

# POWERS™



## *Users Guide*

*Featuring HydroGuard XP Master Tempering & Hi/Lo Valves*



Revision: 1  
June 9, 2008

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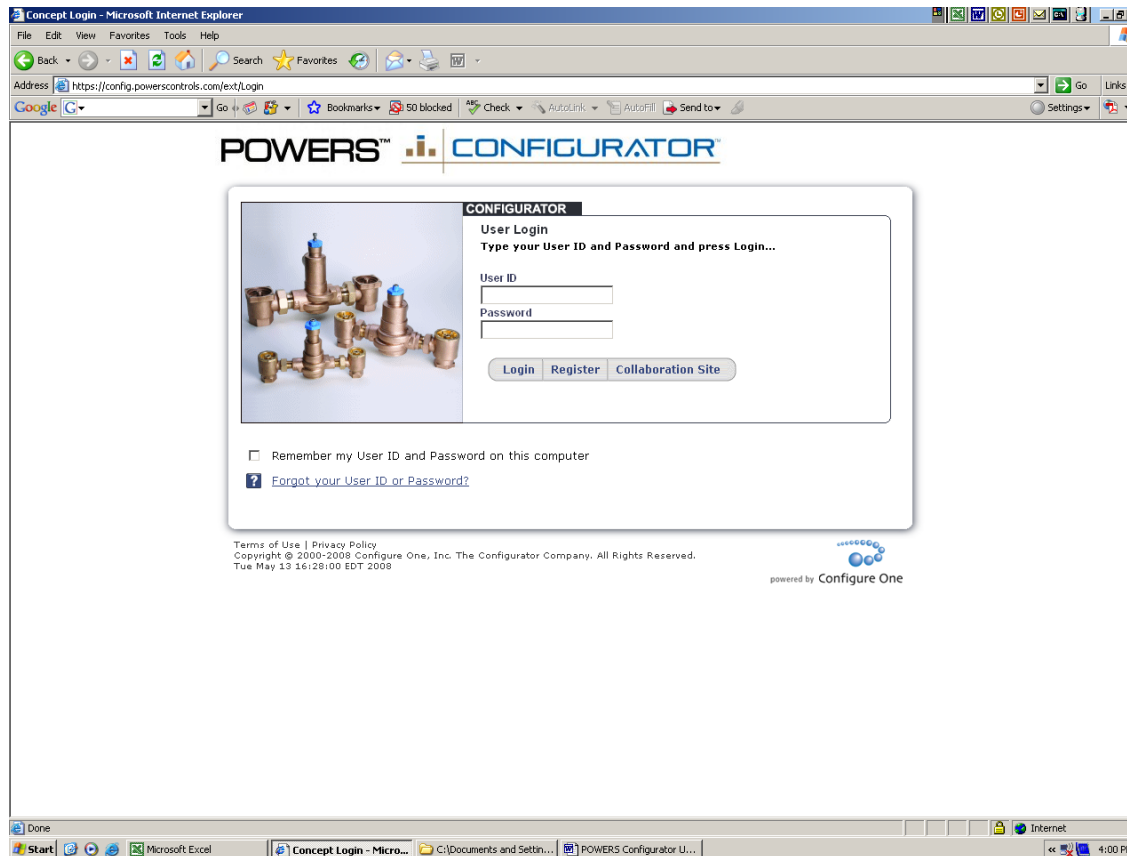
## A. Overview

Powers implementation of the configuration application is designed to support the sales force in creating professional and accurate submittal drawings, model numbers, downloadable files, and budget pricing in a fast and efficient manner.

This guide walks a user through the POWERS configuration process while describing the functionality that exists at specific user screens.

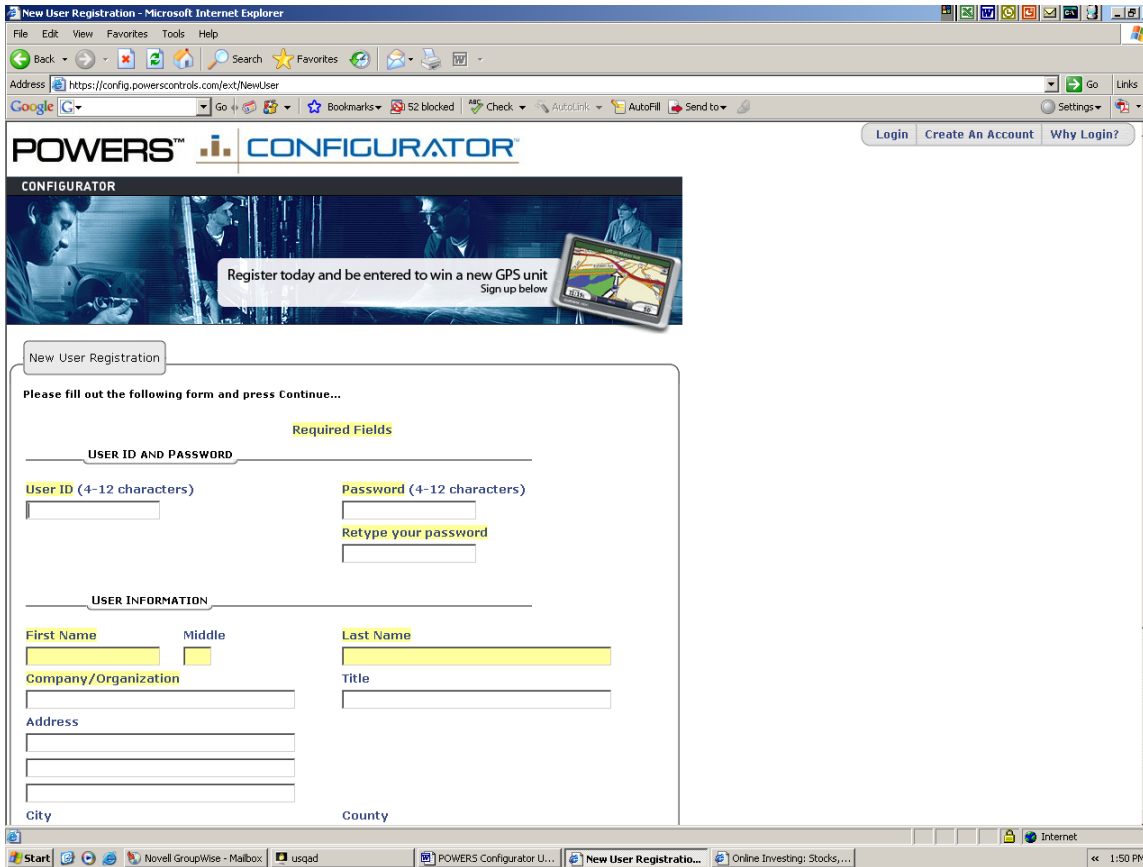
The Configurator features POWERS new HydroGuard XP master tempering valves. The latest in a series of valve innovations from the company that has been leading the way for over 100 years.

## B. Login Screen



- Using a web browser, you can access the Configurator at the following web address:  
<https://config.powerscontrols.com>
- A User ID and Password are required to access the Configurator.
- Use the checkbox to have the Configurator always remember the User ID and Password.
- If you don't remember your User ID and Password, use the link at the bottom to have the Configurator send an email with the information.

## C. Registration



**New User Registration**

Please fill out the following form and press Continue...

**Required Fields**

**USER ID AND PASSWORD**

User ID (4-12 characters) Password (4-12 characters)

Retype your password

**USER INFORMATION**

First Name Middle Last Name

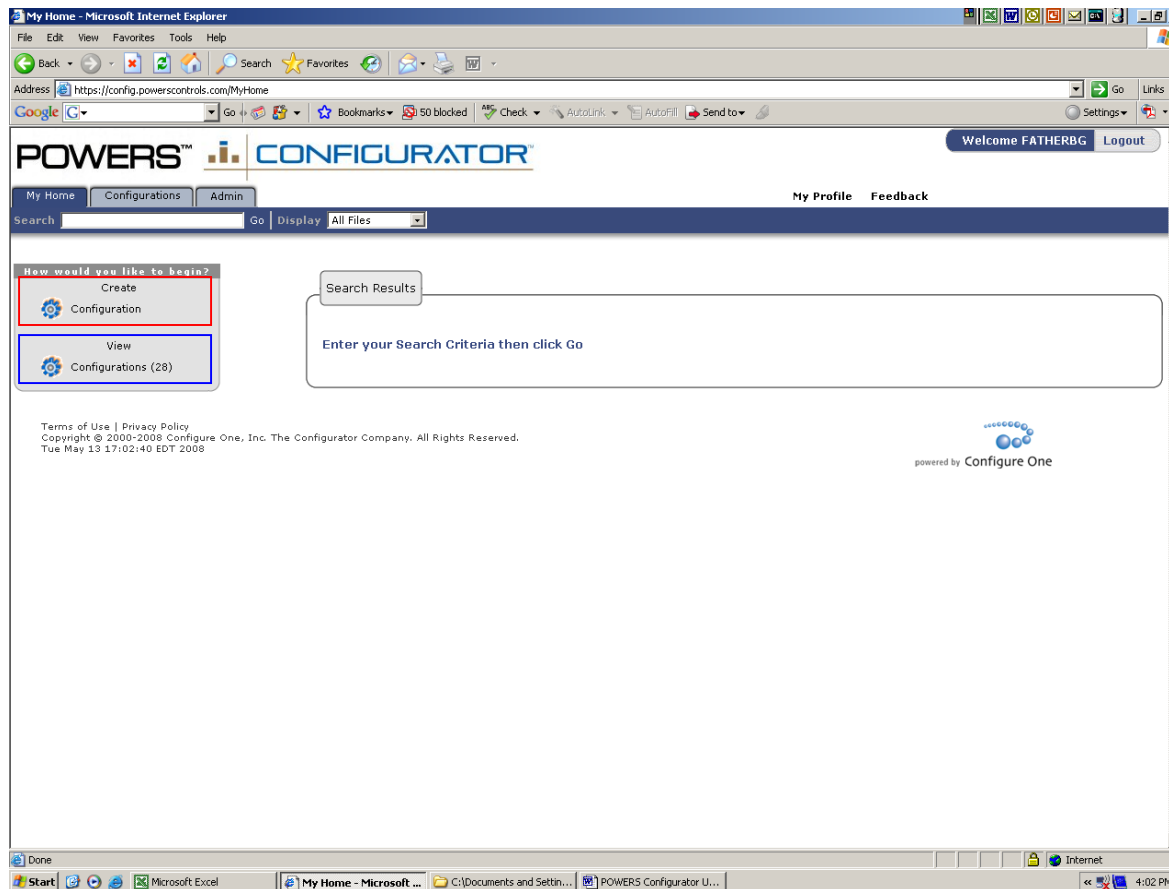
Company/Organization Title

Address

City County

- The first step to using the Configurator is registering. By registering, you get full use of the Configurator and the PowerSpec sizing program. You can also store, retrieve, edit and send your configurations to others.
- Once registered, simply enter your user ID and password and hit the login button to create new configurations or retrieve existing ones.

## D. My Home Screen



- **Search** – Using the search field in the top border, you can type in part of the name, project, or serial number for a configuration or quote. Next to the search field, narrow down the search to certain files and select “Go”. The results will appear in the “Search Results” section at the bottom of the screen.
- **System Messages** – These are information messages sent by the administrators to the users.
- **Create Configuration** – You can start a new configuration or quote from this screen.
- **View Configurations** – You can access the configurations or quotes screens from the tabs or the links on the left side.

## E. Configurations Screen

Configurations - Microsoft Internet Explorer

Address: https://config.powerscontrols.com/Designs

Welcome FATHERBG Logout

My Home Configurations Admin My Profile Feedback

Search: Name, Number, Project or Product Go Display: 10 per page Create Configuration My Projects Column Options Filter Off

Page 1 1-10 of 28 records sorted by Configuration Name ascending

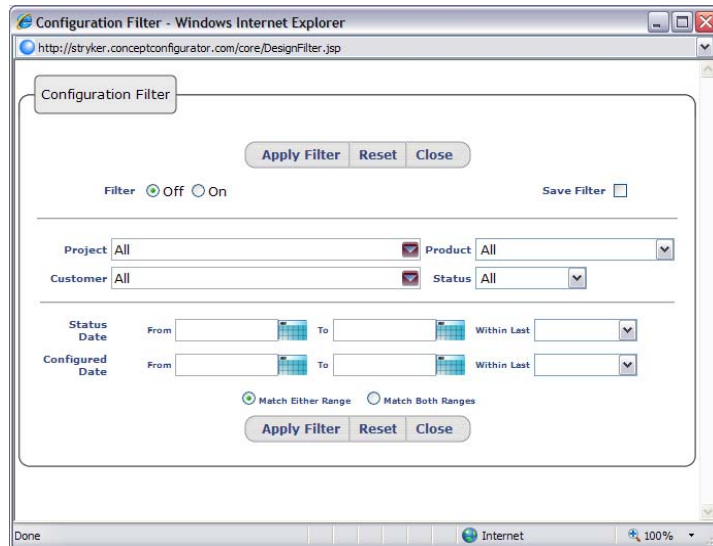
Configured Price	Configuration Name	Product	Project	Serial Number	Status	Status Date & Time	Configuration Options	Owner
\$ 3,219.20	321	Multi-Valve Hi/Lo	None	P-C-444	Configured	4/7/2008 10:16:44 AM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 2,669.50	April 17	SH1430 Single Hi/Lo	None	P-C-478	Configured	4/17/2008 4:00:17 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 1,056.50	April 22	MM430 Master Tempering	None	P-C-496	Configured	4/22/2008 11:13:35 AM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 4,211.70	April 22 1	Multi-Valve Hi/Lo	None	P-C-498	Configured	4/22/2008 2:13:12 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
TBD	April 22 3	PowerStation	None	P-C-500	Configured	4/22/2008 3:23:27 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 4,459.80	April 23	Multi-Valve Hi/Lo	None	P-C-508	Configured	4/23/2008 2:51:08 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 4,211.70	April 23 1	Multi-Valve Hi/Lo	None	P-C-509	Configured	4/23/2008 2:59:22 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 3,971.10	April 23 2	SH1430 Single Hi/Lo	None	P-C-510	Configured	4/23/2008 3:08:02 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 1,527.20	April 24 4	MM430 Master Tempering	None	P-C-519	Configured	4/25/2008 3:40:08 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.
\$ 2,579.70	April 24 5	SH1430 Single Hi/Lo	None	P-C-521	Configured	4/25/2008 4:03:21 PM EDT	edit results copy delete history	Fathers, Bruce G - Watts Water Technologies, Inc.

Page 1 1-10 of 28 records sorted by Configuration Name ascending

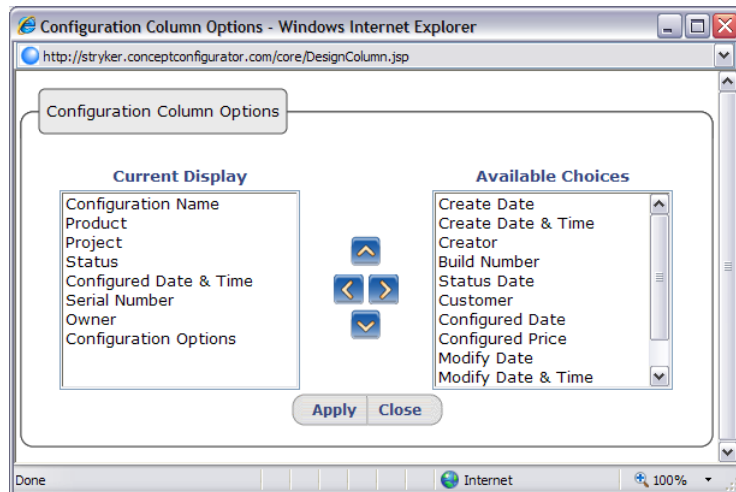
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Copyright © 2000-2008 Configure One, Inc. The Configurator Company. All Rights Reserved.  
Tue May 13 17:14:26 EDT 2008

- **Search** – Using the search field in the top border, you can type in part of the name, project, product or serial number for a configuration.
- **Display** – Controls the number of configurations seen on each page.
- **Create Configuration** – Allows a user to create a new configuration.
- **My Projects** – Allows a user to define projects that are used for assignment to configurations and quotes.
- **Column Options** – See next page.
- **Filter** – See next page.
- **Sort** – Each column can be used as the sort criteria by clicking on the red arrow. Clicking on the arrow again will reverse the sort.
- **Configuration Options** – See page after next.





- **Filter** – By using the filter, a user can quickly find their desired configurations. Modify any of the filter options in the pop-up box shown to the left, make sure the filter says “on”, and select “apply filter”. This will filter the configuration list to only show the configurations that match these criteria. By selecting the “save filter” checkbox, these settings will be saved and used each time the user logs into the application.



- **Column Options** – The column options allows each user to customize the view of their configurations at the configurations page by selecting the specific information they want to see. The column options setting can be saved by using the “Save Filter” checkbox on the Filter pop-up screen, described above. By selecting the available fields, the user can use arrows to move fields to their view and organize them in the desired positions.

The following configuration options are accessible at the main Configurations screen:



**Edit** – Edits the configuration and allows the user to make changes to any of the previously selected options.



**Results** – Views the configured results for a specific configuration.



**Copy** – Creates a copy of the configuration. This can also be used to move a configuration to a different user. After selecting the Copy button, the user has the option of copying or moving. If it is a copy, then the user can select to have the results automatically generated. A copy or move of a configuration does not copy or move quotes that are referencing the configuration.



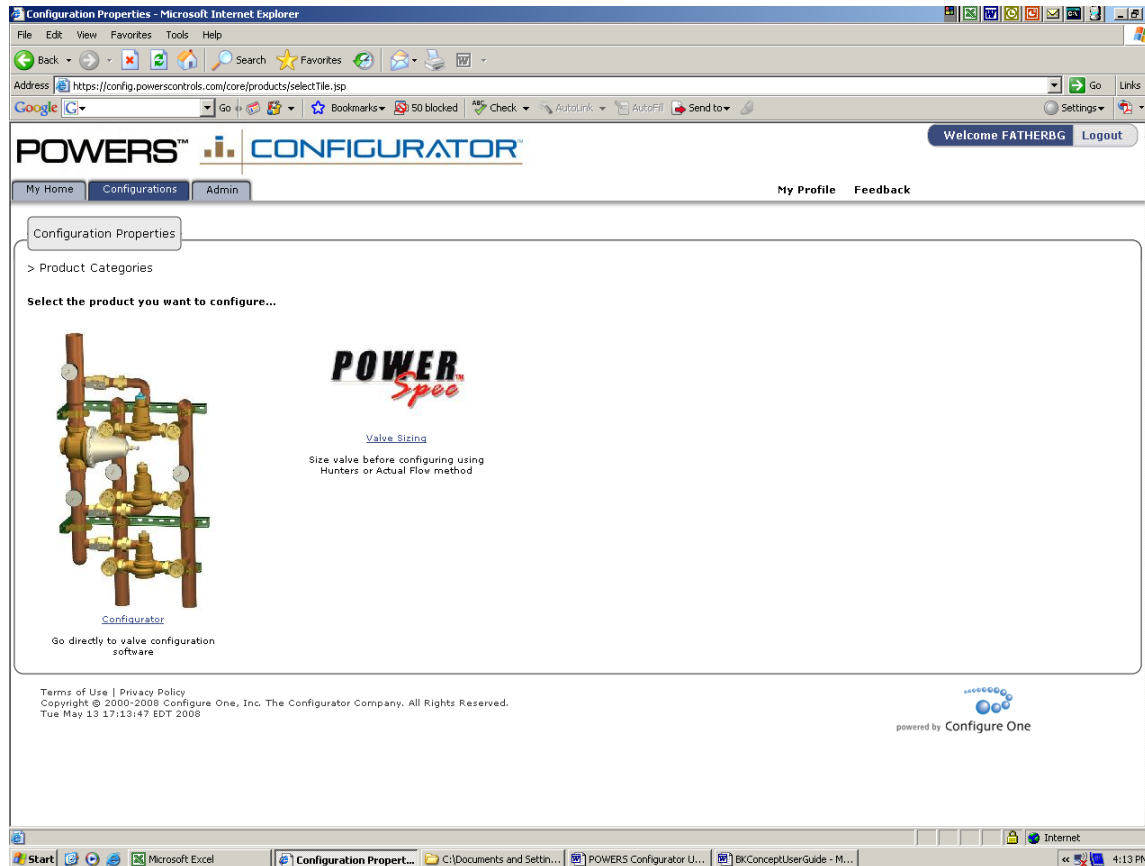
**Delete** – Deletes the configuration from the user's view. If a quote is referencing the configuration, Concept will warn the user and ask the user to confirm the delete. The quote will still exist, but the results will be invalid and will need to be edited and built again.



**History** – Provides a report of all of the changes made to the configuration.

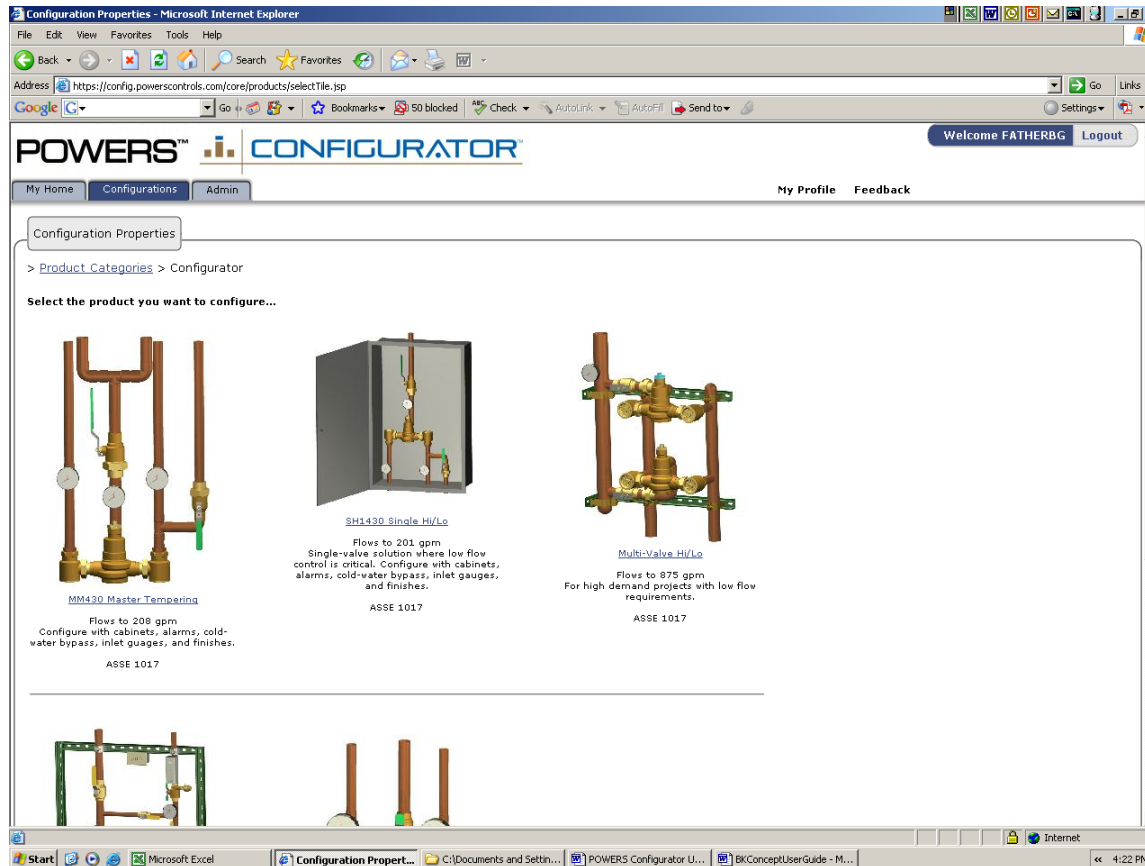
## F. Create Configuration

### *Step 1: Select by Product or Valve Size First*



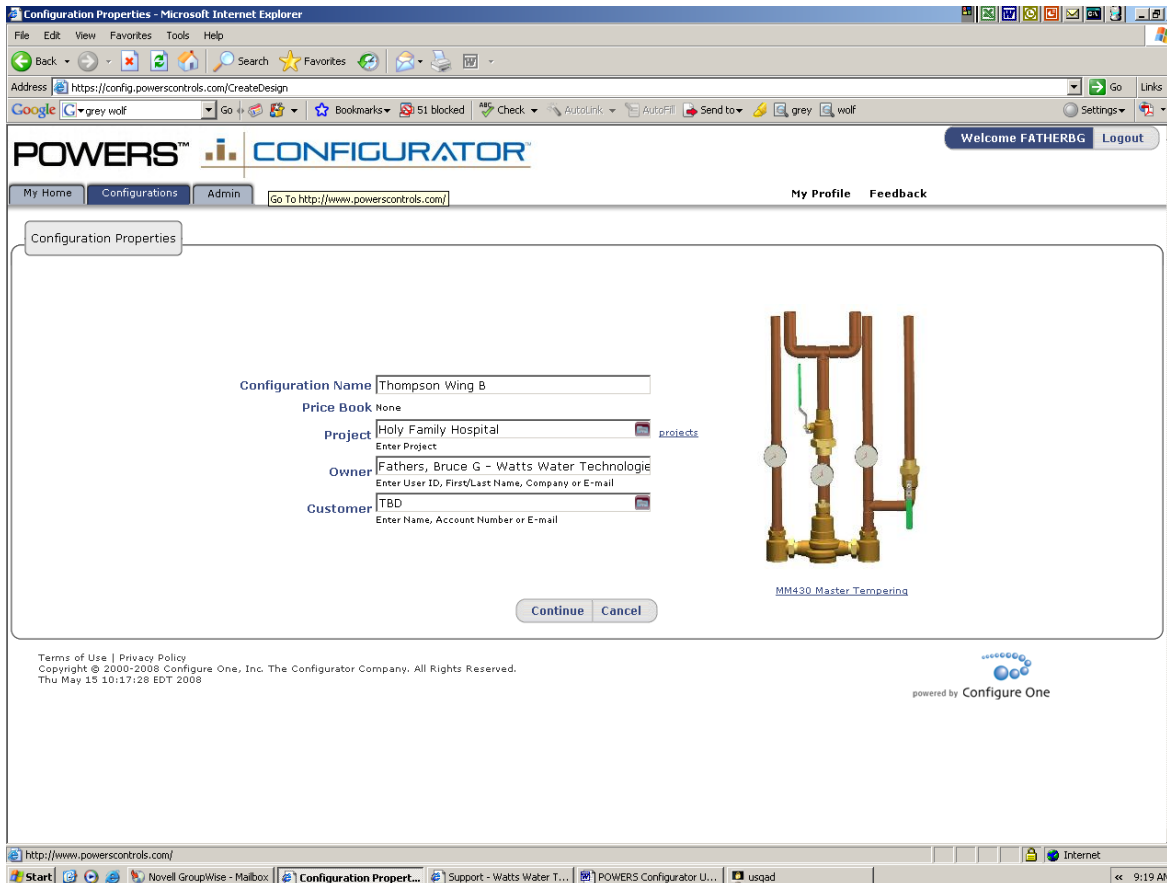
- **Select Product by Type** – If user is familiar with the Powers product line and knows the model or valve size required, you can begin by directly accessing the Configurator. Click on the multi-valve Hi/Lo to begin.
- **Select POWERSPEC Valve Sizing** – If you're unsure of the product you require, select valve sizing to determine the proper valve or system to meet your design requirements. Uses the Hunters and Actual Flow Methods. Once a valve is selected, it will take you directly into the Configurator.

## Step 2: Select Product Sub-Category



- **Select Product Sub-Category** – This allows the user to select a specific product type based on application or demand requirements based on capacity and low flow control. Categories include **MM430** master tempering valves, **SH1430** single-valve hi-los, **MM/SH** multi-valve hi-los, **PowerStation** valve and recirculation stations and **ETV** emergency tempering (to be added later).

## Step 3: Enter Configuration Name and Project



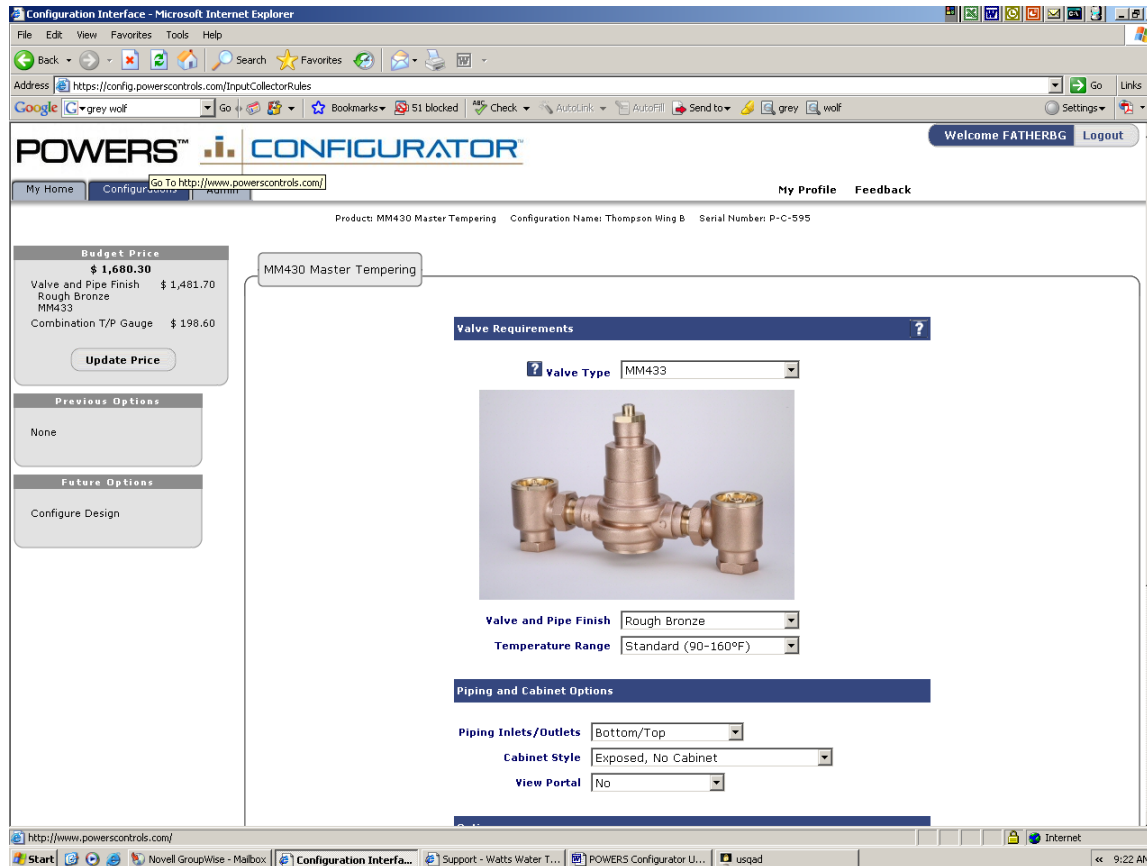
The screenshot shows the 'Configuration Properties' form in the POWERS CONFIGURATOR web application. The form is titled 'Configuration Properties' and is located within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL 'https://config.powerscontrols.com/CreateDesign'. The form includes the following fields:

- Configuration Name:** Thompson Wing B
- Price Book:** None
- Project:** Holy Family Hospital (with a 'projects' link next to it)
- Owner:** Fathers, Bruce G - Watts Water Technologie (with a subtext 'Enter User ID, First/Last Name, Company or E-mail')
- Customer:** TBD (with a subtext 'Enter Name, Account Number or E-mail')

Below the form fields are 'Continue' and 'Cancel' buttons. To the right of the form is a hydraulic diagram labeled 'MM430 Master Tempering'. The diagram shows a complex piping system with valves and gauges. At the bottom of the page, there is a footer with the text 'powered by Configure One'.

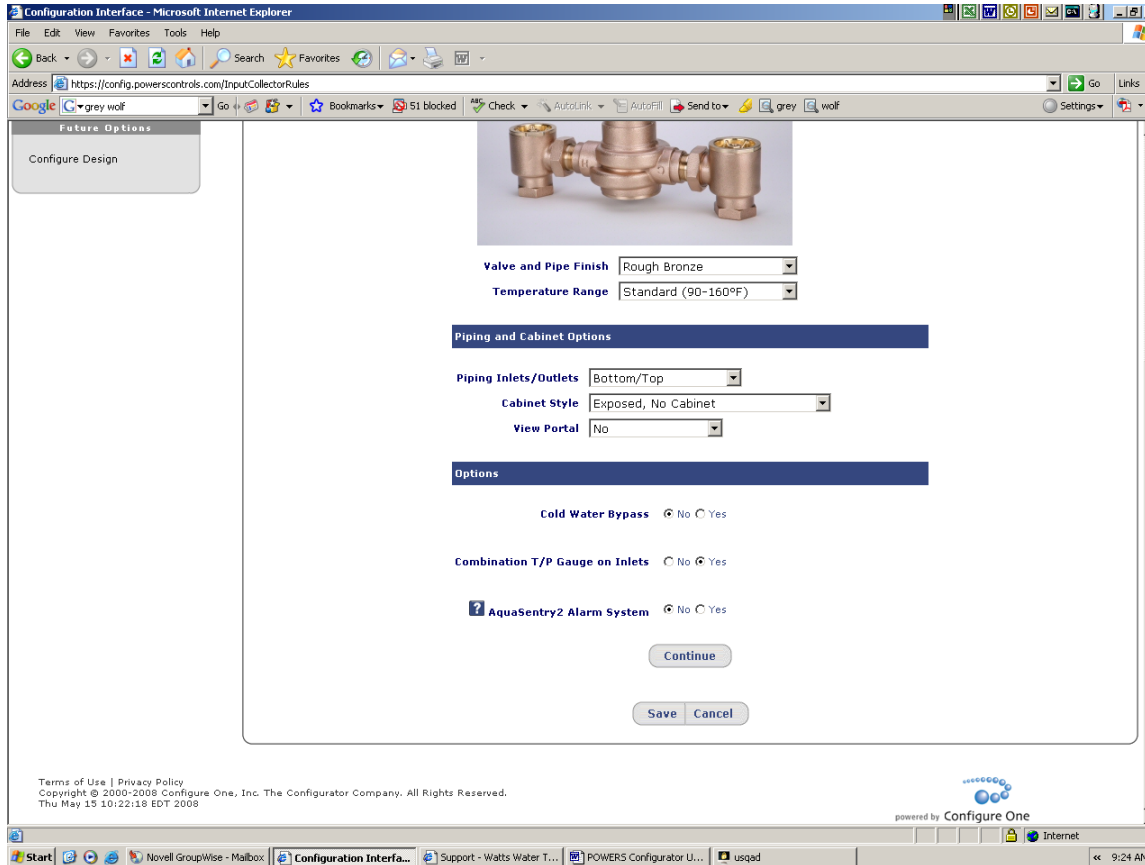
- **Configuration Name** – This is a required field that will give a user specified name to the configuration.
- **Serial Number** – For every configuration, an automatic serial number is assigned (not shown here). The serial number cannot be changed and is the preferred method of identifying a configuration.
- **Project** – Every user has the option of assigning a configuration to a project. Project categories can be defined by each user and are a useful way of categorizing configurations. The same project can be assigned to multiple configurations and allow a user to quickly find the desired configuration. New projects can be created using the link next to the projects field.

## Step 4: Select Product Options



- **Previous/Future Options** – View options on previous pages and upcoming pages. The links can also be used to jump directly to a specific option.
- **Options** – The center of the screen presents the user with the product options in the form of drop down menus and radio buttons.
- **Budget Pricing** – The upper left hand corner displays budget or list pricing for the configuration selected. This can be updated if selections change.


## Step 4: Select Product Options – cont'd



Configuration Interface - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://config.powerscontrols.com/InputCollectorRules>


Google  grey wolf

Back Forward Stop Home Search Favorites Go Links

Bookmarks 51 blocked Check AutoLink AutoFill Send to grey wolf Settings

**Future Options**

Configure Design



Valve and Pipe Finish

Temperature Range

**Piping and Cabinet Options**

Piping Inlets/Outlets


Cabinet Style

View Portal


**Options**

Cold Water Bypass ☒ No ☐ Yes






Combination T/P Gauge on Inlets ☐ No ☒ Yes

 AquaSentry2 Alarm System ☒ No ☐ Yes

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Thu May 15 10:22:18 EDT 2008

powered by  Configure One

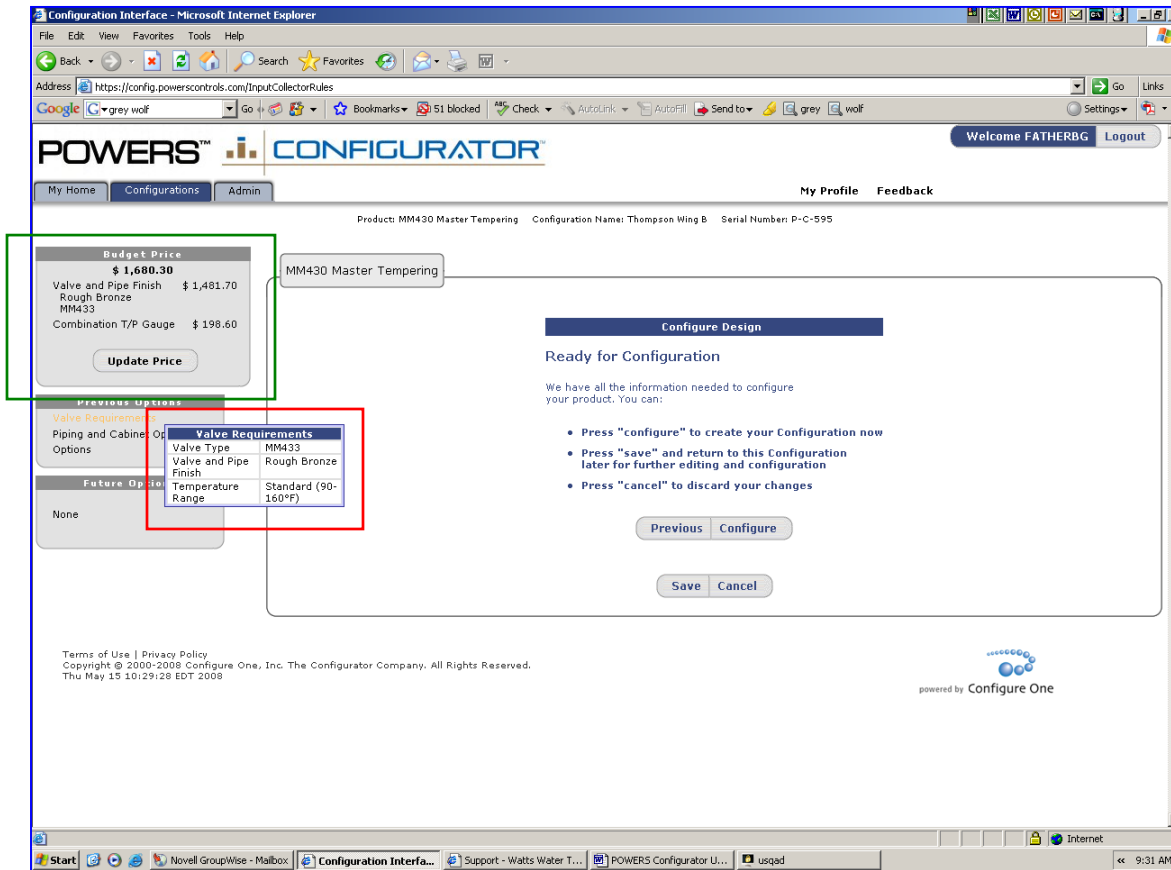
Internet

Start  Novell GroupWise - Mailbox  Configuration Interfa...  Support - Watts Water T...  POWERS Configurator U...  usqad

<< 9:24 AM

- **Options** – The center of the screen presents the user with the product options.
- **Continue** – This button at the bottom of the page brings the user to the next page.
- **Save** – Saves all of the option selections made for the configuration.
- **Cancel** – Cancels the configuration without saving any of the option selections.

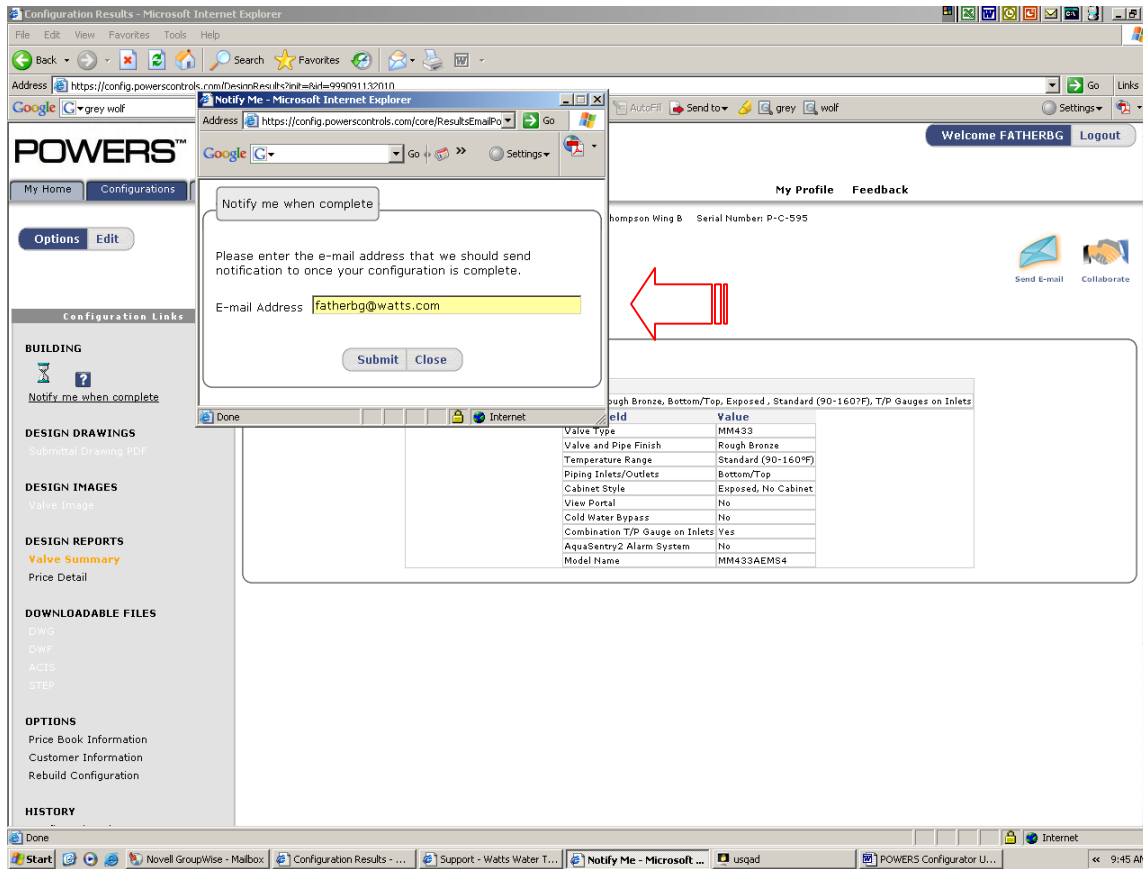
## Step 5: Ready for Configuration



- **Final Review Prior to Configuring** – Allows user on last review of selections prior to Configuration.
- **Budget Pricing** – Displays the budget or list price of the configuration selected.
- **Previous Options Box** – By dragging mouse over Configuration categories to the left, will display selected options for final review. To change, click *Previous* button to go back.
- **Save** – Saves all of the option selections made for the configuration.
- **Cancel** – Cancels the configuration without saving any of the option selections.
- **Configure** – If correct, click *Configure* button to start building



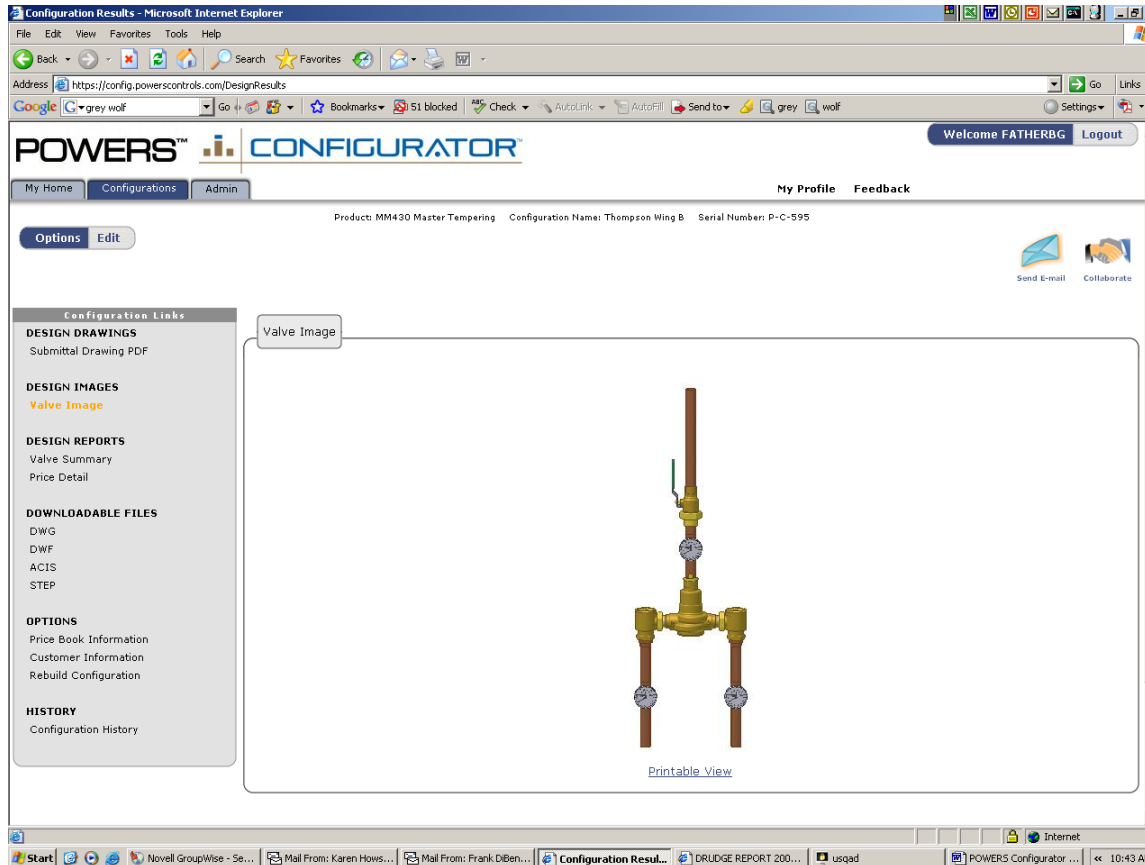
## Step 6: Building the Configuration



Once the *Configure* button is clicked, the Configurator will begin building the selected design. This can take 3 – 5 minutes for a new design.

- **Notify Me When Complete** – By clicking on this link under *Building* and selecting the *Submit* button, the user can initiate an email that will provide notification when the configuration is complete.
- Once a configuration is initiated, it will be completed, even if the user elects to log out of the program or start another configuration(s).
- **Note:** Once a configuration is complete, it is stored in a database and will be retrieved immediately if selected for a new project.

## G. Review Configuration Results



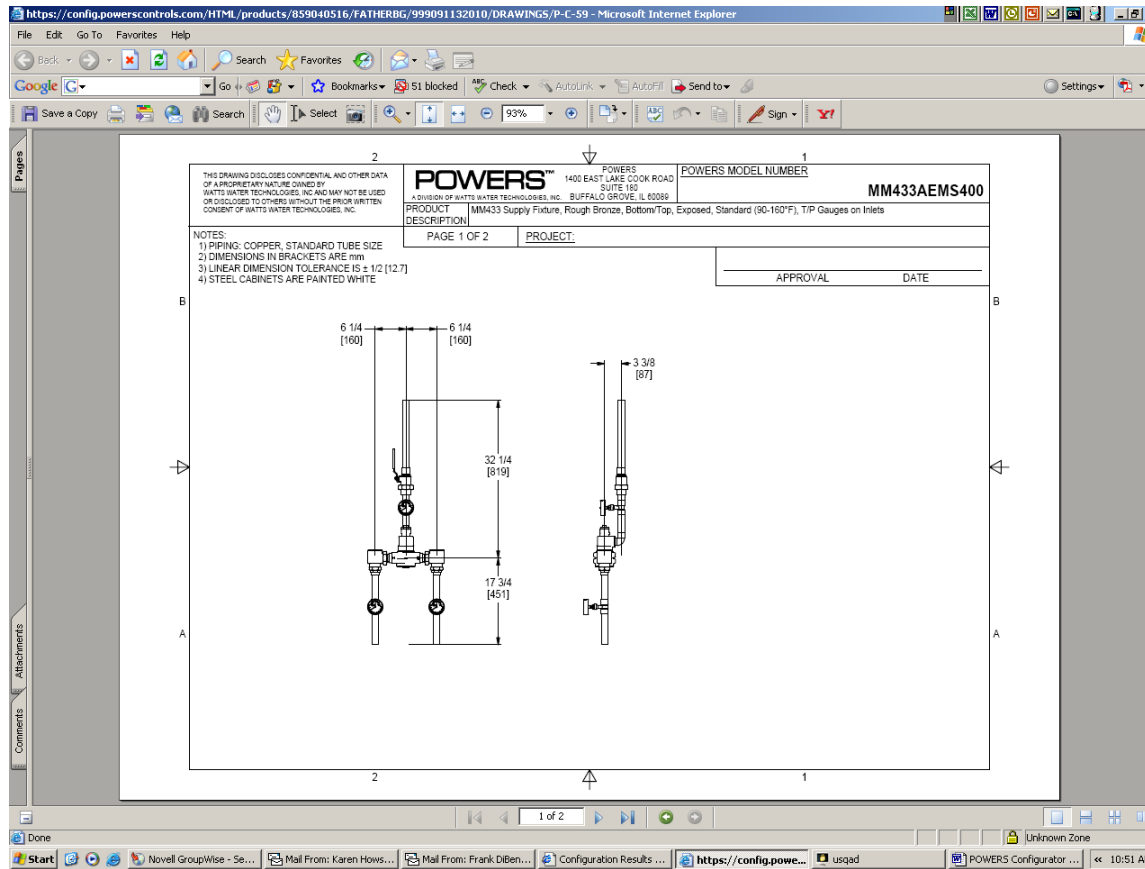
**Configuration Links** – Use the links on the left side of the screen to access the configuration reports and files.

**Send Email** – Send an email with configuration results as attachments, directly from software.

**Collaborate** – Set up a collaboration website and share it with other people.

**Edit** – Edits the configuration and allows the user to make changes to any of the previously selected options.

## Submittal Drawing



**Submittal Drawing PDF** – a 2-page PDF that provides dimensioned drawing with model number, description, 4-color rendering and flow chart (page 2).

## Submittal Drawing

https://config.powerscontrols.com/HTML/products/859040516/FATHERBG/999091132010/DRAWINGS/P-C-59 - Microsoft Internet Explorer

File Edit Go To Favorites Help

Back Forward Stop Home Search Favorites

Go Google

Bookmarks 51 blocked Check AutoLink AutoFill Send to Settings

Save a Copy Search Select 93% Sign

Pages

Comments Attachments

THIS DRAWING DISCLOSES CONFIDENTIAL AND OTHER DATA OF A PROPRIETARY NATURE OWNED BY WATTS WATER TECHNOLOGIES, INC. AND MAY NOT BE USED OR DISCLOSED TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF WATTS WATER TECHNOLOGIES, INC.

**POWERS™** 1400 EAST LAKE COOK ROAD SUITE 100 BUFFALO GROVE, IL 60089

POWERS MODEL NUMBER **MM433AEMS400**

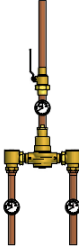
PRODUCT DESCRIPTION: MM433 Supply Fixture, Rough Bronze, Bottom/Top, Exposed, Standard (90-160°F), T/P Gauges on Inlets

PAGE 2 OF 2 PROJECT:

APPROVAL DATE

NOTES:  
1) PIPING: COPPER, STANDARD TUBE SIZE  
2) DIMENSIONS IN BRACKETS ARE mm  
3) LINEAR DIMENSION TOLERANCE IS ± 1/2 (12.7)  
4) STEEL CABINETS ARE PAINTED WHITE

A B



A B

Min Flow Rate *	Min Flow to ASSE 1017	CV	Pressure Drop Across Valve				
			5 psi	10 psi	20 psi	30 psi	45 psi
			34 kPa	69 kPa	138 kPa	207 kPa	310 kPa
0.5 gpm	5 gpm	16.44	37 gpm	52 gpm	74 gpm	90 gpm	110 gpm
1.89 lpm	19 lpm		140 lpm	197 lpm	280 lpm	341 lpm	416 lpm

NOTE:  
IF CONFIGURED WITH A CABINET, THE CABINET DOOR IS NOT SHOWN

\* Minimum flow when Hydroguard is installed at or near hot water source with recirculated water with continuously operating recirculating pump

2 of 2

Done

Start Novell GroupWise - Se... Mail From: Karen Hows... Mail From: Frank DiBen... Configuration Results ... https://config.powe... usqad POWERS Configurator ... 10:57 AM

Submittal Drawing PDF – 2<sup>nd</sup> page provides color view and flow data in addition to model number and description.

## Design Reports – Valve Summary

The screenshot shows the POWERS CONFIGURATOR web application in a Microsoft Internet Explorer browser. The page displays the 'Valve Summary' report for a configuration named 'June 5'. The report includes a table with the following data:

Code	Description
MM433AEMS400	MM433 Supply Fixture, Rough Bronze, Bottom/Top, Exposed, Standard (90-160°F), T/P Gauges on Inlets

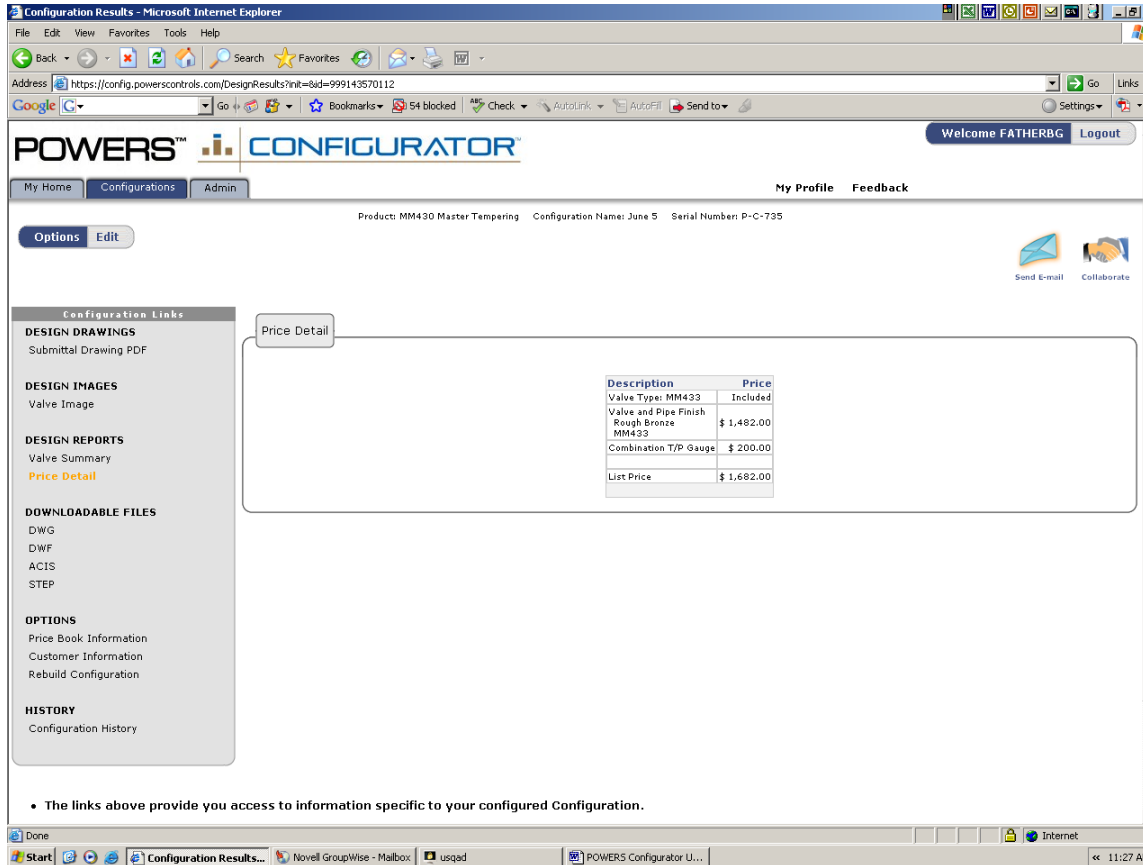
Below the table, there is a section for 'Input Field' and 'Value' details:

Input Field	Value
Valve Type	MM433
Valve and Pipe Finish	Rough Bronze
Temperature Range	Standard (90-160°F)
Piping Inlets/Outlets	Bottom/Top
Cabinet Style	Exposed, No Cabinet
View Portal	No
Cold Water Bypass	No
Combination T/P Gauge on Inlets	Yes
AquaSentry2 Alarm System	No

The left sidebar contains navigation links for Design Drawings, Design Images, Design Reports (highlighted), Downloadable Files, Options, and History. The top navigation bar includes links for My Home, Configurations, Admin, My Profile, and Feedback. The bottom status bar shows the current time as 11:24 AM.

**Valve Summary** – Shows model numbers, description and options selected for configuration.

## Design Reports – Price Detail



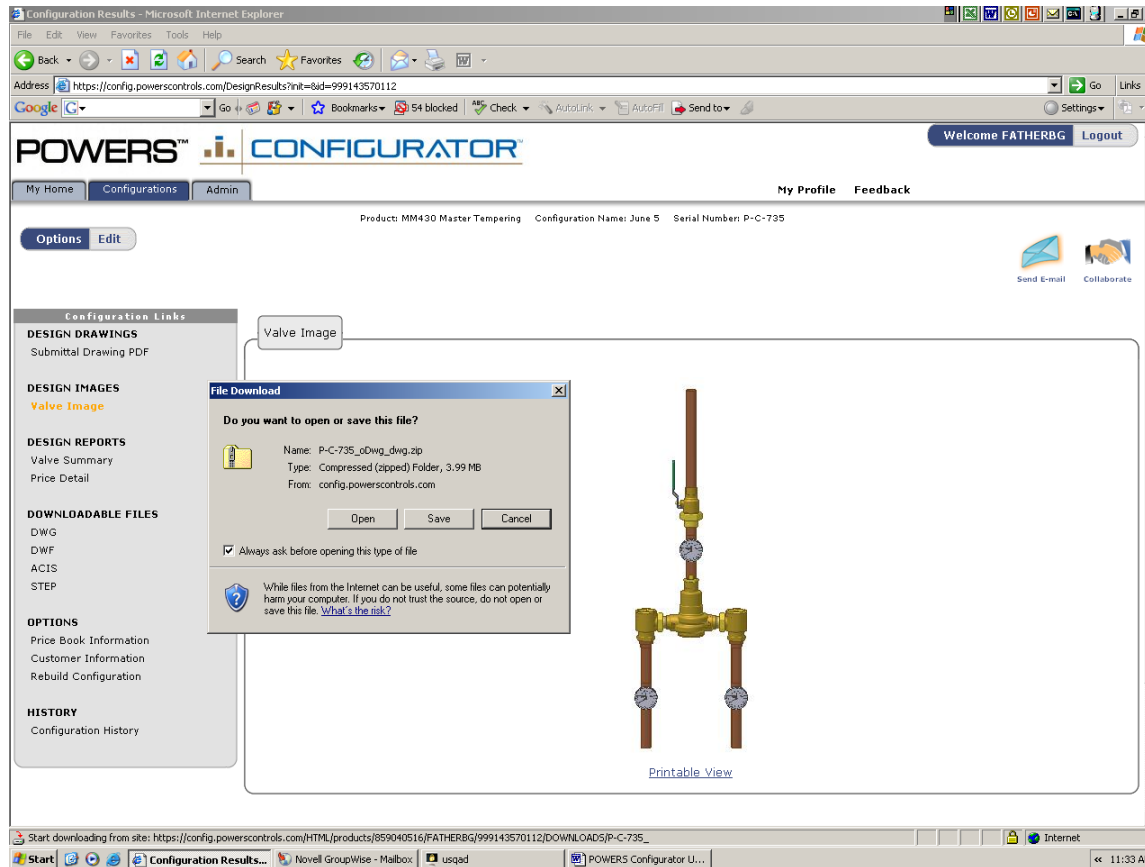
The screenshot shows the 'Configuration Results' page in a Microsoft Internet Explorer browser. The page title is 'Configuration Results - Microsoft Internet Explorer'. The address bar shows the URL: <https://config.powerscontrols.com/DesignResults?nit=64d=999143570112>. The page features a navigation menu with 'My Home', 'Configurations', and 'Admin'. The 'Configurations' tab is active, showing 'Options' and 'Edit' buttons. The main content area displays the 'Price Detail' report for a configuration named 'June 5' (Serial Number: P-C-735). The report includes a table with the following data:

Description	Price
Valve Type: MM433	Included
Valve and Pipe Finish Rough Bronze MM433	\$ 1,482.00
Combination T/P Gauge	\$ 200.00
List Price	\$ 1,682.00

The left sidebar contains links for 'DESIGN DRAWINGS', 'DESIGN IMAGES', 'DESIGN REPORTS' (including 'Price Detail'), 'DOWNLOADABLE FILES', 'OPTIONS', and 'HISTORY'. The bottom of the page states: 'The links above provide you access to information specific to your configured Configuration.'

**Price Detail** – Shows budget or list pricing for selected configuration broken down by valve and options selected.

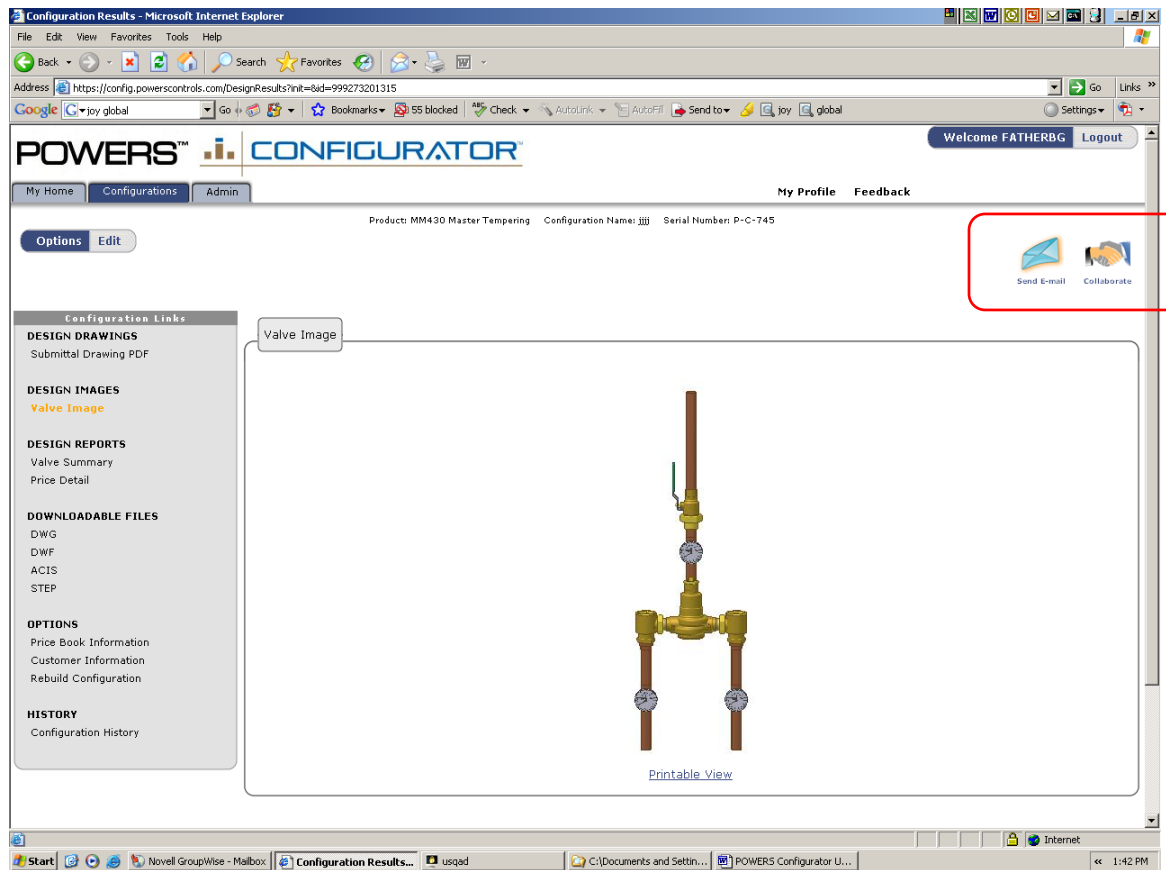
## Downloadable Files – DWG, DWF, ACIS, STEP



**Download Files** – Allows user to open or save 2 – 3D files (Zip files) for selected configuration in the following formats:

- DWG <http://en.wikipedia.org/wiki/.dwg>
- DWF <http://en.wikipedia.org/wiki/DWF>
- ACIS <http://en.wikipedia.org/wiki/ACIS>
- STEP [http://en.wikipedia.org/wiki/STEP\\_%28ISO\\_10303%29](http://en.wikipedia.org/wiki/STEP_%28ISO_10303%29)

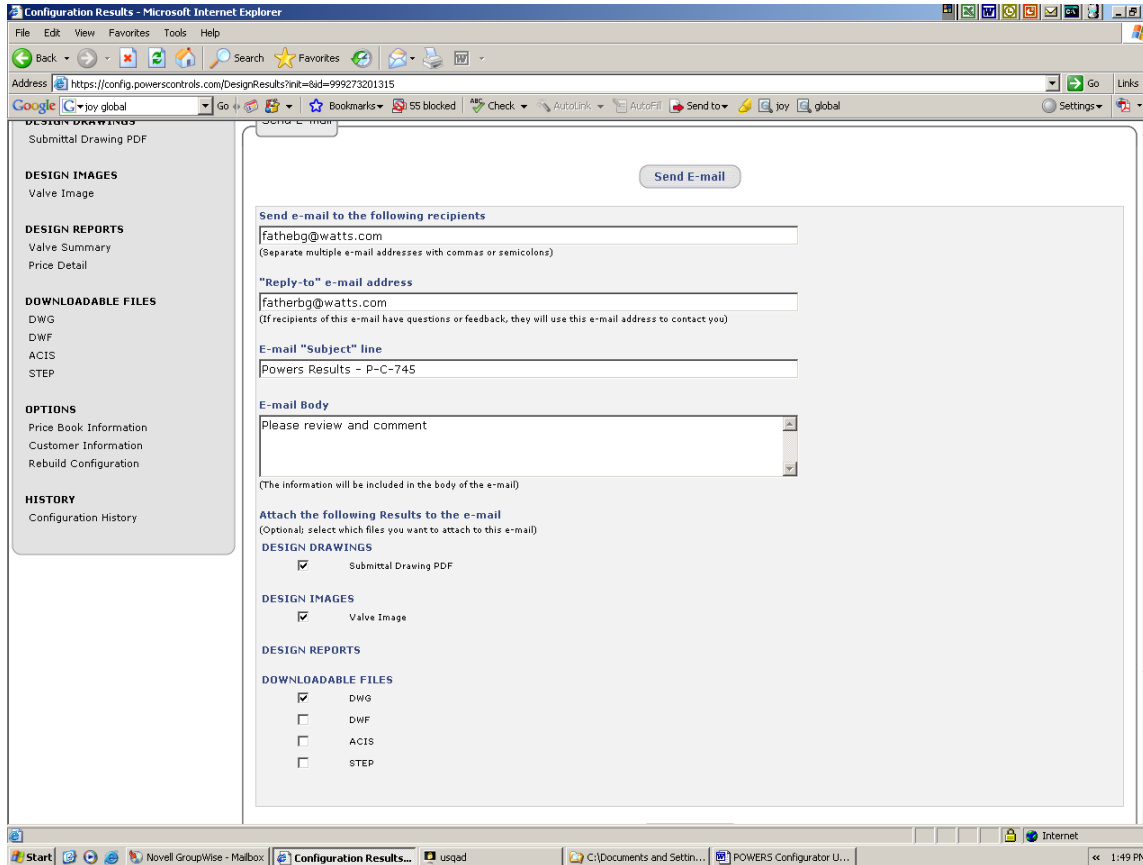
## H. Share Configuration Results



- **Send Email** – Click on email button to send configurations results to colleagues via file attachments.
- **Create Collaboration Site** – Click on Collaborate to share files. The Configurator will send a web link via email to a secure site for colleagues to review and comment.



## Share Configuration – via Email



**Configuration Results - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Address <https://config.powerscontrols.com/DesignResults?nit=6ad=999273201315>

Google joy global

**DESIGN DRAWINGS**  
Submittal Drawing PDF

**DESIGN IMAGES**  
Valve Image

**DESIGN REPORTS**  
Valve Summary  
Price Detail

**DOWNLOADABLE FILES**  
DWG  
DWF  
ACIS  
STEP

**OPTIONS**  
Price Book Information  
Customer Information  
Rebuild Configuration

**HISTORY**  
Configuration History

**Send E-mail**

Send e-mail to the following recipients  
fathebg@watts.com  
(Separate multiple e-mail addresses with commas or semicolons)

"Reply-to" e-mail address  
fathebg@watts.com  
(If recipients of this e-mail have questions or feedback, they will use this e-mail address to contact you)

E-mail "Subject" line  
Powers Results - P-C-745

E-mail Body  
Please review and comment

(The information will be included in the body of the e-mail)

Attach the following Results to the e-mail  
(Optional: select which files you want to attach to this e-mail)

**DESIGN DRAWINGS**  
☒ Submittal Drawing PDF

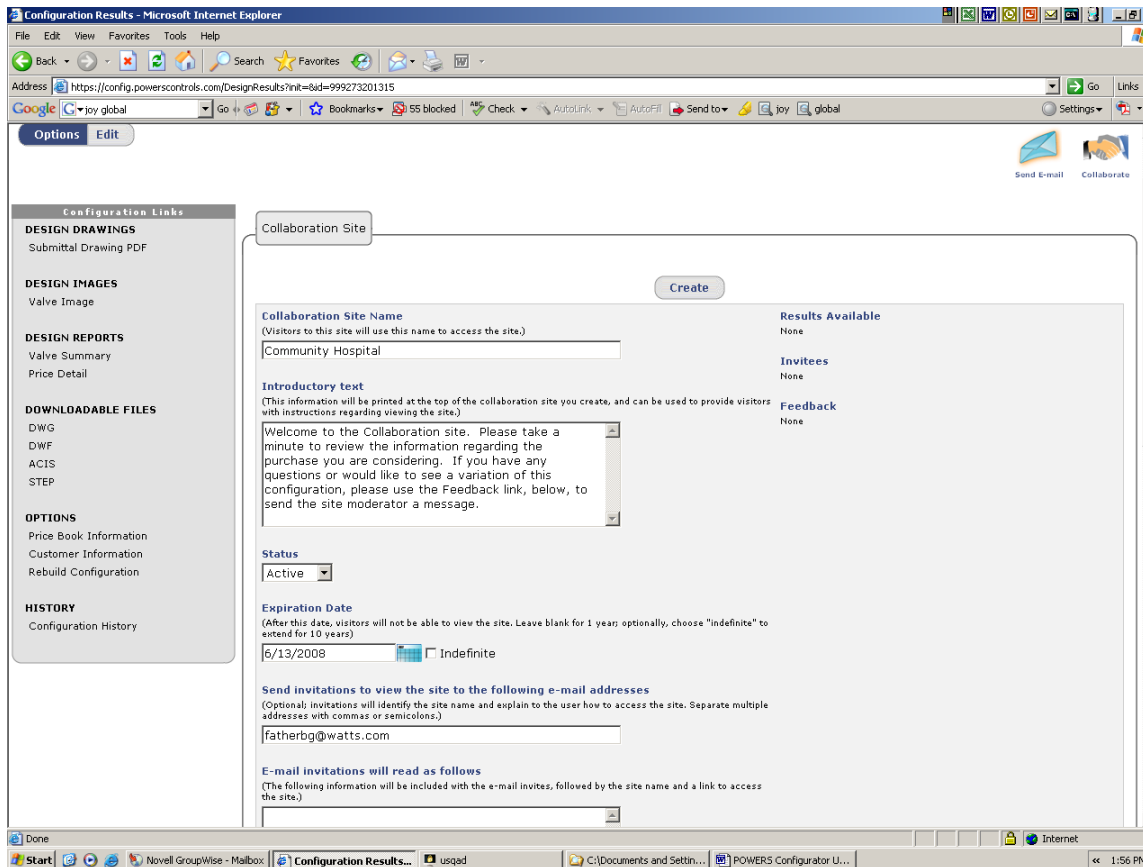
**DESIGN IMAGES**  
☒ Valve Image

**DESIGN REPORTS**

**DOWNLOADABLE FILES**  
☒ DWG  
☐ DWF  
☐ ACIS  
☐ STEP

- **Send via Email** – Allows user to send configuration results via email. Users can custom select only those deliverables they want colleagues to view (via check box). Includes comment box for special instructions.

## Share Configuration – Create Collaboration Site



The screenshot shows a web browser window titled "Configuration Results - Microsoft Internet Explorer". The address bar shows the URL: <https://config.powerscontrols.com/DesignResults?int=6&id=999273201315>. The page has a left sidebar with "Configuration Links" and a main content area titled "Collaboration Site".

**Configuration Links**

- DESIGN DRAWINGS**
  - Submittal Drawing PDF
- DESIGN IMAGES**
  - Valve Image
- DESIGN REPORTS**
  - Valve Summary
  - Price Detail
- DOWNLOADABLE FILES**
  - DWG
  - DWF
  - ACIS
  - STEP
- OPTIONS**
  - Price Book Information
  - Customer Information
  - Rebuild Configuration
- HISTORY**
  - Configuration History

**Collaboration Site**

[Create](#)

**Collaboration Site Name**  
(Visitors to this site will use this name to access the site.)  
Community Hospital

**Results Available**  
None

**Invitees**  
None

**Feedback**  
None

**Introductory text**  
(This information will be printed at the top of the collaboration site you create, and can be used to provide visitors with instructions regarding viewing the site.)  
Welcome to the Collaboration site. Please take a minute to review the information regarding the purchase you are considering. If you have any questions or would like to see a variation of this configuration, please use the Feedback link, below, to send the site moderator a message.

**Status**  
Active

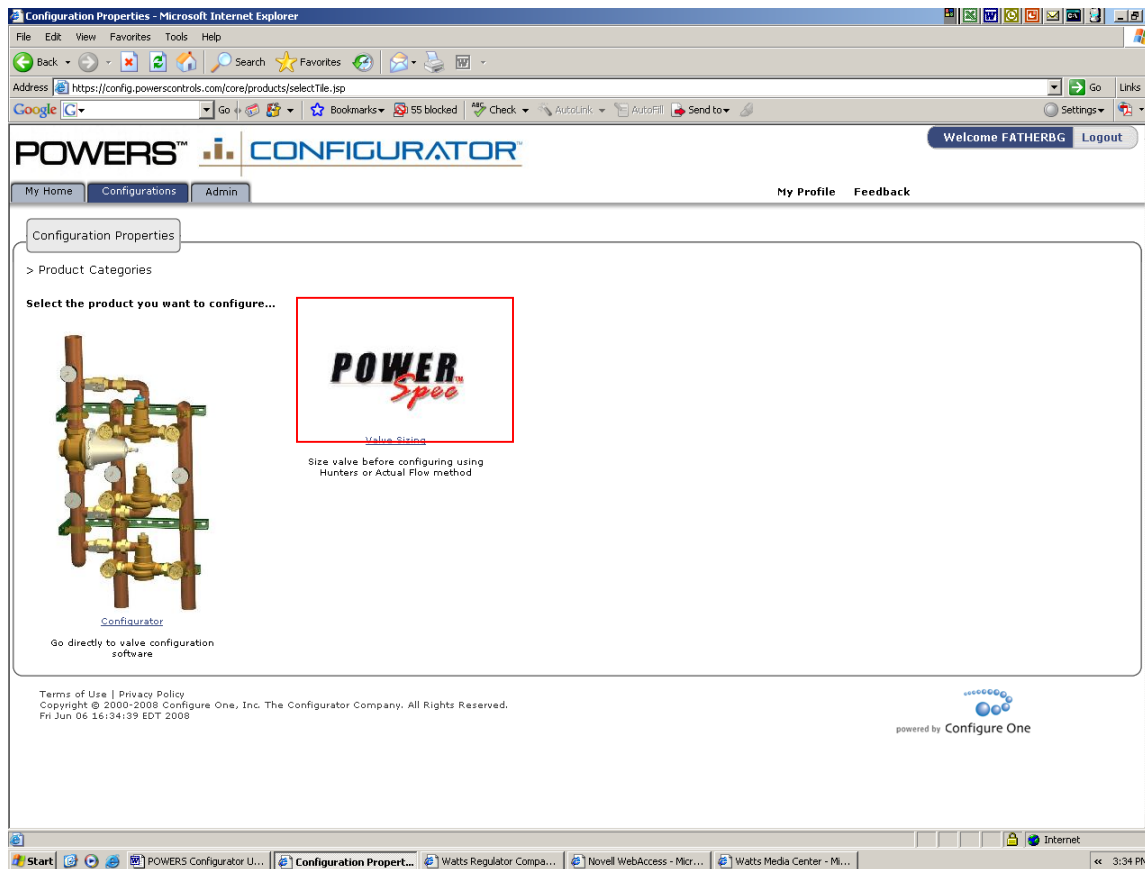
**Expiration Date**  
(After this date, visitors will not be able to view the site. Leave blank for 1 year; optionally, choose "indefinite" to extend for 10 years)  
6/13/2008 ☐ Indefinite

**Send invitations to view the site to the following e-mail addresses**  
(Optional; invitations will identify the site name and explain to the user how to access the site. Separate multiple addresses with commas or semicolons.)  
fatherbg@watts.com

**E-mail invitations will read as follows**  
(The following information will be included with the e-mail invites, followed by the site name and a link to access the site.)

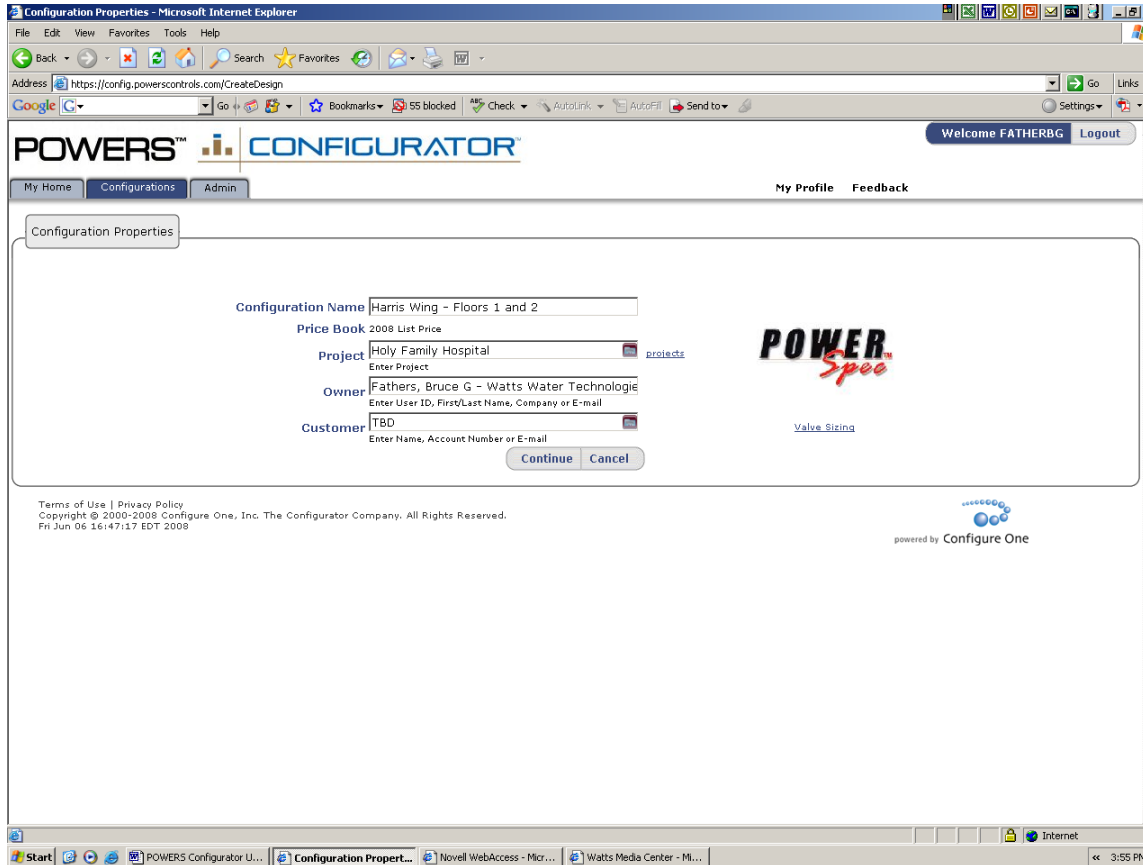
- **Create Collaboration Site** – Allows user to create a secure site where colleagues, coworkers and managers can review configuration results. Users can custom select only those deliverables they want colleagues to view (via check box). Includes comment box for special instructions. User can assign an expiration date to the site or make available indefinitely and provide option for feedback.

## I. PowerSpec™ Valve Sizing



- **PowerSpec** – If unsure of the proper valve, the user can size valve system prior to configuration based on flow and control requirements using the Hunters Method and Actual Flow Method.

## Enter Configuration Name



Configuration Properties - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://config.powerscontrols.com/CreateDesign>

POWERS™ CONFIGURATOR™

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My Home Configurations Admin My Profile Feedback

Configuration Properties

Configuration Name

Price Book 2008 List Price

Project  [projects](#)

Owner

Customer

[Valve Sizing](#)

Continue Cancel

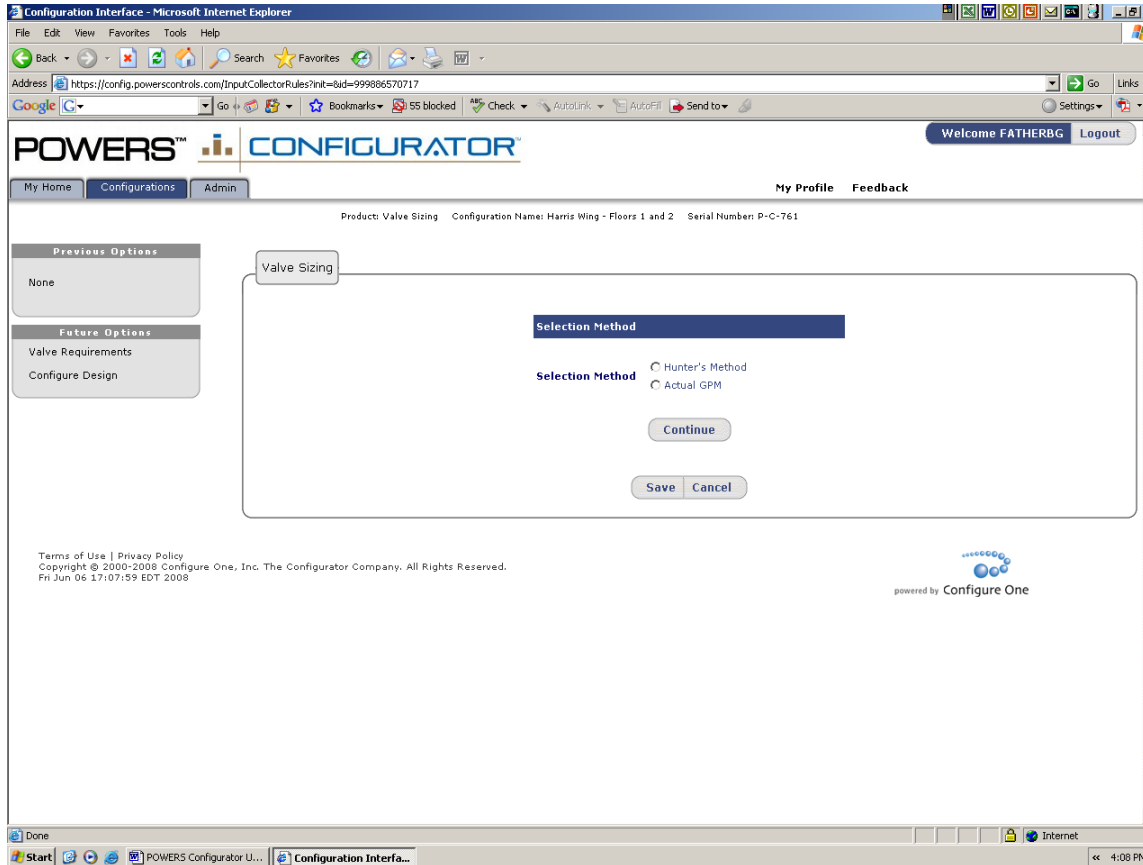
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Start POWERS Configurator U... Configuration Propert... Novell WebAccess - Micr... Watts Media Center - Mi... 3:55 PM

- **Valve Sizing** – Enter Configuration Name and Project Name. Then click on Continue.

## Select Sizing Methodology



The screenshot shows a web browser window titled "Configuration Interface - Microsoft Internet Explorer". The address bar shows the URL: <https://config.powerscontrols.com/InputCollectorRules?init=6id=999886570717>. The page header includes the "POWERS™ CONFIGURATOR™" logo and a "Welcome FATHERBG Logout" button. Below the header, there are tabs for "My Home", "Configurations", and "Admin". The main content area is titled "Valve Sizing" and contains a "Selection Method" section with two radio buttons: "Hunter's Method" and "Actual GPM". Below the radio buttons are "Continue", "Save", and "Cancel" buttons. On the left side, there are "Previous Options" (None) and "Future Options" (Valve Requirements, Configure Design). The footer includes "Terms of Use | Privacy Policy", copyright information for 2000-2008, and a "powered by Configure One" logo.

- **Valve Sizing** – Select Hunter's Method or Actual Flow Method by clicking on the corresponding radio button. Then click Continue.

## Hunters Method

Configuration Interface - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://config.powerscontrols.com/InputCollectorRules>

Google

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My Home Configurations Admin

My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

Previous Options

Selection Method

Future Options

Fixtures

Valve Requirements

Configure Design

Valve Sizing

Facility Type

Facility Type Hospital

Pressure Drop Selection Method

Pressure Drop Selection Method

☒ Select from list

☐ Calculate from requirements

Previous Continue

Save Cancel

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Done

Start POWERS Configurator U... Configuration Interfa...

Internet

4:13 PM

### Valve Sizing – Hunters Method

- Select Facility Type from drop down menu.
- **Select Pressure Drop Calculation Method.** If pressure drop is known, click *Select From List*, which will provide a drop down menu on a subsequent screen. If pressure drop is unknown, click *Calculate from Requirements* which will ask user for inputs specific to project.

## Hunters Method – Data Input

Configuration Interface - Microsoft Internet Explorer

Address: <https://config.powerscontrols.com/InputCollectorRules>

Welcome FATHERBG Logout

My Home Configurations Admin My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

**Valve Sizing**

**Fixtures**

	Qty	Fixture Units	Subtotal
Basins, Private Lavatory	100	7.5	75
Basins, Public Lavatory	20	1	20
Bathtubs	100	1.5	150
Therapeutic Bath	10	5	50
Kitchen Sink	5	3	15
Pantry Sink	5	2.5	12.5
Slop Sink	10	2.5	25
Showers	100	1.5	150
Circular Wash Fountain	0	2.5	0
Semicircular Wash Fountain	0	1.5	0
Other	0	0	0
Other	0	0	0

Previous Continue

Save Cancel

- **Valve Sizing – Hunters Method**
  - Calculate Fixture Units entering total fixtures by type.

## Hunters Method – Data Input

- **Valve Sizing – Hunters Method**
- Required GPM is calculated from data on preceding screen
- Input data can be reviewed by holding cursor over selection options on left of screen. If change is required, click on previous page button to revise.
- Enter Minimum Flow data
- Select pressure drop from drop down or calculation
- Select Valve Style and Finish



## Hunters Method – Valve Recommendation

Configuration Interface - Microsoft Internet Explorer

Address: https://config.powerscontrols.com/InputCollectorRules

Welcome FATHERBG Logout

My Home Configurations Admin My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

Previous Options

- Selection Method
- Facility Type
- Pressure Drop Selection Method
- Fixtures
- Valve Requirements

Future Options

- Configure Design

Valve Sizing

Valve Requirements				
Required GPM	81.72			
Maximum Pressure Differential (psid)	20			
Minimum Flow (GPM)	3			
Valve Style	All			
Finish	Rough Bronze			

Recommended Valve				
Model No.	Valve CV	Delta P (PSID)	Flow (GPM)	
SV SH1434	19.00	20	85	<a href="#">Configure w/ Options</a> <a href="#">Configure Powerstation</a>

Alternative Valves				
MV MM433HL	19.8	20	86	<a href="#">Configure w/ Options</a> <a href="#">Configure Powerstation</a>
SV MM434	21.5	20	96	<a href="#">Configure w/ Options</a> <a href="#">Configure Powerstation</a>
MV MM434HL	24.9	20	111	<a href="#">Configure w/ Options</a> <a href="#">Configure Powerstation</a>

Requires Continuous Recirculation

SV Single-Valve Solution

MV Multiple-Valve Solution

Previous Continue

Save Cancel

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- **Valve Sizing – Hunters Method**
  - Configurator will provide primary and alternative recommendations based on valves with closest Cv to input requirements (in ascending order).
  - SV = Single Valve Solution, MV = Multi-Valve Solution
  - Check mark = Continuous Recirculation Recommended. Minimum flow requirement above specified.
  - Select *Configure w/Options* to create Hi/Lo or Supply Fixture. Select *Configure PowerStation* to create supply fixture or Hi/Lo with return line, recirculation pump, aquastat and balancing valve options.
  - User will now be transitioned directly into Configurator

## Actual Flow Method – Data Input

The screenshot shows the 'Valve Sizing' configuration page in the POWERS CONFIGURATOR web interface. The page is displayed in a Microsoft Internet Explorer browser window. The interface includes a navigation menu with 'My Home', 'Configurations', and 'Admin' tabs. The main content area is titled 'Valve Sizing' and contains two main sections: 'Actual Fixture Ratings' and 'Pressure Drop Selection Method'.

**Actual Fixture Ratings**

- Total Rated Demand for All Tempering Fixtures (GPM):
- Master Mixing Valve Temperature Setting (°F):
- Cold Water Temperature (°F):
- Usage Factor (% of fixture typically on at the same time) 5 to 100%:
- Desired Outlet Temperature from Fixture (°F):

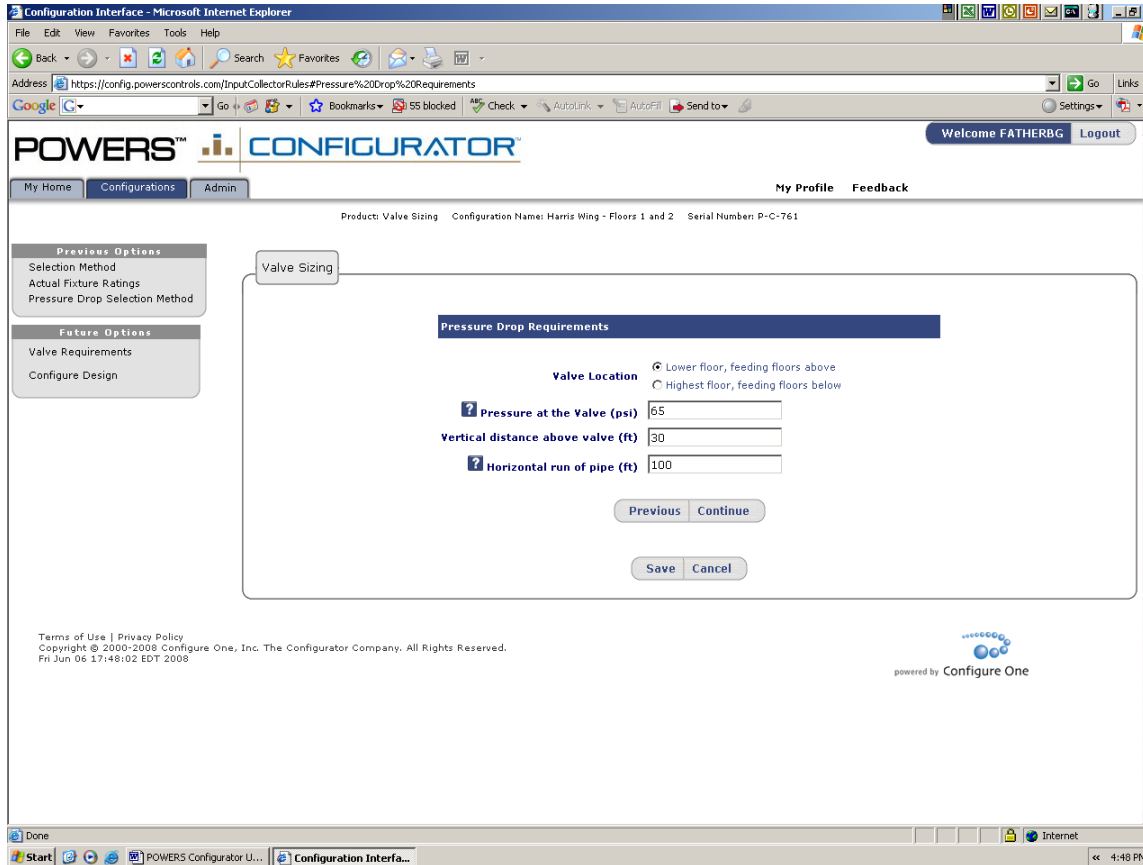
**Pressure Drop Selection Method**

Pressure Drop Selection Method ☐ Select from list ☒ Calculate from requirements

Buttons: Previous, Continue, Save, Cancel

- **Valve Sizing – Actual Flow Method**
  - Enter demand requirement, temperature settings and inputs, usage requirements
  - Select Pressure Drop Selection Method. Select from Drop Down menu if known. Select Calculate if unknown



## Actual Flow Method – with Pressure Drop Calculation



Configuration Interface - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://config.powerscontrols.com/InputCollectorRules#Pressure%20Drop%20Requirements>

Google  Go  Bookmarks 55 blocked Check AutoLink AutoFill Send to Settings

**POWERS™ CONFIGURATOR™** Welcome FATHERBG Logout

My Home Configurations Admin My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

**Valve Sizing**

**Pressure Drop Requirements**


**Valve Location** ☒ Lower floor, feeding floors above ☐ Highest floor, feeding floors below

**Pressure at the Valve (psi)**


**Vertical distance above valve (ft)**

**Horizontal run of pipe (ft)**

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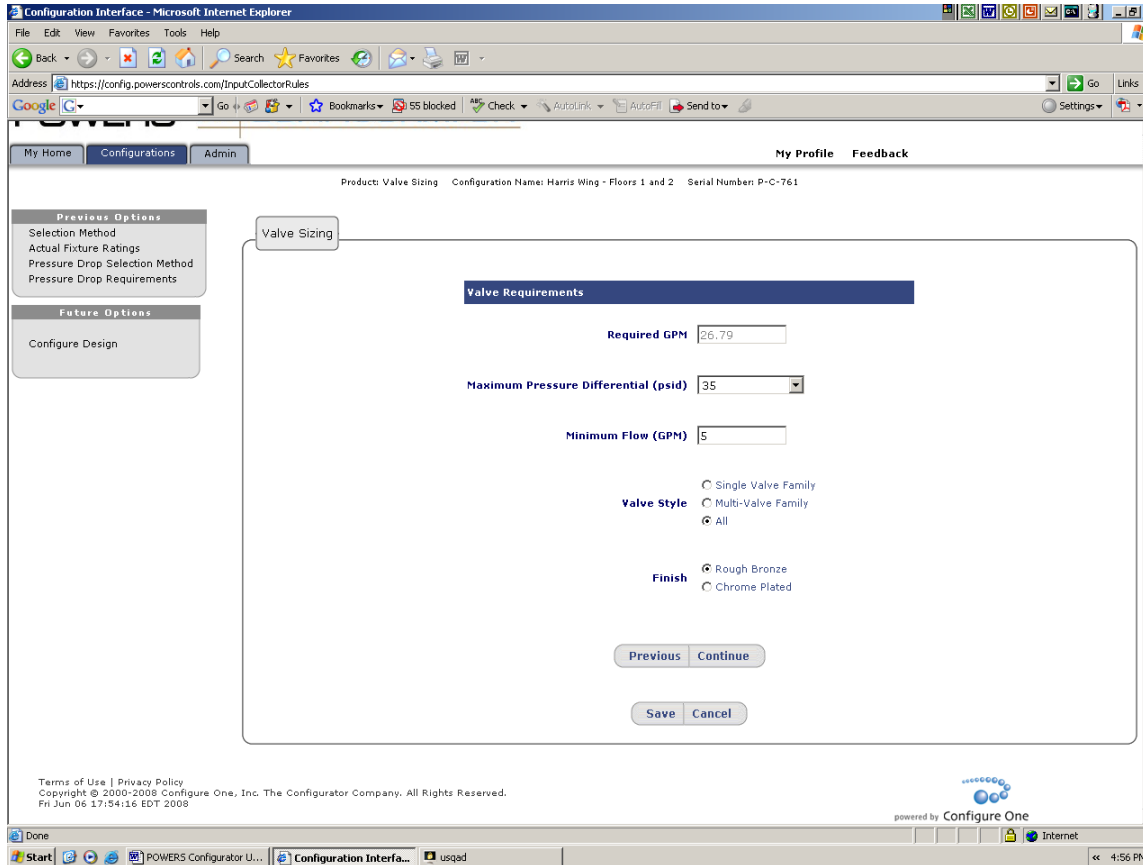
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Done

Start  POWERS Configurator U... Configuration Interfa... 4:48 PM

- **Valve Sizing – Actual Flow – Pressure Drop Calculation**
  - Select Valve Location – lowest floor, highest floor
  - Select pressure at valve
  - Select vertical distance above valve
  - Select horizontal run of pipe. Use the longest run of pipe in your building. Do not enter the entire length of the loop.
  - Click Continue. Pressure drop value will be calculated on following screen.

## Actual Flow Method – Data Input



Configuration Interface - Microsoft Internet Explorer

Address: <https://config.powerscontrols.com/InputCollectorRules>

My Home Configurations Admin My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

**Valve Sizing**

**Valve Requirements**

Required GPM

Maximum Pressure Differential (psid)

Minimum Flow (GPM)

**Valve Style**

☐ Single Valve Family

☐ Multi-Valve Family


☒ All

**Finish**

☒ Rough Bronze

☐ Chrome Plated

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Done

Start POWERS Configurator U... Configuration Interfa... usgud

Internet 4:56 PM

- **Valve Sizing – Actual Flow**

- Required GPM is calculated from data input on preceding screen
- Pressure drop is calculated from data input on preceding screen
- Input data can be reviewed by holding cursor over selection options on left of screen. If change is required, click on previous page button to revise.
- Enter Minimum Flow data
- Select Valve Style and Finish

## Actual Flow – Valve Recommendation

Configuration Interface - Microsoft Internet Explorer

Address: <https://config.powerscontrols.com/InputCollectorRules>

Welcome FATHERBG Logout

My Home Configurations Admin My Profile Feedback

Product: Valve Sizing Configuration Name: Harris Wing - Floors 1 and 2 Serial Number: P-C-761

Previous Options: Selection Method, Facility Type, Pressure Drop Selection Method, Fixtures, Valve Requirements

Future Options: Configure Design

Valve Requirements

Valve Requirements	Value
Required GPM	81.72
Maximum Pressure Differential (psid)	20
Minimum Flow (GPM)	3
Valve Style	All
Finish	Rough Bronze

Recommended Valve

Model No.	Valve CV	Delta P (PSID)	Flow (GPM)	Configure w/ Options	Configure Powerstation
SV SH1434	19.00	20	85	<a href="#">Configure w/ Options</a>	<a href="#">Configure Powerstation</a>

Alternative Valves

Model No.	Valve CV	Delta P (PSID)	Flow (GPM)	Configure w/ Options	Configure Powerstation
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SV MM434 ✓	21.5	20	96	<a href="#">Configure w/ Options</a>	<a href="#">Configure Powerstation</a>
MV MM434HL	24.9	20	111	<a href="#">Configure w/ Options</a>	<a href="#">Configure Powerstation</a>

Requires Continuous Recirculation  
 SV Single-Valve Solution  
 MV Multiple-Valve Solution

Previous Continue

Save Cancel

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- **Valve Sizing – Hunters Method**
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  - Select *Configure w/Options* to create Hi/Lo or Supply Fixture. Select *Configure PowerStation* to create supply fixture or Hi/Lo with return line, recirculation pump, aquastat and balancing valve options.
  - User will now be transitioned directly into Configurator