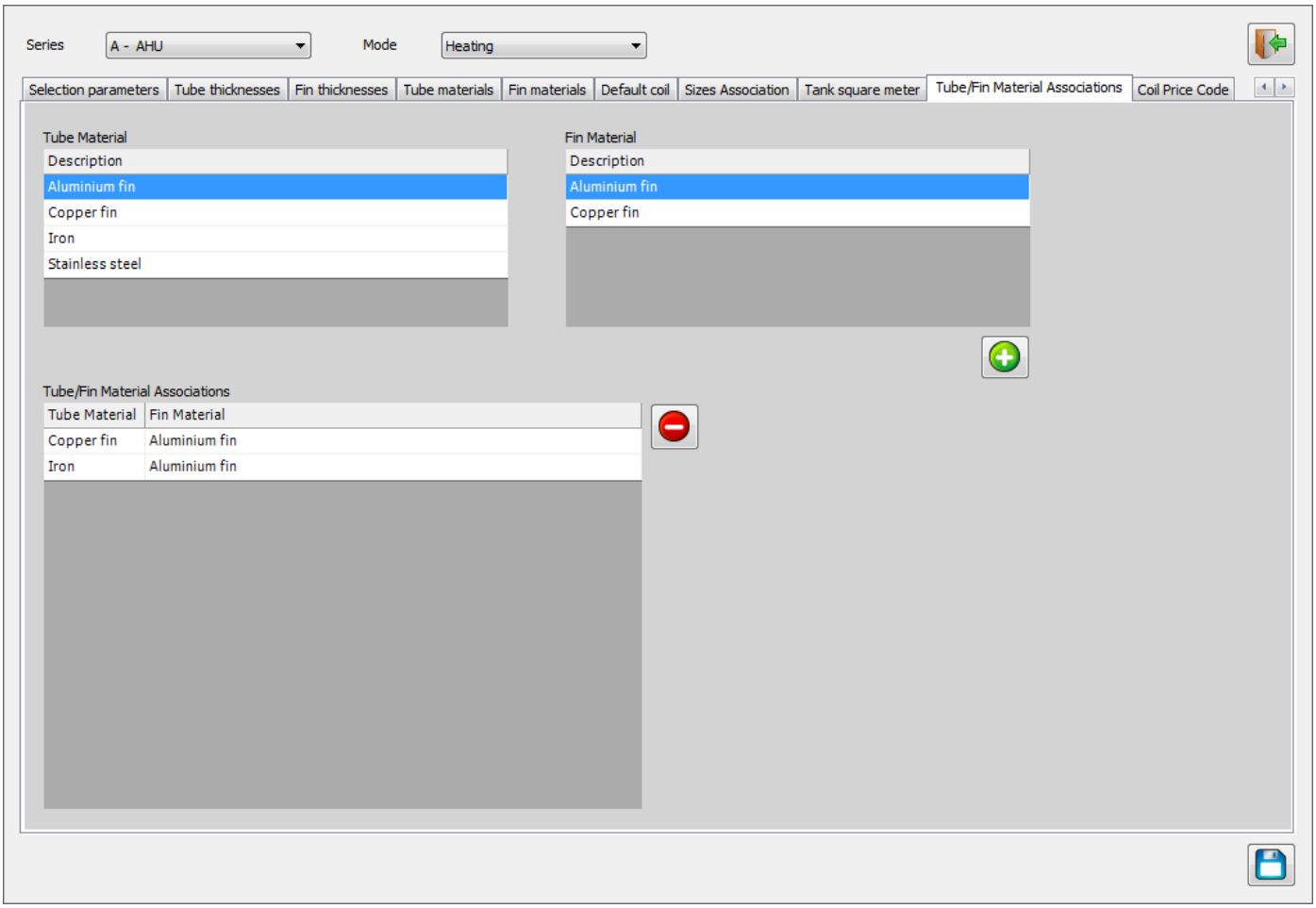


Code	Description
TANK	Drip Tray BOM

Code	Description	Rows Number	A-AHU 35	A-AHU 50	A-AHU 70	A-AHU 85	A-AHU 100	A-AHU 140	A-AHU 175	A-AHU 210	A-AHU 240	A-AHU 280	A-AHU 310	A-A
TANK	Drip Tray BOM	2	0,4	0,57	0,73	0,73	0,73	0,9	1,06	1,06	2,12	2,46	2,78	
TANK	Drip Tray BOM	3	0,4	0,57	0,73	0,73	0,73	0,9	1,06	1,06	2,12	2,46	2,78	
TANK	Drip Tray BOM	4	0,4	0,57	0,73	0,73	0,73	0,9	1,06	1,06	2,12	2,46	2,78	
TANK	Drip Tray BOM	5	0,44	0,62	0,8	0,8	0,8	0,95	1,16	1,16	2,32	2,68	3,04	
TANK	Drip Tray BOM	6	0,44	0,62	0,8	0,8	0,8	0,95	1,16	1,16	2,32	2,68	3,04	
TANK	Drip Tray BOM	7	0,47	0,67	0,86	0,86	0,86	1,06	1,25	1,25	2,5	2,9	3,28	
TANK	Drip Tray BOM	8	0,47	0,67	0,86	0,86	0,86	1,06	1,25	1,25	2,5	2,9	3,28	
TANK	Drip Tray BOM	9	0,51	0,72	0,93	0,93	0,93	1,14	1,35	1,35	2,7	3,12	3,54	
TANK	Drip Tray BOM	10	0,51	0,72	0,93	0,93	0,93	1,14	1,35	1,35	2,7	3,12	3,54	

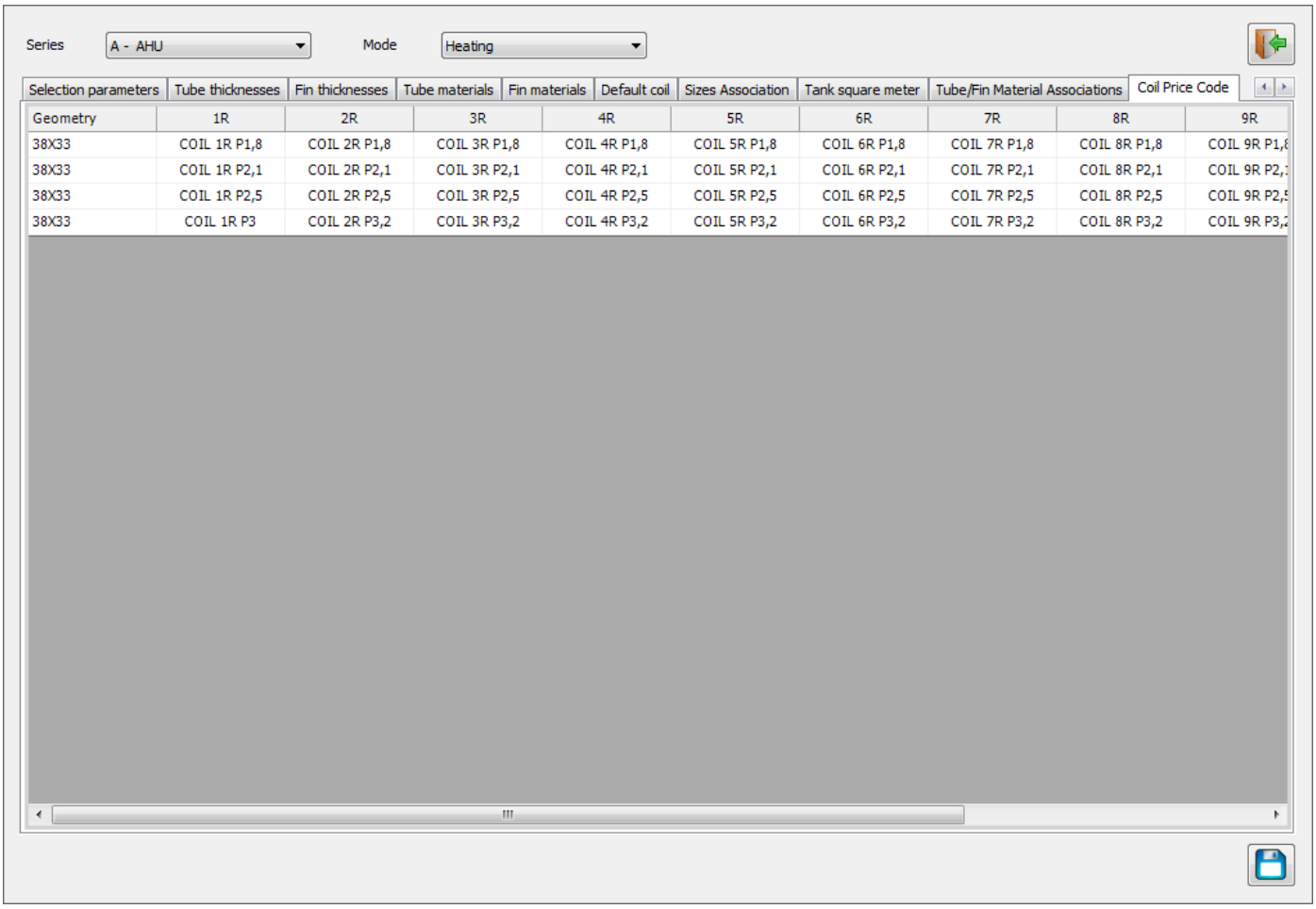
In this section you can associate the tank square meter to each size and to the number of rows of the coil.

V. 4. 12 Tube/Fin Material Associations



In this section you can create the combination tube material/Fin material in order to create the table in next tab.

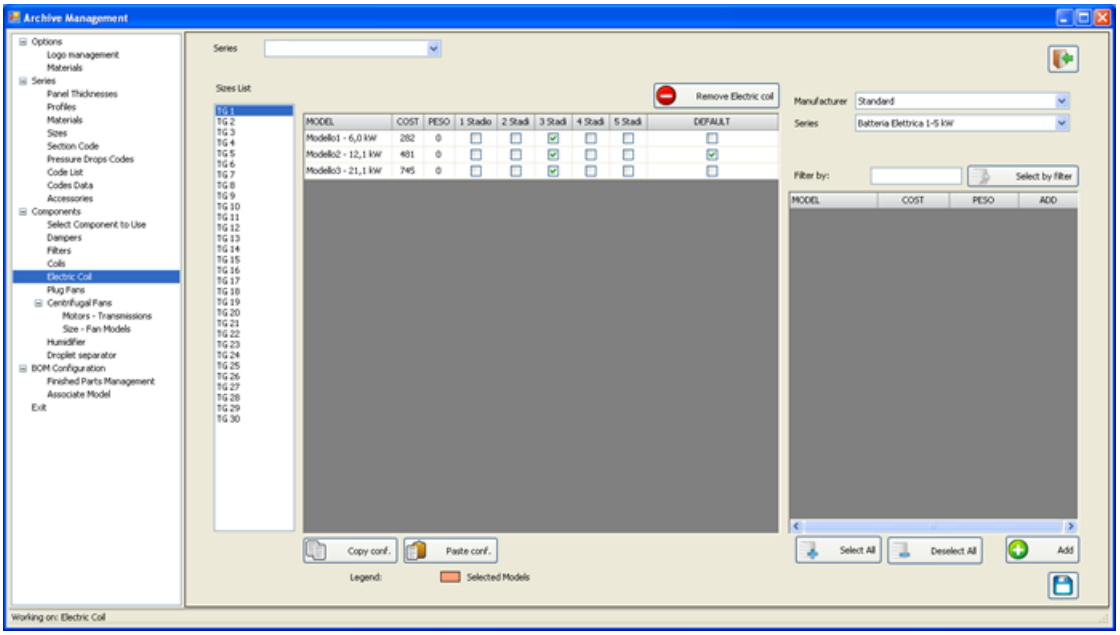
V. 4. 13 Coil Price Code



Geometry	1R	2R	3R	4R	5R	6R	7R	8R	9R
38X33	COIL 1R P1,8	COIL 2R P1,8	COIL 3R P1,8	COIL 4R P1,8	COIL 5R P1,8	COIL 6R P1,8	COIL 7R P1,8	COIL 8R P1,8	COIL 9R P1,8
38X33	COIL 1R P2,1	COIL 2R P2,1	COIL 3R P2,1	COIL 4R P2,1	COIL 5R P2,1	COIL 6R P2,1	COIL 7R P2,1	COIL 8R P2,1	COIL 9R P2,1
38X33	COIL 1R P2,5	COIL 2R P2,5	COIL 3R P2,5	COIL 4R P2,5	COIL 5R P2,5	COIL 6R P2,5	COIL 7R P2,5	COIL 8R P2,5	COIL 9R P2,5
38X33	COIL 1R P3	COIL 2R P3,2	COIL 3R P3,2	COIL 4R P3,2	COIL 5R P3,2	COIL 6R P3,2	COIL 7R P3,2	COIL 8R P3,2	COIL 9R P3,2

In this table you can create the association among coil code (which you have inserted into Code List) and the geometry, and tube/fin material.

V. 5 Electric Coil



In this section you can add and associate to each Size Unit the electric coil you've enabled in the Section "Select Component to Use".

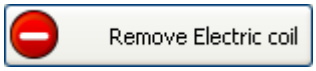
At the top right of window, you can quit from management

with this button you can save modifies.

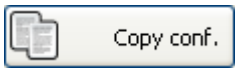
Please remember always to save your work before leave the management.

here you can choose the series.

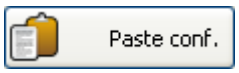
For each Unit size there are alreadyassociated some electic coils.



If you click on this button, you can delete the selected coil of the table.



If you click on this button, you can copy the check configuration.

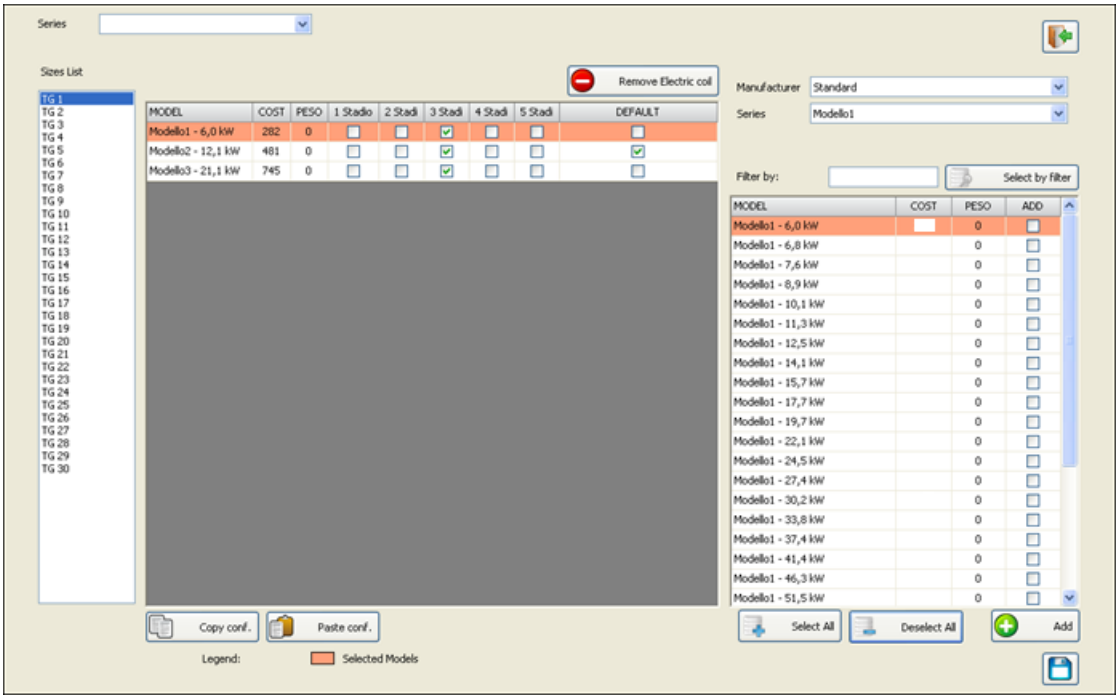


If you click on this button, you can paste the copied check configuration.

you can choose electric coil manufacturer.

You can choose the electric coil series. (Remember to see at Section "Select Component to Use" which Electric Coil Series you've enabled)

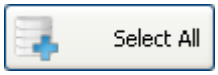
Once you chose these two options, you'll obtain:



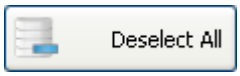
*** Please note: prices and costs have been deleted from the images for privacy reasons.**

Where on the right you can see the possible electric coil you can add to the selected Unit Size. These coils have been enabled in section "Select Component to Use".

If you check on one of the electric coil of the list you can add this one to the default list, associated to each size.



If you click on this button all electric coils will be checked.



If you click on this button all electric coil will be de - checked

If you click on this button, all checked coils will be added to the default list.

V. 6 Recuperators

V. 6. 1 Plate Heat Exchangers

In this section you can add and associate to each Size Unit the Plate Heat Exchangers you've enabled in the Section "Select Component to Use".

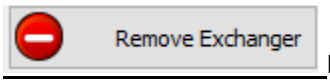
Pay attention to associate Plate Heat Exchangers to each Unit Size of each Unit Series. Otherwise you will not find any heat recovery in the selection.

Then, please, pay attention to associate compenents which can be phisically introduced inside the units. Otherwise, during the selectionyou will not find any results

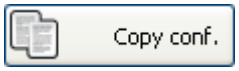
At the top right of window, you can quit from management
with this button, you can save modifies.

Please remember always to save your work before leave the management.

here you can choose the series.



If you click on this button, you can delete the selected exchanger from the table.

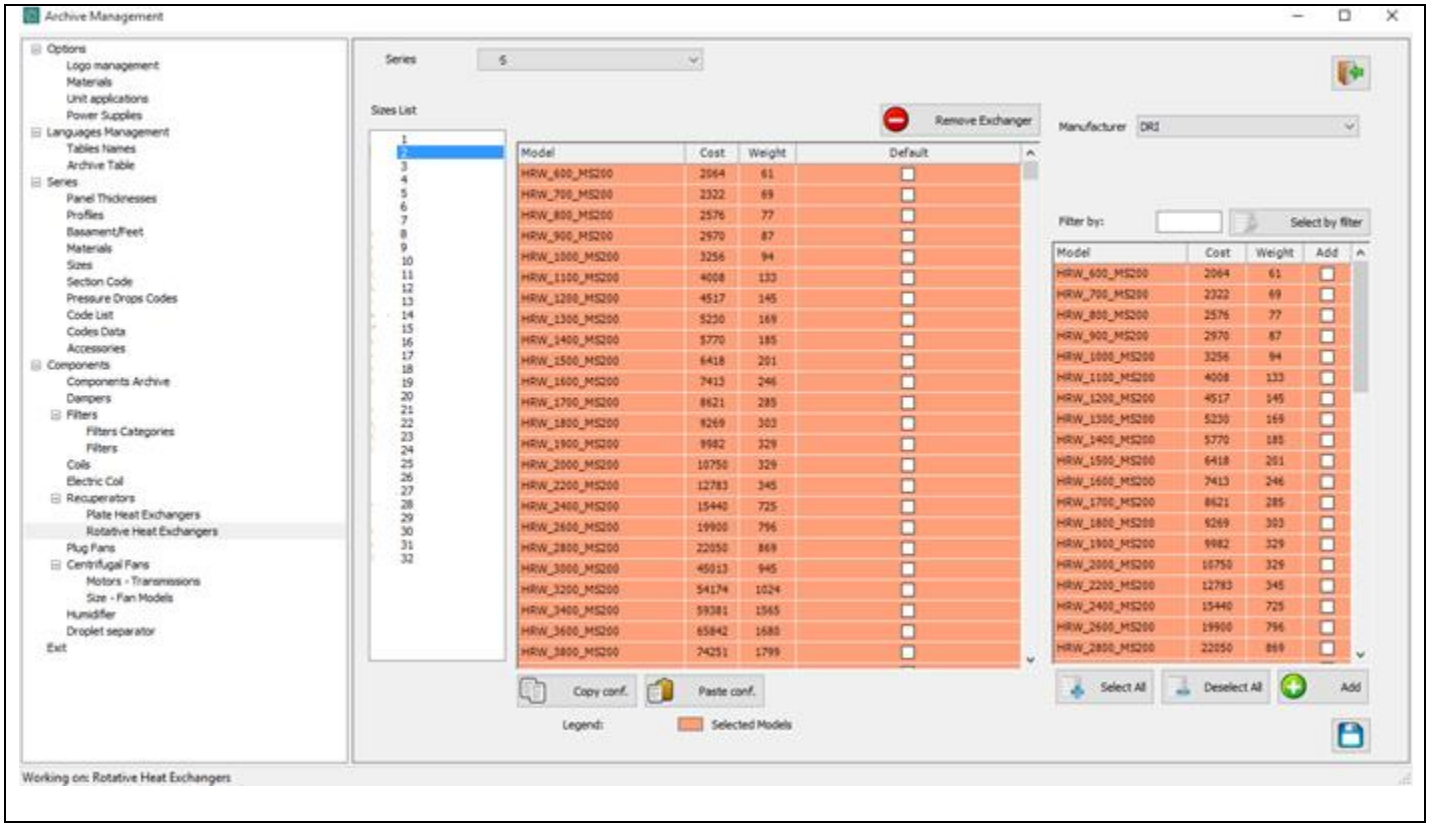


If you click on this button, you can copy the check configuration.

If you click on this button, you can paste the copied check configuration.

On the right side of the window, you can choose some option to select and associate exchanger to the size.

V. 6. 2 Rotative Heat Exchangers



In this section you can add and associate to each Size Unit the Plate Heat Exchangers you've enabled in the Section "Select Component to Use".

Pay attention to associate Heat Exchangers to each Unit Size of each Unit Series. Otherwise you will not find any heat recovery in the selection.

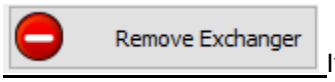
Then, please, pay attention to associate compenents which can be phisically introduced inside the units. Otherwise, during the selectionyou will not find any results

At the top right of window, you can quit from management

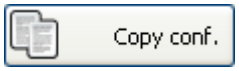
with this button, you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

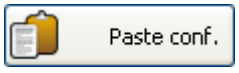
here you can choose the series.



If you click on this button, you can delete the selected exchanger from the table.



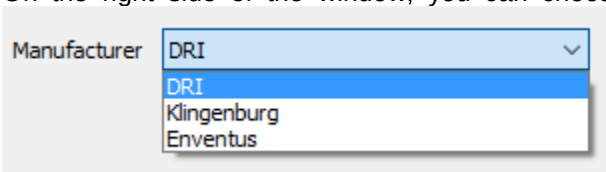
If you click on this button, you can copy the check configuration.



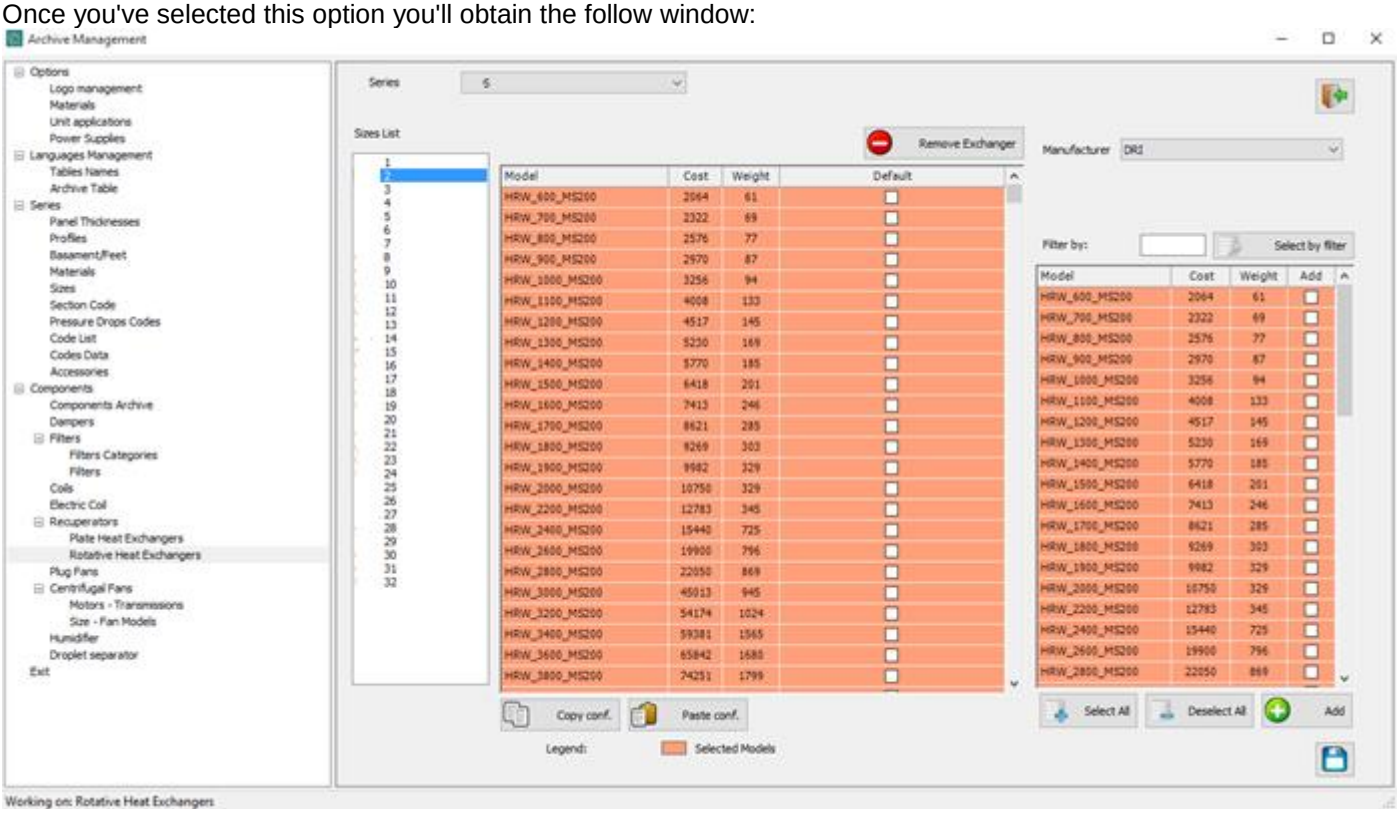
If you click on this button, you can paste the copied check configuration.

On the right side of the window, you can choose some option to select and associate exchanger to the size.

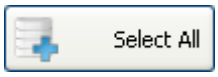
On the right side of the window, you can choose some option to select and associate exchanger to the size.



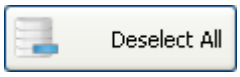
Once you've selected this option you'll obtain the follow window:



Where on the right side you can see the list of the available Exchanger models which have been enabled in the Section "Select Component to Use"



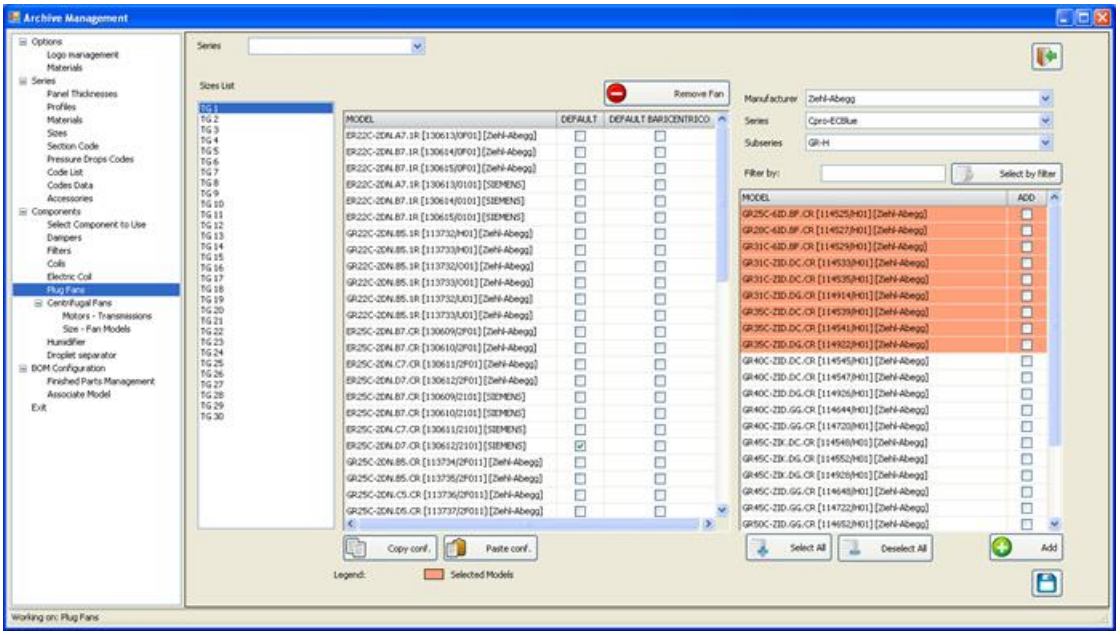
If you click on this button all exchangers will be checked.



If you click on this button all exchangers will be de - checked.

If you click on this button, all checked exchangers will be added to the default list.

V. 7 Plug Fans



In this section you can add and associate to each Size Unit the Plug Fan you've enabled in the Section "Select Component to Use".

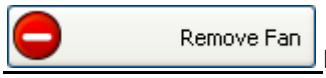
Pay attention to associate Fans to each Unit Size of each Unit Series. Otherwise you will not find any fan in the selection.

At the top right of window, you can quit from management

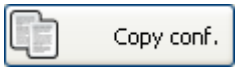
with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

Series here you can choose the series.



If you click on this button, you can delete the selected fan from the table.



If you click on this button, you can copy the check configuration.

If you click on this button, you can paste the copied check configuration.

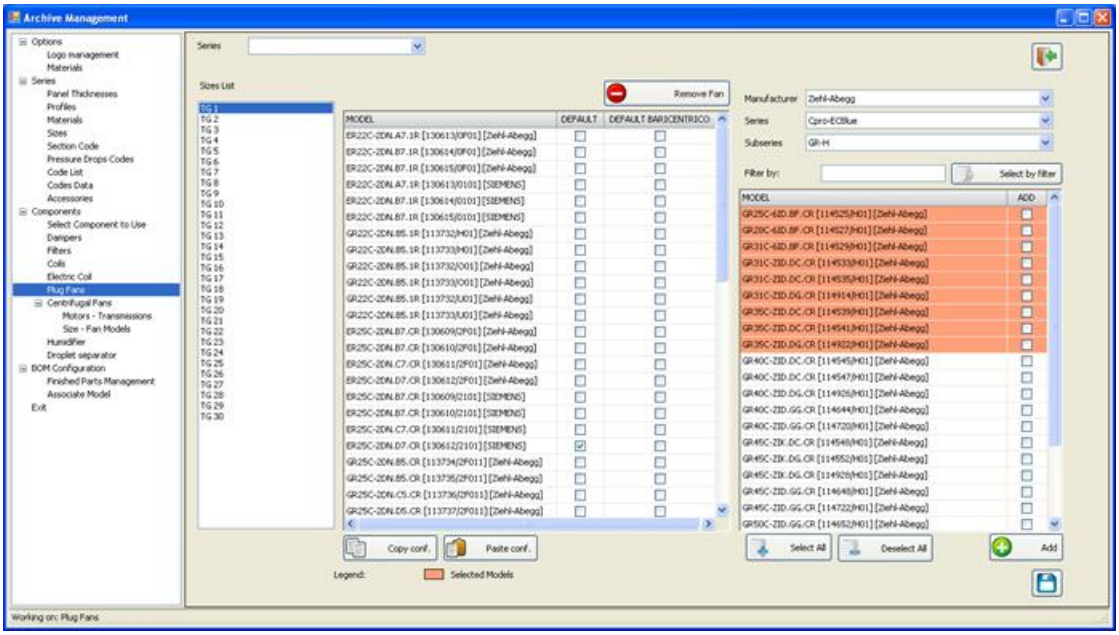
On the right side of the window, you can choose some option to select and associate fan to the size.

Manufacturer Ziehl-Abegg Here you can choose the fan Manufacturer;

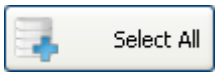
Series Cpro-ECBlue Here you can choose the fan series;

Subseries GR-H Here you can choose the subseries fan;

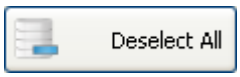
Once you've selected this option you'll obtain the follow window:



Where on the right side you can see the list of the waivable Plug Fan models which have been enabled in the Section "Select Component to Use"



If you click on this button all fans will be checked.

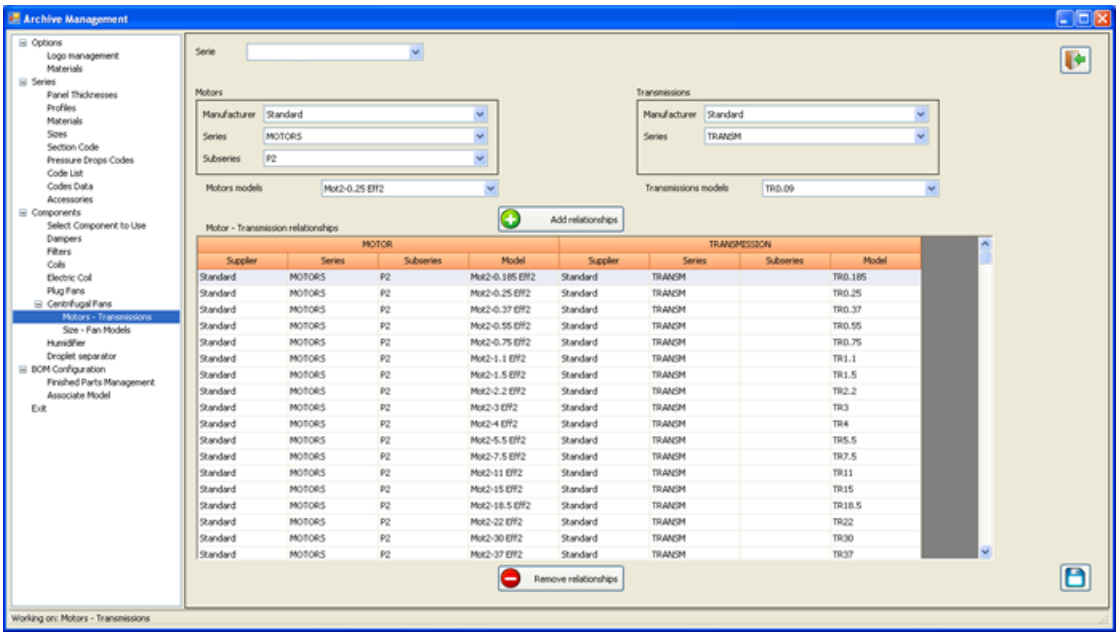


If you click on this button all fans will be de - checked.

If you click on this button, all checked fans will be added to the default list.

V. 8 Centrifugal Fans

V. 8. 1 Motor Transmissions



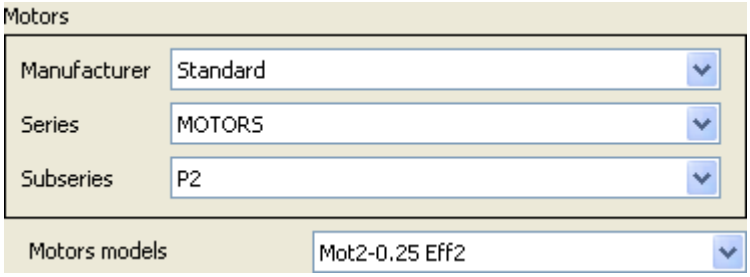
In this section you can create a couple Motor - Transmission to associate to each centrifugal fan in the Section "Size - Fan Models".

At the top right of window, you can quit from management

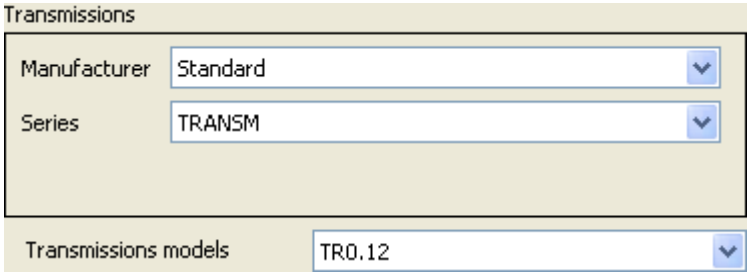
with this button you can save modifies.

Please remember always to save your work before leave the management.

here you can choose the series.

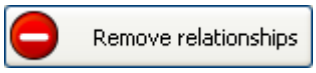


On the left side of the main window you can choose the fan motor type: so the Manufacturer, the series and the subseries. Once you've checked these three options, in the drop down menu it will appear the created Motor model. The possible options among you can choose have been enabled in the Section "Select Component to Use".



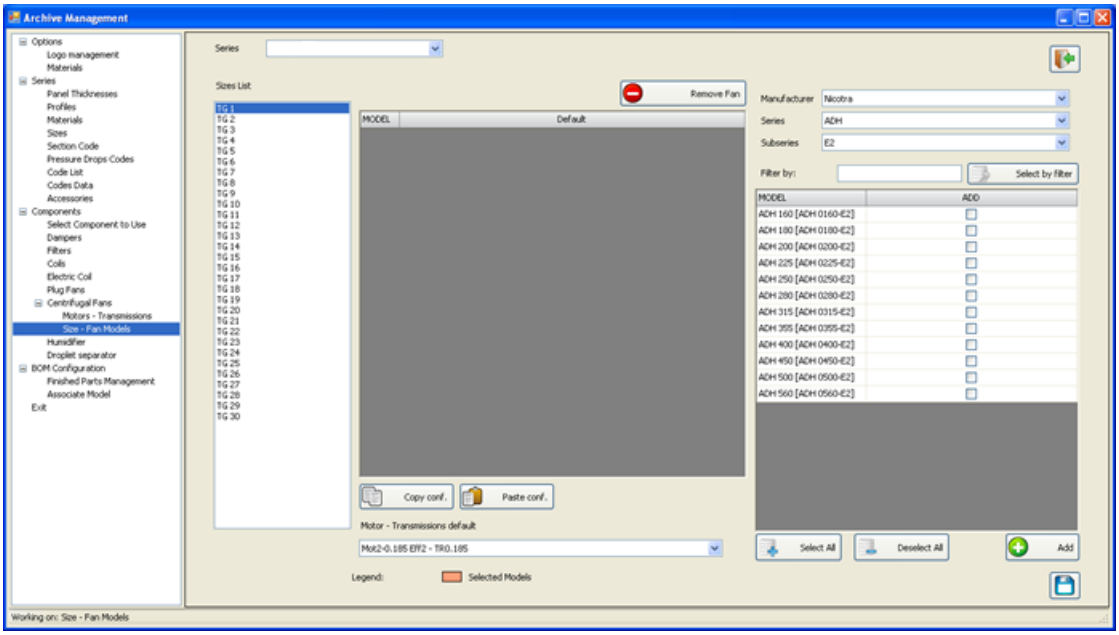
On the right side of the main window you can choose the fan transmissions type: so the Manufacturer and the series. Once you've checked these two options, in the drop down menu it will appear the created transmission model. The possible options among you can choose have been enabled in the Section "Select Component to Use".

Once you've chosen the fan motor and transmissions, you can add these relationships to the table.



If you click on this button, you can remove the selected created relationship.

V. 8. 2 Size - Fan Models



In this window, you can associate for each Unit Size its fans. The possible fans to associate to each Size have been enabled in the Section "Select component to Use"

Pay attention to associate Fans to each Unit Size of each Unit Series. Otherwise you will not find any fan in the selection.

At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

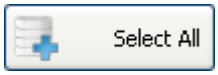
Series here you can choose the series.

On the right side of the window you can select several options to choose the fans to associate to each size.

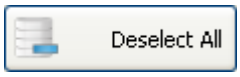
Manufacturer Here you can select Fan manufacturer;

Series Here you can choose the Serie to associate to each Unit Size;

Subseries Here you can select the subserie to associate to each Unit Size.

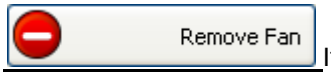


If you click on this button all fans will be checked.

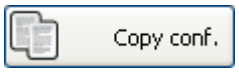


If you click on this button all fans will be de - checked.

If you click on this button, all checked fans will be added to the default list.

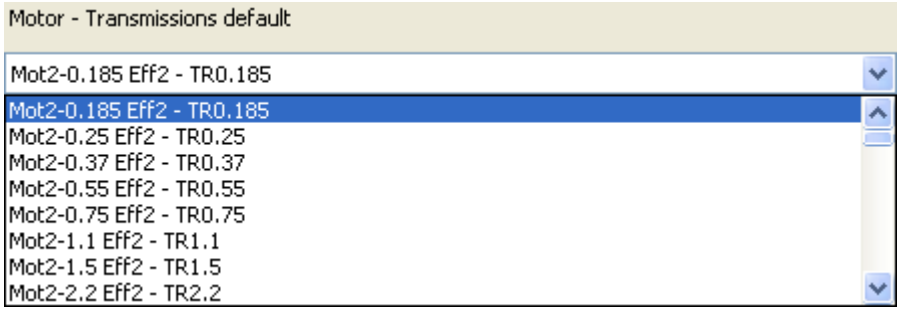


If you click on this button, you can delete the selected fan from the table.



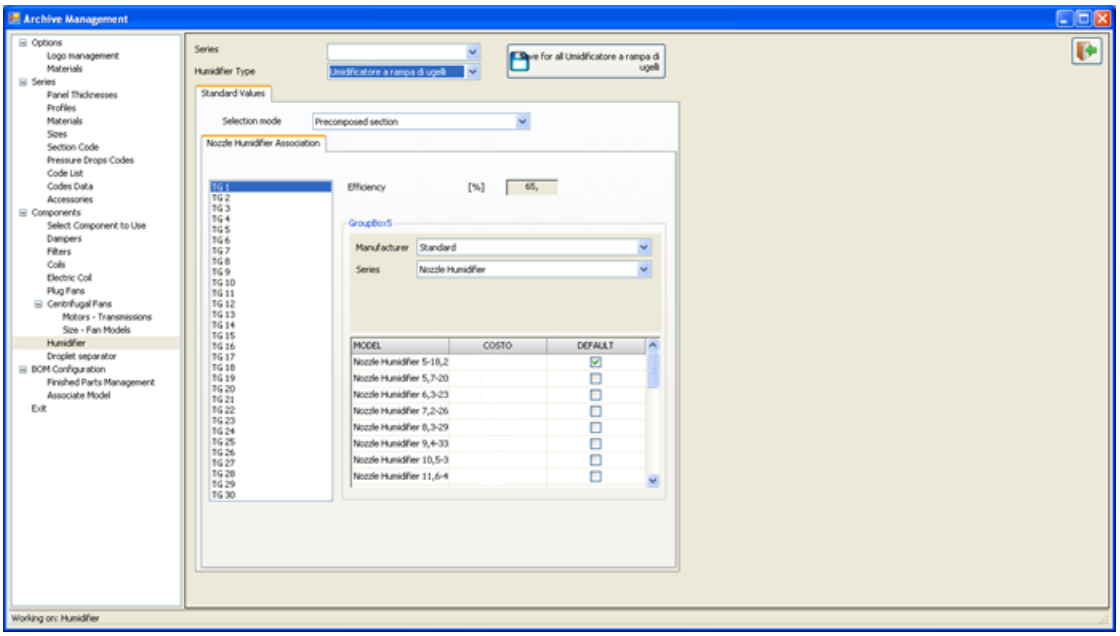
If you click on this button, you can copy the check configuration.

If you click on this button, you can paste the copied check configuration.



Finally, here, you can associate to each fan its motors plus transmissions which have been chosen in the previous Section (Motorts - Transmissions)

V. 9 Humidifier



*** Please note: prices and costs have been deleted from the images for privacy reasons.**

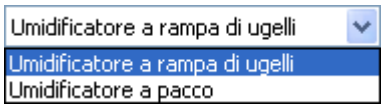
In this section you can associate to each size the nozzles, pump and humidifiers which have been enabled in the Section "Select Component to Use".

At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

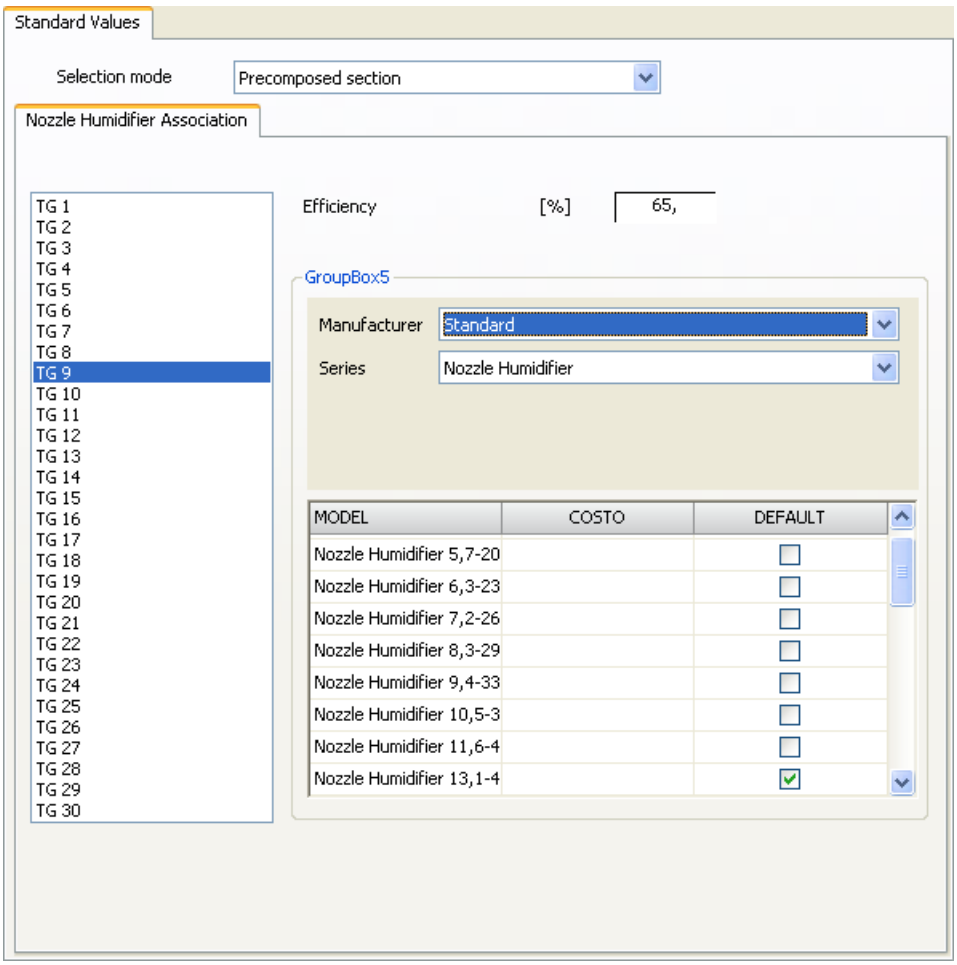
here you can choose the series.



Here you can choose for which kind of humidifier you want insert data.

V. 9. 1 Nozzles Humidifiers

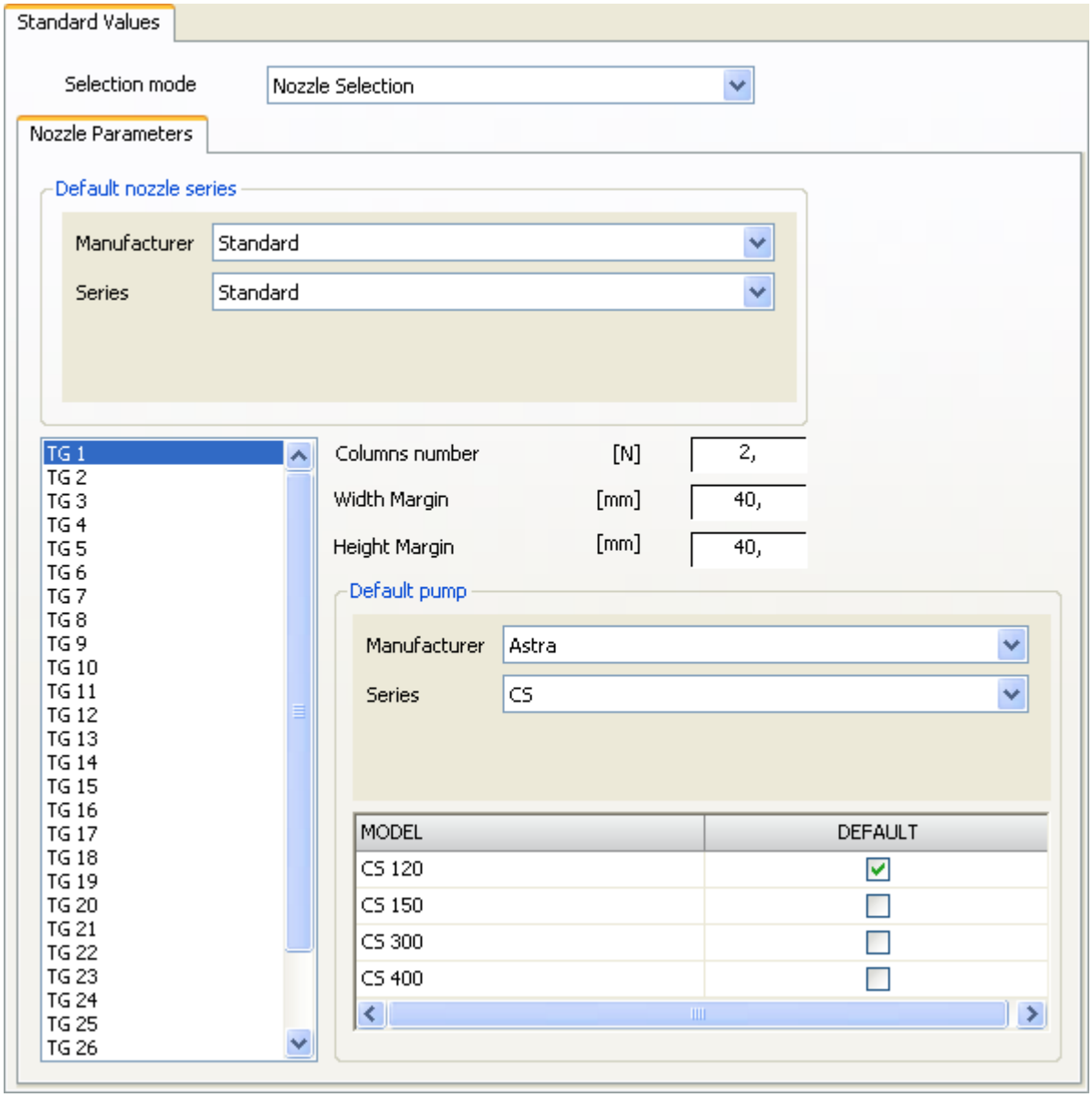
Here you can choose the selection mode. Now we start with "Precomposed Section".
In this window you can choose among nozzle humidifiers which have been enabled in the Section "Select component to Use"

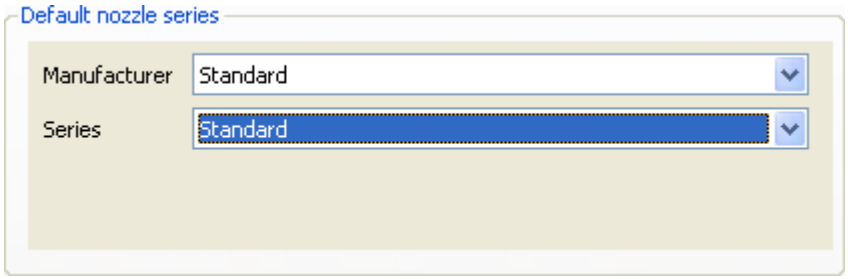


*** Please note: prices and costs have been deleted from the images for privacy reasons.**

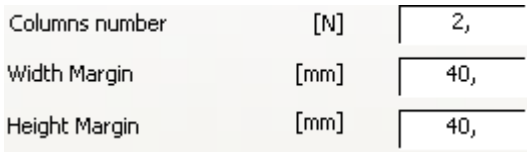
Choosing Manufacturers and Series, you'll have a list of nozzle Humidifiers. If you check on default, you'll associate the checked humidifier to the selected Size.

Instead if you pass from "Precomposed Section" to "Nozzle Selection" for the Selection Mode, you'll obtain the follow window:

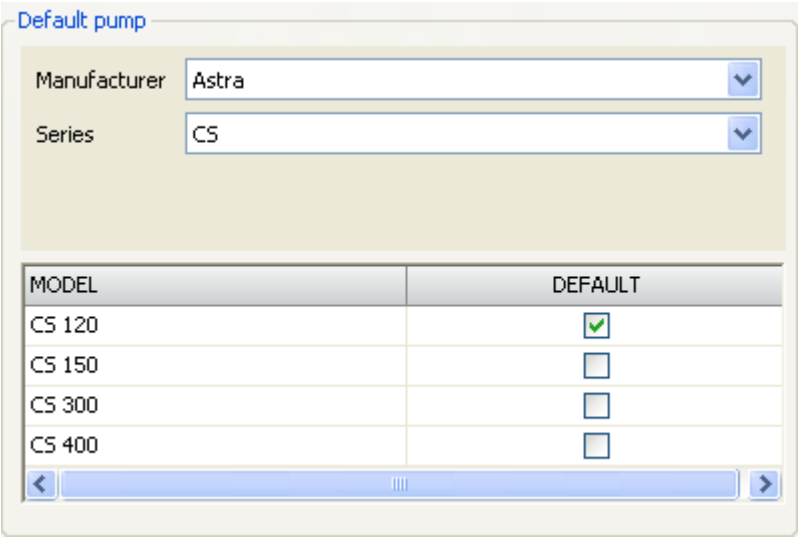




Here you can choose Nozzles Manufacturer and Series.

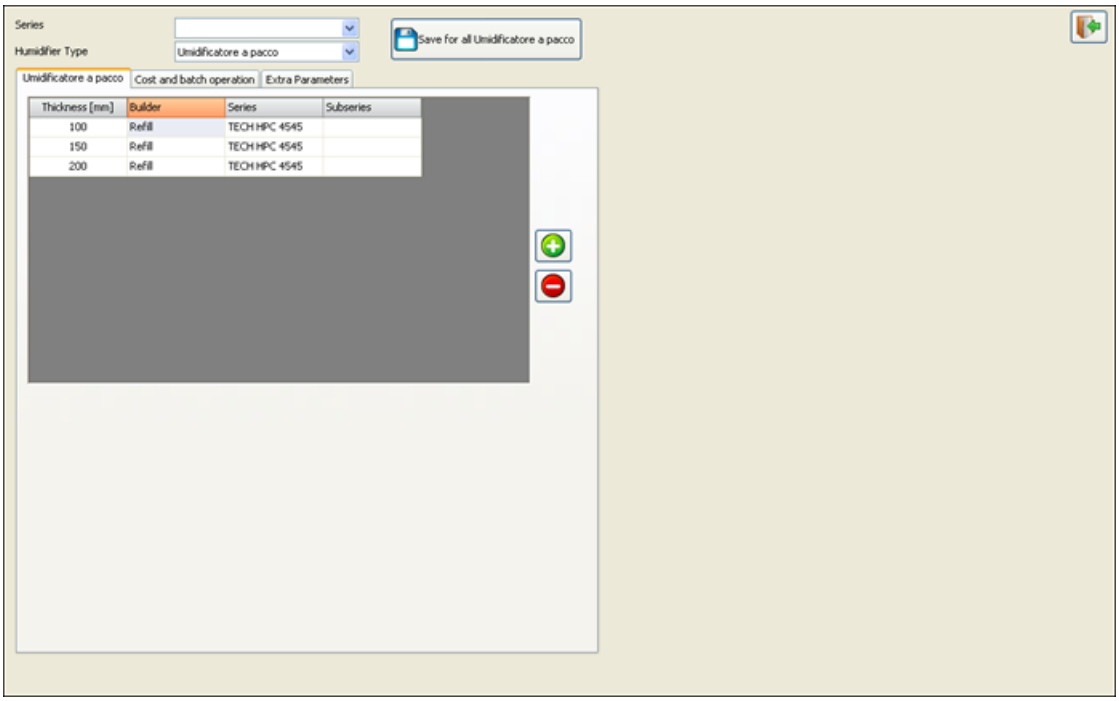


Here you can choose how many columns you want in the Humidifier Section and their width and height margin.



Here you can choose pumps manufacturer and series to associate to each unit size.

V. 9. 2 Package Humidifiers



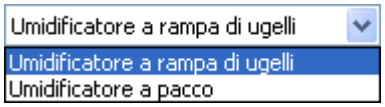
In this window you can choose among the package humidifier which have been enabled in the Section "Select Component to Use".

At the top right of window, you can quit from management

with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

here you can choose the series.

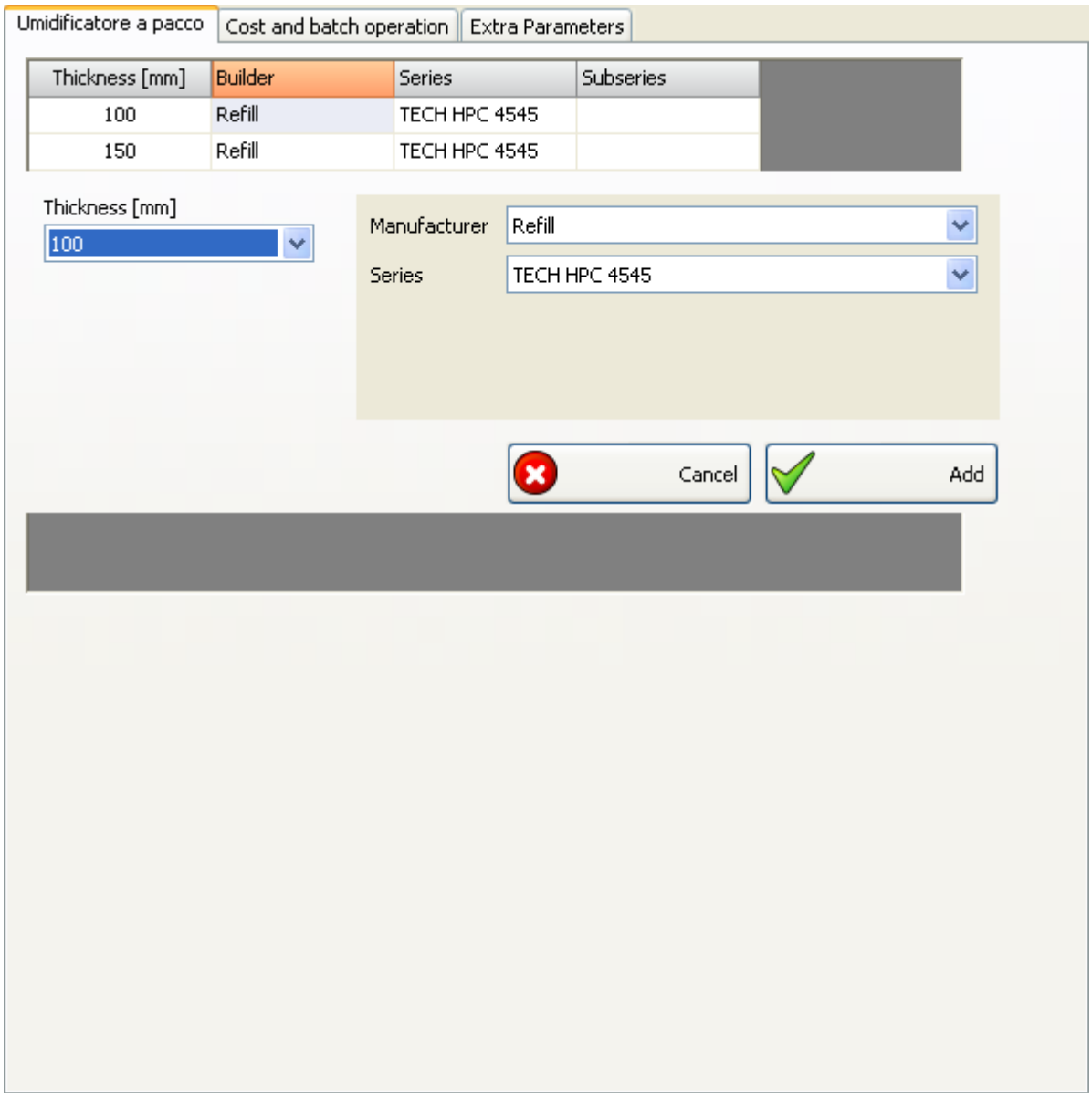


Here you can choose for which kind of humidifier you want insert data.

with this button you can add a package humidifier.

with this button you can delete an inserted package humidifier.

If you click on it will appear the follow window:



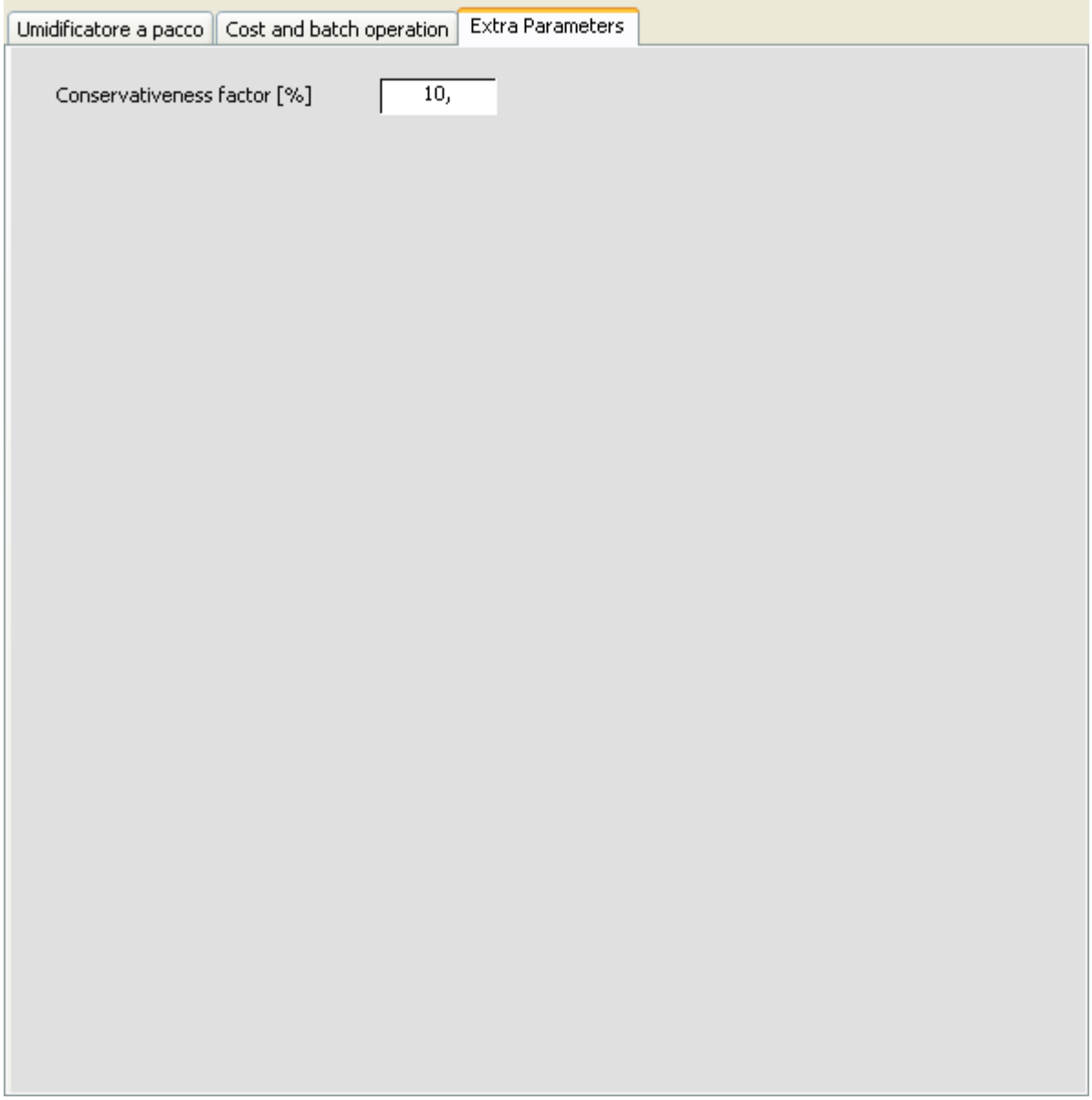
Where you can choose Package thickness, Manufacturer and Series, which are characteristics of enabled package humidifiers.

Once you've selected the options you can:

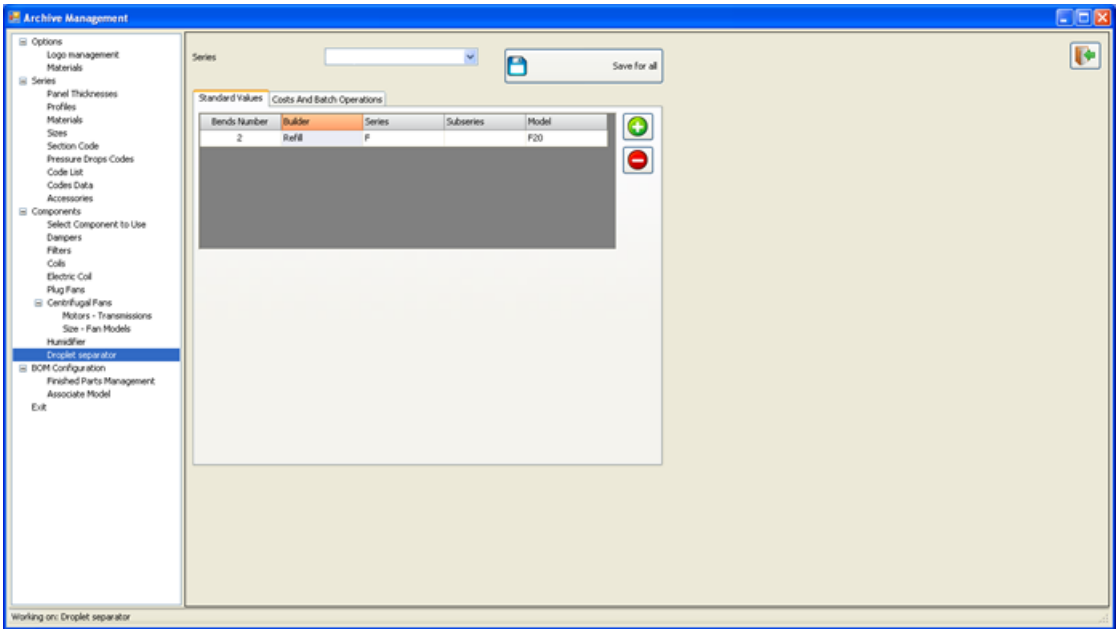
with this button you can quit without saving.

with this button you can quit from the window, saving modifies and so saving filter.

If you click on tab "Extra Parameters" you can insert security factor.



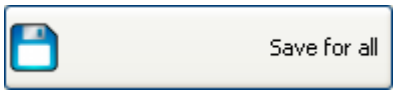
V. 10 Droplet separator



In this section you can add Droplet separator to the Selection software. You can choose among the possible droplet separator you've enabled in the Section "Select Component to Use"

At the top right of window, you can quit from management

here you can choose the series.



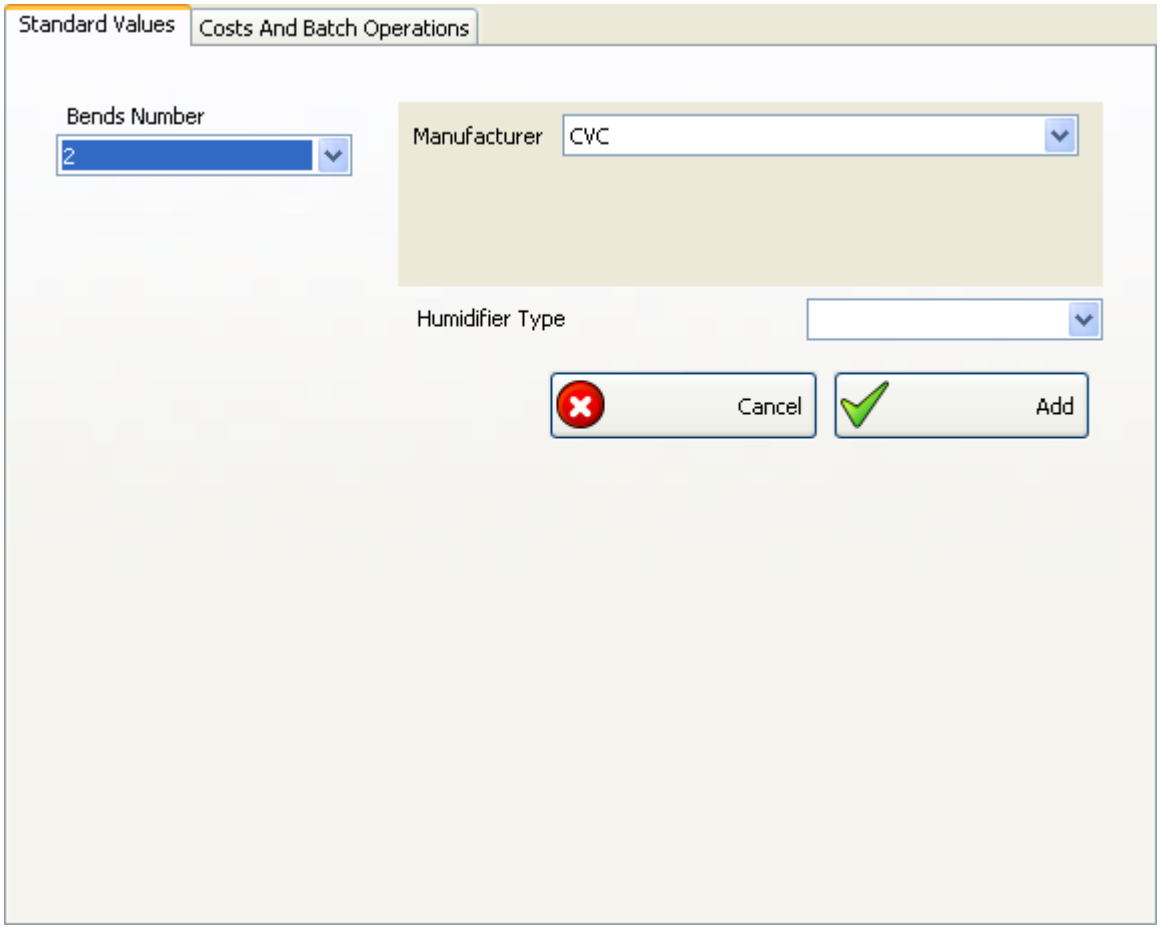
with this button you can save modifies.

<u>Please remember always to save your work before leave the management.</u>

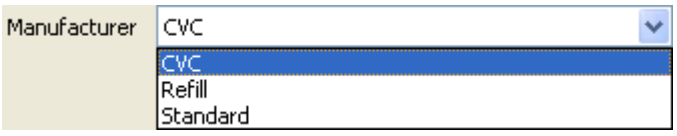
with this button you can add a droplet separator.

with this button you can delete an inserted droplet separator.

If you click on it will appear the follow window:



Where you can choose Bends Number, manufacturer and Humidifier type.
Once you've done your selection you can click on:



Possible droplet separator manufacturer.

with this button you can quit without saving.

with this button you can quit from the window, saving modifies.