Selector Aeromatic - HRV/ERV

Getting Started:

A Guide to Using Aldes Selector™ Aeromatic HRV/ERV

v.1.6.0.3

aldes

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The First Time You Load the Selector™

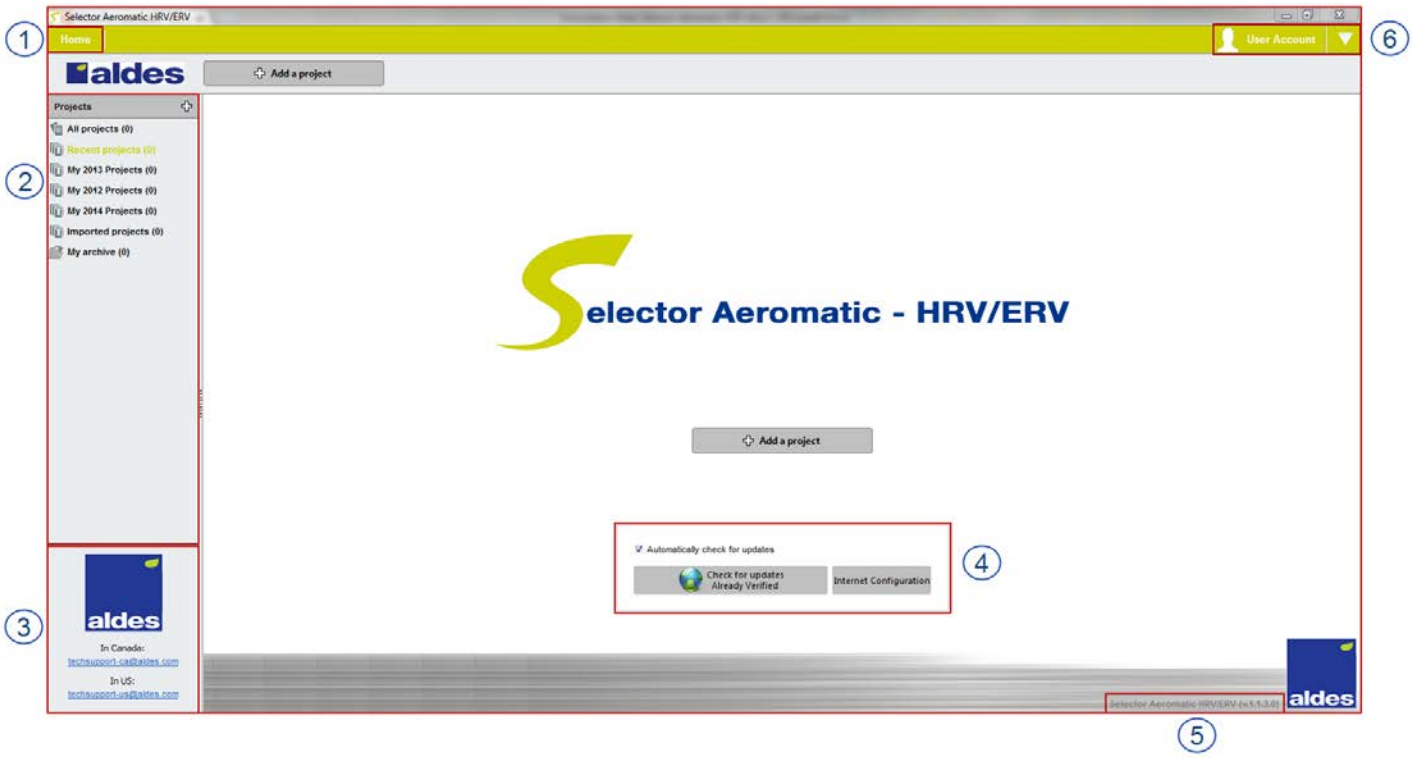
In an effort to better support our customers, we request that you register to use the software.

1. Please enter your information, then click the "Get Registration Key" button to send the information to our secure server. All users are pre-registered by e-mail. If you receive an e-mail asking you to contact your local sales office, please contact your local Aldes representative and they will process your request.

TIP: Manually enter USA in the country field.

2. Once the key has been sent to your e-mail, copy that key into the Registration Key field and click "Key Validation" to activate your copy. The software will load automatically.

Selector™ User Interface

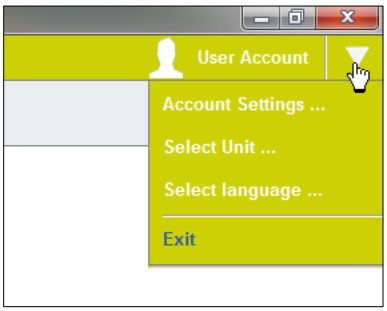


1. Home – Click to go to the main screen
2. Projects – Select previously made projects to edit, print or archive.
3. Contact us – Please use these e-mail addresses to contact an Aldes employee for assistance
4. Update software – Use these links regularly to check for software updates
5. Version – The currently installed version of the software
6. User account – Enter user information and select appropriate units and language

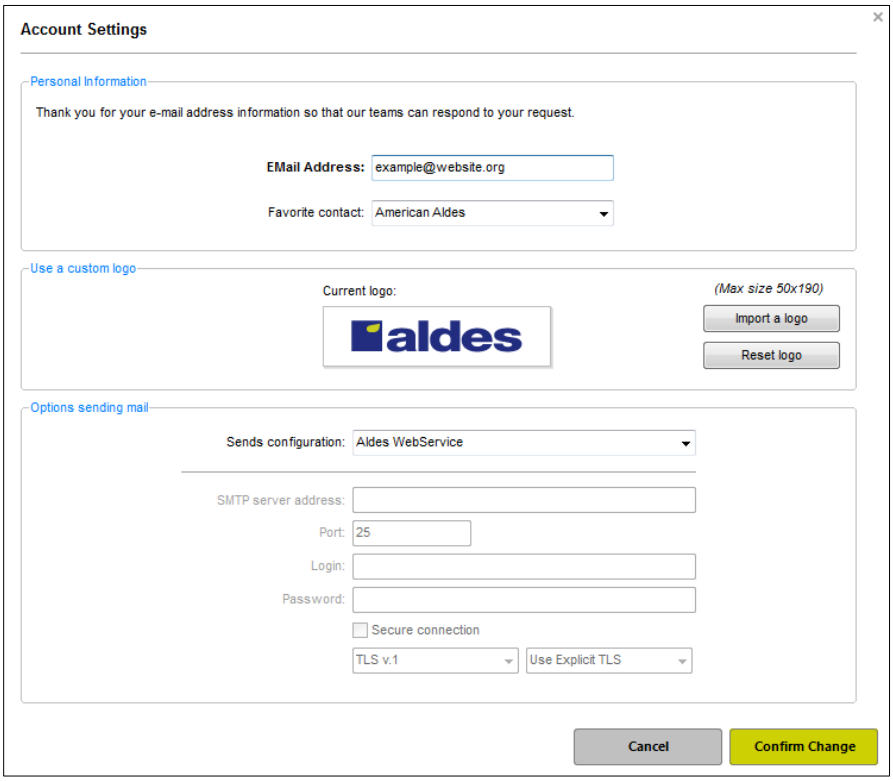
NOTE: Internet configuration button (4) has no impact on the current version of the software, but will be used in later versions.

Enter User Information

Enter your information for the purpose of sending and receiving e-mails.

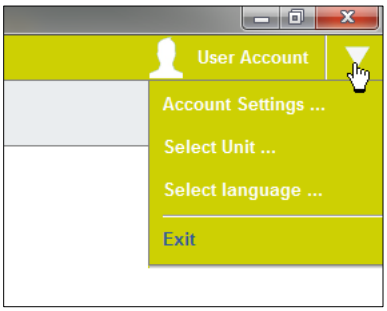


1. Click on the User Account drop-down icon, then ***Account Settings***.
2. Enter your e-mail address.
3. Select your technical support contact: American Aldes or Aldes Canada.
4. Click ***Confirm Change*** to save information.



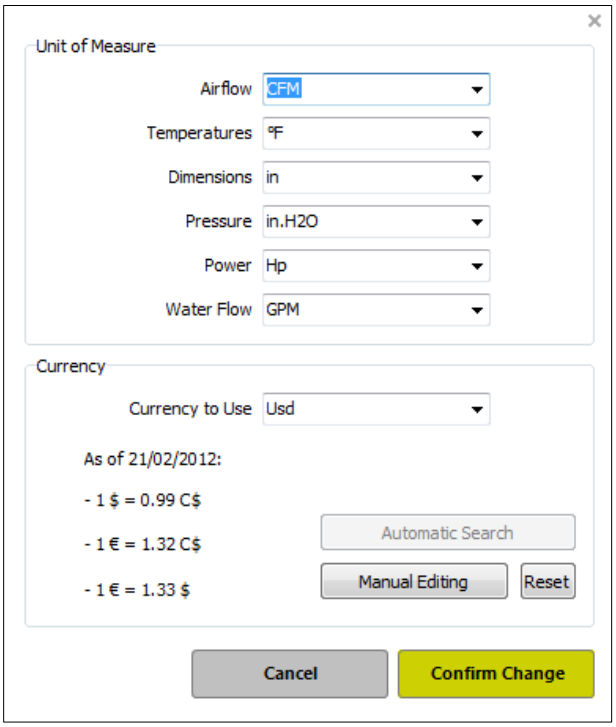
Selecting the Correct Unit of Measurement

Whether you are in the United States or Canada, you can select the units that are most appropriate for your project.



1. Click on the User Account drop-down icon, then ***Select Unit***.
2. Select the desired unit for airflow, temperature, dimensions, etc.
3. Click ***Confirm Change*** to save information.

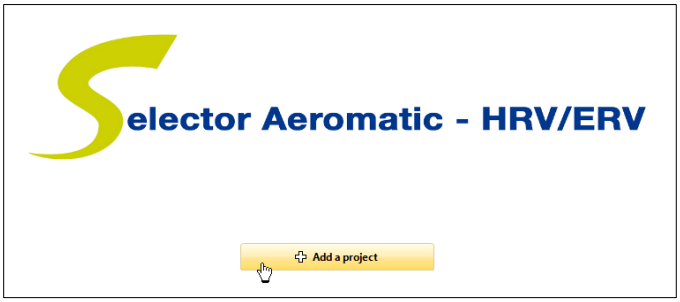
NOTE: Selecting a currency has no impact on the current version of the software, but will be used in later versions.

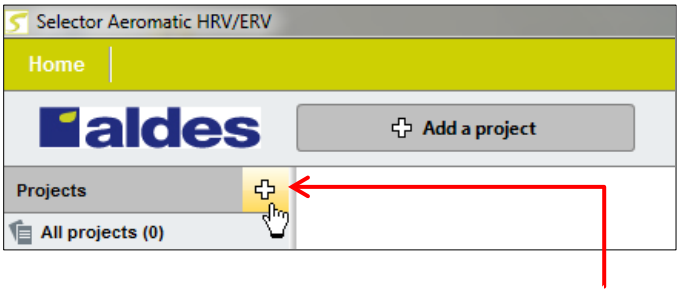


Creating a New Project

Follow the steps below to create a new project.

1. Add a new project by clicking any of these buttons.

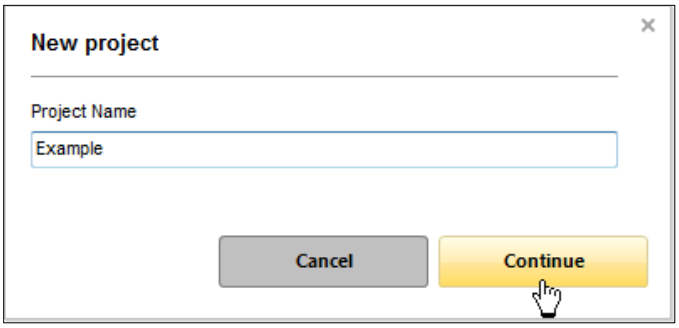




TIP: After leaving the Home page, the above button will add a new project.

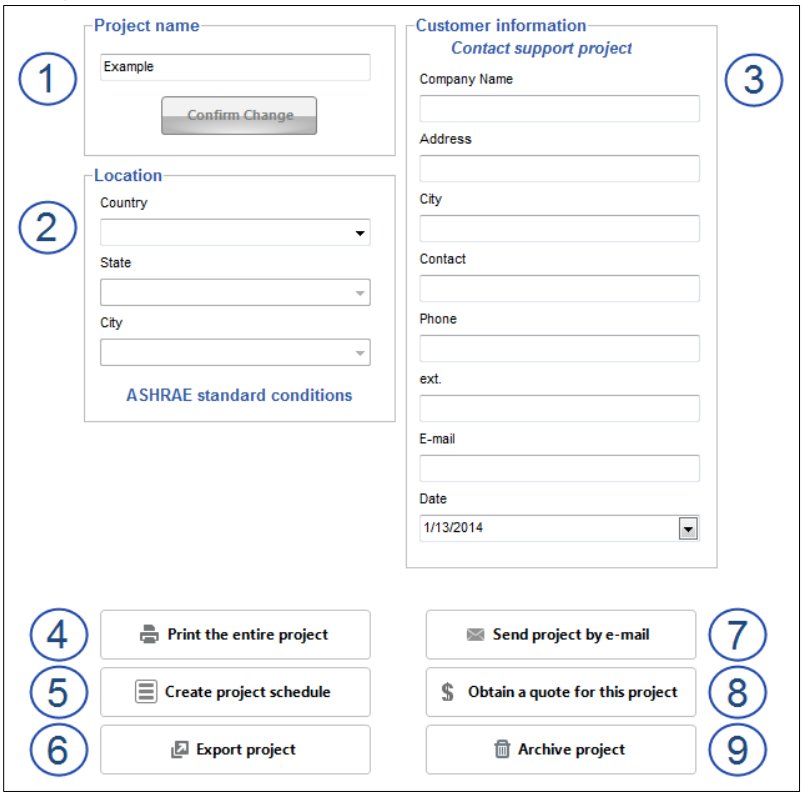
2. After clicking ***Add a project***, enter the project name and click ***Continue***.

TIP: Enter the name of the customer first, then the project name. This will make it easier to keep track of created projects. Ex: Engineering Office – Building Project.



3. Enter project and customer information.

Project Details Page



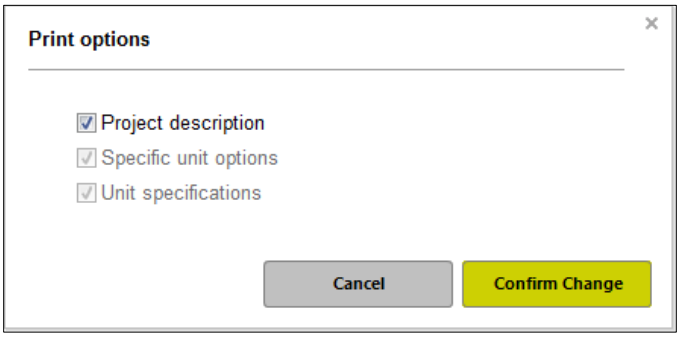
1. Project name – To modify project name, enter new name and click ***Confirm Change***.

2. Location – Select the location of the project to insert ASHRAE standard conditions into your project data. This information can be entered manually, if necessary.

3. Customer information – Enter the information of your customer and/or project.

4. Print the entire project – Create a PDF showing project information and equipment selection(s). You can individually print the project information, unit selections, unit specifications sheets, or any combination of the three.

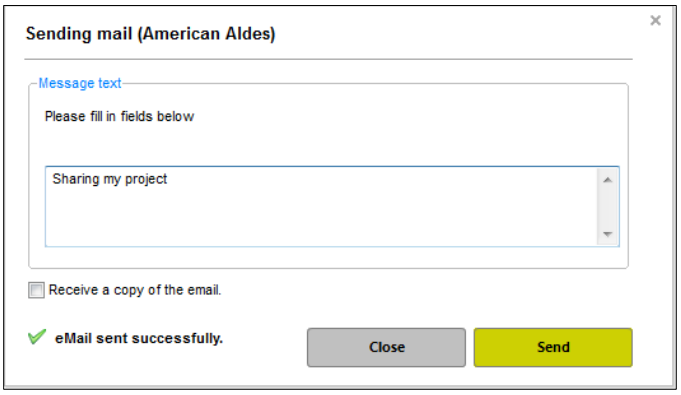
NOTE: There must be a complete selection saved to print unit information.



5. Create project schedule – Create a schedule using an Excel spreadsheet for the entire project. This file type has been selected for the ease of editing by any party.

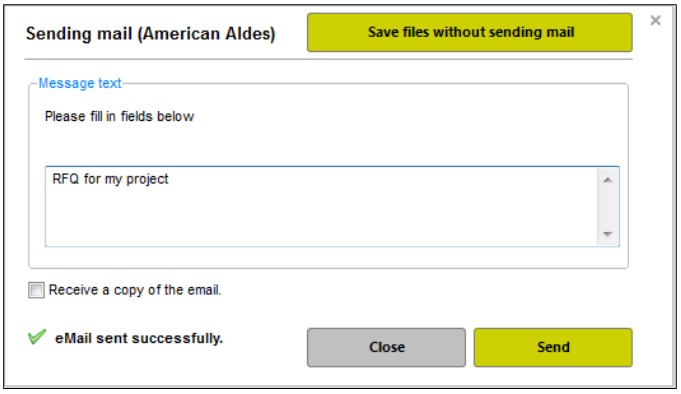
6. Export project – Saves the unit as a file type that can be e-mailed and viewed by anyone using this software. See **Import a Project** for additional details.
7. Send project by e-mail – Sends the project to an Aldes representative for assistance.

NOTE: It is important that the correct Aldes location is selected. See **Enter User Information** for additional details.



8. Obtain a quote for this project – Sends the project to an Aldes representative for a quotation of the project.

NOTE: It is important that the correct Aldes location is selected. See **Enter User Information** for additional details. Quotations will only be sent to an Aldes representative. For a list of representatives, please contact Aldes or visit www.aldes.ca or www.aldes.us

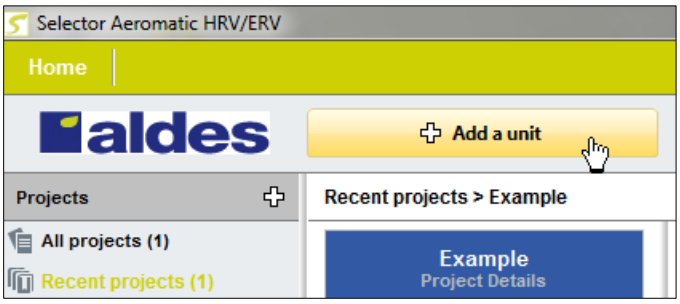


9. Archive the current project – Sends the project to "My archive" folder under projects. See **Selector User Interface** for additional information. Once the project has been archived, the project can be permanently deleted.

Add a Unit to Your Project

After creating or selecting a project, a unit can be added at any time by clicking the ***Add a unit*** button at the top left of the screen.

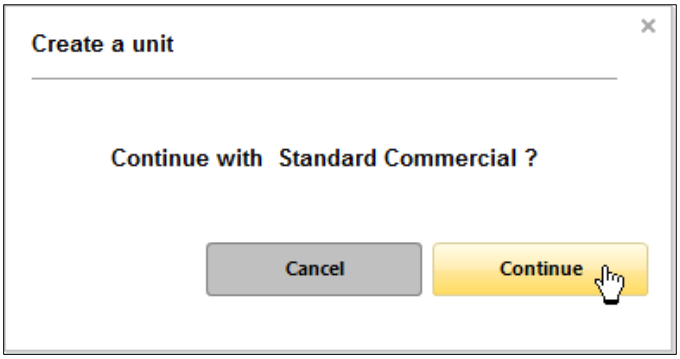
1. Click the ***Add a unit*** button to add a unit to your project.



2. Based on project requirements, select the most appropriate Aeromatic series. Primary unit applications, options, and ranges are indicated in the table.

AEROMATIC™	Add Residential	Add Light Commercial	Add Standard Commercial	Add Low-profile Commercial	Add Advanced Commercial
Airflow (cfm)					
Min	30	200	500	500	1000
Max	250	1100	4500	3500	11000
Installation					
Inner	X	X	X	X	X
Outdoor			X	X	X
Defrost					
Evacuation cycles	X	X	X	X	X
Recirculation cycles	X	X		X	X
Pre-heat			X	X	X
Face & Bypass Damper					X
VFD on wheel				X	X
Recovery Type					
Polypropylene cube	X	X	X	X	X
Aluminum cube	X	X	X	X	X
Enthalpic cube	X	X	X	X	X
Polymer wheel				X	X
Optional heating and/or cooling					
post heating					X
post cooling					X

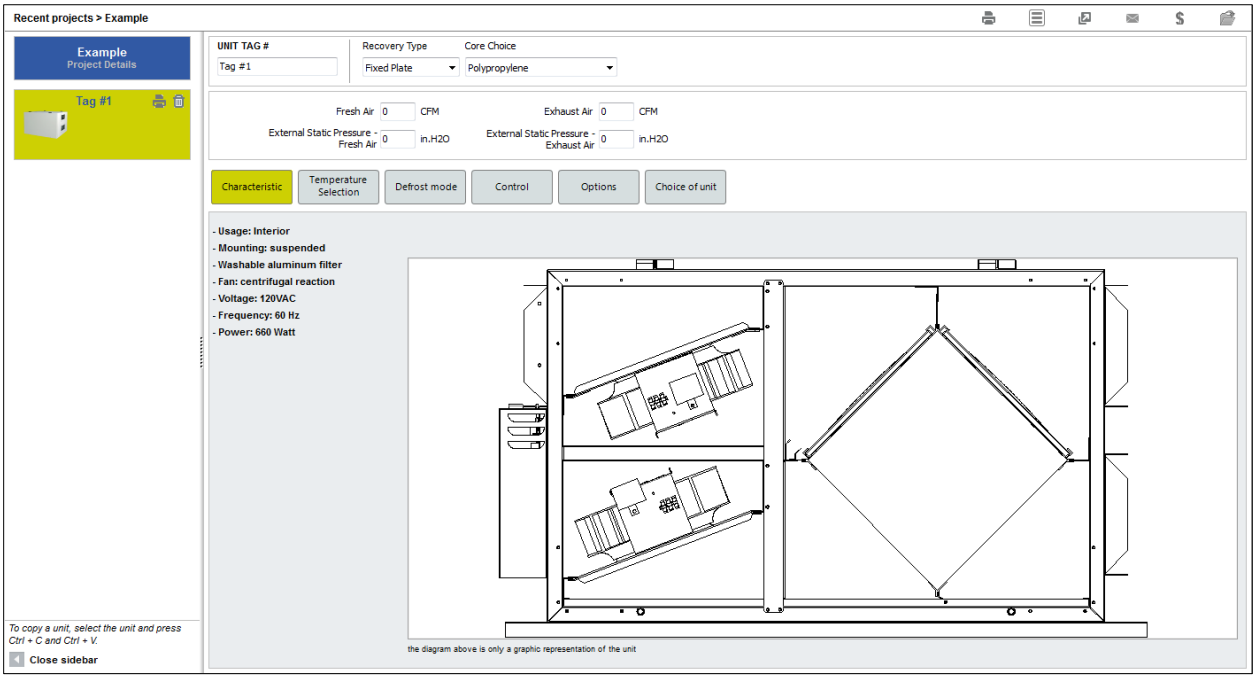
3. Verify the selection and click ***Continue*** to proceed. See **Creating a Unit Selection** for additional information.



Creating a Unit Selection

Continuing from step 3 in **Add a Unit to Your Project**, you must enter specific unit information to finalize the selection. Depending on the Aeromatic series, there are various options that require special attention.

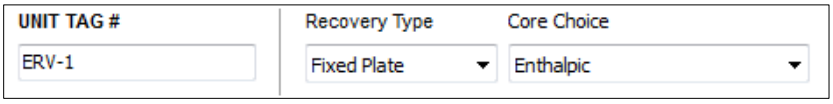
Light Commercial



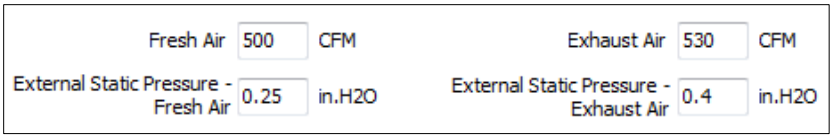
1. Enter unique unit tag #.

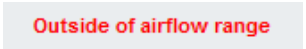
2. Select desired recovery type and core choice.

NOTE: Some models are only available with fixed-plate cores. This can be changed at any time during the selection process to see how core selection impacts the unit's performance.



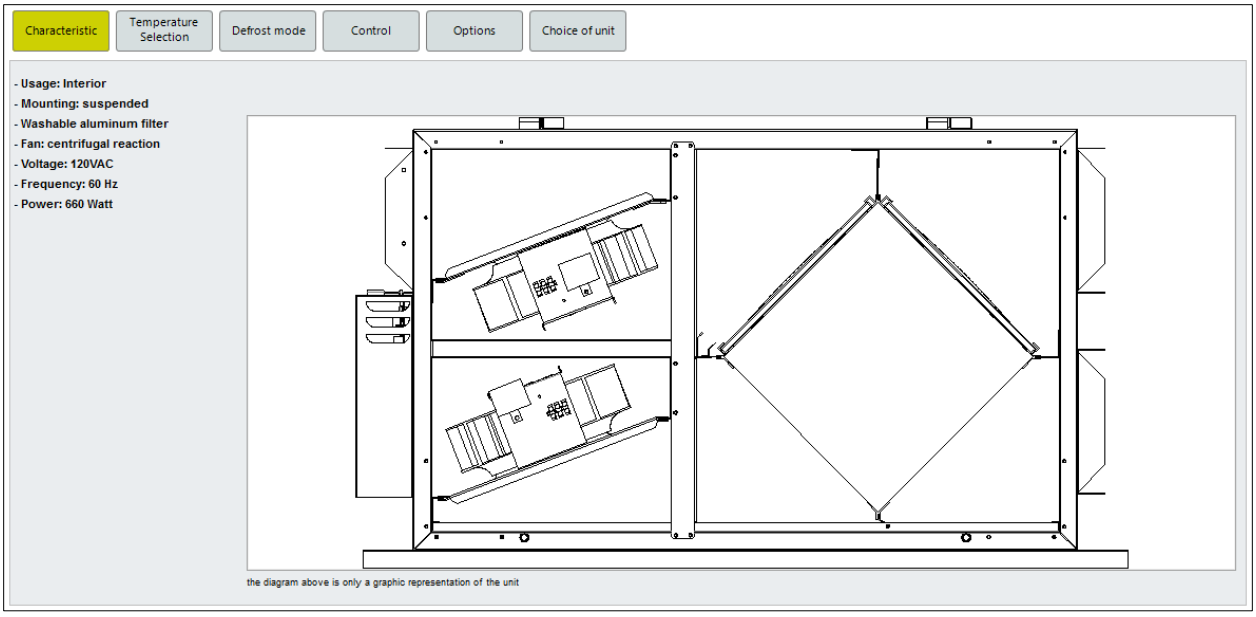
3. Enter the airflow data.



NOTE: An error message 

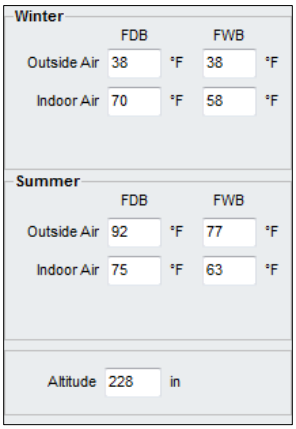
will be displayed if the information entered is outside the capacity for the selected series. If this occurs, please review and modify the selected series.

4. The *Characteristic* tab shows standard unit features and options. In the other commercial series, this tab requires selection of specific options pertaining to the configuration and application.

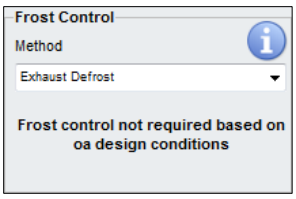


5. To move between tabs, simply select the desired tab. It is **strongly advised** that the tabs be filled out from left to right to avoid any conflict in entered data or selected options.

6. *Temperatures* – Review and make any necessary changes. The default temperatures are based on ASHRAE standard design conditions for the selected city. If no city was selected, the temperatures will be zero.



7. *Defrost mode* – Select the desired frost control (required). This is determined by the entered temperature information and selected core technology.

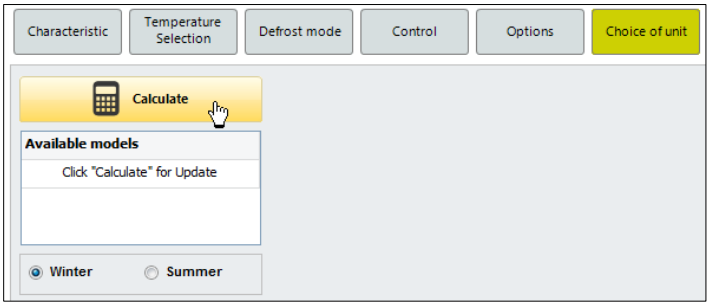


TIP: For additional details on a specific option, click the info button .

8. *Control* – Information on the unit controls is noted here. In the other commercial series, this tab requires selection of specific options pertaining to the configuration and application.

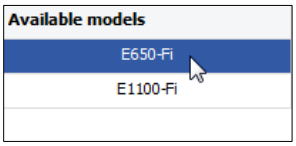
9. *Options* – Currently, the only option for this series that can be selected via the software is the spare filter type. The standard filter shipped in the unit is a washable aluminum mesh. For additional options, please view the unit specifications sheet.

10. *Choice of unit* – Click on the *Calculate* button to evaluate and determine the most appropriate unit based on the entered information.



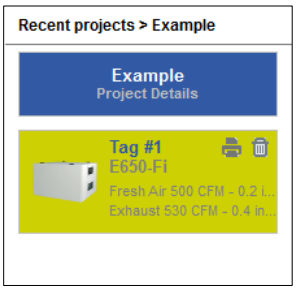
11. If multiple unit models are shown, this is because the entered information falls within the range of these models. Select the desired model to display unit information.

NOTE: Light Commercial models have only one type of fan and no options that impact electrical data, so unique electrical and fan data are not shown in this series the way they are for other models.

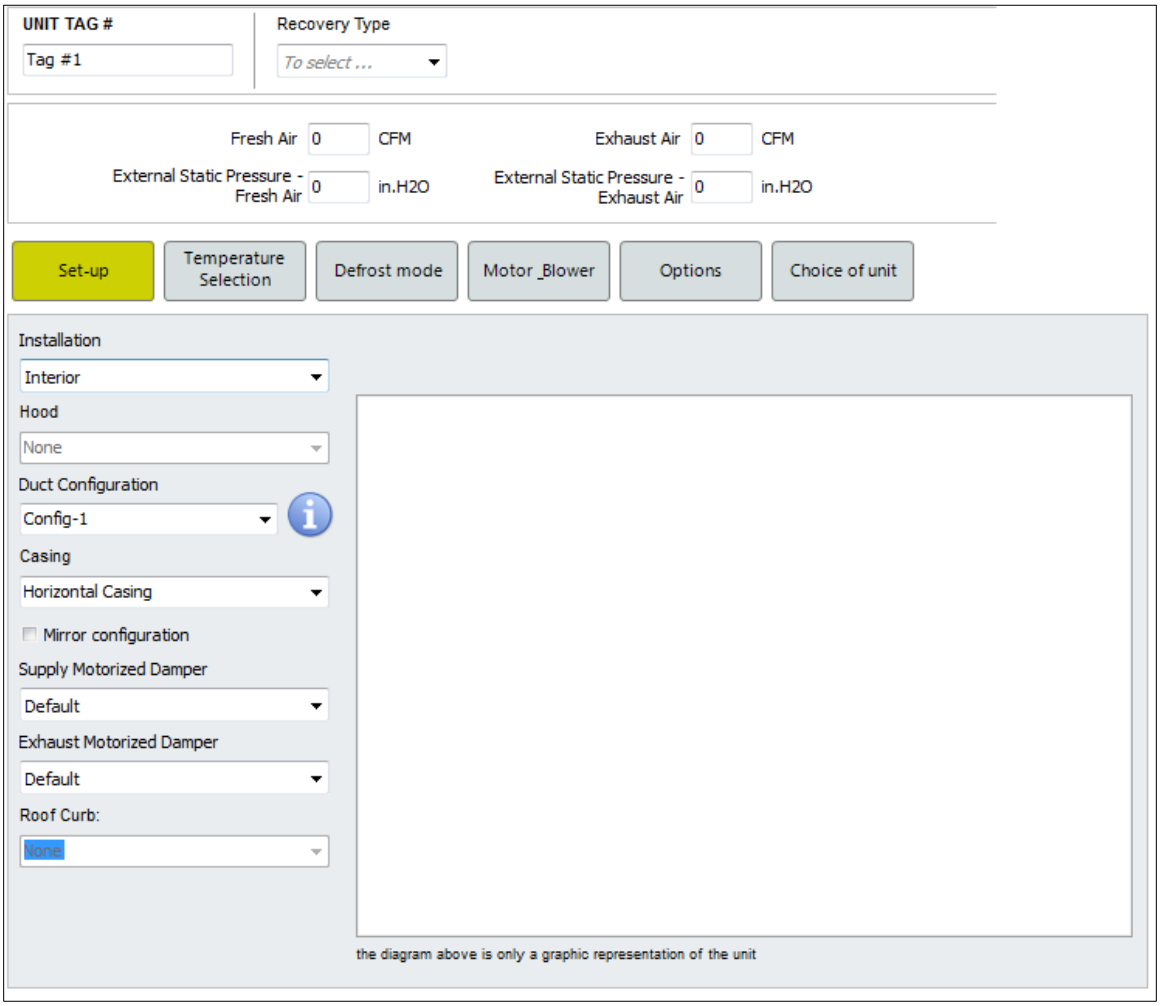


12. To save the unit selection to your project, click *Save*.

13. After a unit has been saved, a brief description will be added to that unit in the project list.



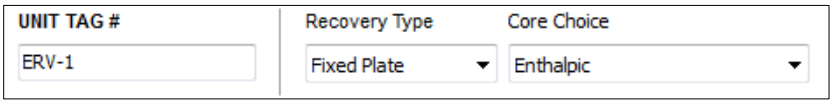
Standard Commercial



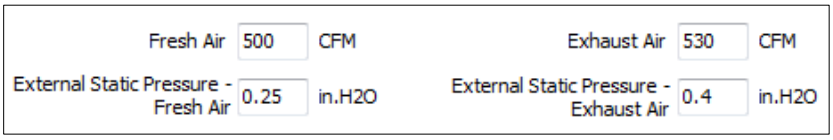
1. Enter unique unit tag #.

2. Select desired recovery type and core choice.

NOTE: Some models are only available with fixed-plate cores. This can be changed at any time during the selection process to see how core selection impacts the unit's performance.



3. Enter the airflow data.



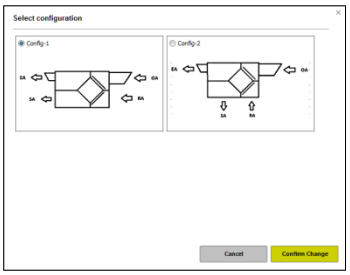
4. The *Set-up* tab shows the configuration and installation options of the unit.

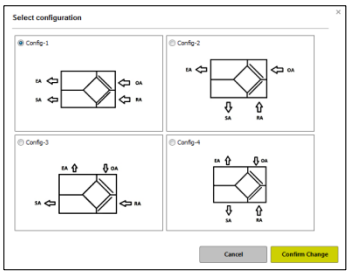
    a. *Installation* can be either an *Interior* installation (ex: in a mechanical room) or an *Exterior* installation (ex: on a rooftop).

b. *Hood* applies only to the *Exterior* installation units. When set to *OA and EA*, unit will be equipped with hoods on the fresh air intake and exhaust air. When set to *None*, the unit will not be equipped with hoods.

c. *Duct Configuration* – Click the info button to select the proper duct configuration for the unit. Click ***Confirm Change*** to select the *Duct Configuration*.

NOTE: The available configurations depend on the installation. Example: For Exterior installations, Config-1 is not available with pre-heating frost control.





d. *Casing* can be either a *Horizontal Casing* or a *Vertical Casing*. The *Horizontal Casing* will have the supply air and return air duct positioned at the ends of the unit, while the *Vertical Casing* will have them under the unit.

NOTE: The choice in *Casing* shall reflect the choice in *Duct Configuration*.

e. Select *Mirror configuration* when the clearance needs the doors to be on the opposite side of the unit. The airflows and duct configuration will remain the same, but the access doors will be on the opposite side of the unit.

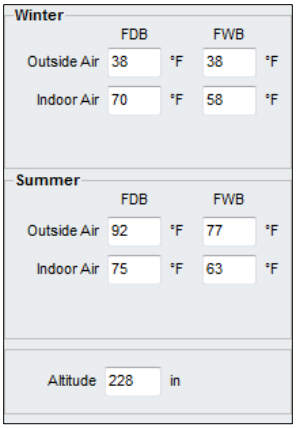
f. *Supply Motorized Damper* and *Exhaust Motorized Damper*. Select *Default* to include motorized damper; *with end switch* if you need the damper position confirmation; or *None* if you do not need dampers.

NOTE: The *Supply Motorized Damper* is mandatory when the *Frost Control Method* is set to *Exhaust Defrost* (*Frost Control Method* will be covered in the **Defrost Mode** tab).

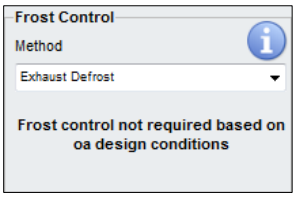
g. *Roof Curb* – Select *14" Insulated Roof Curb* if you need an insulated roof curb; *14" Non-Insulated Roof Curb* if you do not need insulation with your roof curb; or *None* if you do not need any roof curb at all.

5. To move between tabs, simply select the desired tab. It is **strongly advised** that the tabs be filled out from left to right to avoid any conflict in entered data or selected options.

6. *Temperatures* – Review and make any necessary changes. The default temperatures are based on ASHRAE standard design conditions for the selected city. If no city was selected, the temperatures will be zero.



7. *Defrost mode* – Select the desired frost control (required). Given your unit configuration and design temperature, *Selector*™ will indicate if a *Frost Control Method* is required.



In the Standard Series, the available *Frost Control Methods* are:

a) *Exhaust Defrost*

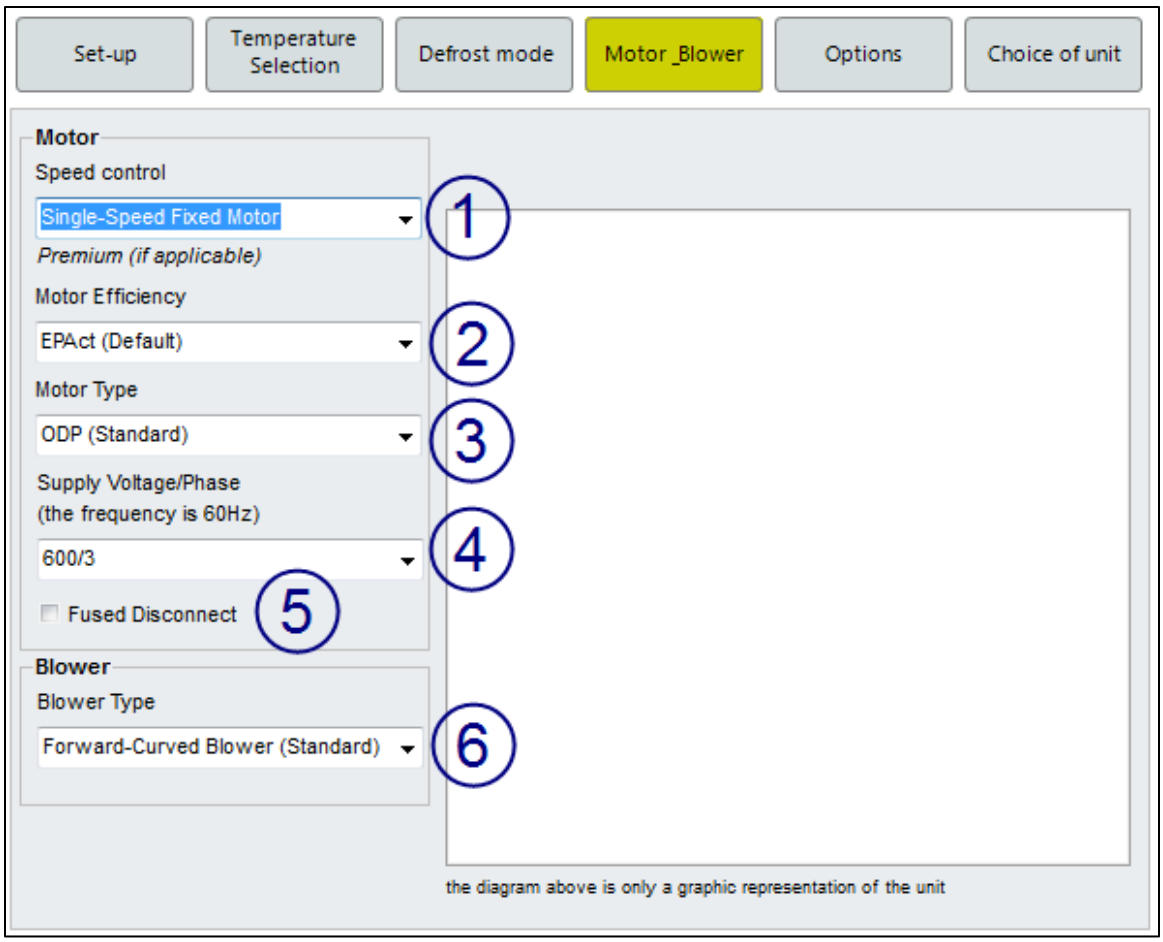
b) *Electric Pre-Heat* (on exterior installation unit only)

c) *None*

NOTE: If no *Frost Control Method* is selected, it is the customer's responsibility to avoid any formation of ice or frost on the core. For technical assistance regarding this, please contact your local Aldes representative.

TIP: For additional details on a specific option, click the info button .

8. The *Motor_Blower* tab shows configuration and control of the motor/fan assembly.



9. The *Motor Speed control* determines how the motor will be controlled. The motor can be controlled in one of the following ways :

    a. *Single-Speed Fixed Motor* – This is a single-speed motor controlled with a magnetic contactor.

    b. *Two-Speed Fixed Motor* – This is a two-speed motor with two windings controlled with a magnetic contactor and a mechanical interlock between both windings.

    c. *VFD Variable Speed (0-10VDC External)* – This is a single-speed motor controlled with a variable frequency drive. The 0-10VDC control signal comes from a source external to the unit.

    d. *VFD Two-Speed Adjustable with Controller* – This is a single-speed motor controlled with a variable frequency drive and set for a two-speed use.

10. *Motor Efficiency* – This selects the motor efficiency. The motors are Premium efficiency standard when the Premium standard applies.

NOTE: The Graphical User Interface has an error regarding the Motor Efficiency that will be corrected in the next release of the software.

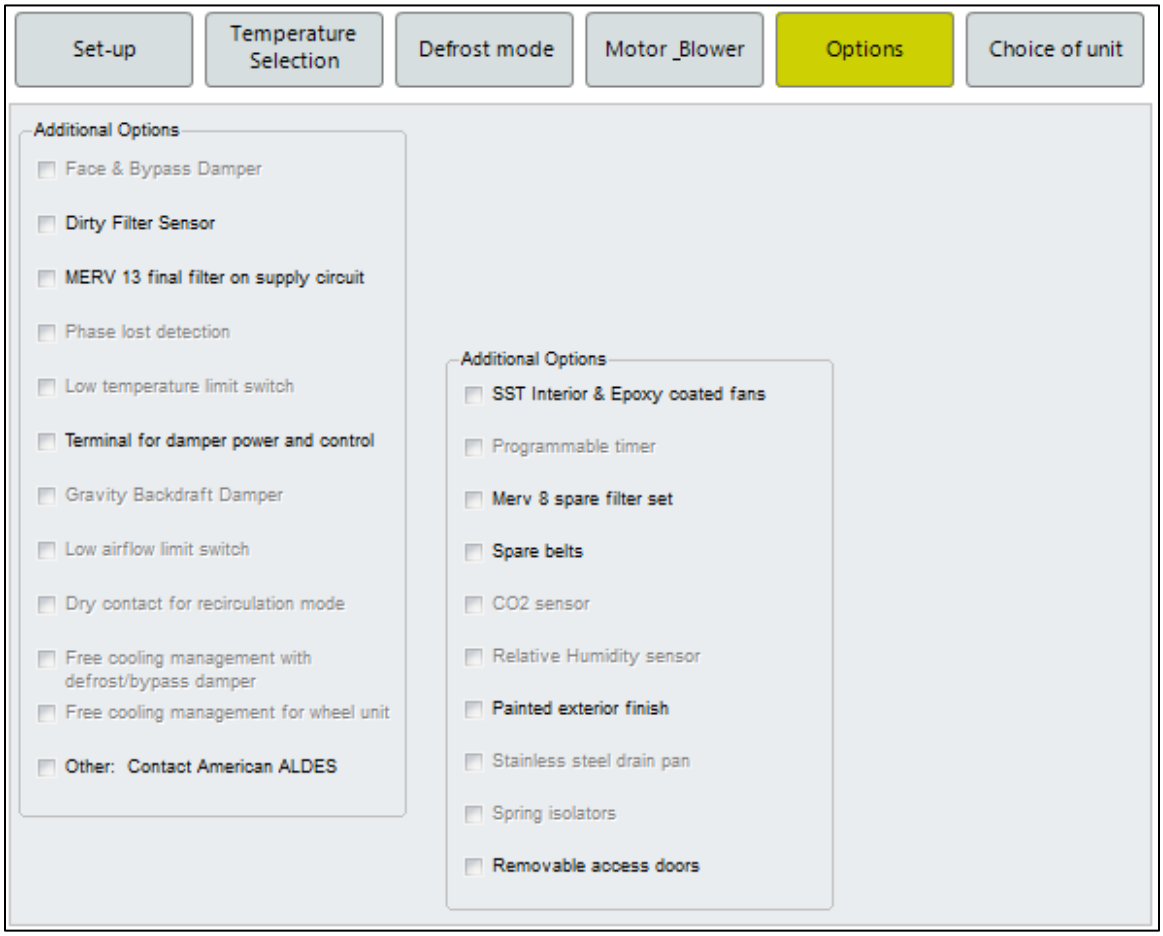
11. *Motor Type* selects the type of motor to be installed in the unit. Motors can be either *ODP* or *TEFC*.

12. *Supply Voltage/Phase* selects the power supply source of the unit. All standard North American voltages are available.

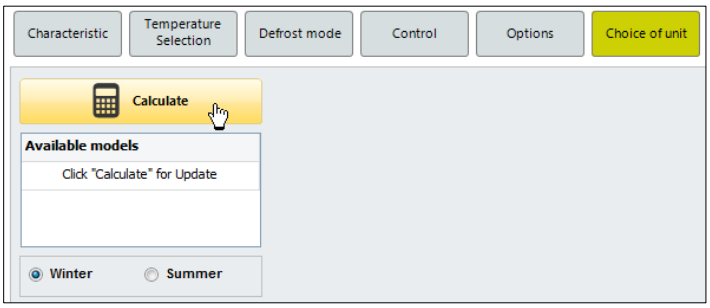
13. *Fused Disconnect* – Check this option if the unit's disconnect needs to be fused. Otherwise, the unit will come with a standard non-fused disconnect.

14. *Blower Type* – The Standard Series is only available with forward-curved, double-width, double-inlet fans.

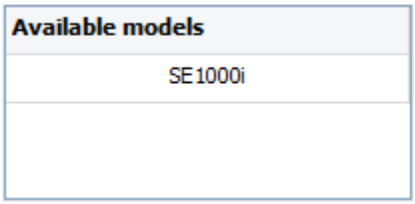
15. The *Options* tab allows the user to select the desired options to be included in the unit. If an option you need is not available in the provided list, select *Other: Contact Aldes* and a member of the Aldes support team will review the project with you to discuss all available options.



16. *Choice of unit* – Click on the *Calculate* button to evaluate and determine the most appropriate unit based on entered information.



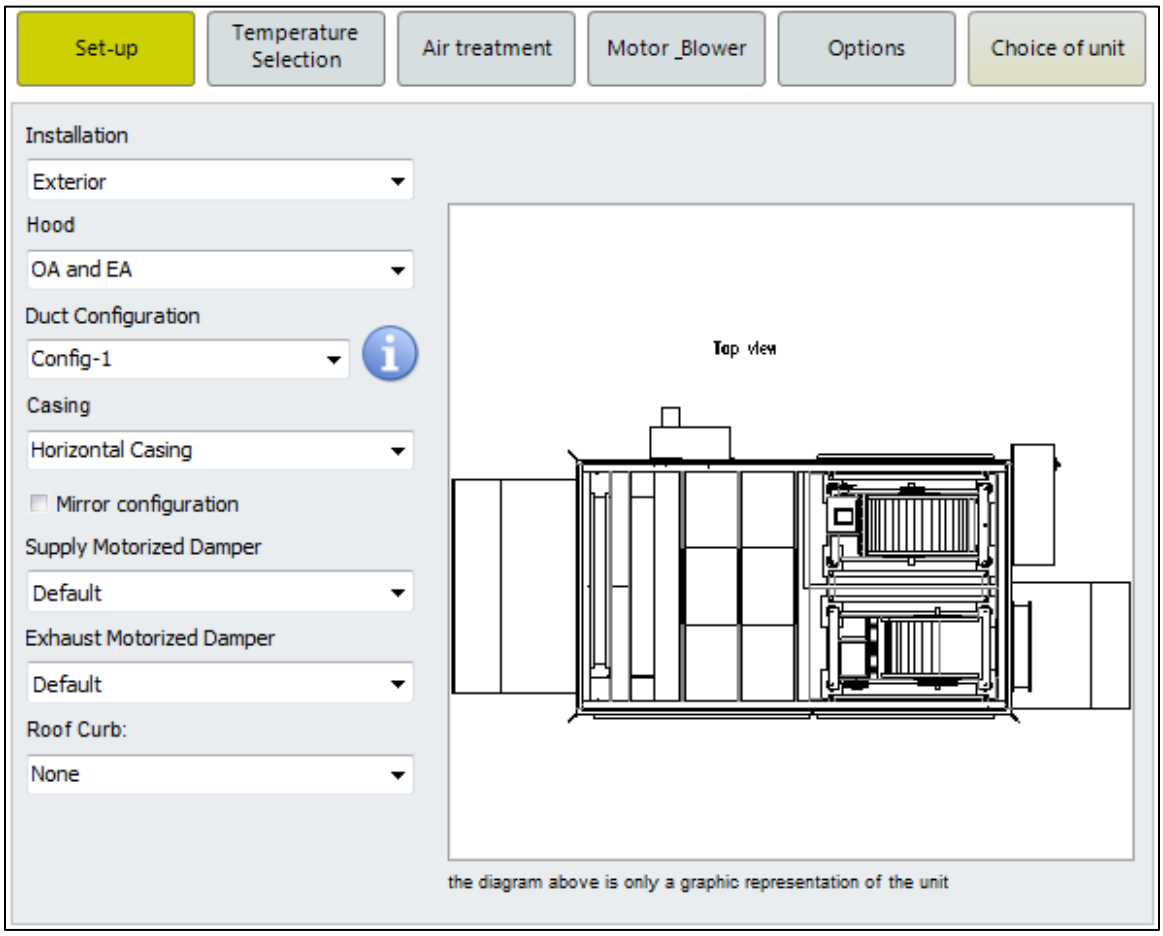
17. If multiple unit models are shown, this is because the entered information falls within the range of multiple models. Select the desired model to display unit information.



18. To save the unit selection to your project, click *Save*.

19. After a unit has been saved, a brief description will be added to that unit in the project list.

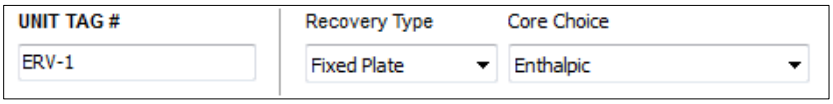
Low-Profile Commercial



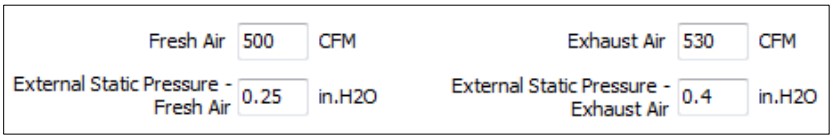
1. Enter unique unit tag #.

2. Select desired recovery type and core choice.

NOTE: Some models are only available with fixed-plate cores. This can be changed at any time during the selection process to see how core selection impacts the unit's performance.



3. Enter the airflow data.

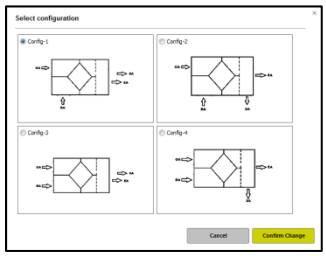


4. The *Set-up* tab shows the configuration and installation options of the unit.

    a) *Installation* can be either an *Interior* installation (ex: in a mechanical room) or an *Exterior* installation (ex: on a rooftop).

b) *Hood* applies only to the *Exterior* installation units. When set to *OA and EA*, unit will be equipped with hoods on the fresh air intake and exhaust air. When set to *None*, the unit will not be equipped with hoods.

c) *Duct Configuration* – Click the info button to select the proper duct configuration for the unit. Click ***Confirm Change*** to select the *Duct Configuration*.



d) *Casing* can be either a *Horizontal Casing* or a *Vertical Casing*. The *Horizontal Casing* will have the supply air and return air duct positioned at the ends of the unit while the *Vertical Casing* will have them under the unit.

NOTE: The choice in *Casing* shall reflect the choice in *Duct Configuration*.

e) *Mirror configuration* – when the clearance needs the doors to be on the opposite side of the unit, select the *Mirror configuration* option. The airflows and duct configuration will remain the same, but the doors will be on the opposite side of the unit.

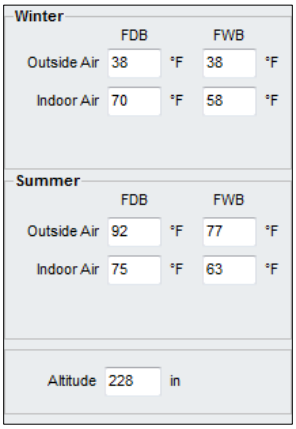
f) *Supply Motorized Damper* and *Exhaust Motorized Damper*. Select *Default* if you need two-position spring return actuated damper; With *end switch* if you need the dampers' position confirmation; or *None* if you do not need dampers.

NOTE: The *Supply Motorized Damper* is mandatory when the *Frost Control Method* is set to *Exhaust Defrost* (*Frost Control Method* will be covered in the *Defrost Mode* tab)

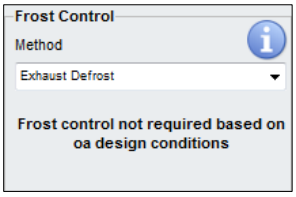
g) *Roof Curb* –Select *14" Insulated Roof Curb* if you need an insulated roof curb; *14" Non-Insulated Roof Curb* if you do not need insulation with your roof curb; or *None* if you do not need a roof curb.

5. To move between tabs, simply select the desired tab. It is **strongly advised** that the tabs are filled out from left to right to avoid any conflict in entered data or selected options.

6. *Temperatures* – Review and make any necessary changes. The default temperatures are based on ASHRAE standard design conditions for the selected city. If no city was selected, the temperatures will be zero.



7. The *Air treatment* tab lets you select the desired *Frost Control Method* and the desired air treatment (*Heating and Cooling Coils*). Given your unit configuration and design temperature, *Selector* will indicate if a *Frost Control Method* is required.



In the Low-Profile Series, the available *Frost Control Methods* are:

a) *Exhaust Defrost*

b) *Electric Pre-Heat*

c) *Recirculation Defrost*

d) *Liquid Heating Coil* (not fully implemented in this version of *Selector*™)

e) *None*

NOTE: If no *Frost Control Method* is selected, it is the customer's responsibility to avoid any formation of ice or frost on the core.

TIP: For additional details on a specific option, click the info button .

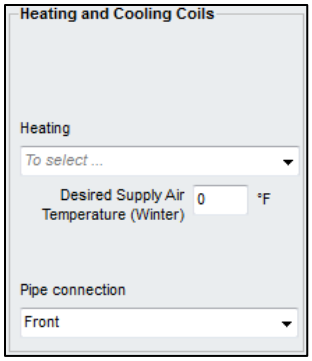
In the Low-Profile Series you have the option to add post-heating to bring the supply air to the desired temperature before distributing it to the building. The available post-heating options are:

a) *Electric Heating Coil* – To size the *Electric Heating Coil*, enter the *Desired Supply Air Temperature (Winter)*.

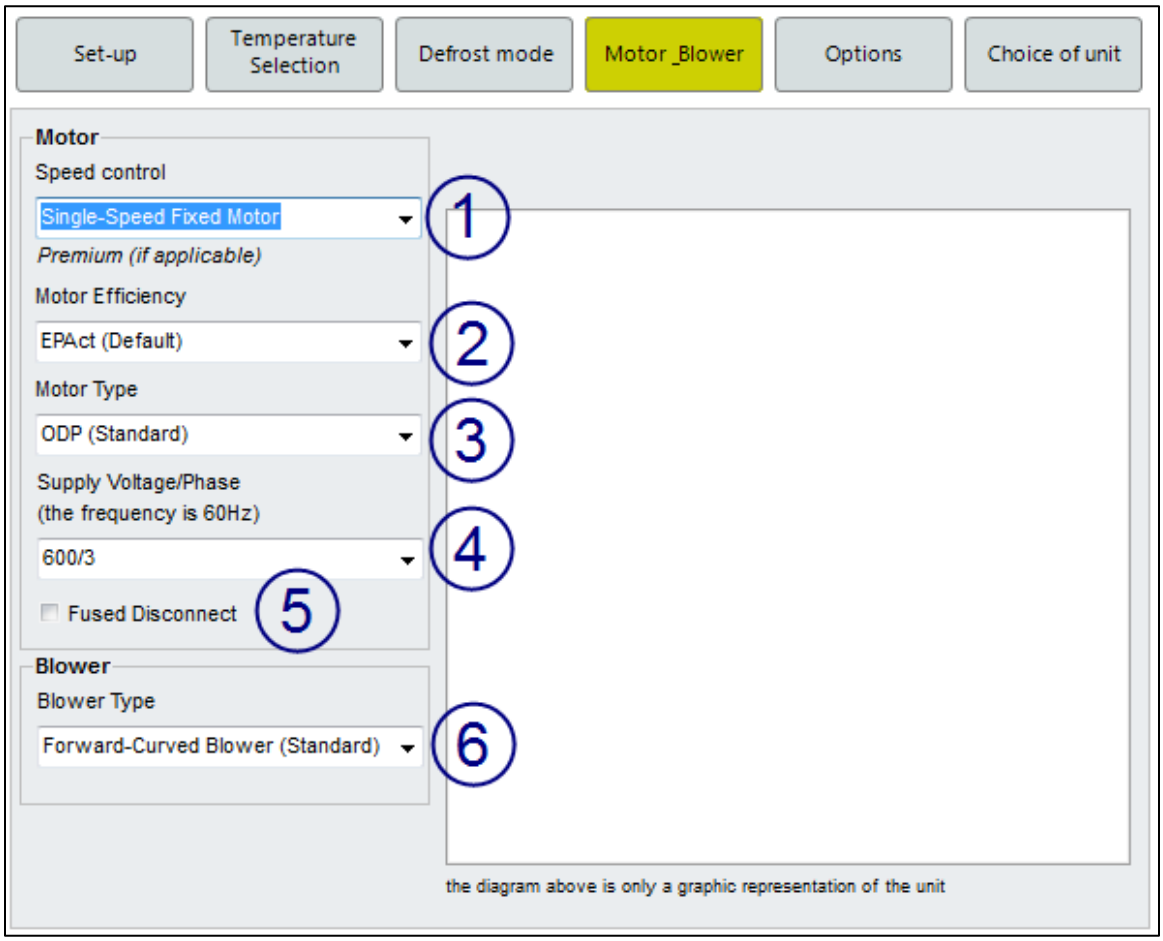
b) *Liquid Heating Coil* – The *Liquid Heating Coil* will be sized at the *Choice of unit* tab.

c) *None* – By selecting *None*, no heating will be included in the unit.

NOTE: Under the *Pipe Connection* drop-down menu, you can select the desired location for the drain pan *Pipe Connection*.



8. The Motor_Blower tab shows configuration and control of the motor/fan assembly.



1) The *Motor Speed Control* determines how the motor will be controlled The motor can be controlled in one of the following ways:

   a. *Single-Speed Fixed Motor* – This is a single-speed motor controlled with a magnetic contactor.

   b. *Two-Speed Fixed Motor* – This is a two-speed motor with two windings controlled with a magnetic contactor and a mechanical interlock between both windings.

   c. *VFD Variable Speed (0-10VDC External)* – This is a single-speed motor controlled with a variable frequency drive. The 0-10VDC control signal comes from a source external to the unit.

   d. *VFD Two-Speed Adjustable with Controller* – This is a single-speed motor controlled with a variable frequency drive and set for two-speed use.

2) *Motor Efficiency* – This selects the motor efficiency. The motors are Premium efficiency standard when the Premium standard applies.

   NOTE: The Graphical User Interface has an error regarding the Motor Efficiency that will be corrected in the next release of the software.

3) *Motor Type* selects the type of motor to be installed in the unit. Motors can be either *ODP* or *TEFC*.

4) *Supply Voltage/Phase* selects the power supply source of the unit. All standard North American voltages are available.

5) *Fused Disconnect* – Check this option if the unit's disconnect needs to be fused. Otherwise, the unit will come with a standard non-fused disconnect.

6) *Blower Type* – The Standard Series is only available with forward-curved, double-width, double-inlet fans.

9. The *Options* tab lets you choose the desired option to be included in the unit.

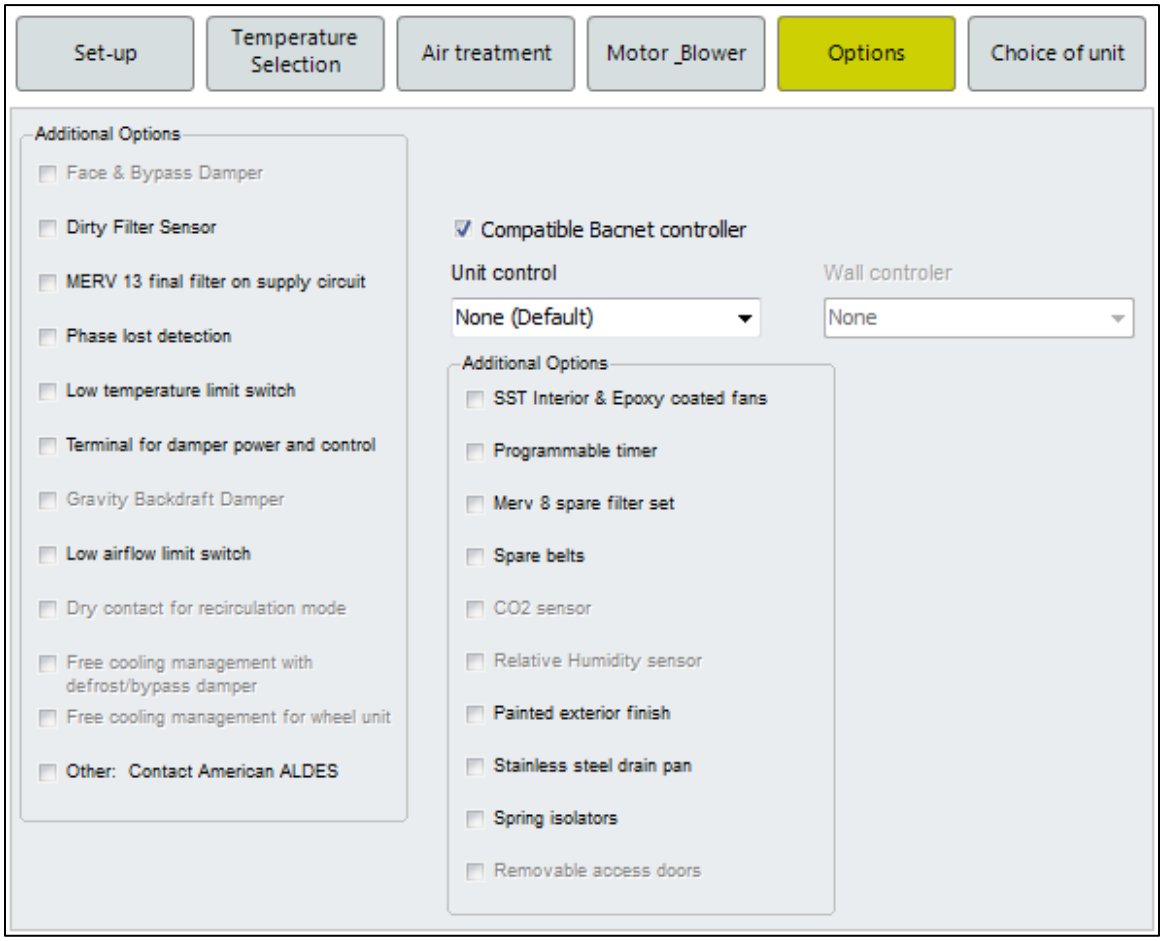
a) If an option you need is not available in the proposed list, select *Other: Contact Aldes* and support staff will review the project with you to discuss your options.

b) You can select a *Compatible BACnet Controller* to control the unit and add a communication port or interface.

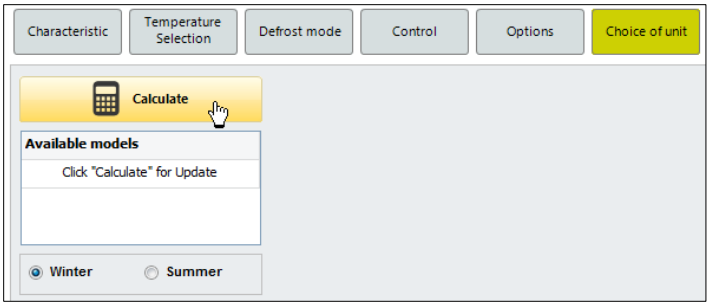
i. Under the *Unit Control* drop-down menu, you can select the communication port of the controller.

ii. It can be either *Internet (IP)* or *Ethernet (MS/TP)* or *None*. The latter will not have BACnet communication installed but could be upgraded later.

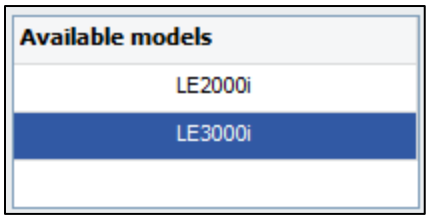
iii. Under the *Wall controller* drop-down menu, you can select an interface for the controller. It can be either the *Default* wall controller with buttons; a wall controller *With touch screen;* or *None.*



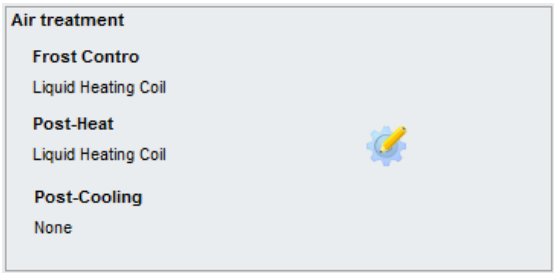
10. *Choice of unit* – Click on the *Calculate* button to evaluate and determine the most appropriate unit based on entered information.



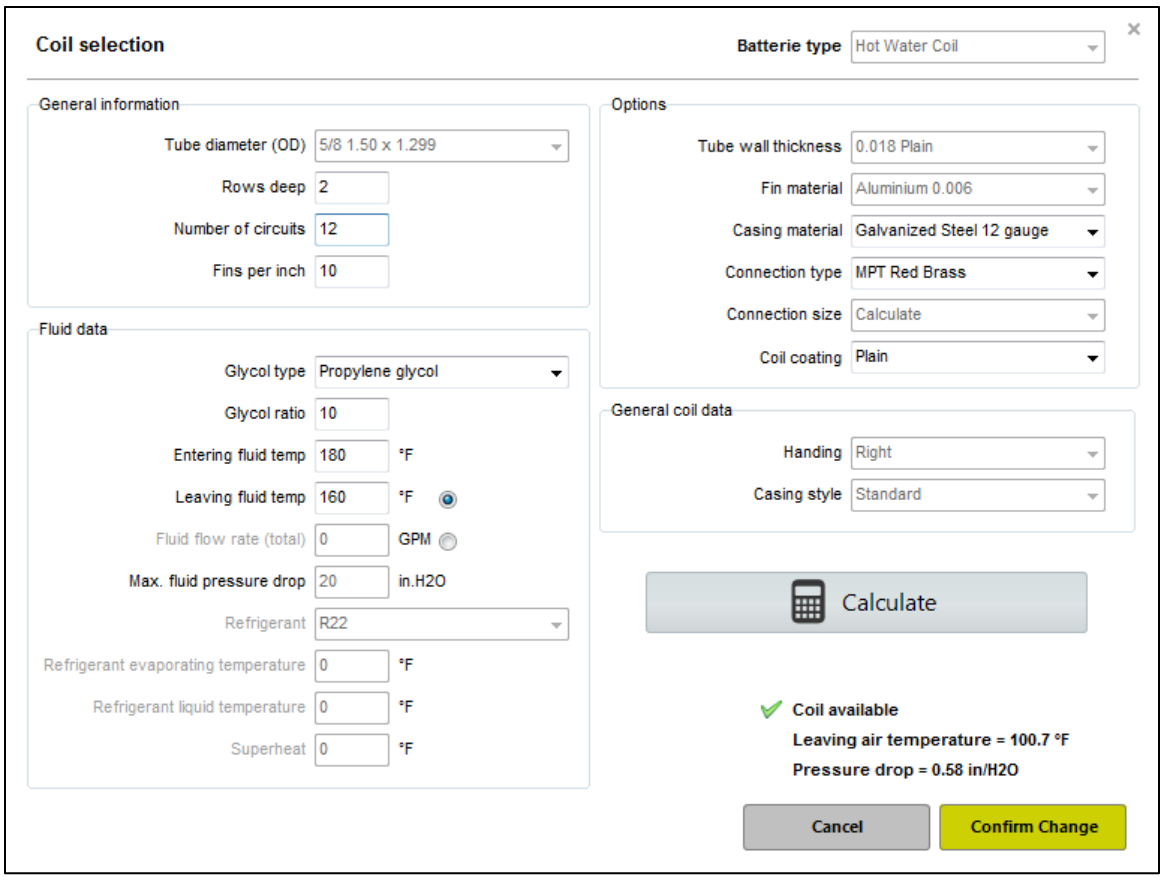
11. If multiple unit models are shown, this is because the entered information falls within the range of these models. Select the desired model to display unit information.



12. If you selected a Liquid Heating coil, you will have to select and size your coil by clicking the define button and entering your liquid parameters.



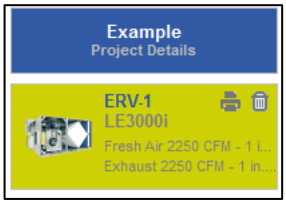
To size the coil, fill the necessary information and iterate the coil's geometry until a satisfactory result is achieved. See the **Liquid Coil Selection** section for more details on coil selection.



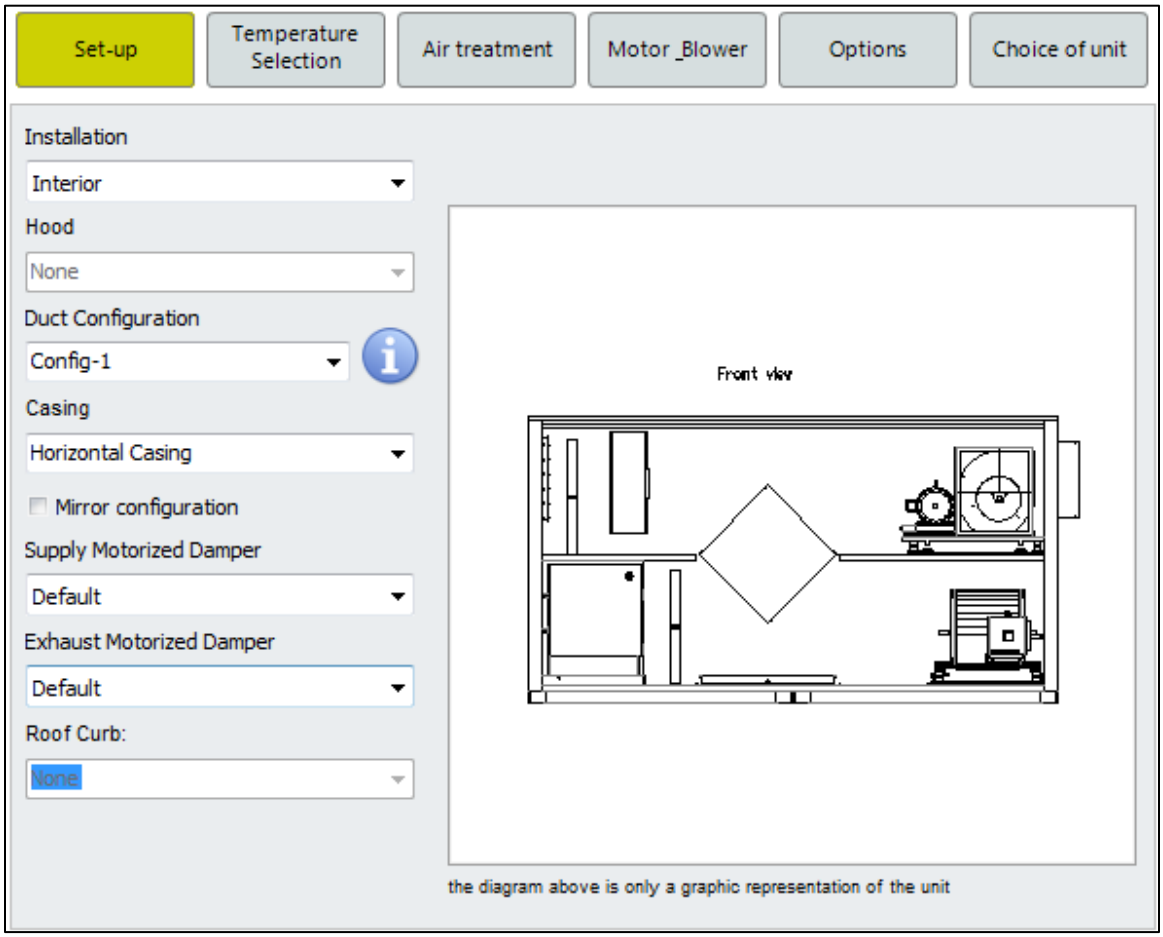
Click ***Confirm Change*** to *Select the coil.*

13. To save the unit selection to your project, click *Save*.

14. After a unit has been saved, a brief description will be added to that unit in the project list.



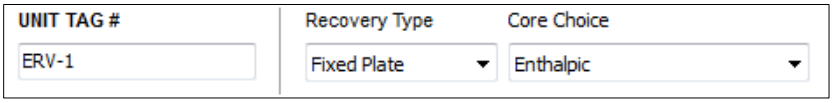
Advanced Commercial



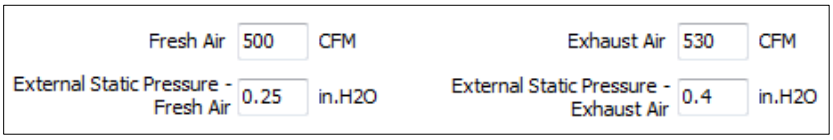
1. Enter unique unit tag #.

2. Select desired recovery type and core choice.

NOTE: Some models are only available with fixed-plate cores. This can be changed at any time during the selection process to see how core selection impacts the unit's performance.



3. Enter the required airflow data.

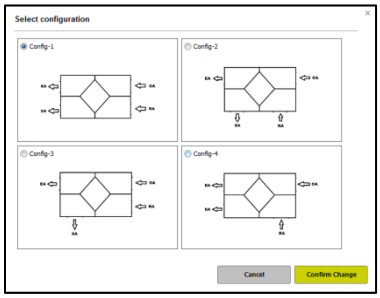


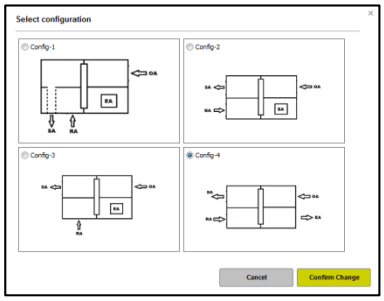
4. The *Set-up* tab shows the configuration and installation options of the unit.

   a) *Installation* can be either an *Interior* installation (Ex: in a mechanical room) or an *Exterior* installation Ex: on a rooftop).

b) *Hood* applies only to the *Exterior* installation units. When set to *OA and EA*, unit will be equipped with hoods on the fresh air intake and exhaust air. When set to *None*, the unit will not be equipped with hoods.

c) *Duct Configuration* – Click the info button to select the proper duct configuration for the unit. Click ***Confirm Change*** to select the *Duct Configuration*.





d) *Casing* can be either a *Horizontal Casing* or a *Vertical Casing*. The *Horizontal Casing* will have the supply air and return air ducts positioned at the ends of the unit, while the *Vertical Casing* will have them under the unit.

NOTE: The choice in *Casing* shall reflect the choice in *Duct Configuration*.

e) *Mirror configuration* – When the clearance needs the doors to be on the opposite side of the unit, select the *Mirror configuration* option. The airflows and duct configuration will remain the same, but the doors will be on the opposite side of the unit.

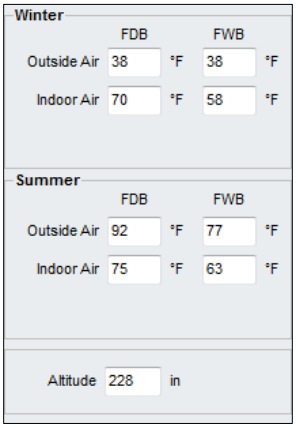
f) *Supply Motorized Damper* and *Exhaust Motorized Damper* – Select *Default* if you need two-position, spring return actuated dampers; *With end switch* if you need the dampers' position confirmation; or *None* if you do not need dampers.

NOTE: The *Supply Motorized Damper* is mandatory when the *Frost Control Method* is set to *Exhaust Defrost* (*Frost Control Method* will be covered in the *Defrost Mode* tab)

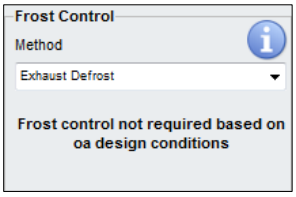
g) *Roof Curb* – Select *14" Insulated Roof Curb* if you need an insulated roof curb; *14" Non-Insulated Roof Curb* if you do not need insulation with your roof curb; or *None* if you do not need a roof curb.

5. To move between tabs, simply select the desired tab. It is **strongly advised** that the tabs are filled out from left to right to avoid any conflict in entered data or selected options.

6. *Temperatures* – Review and make any necessary changes. The default temperatures are based on ASHRAE standard design conditions for the selected city. If no city was selected, the temperatures will be zero.



7. *Air treatment* tab lets you select the desired *Frost Control Method* and the desired air treatment (*Heating and Cooling Coils*). Given your unit configuration and design temperature, *Selector*™ will indicate if a *Frost Control Method* is required.



In the Advanced Commercial Series, the available *Frost Control Methods* are:

a) *Exhaust Defrost*

b) *Electric Pre-Heat*

c) *Recirculation Defrost*

d) *Face & Bypass Damper* (only available with fixed-plate recovery core)

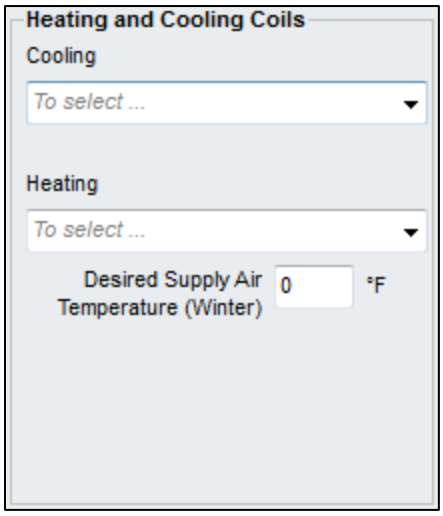
e) *Variable Wheel Speed* (only available with Enthalpy wheel)

f) *Liquid Heating Coil* (not fully implemented in this version)

g) *None*

NOTE: If no *Frost Control Method* is selected, it is the customer's responsibility to avoid any formation of ice or frost on the core.

TIP: For additional details on a specific option, click the info button .



In the Advanced Commercial Series you have the option to add post-heating and post-cooling to bring the supply air to the desired temperature before distributing it to the building. The available heating and cooling options are:

a) *Electric Heating Coil* – To size the *Electric Heating Coil*, enter the *Desired Supply Air Temperature (Winter)*.

b) *Liquid Heating Coil* – The *Liquid Heating Coil* will be sized at the *Choice of unit* tab.

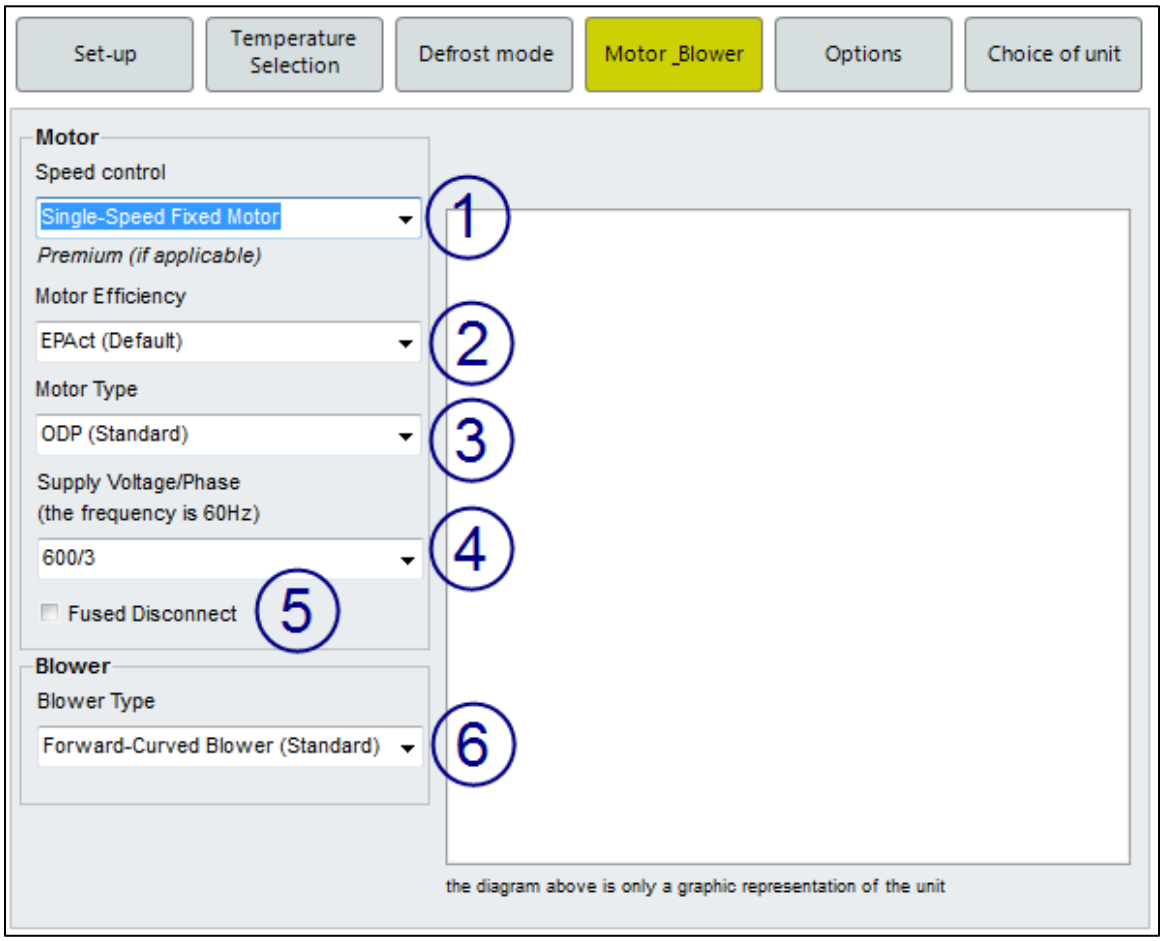
c) *Liquid Cooling Coil* – The *Liquid Cooling Coil* will be sized at the *Choice of unit* tab.

d) *DX Cooling Coil* – The *Liquid DX Coil* will be sized at the *Choice of unit* tab.

e) *None* – By selecting *None*, no heating nor cooling will be included in the unit.

NOTE: Under the *Pipe Connection* drop-down menu, only available with fixed-plate core and cooling coil, you can select the desired location for the drain pan *Pipe Connection*.

8. The Motor_Blower tab shows configuration and control of the motor/fan assembly.



1) The *Motor Speed control* determines how the motor will be control. The motor can be control in one of the following ways:

   a. *Single-Speed Fixed Motor* – This is a single-speed motor controlled with a magnetic contactor.

   b. *Two-Speed Fixed Motor* – This is a two-speed motor with two windings controlled with a magnetic contactor and a mechanical interlock between both windings.

   c. *VFD Variable Speed (0-10VDC External)* – This is a single-speed motor controlled with a variable frequency drive. The 0-10VDC control signal comes from a source external to the unit.

   d. *VFD Two-Speed Adjustable with Controller* – This is a single-speed motor controlled with a variable frequency drive and set for two-speed use.

2) *Motor Efficiency* – This selects the motor efficiency. The motors are Premium efficiency standard when the Premium standard applies.

NOTE: The Graphical User Interface has an error regarding the Motor Efficiency that will be corrected in the next release of the software.

3) *Motor Type* selects the type of motor to be installed in the unit. Motors can be either *ODP* or *TEFC*.

4) *Supply Voltage/Phase* selects the power supply source of the unit. All standard North American voltages are available.

5) *Fused Disconnect*. Check this option if the unit's disconnect needs to be fused. Otherwise, the unit will come with a standard non-fused disconnect.

6) *Blower Type* is to select the blower type. The *Forward-Curved Blower* is available for the Advanced Commercial Series and consists of a forward-curved, double-width, double-inlet fan.

9. The *Options* tab lets you choose the desired options to be included in the unit.

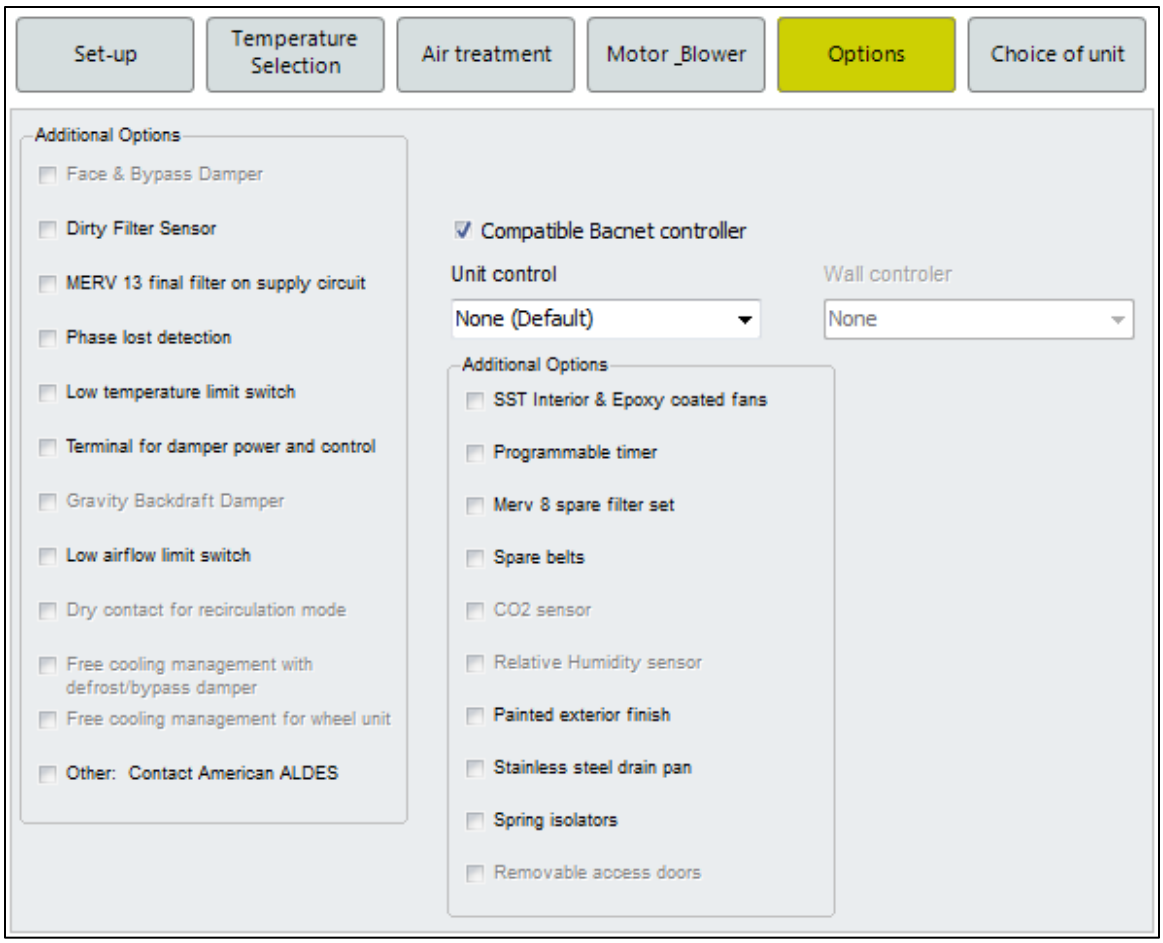
a) If an option you need is not available in the proposed list, select *Other: Contact Aldes* and support staff will review the project with you to discuss your options.

b) You can select a *Compatible BACnet Controller* to control the unit and add a communication port or interface.

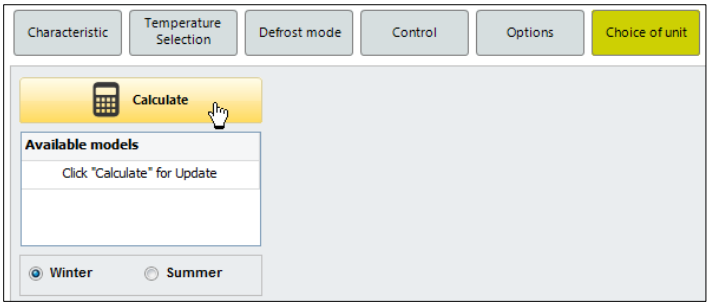
i. Under the *Unit Control* drop menu, you can select the communication port of the controller.

ii. It can be either *Internet (IP)* or *Ethernet (MS/TP)* or *None*. The latter will not have BACnet communication installed but could be upgraded later.

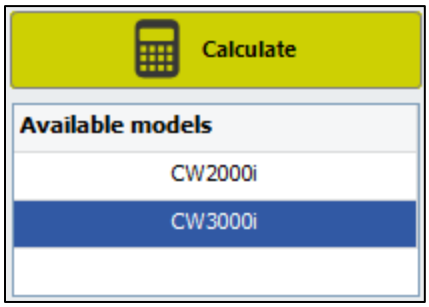
iii. Under the *Wall controller* drop menu, you can select an interface for the controller. It can be either the *Default* wall controller with buttons; a wall controller *With touch screen;* or *None.*



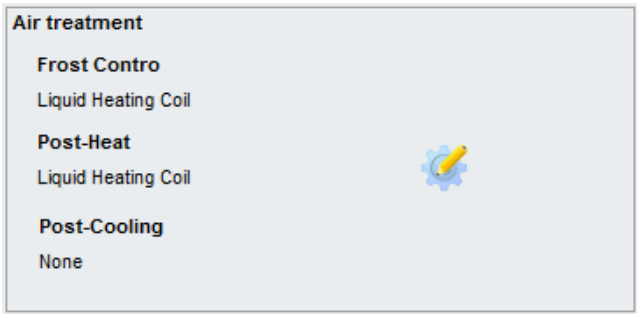
10. *Choice of unit* – Click on the *Calculate* button to evaluate and determine the most appropriate unit based on entered information.



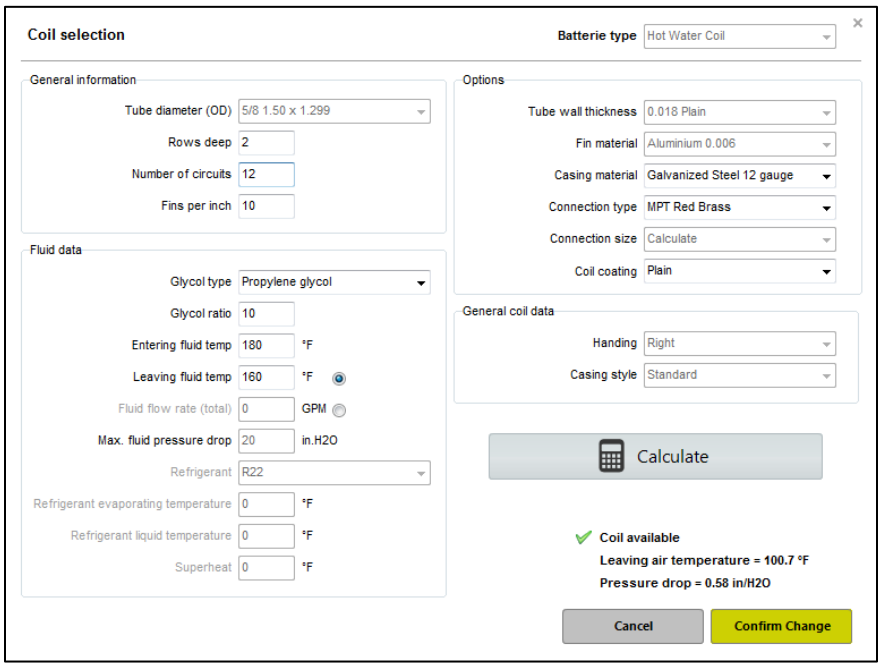
15. If multiple unit models are shown, this is because the entered information falls within the range of these models. Select the desired model to display unit information.



16. If you selected a Liquid Heating coil, you will have to select and size your coil by clicking the define button and entering your liquid parameters.



To size the coil, fill the necessary information and iterate the coil's geometry until a satisfactory result is achieved. See **Liquid Coil Selection** section for more details on coil selection.



Click ***Confirm Change*** to select the *Select the coil.*

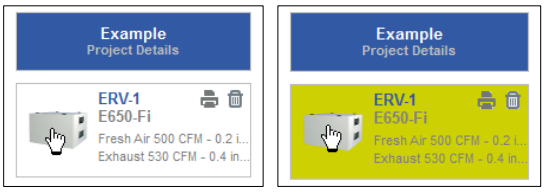
17. To save the unit selection to your project, click *Save*.

18. After a unit has been saved, a brief description will be added to that unit in the project list.

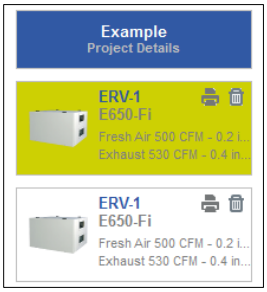
Copy a Unit Selection

Many projects feature multiple units with identical, or very similar, selections. To expedite the process of creating a project with similar units, a selection can be duplicated after it has been saved.

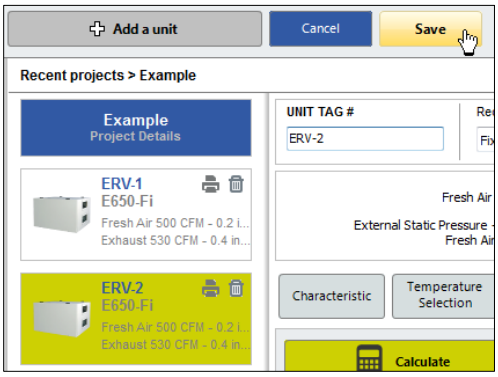
1. Click on the unit to be copied. Selected units are highlighted.



2. To copy, press CTRL+C. Then press CTRL+V to paste. A duplicate unit will be created in the project list.



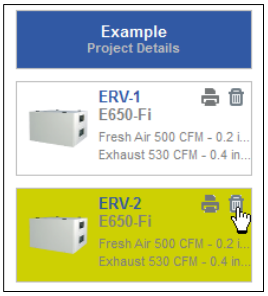
3. Select the copied unit, and update any information unique to this new unit, such as the unit tag number.



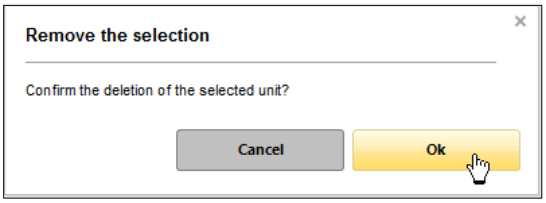
Delete a Unit Selection

If, during the selection process, a unit needs to be removed from the project list, it can be easily deleted.

1. To delete a single unit from a project, click the trashcan icon for that unit.



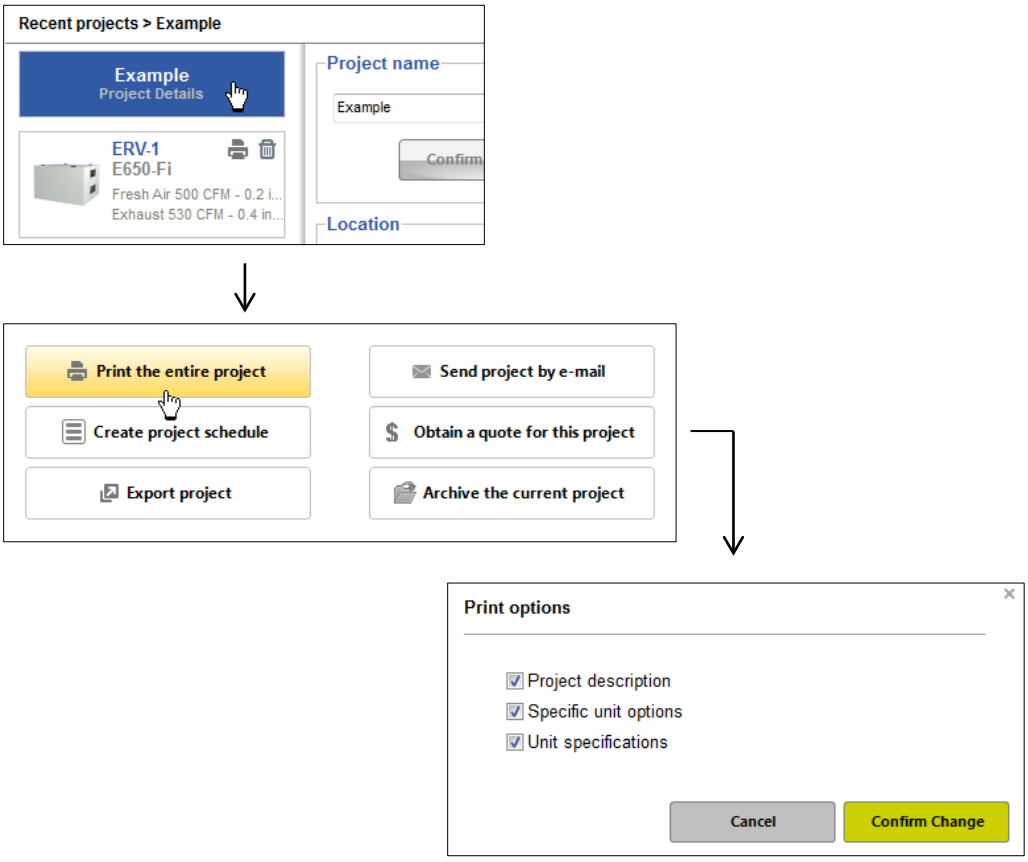
2. Confirm the deletion of the unit.



Print Project Details

1. Click the print icon on the main home page or at the top right of the software. This will prompt the print options page.

TIP: You can return to the project details page at any time during the selection process by clicking on the *Project Details* button.



2. *Project description* will print the project details, i.e., information that is entered on the project details page and a brief description of the unit selection(s).

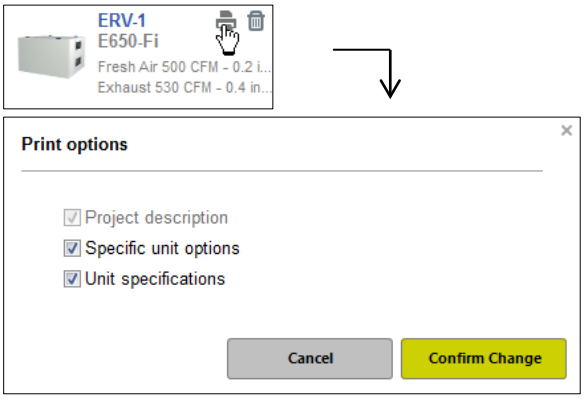
3. *Specific unit options* will print a detailed submittal with entered conditions, performance and selected options.

4. *Unit specifications* will print the generic unit specs for all models in the project selection.

5. Click *Confirm Change* to create a PDF file with the selected options.

Print Individual Unit Details

1. Click the print icon on the unit you want to print details for. This will prompt the print options page.



2. Notice the *Project description* option is not available. To print project details, i.e., information that is entered on the project details page and a brief description of the unit selection(s), click on the print icon at either the top right corner of the software or the project details page. See **Print Project Details** for additional information.

3. *Specific unit options* will print a detailed submittal with entered conditions, performance and selected options.

4. *Unit specifications* will print the generic unit specs for all models in the project selection.

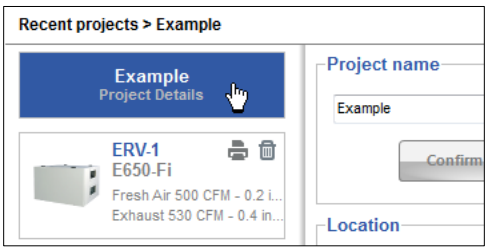
5. Click *Confirm Change* to create a PDF file with the selected options.

Create a Unit Schedule

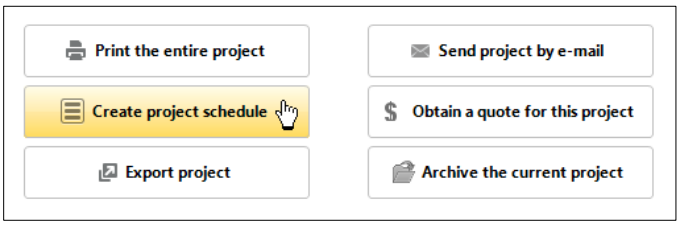
Selector™ has the ability to generate project schedules showing all critical performance data for each unit selection.

1. To create a schedule, return to the project details page.

TIP: You can return to the project details page at any time during the selection process by clicking on the *Project Details* button.



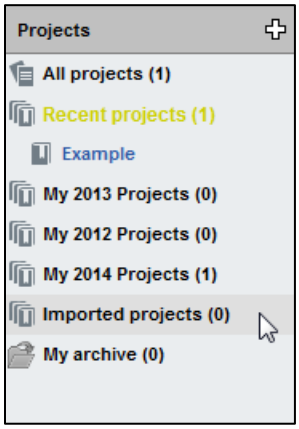
2. Click on the ***Create project schedule*** button to create an editable Excel spreadsheet with all project information.



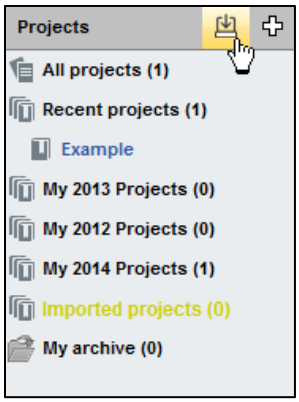
Import a Project

When a project is created, it can easily be shared by sending the project file via e-mail. Projects that are received must be imported in order to be viewed.

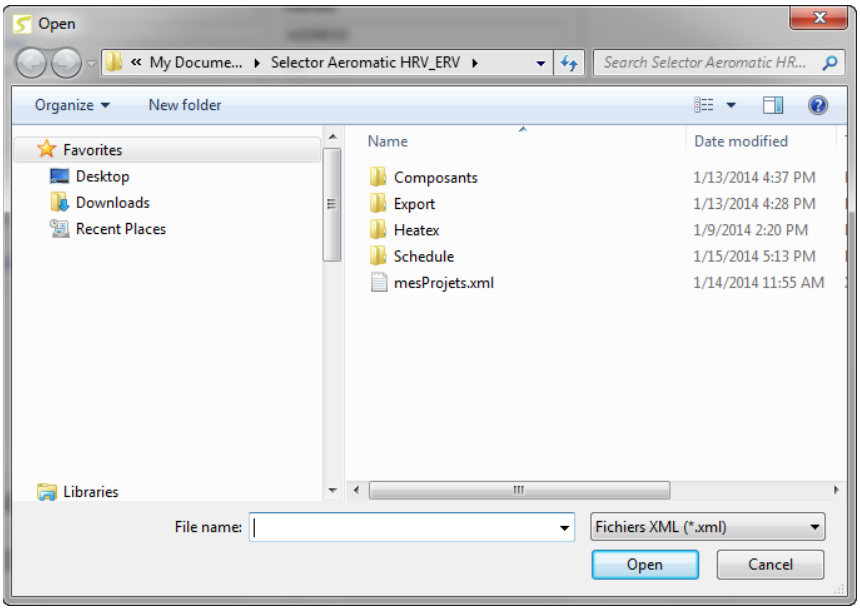
1. To import a project, click on the *Imported projects* folder in the projects list.



2. Click on the ***Import project*** button to add a received file to your project list.



3. Locate the file on your computer and click ***Open***. The project will automatically load.



Liquid Coil Selection

The purpose of this section is to explain to you what the procedure is for optimizing a coil selection, in terms of cost and performance. There are many factors to consider, and Aldes is more than happy to do this process for you. If you send us the selection and your coil requirements, we will review and finalize the coil selection and send the completed unit selection back to you so that the schedule, submittal, and unit performance are accurate. If you want to complete the selection yourself, please follow the instructions below.

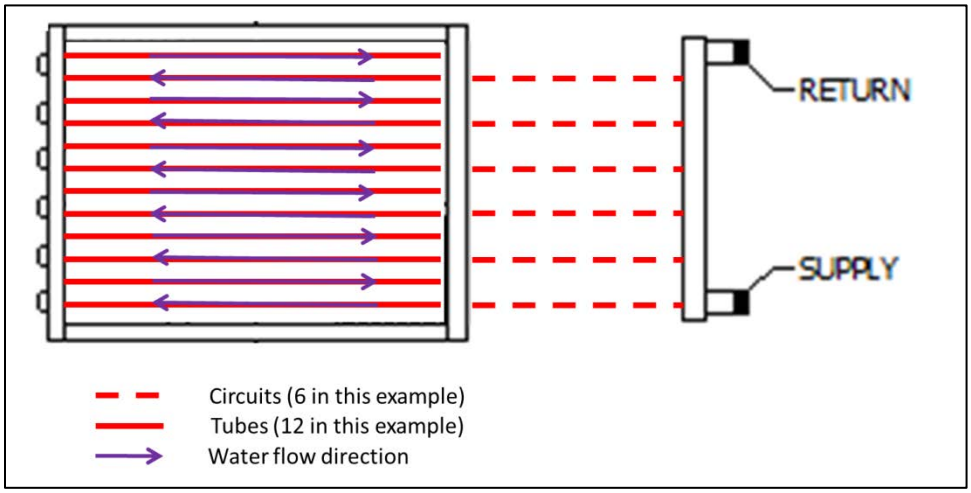
This section will help you to properly size a hydronic coil. The most important thing to remember is that **the coil geometry must meet the following criteria**:

$$\frac{Number\ of\ Tubes * \ Number\ of\ Rows}{Number\ of\ Circuit} = Positive, Even\ Number$$

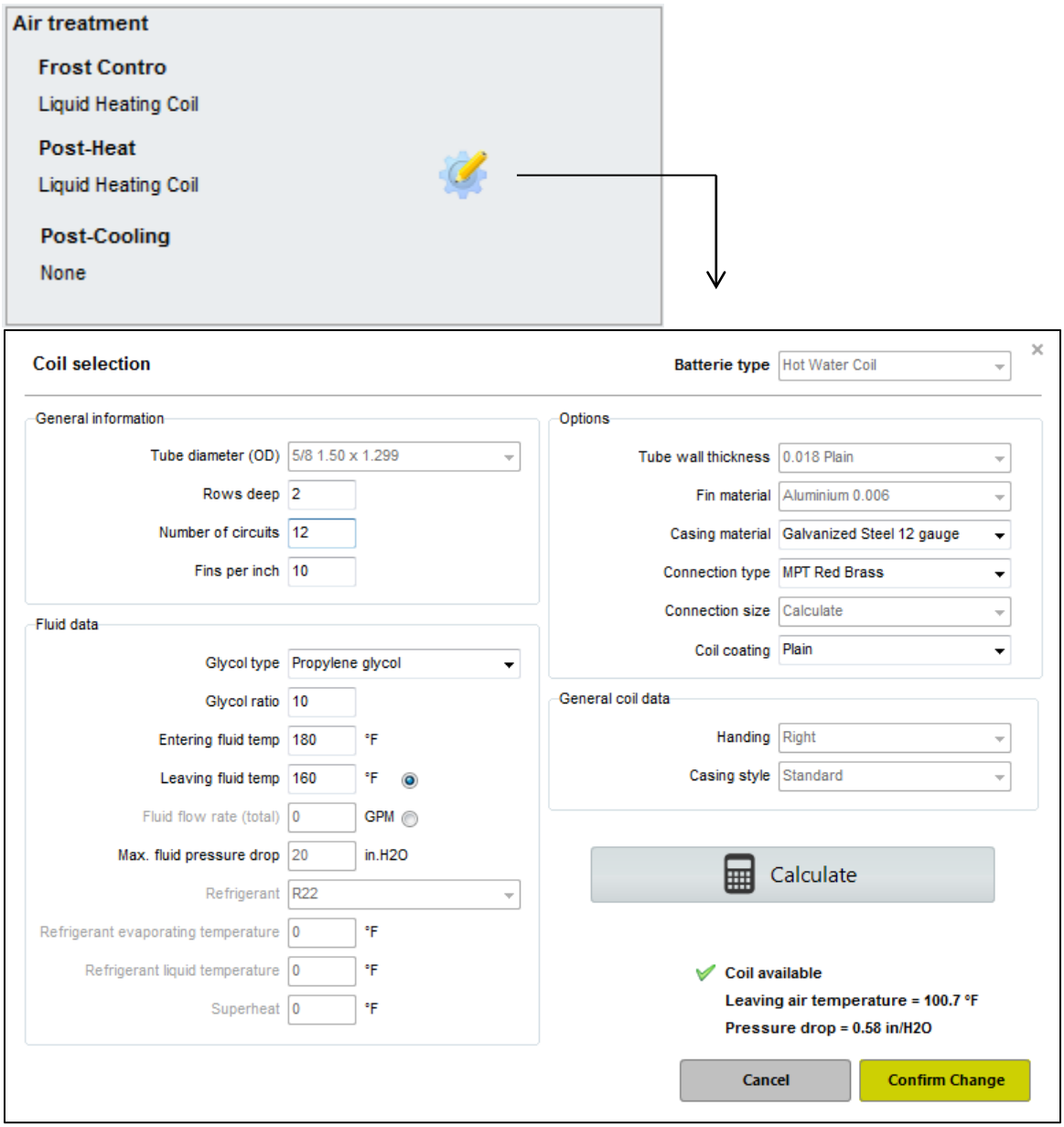
The *Number of Tubes* represents the number of copper tubes in which the fluid circulates in one full row. Depending on the height of the coil, the number of tubes will vary. Likewise, the higher the coil, the more tubes there will be. At the end of this section, there is a table that references the number of tubes for every unit.

The *Number of Rows* represents the columns of tubes the air will have to cross before it leaves the coils. The more rows there are, the thicker the coil will be.

The *Number of Circuit* represents the number of tubes in the first row that are connected directly into the supply manifold. Usually, the number of circuit is one of the higher factors of the number of tubes. Example, if a coil has 12 tubes, its factors are 1, 2, 3, 4, 6 and 12. Usually, a 12-tubes coil will have 12, 6 or 4 circuits. Please refer to the following picture:



1. To size the Liquid Coil, under the *Choice of Unit* tab, click the define button . It will display the Coil Selection form where you will be able to enter your data and properly size the coil.



2. In the *Fluid data* frame, enter your fluid data.

   a) *Glycol type* is the fluid type to be used in the coil. For water coil, the fluid can be *Propylene glycol*, *Ethylene glycol* or *None* (water).

NOTE: If the coil could be exposed to temperature lower than the freezing point, a glycol mixture should be used.

   b) *Glycol ratio* is the percentage of glycol in the fluid, if any glycol is used. Glycol content usually varies between 10-50% and depends on the outside air design temperature.

   c) *Entering fluid temp* is the temperature of the supply water entering the coil. It generally corresponds to the boiler's/chiller's leaving temperature.

   d) *Leaving fluid temp* is the temperature of the return water leaving the coil. It generally corresponds to the boiler's/chiller's entering temperature.

3. In order to obtain the desired Leaving Air Temperature, you will need to iterate the coil's geometry until the desired output is obtained. The coil's geometry is defined by its Number of rows, its Number of Fins per inch and its Number of circuit. By varying these, you will be able to influence the coil's output and obtain the desired Leaving air temperature:

    a) Select a number of rows by varying the *Rows deep* parameter, between 1 and 6 rows. The more rows you add, the more capacity the coil will have.

    b) Select a number of *Fins per inch*, between 8 and 12 fins per inch. The more fins per inch you select, the more capacity the coil will have.

    c) Enters the *Number of circuit*. Always try to use one of the *number of tubes* factors for an easier selection. Start with the highest factor and reduce it or add a row to increase coil's output. At the end of this section is a table that references the number of tubes for every unit.

    d) Click Calculate and verify the Leaving air temperature. If the Leaving air temperature is not close enough to the desired value, restart at step a) until you reach a satisfactory result.

TIP: Before you add a row, try to increase the Fins per inch or cut the Number of circuit in half (if possible). It will minimize the air pressure drop and keep the cost down.

TIP: If the number of tube is uneven, for example 13, use the same number of circuits as the number of tubes and use an even number of rows.

4. For each coil's geometry iteration, validate the coil selection using:

$$\frac{Number\ of\ Tubes * \ Number\ of\ Rows}{Number\ of\ Circuit} = Positive\ Even\ Number$$

Number of Tubes = Number found in the table at the end of this section
Numbers of Rows = Varies with your selection
Number of Circuit = Varies with your selection.

Example, a CH2000:

$$\frac{13\ (found\ in\ the\ table) * \ 2\ (coil's\ geometry\ iteration)}{13\ (highest\ factor)} = 2 = good\ selection$$

$$\frac{13\ (found\ in\ the\ table) * 1\ (coil's\ geometry\ iteration)}{13\ (highest\ factor)} = 1 = bad\ selection$$

Another example, a CH8000:

$$\frac{22\ (found\ in\ the\ table) * \ 1\ (coil's\ geometry\ iteration)}{11\ (\ factor)} = 2 = good\ selection$$

$$\frac{22\ (found\ in\ the\ table) * \ 3\ (coil's\ geometry\ iteration)}{11\ (highest\ factor)} = 6 = good\ selection$$

$$\frac{22\ (found\ in\ the\ table) * 3\ (coil's\ geometry\ iteration)}{22\ (highest\ factor)} = 3 = bad\ selection$$

TIP: Many coils have the same number of circuit as the number of tubes. Simply keep an even number of rows and the verification formula will be met.

Reference Chart: Number of Tubes for Each Unit (Factors)

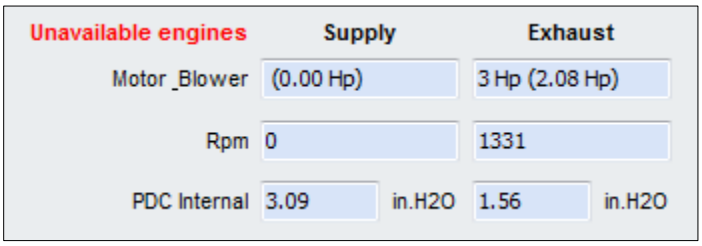
Model	Liquid Heating Coil	Liquid Cooling Coil	DX Cooling coil
CH2000/CE2000	13 (1, 13)	13 (1, 13)	15 (1, 3, 5, 15)
CH3000/CE3000	13 (1, 13)	13 (1, 13)	15 (1, 3, 5, 15)
CH5000/CE5000	17 (1, 17)	17 (1, 17)	20 (1, 2, 4, 5, 10, 20)
CH6500/CE6500	17 (1, 17)	17 (1, 17)	20 (1, 2, 4, 5, 10, 20)
CH8000/CE8000	22 (1, 2, 11, 22)	22 (1, 2, 11, 22)	26 (1, 2, 13, 26)
CH10000/CE10000	22 (1, 2, 11, 22)	22 (1, 2, 11, 22)	26 (1, 2, 13, 26)
CW2000	13 (1, 13)	13 (1, 13)	15 (1, 3, 5, 15)
CW3000	13 (1, 13)	13 (1, 13)	15 (1, 3, 5, 15)
CW5000	17 (1, 17)	17 (1, 17)	20 (1, 2, 4, 5, 10, 20)
CW6500	17 (1, 17)	17 (1, 17)	20 (1, 2, 4, 5, 10, 20)
CW8000	22 (1, 2, 11, 22)	22 (1, 2, 11, 22)	26 (1, 2, 13, 26)
CW10000	22 (1, 2, 11, 22)	22 (1, 2, 11, 22)	26 (1, 2, 13, 26)
LH2000/LE2000	10 (1, 2, 5, 10)	**N/A**	**N/A**
LH3000/LE3000	12 (1, 2, 3, 4, 6, 12)	**N/A**	**N/A**
LW1500	20 (1, 2, 4, 5, 10, 20)	**N/A**	**N/A**
LW3000	26 (1, 2, 13, 26)	**N/A**	**N/A**

Error Messages

Selector™ is designed to recognize potential issues with the selection and display error messages. Below are some examples of the messages produced, and what they mean to you.

When *Selector*™ detects a value that is outside the published range for the equipment, the error message Please contact your local distributor to verify the unit selection will be displayed in the upper-right corner. In these instances, please export the file and send it to your local distributor so that the selection can be reviewed. If the selection can be provided, but the software does not support the selection, you will receive a custom unit submittal with all the unit details.

Similarly, when the external static pressure and/or internal pressure loss is too high, an error message will be displayed by the motor selection in the *Results* tab, as shown below.



In these cases, you may need to revise the selection by changing models or options. Different models have different motor/blower options, and we may be able to achieve the necessary performance by changing model series. For assistance, please contact your local distributor.