

Webselect VAV Selection/Pricing Quick Start User Guide

for Engineer Users

To Select VAV boxes and generate project schedules that you can insert into your AutoCad drawings, following the following process:

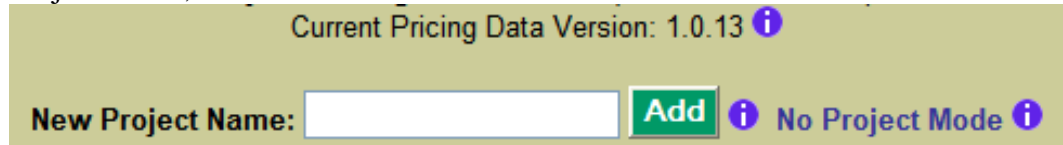
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Note: Currently, the tool allows you to select Single Duct SDR and SDL products only. Fan Powered and Dual duct will be added soon. Until then, use the old selection tool to select Fan Powered and Dual duct products.

Step 1 - Start a New Project

1. Log in to WebSelect from the website. If you are having trouble logging in, then contact your Sales Representative for a user account.
2. After logging in, you will see the Project list. Add a new project by typing in your Project Name, and click **Add**



Current Pricing Data Version: 1.0.13 

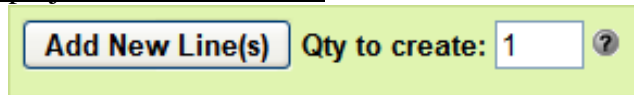
New Project Name: **Add**  No Project Mode 


3. On the Project list, click [View Schedule](#)
4. Select **Product Type** to VAV Terminals. (if you see Fan Coil Units as shown below, change it to VAV Terminals). If you do not see VAV Terminals in the Product Type list, then your user account is not set up for that product line. Edit your profile in Site Map>User Administration and enter Product Types for This User= 10 at the bottom



Product Type  

- of the User Administration page.
5. Select the **Model Type** –Single Duct Terminals will be defaulted are currently the only option, but fan powered and dual duct terminals will be added in the future.
 6. Now Add a line item. We strongly recommend you leave Qty=1 for the first line item of a project. See Note below.



Add New Line(s) Qty to create: 

*Note: The most efficient way to use the tool is to select the sound attenuation method and all the known options on the first line item completely. Why? Because **whatever you select on the first line item will be copied to all subsequent line items of the same model you add the job.***

You can always go back and change most options using the Global Option feature, but taking time to fill out every thing you know on the first line item will save you significant time.

7. On the first selection, you will be directed to the Unit selection screen.

Unit Sound Controls Options

Unit Selection

Quantity: 1

Tag: VAV-01

Model: SDR

Shipping Cycle: Standard

Elevation: 2 ft.

Size: Size 10

Control Type: Pneumatic

Max Primary Airflow: 1000 CFM

Min Primary Airflow: 250 CFM

Inlet SP: 1.00 in.wg

Downstream ESP: 0.25 in.wg

Heat Type: Water heat

Sound: Calculate

Unit Arrangement: 1 - LH Controls / LH Coil

Liner Options: 1" Fiberglass

Heating Coil - Water

Air Side Data

Method: LAT

Heating Air Flow: 250 CFM

Entering Air Temp: 55.0 °F

Leaving Air Temp: 90.0 °F

Capacity: 0 Btuh

Rows: 1 row

FPI: 10

Circuits: One circuit

Water Side Data

Entering Water Temp: 180.0 °F

Leaving Water Temp: 0.0 °F

Water Flow Rate: 0 gpm

Max WPD: 10.00 ft.

Glycol Type: None

Select Cancel Show Diagnostics

Step 2 - Selecting the First VAV Box in a Project

Note: The program selects and checks option configuration of the VAV boxes.

1. On the **Unit screen**, scan each input field and enter the fields that are blank, and change default field values that appear. Remember, values you enter on the first selection will carry over to all subsequent line items (with the exception of Tag, airflow).
 - a. If desired, pick a desired **Shipping Cycle** (affects the options that are available)
 - b. For **Size**, you can pick a size, or enter “Program Selects” and let the program show you a choice of sizes for the airflows and pressures you enter.
 - c. Enter both **Max and Min Primary airflows**. These are required to perform selections, calculate pressure drops, and perform sound calculations.
 - d. Enter the **Inlet and Downstream ESP pressures**. VAV duct systems are typically designed by engineers with the same inlet pressure drop for all VAV boxes. Typical values are 1.0 or 0.75. Some engineers schedule a maximum box pressure drop of 0.50 rather than an inlet and downstream pressure, you can enter an Inlet Pressure of 0.75 and a downstream of 0.25 ($0.75 - 0.25 = 0.50$) to achieve the same result.
 - e. Select **Control Type** (it affects the available options and control sequences required for pricing).
 - f. Select **Heat Type** if you have an electric or hot water heater. Additional fields related to the heat type selected will appear. The input fields are self explanatory.
 - i. **Electric Heat Tips for Engineers:** Typically, an engineer user will select to meet a minimum LAT as determined by the heating load calculations. Choose the Method=LAT. The program will choose the available kW or the next higher to meet that leaving air temperature.
 - ii. **Hot Water Tips for Engineers:** Typically an engineer will select to meet a minimum LAT as determined by the heating load calculations. Choose the Method=LAT. Pick Rows = “Pgm Selects” and the program will show the various combinations of resulting capacities, water flow, and pressure drops you can choose from.
 - g. **Unit Arrangement** is optional.
 - h. **Liner Options** will affect the acoustic (sound) performance, and can be changed later prior to ordering using the Global Options feature.
2. Click Next to go to the **Sound Screen**
 - a. Select **Method**.
 - i. The “**Default**” sound method follows ARI-885E which is the industry standard for VAV box attenuation. Normally, you would use these default attenuation values. Sound is calculated at the calculated static pressure.
 - ii. The “**Calculate**” method allows you to fill in exact attenuation factors to calculate the attenuation (this feature is mainly designed for special

attenuation or construction requirements for reading rooms, classrooms, or sound booths).

- iii. “**None**” sets the attenuation values to zero (which would be used for placing the box in a room with no ceiling and no discharge ductwork and will result in higher room NC).
 - iv. “**Manual**” allows you to edit each attenuation number on this screen. Use this method if you want to specify fixed attenuation numbers in your project specification.
3. Click Next to go to the **Controls Screen**
 - a. Select a **Controls Type** on the Unit or Control Screen.
 - b. For “**Mount & Wire in factory**”, “**Pneumatic**” or “**Analog Electric**” control types, you must select a control sequence to properly configure a unit. Or you can just pick the GENERIC sequence. Select the options on the left and click **Get Sequences** to help you select the desired control sequence.
 - c. For “**Field DDC**” or “**Pneumatic field mounted controls**”, you do not need to select a sequence to obtain a valid selection.
 4. Click Next to go to the **Options Screen**
 - a. If desired, select one or more options you desire for the selection.
 - b. Click **Validate Options** button to check if the options selected are valid. Read the diagnostic message results and make changes if necessary. A set of options is valid when “Options Valid” is shown in the results. Again, the options you select here will be copied to other boxes of the same model automatically so pick the options on this first selection.
 - c. Once you get valid options, click **Select**
 5. Once **Select** is clicked, the program will perform the engineering calculations, configuration.
 - a. If a Unit size is selected, you will see the results if valid
 - b. If Unit Size = “Program Selects” is selected, then each size will be tried selected. Those that pass the selection rules (airflow and pressure drop calculations), will be displayed as possible selections.
 - c. Hover your mouse over the information icon to see the color code of the results.
 6. Once satisfied with the first selection results, click **Save and New** to add the VAV box to the project schedule.

Step 3 – Select More VAV boxes

After the first selection is made, you can add more boxes to the job by continuing to enter them in the input screen or on the Project Schedule.

1. Enter the airflow, size (or Program Selects), and Heat Capacity (or GPM) for all subsequent boxes in the job on the Unit Screen. All the other choices will be the same as your previous selection.

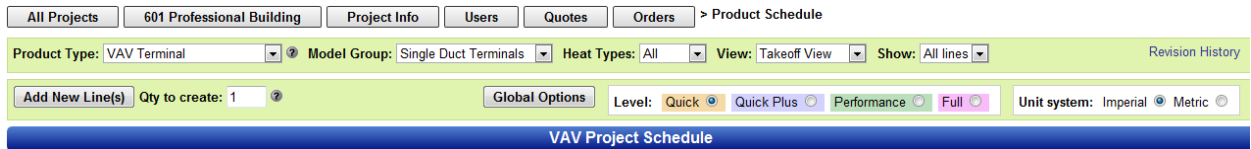
*Note: After the first selection is selected, the VAV tool is designed to only require a couple of inputs on the Unit screen (such as the Airflows, Size, and Heat capacity) and then click **Select**. Therefore, you typically do not need to click the Control, Sound, or Option screen on subsequent selections unless these options change by box (they typically do not).*

It may take a couple of minutes to make all the choices on the first box, but it will take only a couple of seconds for adding each additional box selection.

Step 4 – Editing / Changing / Refining the Project Schedule

Displaying Data Using the VAV Project Schedule

There are different display options for the project schedule



1. **Product Type** displays the line items associated with Fan Coil Units, Belt Drive Blower Coils, or VAV Terminals.
2. **Model Group** displays the line items associated with Single Duct, Series Fan Powered, Parallel Fan Powered, or Dual Duct boxes.
3. Selecting a **Heat Type** will filter the line items based upon their heat types. All will show all heat types.
4. **View**
 - a. **“Summary View”** is designed for the basic information of a VAV box.
 - b. **“Takeoff View”** is designed for more engineering data and some common options.
 - i. Quick is for minimal input – note – the program is just picking defaults in the background. You may need to go back and change these later.
 - ii. Full is to display the full engineering schedule and allow more detailed editing.
 - c. **“Controller View”** displays fields related to help you view/edit the Arrangement and location of the VAV box (typically specified just prior to ordering units)

Editing Inputs Using the VAV Project Schedule

Once you have built your schedule using the steps above, you can add/edit/update line items within the grid without having to go to the input screens. You may find it best to pick the View as **“Takeoff View”**, pick Level as **“Full”** and select a heat type.

VAV Project Schedule																
Unit Data													General Heating Data			
Qty	Tag	Model	Unit Size	Heat Type	Max	Heat	Total Price	Arrangement	EAT	LAT	KW					
1	VAV-01	SDR	10	Water	1000	250	\$642	1 - LH Controls / LH Coil	55.0	90.0	0.00					
1	VAV-01 - 6	SDR	08	Electric	472	236	\$698	1 - LH Controls / LH Coil	12.8	32.2	1.50					
1	VAV-01 - 7	SDR	08	Electric	847	159	\$732	1 - LH Ctlis / LH Coil	41.0	59.0	1.00					

1. For editing most engineering inputs and some common options, click the **Edit** icon. (Move your mouse over the icons to see a pop-up description of each icon). After you

- make your changes to that line item, click the Save icon to save the changes, perform the selection, and check the rules.
2. For editing most options for multiple line items at once, select the line items you wish to change (or do not select any for all), and click the **Global Options** button above the grid.

Copying, Deleting, Moving Line Items

Select the line items you wish to copy, delete or move by clicking the leftmost checkbox on the VAV Project Schedule. To select all, click the check box at the top of the line items.

1. **Copy To →** – You may copy one or more line items to create new line items in this project. You may also copy line items to another active project (great for copying a template project to a new project)
2. **Move To →** You may move line items from one project to another project
3. **Delete** will permanently delete the selected line items from this project.
4. **AutoTag** allows you to select one existing line item, and create duplicates of that line item (similar to copy). Sales reps will do this when an engineer specifies one (1) VAV-01 on their schedule, but there are, say 10 VAV-01's on the job. The sales rep can create a small schedule for take-off purposes, then use Autotag to copy the (1) VAV-01 ten (10) times while specify the location of many boxes for ordering purposes.

Step 5 - Printing Schedules and Submittals

Click Print Schedule to print engineering project schedules and export to Excel. The line items will be grouped by Model type and heat type, resulting in multiple schedule files.

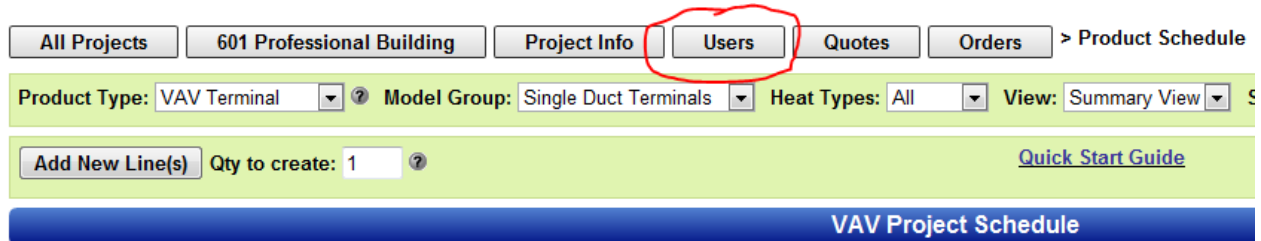
These Excel spreadsheets can be then imported into Autocad drawings by consulting engineers and contractors.

Click **Submittal/Other Documents** to create job submittals, quote summary, and ordering reports can be created.

Note: Submittals forms can take several minutes to generate because they are re-checking the configuration on the line items for you. Please be patient. You may minimize your browser window while this work is being done by the server.

Step 6 – Getting a Budget from Your Sales Representative

Webselect allows an engineer to “share” the project with your sales representative. Your sales representative can review your line items, collaborate/help you, then estimate a budget cost and provide that information to you via email. To share your project, do the following:



The screenshot shows the top navigation bar of the Webselect software. It includes buttons for 'All Projects', '601 Professional Building', 'Project Info', 'Users', 'Quotes', and 'Orders', followed by a right-pointing arrow and 'Product Schedule'. The 'Users' button is circled in red. Below the navigation bar is a green header area with dropdown menus for 'Product Type: VAV Terminal', 'Model Group: Single Duct Terminals', 'Heat Types: All', and 'View: Summary View'. At the bottom of the green area is a blue bar with the text 'VAV Project Schedule'.

1. Click the **Users** button
2. Now Click [Administer Project Users](#)
3. Enter the Users Webselect name or choose from the list. If you do not know the user’s name, then call your sales representative and ask him. Enter the name and click **Add New Project User** button.
 - a. Assign the user Permissions
 - i. “Read Only” allows the rep to view the schedule, but cannot make any changes to it.
 - ii. “Can re-select existing line items” allows rep to do what-if and change options to see price changes (Recommended level)
 - iii. “Project Administrator” allows the rep to add and delete line items and help you in other ways with this schedule.
 - b. Note that you can change permissions to any state. You, as the project creator, remain in control of who can see, view, edit, and change the project.
4. Let your rep know they have access to your project via email. They can log in and use the information you have entered to estimate a budget for your selections and do what-if on options like controls, lining, disconnects, hanger brackets and other options that may help you decide how to specify the job requirements