Ver 2.0

SimpleSelect™ —

Siemens Product Sizing and Selection Tool

Table of Contents

Installing SimpleSelect™

Software Requirements

- The program requires 500 MB of disc space.
- Requires Adobe Reader 9.3.4 or later. Once the SimpleSelect application is open, you can download the latest version of Adobe Reader by using the Downloads Menu on SimpleSelect's top tool bar.

Windows

- Intel® Pentium® III processor (Pentium 4 recommended)
- Microsoft® Windows® XP Home, Professional, or Tablet PC Edition with Service Pack 2 or 3, Windows Server® 2003, Windows Vista® Home Premium, Business, Ultimate, or Enterprise (including 64-bit editions) with Service Pack 1, or Windows 7
- 512MB of RAM (1GB recommended)

Macintosh

- Intel Core™ Duo or faster processor
- Mac OS X v10.4, v10.5, v10.6, v10.7, v10.9, or v10.10
- 512MB of RAM (1GB recommended)

Linux

- Intel Pentium III processor (Pentium 4 recommended)
- Fedora Core 12, Ubuntu 9.10, or openSUSE® 11.2
- 1GB of RAM

Application Support

- For Ordering or Order Status, contact customer service 888-593-7876. For Technical Support of SimpleSelect or HVAC products, contact 800-877-7545 (prompt 2 > 1 > 2).

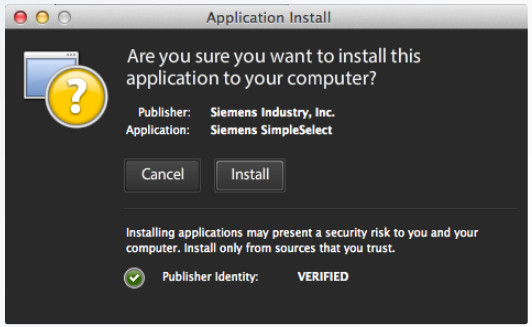
Download & Installing onto a PC or Macintosh®*

- From the Siemens HVAC Web site, www.usa.siemens.com/hvac, click on the SimpleSelect link to download the application or you can go directly to www.siemens.com/simpleselect
- Click on the download the SimpleSelect Tool link.
- Agree to the End User License Agreement.
- Follow the on-screen instructions.
- If you are on a Mac, drag the Siemens SimpleSelect icon into the Applications folder.

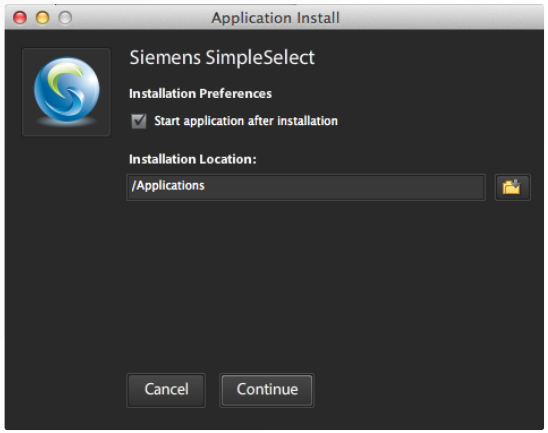
**Note: You will need to download Adobe® AIR® to run the SimpleSelect application. Go to www.adobe.com/air for this free download.*

Installing SimpleSelect™

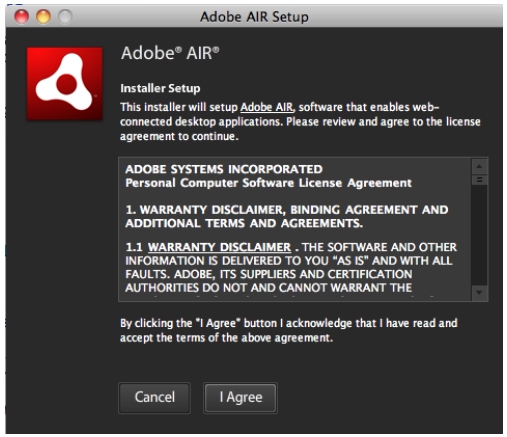
Click install when prompted:



Choose whether or not you want to start the application after installation.



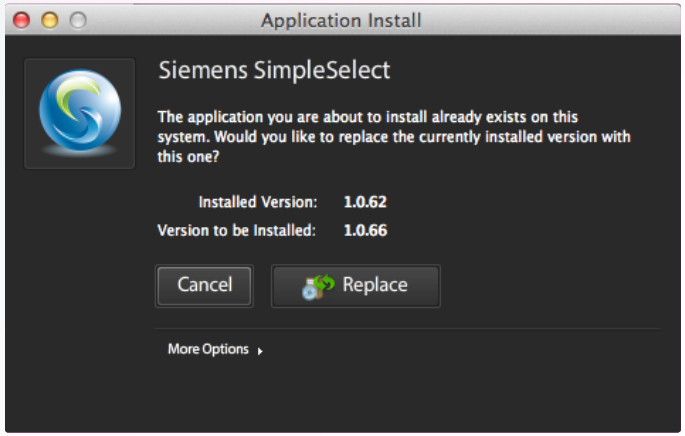
Use the default installation location or browse for the desired location and click continue.



Only a license is granted for the SIEMENS SIMPLESELECT TOOL, the SIEMENS SIMPLESELECT TOOL is not sold. READ the End-User License Agreement carefully and to continue installing, click that you agree to the terms.

Application Updates

You will be prompted to install updates to the SimpleSelect application as they become available.
You can choose to install these updates at that time or wait until later, such as the next time you launch the application.



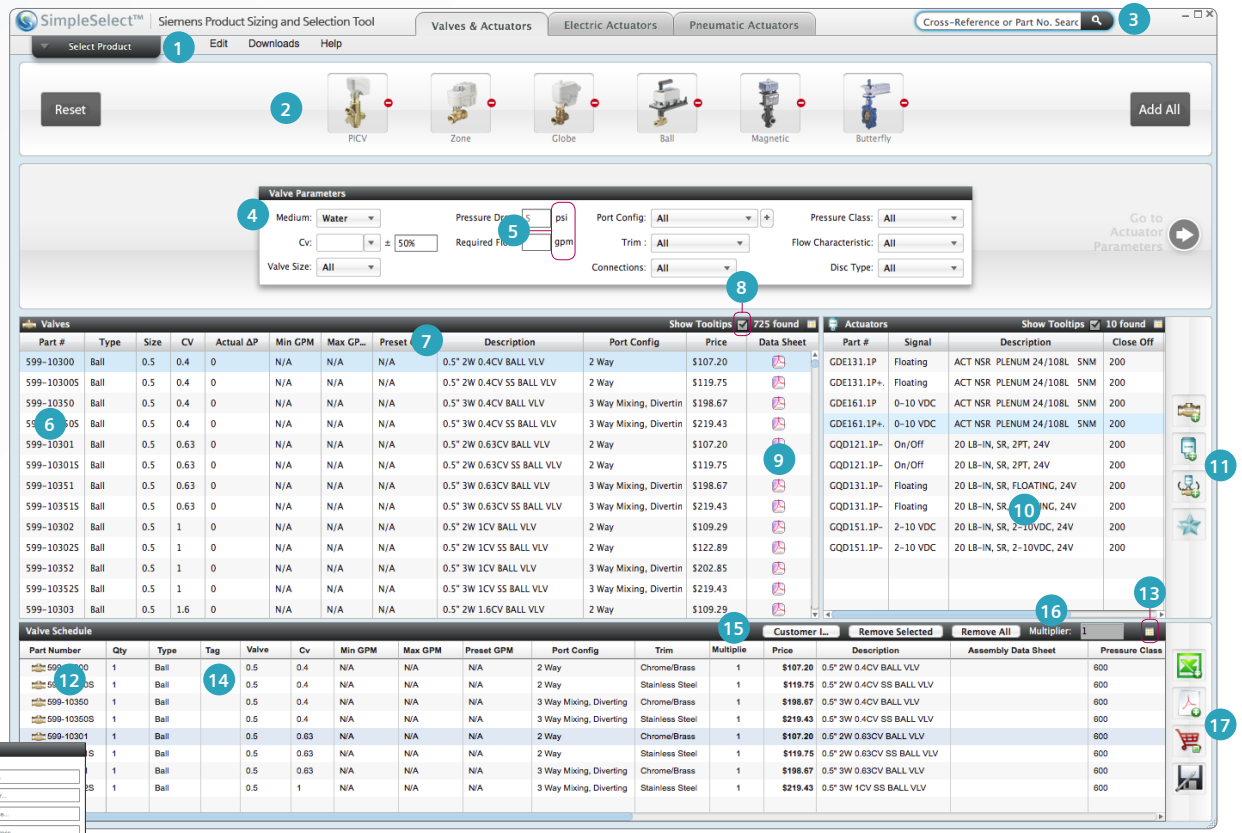
Database Updates

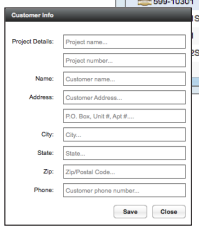
The first time the application opens, you will be prompted to install the SimpleSelect database. When new or updated products become available you will prompted to update your database. This will ensure you are working with the most current product data.

Key Features of SimpleSelect™

Finding the product you need for all types of projects is fast and easy with SimpleSelect, the Siemens Product Sizing and Selection Tool. It makes sizing and selection of valve and actuator assemblies, electronic damper actuators, and pneumatic actuators quick, accurate, and efficient.

1. Select Product Category & Type from Drop Down Menus
2. Selected Product Type
3. Search by Part Number or Cross-Reference
4. Product Attributes Window
5. Calculator (available for sizing Valves and Electronic Damper Actuators)
6. Search Results Window
7. Customize Column Information
8. Show Tooltips Option
9. Data Sheet PDFs
10. Compatible Products Search Results
11. "Fast-add" Icons that add product to schedule or save to Favorites
12. Product Schedule
13. Sort Column Order in Grid
14. Valve Tagging (Complimentary Option when creating Valve or Valve Assembly Schedule)
15. Customized Schedule with Customer Information
16. Multiplier
17. Exporting Options





Top Menu Bar

Features and functions along the top menu bar are:

File

- **New** – to start a new product schedule
- **Open** – to open an existing product schedule
- **Save, Save as** – to save a product schedule as a SimpleSelect (.svs) file
- **Exit** – Prompts you to save your schedule before closing the SimpleSelect application

Edit

- **My Info** – stores your company information and job details for historical reference. Entered information will print as the header for exported pdf schedules.

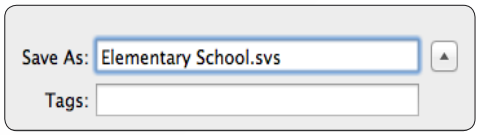
- **My Favorites by Product Type** – Compile a list of your most frequently ordered Valves, Damper Actuators, or Pneumatic Actuators and save for future reference in the Favorites pop-up window. To create or add to your list, click on My Favorites under the Edit menu along the top tool bar or by clicking on the star icon located on the right side of the window.

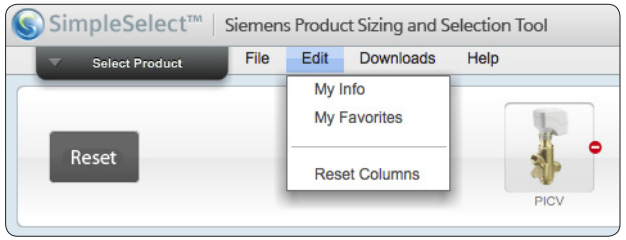
  Highlight the row of any selected product from the Schedule grids, or from the Cross-Reference or Part No. Search results list, and drag it into the Favorites window.
  
  Click the Remove Selected button to remove part numbers from this list. Your list will be saved for quick, future reference.

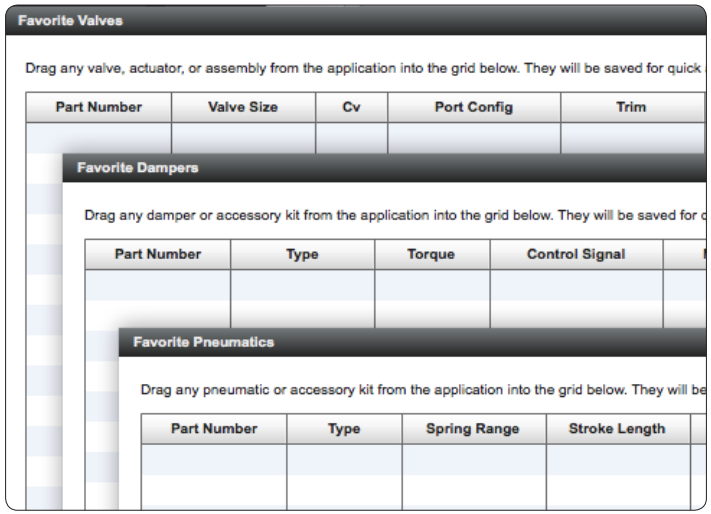
- **Reset Columns** – restores column settings to the original default display

Downloads

- **Download Data for Offline Usage** – downloads data sheets to your local hard drive, ensuring the information you need on your desktop contains the most current technical specifications
- **Download Adobe Acrobat Reader** – links to Adobe website to download the latest version of Adobe Reader



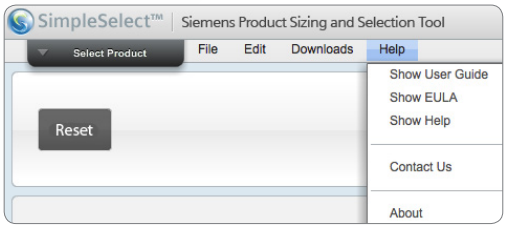




How to Navigate & Customize Views

Help

- Show User Guide – Launches PDF of this guide
- Show EULA – Read the Siemens End User License Agreement
- Show Help – Quick reference pop-up window shows how to navigate the SimpleSelect application and how to create a product schedule
- Contact Us – For Ordering or Order Status, contact customer service 888-593-7876. For Technical Support of SimpleSelect or HVAC products, contact 800-877-7545 (prompt 2 > 1 > 2).
- About– Displays the SimpleSelect software version downloaded on your computer for technical support reference



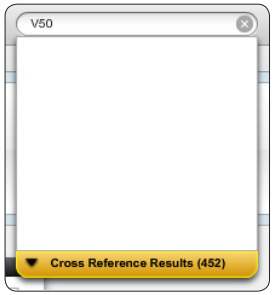
Part Number or Cross-Reference Search

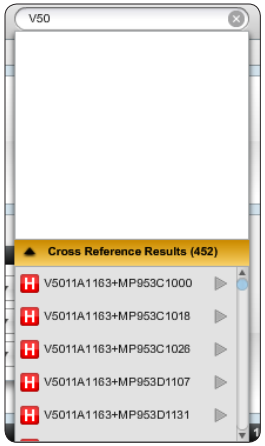
If you know the manufacturer model, stock, or part number of a valve, valve & actuator assembly, or pneumatic actuator, begin entering it into the search field.

As you start to type in a competitive part number, the Cross-Reference Results bar will appear, indicating the number of competitors' part numbers matching the entered string. Results narrow as more numbers in the sequence are entered.

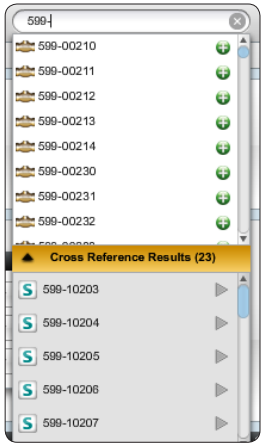
Click on the Cross-Reference Results arrow button for a drop-down list of top manufacturer item numbers. Initials before the part number indicate the manufacturer's brand name. Click on that part number and the Siemens replacement will appear beneath it. Hover your mouse over the Siemens part number and a specification box with product details opens on the left. Click on the plus sign to add that number to your Product Schedule or drag and drop the part number into the Favorites window.

Substitutes will also appear in the drop down list for discontinued Siemens part numbers.





Competitive-to-Siemens Part No. Example



Siemens-to-Siemens Part No. Example

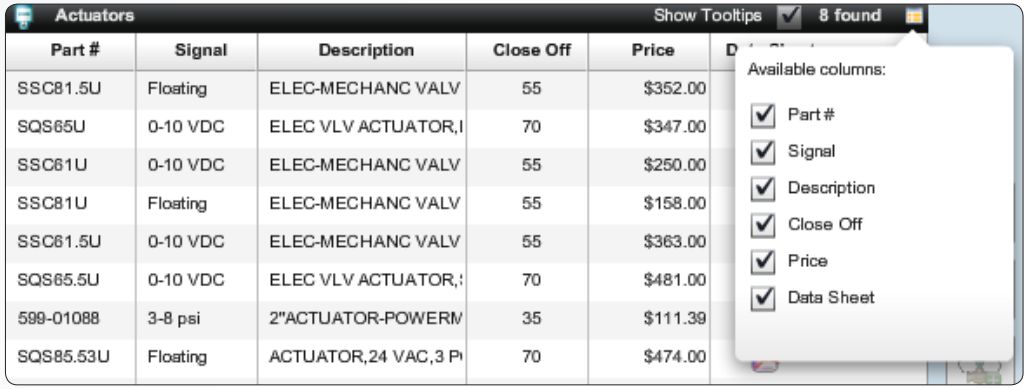
Changing the width of data grids and their columns

The overall width of product data grids can be resized, as well as columns within a grid, by hovering your mouse over the separating line. When the pointer becomes ⟷, drag the separator until the data grid or column is the width that you prefer.

Change the order of columns

The information in each data grid can be arranged according to your preference. This will allow you to select what will be displayed from all available attributes and in what order.

- Click on a column heading and drag it into place in the order that you prefer.
- Click on the Change Columns icon to select and deselect the columns you want to display.



Your column order preference settings will be saved and applied to your current schedule and to new schedules that you create.

- The attributes that are displayed in the Product Schedule will also be displayed when the file is printed, exported to Excel, or saved as a PDF.
- Go to **Reset Columns**, under **Edit** along the top tool bar to restore columns to the original column order and width.

How to Navigate & Customize Views

Sort the order of rows

- Click on a column heading to sort that column. The ▲ or ▼ triangle will appear in the column heading to sort rows into ascending or descending order.

Damper Actuators — Show Tooltips ☑ 93 found

Part #	Type	Torque ▼	Control Signal	System S...	Plenum R...	Auxilary ...	Position Feedback	Scala
GIB164.1U	Non-Spring Return	310 lb-in	0-10 VDC	24 VAC	Standard	Yes	Yes	Yes
GIB166.1P	Non-Spring Return	310 lb-in	0-10 VDC	24 VAC	Plenum	Yes	Yes	No
GIB166.1U	Non-Spring Return	310 lb-in	0-10 VDC	24 VAC	Standard	Yes	Yes	No
GBB131.1P	Non-Spring Return	221 lb-in	Floating/2-position	24 VAC	Plenum	No	No	No
GBB131.1U	Non-Spring Return	221 lb-in	Floating/2-position	24 VAC	Standard	No	No	No
GBB132.1U	Non-Spring Retu							
GBB136.1P	Non-Spring Retu							

Damper Actuators — Show Tooltips ☑ 93 found

Part #	Torque	Control Signal ▲	System S...	Plenum R...	Auxilary ...	Position Feedback	Scala...	Description
GLB163.1P	88 lb-in	0-10 VDC	24 VAC	Plenum	No	Yes	Yes	ACT NSR PLENUM
GLB161.1Q	88 lb-in	0-10 VDC	24 VAC	Plenum	No	Yes	No	ACT,NSR,88 LB-IN,
GEB161.1U	132 lb-in	0-10/2-10 VDC	24 VAC	Standard	No	Yes	No	MOD NSR,24V,132L
GEB161.1P	132 lb-in	0-10/2-10 VDC	24 VAC	Plenum	No	Yes	No	MOD NSR,24V,132L
GEB164.1U	132 lb-in	0-10/2-10 VDC	24 VAC	Standard	Yes	Yes	Yes	MOD,NSR,24V,132L
GND326.1U/B	53 lb-in	2-position	230 VAC	Standard	Yes	No	No	If Order Call Wendy
GND321.1U/B	53 lb-in	2-position	230 VAC	Standard	No	No	No	F/S, 2PT,230V,53 LB
GND321.1U	53 lb-in	2-position	230 VAC	Standard	No	No	No	F/S, 2PT, 230V,53 L

Show Tooltips Details

Click on the **Show Tooltips** box to hide or view key product attributes for each part number.

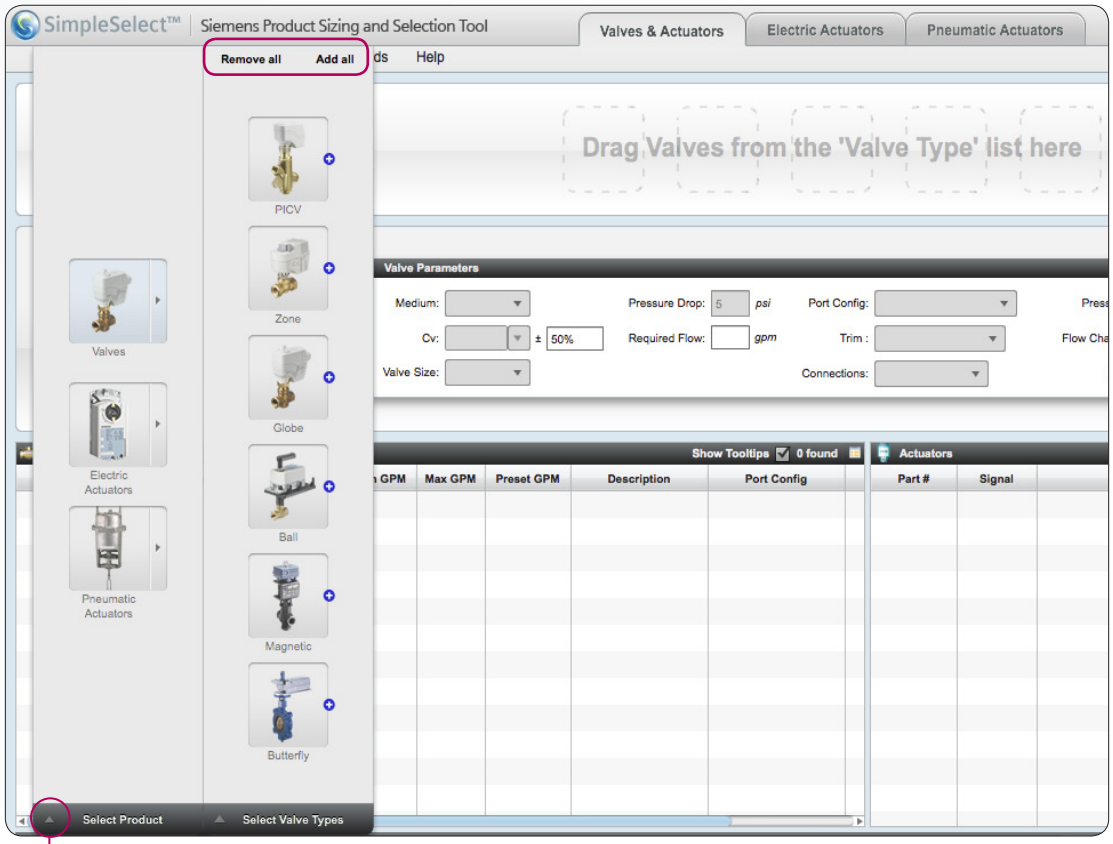
When you checkmark the Show Tooltips box, key product attributes will appear in a pop-up bubble as you move your mouse over each line item in a product data grid.

Starting Your Search

To begin sizing and/or selecting products, choose from the Valves & Actuators, Electronic Damper Actuators, or Pneumatic Actuators product categories. Click on any photo in the Product Type dropdown menu or drag-and-drop to move one or more product type into the Selected Product Type bar along the top of the tool window. Products can also be added or removed using the Reset, Add All or Remove All choices described below.

"Remove all" and Reset Button – click either to clear the selection and return to default settings.

"Add All" and Add All Button – click either to add all product types in the category to the top paramater window.

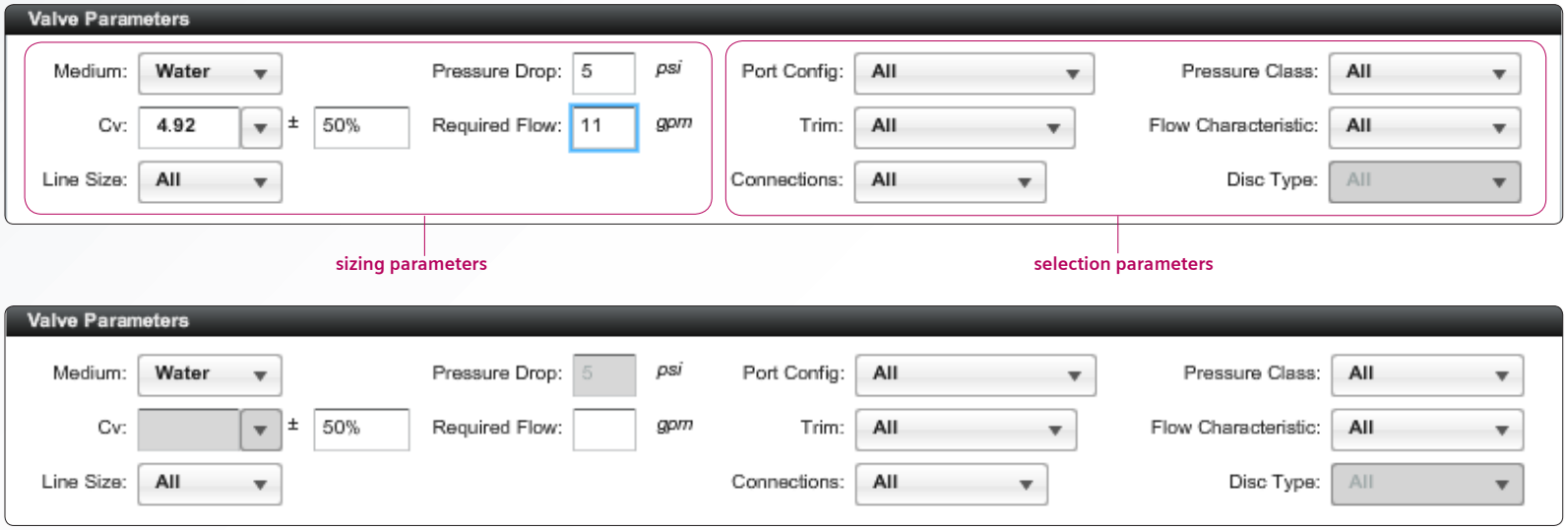


Navigation tip: When the product category and type dropdowns are open, click in the main window and the dropdowns will scroll up; or click on the arrow bar to roll the product menu window up or down.

Valve Parameters Window

The Valve Parameters window has two main areas to help you determine the correct valve size and the selection criteria.

- The area to the left is sizing parameters: Medium, Cv, Line Size, Pressure Drop and Required Flow
- The area to the right is selection parameters: Port Configuration, Trim, Connections, Pressure Class, Flow Characteristic and Disc Type.



Parameters that are non-applicable to a certain valve type are grayed out during the sizing and selection process.

Valve Sizing Parameters

Sizing refers to identifying the correct Cv or required flow (GPM) of the valve for the given application. For Butterfly, Magnetic, Ball, Globe, and Zone valves, determining the correct Cv requires knowing the type of medium being controlled, the required flow of water/glycol, or amount and pressure of steam, and the differential pressure across the valve. For PICV sizing only design flow (GPM) is required.

Medium
Select the type of medium the valve will control: Water, Glycol, or Steam. Depending on the medium selected the second column of sizing parameters will change.

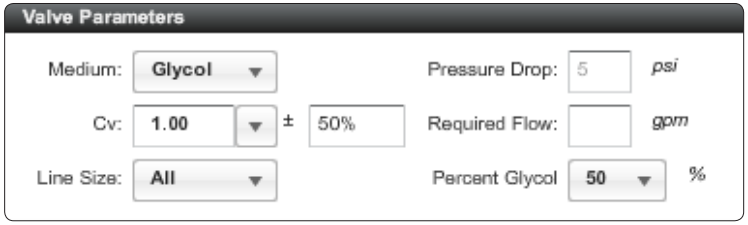
If sizing Butterfly, Magnetic, Ball, Globe, and Zone valves and the medium is **Water**, the only needed parameters are Pressure Drop and Required Flow.

- **Pressure Drop** – the differential pressure across the valve, or the difference in pressure between the inlet and outlet of the valve, typically at design conditions of the system. A general rule of thumb when the differential pressure is not known is to use 5 psi, which has been set as the default value, but can be changed if the actual or design pressure drop is known.
- **Required Flow** – typically, the design flow (in gpm) for the branch of the system, or coil, that the valve will control.

If sizing PICV and the medium is **Water**, the only needed parameter is required flow (GPM).

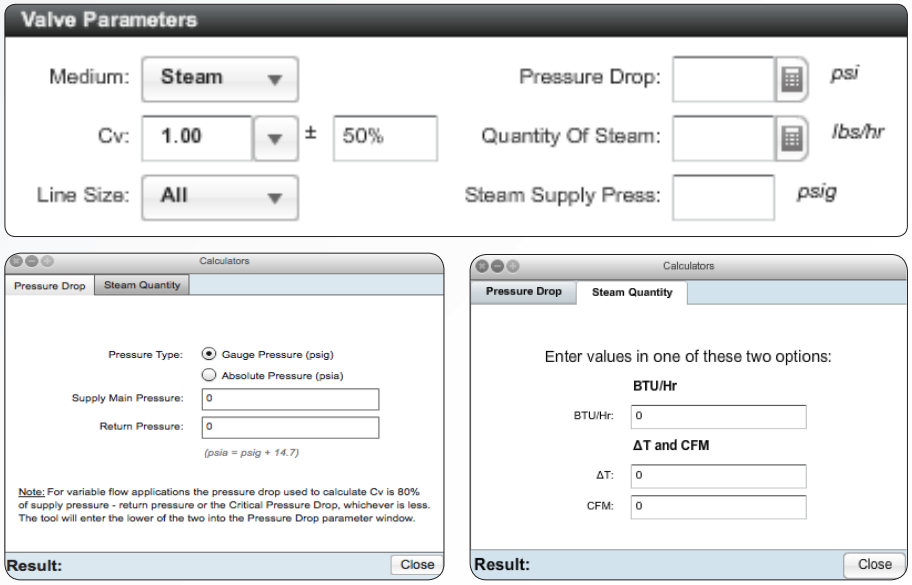
If **Glycol** is selected as the medium then an additional sizing parameter, Percent Glycol, appears.

- **Percent Glycol** indicates the percentage of glycol that is in the system. Typical values are between 25% and 50%. The default value is 50%, but can be changed to 25%, 30% or 40%.



Pressure Drop & Steam Calculations

If **Steam** is selected as the medium then the sizing information required is Pressure Drop, Quantity of Steam and Steam Supply Pressure and the Steam Calculators window will automatically pop up.



Navigation Tip: When sizing for steam, the steam calculator is the most accurate method for determining the correct pressure drop. Absolute (psia) or gauge (psig) pressures can be entered.

Navigation Tip: You can use the calculator to determine the quantity of steam from BTU/hr or ΔT and CFM (of the air through the coil being controlled by the valve) if the lbs/hr is not known.

- **Pressure Drop** – for proportional control of steam, the lower of 80% of the difference between supply and return absolute pressure or the critical maximum pressure drop (basically half the supply pressure) is used as the pressure drop for sizing the valve.
- **Quantity of Steam** – this parameter is how much steam, in lbs/hr, that is required for the application. This can be entered directly or can be calculated.
- **Steam Supply Pressure** – this is the supply, or inlet, pressure of the steam. When using the steam calculator, if you enter the Supply Main Pressure, the tool will populate this parameter with the correct value in gauge pressure (psig).

Valve Sizing Parameters

Cv (or Flow Coefficient)
If the desired Cv is known, it can be selected from the drop down menu. If Cv is not known, the tool will automatically calculate a Cv as additional sizing parameter data is entered.

Line Size
If the required/desired line size is known it can be selected from the drop down menu.
Only line sizes available for the selected valve types will be shown.

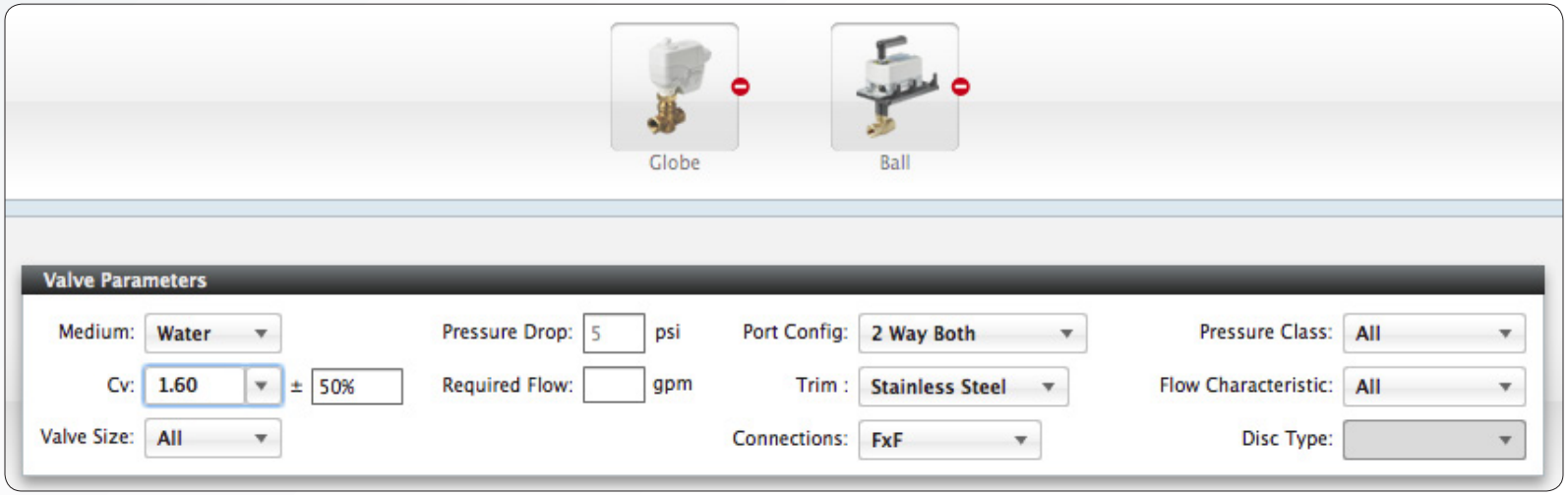
Navigation Tip: The field to the right of the Cv field allows you to select the Cv range, or GPM range for PICV, that the tool will use to filter and display matching valves in the Valve Data window. It can be set from 0-999% of the selected or calculated Cv, or GPM for PICV.

The default value is 50%.

Valve Selection Parameters

Selection is more about the performance or application attributes of the valve than the size. Choosing specific selection parameters from the drop down menus will narrow the choice of valves.

- Additional parameters can be selected in the Valve Selection area to limit selections.
- More information provided will help filter out non-applicable valves and yield a more targeted selection.



- Only product attribute choices that apply to the selected valve types will be shown in the parameter drop down menus.
- As parameters are selected, only valves that match the selected parameters will be displayed in the Valves data grid.

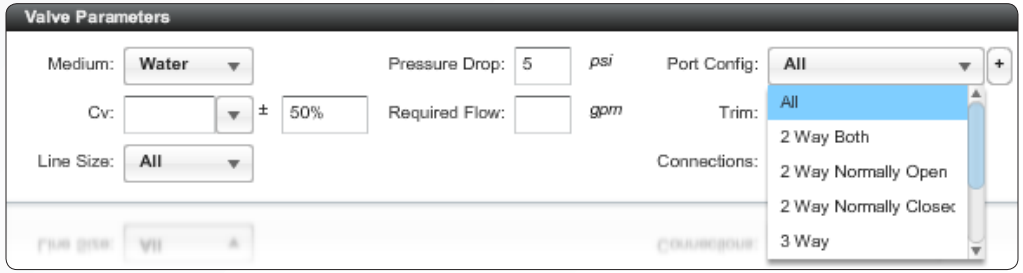
Valves — Show Tooltips — 27 found

Part #	Type	Size	CV	Actual ΔP	Description	Port Config	Price ▲	Data Sheet
599-10302S	Ball	0.5	1	0	0.5" 2W 1CV SS BALL V	2 Way	$122.00	
599-10303S	Ball	0.5	1.6	0	0.5" 2W 1.6CV SS BALL	2 Way	$122.00	
599-02019B	Globe	0.5	1	0	2WNC,3-8 SS,OR,FXF	2 Way Normally Closed	$140.08	
599-02051A	Globe	0.5	1	0	2WNO,10-15,SS,OR FXF	2 Way Normally Open	$140.08	
599-02021B	Globe	0.5	1.6	0	2WNC,3-8 SS,OR,FXF	2 Way Normally Closed	$140.08	
599-02053A	Globe	0.5	1.6	0	2WNO,10-15,SS,OR FXF	2 Way Normally Open	$140.08	

Valve Selection Parameters

Use the Valve Parameters area to enter as much information about the application as possible.

Port Config
This refers to the type of valve (2-way or 3-way) and the action (normally open or normally closed for 2-way and mixing or diverting for 3-way).

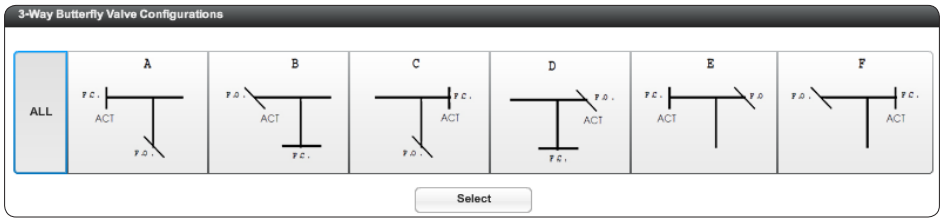


The plus sign (+) to the right of Port Config only appears when butterfly valves are selected as a valve type. The diagrams below are displayed when the plus sign (+) is clicked, showing the various configurations that are available for 3-way butterfly valve assemblies:

The following descriptions will help you understand the diagrams:

- ACT = Actuator, indicating the position of the actuator on the butterfly valve assembly
- F.C. = Fail Closed
- F.O. = Fail Open
- Perpendicular line at the end of one segment of the "T" = corresponds to F.C. – Fail Closed
- Diagonal line at the end of one segment of the "T" = corresponds to F.O. – Fail Open

You can select any one of the configurations, A-F, by clicking on it and then clicking on the select button to close the window and continue. The default for this configuration parameter is "ALL" which will result in all available configuration part numbers being displayed in the Actuator data grid.



Valve Selection Parameters

Trim
Choose from Stainless Steel, Brass/Bronze, or plated Brass.

Connections
This refers to the pipe connections of the valve. The following are all the possible choices for all valve types:

- NPT = Female x Female NPT
- Flanged = Bolt flanges
- AFxUM = Angle Female x Union Male
- Flared = SAE flared
- FxF = Female x Female NPT
- FxUF = Female x Union Female
- NPT Flange = Flange kit with NPT threaded connection
- UFxUF = Union Female x Union Female
- Weld Flange = Flange kit with weld neck connection
- Lug = valve body has lugs that are drilled and tapped for isolation and removal of downstream piping at full rated pressure
- Wafer = designed to be secured between two pipe flanges
- Sweat = solder (also known as sweat) connection

Pressure Class
Refers to the burst pressure class of the valve. Choices are ANSI 125, ANSI 250 and 600WOG (for ball valves only).

Flow Characteristic
Refers to the flow characteristic through the valve versus stroke. Choices are Equal %, Linear, or Linear & Equal % (selectable on magnetic valves only).

Disc Type
This parameter only applies to butterfly valves. The choices are full cut and under cut. Full cut discs provide higher close-off pressures, but also require more torque.

Valve Search Results

As you enter information into the Valve Parameters window, a list of the valves that match your query will appear in the Valves data grid.
The number of valves found will temporarily flash in the Valve data grid as well as remain on display in the right corner of the Valve data grid header.
As you change parameters, the results update automatically.

Valves — Show Tooltips ☑ — 40 found

Part #	Type	Size	CV	Actual ΔP	Description	Port Config ▲	Price	Data Sheet
599-03193	Globe	0.75	6.3	0	3/4"NC.VLV.BZ,250,6.3	2 Way Normally Closed	$647.88	
599-03085	Globe	0.75	6.3	0	3/4"NC,UNION,SS,250,	2 Way Normally Closed	$1,210.66	
599-03247	Globe	0.75	6.3	0	3/4"NC,VLV,SS,250,6.3	2 Way Normally Closed	$1,210.66	
599-03139	Globe	0.75	6.3	0	3/4"NC,VLV,SS,250,6.3	2 Way Normally Closed	$1,090.74	
599-03265	Globe	0.75	6.3	0	3/4"NC,VLV,SS,250,6.3	2 Way Normally Closed	$1,090.74	
599-02027B	Globe	0.75	6.3	0	2WNC,3-8 SS,OR,FXF	2 Way Normally Closed	$364.00	
599-02027C	Globe	0.75	6.3	0	2WNC,8-13 SS,OR,FXF	2 Way Normally Closed	$364.00	
599-03283	Globe	0.75	6.3	0	3/4"NC,VLV,BZ,250,6.3	2 Way Normally Closed	$647.88	
599-02027	Globe	0.75	6.3	0	3/4"NC,VLV,6.3 CV,SS,	2 Way Normally Closed	$364.00	
599-02028B	Globe	0.75	6.3	0	2WNC,3-8 SS,OR,FXUM	2 Way Normally Closed	$420.24	

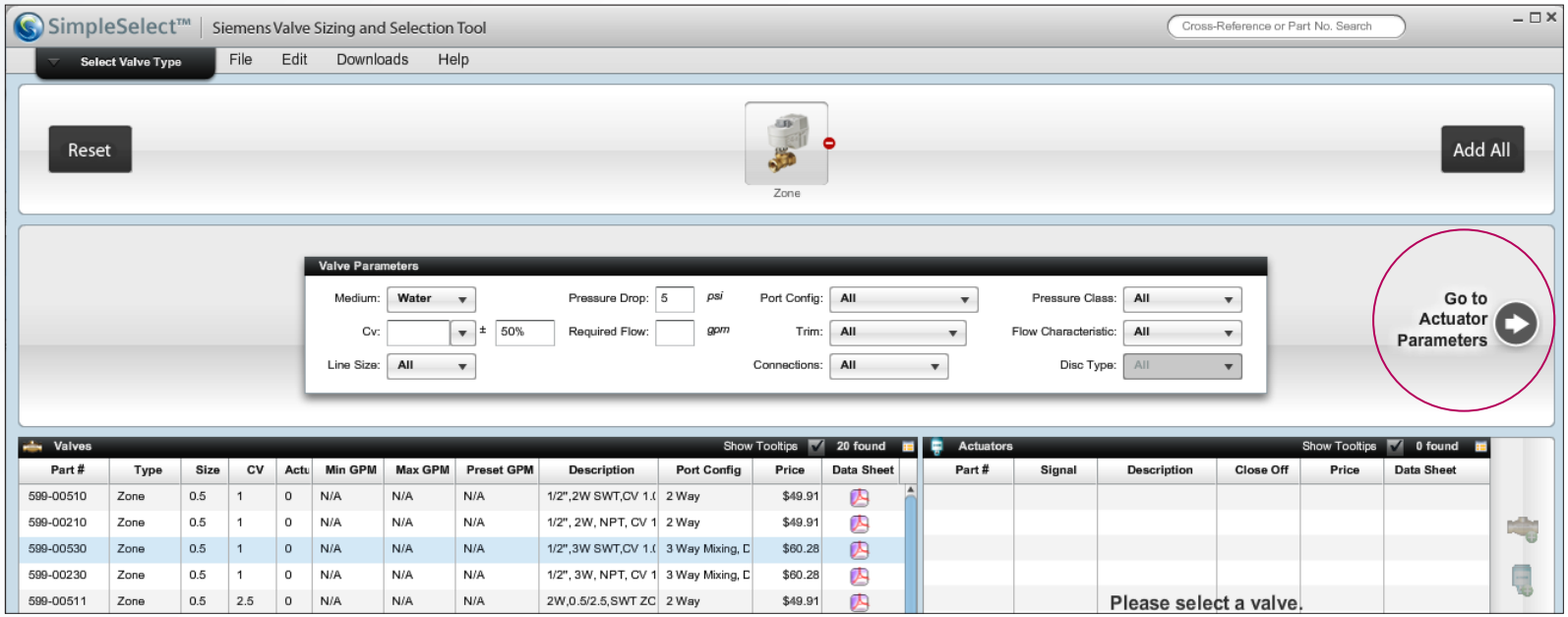
NOTE: Actual ΔP in the Valve data grid is the actual pressure drop for the valve based on the Required Flow, if any, entered by the user.
If Required Flow is not entered the Actual ΔP will be zero.

Valve Actuator Selection Parameters

Actuator Parameters Grid

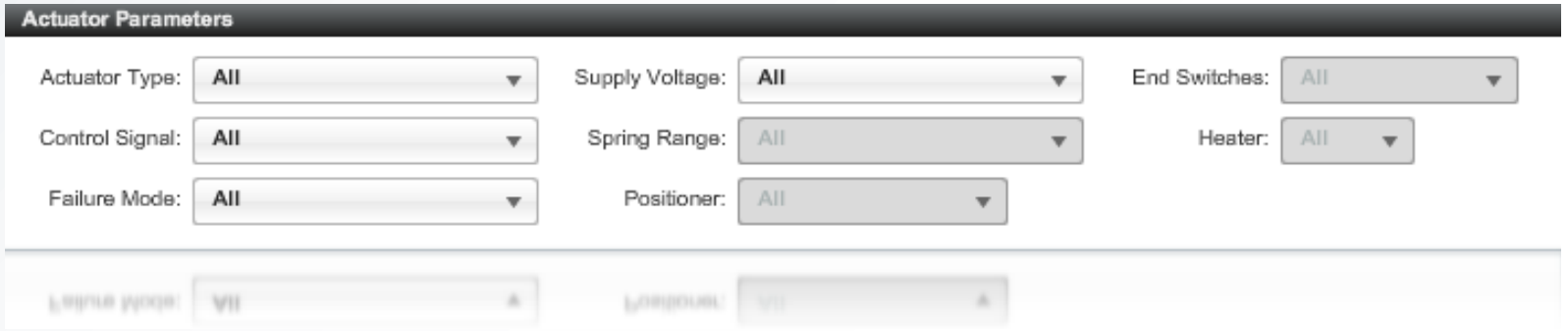
Valve Actuator parameters can be selected any time during the sizing and selection process.

- As a valve in the Valves data grid is selected, available actuators for that valve will display in the Actuators data grid on the right.
- Click on the Go to Actuator Parameters arrow to refine your actuator search.



Valve Actuator Selection Parameters

The number of valve actuators can be further narrowed by selecting specific choices from the following Actuator Parameters displayed in the Actuator Parameters window.



Actuator Type – Select for electric or pneumatic operation

Control Signal – Choices are 0 to 10 V, 4 to 20 mA, On/Off, Floating, or 2 to 10 V

Failure Mode – Identifies how the actuator responds when supply power is lost. Choices are Spring Return, which fails to the "normal" position, or Non-Spring Return, which fails in place.

Supply Voltage – This is for the supply voltage of electronic actuators. Choices are 24 V (applies to electronic actuators for all valve types), 120V which is for zone, ball, or butterfly valves, and 100 to 240 Vac/dc which is for butterfly valves only.

Air Supply/Spring Range – This parameter applies only to pneumatic actuators. It refers to the Air Supply Range for butterfly valves and Spring Range for globe valve pneumatic actuators. There are three options for butterfly valve Air Supply Range: 20 psi STD, 60 psi High Pressure, and 60 psi Double Acting. There are a variety of spring ranges to choose from for globe valves.

Positioner – This parameter only applies to pneumatic actuators for both globe valves and butterfly valves. For globe valves the choices are None or Standard positioner. For butterfly valves the choices are Pneumatic positioner, E/P Valve 24 V positioner and E/P Valve 120 V positioner.

End Switches – For ball and butterfly valves only. Choices are for end (limit) switches on pneumatic actuators (butterfly only), or electronic actuators (ball or butterfly), or potentiometer (butterfly only).

Heater – Butterfly valve parameter only. Available with EM, EP and E2 actuators.

Valve Actuator Search Results

Actuator Data Grid
Valve Actuator search results will display based on the information you enter into the Actuator Parameters window and the type of valve selected in the Valves data grid. If you change valve or actuator parameters, the results update automatically.

Click on a valve row in the Valve data grid and begin to refine your search by filling in the fields in the Actuator Parameters window. Actuators that match both your query and the type of valve selected in the Valve data grid will appear in the Actuators data grid. The number of actuators found will temporarily flash in the Actuators data grid as well as remain on display in the right corner of the Actuator data grid header. As you change parameters, the results update automatically.

Actuators — Show Tooltips — 6 found

Part #	Signal	Description	Close Off	Price	Data Sheet
SQS65U	0-10 VDC	ELEC VLV ACTUATOR,I	160	$694.00	
SSC61U	0-10 VDC	ELEC-MECHANC VALV	120	$500.00	
SSC81U	Floating	ELEC-MECHANC VALV	120	$316.00	
SSC61.5U	0-10 VDC	ELEC-MECHANC VALV	120	$726.00	
SQS65.5U	0-10 VDC	ELEC VLV ACTUATOR,:	160	$962.00	
SQS85.53U	Floating	ACTUATOR,24 VAC,3 P	160	$948.00	

NOTE: The close-off column in the Actuator Data Window displays the close-off pressure, in psi, of the selected valve when combined with the given actuator. If additional information is needed for the actuator types, select the Data Sheet and the actuator.pdf will be displayed.

Building a Valve Schedule

- **Add selected valve to schedule** – when one or more valves are selected in the Valves data grid, this icon become active (colored). Clicking on this icon adds the selected valve(s) to the Valve Schedule.

- **Add selected actuator to schedule** – when one or more actuators are selected in the Actuators data grid, this icon become active (colored). Clicking on this icon adds the selected actuator(s) to the Valve Schedule.

- **Add selected assembly to schedule** – when only one valve and only one actuator are selected in their respective data grids, this icon becomes active (colored). Clicking on this icon adds the part number for the combination (assembly) of the selected valve and actuator to the Valve Schedule.

- **Show Favorites window** – clicking on this icon opens the Favorites window. Items can be added to the Favorites window by dragging-and-dropping an item from the Valves data grid, Actuator data grid, Valve Schedule, or Part no. search and cross reference field. You can also open the My Favorites Window by clicking on the Edits drop-down menu along the top tool bar.

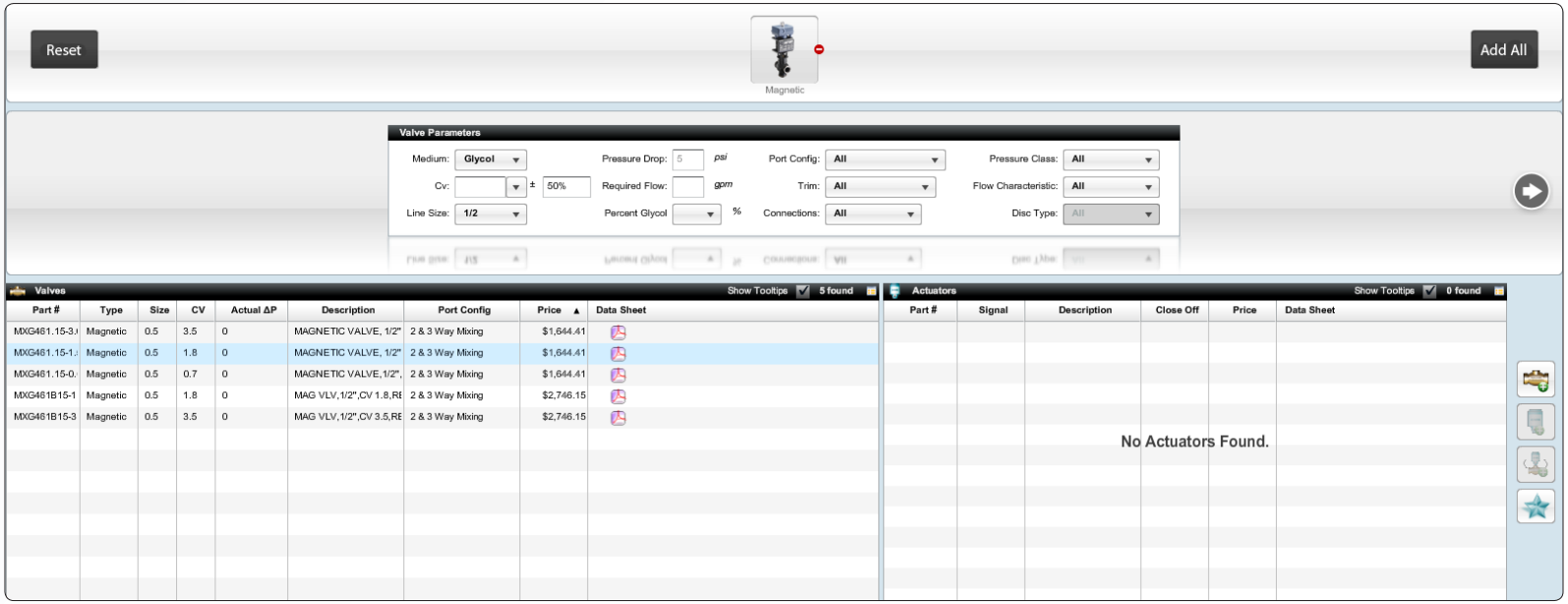
Navigation Tip: Valves and actuators can be added to the Favorites pop-up window from their respective data grids. Items in the Valve Schedule can also be added to the Favorites pop-up window, and vice versa, items from the Favorites pop-up window can be added to the Valve Schedule. Dragging and dropping is the only way to add items to the Favorites window and the only way to add items from Favorites to the Valve Schedule.

Please refer to page 36 for more information on how to customize and export a project schedule.

Building a Valve Schedule

Valve and Actuator Selection Exceptions

- Butterfly valves are only available as assemblies even though a valve part number and actuator part number show up in their respective data grids. A butterfly valve AND actuator must be selected and can only be added using the **Add selected assembly** to schedule icon.
- Magnetic valves are only available as assemblies. These items only show up in the Valve data grid. No actuators will show up in the Actuator data grid. Add to Valve Schedule by either clicking on the **Add selected valve to schedule icon** or drag and drop the item from the Valve data grid into the Valve Schedule.
- 656 Series and 658 Series pneumatic globe valves are only available as assemblies. These items only show up in the Valve data grid. No actuators will show up in the Actuator data grid. Add to Valve Schedule by either clicking on the **Add selected valve to schedule** icon or drag and drop the item from the Valve data grid into the Valve Schedule.



Please refer to page 36 for more information on how to customize and export a project schedule.

Customizing a Valve Schedule

Part Number – This is the Siemens ordering number.

Quantity – To order more than one item, type in the quantity needed in the Qty column. You can also click the icons found on the right side of the Actuator data grid multiple times to add the quantity needed.

Complimentary Valve Tagging
Click in the cell to type in instructions**.** There are two ways to tag more than one valve or value actuator in the schedule.

1. You can add several of the same items and tag them individually. To do this, enter the quantity desired in the Quantity field and click on the expand arrow. Each item is individually listed for specific tag details.

2. You can also add the same tag to multiple items. First, tag an item with the desired text. Now add the number of items in the quantity field. Expand the rows by clicking on the arrow by the part number and you'll see the individual tag information for each item.

Calculated Cv – This is the Cv calculated from pressure drop and required flow entered by the user.

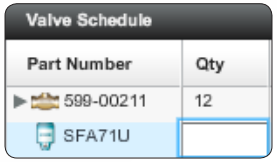
Min/Max/Preset GPM – Apply only to PICV. These indicate the range of settings for the flow limiter and the factory presetting of the flow limiter for the selected valve.

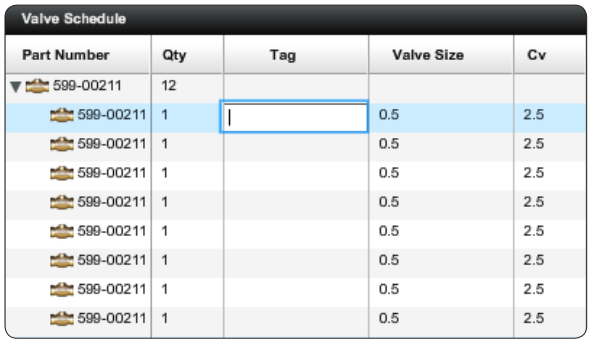
Required △P – This the pressure drop the user entered, if any, in the sizing parameter

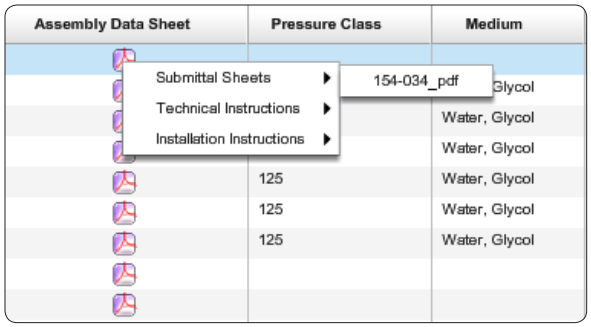
Actual △P – This is the actual pressure drop for the valve based on the required flow, if any, entered by the user.

Data Sheets
A pop-up menu displays available PDF files of valve, actuator, or assembly submittal sheets, technical instructions and installation instructions.

Notes
Type in any notes that you would like to include with your Valve Schedule in this field. Your entered notes will be displayed when the file is printed, exported to Excel, or saved as a PDF.





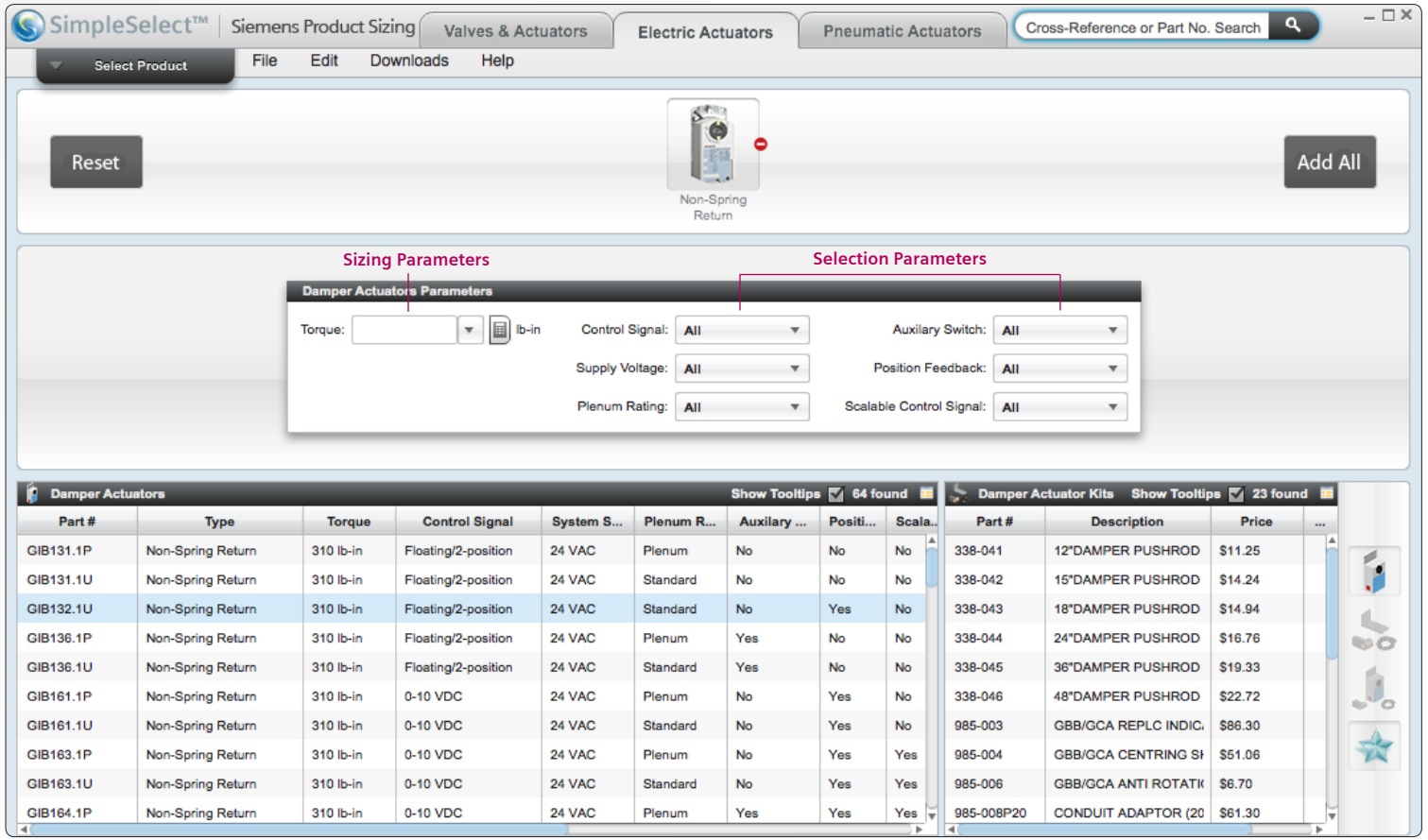


Please refer to page 36 for more information on how to customize and export a project schedule.

Sizing & Selecting of Electronic Damper Actuators

Electronic Damper Actuator Parameters have two main ways to help select the correct damper actuator:

- The "Sizing Parameters" side of the window calculates the torque needed based on the size of the equipment and the velocity of the airflow.
- The two right "Selection Parameters" columns drill down to the exact features of the actuator with options that include Control Signal, Supply Voltage, Plenum Rating, Auxiliary Switch, Position Feedback and Scalable Control Signal.



Electronic Damper Actuator Sizing Parameters

Sizing refers to identifying the correct torque of the damper actuator for the given application.

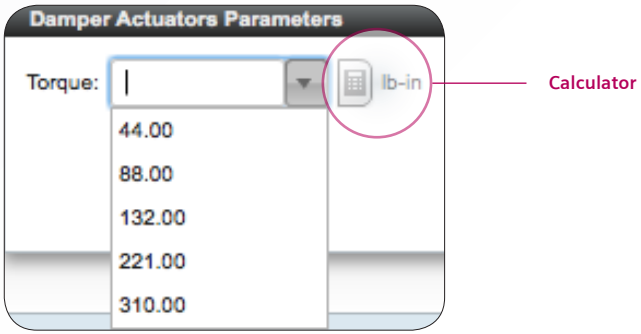
There are several ways to provide the torque value:

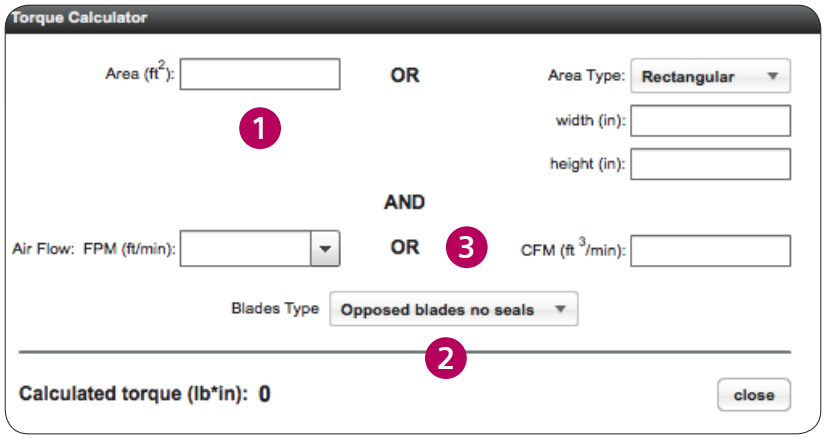
- If the damper manufacturer has recommended the torque, or if the torque is already known for the application, enter the lb-in value in the Torque field. IF THE TORQUE IS NOT KNOWN, select one of the values from the drop-down list, or,

- If you do not know the required torque, use the built-in calculator to determine the appropriate size of the damper and appropriate lb-in torque.

The sizing criteria appears as shown in the window right. Sizing the torque of a electronic damper actuator depends on three factors:

1. What is the area of the damper.
2. What is the blade type of the damper
3. What is the velocity of the airflow in the application in FPM or CFM

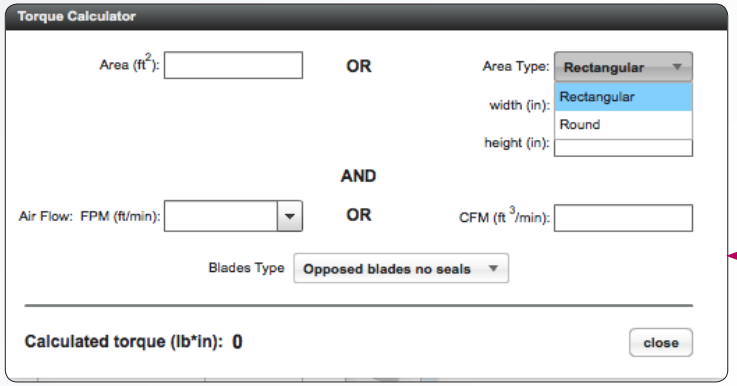




Electronic Damper Actuator Sizing Parameters

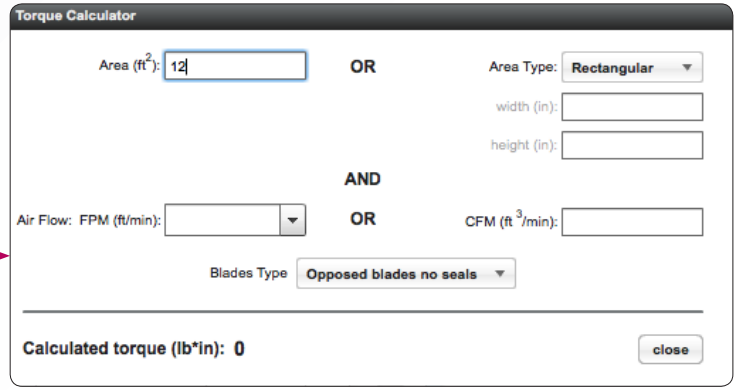
Finding the area of the damper.

To calculate the area of the damper, first select the type of damper: Rectangular or Round

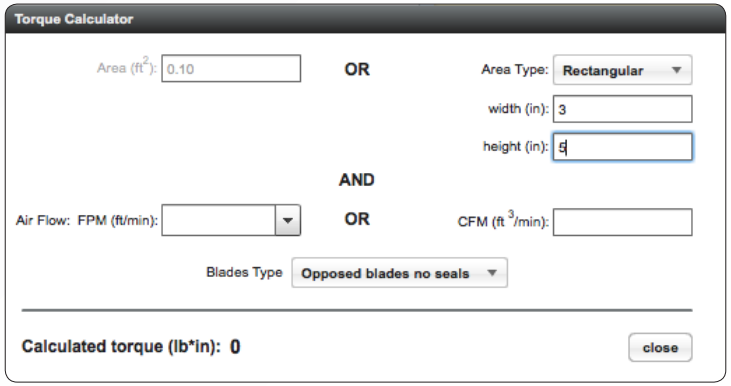


OR

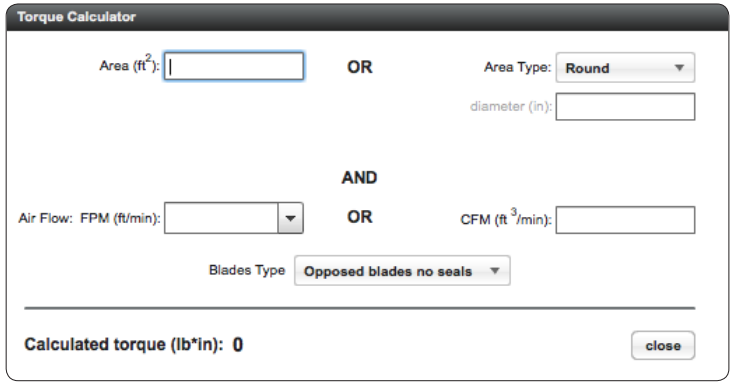
Or enter the damper area in square feet:



For Rectangular dampers, enter the width and the height in inches:



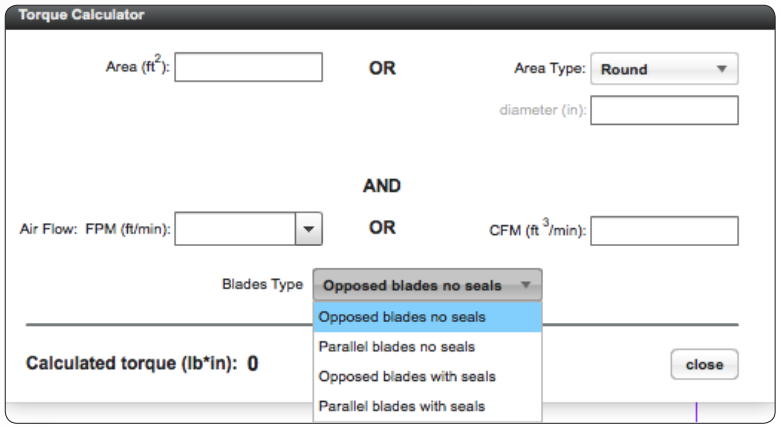
For Round, dampers enter the diameter in inches.



Electronic Damper Actuator Sizing Parameters

Selecting the Blade Type

The next factor to determine when sizing the torque of a electronic damper actuator is the blade type. Select the damper blade type from the pull down menu. Hint: If the blade type is unknown, please note that the torque it takes to move each blade type increases with parallel blades. Parallel blades with seals require the most torque per sq. ft to operate.

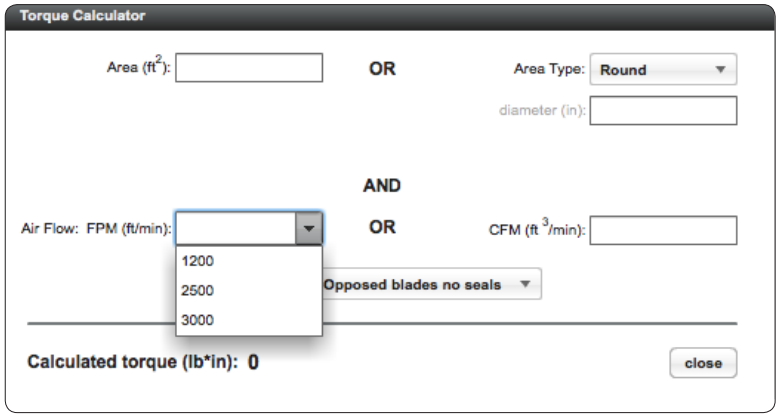


Determining the velocity of the airflow

The final step in sizing is determing the velocity of the air flow in the application by:

1. FPM (feet per minute) air flow may be entered in the field on the left side of the calculator window or selected from one of three values on the pull down menu.

2. The air flow in CFM (cubic feet per minute) can also be entered in the field on the right side of the calculator window.



Electronic Damper Actuator Selection Parameters

The size and quantity of the damper actuator required depends on several factors for selection.

Actuator Type – Select for electronic or pneumatic operation.

Control Signal – This is 2-position.

Supply Voltage – Choices are 24 Vac/Vdc, 24 Vac, 120 Vac, or 230 Vac.

Plenum Rating – This is selected when a Plenum Cable is needed; otherwise actuator is supplied with standard appliance cable.

Auxiliary Switch – Choose yes or no for built-in auxiliary switches.

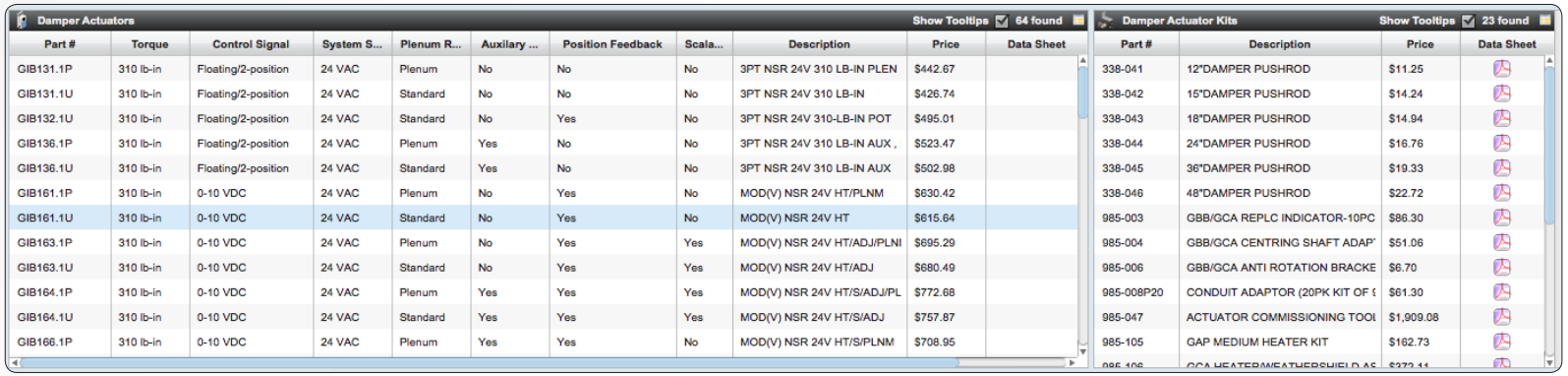
Position Feedback – Modulating types contain built-in feedback of 0 to 10 or 2 to 10 Vdc and optional floating control feedback of 0 to 1000 Ohm. Choose yes or no.

Scalable Control Signal – Choose yes or no.

Electronic Damper Actuator Search Results

As you enter information into the Damper Actuators Parameters window, a list of the damper actuators that match your query will appear in the Damper Actuators data grid. The number of damper actuators found will temporarily flash in the Valve data grid as well as remain on display in the right corner of the Damper Actuators data grid header. The results automatically update as the parameters change.

When a damper actuator is selected, complementary accessories, such as commissioning tools, pushrods, weathershields, rotation brackets, etc., appear in the Damper Actuator Kits grid.



Damper Actuators — Show Tooltips — 64 found

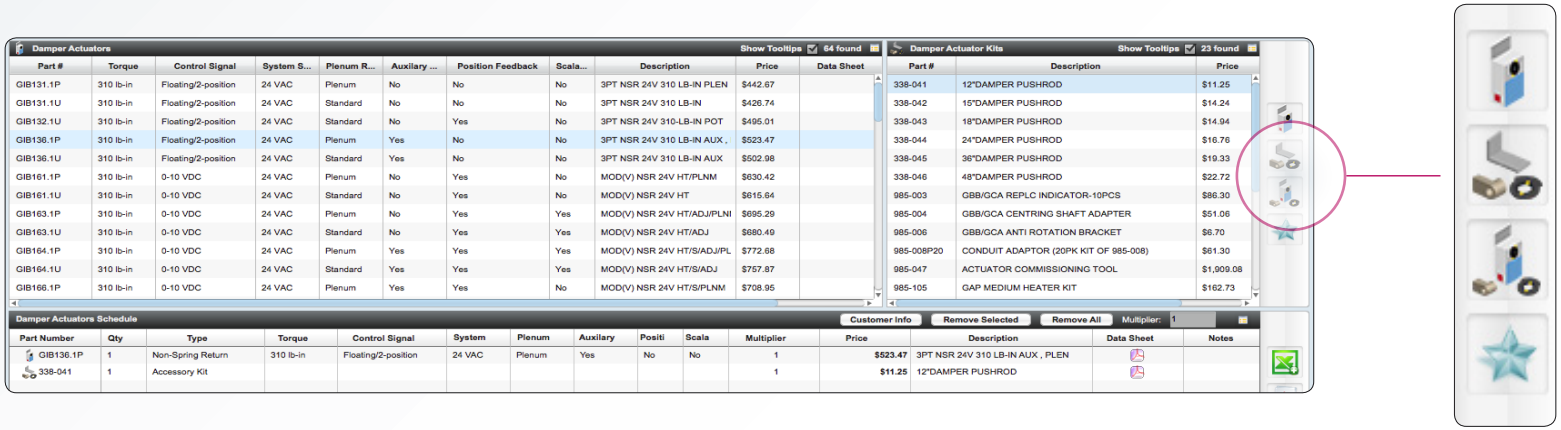
Part #	Torque	Control Signal	System S...	Plenum R...	Auxilary ...	Position Feedback	Scala...	Description	Price	Data Sheet
GIB131.1P	310 lb-in	Floating/2-position	24 VAC	Plenum	No	No	No	3PT NSR 24V 310 LB-IN PLEN	$442.67	
GIB131.1U	310 lb-in	Floating/2-position	24 VAC	Standard	No	No	No	3PT NSR 24V 310 LB-IN	$426.74	
GIB132.1U	310 lb-in	Floating/2-position	24 VAC	Standard	No	Yes	No	3PT NSR 24V 310-LB-IN POT	$495.01	
GIB136.1P	310 lb-in	Floating/2-position	24 VAC	Plenum	Yes	No	No	3PT NSR 24V 310 LB-IN AUX ,	$523.47	
GIB136.1U	310 lb-in	Floating/2-position	24 VAC	Standard	Yes	No	No	3PT NSR 24V 310 LB-IN AUX	$502.98	
GIB161.1P	310 lb-in	0-10 VDC	24 VAC	Plenum	No	Yes	No	MOD(V) NSR 24V HT/PLNM	$630.42	
GIB161.1U	310 lb-in	0-10 VDC	24 VAC	Standard	No	Yes	No	MOD(V) NSR 24V HT	$615.64	
GIB163.1P	310 lb-in	0-10 VDC	24 VAC	Plenum	No	Yes	Yes	MOD(V) NSR 24V HT/ADJ/PLNI	$695.29	
GIB163.1U	310 lb-in	0-10 VDC	24 VAC	Standard	No	Yes	Yes	MOD(V) NSR 24V HT/ADJ	$680.49	
GIB164.1P	310 lb-in	0-10 VDC	24 VAC	Plenum	Yes	Yes	Yes	MOD(V) NSR 24V HT/S/ADJ/PL	$772.68	
GIB164.1U	310 lb-in	0-10 VDC	24 VAC	Standard	Yes	Yes	Yes	MOD(V) NSR 24V HT/S/ADJ	$757.87	
GIB166.1P	310 lb-in	0-10 VDC	24 VAC	Plenum	Yes	Yes	No	MOD(V) NSR 24V HT/S/PLNM	$708.95	

Damper Actuator Kits — Show Tooltips — 23 found

Part #	Description	Price	Data Sheet
338-041	12"DAMPER PUSHROD	$11.25	
338-042	15"DAMPER PUSHROD	$14.24	
338-043	18"DAMPER PUSHROD	$14.94	
338-044	24"DAMPER PUSHROD	$16.76	
338-045	36"DAMPER PUSHROD	$19.33	
338-046	48"DAMPER PUSHROD	$22.72	
985-003	GBB/GCA REPLC INDICATOR-10PC	$86.30	
985-004	GBB/GCA CENTRING SHAFT ADAP	$51.06	
985-006	GBB/GCA ANTI ROTATION BRACKE	$6.70	
985-008P20	CONDUIT ADAPTOR (20PK KIT OF	$61.30	
985-047	ACTUATOR COMMISSIONING TOOI	$1,909.08	
985-105	GAP MEDIUM HEATER KIT	$162.73	

Electronic Damper Actuator Accessory Kits

You can add any of the highlighted items to the project schedule either individually or all together as a kit by dragging and dropping into the Schedule grid or by using the icon buttons along the right.

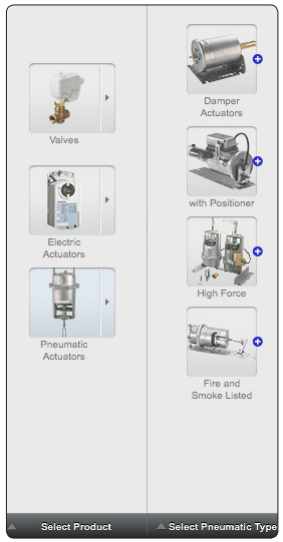


Please refer to page 36 for more information on how to customize and export a project schedule.

Sizing & Selection of Pneumatic Actuators

Whether you are replacing an existing pneumatic damper actuator or designing a new application, SimpleSelect makes it easy to find the correct model for the job.

If you already have a part no., simply type it into the Part No. or Cross-Reference Search. To add it to your project schedule grid, you can click on the plus sign or simply drag it down. From the schedule grid, you can add quantities, apply the multiplier, look up technical submittal sheets, and more.



Pneumatic Actuator Types
If you do not have a part no, select High Force, Fire and Smoke Listed, with Positioner, or Damper Actuator from the drop down list.

Damper Actuators - Search the complete selection of Siemens pneumatic damper actuators.

With Positioner - If the number of actuators calculated is too large to be practical, select a more powerful actuator or consider using a positioning relay. Pneumatic Actuators with Positioners come with a relay mounted to the actuator for accurate stem positioning.

High Force - designed to develop very high thrust with capacity to handle heavy loads. For a 4-inch stroke, tandem No. 6 Pneumatic Actuators are mounted on an iron frame. For a 7-inch stroke, the Large Capacity Pneumatic Actuator handles heavy loads.

Fire and Smoke Listed - Use this sort to find No. 3, No. 4 & No. 6 actuators that are recognized under UL's Damper Actuator category (EMKU2) for use on fire dampers and leakage-rated dampers.

After you have selected the pneumatic damper actuator type, you will need to determine the Stroke Length.

Stroke Length
The stroke length is available in 2-3/8, 3, 4 and 7-inches, depending on the type of actuator and the thrust needed for the application. The drop down menu will list the range of sizes available for that particular actuator.

Spring Range
Next, you will need to determine Spring Range. There are several ranges to choose from to accommodate sequencing dampers and optimizing energy efficiency.

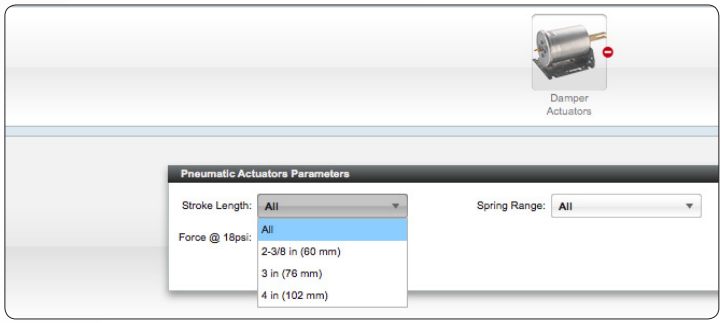
Actuator Size
Available actuator sizes will be listed based on the spring range. Options include No. 3, 4, or 6.

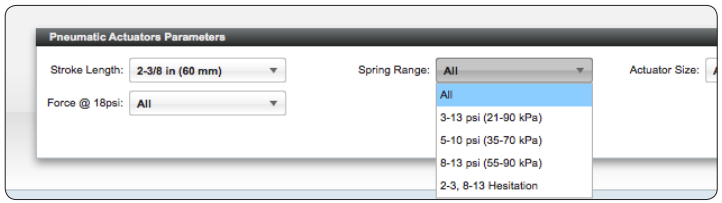
No. 3 Pneumatic Damper Actuators are rolling diaphragm actuators that provide modulating or two-position control.

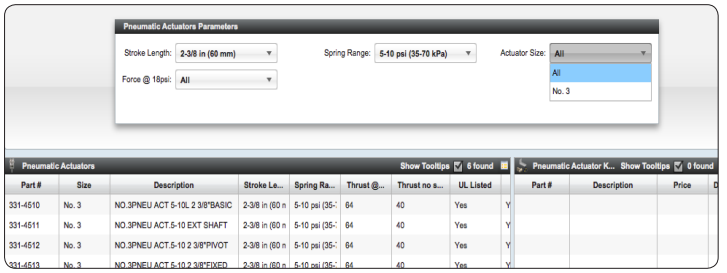
No. 4 Pneumatic Damper Actuators are rolling diaphragm actuators that are suitable in applications requiring a medium effective diaphragm area and long stroke.

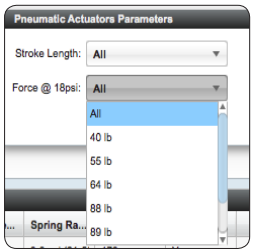
No. 6 Pneumatic Damper Actuators are heavy-duty rolling diaphragm actuators that are suitable in applications requiring a large effective diaphragm area and long stroke.

Force @ 18 psi
If you do not know the size of a damper actuator or a damper actuator with positioner, the Force @ 18 psi drop down list can help you determine the amount of pressure that needs to be delivered to move the load.



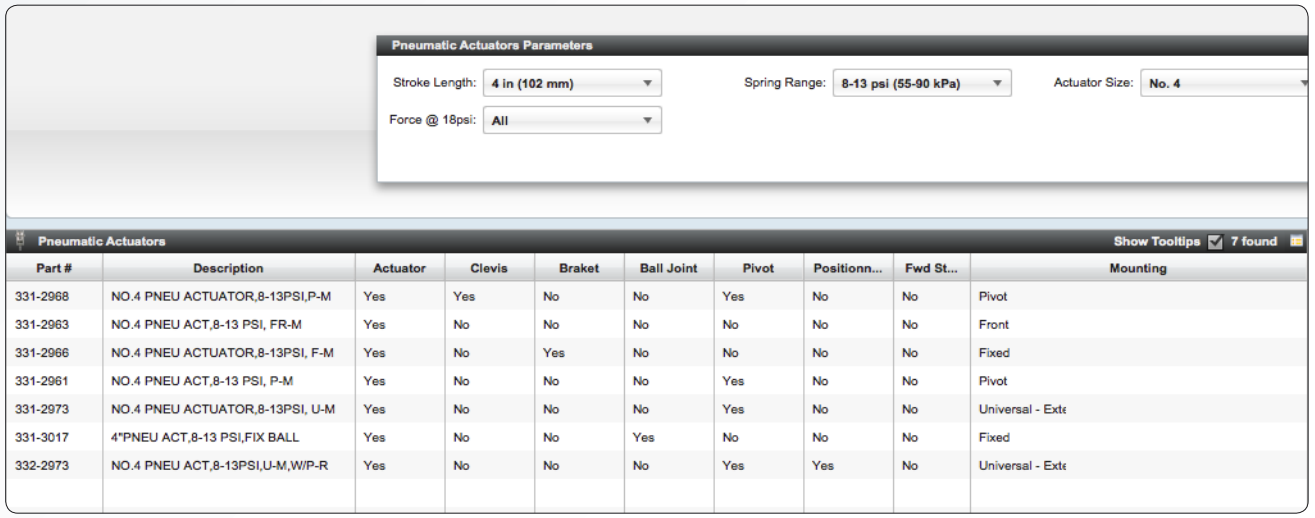






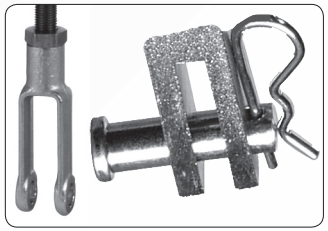
Sizing & Selection of Pneumatic Actuators

Pnuematic Actuators are orderable according to mounting style and with optional connections. As the Pneumatic Actuator Parameters are narrowed, a list of available mounting styles will appear in the Mounting column in the Pneumatic Actuators grid. Available options include Front, Pivot, Fixed, Extended Shaft, Extended Shaft with Positioning Relay, Universal, and Universal with Positioning Relay.



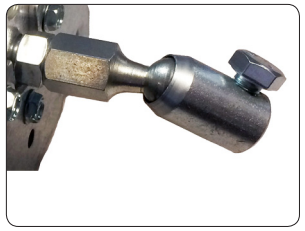
Part #	Description	Actuator	Clevis	Braket	Ball Joint	Pivot	Positionn...	Fwd St...	Mounting
331-2968	NO.4 PNEU ACTUATOR,8-13PSI,P-M	Yes	Yes	No	No	Yes	No	No	Pivot
331-2963	NO.4 PNEU ACT,8-13 PSI, FR-M	Yes	No	No	No	No	No	No	Front
331-2966	NO.4 PNEU ACTUATOR,8-13PSI, F-M	Yes	No	Yes	No	No	No	No	Fixed
331-2961	NO.4 PNEU ACT,8-13 PSI, P-M	Yes	No	No	No	Yes	No	No	Pivot
331-2973	NO.4 PNEU ACTUATOR,8-13PSI, U-M	Yes	No	No	No	Yes	No	No	Universal - Exte
331-3017	4"PNEU ACT,8-13 PSI,FIX BALL	Yes	No	No	Yes	No	No	No	Fixed
332-2973	NO.4 PNEU ACT,8-13PSI,U-M,W/P-R	Yes	No	No	No	Yes	Yes	No	Universal - Exte

Connection options will also appear in the Pneumatic Actuators grid: choose from Clevis, Bracket, Ball Joint Connector, Pivot, and Positioning Relay.

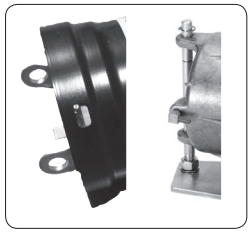


Clevis Connection

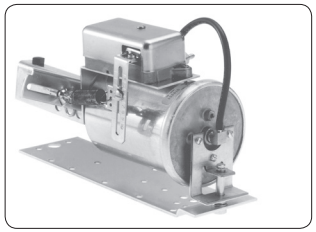
Actuator Bracket



Ball Joint Connection



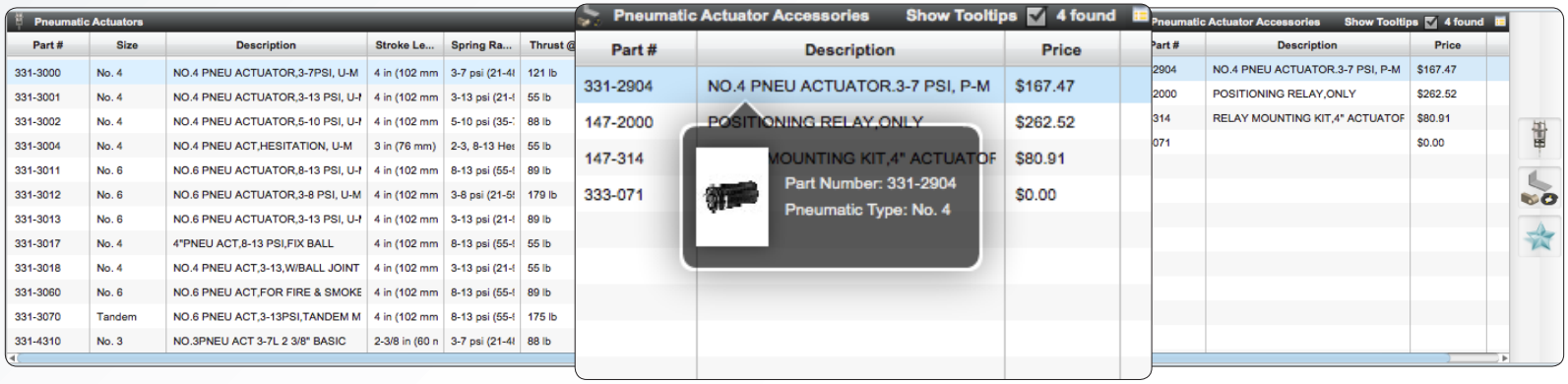
Pivot End Connection



Positioning Relay

Pnuematic Actuator Accessories

A list of additional accessories for mounting or connecting the actuator will be listed in the Pneumatic Actuator Kits grid to the right of the Pneumatic Actuators grid. You can add any of the highlighted items to the project schedule either individually or all together as a kit by dragging and dropping into the Schedule grid or by using the icon buttons along the right.

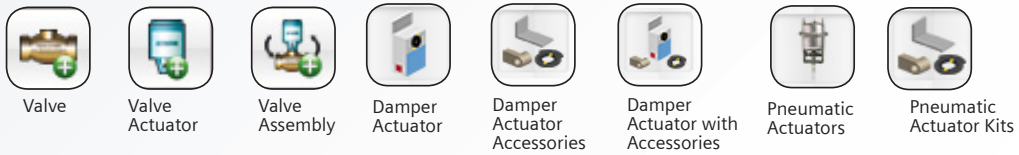


Please refer to page 36 for more information on how to customize and export a project schedule.

Adding Items to a Product Schedule

Building or adding items to a Product Schedule can be done in either of the following ways:

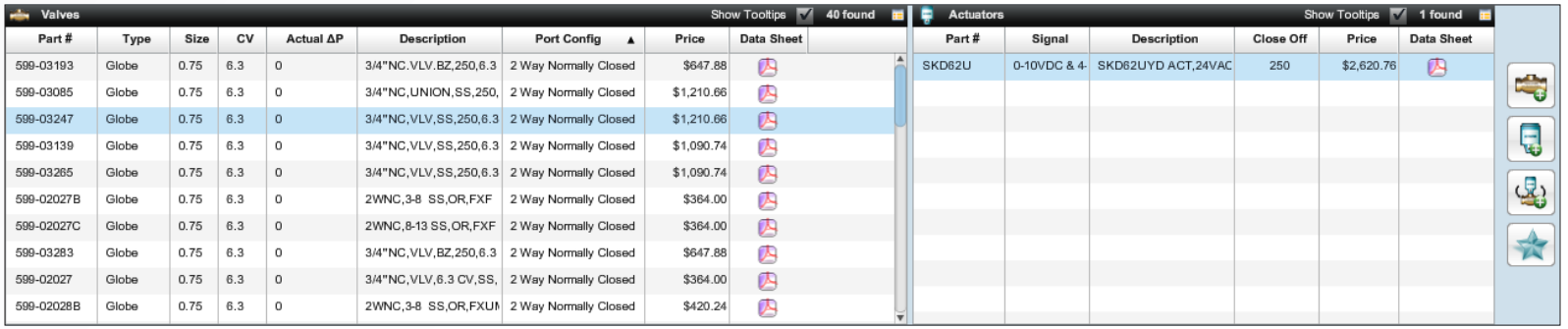
- Using the icons located along the far right of the data grid



- Dragging and dropping items, one at a time, from the Search by Part Number bar, a product data grids, or the Favorites pop-up window
- Use your mouse to select and drag one or multiple rows into a Product Schedule

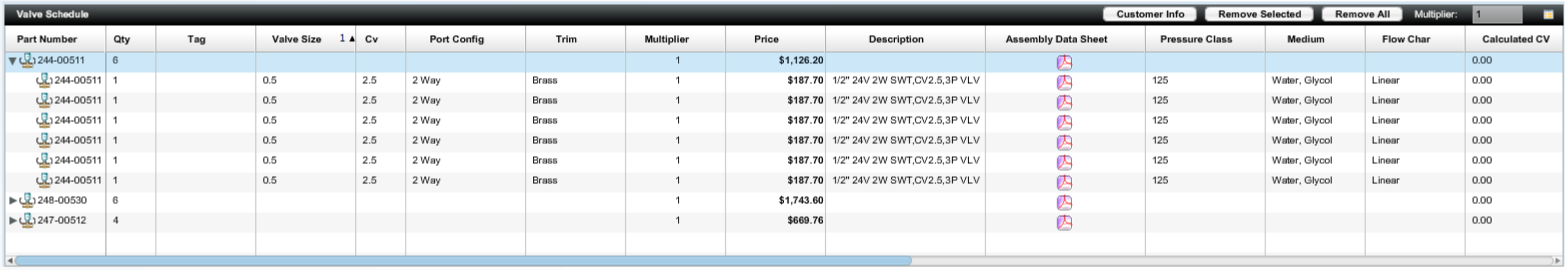
Add to Schedule Icons

When you highlight items in the product data grids, the icons on the far right grid become activated.
Clicking on these icons adds that highlighted part number to the product schedule.



Customizing a Product Schedule

Selected products (by category) populate the Product Schedule data grid. The grid can be customized so that the arrangement of columns and ascending/descending order of rows is based on the data required for the project or your preferences.



Part Number	Qty	Tag	Valve Size 1 ▲	Cv	Port Config	Trim	Multiplier	Price	Description	Assembly Data Sheet	Pressure Class	Medium	Flow Char	Calculated CV
▼ 244-00511	6						1	$1,126.20						0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
244-00511	1		0.5	2.5	2 Way	Brass	1	$187.70	1/2" 24V 2W SWT,CV2.5,3P VLV		125	Water, Glycol	Linear	0.00
▶ 248-00530	6						1	$1,743.60						0.00
▶ 247-00512	4						1	$669.76						0.00

Customer Info

Enter customer and project information in this pop-up window. This information will be included on product schedule exports.

Remove Selected

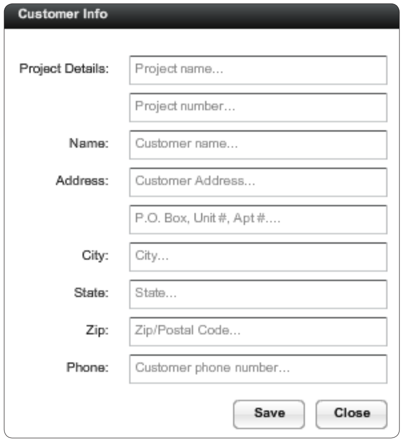
Click this button to delete highlighted items from the Product Schedule.

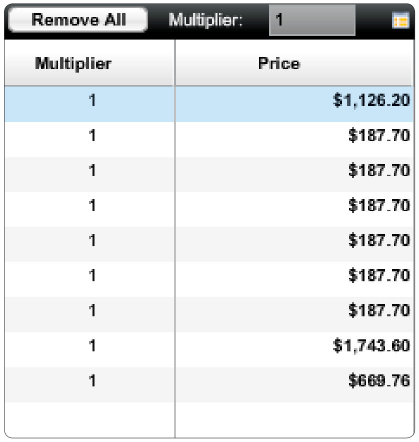
Remove All

Click this button to clear all items from the Product Schedule.

Multiplier

The multiplier field in the header bar of the Product Schedule applies your multiplier globally to all applicable data grids. The multiplier for individual items in the schedule can be modified line by line.
To do this, type the multiplier of that individual line item directly in the multiplier column for that line.





Customizing a Product Schedule

Arrange columns

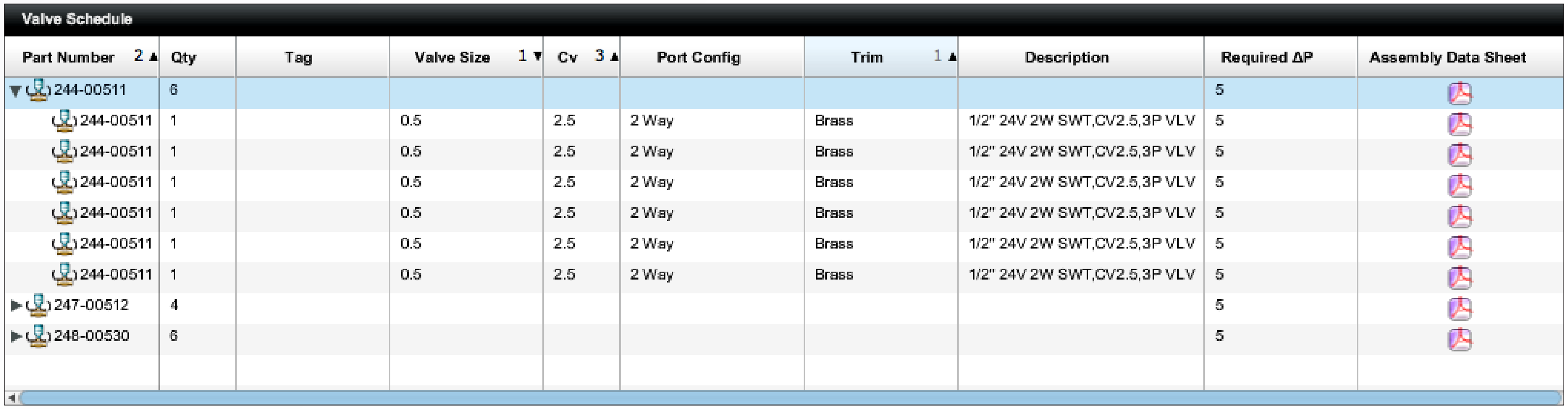
- Click on the Change Columns box in the header of the Product Schedule to select what you want to be displayed from the drop down list of available columns.
- Click on a column heading and drag it into place in the order that you prefer. Your column order preference settings will be saved and applied to new schedules that you create.
- The columns that are displayed in the Product Schedule grid will also be displayed when the file is printed, exported to Excel, or saved as a PDF.
- Go to Reset Columns, under the Edit menu along the top tool bar to restore columns to the original column order and width.

By clicking anywhere on a column header, you set it to sort by that column.

When you hover your mouse over a column header, a number and arrow that indicates its sort direction appears on the right. If you currently are sorting by that column, clicking the arrow will toggle the sort direction. When you have already sorted one column, hover your mouse over another column header and you will see “1” and an arrow displayed on the right. This indicates that you will be changing the first sort column. If you click on this column. However, If you mouse over the number it will increment. Clicking on the number will add this column as the next level sort. You can have up to nine levels of sorting.

Expand or collapse rows

Expand or collapse part number quantities greater than one by clicking on the ► or ▼ triangle in the Part Number cell. This allows you to adjust the tagging, multiplier, gpm, and notes at a line item level.



Valve Schedule

Part Number 2 ▲	Qty	Tag	Valve Size 1 ▼	Cv 3 ▲	Port Config	Trim 1 ▲	Description	Required ΔP	Assembly Data Sheet
▼ 244-00511	6							5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
244-00511	1		0.5	2.5	2 Way	Brass	1/2" 24V 2W SWT,CV2.5,3P VLV	5	
► 247-00512	4							5	
► 248-00530	6							5	

Saving & Exporting a Product Schedule

Here is your new product schedule!
You can save this file for later use with the SimpleSelect tool or export it into an excel spreadsheet, PDF, or CSV file to upload in the Siemens Online Ordering Web site.

- The Excel and PDF formats will save the information in the same order as it is organized on the screen. The way in which the columns are organized and sorted within the tool is how they will appear when they are exported, saved, or printed.

Export product schedule to Excel – used to export data from SimpleSelect™ into an Excel formatted file.

Export product schedule to PDF — when this is selected, the pdf will appear.

Create file for Siemens Online Ordering — The shopping cart icon will create and format a .csv file suitable for uploading to the Siemens Online Ordering Web site.

Save product schedule — The disc icon saves the Product Schedule in a SimpleSelect (.svs) formatted file. You can also save the schedule using the Save or Save as commands from the File drop down menu along the top tool bar.

Congratulations!

You are well on your way to enjoying the ease and simplicity of the Siemens Product Sizing and Selection Tool, SimpleSelect, for all types of projects.

We hope you find this an invaluable tool that will help you create valve schedules, share or collaborate on projects, and place orders conveniently through Siemens Online Ordering.

Size, Select, Schedule. Simplify time-consuming work with SimpleSelect™
For Ordering or Order Status, contact customer service 888-593-7876.
For Technical Support of SimpleSelect or HVAC products,
contact 800-877-7545 (prompt 2 > 1 > 2).