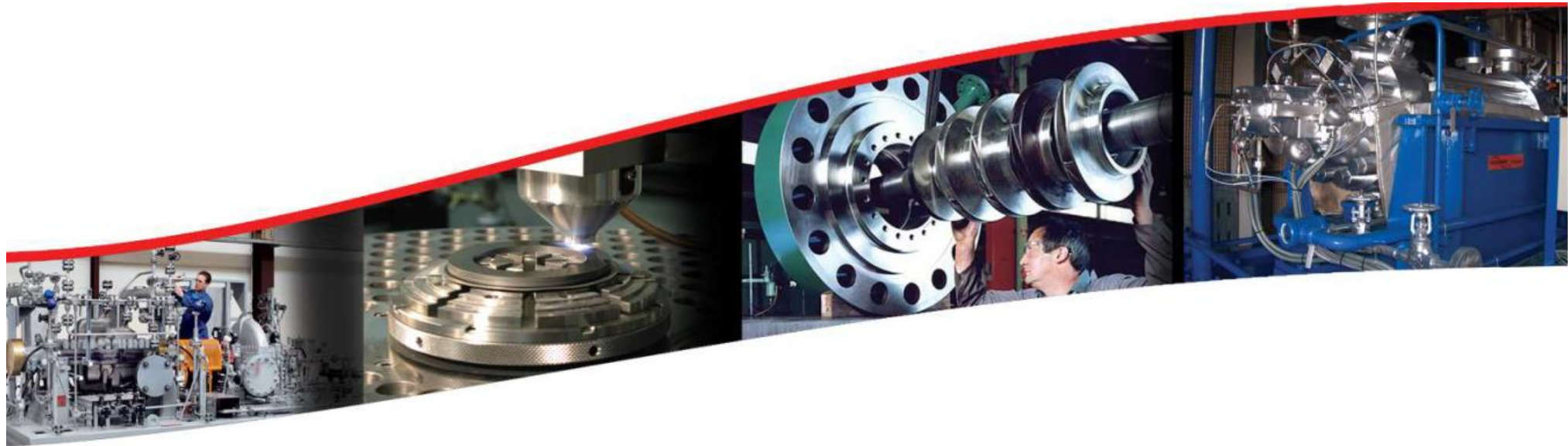# Affinity Customer Portal Guide

March 2024

Experience In Motion

Affinity Customer Portal Tutorial Content

- ❑ Introduction
- ❑ Technical Requirements
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  - ▪ Product Information
  - ▪ Help
- ❑ Quote Manager
  - ▪ Existing Quotes
  - ▪ Organizing Quotes
  - ▪ Request Flowserve Assistance
  - ▪ Quote Sharing
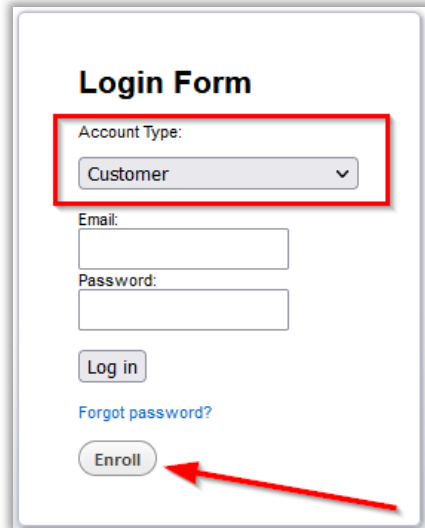- ❑ Support

Introduction to Affinity

- ❑ **Affinity Customer Portal** is a tool that allows users to search for, compare, and save a pump selection based on a given set of conditions or select a specific pump type and size from a list of currently offered equipment.

- ❑ Selections can be saved for future reference.

- ❑ Technical documents can be generated.

- ❑ Quotes may be shared with a Flowserve representative for further review.

- ❑ Brochures, manuals, and comprehensive product reference material are available for most of the product lines included in the program.

- ❑ A vast amount of built-in logic helps ensure that only equipment and options which can handle the defined duty conditions are offered.

- ❑ NOTE: This tutorial can be used as a presentation as well as a user help document. As such, the first few pages are not applicable to users who have already installed the application.

Technical Requirements

❑ **Supported Browsers:** Mozilla Firefox, version 25 or higher.

  ▪ (As of December 2023, the latest versions of Microsoft Chrome and Edge and the version of ORACLE software used in our programming have had compatibility issues. As a result, we only recommend using Firefox, at this time.)

❑ Adobe Acrobat Reader versions 9.3 or higher.

❑ Pop-ups from our site must be allowed.

❑ Recommended Resolution is 1366 x 768 or higher. Lower resolutions may cause page "wrap".

Registration Process

Login Form

Account Type:
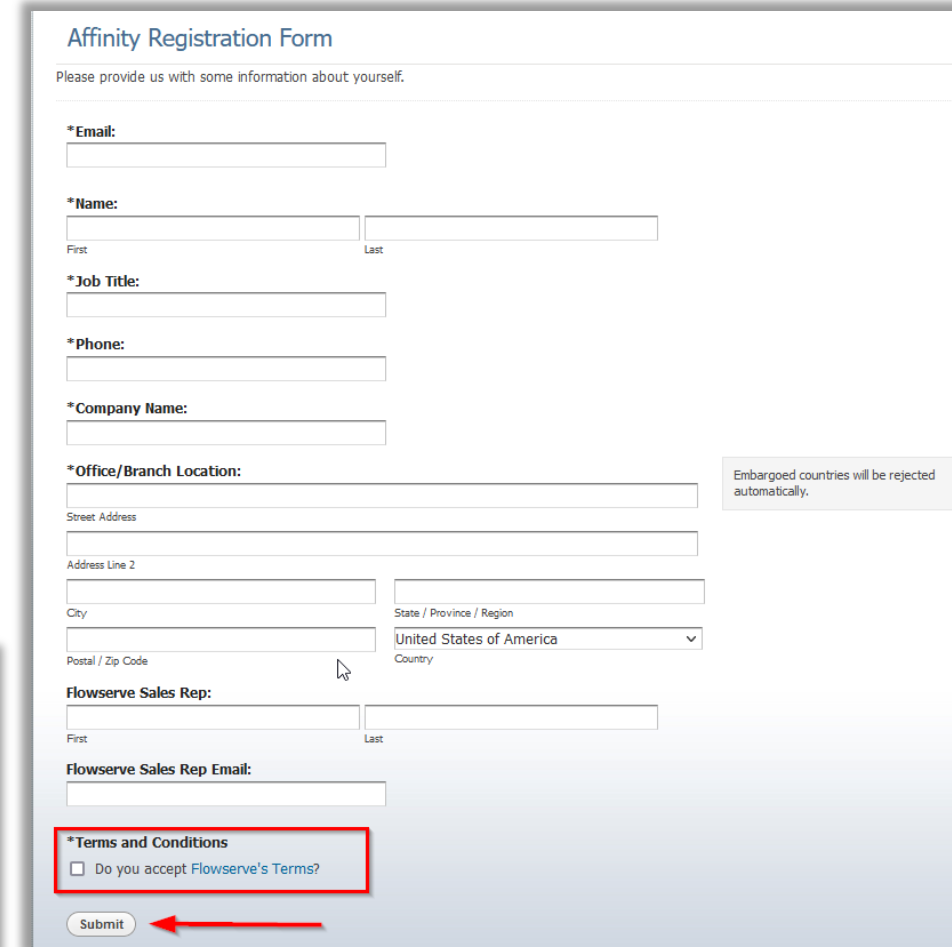
[Customer]

Email:

Password:

[Log in]

Forgot password?

(Enroll)

❑ Go to: flowserve.bigmachines.com and select **Customer** under **Account Type** drop down.

❑ Click the *Enroll* Button

❑ Fill in the required registration form which looks like the screen shot to the right.

❑ Agree to Flowserve's Terms and Submit.

❑ Upon successful completion and submission, a **Thank you for Registering** message should appear.

Thank you for Registering

Thank you for registering with Affinity. You should receive an email with login information after your account has been created.

If you have any issues with your account please contact us at affinitysupport@flowserve.com.
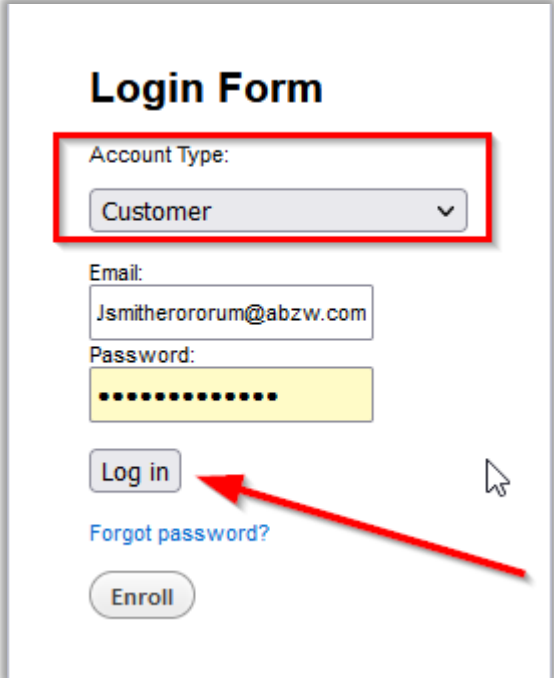
Never share your password with anyone inside or outside of your organization. Do not share accounts with other users. Anyone needing access should sign in to their account accordingly, or register if they do not already have an account.

Affinity Registration Form

Please provide us with some information about yourself.

*Email:

*Name:

First   Last

*Job Title:

*Phone:

*Company Name:

*Office/Branch Location:

Embargoed countries will be rejected automatically.

Street Address

Address Line 2

City   State / Province / Region

United States of America

Postal / Zip Code   Country

Flowserve Sales Rep:

First   Last

Flowserve Sales Rep Email:

*Terms and Conditions

☐ Do you accept Flowserve's Terms?

(Submit)

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Logging into Affinity

❑ Go to: flowserve.bigmachines.com. Save the login screen as a bookmark or favorite.

❑ Select "Customer" under Account Type drop down.

❑ Username is your email address as entered during registration including the "@" symbol.

❑ Copy and paste the initial password you receive from Flowserve to ensure there is no mistyping. It can be changed once you are logged in.

❑ Click "Log in" button

❑ You should then be taken to the landing page with the "Home" screen displayed.

Login Form

Account Type:

Customer

Email:

Jsmitherororum@abzw.com

Password:

••••••••••••

Log in

Forgot password?

Enroll

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Landing Page – Home Screen

❑ The landing page is where users are first taken to after login.

❑ The **Home** screen is the default screen presented. It where basic information is posted about the tool and any important messages. that need to be conveyed to users.
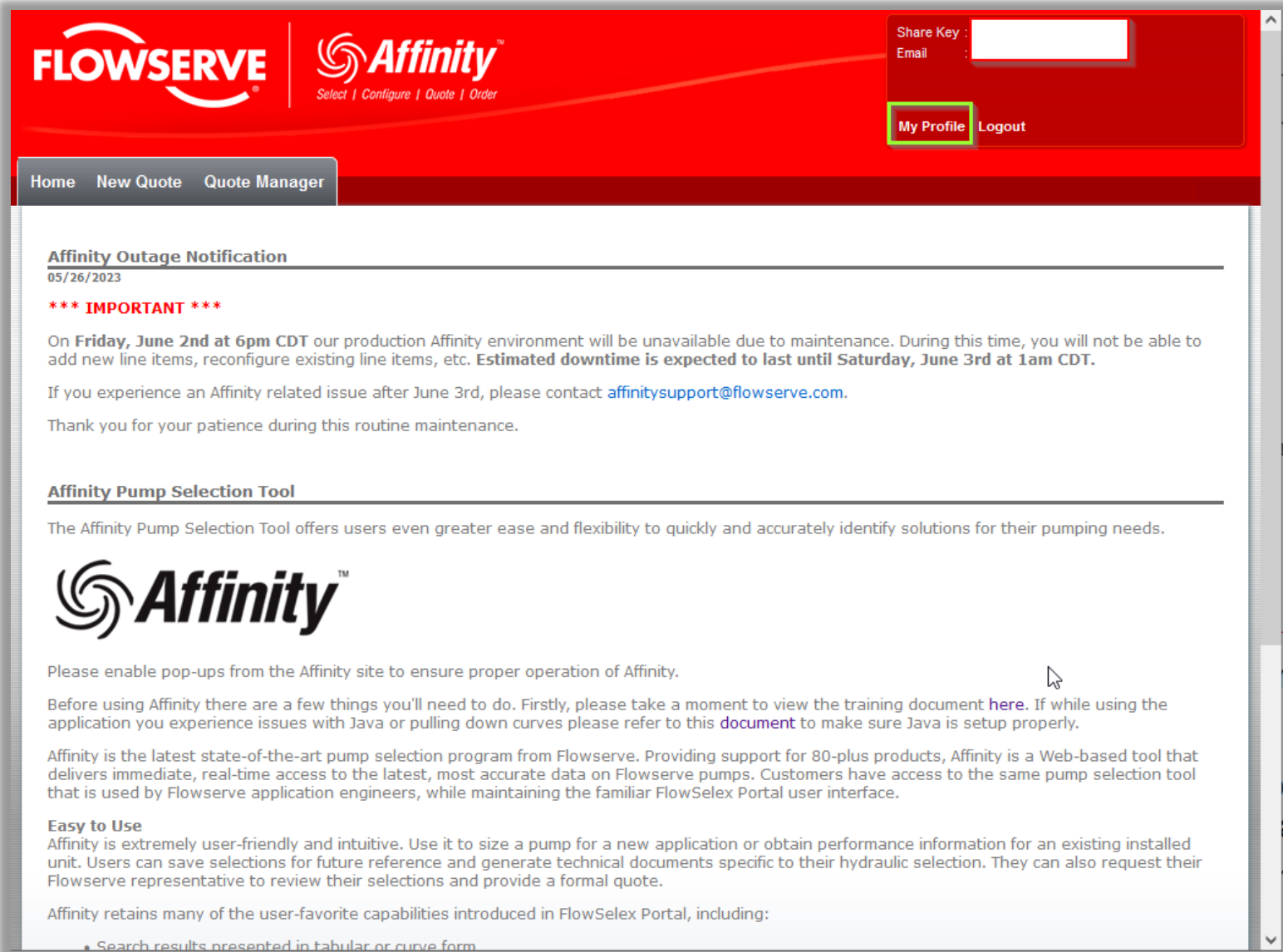
Landing Page (continued)

- In addition to the **Home** screen tab, **New Quote** and **Quote Manager** tabs are displayed which allows users to navigate back and forth between the pages.

- In the upper right corner on the landing page will be the user's **email** and **Share Key** which begins with "anon_".

- Also, in the upper right corner is a link to **My Profile** page and the **Logout** button.
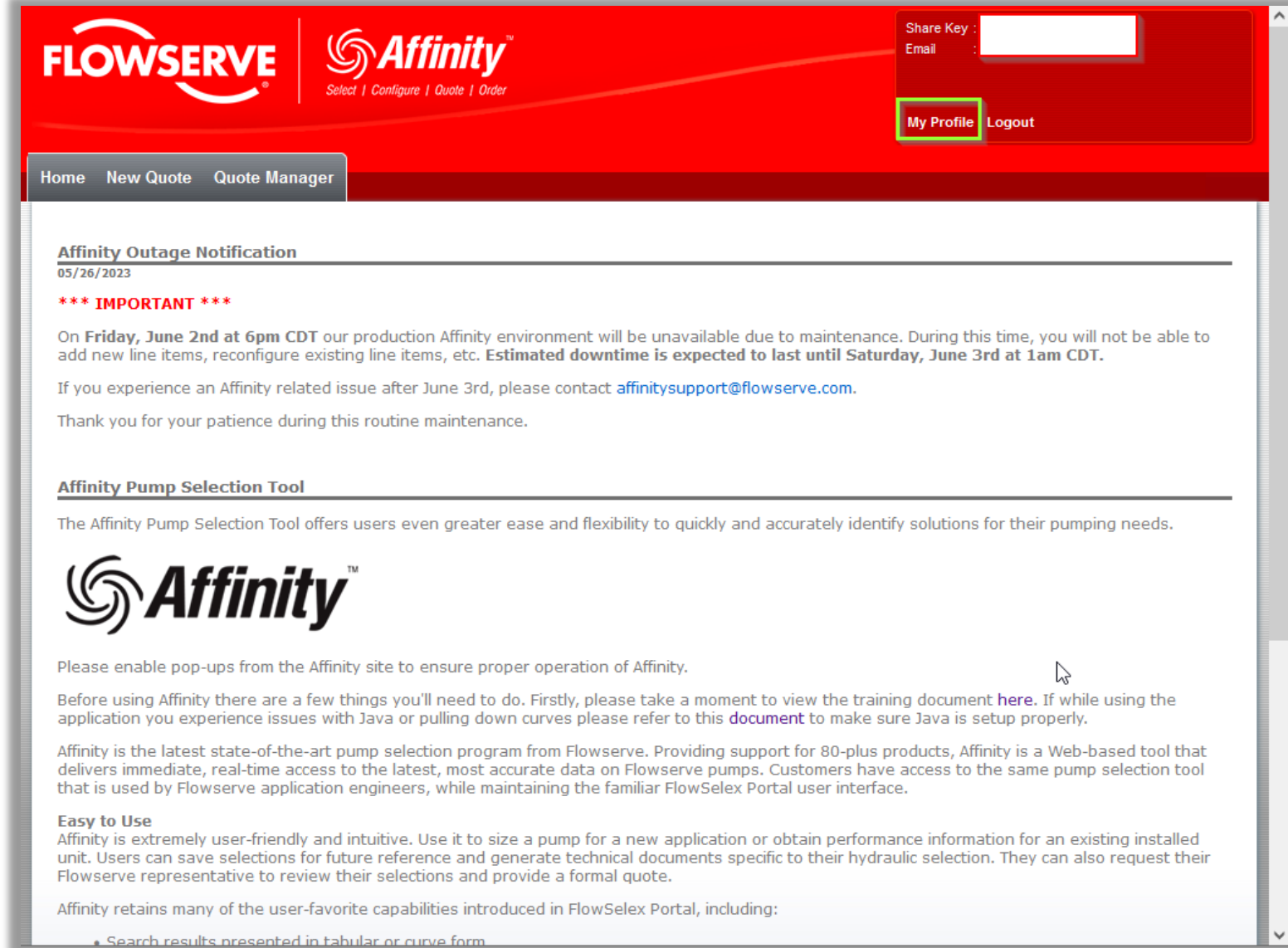
My Profile Screen

- The **My Profile** screen has many fields that may already be populated or requires the user to enter information. Not all fields need to be filled in nor are all able to be changed.

- When first being granted a Portal account, users receive an email with login instructions which includes a temporary password. It is strongly suggested for users to change that password to something that they are more likely to remember.

- Click on the ***Change Password*** button anytime such action is required.

- If no changes are made to this screen, then click the ***Back*** button in lower right corner of screen. You may need to scroll down to view.

- To invoke changes but stay on the screen, click the ***Apply*** button.

- To invoke changes and exit the screen, click the ***Update*** button.

Change Password Screen

❑ To change the password, use the upper portion of the screen to enter the current password and future password (twice).

❑ After changing the password, click the **Change Password** button in the lower right. *NOT THE SAVE button.*

❑ Flowserve does not currently use the **Password Reset Options** functionality. **Ignore the SAVE button**.

Pump Search Process Overview

Basic Duty Conditions Path: Duty Conditions → Products → Vertical Duty Conditions → Search Results

Advanced Duty Conditions Path: Duty Conditions → Products → Vertical Duty Conditions → Hydraulic & Driver Constraints → Product Constraints → Search Results

Pump List Path: Products → Pump List Options → Pump List → Overrides

New Quote Tab → Select Customer → Add Item

Quote Manager Tab → Affinity Manager Page → Select Quote → Add Item / Reconfigure item (edit)

Result Details → Output

Legend:
- Required user input
- Required user input/(product specific options)
- Optional user input
- Output information

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Create a New Quote

- ❑ However, new users must create a new quote to begin. As time goes on, additional new quotes can be created.

- ❑ To do so, select the **New Quote** tab.

- ❑ **Customer Selection** section: The fields shown to the right will be automatically populated with the information you provided on the registrations form but can be edited, as necessary.

- ❑ **CONTINUE TO CREATE QUOTE***: When ready to proceed to the pump selection process, click the button toward the upper right corner of the screen.

Home	New Quote	Quote Manager

Quote

CONTINUE TO CREATE QUOTE

Customer Selection

Quote to Customer:

Name	Super Customer
Address	5310 Someplace Pike
City	Yourtown
State	Ofmind
Zip	35876
Country	Bahamas

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Quote Screen Panels

❑ Upon clicking the *Continue to Create Quote* button, the **Quote** page will be presented.

❑ Three panels are on this page;

- o **Quote Manager,**
- o **Line Details** and
- o **Customer Selection.**
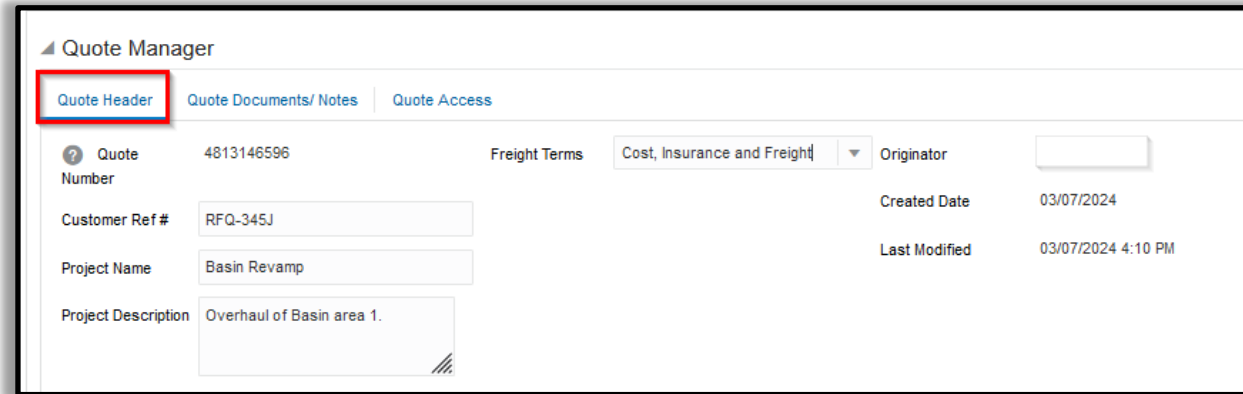
The first two panels are collapsible by clicking anywhere on the panel line where the labels reside. (Shown in blue boxes.) The last section is the same section discussed on the previous page.

Quote Screen – Quote Manager Panel

❑ *Quote Manager* panel has three tabs/links to different screen views.

- • **Quote Header**: Offers additional fields to allow better quote management. Information does not have to be entered; however, it is recommended.

- • **Quote Document/Notes**: Provides an area to add notes.

- • **Quote Access**: Allows users to share quotes with other users and/or send an email to a Flowserve representative. (Further explanation is presented later in these instructions.)
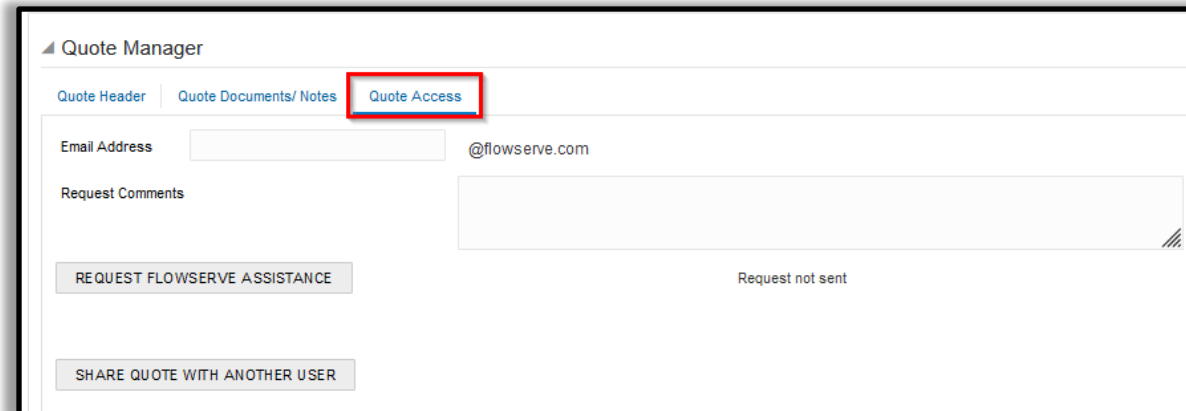
◢ Quote Manager

| Quote Header | Quote Documents/ Notes | Quote Access |

Quote Number: 4813146596 Freight Terms: Cost, Insurance and Freight Originator:

Created Date: 03/07/2024

Customer Ref #: RFQ-345J

Last Modified: 03/07/2024 4:10 PM

Project Name: Basin Revamp

Project Description: Overhaul of Basin area 1.

◢ Quote Manager

Quote Header | Quote Documents/ Notes | Quote Access

Notes

◢ Quote Manager

Quote Header | Quote Documents/ Notes | Quote Access

Email Address: @flowserve.com

Request Comments

REQUEST FLOWSERVE ASSISTANCE   Request not sent

SHARE QUOTE WITH ANOTHER USER

Quote Screen – Line Details Panel

❑ The Line Details panel has several control buttons as well as a list of the items that have been previously saved.

❑ Initially, there will not be any saved items.

❑ Click on **ADD ITEM** to begin a new pump configuration.
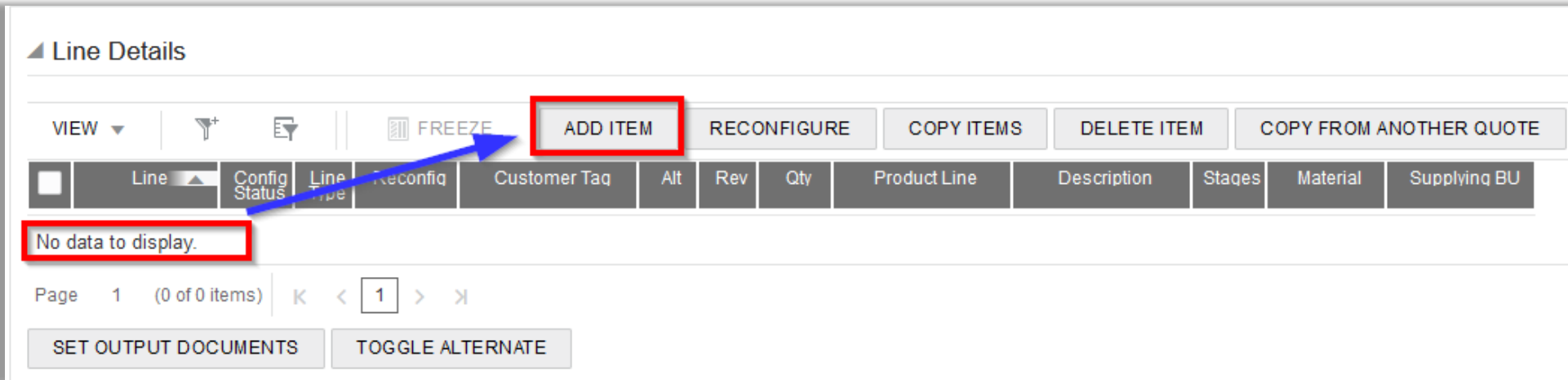
Pump Selection Processes

❑ When the ***ADD ITEM*** button is clicked, the **Start** screen will be displayed..

❑ Links to pump selection program default settings are shown toward the upper right corner of the screen.

❑ In addition, two options on how to Get Started are offered.

    ❑ **Select by Pump List:** Choose this option to see the performance of a known pump model (product line) and size. The user can specify basic parameters such as frequency, driver type, operating speed, impeller diameter and if appropriate, the number of stages before more detailed information concerning the pump is presented.

    ❑ **Search by Duty Conditions:** Choose this option if conditions of service are known and a program guided search is desired to find a pump model and size that will handle those conditions.

Default Settings Controls

❑ Before selecting one of the **Get Started** paths, users are encouraged to click the **Preferences** link. Review and if desired, change any of the various system default settings to ones that are desired. These setting may be changed at any time but will only effect future selections.
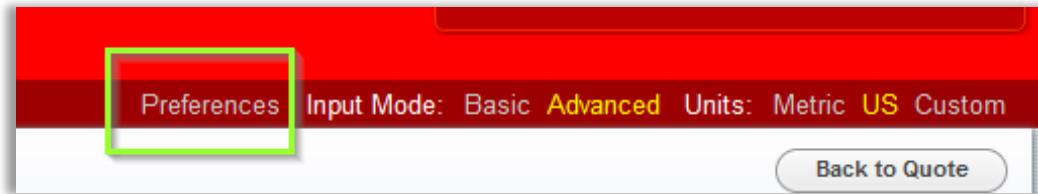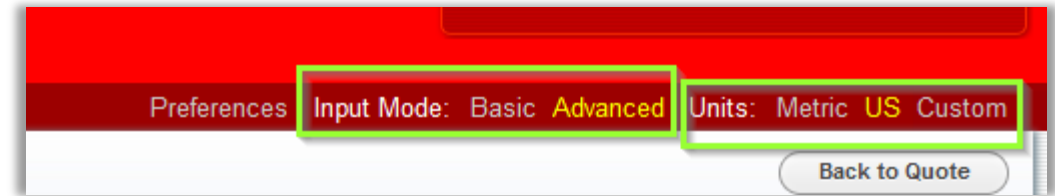

❑ Upon opening the **Preferences** screen, two tabs will be shown.

❑ The **General** tab has basic default sections related to Duty Conditions, Product Line Filters, Driver, Screen Layout and Other Preferences.

❑ The **Product Lines** tab has a list of all the product lines and allows the user to specify a limited set of those product lines to show on the **Products** page (explained later in this manual), if so desired. It also allows users to set a default business unit from which the product may be manufactured. (Portal users can ignore the Multiplier column)

❑ On both tabs like elsewhere throughout the program, the question mark symbol may be found. These are links to HELP content related to that section of the screen.
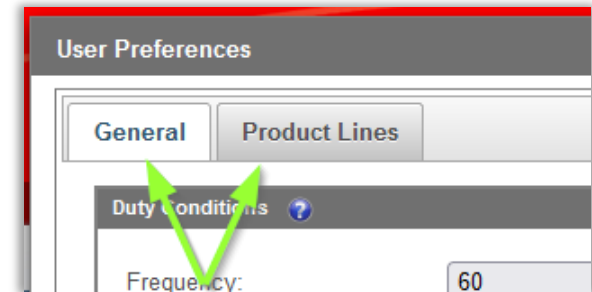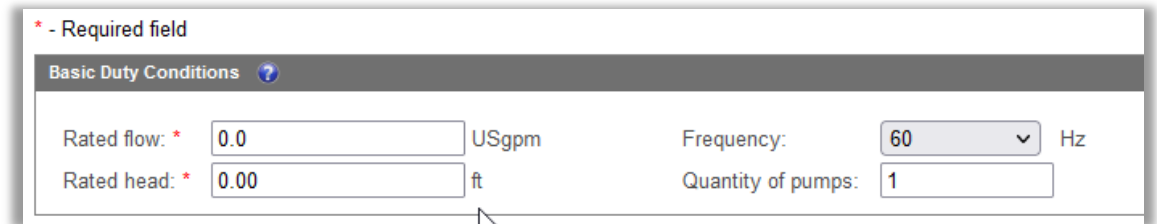
Default Settings Controls
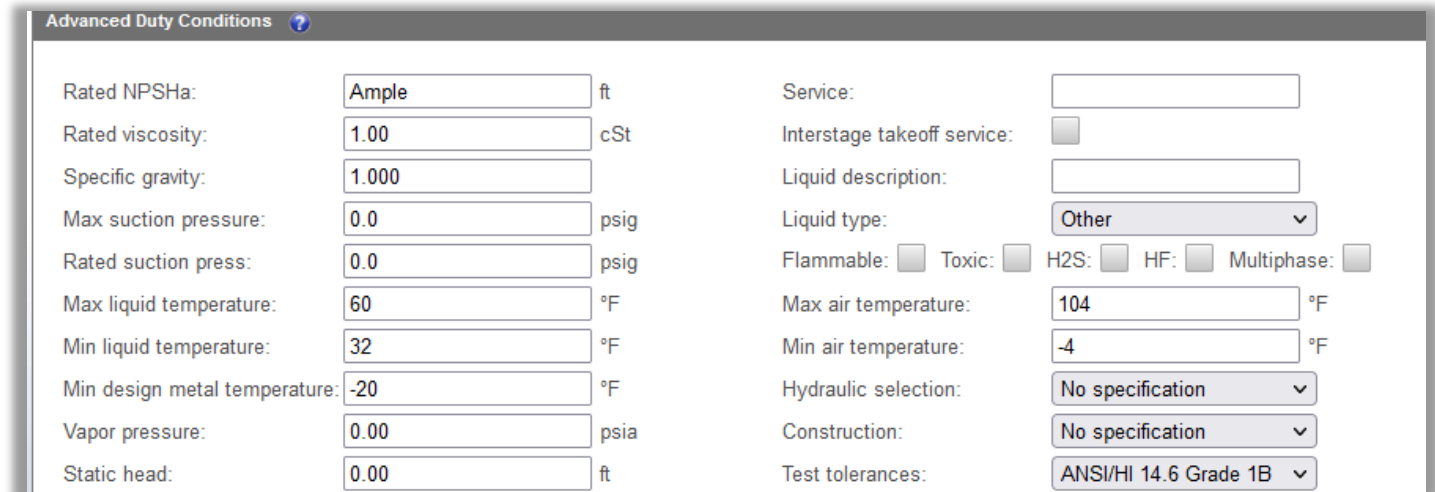
- In addition to **Preferences,** controls for **Input Mode** and **Units** (of measure) are displayed. The current setting is shown in yellow text.

- **Units** may be set to *Metric*, *US*, or *Custom*.

- **Input Mode** controls which user input fields are shown when **Search by Duty Conditions** is chosen as the method to find a pump.

- "**Basic**" displays only the minimum conditions required for a selection. *Frequency* is pre-populated with the setting defined on the **Preferences** screen.

- "**Advanced**" will display additional parameters to the "**Basic**" ones, which may impact the selection process. For example: *Max liquid temperature* value may preclude certain product lines from being offered. Several values are preset on the **Preferences** screen.

Preferences   Input Mode: Basic Advanced   Units: Metric US Custom

Back to Quote

* - Required field
Basic Duty Conditions

| Rated flow: * | 0.0 | USgpm | Frequency: | 60 | Hz |
| Rated head: * | 0.00 | ft | Quantity of pumps: | 1 | |

Advanced Duty Conditions

Rated NPSHa:	Ample	ft	Service:		
Rated viscosity:	1.00	cSt	Interstage takeoff service:		
Specific gravity:	1.000		Liquid description:		
Max suction pressure:	0.0	psig	Liquid type:	Other	
Rated suction press:	0.0	psig	Flammable: ☐ Toxic: ☐ H2S: ☐ HF: ☐ Multiphase: ☐		
Max liquid temperature:	60	°F	Max air temperature:	104	°F
Min liquid temperature:	32	°F	Min air temperature:	-4	°F
Min design metal temperature:	-20	°F	Hydraulic selection:	No specification	
Vapor pressure:	0.00	psia	Construction:	No specification	
Static head:	0.00	ft	Test tolerances:	ANSI/HI 14.6 Grade 1B	

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Search by Duty Conditions Method – Duty Conditions Page

❑ From the **Start Page**, **Search by Duty Conditions** method should be used when conditions of service are known.

❑ Users are guided through the search process by the progressive activation of the tabs across the top, in a left to right path as necessary information is entered on previous tabs.

❑ Use the *Back* and *Next* button or directly click on an active tab to navigate.

❑ To return to the **Quotes** page, click the *Back to Quote* button.

❑ On the **Duty Conditions** tab, only *Rated flow* and *Rated head* fields require user input to initiate a search. The rest of the fields have default values which may be changed to more accurately find a suitable pump for the service.

Duty Conditions Page – Alternate Duty Conditions

- The program also offers the ability to specify Alternate Duty Conditions to help find a pump that can meet varying pumping system situations at alternate speeds.

- To specify, expand the Alternate Duty Conditions panel.

  1. The screen will have Alternate Condition 1 column shown. To add more conditions, click the **Add new condition** button.

  2. To have the program consider a particular Alternate conditions, the check box needs to be checked.

  3. Again, note that users only need enter flow and head (verticals require a few more fields).

  4. The program provides the option for the additional fields for the Alternate conditions to be set equal to the main duty point settings or not.

- NOTE: Although the words **Multi duty point selection method** are shown, it does not mean that the program will find a pump that passes through two different points while running at the same speed.

Duty Conditions Page – Alternate Duty Conditions

❑ The **Multi duty point selection method** field has a dropdown list which allows different pump and motor sizing combinations to be specified.

For example, say one of the alternate conditions requires a larger impeller and/or driver size as compared to the main duty condition. If **Size pump and motor for rated conditions** is specified, then possibly a smaller diameter impeller and driver may be selected along with features suitable for the selected impeller and driver. A warning will be provided alerting the user that the Alternate condition can not be handled by the scope as specified at the time a search is performed and a pump size selected. (Further details will be shown later in the tutorial).

❑ At the bottom of the Alternate Duty Conditions pane are *Delete condition* buttons.
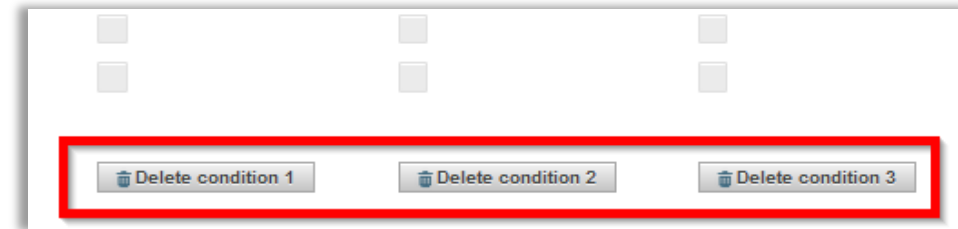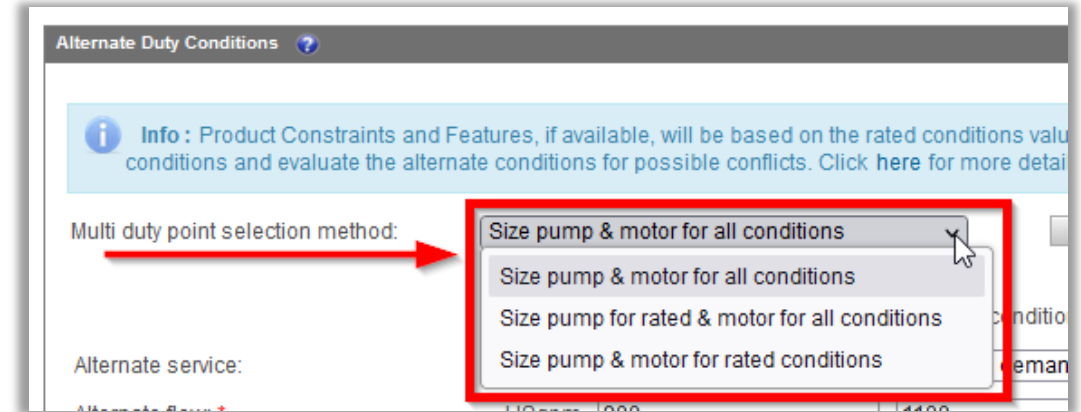
Duty Conditions Method - Products Page

❑ After the required fields are changed on the **Duty Conditions** page, the **Products** tab is unlocked for use.

❑ Product lines that are available basis values entered on the Duty Conditions page will have a green check mark to the left side of the row. Those that have been filtered out basis the Duty Conditions page values or due to incompatibility with a product line already added to the **Selected Product Lines** list, will have a red "X".

❑ To select an available product line from the **Available Product Lines** list, either check the box (as shown) followed by a click of the ***Add*** or ***Add with Companions*** button, or simply click the green check mark icon (known as Quick Add). Either way will copy the product line to the **Selected Product Lines** list.

Duty Conditions Method - Products Page continued

❑ **Add with Companions** button will add similar product lines to the one chosen to the **Selected Product Lines** list.

❑ The **Quick Add** method adds lines one at a time and does not bring companion lines. The check box method allows more than one product line to be selected and allows use of the **Add with Companion** functionality.

❑ Use **Remove** or **Remove All** buttons to remove chosen lines from **Selected Product Lines** list.
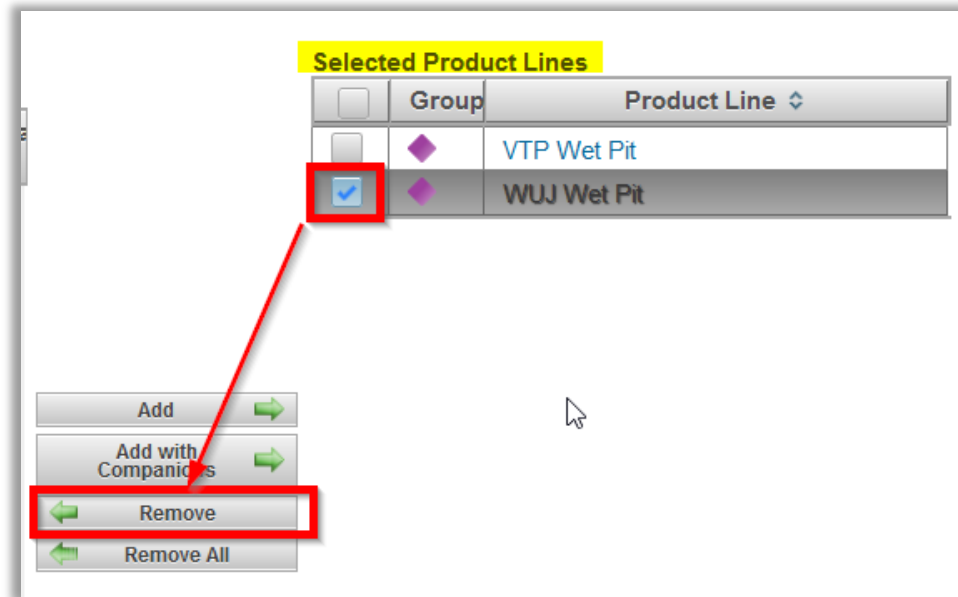
Duty Conditions Method - Products Page display

❑ Users can either have **Add** and **Remove** buttons along with the **Selected Product Line** list to the right of the **Available Product Lines** list ...

❑ **OR** they can have **Add** and **Remove** buttons along with the **Selected Product Line** list below the **Available Product Lines** list.

❑ Go to **Preferences** page to set desired **Product Line Page Format**.

Duty Conditions Method - Products Page Filters

- Filters are provided on the **Products** page to help reduce the number of product lines offered under the **Available Product Lines.**

- The **Show All Products** check box, if ticked overrides the users **Preferences – Product Lines** settings when some lines have NOT been chosen to normally be displayed.

- To see an explanation of why a line is not available, hover over the red "X" . There may be more than one reason. In the example, the product line groups, indicated by different shapes under the **Group** column, are of significantly different style of pumps (vertical wet pit vs horizontal split case) that they both would not be appropriate for the same situation, nor can a search of both lines be done at the same time.

Duty Conditions Method - Products Page Links

❑ Another feature of the **Products** page is that most of the product lines listed have a link to additional general information about that product.

❑ If such links exist, the color of the product line description will be blue.
(Example: HED 2 Stage API 610).

❑ Another indication of a valid link is that when the cursor is over the description of a product that has links, an underline will appear.

❑ If it does not have a link, the text will be black, and no underline will appear when the cursor is positioned over the description.
(Example: HPX 6000 API 610).

Duty Conditions Method - Products Page Links continued

❑ Upon opening product line links, users will be presented a view of the General tab screen which has an image of the pump and additional links to other available literature like bulletins and manuals. (Not all product lines offer the same type of literature links.)


❑ If the Operating Conditions tab screen is opened, a basic range chart and operating parameters will be seen.
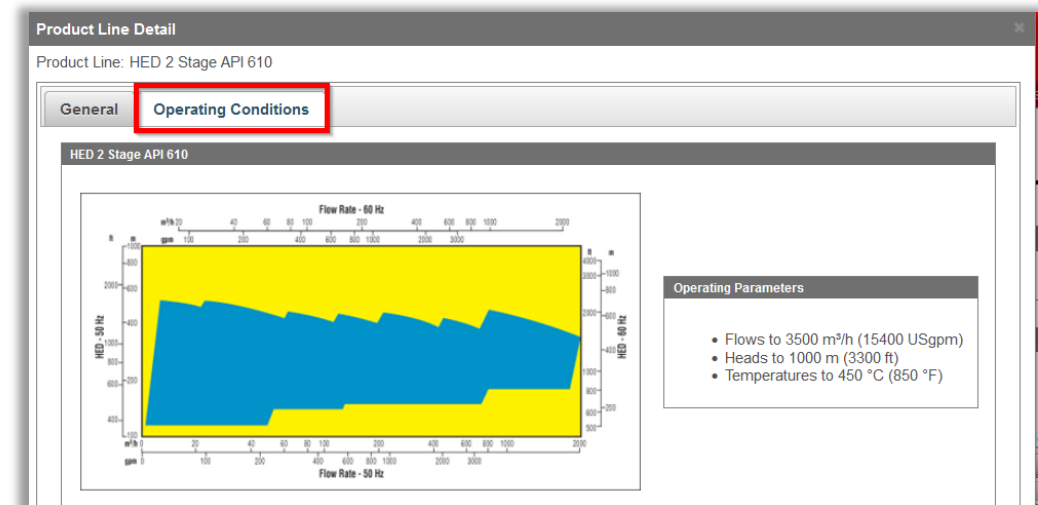
Duty Conditions Method – Additional Duty Conditions

❑ After one or more product lines have been added to the Selected Product Lines list, several more tabs will be unlocked for use. In addition, the *Pump Search* button will appear.

❑ Except for full vertical pump or interstage take-off applications, users can initiate a pump search using the default values already defined on the **Hydr/Driver Constraints** and **Product Constraints** pages by clicking on the **Search Results tab** or *Pump Search* button.

❑ If users want to view/change any of the default values set on **Hydr/Driver Constraints** or the **Product Constraints** tabs, click on the tab or use the *Next* button to navigate to the specific tab.
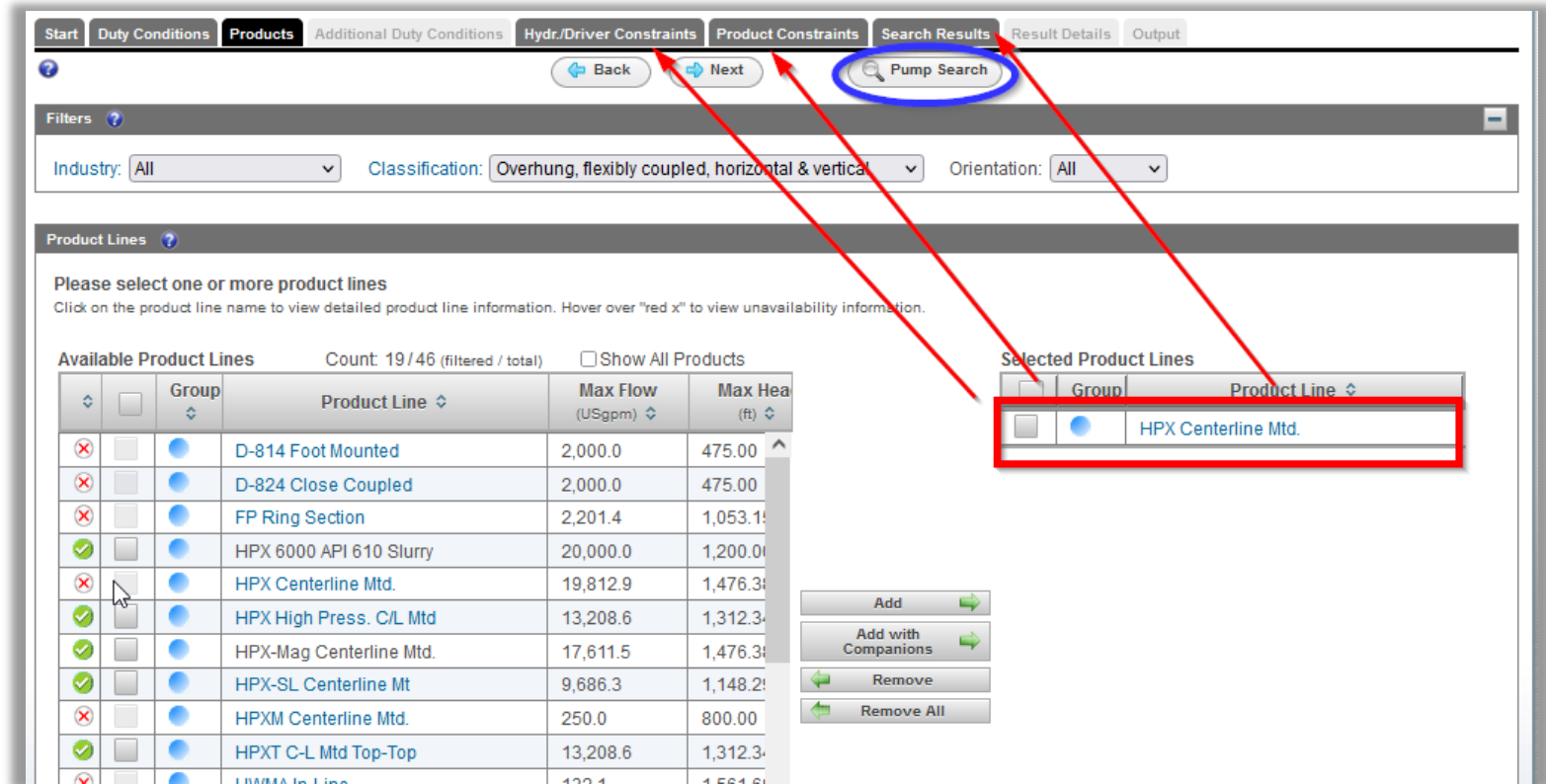
Duty Conditions Method – Additional Duty Conditions

❑ Pumps suitable for interstage take-off and some vertical applications require additional parameters unique to those applications to be specified. When this occurs, special additional duty conditions tabs will unlock, revealing those parameters.

Hydraulic and Driver Constraints Page

❑ The **Hydr./Driver Constraints** tab opens a page that offers various filtering parameters to help narrow the search process for a suitable pump size and driver.

❑ Many of the field are self explanatory. However, some clarification is offered for the following settings.

- *Normal/rated straddle BEP* will force the program to find pump sizes with the best efficiency point (BEP) located between user defined normal flow and rated flow rates. Entering a normal flow is mandatory if you select 'Normal/Rated straddle BEP'.
- *Normal flow* is a flow where the pump operates under normal conditions but is not the rated flow.
- *Min diameter ratio (% min dia)* is the minimum allowable ratio of the rated impeller versus the minimum impeller diameters. Users should enter the <u>additional</u> % of minimum diameter that the rated diameter must be to be considered for the selection. A typical value for minimum diameter ratio is 10%. If the minimum diameter for a given pump size was 10.00 inches, the rated diameter would need to be at least 11.00 inches {10.00 + (10% x 10.00)}
- *Parallel Operation, Possible Vacuum Service or Exposure, Variable Speed Driver* check boxes are used to set flags in the program which may or may not drive logic in the program (depending upon product line). They also satisfies API 610 requirement for end users to notify suppliers of these operating conditions.

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Product Constraints Page

☐ The **Product Constraints** page contains a product specific list of *Constraints* or attributes, which have product specific *Choices* (options). These *Constraint Choices* have been determined by the factory to have the potential to impact the hydraulic selection process for that product line when attempting to find a suitable pump size. Some product lines have a few Constraints while others like vertical turbine pumps, have many.

Product Constraints Page

❑ Click on any Constraint row to expand the list of associated Choices.

❑ Some Choice lists will have just a description while others may have a User Value field which either allows a number within limits to be entered or has a drop down pick list.

Product Constraints Page

❑ Note sections are provided which may have some helpful tips related to the Constraint and/or the particular Choice selected. If the Choice is changed, the Choice Note should change as well.
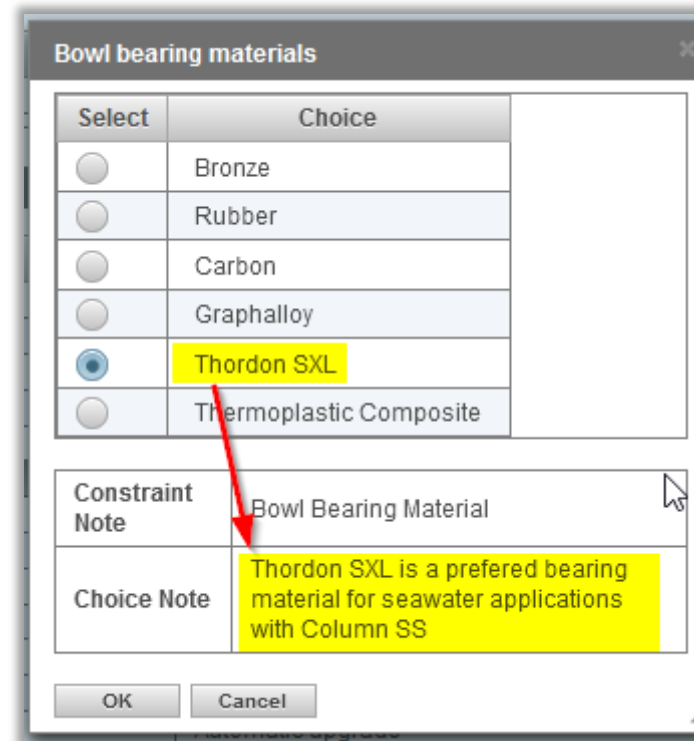
Product Constraints Page

❑ Some Choice lists start with an option entitled "**Automatic Upgrade**". Automatic Upgrade will start with the next available option in the list. If unacceptable for some reason for the pump size under evaluation, the program will automatically upgrade to the next option in the list and re-evaluate. This process will continue until a suitable option is found.

Bowl Bolting Material	
Select	**Choice**
◉	Automatic upgrade
○	N/A - No Bolting - Threaded Bowls
○	Steel A-449 Capscrews
○	Steel A-193/B7 Studs/Nuts
○	316 SS A-193/B8M Capscrews
○	316 SS A-193/B8M Studs/Nuts
○	17-4PH Capscrews
○	17-4PH Studs/Nuts

❑ Some Choice lists have the first being "Automatic select" and is usually accompanied with option "Customer specified". Automatic select should not be confused with Automatic Upgrade. It just means "let the program figure the optimum answer" in contrast to Customer specified which means the user is going to tell the program which value to use.

Discharge Location		
Select	**Choice**	**User Value**
◉	Automatic select	
○	Customer specified	[ ] in

❑ Some Choices in a list may have a red "X" to indicate that it is not available for some reason. This can be due to conflict with another Constraint Choice, or a setting in Duty Conditions or Hydraulic and Driver Constraints. If the option desired is not available and it can not be determined why, contact a Flowserve Sales representative or send an email to Affinitysupport.com

Thrust bearing design life	
Select	**Choice**
◉	Thrust stand not supplied
✗	17,500 hours
✗	25,000 hours
	Thrust bearing design life (l

Search by Duty Conditions - Search Results Page

❑ This page shows a list of pumps that either meet or are close to meeting the needs based on the parameters entered on the previous pages.

❑ The list is automatically sorted in descending order based on Efficiency.

❑ The list can be sorted by any of the columns by clicking the column header.

❑ The columns can also be customized by clicking on the *Customize Columns* button.

❑ Use the Search Results Help button to learn more.

Search by Duty Conditions - Search Results Page

HELPFUL HINT:
When a large list of potential pump sizes is presented, like the situation shown to the right, use of key sort criteria and the *Hide Selected* button can help to reduce the list to narrow in on best pump for the service. Read on to find out about these key criteria and note how the **Count** drops.

Count: 121/151   ☐ Hide Near Misses   ☑ Hide Invalid Selections   [Hide Selected]   [Show Only Selected]   [Show All]   [Customize columns]

☐	Status ⇕	Size & Type ⇕	Curve Number ⇕	CS ⇕	Stg ⇕	RPM ⇕	% BEP ⇕	NPSH3 ⇕	Efficiency ▾	Max Power ⇕	% Max Diameter ⇕	Price Index ⇕	Information ⇕
☐	✅	20EKL	EC-1357	📊	4	1185	102.5	11.2	84.0	213	93.8	2.5009	ℹ️
☐	✅	17EPL	EC-1596	📊	7	1185	98.8	10.2	83.6	265	96.7	3.7879	ℹ️
☐	✅	18EKH	EC-1448	📊	2	1780	100.3	19.1	82.4	219	91.8	1.2718	ℹ️
☐	⚠️	18EKL	EC-1447	📊	2	1780	98.2	21.4	82.3	215	100.0	1.3224	ℹ️ Non-current
☐	⚠️	24EML	EC-2695	📊	4	890	90.6	9.7	82.3	246	98.6	REFER	ℹ️ Shaft too large for disch head
☐	✅	20EKH	EC-1363	📊	3	1185	91.1	10.2	82.2	242	93.7	2.0144	ℹ️
☐	⚠️	16EMM	88500836	📊	2	1780	106.8	30.8	81.9	216	98.3	1.0000	ℹ️ Non-current
☐	✅	12EQH	EC-1847	📊	6	1770	108.7	26.0	81.6	223	97.9	1.1700	ℹ️
☐	✅	20EKY/20EKL	EC-1410/EC-1357	📊	3	1185	89.2	8.2	81.4	224	99.4	2.0856	ℹ️
☐	⚠️	26ECY/26ECM	88517440/88517441	📊	3	890	105.9	7.5	81.0	231	97.0	REFER	ℹ️ Shaft too large for disch head
☐	⚠️	24EMH	EC-2697	📊	4	890	89.8	9.5	81.0	236	93.9	REFER	ℹ️ Shaft too large for disch head
☐	✅	23EKM	EC-2011	📊	3	890	78.2	8.9	80.7	258	96.0	3.1696	ℹ️
☐	⚠️	16ENY/16ENH	EC-1415/EC-1822	📊	3	1775	91.0	15.5	80.5	238	89.9	1.2120	ℹ️ Below min impeller diameter
☐	✅	15EHM	EC-2392	📊	3	1775	118.3	21.5	80.4	221	94.2	1.1696	ℹ️
☐	✅	18ENL	EC-1455	📊	5	1185	84.9	11.4	80.2	266	94.2	2.1415	ℹ️
☐	✅	14ENH	EC-1354	📊	4	1775	113.5	26.4	80.2	222	96.1	1.1498	ℹ️
☐	✅	16ENH	EC-1822	📊	3	1775	87.2	24.5	80.0	260	91.9	1.1696	ℹ️
☐	⚠️	15EBM	EC-2432	📊	9	1190	112.0	14.3	79.8	233	99.0	2.2385	ℹ️ Non-current
☐	✅	18EKY/18EKL	EC-1460/EC-1447	📊	2	1780	97.1	13.4	79.8	226	90.9	1.3302	ℹ️
☐	✅	16ENL	EC-2339	📊	3	1775	88.1	16.2	79.6	254	94.5	1.2202	ℹ️
☐	⚠️	24ECY/24ECM	88517436/88517437	📊	2	1185	109.0	11.3	79.6	234	94.8	REFER	ℹ️ Shaft too large for disch head
☐	⚠️	18ENY/18ENL	EC-1412/EC-1455	📊	5	1185	86.3	8.7	79.6	254	92.9	2.1999	ℹ️
☐	⚠️	24ECY/24ECH	88517436/88517439	📊	2	1185	109.2	11.3	79.6	236	93.2	REFER	ℹ️ Shaft too large for disch head
☐	⚠️	14EBH	EC-2426	📊	5	1775	115.8	24.3	79.5	226	96.3	1.3202	ℹ️ Non-current
☐	✅	16ENH	EC-1822	📊	7	1185	112.0	15.7	79.4	228	100.0	1.8989	ℹ️

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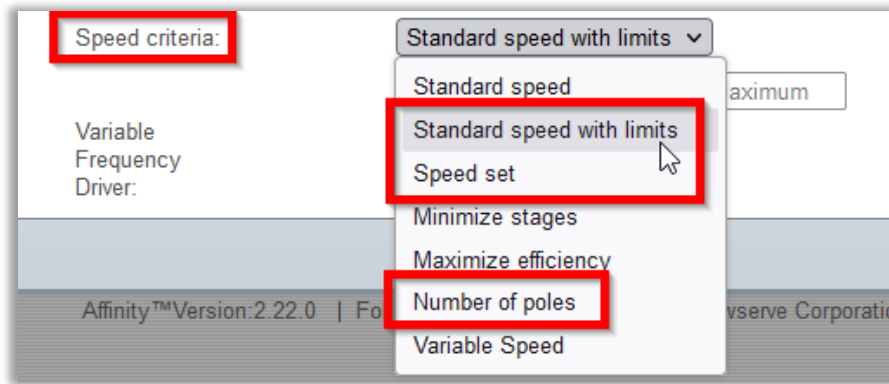
Search by Duty Conditions - Search Results Page

❑ The top two most important criteria is price and efficiency.

❑ The faster the pump speed, usually the smaller the pump will be. As a result, the pump and the associated driver will generally be less expensive.

❑ Sort by speed and if several pump sizes are available at the highest speed, then the slower speeds can be ignored.

❑ The easiest way to get rid of the slower speed is to return to the **Hydr./Driver Constraints** page and change the **Speed Criteria** to either **Standard speed with limits** or **Number of Poles** and enter the value that corresponds to the speed range and frequency. **Set speed** can be used as well.

Speed criteria: Standard speed with limits ▾

Standard speed	aximum
Standard speed with limits	
Speed set	

Variable Frequency Driver:

Minimize stages

Maximize efficiency

Number of poles

Variable Speed

Affinity™Version:2.22.0 | Fo... vserve Corporatic

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Count: 121/151 ☐ Hide Near Misses ☑ Hide Invalid Selections [Hide Selected] [Show Only Selected] [Show All]

	Status ⇕	Size & Type ⇕	Curve Number ⇕	CS ⇕	Stg ⇕	RPM ⇕	% BEP ⇕	NPSH:
☐	✅	20EKL	EC-1357		4	1185	102.5	11.2
☐	✅	17EPL	EC-1596		7	1185	98.8	10.2
☐	✅	18EKH	EC-1448		2	1780	100.3	19.1
☐	⚠	18EKL	EC-1447		2	1780	98.2	21.4
☐	⚠	24EML	EC-2695		4	890	90.6	9.7
☐	✅	20EKH	EC-1363		3	1185	91.1	10.2
☐	⚠	16EMM	88500836		2	1780	106.8	30.8
☐	✅	12EQH	EC-1847		6	1770	108.7	26.0
☐	✅	20EKY/20EKL	EC-1410/EC-1357		3	1185	89.2	8.2
☐	⚠	26ECY/26ECM	88517440/88517441		3	890	105.9	7.5
☐	⚠	24EMH	EC-2697		4	890	89.8	9.5
☐	✅	23EKM	EC-2011		4	890	78.2	8.9
☐	⚠	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5
☐	✅	15EHM	EC-2392		3	1775	118.3	21.5
☐	✅	18ENL	EC-1455		5	1185	84.9	11.4
☐	✅	14ENH	EC-1354		4	1775	113.5	26.4
☐	✅	16ENH	EC-1822		3	1775	87.2	24.5
☐	⚠	15EBM	EC-2432		9	1190	112.0	14.3
☐	✅	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4
☐	✅	16ENL	EC-2339		3	1775	88.1	16.2
☐	⚠	24ECY/24ECM	88517436/88517437		2	1185	109.0	11.3
☐	✅	18ENY/18ENL	EC-1412/EC-1455		5	1185	86.3	8.7
☐	⚠	24ECY/24ECH	88517436/88517439		2	1185	109.2	11.3
☐	⚠	14EBH	EC-2426		5	1775	115.8	24.3
☐	✅	16ENH	EC-1822		7	1185	112.0	15.7

Search by Duty Conditions - Search Results Page

❑ As can be seen, the number of pump candidates has dropped form 121 out of possible 151, to 36 out of possible 55. This is still a lot of pumps.

Search Results ❓

Count: 36 / 55   ☐ Hide Near Misses   ☑ Hide Invalid Selections   [Hide Selected] [Show Only Selected] [Show All] [Customize columns]

	Status	Size & Type	Curve Number	CS		Stg	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter	Price Index	
☐	✅	18EKH	EC-1448			2	1780	100.3	19.1	82.4	219	91.8	1.2718	ⓘ
☐	⚠	18EKL	EC-1447			2	1780	98.2	21.4	82.3	215	100.0	1.3224	ⓘ
☐	⚠	16EMM	88500836			2	1780	106.8	30.8	81.9	216	98.3	1.0000	ⓘ
☐	✅	12EQH	EC-1847			6	1770	108.7	26.0	81.6	223	97.9	1.1700	ⓘ
☐	⚠	16ENY/16ENH	EC-1415/EC-1822			3	1775	91.0	15.5	80.5	238	89.9	1.2120	ⓘ
☐	✅	15EHM	EC-2392			3	1775	118.3	21.5	80.4	221	94.2	1.1696	ⓘ
☐	✅	14ENH	EC-1354			4	1775	113.5	26.4	80.2	222	96.1	1.1498	ⓘ
☐	✅	16ENH	EC-1822			3	1775	87.2	24.5	80.0	260	91.9	1.1696	ⓘ
☐	✅	18EKY/18EKL	EC-1460/EC-1447			2	1780	97.1	13.4	79.8	226	90.9	1.3302	ⓘ
☐	✅	16ENL	EC-2339			3	1775	88.1	16.2	79.6	254	94.5	1.2202	ⓘ
☐	⚠	14EBH	EC-2426			5	1775	115.8	24.3	79.5	226	96.3	1.3202	ⓘ
☐	✅	18EKY/18EKH	EC-1460/EC-1448			2	1780	92.8	13.4	79.3	229	83.5	1.3302	ⓘ
☐	✅	16EHM	88491606			2	1775	86.1	19.7	79.2	260	97.1	1.0000	ⓘ
☐	⚠	17ETMH	88376558			2	1770	100.1	24.7	78.9	235	90.4	REFER	ⓘ
☐	⚠	17ETMY/17ETML	88376559/88376557			2	1770	102.5	19.2	78.5	229	98.0	REFER	ⓘ
☐	✅	16ENY/16ENL	EC-1415/EC-2339			3	1775	91.0	15.5	78.5	238	92.4	1.2626	ⓘ
☐	⚠	17ETML	88376557			3	1770	122.1	25.2	78.1	234	90.9	REFER	ⓘ
☐	✅	16ENY/16EMM	EC-1415/88500836			3	1775	116.5	15.5	77.9	228	88.7	1.2122	ⓘ
☐	✅	20EKL	EC-1357			2	1780	77.7	18.7	77.6	231	83.2	1.5786	ⓘ
☐	⚠	VTP-800 WU-4M	800 WUC-4M / 0			2	1750	87.7	17.9	77.3	239	90.1	1.7747	ⓘ
☐	✅	15EHL	EC-2390			4	1775	128.8	30.3	77.3	244	100.0	1.3899	ⓘ
☐	⚠	14EHM	88500835			4	1780	122.2	29.2	77.2	244	97.2	1.1974	ⓘ
☐	⚠	17ETMY/17ETMH	88376559/88376558			2	1770	99.4	19.2	77.2	246	86.8	REFER	ⓘ
☐	✅	15EHY/15EHL	87052643/EC-2390			4	1775	123.3	16.7	77.0	242	95.8	1.4324	ⓘ
☐	✅	14ENL	EC-2336			5	1775	119.9	20.9	74.3	276	99.5	1.2852	ⓘ

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Search by Duty Conditions - Search Results Page

- Next sort by **Efficiency** in descending order. Usually, there is no need to keep any of the sizes that rank below the top 10 to 15 basis efficiency unless none of the top sizes have a **Price Index** value of 1.0000.

- The **Price Index** is a comparison of the reference price (not shown) of a given pump size to that of the lowest reference priced pump. The reference price is a basic estimate of a bare pump and does not include all the features that can be added or the driver pricing.

- To hide those sizes, click the box next to them and then hit the **Hide Selecte**d button.

Search Results ❓

Count: 36 / 55   ☐ Hide Near Misses   ☑ Hide Invalid Selections   Hide Selected   Show Only Selected   Show All   Customize columns

	Status	Size & Type	Curve Number	CS	Stg	RPM	% BEP	NPSH3	Efficiency ▼	Max Power	% Max Diameter	Price Index	Information
☐	✅	18EKH	EC-1448		2	1780	100.3	19.1	82.4	219	91.8	1.2718	ℹ️
☑	⚠️	18EKL	EC-1447		2	1780	98.2	21.4	82.3	215	100.0	1.3224	ℹ️ Non-current
☑	⚠️	16EMM	88500836		2	1780	106.8	30.8	81.9	216	98.3	1.0000	ℹ️ Non-current
☐	✅	12EQH	EC-1847		6	1770	108.7	26.0	81.6	223	97.9	1.1700	ℹ️
☐	⚠️	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5	80.5	238	89.9	1.2120	ℹ️ Below min impeller diameter
☐	✅	15EHM	EC-2392		3	1775	118.3	21.5	80.4	221	94.2	1.1696	ℹ️
☐	✅	14ENH	EC-1354		4	1775	113.5	26.4	80.2	222	96.1	1.1498	ℹ️
☐	✅	16ENH	EC-1822		3	1775	87.2	24.5	80.0	260	91.9	1.1696	ℹ️
☐	✅	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4	79.8	226	90.9	1.3302	ℹ️
☐	✅	16ENL	EC-2339		3	1775	88.1	16.2	79.6	254	94.5	1.2202	ℹ️
☑	⚠️	14EBH	EC-2426		5	1775	115.8	24.3	79.5	226	96.3	1.3202	ℹ️ Non-current
☐	✅	18EKY/18EKH	EC-1460/EC-1448		2	1780	92.8	13.4	79.3	229	83.5	1.3302	ℹ️
☐	✅	16EHM	88491606		3	1775	86.1	19.7	79.2	260	97.1	1.0000	ℹ️
☑	⚠️	17ETMH	88376558		2	1770	100.1	24.7	78.9	235	90.4	REFER	ℹ️ Non-current
☑	⚠️	17ETMY/17ETML	88376559/88376557		2	1770	102.5	19.2	78.5	229	98.0	REFER	ℹ️ Non-current
☑	✅	16ENY/16ENL	EC-1415/EC-2339		3	1775	91.0	15.5	78.5	238	92.4	1.2626	ℹ️
☑	⚠️	17ETML	88376557		3	1770	122.1	25.2	78.1	234	90.9	REFER	ℹ️ Non-current
☑	✅	16ENY/16EMM	EC-1415/88500836		3	1775	116.5	15.5	77.9	228	88.7	1.2122	ℹ️
☑	✅	20EKL	EC-1357		2	1780	77.7	18.7	77.6	231	83.2	1.5786	ℹ️
☑	⚠️	VTP-800 WU-4M	800 WUC-4M / 0		2	1750	87.7	17.9	77.3	239	90.1	1.7747	ℹ️ Constraint conflict
☑	✅	15EHL	EC-2390		4	1775	128.8	30.3	77.3	244	100.0	1.3899	ℹ️
☑	⚠️	14EHM	88500835		4	1780	122.2	29.2	77.2	244	97.2	1.1974	ℹ️ Non-current
☑	⚠️	17ETMY/17ETMH	88376559/88376558		2	1770	99.4	19.2	77.2	246	86.8	REFER	ℹ️ Non-current
☑	✅	15EHY/15EHL	87052643/EC-2390		4	1775	123.3	16.7	77.0	242	95.8	1.4324	ℹ️
☑	✅	14ENL	EC-2336		5	1775	119.9	20.9	74.3	276	99.5	1.2852	ℹ️

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Search by Duty Conditions - Search Results Page

- Another reason to hide a pump may be due to a "Near Miss" status indicated by the blue triangle. ⚠️

- A cause is shown under the **Information** column. There may be more than one cause. All causes are revealed when that particular pump is chosen to see more details.

Search by Duty Conditions - Search Results Page

❑ If the Price Index is higher and the Efficiency is lower for a given pump compared to the most efficient pump, then there is probably no need to consider that pump. (Other factors may cause an exception.)

❑ A quick glance at the Max power rating and its implications may indicate that a larger rated driver will be required than some of the other candidates. Just beware that for some pumps, maximum power occurs at shut-off flow, and it may not be necessary to rule out a candidate. A look at the Quick Curve can shed some light.

Search Results ⓘ

Count: 10/55 ☐ Hide Near Misses ☑ Hide Invalid Selections | Hide Selected | Show Only Selected | Show All | Customize columns | Page Size:

☐	Status ⇕	Size & Type ⇕	Curve Number ⇕	CS ⇕		Stg ⇕	RPM ⇕	% BEP ⇕	NPSH3 ⇕	Efficiency ▾	Max Power ⇕	% Max Diameter ⇕	Price Index ⇕
☐	✅	18EKH	EC-1448		📈	2	1780	100.3	19.1	82.4	219	91.8	1.2718
☐	✅	12EQH	EC-1847		📈	6	1770	108.7	26.0	81.6	223	97.9	1.1700
☐	⚠️	16ENY/16ENH	EC-1415/EC-1822		📈	3	1775	91.0	15.5	80.5	238	89.9	1.2120
☐	✅	15EHM	EC-2392		📈	3	1775	118.3	21.5	80.4	221	94.2	1.1696
☐	✅	14ENH	EC-1354		📈	4	1775	113.5	26.4	80.2	222	96.1	1.1498
☑	✅	16ENH		**Quick Curve**	📈	3	1775	87.2	24.5	80.0	260	91.9	1.1696
☑	✅	18EKY/18EKL	EC-1460/EC-1447		📈	2	1780	97.1	13.4	79.8	226	90.9	1.3302
☑	✅	16ENL	EC-2339		📈		1775	88.1	16.2	79.6	254	**???** 5	1.2202
☑	✅	18EKY/18EKH	EC-1460/EC-1448		📈	2	1780	92.8	13.4	79.3	229	83.5	1.3302
☑	✅	16EHM	88491606		📈	2	1775	86.1	19.7	79.2	260	**???**	1.0000

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Search by Duty Conditions - Search Results Page

- Note that the Quick Curve icon takes users to a "trackable" curve which provides digital readout of key values as one moves their mouse across the screen. Users may need to adjust their screen size in order to see the entire Data point display at the bottom.

- As can be seen in the example, maximum power of 260 hp does occur at shut-off flow.

- The maximum power between Minimum Continuous Stable Flow (MCSF) and the End of the curve is only 228 hp.

- If a NEMA motor with a service factor greater than 1.0 is used, or if customer system controls are put in place as to prevent operating the pump below MCSF, then a 250 hp rated motor may be considered acceptable for this application and keep this pump in consideration.
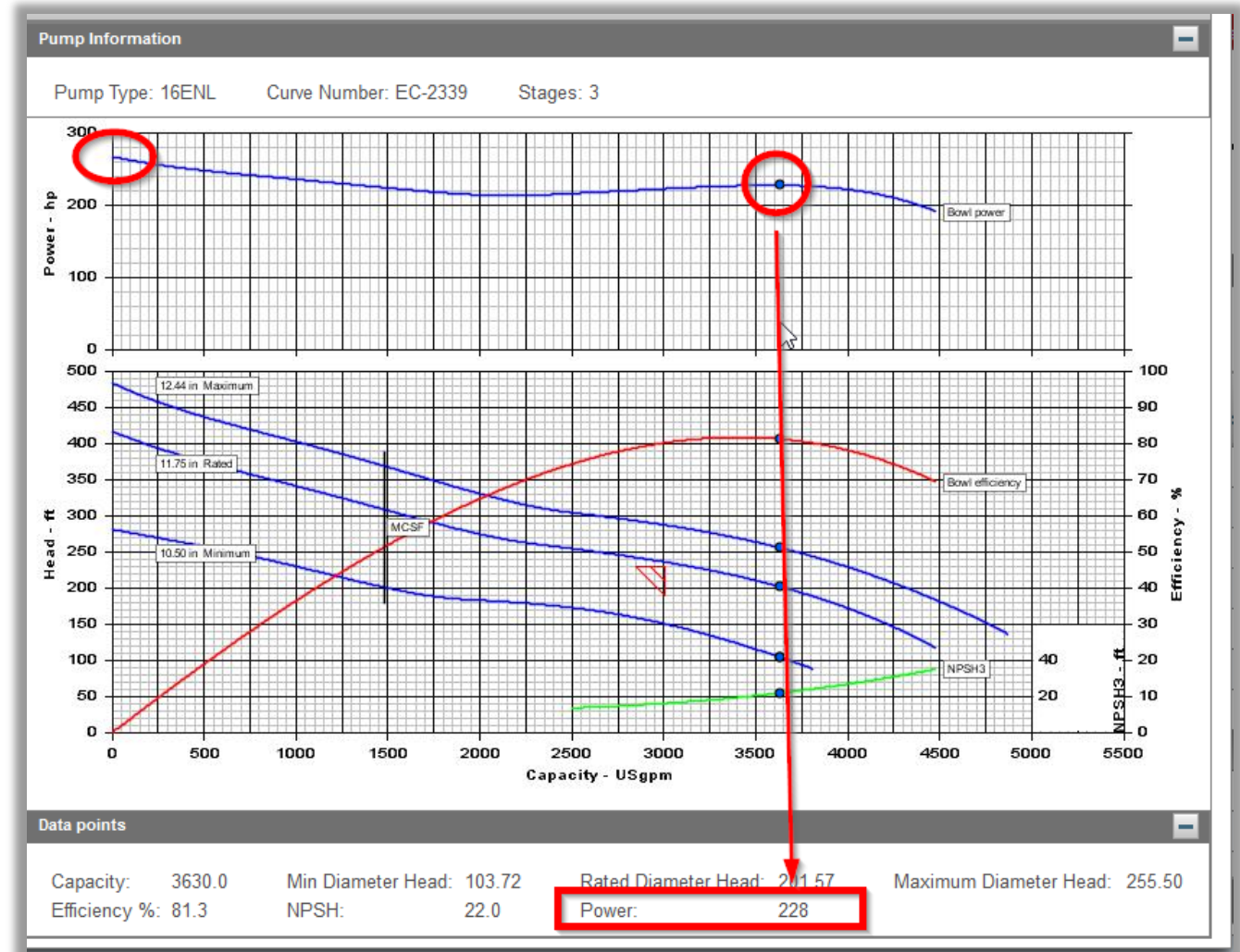
Search by Duty Conditions - Search Results Page

❏ **View Thumbnails** is another tool to compare pumps. Check the box of the pumps that desired to be viewed.

Search by Duty Conditions - Search Results Page

❑ In some cases, the best option is very clear. In others, like the example shown, it is not always easy to make that final decision.

❑ Consideration of other parameters like % of BEP, % Max Diameter, or NPSH3 may help.

❑ For multistage pumps, the number of stages may be important due to the impact of any per stage option added to the pump. (i.e. wear rings)

❑ Trying to weigh the potential payoff of a higher efficiency pump vs its Price index is very difficult at this point. This is when users should select and save a pump to their quote to preserve their input conditions. Then a request to a Flowserve representative should be made to provide to help finalize a decision.

Search Results ❓

Count: 5 / 55 ☐ Hide Near Misses ☑ Hide Invalid Selections [Hide Selected] [Show Only Selected] [Show All] [Customize columns]

☐	Status ⇕	Size & Type ⇕	Curve Number ⇕	CS ⇕		Stg ⇕	RPM ⇕	% BEP ⇕	NPSH3 ⇕	Efficiency ▾	Max Power ⇕	% Max Diameter ⇕	Price Index ⇕
☐	✅	18EKH	EC-1448		📈	2	1780	100.3	19.1	82.4	219	91.8	1.2718
☐	✅	12EQH	EC-1847		📈	6	1770	108.7	26.0	81.6	223	97.9	1.1700
☐	✅	15EHM	EC-2392		📈	3	1775	118.3	21.5	80.4	221	94.2	1.1696
☐	✅	14ENH	EC-1354		📈	4	1775	113.5	26.4	80.2	222	96.1	1.1498
☐	✅	16EHM	88491606		📈	2	1775	86.1	19.7	79.2	260	97.1	1.0000

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Search by Duty Conditions - Results Details Page

□ Upon clicking on one of the pumps in the **Search Results** page, The **Results** page displays a vast amount of details about the pump selected and the parameters used to drive the search.

□ Users can save the selection, view the curve, edit the number of stages on multistage pumps, and change Driver Synchronous Speed or Driver Rating, if need be.

Results Details page – Alternate Duty Conditions

❑ If a search was performed with Alternate Duty Conditions specified, multiple tabs will be shown to allow review of the **Results Details** for the different conditions of service.

❑ If a problem exists with one of the conditions with respect to the pump size selected and based on the **Multi duty point selection method** set on the **Duty Conditions** page, a warning message will be shown and either a blue triangle or red box.
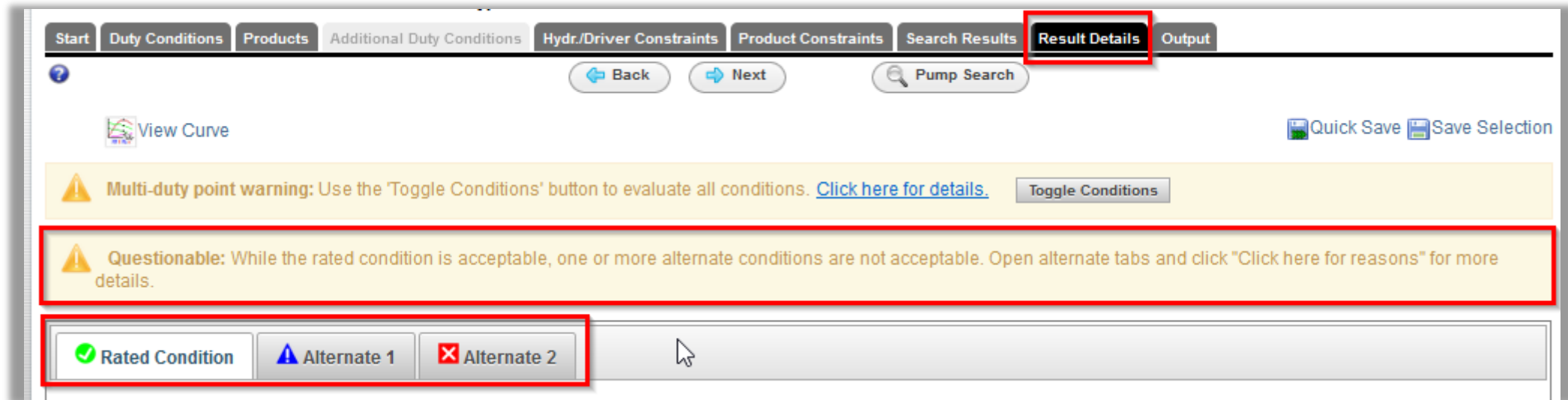
Results Details page – Alternate Duty Conditions

❑ The **Toggle Conditions** button allows users to change which set of conditions are considered the **Rated, Alternate 1, Alternate 2, etc.**
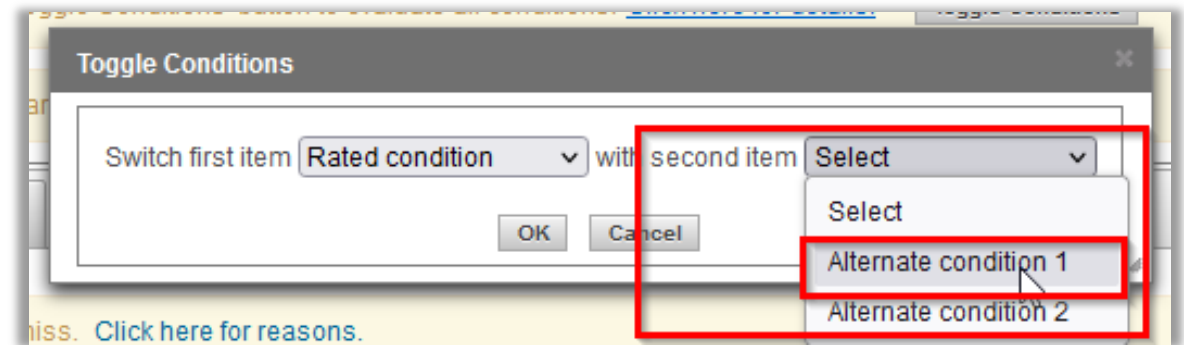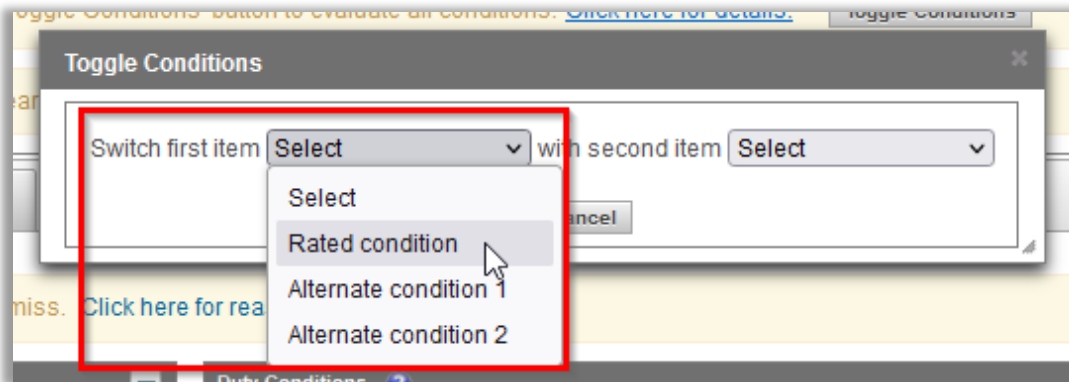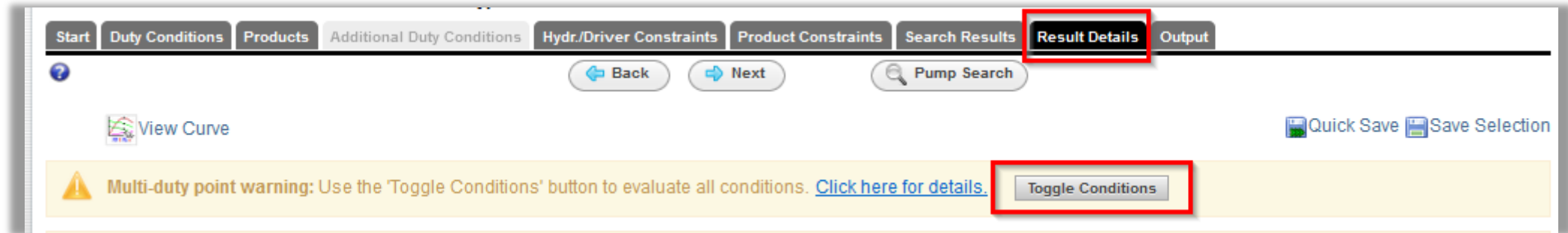
Output Page

❑ The **Output** page allows users to view a traditional curve, datasheets, general arrangement drawings as well as other documents associated with the selection.

❑ Document language preference can be changed from the default.

❑ Several option buttons are presented at the bottom of screen.
(For explanation on *Document Order* functionality, look else ware in these instructions.
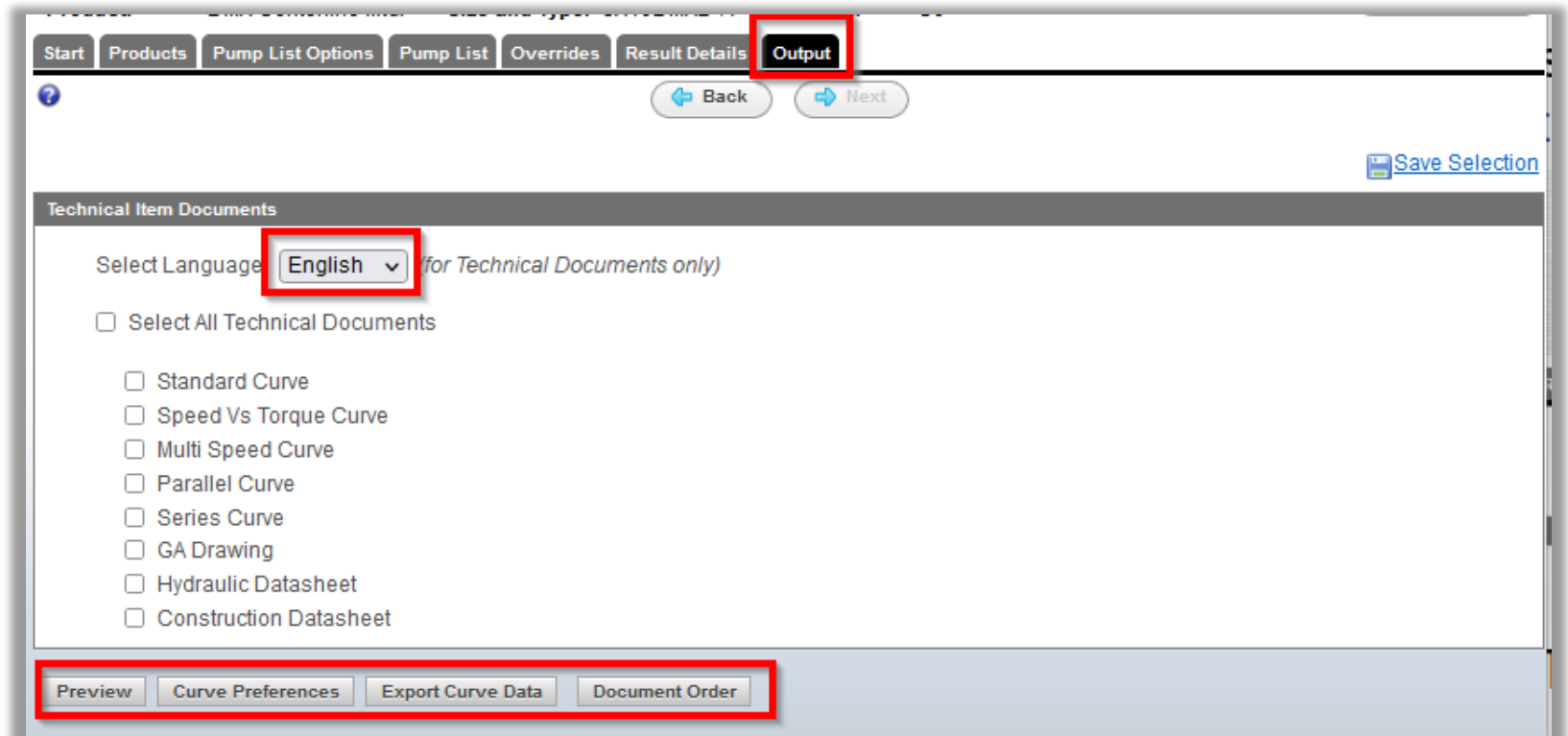
Output Page

❏ Curve Preferences allow control of several details related to curve presentation.

❏ Users can control how the pump curve is displayed when multiple duty conditions have been entered on the Duty Conditions page.

❏ The Draw system curve check box will cause a basic system head curve to be drawn that starts at zero flow and the Static head value entered on the Duty Condition screen. The curve will extend to pass through the rated duty condition point.

❏ Vertical Sump Pump Options allows the user to specify different head measuring locations draw the pump curve.

Output Page

☐ Typical performance curve with system head curve.
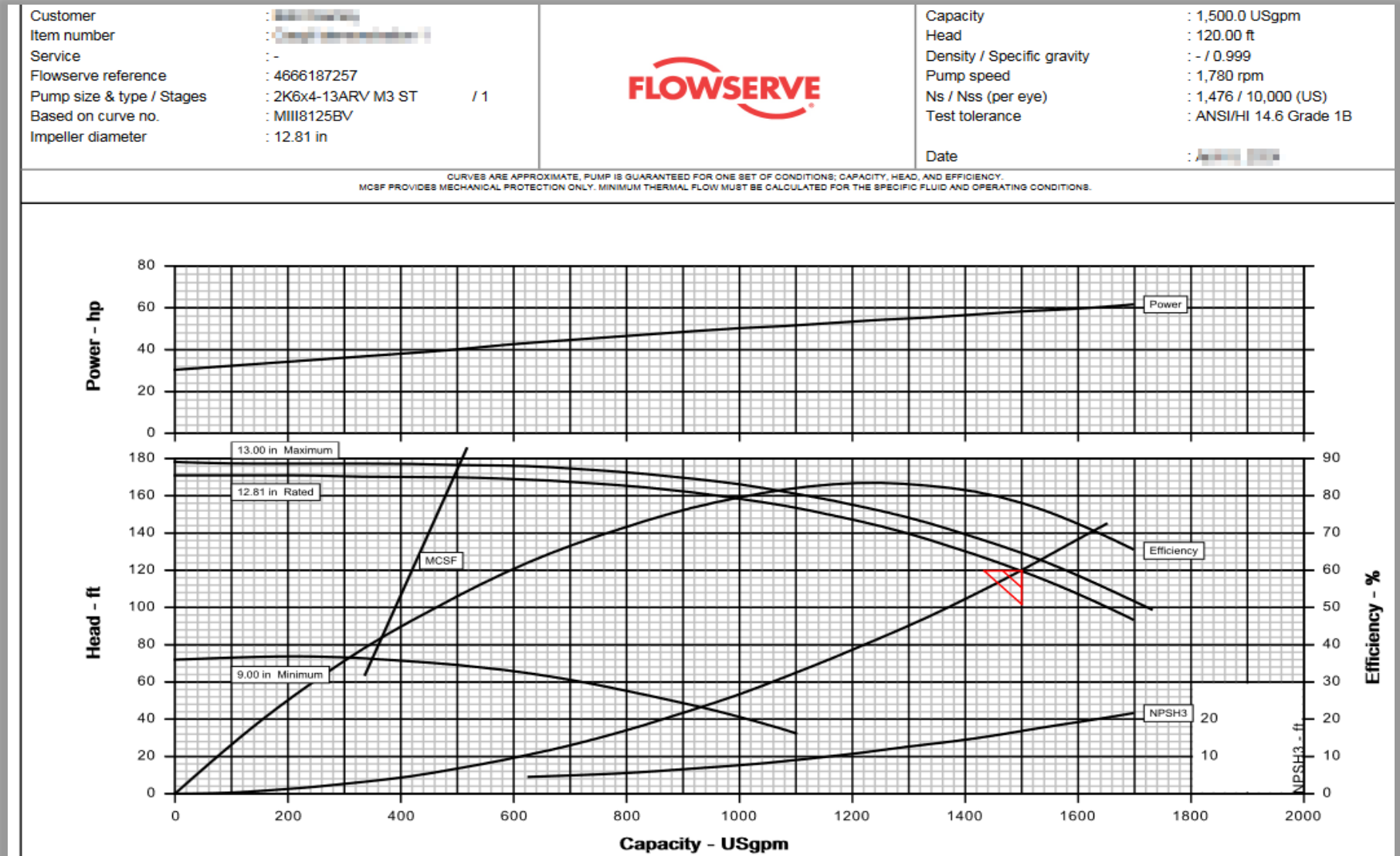
Output Page – Multi-Speed and Multiple Pump

❑ When Multi Speed, Parallel, or Series Curve check boxes are checked, the associated Curve Options link will appear. Click on them to open additional screens.

❑ For Multi Speed Curves, users can either specify alternate speeds or frequencies.

❑ For Parallel or Series Curves, enter the quantity and hit "OK".

Select by PUMPLIST

❑ As stated previously, when the **ADD ITEM** button is clicked, the **Start** screen will be displayed..

❑ **Select by Pumplist** should be used when a particular product line and size are known.

❑ When chosen, the **Products** page opens.

❑ The Pumplist **Products** page is slightly different than the one presented for Search by Duty Conditions.

❑ Only one product line may be moved to the Selected Product Line list.

❑ Also, there are no control buttons for Adding or Removing Lines to and from the Selected Product Line list.
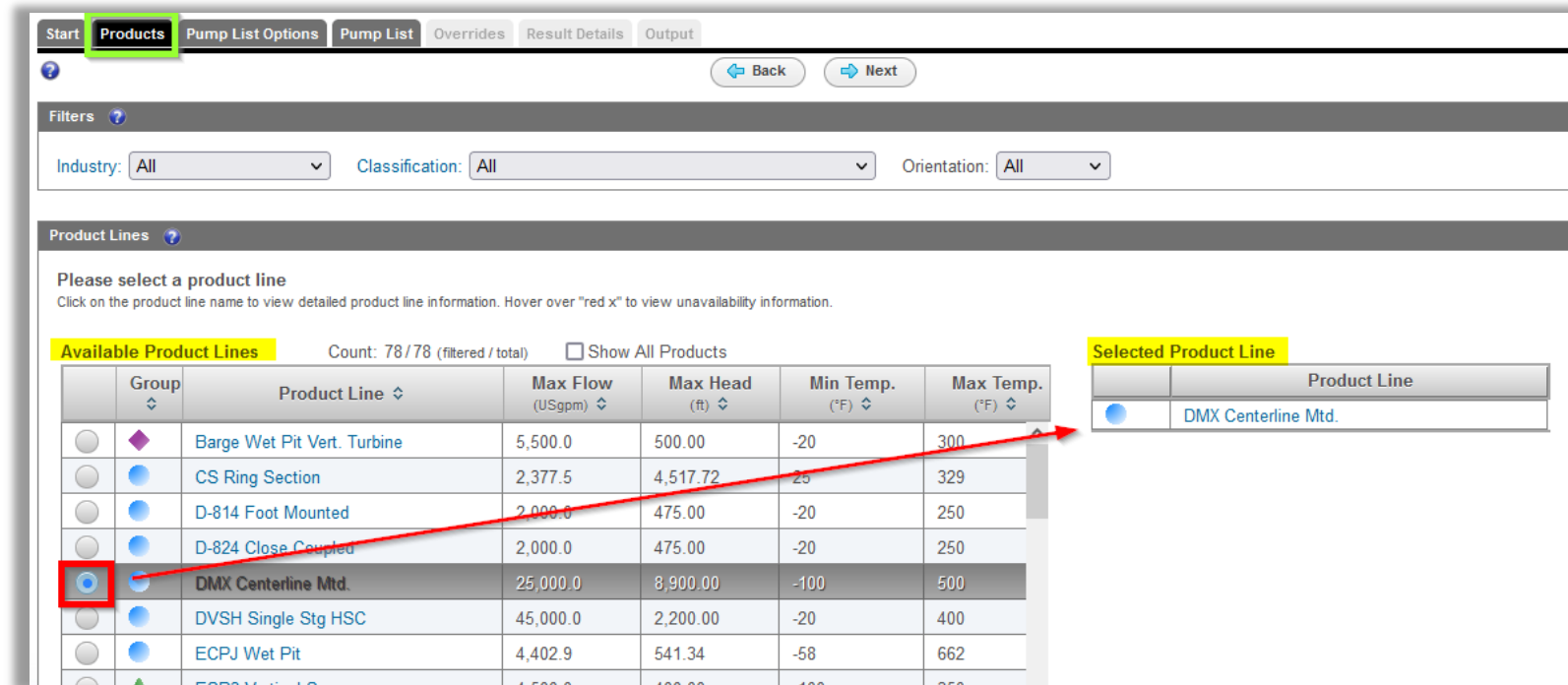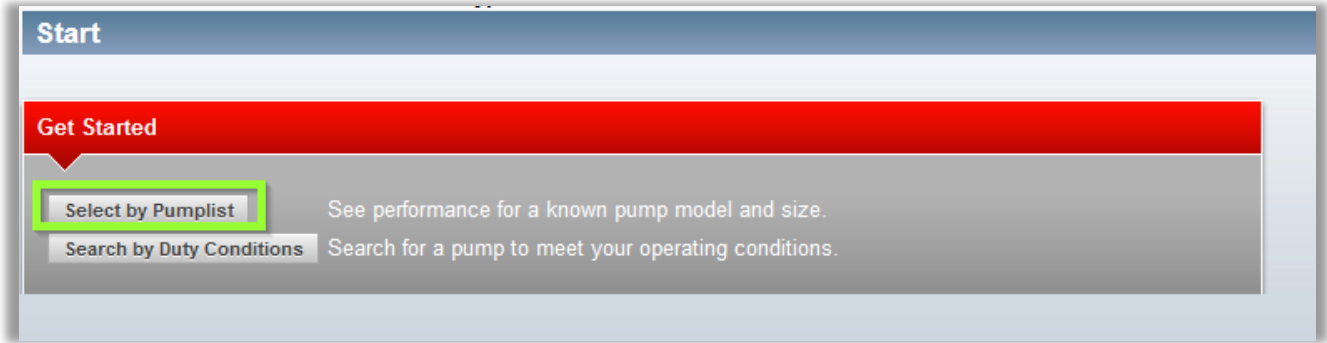
Select by PUMPLIST

❑ The **Pump List Options** page allows for changes to Frequency and Driver design.

❑ The **Pump List** page lists all available sizes. After choosing one, either click on the **Overrides** tab or hit *Next* button.

❑ The **Overrides** page allows for changing of stages (on multi-stage), speed, and impeller diameter to desired values.

Select by Pumplist

- ❑ The **Results** page display for **Select by Pumplist** is also slightly different than that of **Search by Duty Conditions**.
- ❑ In addition, the ***Edit Duty Conditions*** button is presented.
- ❑ If clicked this will switch the functionality over to that of **Search by Duty Conditions** where Hydraulic, Driver, and Product Constraints can be set for further refinement of the pump selection.
- ❑ Users still can save the selection, view the trackable curve, edit the number of stages, and/or change Driver Synchronous Speed or Driver Rating, with this variation of the **Results** page.
- ❑ All the functionality of the **Output** page is the same.

Saving Selection Options

❑ The first time a new search is made, only the *Save Selection* button will be offered.

❑ Upon clicking, users have the limited options of *Save*, *Save as Alternate*, or *Close*.

❑ Once a selection has been saved, users can click on *Quick Save* which simply updates the current item, or they can pick *Save Selection*.

❑ *Save Selection* for previously saved items have additional save options of *Save as New Item* and *Save as Revision*.

❑ The *Save as Alternate* and *Save as Revision* are options that tie the item to a "primary" saved item.

Quote Screen – Line Details Panel

❑ As lines are added and saved, the Lines Details list will grow, and additional functionality will become relevant.

- **RECONFIGURE**: will open an existing line item of the specific line item that has a check in the box on the left side so that its' details may be viewed or reconfigured (edited).

- **COPY ITEM**: will copy the specific line with a check in the box on the left side to create a new item within the same quote. Only one item can be copied at a time.

- **DELETE ITEM**: will delete all line items with a checked box. More than one line item may be deleted at a time. *IMPORTANT!* Alternate and Revision line items must be deleted before or at the same time as the primary line item to prevent quote corruption. Once deleted there is **no way to retrieve**.

- **TOGGLE ALTERNATE:** Allows user to switch the primary selection for a line item to be the alternate and make the alternate be the primary selection.

NOTE: Under the **Reconfig** column,
"**H**" is for Hydraulic,
"**P**" is for Primary (selection),
"**A**" is for Alternate (selection), and
"**R**" is for Revision (selection).

Line Details

| VIEW ▼ | | | FREEZE | ADD ITEM | RECONFIGURE | COPY ITEMS | DELETE ITEM | COPY FROM ANOTHER QUOTE |

☐ ▲	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	Supplying BU
☐ 1	H P	Cargill	0	1	1	Mark 3 & LoFlo	2K6x4-13ARV M3 ST	1	DCI	Chesapeake
☐ 2	H P	Cargill	0	1	1	Mark 3 & LoFlo	2K6x4-13ARV M3 ST	1	DCI	Chesapeake
☐ 3	H A	Cargill	1	2	1	Mark 3 & LoFlo	3K8x6-14ARV M3 ST	1	DCI	Chesapeake
☐ 4	H R	Cargill	1	1	1	Mark 3 & LoFlo	3K8x6-14ARV M3 ST	1	DCI	Chesapeake
☐ 5	H P	Cargill actual pump	0	1	1	Mark 3 & LoFlo	3K10x8-17RV M3 ST	1	D/C	Chesapeake

Page 1 of 1 (1-5 of 5 items) |K < [1] > >|

SET OUTPUT DOCUMENTS   TOGGLE ALTERNATE

Quote Screen – Line Details Panel (continued)

❑ **COPY FROM ANOTHER QUOTE**: will allow one or more line items to be copied from another quote into the existing quote.

■ Users can either enter a specific quote number and click *Submit* button or they can click on a line from a list of existing quotes.

■ Select one or more of the line items and hit the *Copy* button or hit the *Back* button to cancel the action and return to the **Copy From Quote** page.

■ Quote line items that are either tagged as **Alternates** or **Revisions**
■ will have the check box greyed out.

Quote Screen – Set Output Documents

❑ **SET OUTPUT DOCUMENTS**: provides options on how and for which documents are to be arranged in the quote package.

- ▪ Select the line items to be included in the output documents package.

- ▪ Click the *SET OUTPUT DOCUMENTS* button to open the **Document Bundling** page.

Document Bundling Page

❑ From the **Document Bundling** page, select which documents are to be arranged in the quote package.

1. Users have option to include a Technical Summary or not with their documents.

2. Users can click the far-left box on a line to include all the documents for a line when available.

3. Users can choose only certain documents for a line item when available.

4. Users can choose a particular document type for all lines when available.

Document Bundling Page -Technical Summary

☐ Example of Technical Summary

FLOWSERVE

Technical Summary

Customer:

Cust / Proj Ref:

FLS # / Reference: 4666

Date: Mar 11, 2024

Primary Selection Summary - Centrifugal

Item number	Qty	Rated capacity	Max temp	Max suct pres	Speed	Rated dia	Power rated	Cap. BEP	Dia ratio	Working pres
Product	Mat'l	Rated head	Rated viscosity	NPSHa	Eff'y	Max dia	Power max	% Cap BEP	Max head cut	MAWP
Pump / Stages		SG	Vapor pres	NPSH3	Nss (per eye)	Min dia	Power motor	MCSF	Head rise	
Cargill demonstration 1	1	1,500.0 USgpm	60 °F	0.0 psig	1,780 rpm	12.81 in	58.0 hp	1,243.2 USgpm	98.6 %	74.1 psig
Mark 3 & LoFlo ANSI	DCI	120.00 ft	1.00 cSt	33.4 ft	78.3 %	13.00 in	61.3 hp	120.7 %	171.22 ft	250.0 psig
2K6x4-13ARV M3 ST / 1		0.999	0.26 psia	17.0 ft	10000 US	9.00 in	75.0 hp	496.6 USgpm	42.7 %	
Cargill actual pump P4091	1	3,596.0 USgpm	60 °F	0.0 psig	1,480 rpm	14.94 in	114 hp	3,596.1 USgpm	87.9 %	56.6 psig
Mark 3 & LoFlo ANSI	D/C	101.16 ft	1.00 cSt	Ample	80.4 %	17.00 in	116 hp	100.0 %	130.82 ft	250.0 psig
3K10x8-17RV M3 ST / 1		1.000	0.00 psia	12.9 ft	13150 US	13.00 in	90.0 kW	1,932.7 USgpm	29.3 %	
Cargill demonstration 1	1	1,500.0 USgpm	60 °F	0.0 psig	1,780 rpm	11.81 in	58.7 hp	1,832.4 USgpm	84.4 %	58.2 psig
Mark 3 & LoFlo ANSI	DCI	120.00 ft	1.00 cSt	33.4 ft	77.4 %	14.00 in	72.3 hp	81.9 %	134.67 ft	250.0 psig
3K8x6-14ARV M3 ST / 1		0.999	0.26 psia	14.0 ft	10470 US	11.00 in	75.0 hp	792.8 USgpm	12.2 %	

Alternate Selection Summary - Centrifugal

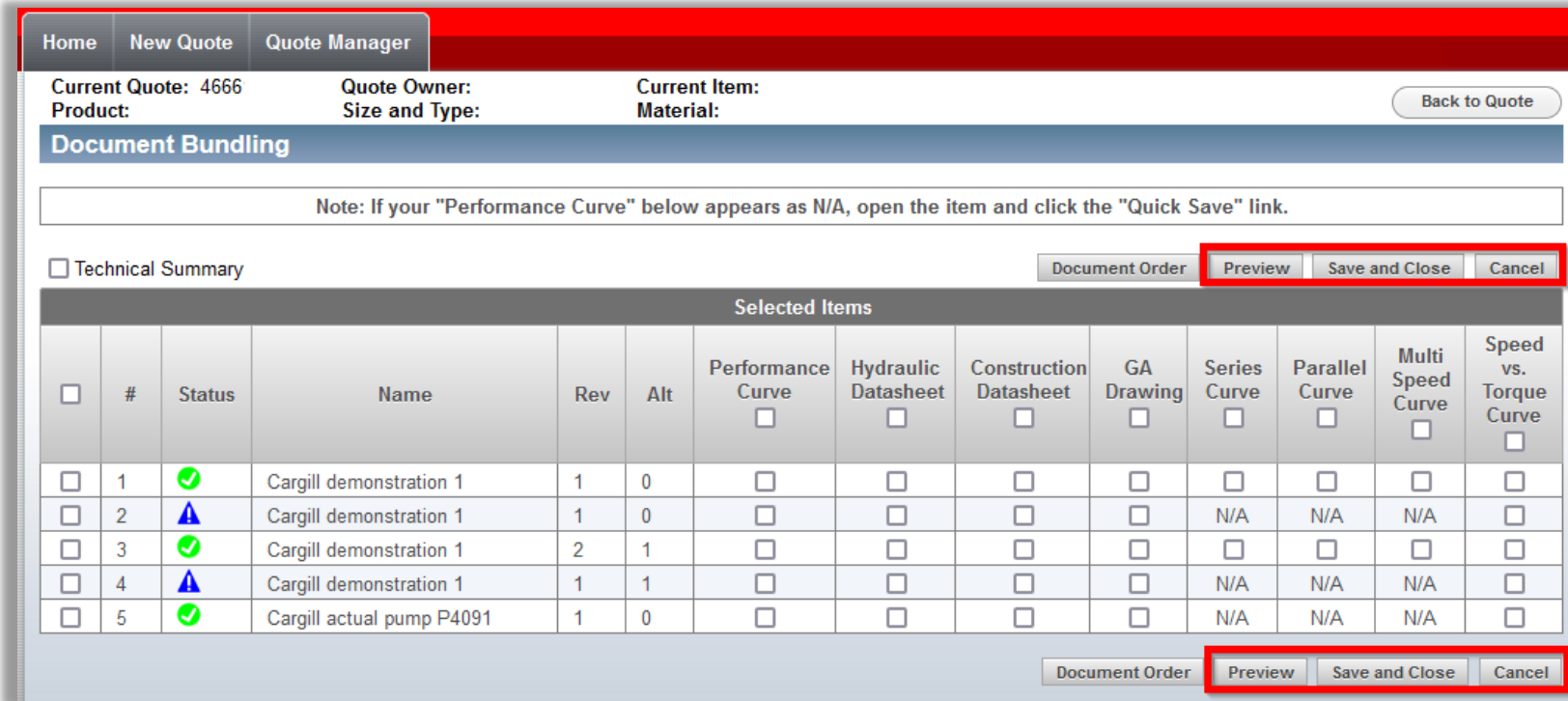| Item number	Qty	Rated capacity	Max temp	Max suct pres	Speed	Rated dia	Power rated	Cap. BEP	Dia ratio	Working pres
Product	Mat'l	Rated head	Rated viscosity	NPSHa	Eff'y	Max dia	Power max	% Cap BEP	Max head cut	MAWP
Pump / Stages		SG	Vapor pres	NPSH3	Nss (per eye)	Min dia	Power motor	MCSF	Head rise	
Cargill demonstration 1	1	1,500.0 USgpm	60 °F	0.0 psig	1,780 rpm	12.81 in	58.0 hp	1,243.2 USgpm	98.6 %	74.1 psig
Mark 3 & LoFlo ANSI	DCI	120.00 ft	1.00 cSt	33.4 ft	78.3 %	13.00 in	61.3 hp	120.7 %	171.22 ft	250.0 psig
2K6x4-13ARV M3 ST / 1		0.999	0.26 psia	17.0 ft	10000 US	9.00 in	75.0 hp	496.6 USgpm	42.7 %	
Cargill demonstration 1	1	1,500.0 USgpm	60 °F	0.0 psig	1,780 rpm	11.81 in	58.7 hp	1,832.4 USgpm	84.4 %	58.2 psig
Mark 3 & LoFlo ANSI	DCI	120.00 ft	1.00 cSt	33.4 ft	77.4 %	14.00 in	72.3 hp	81.9 %	134.67 ft	250.0 psig
3K8x6-14ARV M3 ST / 1		0.999	0.26 psia	14.0 ft	10470 US	11.00 in	75.0 hp	792.8 USgpm	12.2 %	

FLOWSERVE | **Affinity**

Document Bundling Page – Document Order

❑ Clicking the **Document Order** button will open a page that allows users to indicate the order to which their documents should be arranged in their package.

❑ Users need only use their left mouse button to grab a label (like GA Drawing in images below) and drag that label to the position desired.

❑ Users can also control whether the documents are grouped by line item or if the documents of the same type are to be grouped together. (i.e. All Performance Curves followed by all Hydraulic Datasheets etc.)

❑ The particular document order can then be saved as user's default for all quotes, or just to Save To Quote for that individual quote.
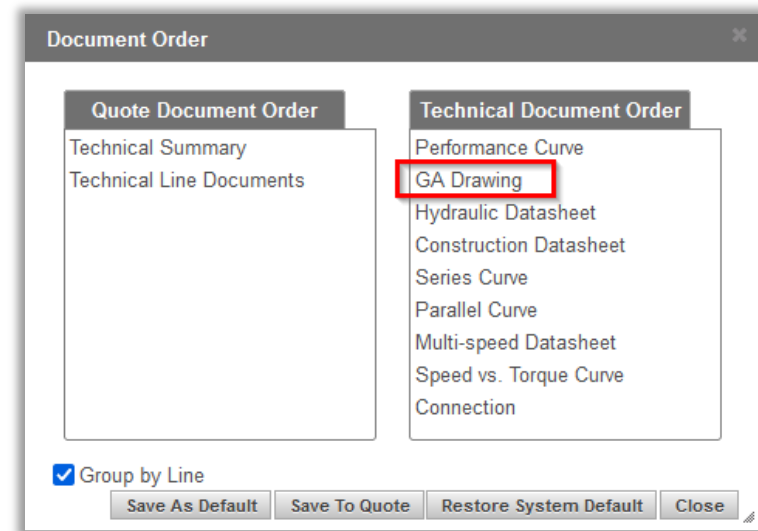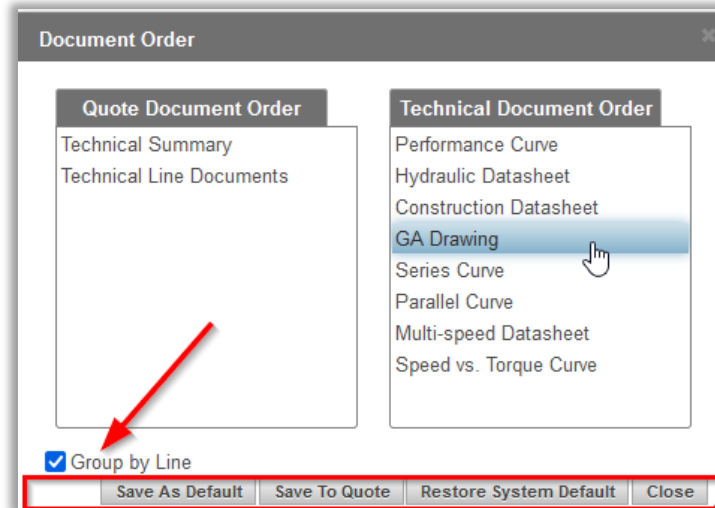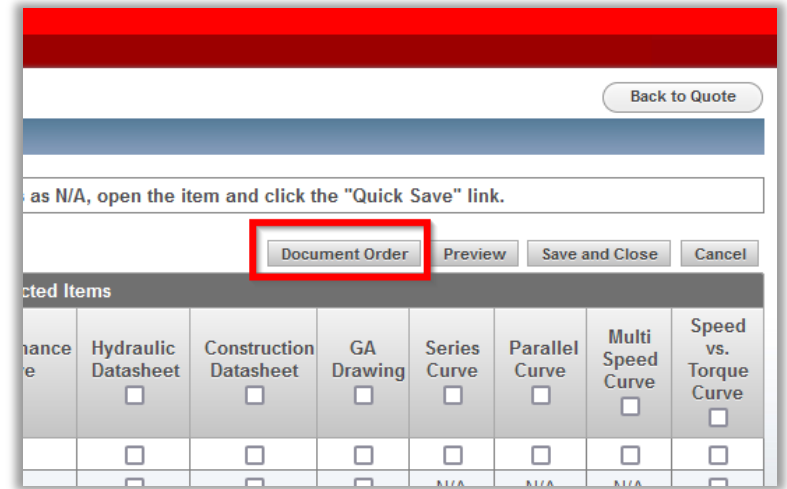
Document Bundling Page – Additional Controls

❑ *Preview* button allows users to see a preview of their document arrangement.

❑ *Save and Close* and *Cancel* buttons are self explanatory.

Quote Screen – Line Details Panel - Filters

❑ Ignore the View button and options listed under it as it is standard functionality from the software vendor that Flowserve is not utilizing.

❑ The basic Filter button allows users to enter any text to search.

	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	M
☐	1	H P	Proman J401 A/B	0	1	1	ERPN Centerline	ERPN 150-319	1	S-5	0.
☐	2	F P	P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4	1.
☐	3	F P	P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.
☐	4	H P	test save	0	1	1	VTP Wet Pit	20EKL	4	B30	1.
☐	5	F P	ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	DCI	1.
☐	6	H P	Marterial not avail	0	1	1	D-814 Foot	D814-2.5X1.5X5T	1	STD	1.
☐	7	F P	P-62 alt1	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.

	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	M
☐	1	H P	Proman J401 A/B	0	1	1	ERPN Centerline	ERPN 150-319	1	S-5	0.

Quote Screen – Line Details Panel - Filters

❑ The Advanced Filter button provides a guided search capability. Upon selection, a screen with three filter options is shown.

❑ The first filter box is a drop-down menu of the Line Details column headings.

❑ The second filter box has a list of logic operators.
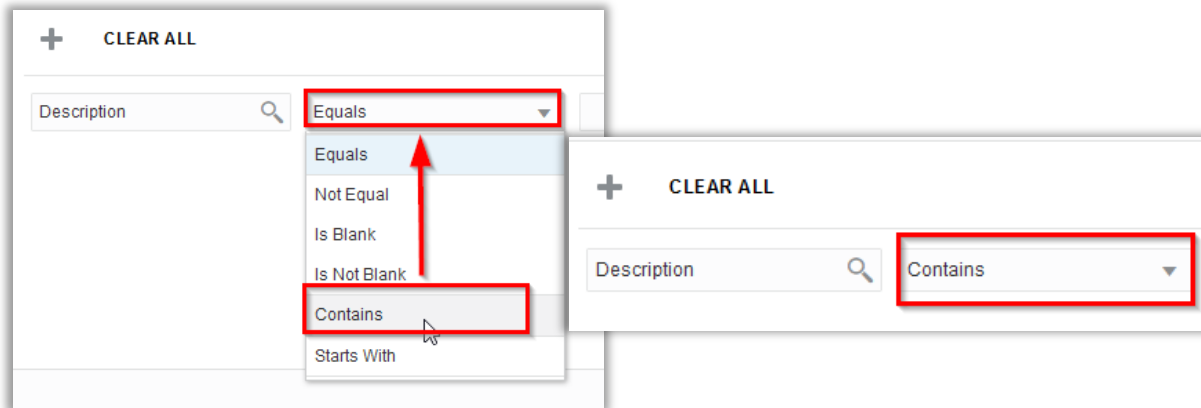
❑ The third filter box allows entry of appropriate free-form value for the column being searched and logic operator set.

❑ To initiate the search, hit the APPLY button.
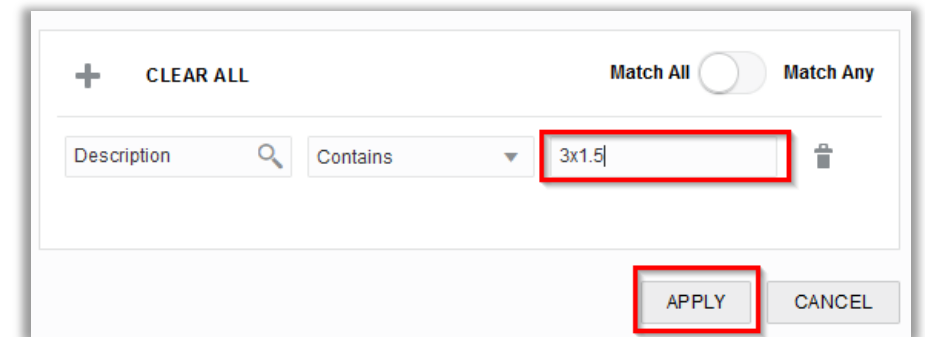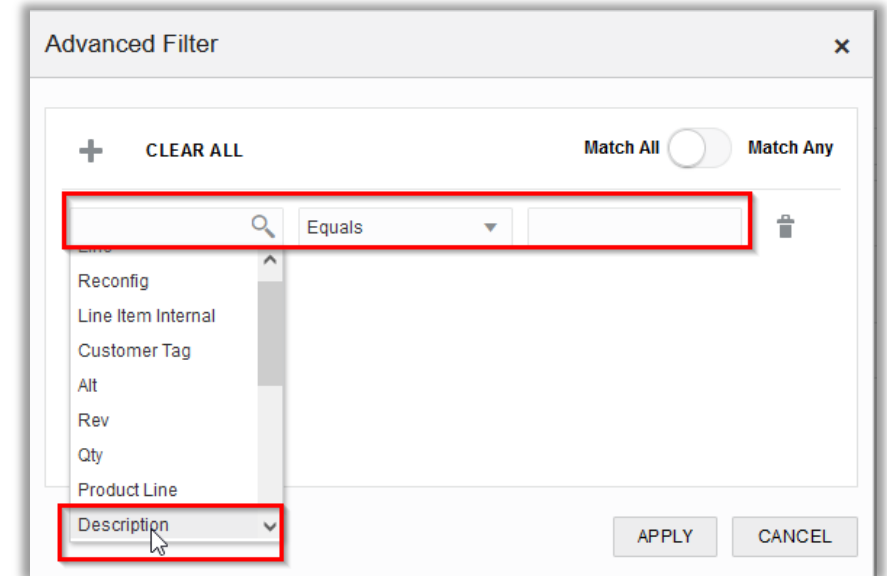
Quote Screen – Line Details Panel - Filters

❑ Basis the settings in the example (shown upper right), the original list of line items (shown lower left) has been reduced to display only the ones with a Description value Containing the value 3x1.5 (shown lower right). Note that there are lines with different Materials.

	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	
☐	1	H p	Proman J401 A/B	0	1	1	ERPN Centerline	ERPN 150-319	1	S-5	
☐	2		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4	
☐	3		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	
☐	4		test save	0	1	1	VTP Wet Pit	20EKL	4	B30	
☐	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	DCI	
☐	6		Marterial not avail	0	1	1	D-814 Foot	D814-2.5X1.5X5T			
☐	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST			
☐	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST			
☐	9		Vallen-Merck	0	1	1	Mark 3 & LoFlo	1K1.5x1-62RV M3 ST			
☐	10		Reconfig symbols	0	1	1	DMX Centerline	3X10DMXD-A			

	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	Multi.	
☐	2		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4	1.000	
☐	3		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.000	
☐	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	DCI	1.000	
☐	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.000	
☐	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.000	

Quote Screen – Line Details Panel - Filters

❑ If addition column search restrictions are desired, click on the "plus" sign to add another filter criteria row.

❑ The new list has been reduced further basis the additional search for Material and the **Match All** setting.
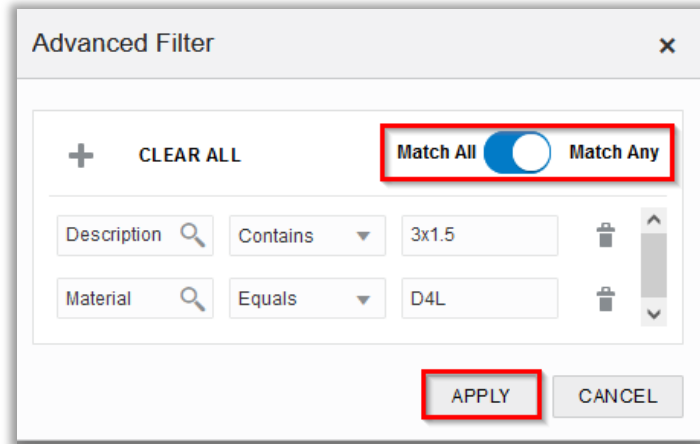
Quote Screen – Line Details Panel - Filters

❑ If **Match Any** is selected instead of **Match All,** the search results would appear as shown. Notice that any row that has <u>either</u> Description Containing 3x1.5 or Material Equal to D4L is shown.

❑ Click the trash can icon to remove a particular filter.   Click the **CLEAR ALL** button to remove all advanced filters.

Quote Screen – Line Details Panel - Filters

❑ The **Freeze** button freezes the selected column and all columns to the left of that column while scrolling right.

Quote Manager – Quote Access – Request Flowserve Assistance

- [ ] To request assistance from Flowserve, go to the **Quote Access** tab.

- [ ] Type in the first part of the Flowserve employee's email. Note: The @flowserve.com will automatically be appended to the part that is typed.

- [ ] Fill in the nature of the request.

- [ ] Click on the **REQUEST FLOWSERVE ASSISTANCE** button.

- [ ] Upon a successful submission, the wording "**Request not sent**" will change to "**Request Last Sent: ...**" with the date and time of transmission.

- [ ] The email will also be sent to your registered email address.

Quote Manager

Quote Header   Quote Documents/ Notes   Quote Access

Email Address   jsmithoroniskow   @flowserve.com

Request Comments   Please provide pricing for attached scope of supply. Also, please provide WR^2 values for pumps.

REQUEST FLOWSERVE ASSISTANCE   Request not sent

SHARE QUOTE WITH ANOTHER USER

Please provide pricing for attached scope of supply. Also, please provide WR^2 values for pumps.

Request Last Sent: 03/07/2024 17:01:(

[External] Assistance requested for Affinity Quote: 4813146596

twahoo@neverland.net

To
Cc

(i) We could not verify the identity of the sender. Click here to learn more.

CAUTION: This email originated from outside of Flowserve. Do not click links or open attachments unless you can confirm the sender and know the content is safe.

Assistance is requested for Affinity Quote number 4813146596 created on 03/07/2024

Additional Comments:
Please provide pricing for attached scope of supply. Also, please provide WR^2 values for pumps.

This email was generated by flowserve.bigmachines.com

Please log on at http://flowserve.bigmachines.com

Quote Manager – Quote Access – Quote Sharing

- To share a quote, go to the **Quote Access** tab.

- Click the **SHARE QUOTE WITH ANOTHER USER** button.

- To share with another Portal user, enter their **Share Key** as shown in the upper right corner of the screen. <u>Emails will not work.</u>

  To share with a Flowserve Distributor or a Flowserve employee, request they share their **User Name**. <u>Emails will not work.</u>

- Once the contact information is entered, hit the **ADD** button to have name show up in the **Shared Users** area.

- BE SURE TO click the **ASSIGN** button or the quote will not be shared.

Quote Header | Quote Documents/ Notes | Quote Access

Email Address   jsmithoroniskow   @flow

Request Comments   Please

REQUEST FLOWSERVE ASSISTANCE

SHARE QUOTE WITH ANOTHER USER

Share Key : anon_____
Email   :   net

My Profile | Logout

User Name :
Email   :   @flowserve.com
Company : flowserve

My Profile | Logout

Affinity Share Key   anon_1000029   ADD

Distributor UserName   Enter Distributor Username   ADD

Flowserve UserName   Enter Flowserve SalesRep Username ADD

Shared Users

ASSIGN   BACK

Quote Manager – Organizing Quotes

❑ On the *Quote Manager* page, There is a **Views** and **Folders** section.
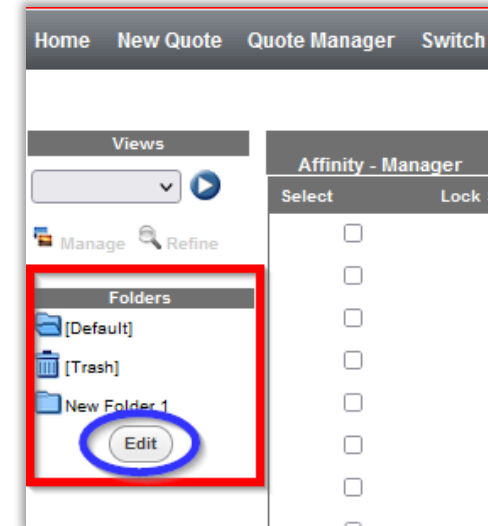
❑ Clicking the *Edit* button under **Folders** section will allow the creation of new folder or the editing of an existing folder.
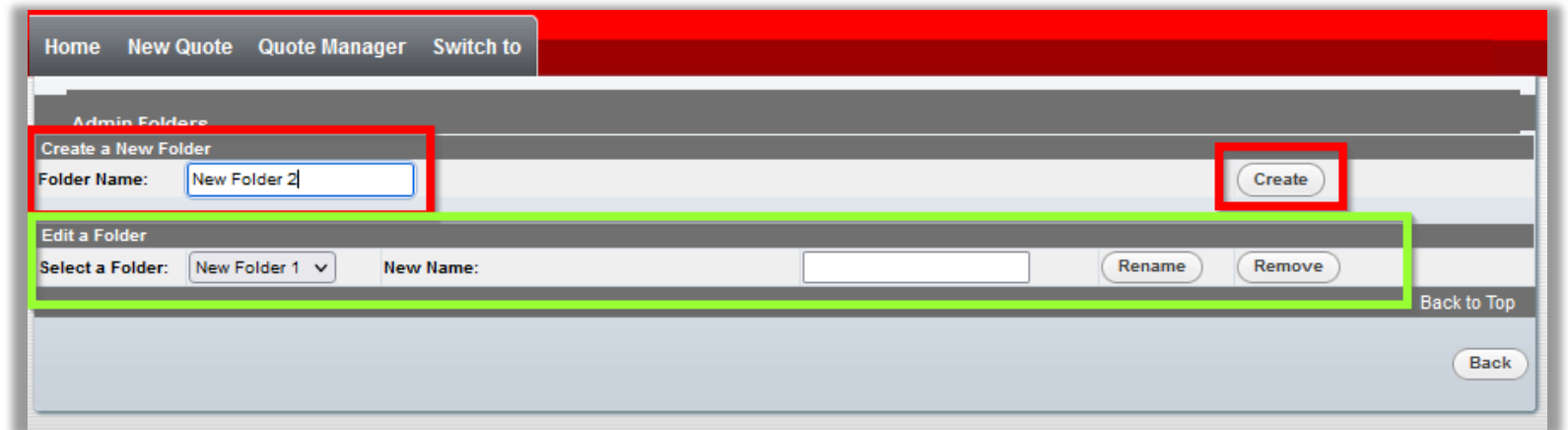
Quote Manager – Organizing Quotes

❑ To move one or more quotes to a specific folder, check the box associated with the quote.

❑ Then from the **Select Folder** dropdown list, choose a folder.

❑ Then click the *Move* button. In the example below, note quotes no longer in the Default folder.

Quote Manager – Organizing Quotes

❑ Opening New Folder 2 reveals the moved quotes.
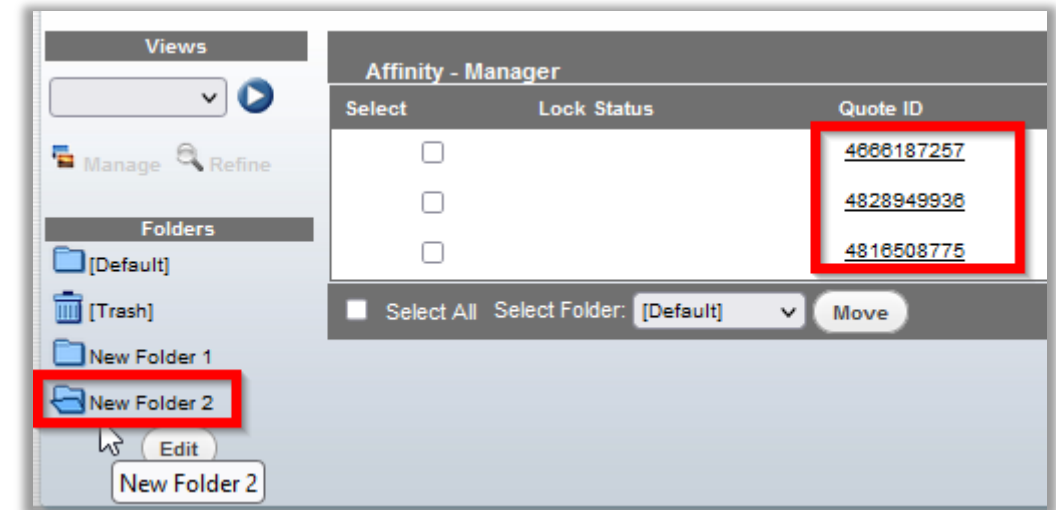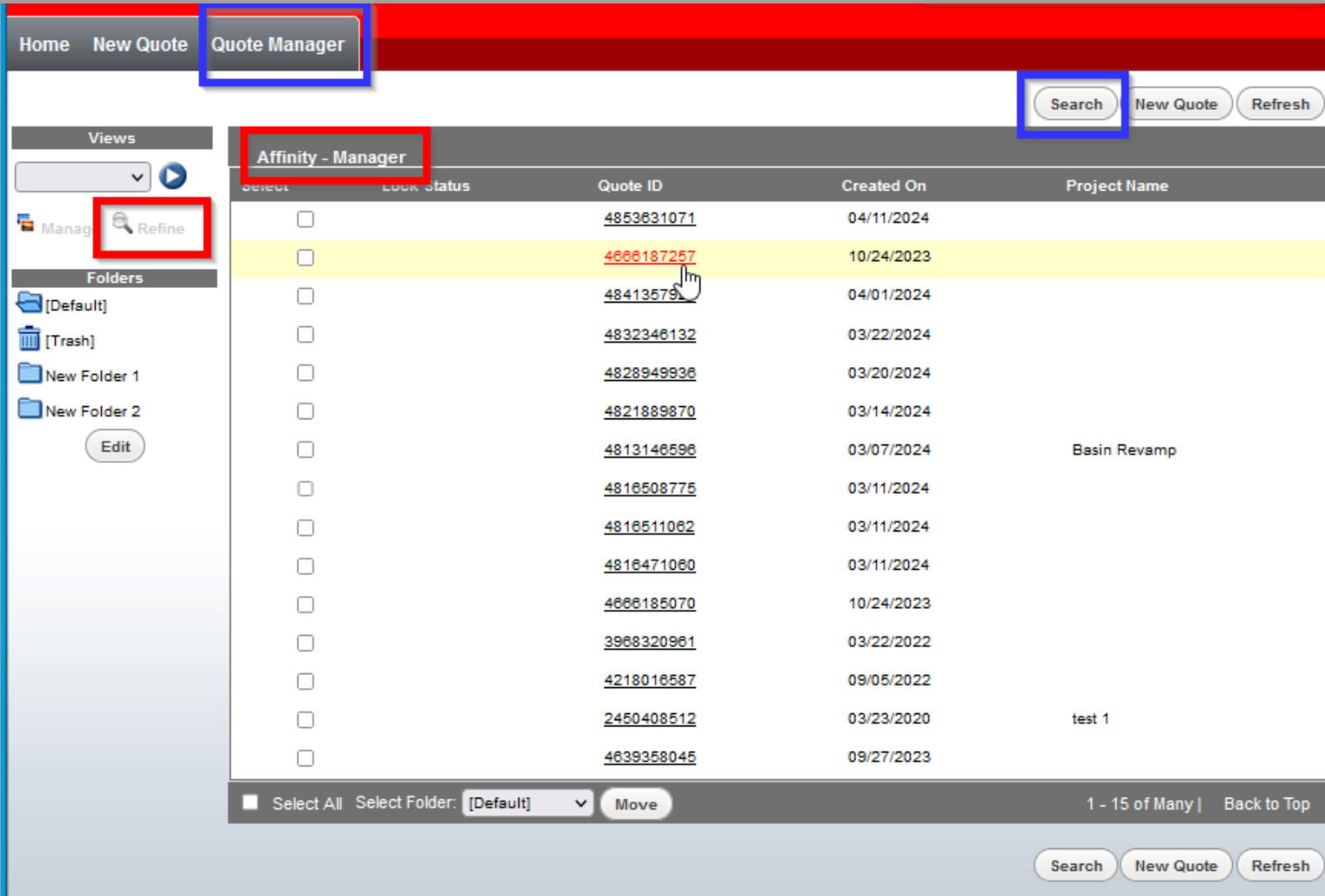
❑ To delete a quote, select it and move to the **Trash** folder.
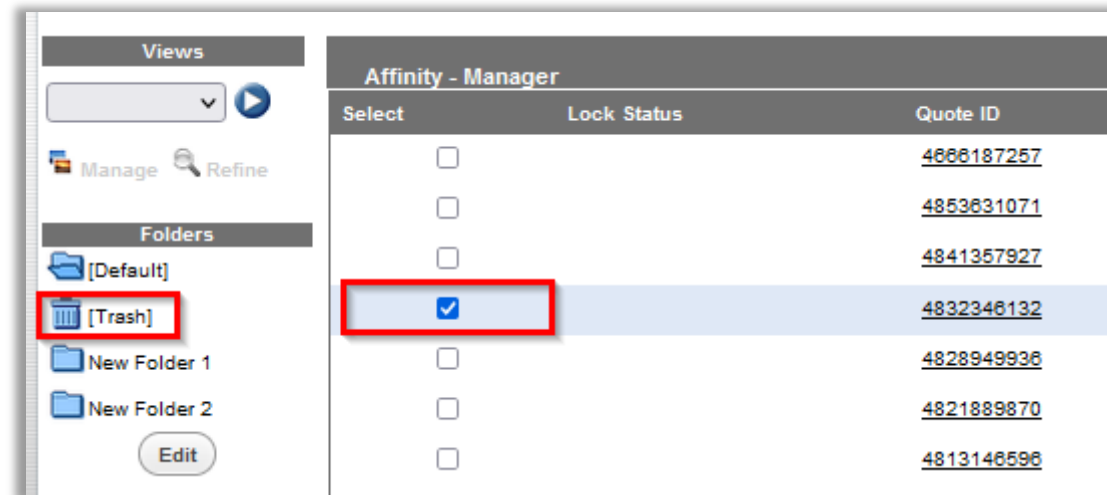
Access Existing Quotes

- To access an existing quote, select the **Quote Manager** tab.

- The **Affinity Manager** screen will appear from which an existing quote may be selected from the list.

- Users can also search using one of two search tools from the **Affinity Manager** screen.

- Option 1: The *Search* tool.

- Option 2: The *Refine* (search) tool.

- See the **Access Existing Quote – Using Search Tool** pages toward the end of this tutorial to learn more on how to search for an existing quotes.

Access Existing Quotes – *Using Search Tool*

❑ **Search Option 1**: Click the *Search* button (shown on previous screen).

❑ *Step 1: Select Filters* - Select the attribute(s) to use as filter(s) when searching all the quotes.

❑ The screen has been split to better show the layout. Many of the attributes are not applicable to general users.

❑ In the example shown, Product Line has been chosen.

❑ To go to the next step, click the *Next button* .

Access Existing Quotes – Using Search Tool

❑ *Step 2: Select Columns* - Select which column attribute(s) to display in the search results list. At least one column must be chosen but as many as desired can be picked.

❑ When done, click the *Next* button.

Access Existing Quotes – Using Search Tool

- ❑ ***Step 3: Editor -*** The search editor requires the selection of what is referred to as a **Comparator**.

- ❑ A dropdown list is presented. The options available depends on which attribute is being used as a Filter.

- ❑ A **Value** setting must also be specified for the attribute to be used in the search.

- ❑ Note the less specific the search criteria the more possible results will be found.

- ❑ The first part of the Value can be typed followed by a **%** symbol which acts as a wild card.

- ❑ The order of the column attributes can be changed as well as the page length which controls how many lines are shown on the search results screen.

- ❑ When complete, click the ***Search*** button.

Access Existing Quotes – Using Search Tool

❑ The results will then be displayed.

❑ Note in the example the Search Results for Process: Affinity columns are the attributes specified to list in **Step 2**.

❑ The results of the search may be saved for future use but is not required. To select one of the lines to view from the search results list, click on the link.

Access Existing Quotes – Views – Refine Tool

❑ **Search Option 2**: The quicker and easier search option is to click the light gray colored *Refine* button located below the play button.

❑ If an Alert message is presented about selecting a view from menu, then click the dropdown arrow in the grey box under **Views** and select **[All Affinity Flowserve Quotes].** The other views will render the same search results as they do not apply to Customer/Portal users.

❑ The **View Bundler** screen should open, and default search method will be presented with **Quote Id** as the filter attribute and the Comparitor set to **=**.

❑ Delete the % signs in the value fields and enter the desired search values. Then hit one of the *Search* buttons.

❑ In the example, notice that the previously saved view entitled **Ad Hoc Search 1** is listed.

Access Existing Quotes – Search Results

❑ Irrespective of which Search option was used, when the desired quote has been found, click the **Quote ID** number to open the quote.

❑ The selected quote will show up behind the current window. Close the commerce search box to view.

❑ If you did not find the desired quote, pick the back button to search again or try the first search method.
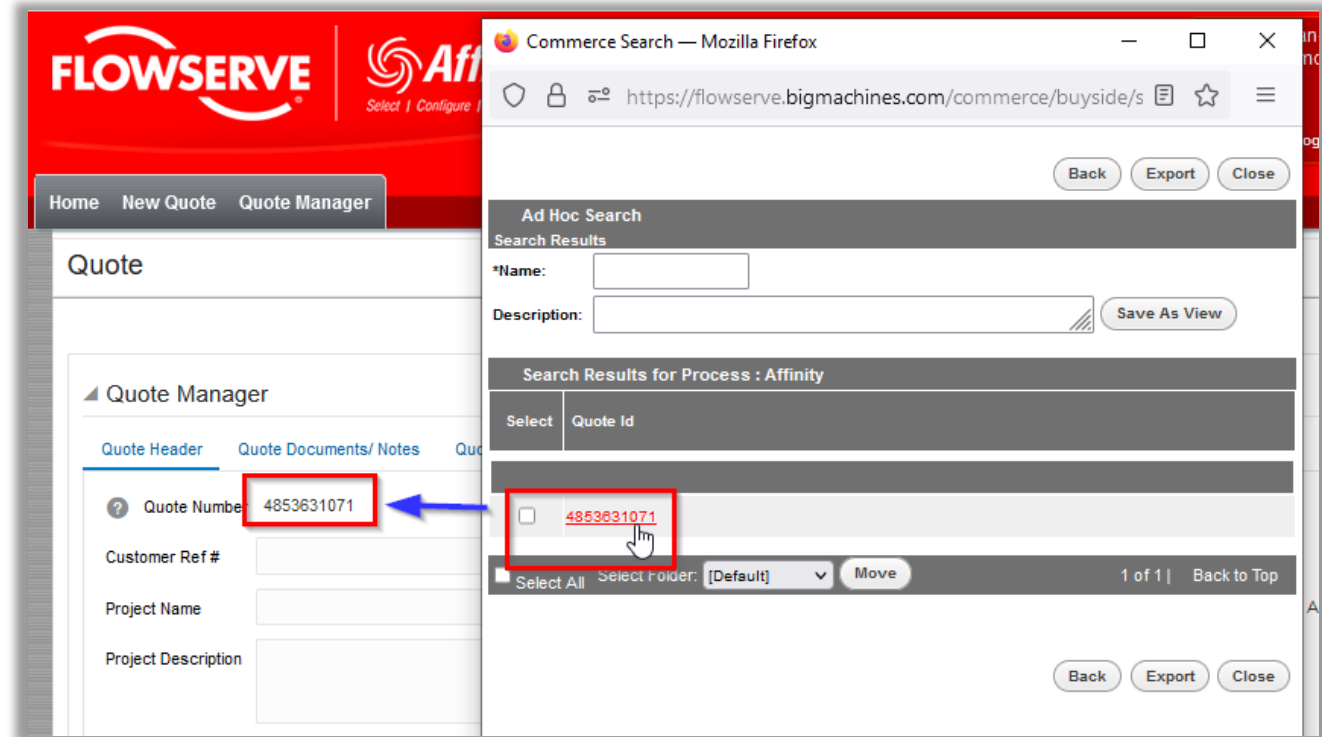
Support

❑ Users should direct application and technical questions to their local Flowserve representative. If for some reason that is not possible, send questions to Affinitysupport.com

❑ For issues with the program operation, contact Affinitysupport.com.

   ▪ Please provide a detailed description of the issue including the operating system used, browser name and version, and Quote and Line number if applicable.

   ▪ When possible, please include screen shots of the issue and any error messages presented.

❑ Thank you for your interest in Flowserve products.