Phoenix Controls

Building Information Modeling (BIM) User's Guide

Printed in USA

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Section 1. Introduction

Phoenix Controls has provided the design community with a Building Information Modeling (BIM) object collection encompassing our various product lines. This document will help guide you to understand how to get the most out of our offering.

1.1 Select the Correct Valve Family

Visit Phoenix Controls website at *www.phoenixcontrols.com/resource-valve-drawings.htm* to obtain our manufacturer supplied BIM objects.

There you will find the option to download the objects specific to each of our product lines. Select the correct link to begin the download.

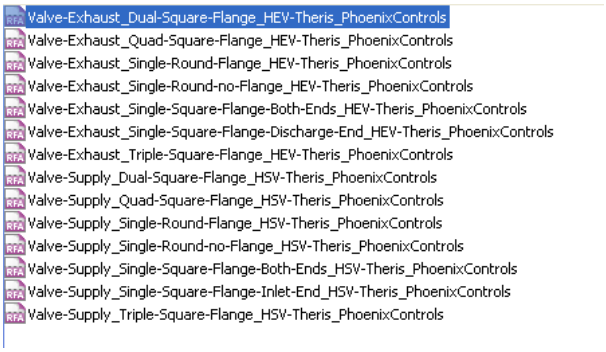
- Theris®
- Traccel®
- Celeris®
- Analog/Pneumatic/BxV
- Constant Volume
- Cage Rack Valves

IMPORTANT: Choose the correct family depending on the design specification and application. As shown in *Element Properties: Construction on page 1-3*, Phoenix Control's objects will allow you to construct a valve true to its ordering configuration. Configurations will be specific to the correct family.

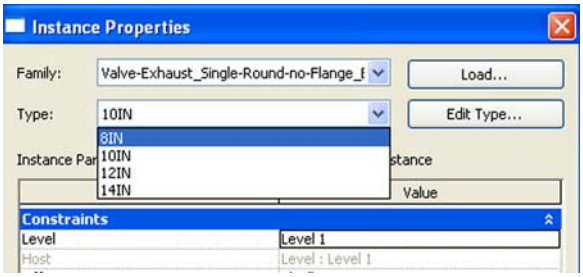
1.2 Select the Correct Family and Size

Within each zip file there are a number of families to select. The reason for the multiple families is to limit file size and to ensure proper duct connections. Below is an example of the different families available for the Theris Product Line.

NOTE: It is important to choose correctly between supply and exhaust valves for orientation and geometry reasons. Also, when choosing a single valve, there are multiple choices. Be sure to choose the correct single valve based on the flanging options needed.

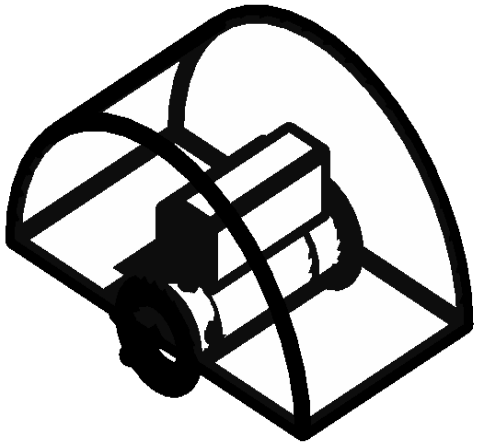


Once the correct family is selected, the correct valve size will need to be selected. This is done through the family type. The product line and number of valve bodies will determine the sizes that will be available for each object.

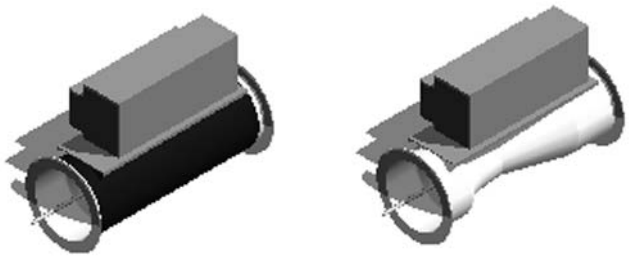


1.3 Interference Box and Insulation

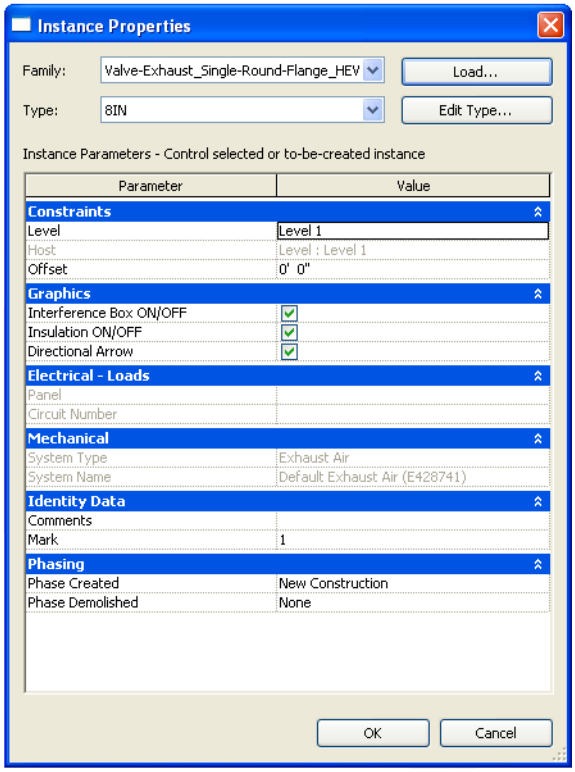
Objects will come standard with a half dome around the controller side of the valve. This is to allow for the recommended 14" clearance for maintenance purposes.



Supply valves will come standard with insulation while exhaust valves will come standard without insulation.



To add or remove the insulation and interference box parameters, uncheck the **Interference Box ON/OFF** and **Insulation ON/OFF** check boxes under the graphic section of the **Element Properties**.

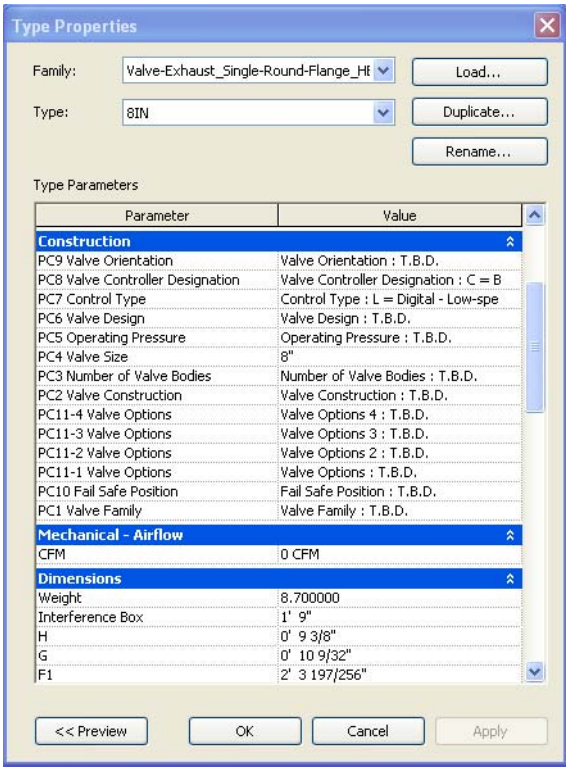


IMPORTANT: If changing from the default insulation configuration, be sure to update the element property **Valve Options** to note this change. Refer to ***Element Properties: Construction*** for more details.

1.4 Element Properties: Construction

Phoenix Controls designed the objects so that within each valve is the ability to properly configure the construction for schedule sheets and to provide the owner with a BIM model that accurately represents the types of Phoenix valves their facility has.

NOTE: The use of this information is voluntary and at the discretion of the design team.



Each Option under the **Construction** heading corresponds to an option on our Valve Ordering Guide. Each option is prefaced with a PC and a number (for example, PC1, PC2, PC3, and so on). That denotation represents the order of the element in the Phoenix Controls valve ordering configuration.

If you are unfamiliar with our Valve Ordering Guide, each object has a link under the **Identity Data** section that will take you to that family's specific ordering guide. Use this guide to help choose the correct options to specify the correct valve and reference the various notes specific to each element.

As was mentioned in *Select the Correct Valve Family* and *Select the Correct Family and Size*, it is important that the correct family (Theris, Traccel, Celeris, etc.) and supply versus exhaust is chosen as the options under each heading will be specific to that type of valve. For example, you will not be able to specify a Theris SO valve with an object from the Celeris family or with an exhaust valve object from the Theris Family.

Each element of the configuration will default to **TBD** when there is more than one option to choose from. If you are not sure which option is the correct to choose, use **TBD** to help eliminate confusion.

In the screen shown on page 4, you will see PC11-1 through PC11-*x* on the screen above. The number of valve options (-*x*) vary based on the object selected. Since it is possible to choose multiple valve options, each of these represent a possible option to select. You can select all or none depending on the valve mentioned in *Interference Box and Insulation on page 1-2*. This is where you select the option for insulation. The valve defaults to a PC11-*x* option that may require a **SFB** (square flange bothe ends) or **SFX** (**square flange one end**) selection.

Once a valve has been properly specified, it can be copied to reduce the effort to specify each valve within the project.

CONSTANT VOLUME NOTE: If you want a true constant volume representation, within the family you need to select option **C = Constant Volume** under the Construction choice **PC7 Control Type**. This will remove the controller and replace the actuator box on the valve with a smaller one that better represents a constant volume valve.

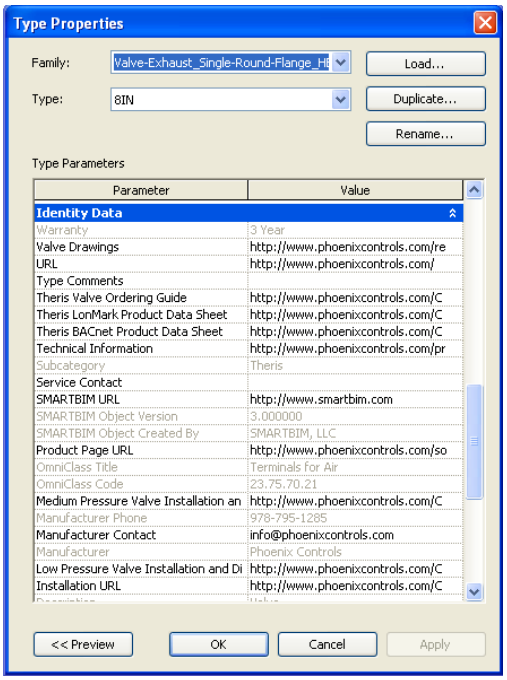
1.5 Element Properties: Mechanical Airflow

The CFM is the only field that needs to be filled in. The default is set to **0**. Enter in the Venturi Valves occupied design CFM.

1.6 Element Properties: Identity Data

Phoenix Controls has provided the following links to offer pertinent and accurate information specific to each family type.

Within this section, there is a free text field to enter in the appropriate Phoenix Controls Service Contact for future maintenance issues.

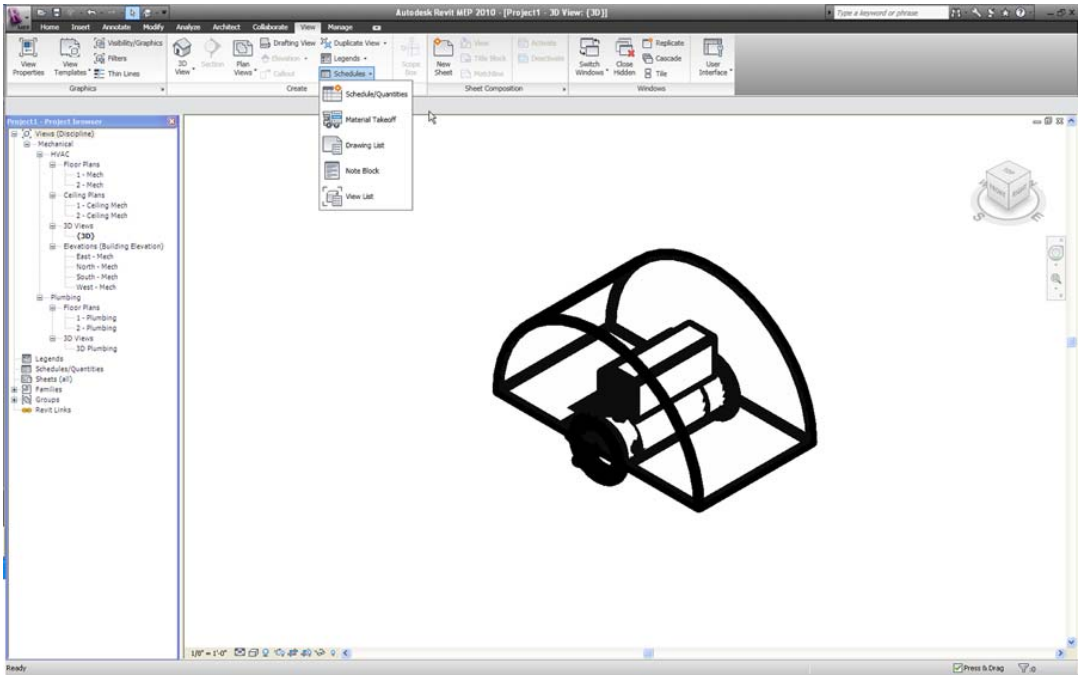


1.7 Phoenix Controls Schedules

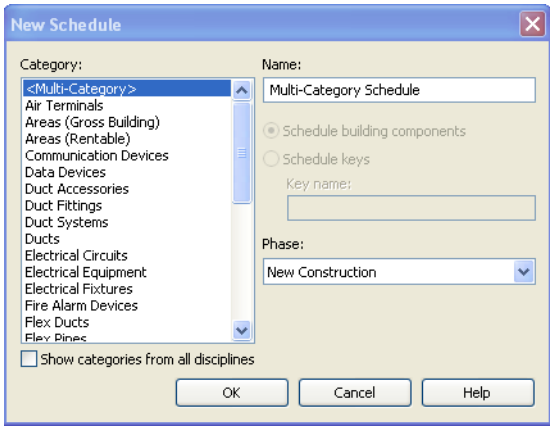
Once all the Phoenix Controls valves have been specified in your project a schedule can be run to list each valve with its element properties.

NOTE: If all the correct information was filled in as stated in *Element Properties: Construction on page 1-3*, this will allow for the design team to create an ordering schedule specific to Phoenix Controls. Use the following steps.

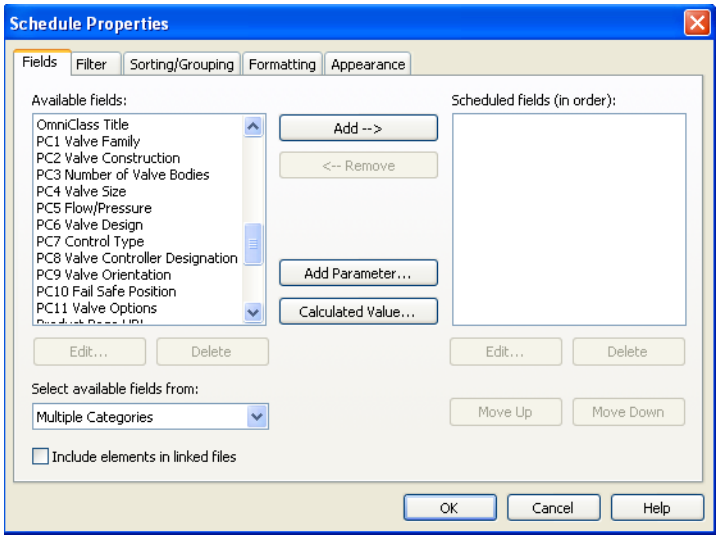
1. Under the **View** heading select **Schedule/Quantities**.



2. A dialog will appear. Select **<Multi-Category>** and choose **OK**.



3. Scroll down until you find the **PC1 Valve Family** field. Choose all **PCx** prefaced elements in their correct numerical order and add them to the schedule. Click **OK**.



4. This will generate a Phoenix Controls Schedule. To manipulate this further into a working Phoenix Controls part number, you will need to export the file.

NOTE: The way REVIT is designed, objects will be included on the report based on the order in which they were applied to the project. As can be seen in the following image, there is a gap in the middle of the schedule. If you do not see any objects on your main screen when running the report, scroll down and you will eventually come across your Phoenix Controls objects.

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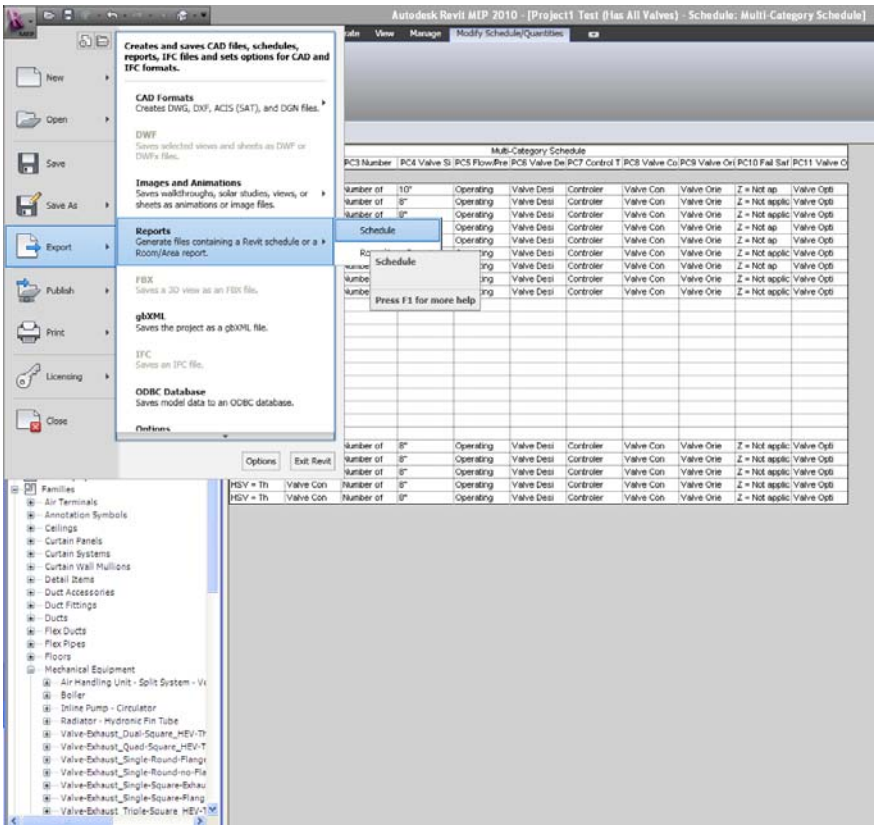
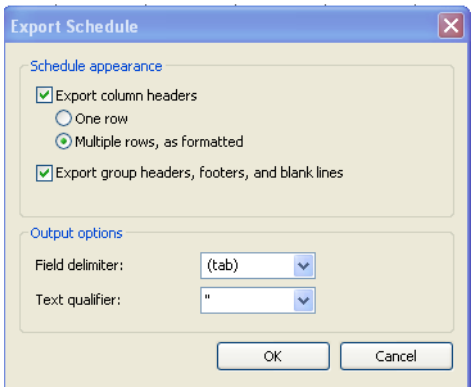
5. Under the **Revit** button choose **Export** then select **Report** and then select **Schedule**.

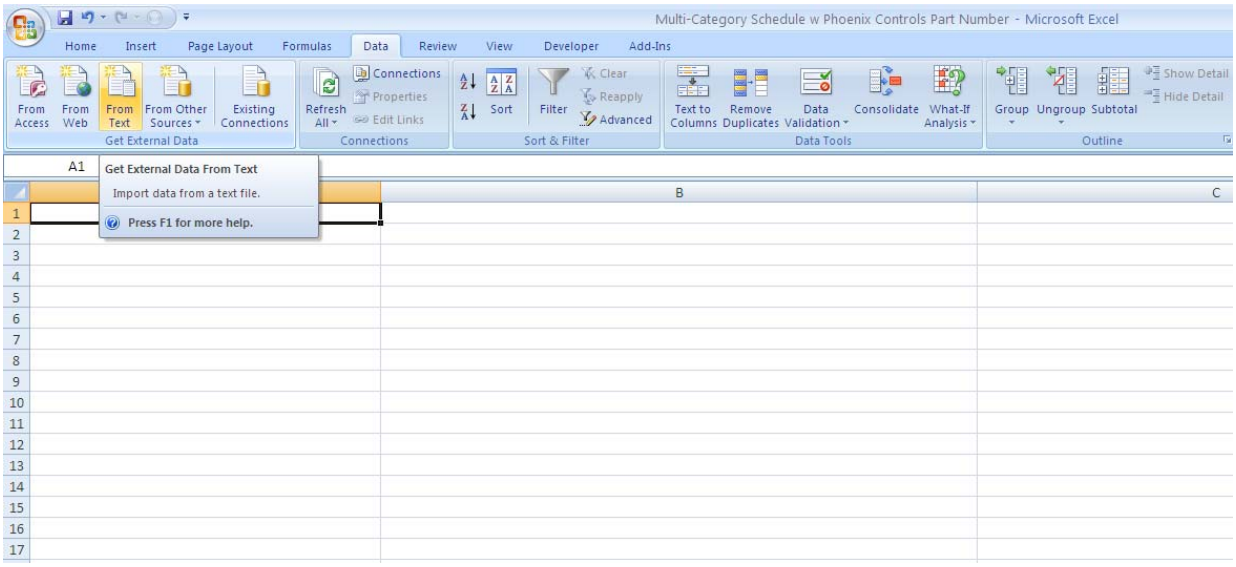


6. Save the file somewhere on your hard drive as a delimited text file.
7. Accept the default save options.



8. Open the Excel file provided by Phoenix Controls titled **Multi-Category Schedule w Phoenix Controls Part Number**. This file can be found at *www.phoenixcontrols.com/resource-valve-drawings.htm.*
9. In the excel file, delete out all information that exists on the **Schedule Import** worksheet.

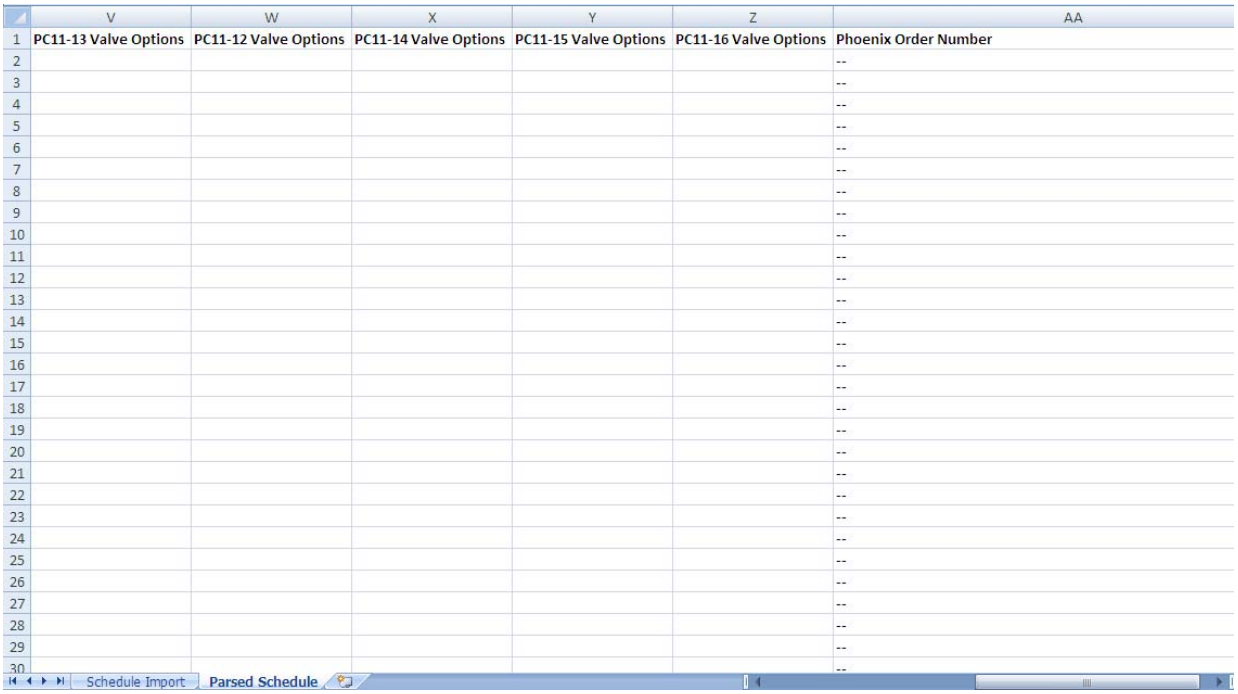
10. Under the **Data** tab in Excel, choose **From Text** under the **Get External Data** tab.



11. Find the file you just saved and select **Import**.
12. At the next screen select **Finish**.
13. You will be asked **Where you want to put the data?** Make sure the field is filled with **=A1** and choose **OK**.

14. Move to the **Parsed Schedule** worksheet. Scroll over to column **AA** and the completed Phoenix Controls part number will be assigned.

    As noted in step 4, there may be gaps within your schedule. To remove these gaps, use the filter tool within Excel and uncheck "**blanks**".



	V	W	X	Y	Z	AA
1	PC11-13 Valve Options	PC11-12 Valve Options	PC11-14 Valve Options	PC11-15 Valve Options	PC11-16 Valve Options	Phoenix Order Number
2						--
3						--
4						--
5						--
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Schedule Import | Parsed Schedule

IMPORTANT: This information will only be valuable if the information was filled in properly under the construction section of the element data for each valve within the project. Refer to *Element Properties: Construction on page 1-3.*

Phoenix Controls

For additional information and a listing of our global offices, please visit our Web site at www.phoenixcontrols.com or call (800) 340-0007.

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