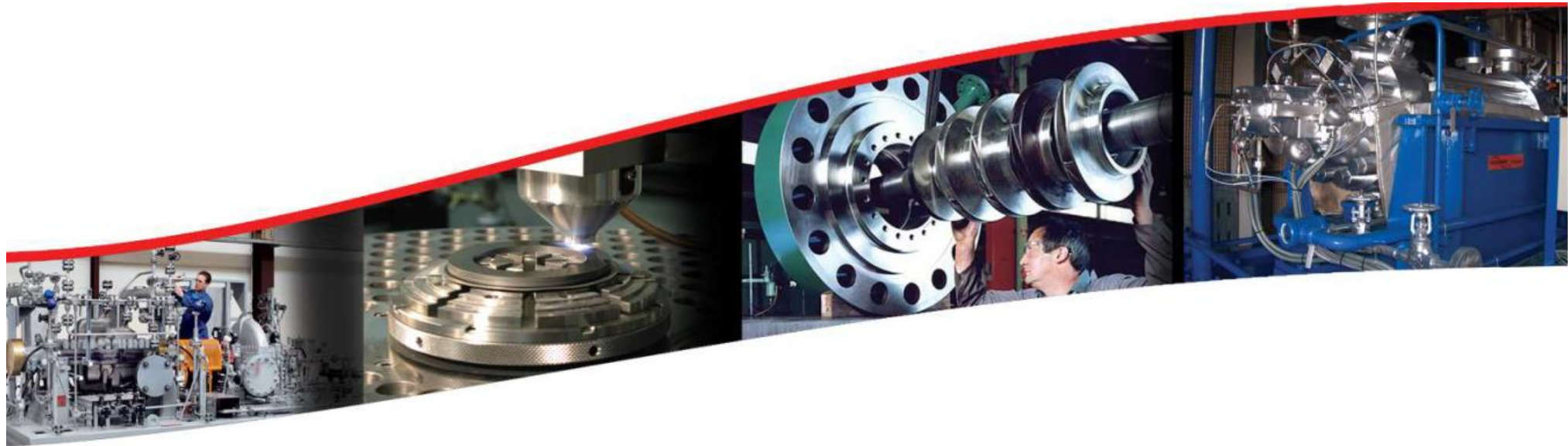




# Affinity Customer Portal Guide

March 2024



***Experience In Motion***

# ***Affinity Customer Portal Tutorial Content***

---

☐ Introduction

☐ Technical Requirements

☐ Registration Process

☐ Login Procedure

☐ Landing Page - Home Screen

☐ My Profile / Change Password

☐ Process Overview

☐ Creating a New Quote

☐ Quote Information

☐ Selection

- Preferences

- Input Mode and Units

- Navigation

- Product Filtering

- Product Information

- Help

☐ Quote Manager

- Existing Quotes

- Organizing Quotes

- Request Flowserve Assistance

- Quote Sharing

☐ Support

# Introduction to Affinity

---

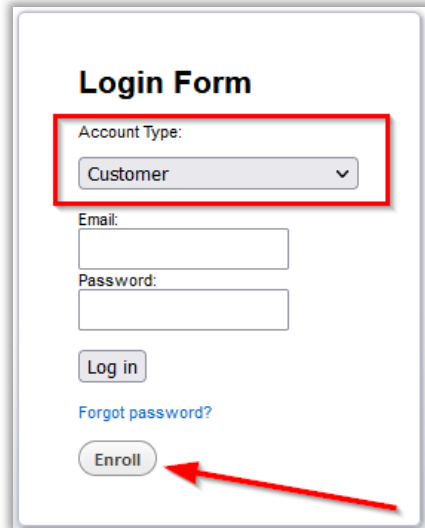
- ❑ **Affinity Customer Portal** is a tool that allows users to search for, compare, and save a pump selection based on a given set of conditions or select a specific pump type and size from a list of currently offered equipment.
- ❑ Selections can be saved for future reference.
- ❑ Technical documents 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:  
[text input]

Password:  
[text input]

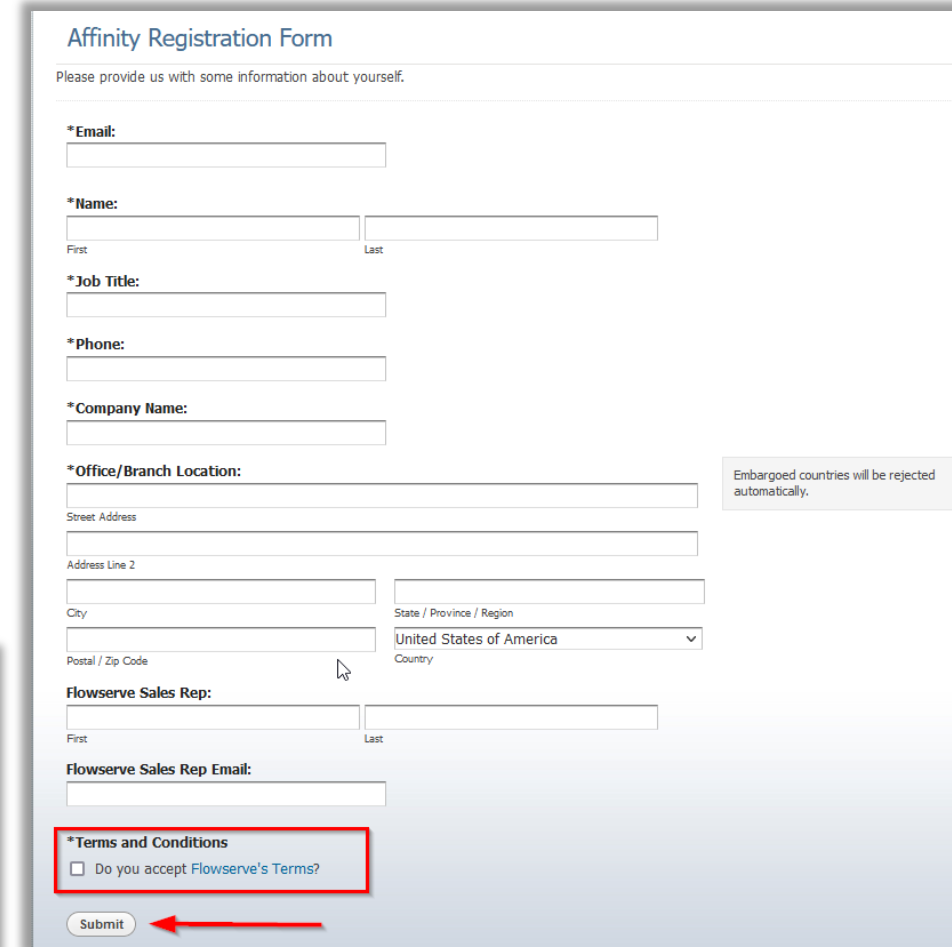
Log in

[Forgot password?](#)

Enroll

A red box highlights the 'Account Type' dropdown menu, which is currently set to 'Customer'. A red arrow points to the 'Enroll' button.

- ❑ Go to: [flowserve.bigmachines.com](https://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. ↓



**Affinity Registration Form**

Please provide us with some information about yourself.

\*Email:  
[text input]

\*Name:  
First [text input] Last [text input]

\*Job Title:  
[text input]

\*Phone:  
[text input]

\*Company Name:  
[text input]

\*Office/Branch Location:  
Street Address [text input]  
Address Line 2 [text input]  
City [text input] State / Province / Region [text input]  
Postal / Zip Code [text input] United States of America [dropdown menu]  
Country [text input]

Embargoed countries will be rejected automatically.

Flowserve Sales Rep:  
First [text input] Last [text input]

Flowserve Sales Rep Email:  
[text input]

\*Terms and Conditions  
☐ Do you accept Flowserve's Terms?

Submit

A red box highlights the '\*Terms and Conditions' section, which includes a checkbox for 'Do you accept Flowserve's Terms?'. A red arrow points to the 'Submit' button.

## 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](mailto:affinitysupport@flowserve.com).

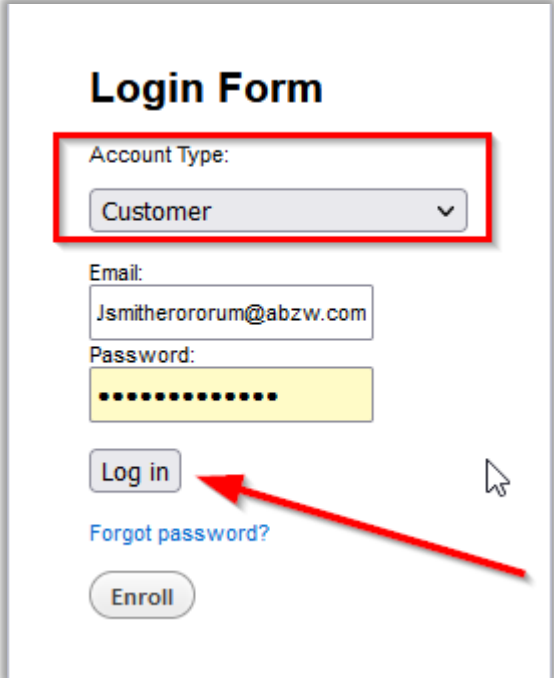
Never share your password with anyone inside or outside of your organization. Do not share accounts with other users. Anyone needing access should sign in to their account accordingly, or register if they do not already have an account.



# Logging into Affinity

---

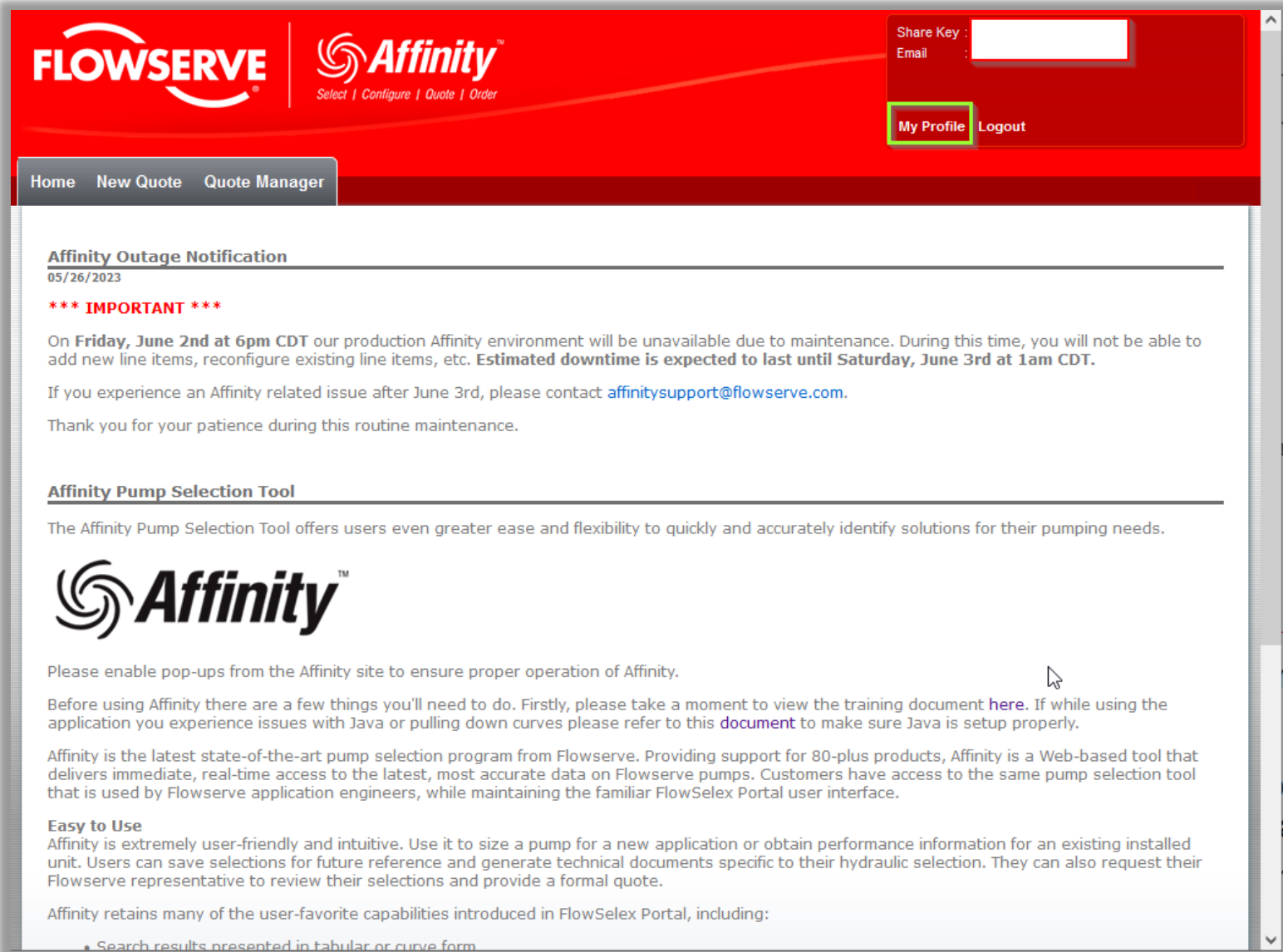
- ❑ Go to: flowserve.bigmachines.com. Save the login screen as a bookmark or favorite.
- ❑ Select “Customer” under Account Type drop down.
- ❑ Username is your email address as entered during registration including the “@” symbol.
- ❑ Copy and paste the initial password you receive from Flowserve to 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.



The screenshot shows the 'Login Form' for Affinity. It includes an 'Account Type' dropdown menu with 'Customer' selected, an 'Email' field containing 'Jsmitherrororum@abzw.com', and a 'Password' field with masked characters. A red box highlights the 'Account Type' dropdown. Below the password field is a 'Log in' button, which is pointed to by a red arrow. There is also a 'Forgot password?' link and an 'Enroll' button.

# Landing Page – Home Screen

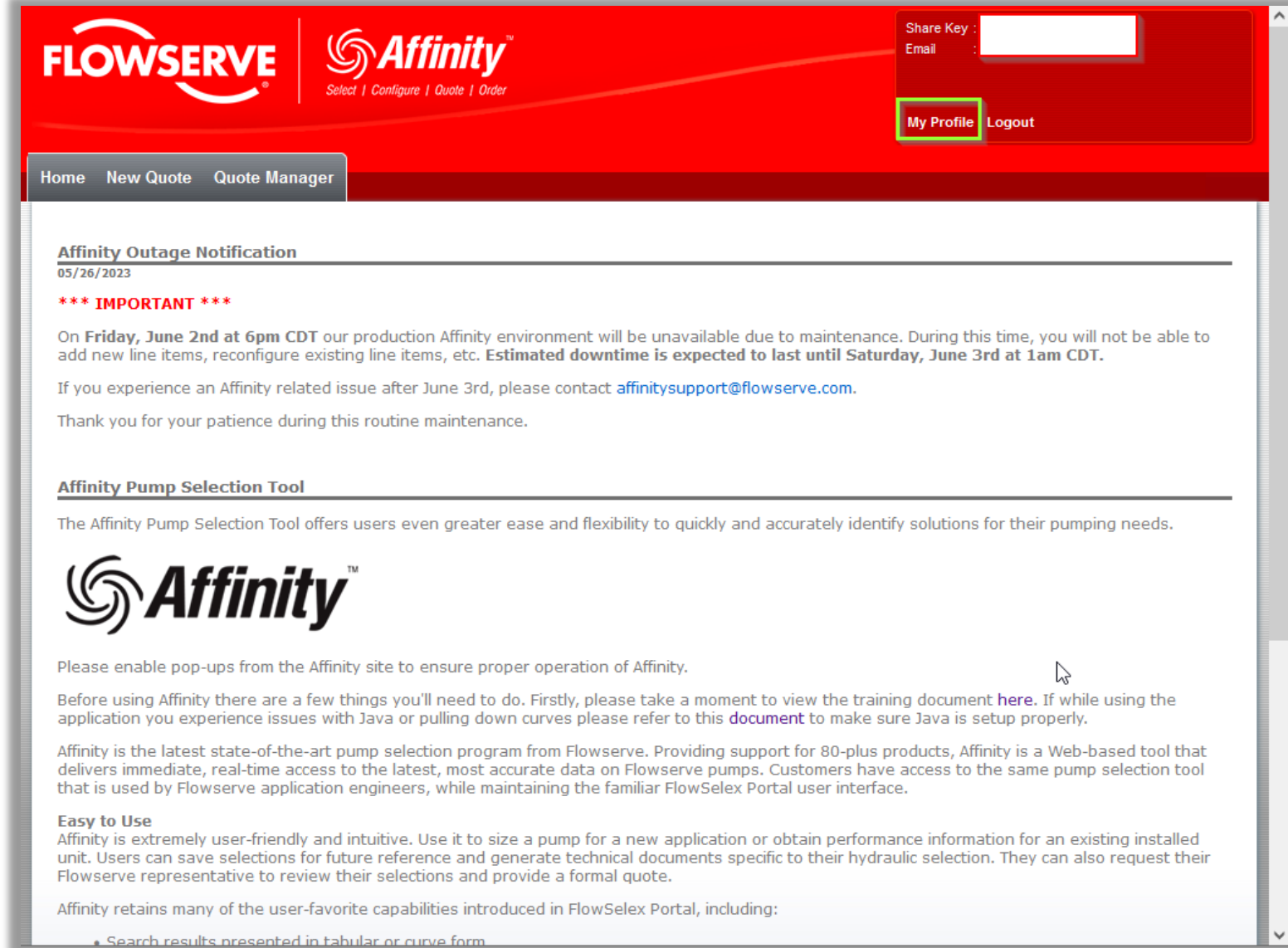
- ❑ The landing page is where users are first taken to after login.
- ❑ The **Home** screen is the default screen presented. It where basic information is posted about the tool and any important messages. that need to be conveyed to users.





# 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.

Home New Quote Quote Manager

### My Profile

Main Information		Personal Information	
*Login:	anon 123564	*First Name:	sss
*Password:	*****	Last Name:	zzzzzzzzzz
*Email:	xxxxxx@xxxxxxxxxxxx	*Company Name:	Flowserve Corporation_buy
Type:	QuickRegistrationBuy	Job Title:	
Status:	Active	Phone:	123-456-7890
		Fax:	

Preferences	
Language Preference:	English
Currency Preference:	USD - US Dollar
Session Currency:	USD - US Dollar
Number Format:	####.##
Units:	System Default
Date/Time Format:	MM/dd/yyyy h:mm a
Time Zone:	(GMT-5:00 GMT-4:00) New York
Notification Preference:	<input type="checkbox"/> Email

Bill To	Ship To	<input type="checkbox"/> Same as Bill To
First Name:	First Name:	
Last Name:	Last Name:	
Company Name:	Company Name:	MMMZZZZZ Inc.
Company Name 2:	Company Name 2:	
Address:	Address:	456 Road Street Court
City:	City:	Notown
State / Province:	State / Province:	Nowhere
Zip / Postal Code:	Zip / Postal Code:	
Country:	Country:	United States
Phone:	Phone:	
Fax:	Fax:	
Email:	Email:	

Back to Top

Apply Update Back

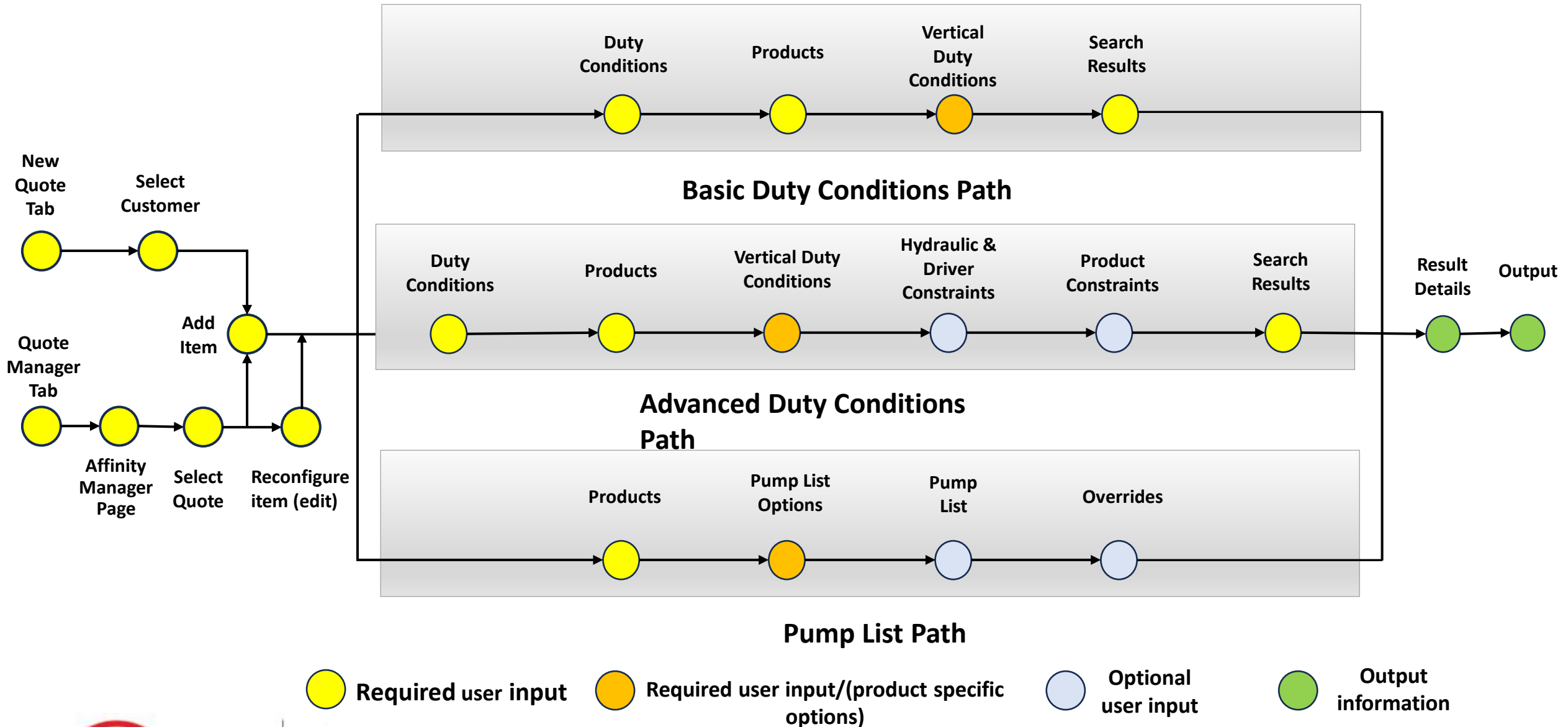
Follow us on: [f](#) [t](#) | © 2021 Flowserve Corporation

# 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.**

The screenshot shows the 'Change Password' interface. At the top, there are navigation links: 'Home', 'New Quote', and 'Quote Manager'. Below this is the title 'Change Password' and a user identifier 'User : anon\_1'. The main form area contains three input fields: '\*Enter Current Password:', '\*Enter New Password:', and '\*Re-type Password:'. To the right of these fields is a 'Password Restrictions' section with the text: 'Password must be between 8 to 30 characters long and it should start with a letter. Password must have at least one upper case letter, at least one number, and at least one special character.' Below the password fields is a section titled 'Password Reset Options' which includes fields for 'Question:', 'Secret Answer (WARNING: Hitting Save will only save the secret question and answer):', and a 'Save' button. A large red 'X' is drawn over the 'Password Reset Options' section. A red arrow points from the 'Save' button to the 'Change Password' button at the bottom right. Another red arrow points from the 'Change Password' button to the 'Back' button. A white box with the text 'DO NOT USE!' is placed over the 'Change Password' button. The footer of the page includes social media links for Facebook and Twitter, and the copyright notice '© 2021 Flowserve Corporation'.

# Pump Search Process Overview



# 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.

The screenshot displays a web application interface for creating a new quote. At the top, there is a navigation bar with three tabs: 'Home', 'New Quote', and 'Quote Manager'. The 'New Quote' tab is highlighted with a red box, and a red arrow points to it. Below the navigation bar, the main content area is titled 'Quote'. In the top right corner of this area, there is a button labeled 'CONTINUE TO CREATE QUOTE', which is highlighted with a blue box. The main content area is divided into two sections. The left section is titled 'Customer Selection' and is outlined with a blue border. It contains a form with the following fields: 'Name' (with the value 'Super Customer'), 'Address' (with the value '5310 Someplace Pike'), 'City' (with the value 'Yourtown'), 'State' (with the value 'Ofmind' and a dropdown arrow), 'Zip' (with the value '35876'), and 'Country' (with the value 'Bahamas' and a dropdown arrow). The right section is currently empty.

# Quote Screen Panels

- ❑ Upon clicking the **Continue to Create Quote** button, the **Quote** page will be presented.
- ❑ Three panels are on this page;
  - **Quote Manager,**
  - **Line Details** and
  - **Customer Selection.**

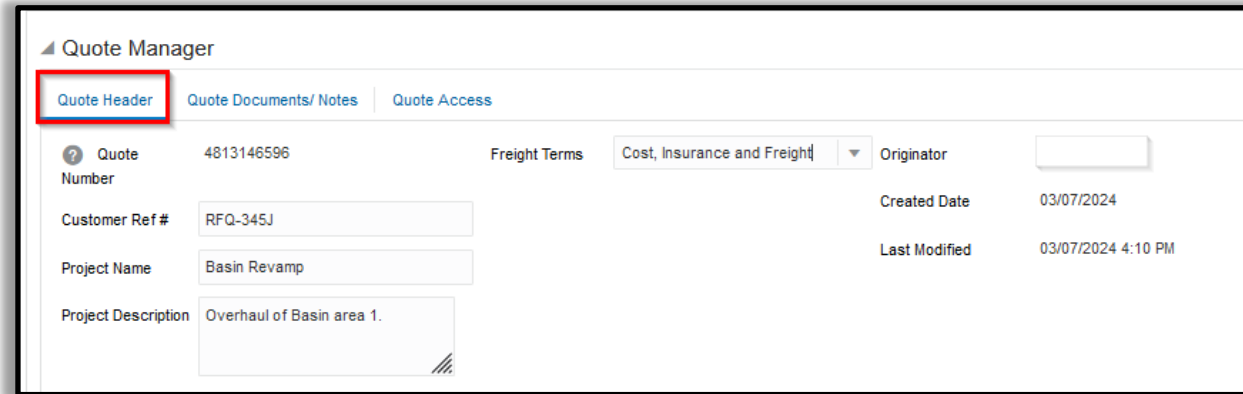
The first two panels are collapsible by clicking anywhere on the panel line where the labels reside. (Shown in blue boxes.) The last section is the same section discussed on the previous page.

The screenshot displays the Flowserve Affinity Quote screen. The top navigation bar is red with the Flowserve and Affinity logos. The main content area is white and contains three panels, each with a blue header bar and a green border. The first panel, 'Quote Manager', has a sub-header 'Quote' and a 'Quote Manager' section with tabs for 'Quote Header', 'Quote Documents/ Notes', and 'Quote Access'. The 'Quote Header' tab is active, showing fields for 'Quote Number' (4816511062), 'Customer Ref #', 'Project Name', 'Project Description', 'Freight Terms', 'Originator' (Bob Downey), 'Created Date' (03/11/2024), and 'Last Modified' (03/11/2024 12:18 PM). The second panel, 'Line Details', has a sub-header 'Line Details' and a 'Line Details' section with tabs for 'VIEW', 'FREEZE', 'ADD ITEM', 'RECONFIGURE', 'COPY ITEMS', 'DELETE ITEM', 'COPY FROM ANOTHER QUOTE', and 'GENERATE'. The 'VIEW' tab is active, showing a table with columns for 'Line Item', 'Line Item Status', 'Line Type', 'Reconfig', 'Customer (AQ)', 'Alt', 'Rev', 'Qty', 'Product Line', 'Description', 'Stages', 'Material', and 'Supplying BU'. The table is empty, and the page shows 'Page 1 (0 of 0 items)'. The third panel, 'Customer Selection', has a sub-header 'Customer Selection' and a 'Customer Selection' section with a 'Quote To Customer' dropdown and a 'Quote to Customer' form with fields for 'Name', 'Address', 'City', 'State', 'Zip', and 'Country'. The 'End User Customer' section is also visible.

# Quote Screen – Quote Manager Panel

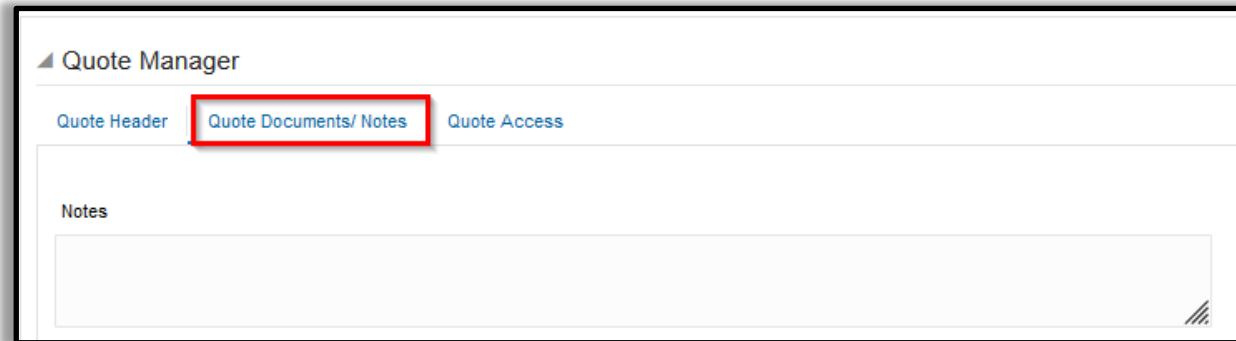
- ❑ **Quote Manager** panel has three tabs/links to different screen views.

- **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.)

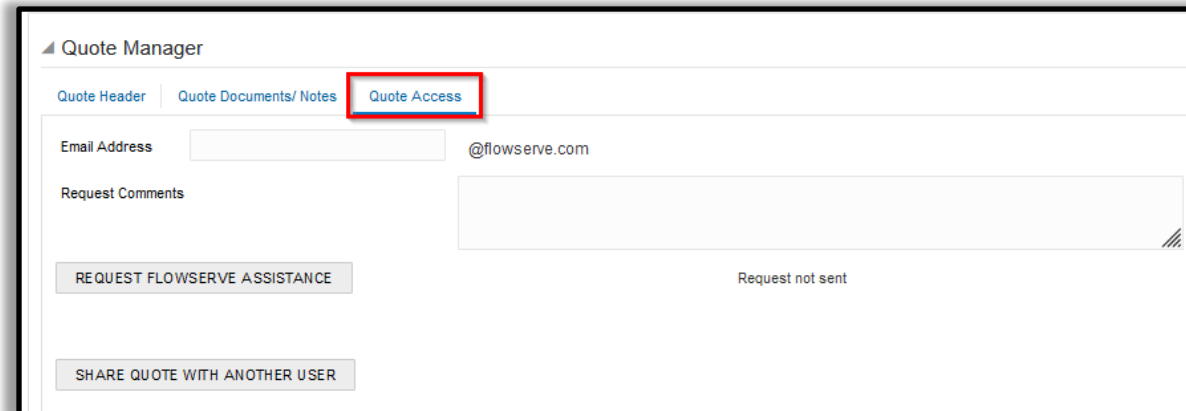


The screenshot shows the 'Quote Manager' panel with the 'Quote Header' tab selected. The tab is highlighted with a red box. The panel displays the following information:

Quote Number	4813146596	Freight Terms	Cost, Insurance and Freight	Originator	
Customer Ref #	RFQ-345J			Created Date	03/07/2024
Project Name	Basin Revamp			Last Modified	03/07/2024 4:10 PM
Project Description	Overhaul of Basin area 1.				



The screenshot shows the 'Quote Manager' panel with the 'Quote Documents/ Notes' tab selected. The tab is highlighted with a red box. The panel displays a 'Notes' section with a text area for adding notes.

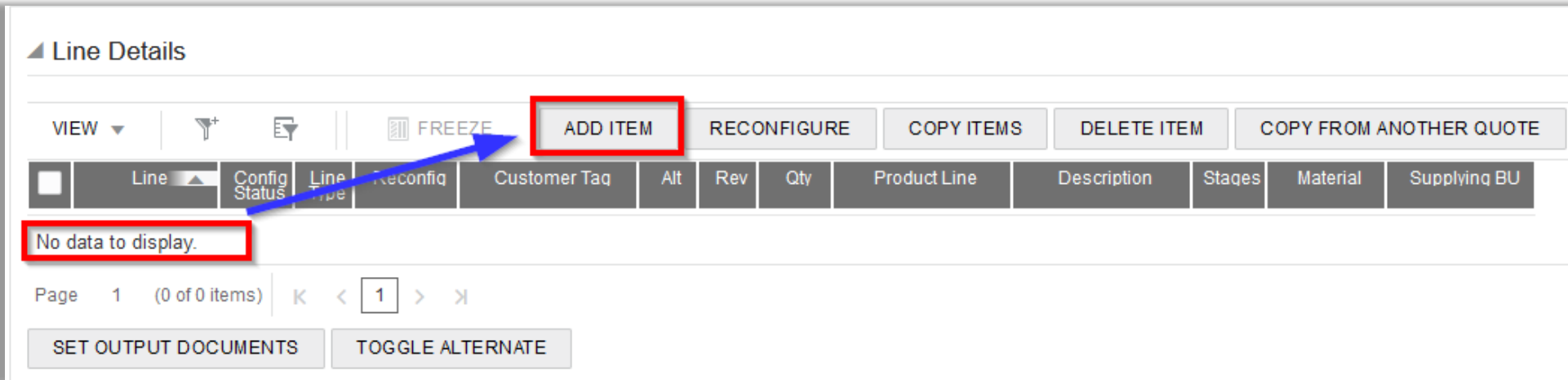


The screenshot shows the 'Quote Manager' panel with the 'Quote Access' tab selected. The tab is highlighted with a red box. The panel displays the following information:

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.





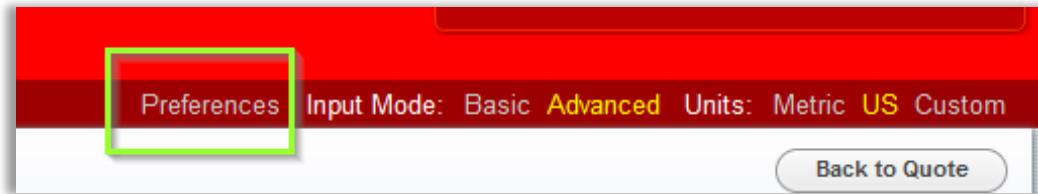
# Pump Selection Processes

- ❑ 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.

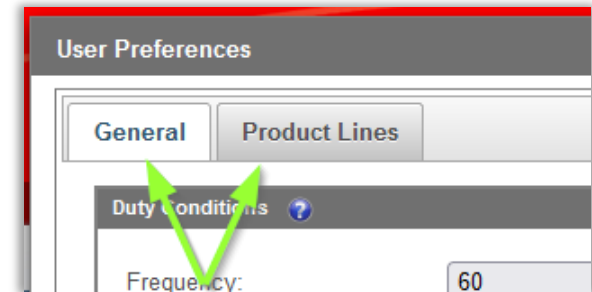
The screenshot shows the 'Start' screen of the Flowserve Affinity pump selection software. The interface has a red header bar with navigation tabs: 'Home', 'New Quote', and 'Quote Manager'. To the right of these tabs are links for 'Preferences', 'Input Mode: Basic', 'Advanced' (highlighted in yellow), 'Units: Metric', 'US', and 'Custom'. Below the header, there are input fields for 'Current Quote: 4816!', 'Quote Owner: Product:', 'Current Item: Size and Type:', and 'Material:'. A 'Back to Quote' button is located on the right. A large blue 'Start' button is prominently displayed. Below the 'Start' button, a 'Get Started' section is visible, containing two options: 'Select by Pumplist' (with the description 'See performance for a known pump model and size.') and 'Search by Duty Conditions' (with the description 'Search for a pump to meet your operating 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.

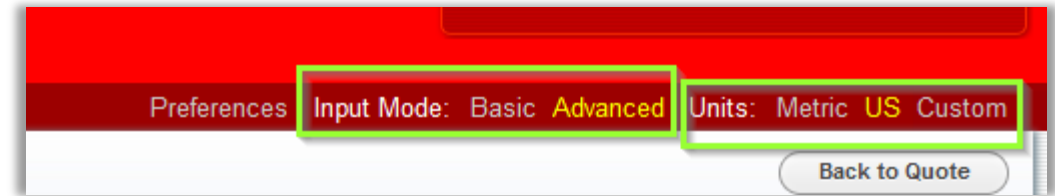


- ❑ Upon opening the **Preferences** screen, two tabs will be shown.
- ❑ The **General** tab has basic default sections related to Duty Conditions, Product Line Filters, Driver, Screen Layout and Other Preferences.
- ❑ The **Product Lines** tab has a list of all the product lines and allows the user 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.

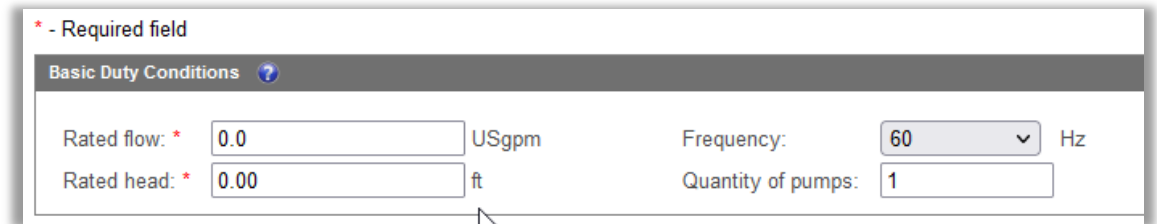


# Default Settings Controls

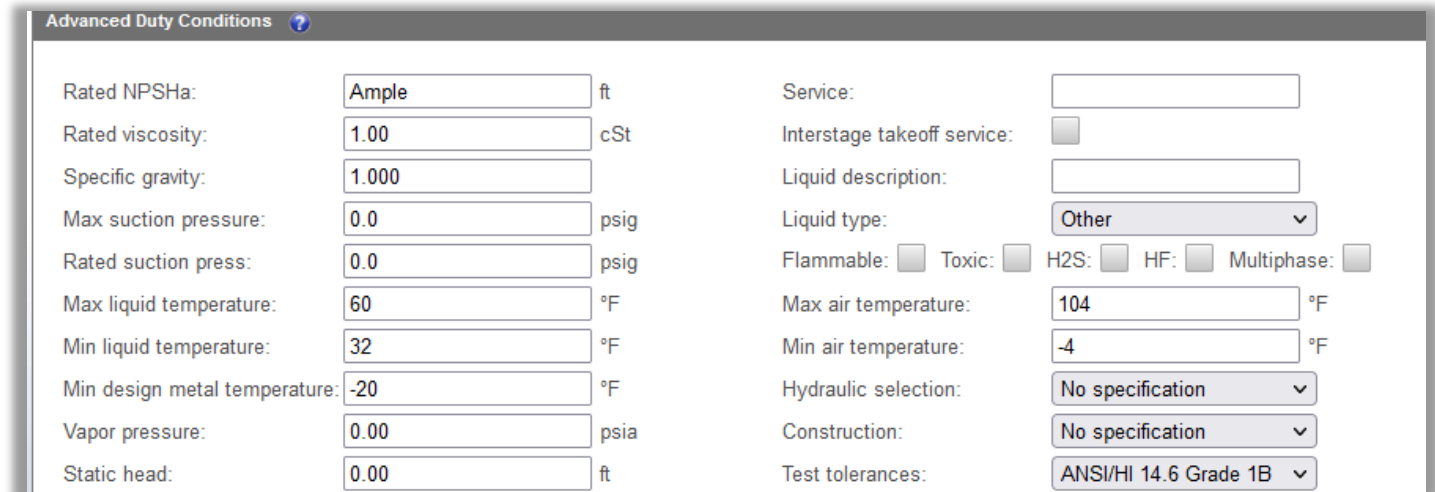
- ❑ In addition to **Preferences**, controls for **Input Mode** and **Units** (of measure) are displayed. The current setting is shown in yellow text.
- ❑ **Units** may be set to ***Metric***, ***US***, or ***Custom***.
- ❑ **Input Mode** controls which user input fields are shown when **Search by Duty 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.



The screenshot shows a red navigation bar with three tabs: 'Preferences', 'Input Mode: Basic Advanced', and 'Units: Metric US Custom'. The 'Input Mode' and 'Units' tabs are highlighted with a green border. A 'Back to Quote' button is visible on the right.



The screenshot shows the 'Basic Duty Conditions' form. It includes fields for 'Rated flow: \* 0.0 USgpm', 'Rated head: \* 0.00 ft', 'Frequency: 60 Hz', and 'Quantity of pumps: 1'. A red asterisk indicates required fields.



The screenshot shows the 'Advanced Duty Conditions' form. It includes fields for 'Rated NPSHa: Ample ft', 'Rated viscosity: 1.00 cSt', 'Specific gravity: 1.000', 'Max suction pressure: 0.0 psig', 'Rated suction press: 0.0 psig', 'Max liquid temperature: 60 °F', 'Min liquid temperature: 32 °F', 'Min design metal temperature: -20 °F', 'Vapor pressure: 0.00 psia', 'Static head: 0.00 ft', 'Service: [empty]', 'Interstage takeoff service: [empty]', 'Liquid description: [empty]', 'Liquid type: Other', 'Flammable: [checkbox]', 'Toxic: [checkbox]', 'H2S: [checkbox]', 'HF: [checkbox]', 'Multiphase: [checkbox]', 'Max air temperature: 104 °F', 'Min air temperature: -4 °F', 'Hydraulic selection: No specification', 'Construction: No specification', and 'Test tolerances: ANSI/HI 14.6 Grade 1B'.

# 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.

Home New Quote Quote Manager Preferences Input Mode: Basic **Advanced** Units: Metric **US** Custom

Current Quote: 4832 Quote Owner: Current Item: Product: Size and Type: Material: Back to Quote

Start **Duty Conditions** Products Additional Duty Conditions Hydr./Driver Constraints Product Constraints Search Results Result Details Output

Back Next

\* - 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

Alternate Duty Conditions

# 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.

The screenshot shows the 'Duty Conditions' page in a software application. The 'Duty Conditions' tab is selected. The 'Basic Duty Conditions' section includes fields for 'Rated flow' (1,500.0 USgpm), 'Rated head' (120.00 ft), 'Frequency' (60 Hz), and 'Quantity of pumps' (1). The 'Advanced Duty Conditions' section is expanded, showing the 'Alternate Duty Conditions' panel. The 'Multi duty point selection method' is set to 'Size pump & motor for all conditions'. The 'Add new condition' button is highlighted with a red box and a blue '1'. The 'Alternate condition 1' checkbox is highlighted with a red box and a blue '2'. The 'Alternate flow' and 'Alternate head' fields are highlighted with a red box and a blue '3'. The 'Use Rated Duty Conditions' checkbox is highlighted with a red box and a blue '4'.

Alternate service:	Alternate condition 1	Alternate condition 2	Alternate condition 3
Low demand	Moderate demand	High Demand	
Alternate flow: *	900	1100	1300
Alternate head: *	138	130	125

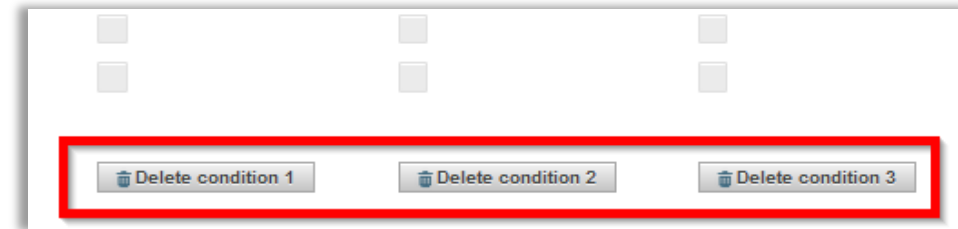
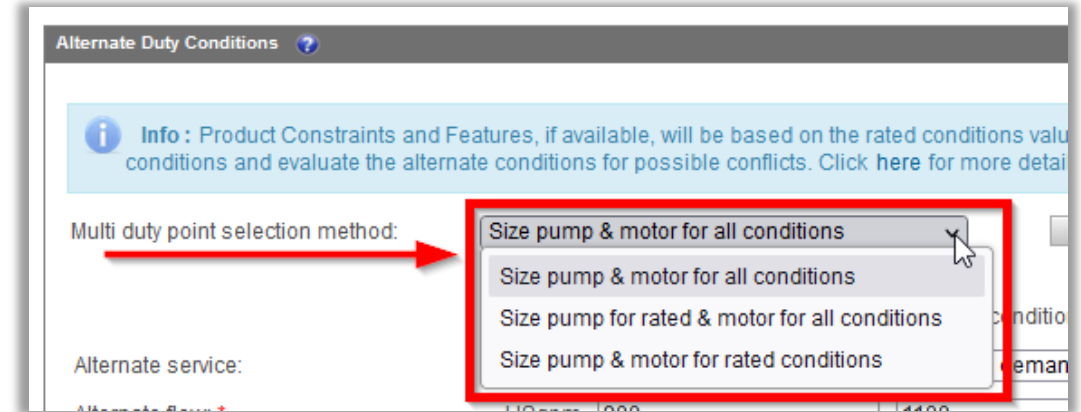
Use Rated Duty Conditions (Uncheck box to enter Alternate Conditions):	Alternate condition 1	Alternate condition 2	Alternate condition 3
Alternate NPSHa:	33.4	33.4	33.4
Alternate viscosity:	1.00	1.00	1.00
Alternate specific gravity:	0.999	0.999	0.999
Alternate max suction pressure:	0.0	0.0	0.0
Alternate rated suction pressure:	0.0	0.0	0.0

# 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.

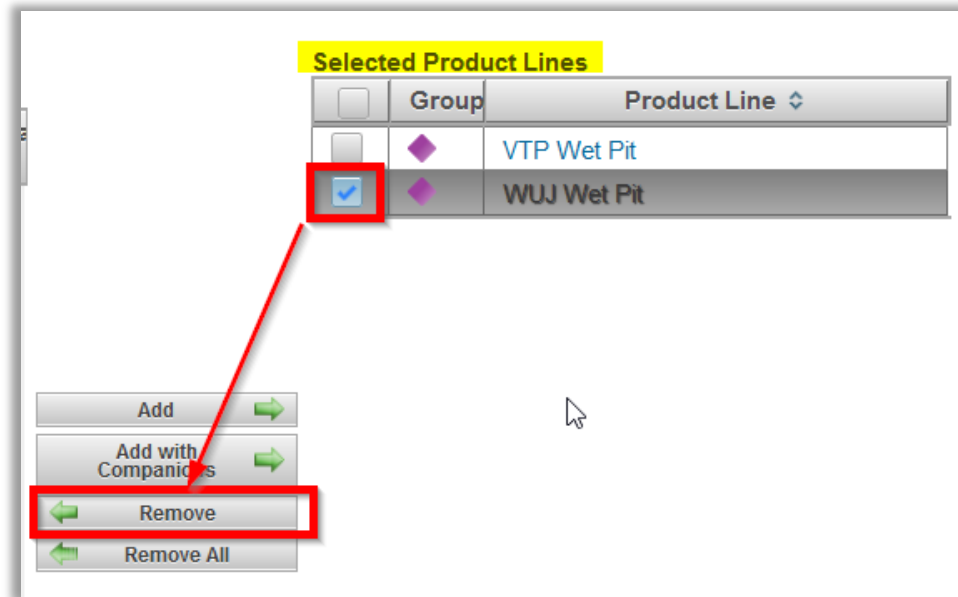
The screenshot displays the 'Products' tab in the Flowserve Affinity software. The 'Available Product Lines' table is shown with columns for Group, Product Line, Max Flow (USgpm), Max Head (ft), Min Temp. (°F), Max Temp. (°F), Max Viscosity (cSt), and Max Suction Press. (psig). The 'DMX Centerline Mtd.' row is highlighted, and its 'Add' button is circled in red. A red arrow points from this button to the 'Selected Product Lines' list on the right, which currently shows 'No product lines selected'.

Group	Product Line	Max Flow (USgpm)	Max Head (ft)	Min Temp. (°F)	Max Temp. (°F)	Max Viscosity (cSt)	Max Suction Press. (psig)
✓	Barge Wet Pit Vert. Turbine	5,500.0	500.00	-20	300	900.00	1,000.0
✗	CS Ring Section	2,377.5	4,517.72	25	329	500.00	725.2
✗	D-814 Foot Mounted	2,000.0	475.00	-20	250	1,600.00	75.0
✗	D-824 Close Coupled	2,000.0	475.00	-20	250	1,600.00	75.0
✓	DMX Centerline Mtd.	25,000.0	8,900.00	-100	500	2,000.00	2,116.0
✓	DVSH Single Stg HSC	45,000.0	2,200.00	-20	400	2,000.00	500.0
✓	ECPJ Wet Pit	4,402.9	541.34	-58	662	400.00	87.0
✓	ESP3 Vertical Sump	4,500.0	400.00	-100	350	400.00	75.0
✗	FP Ring Section	2,201.4	1,053.15	14	221	150.00	232.1



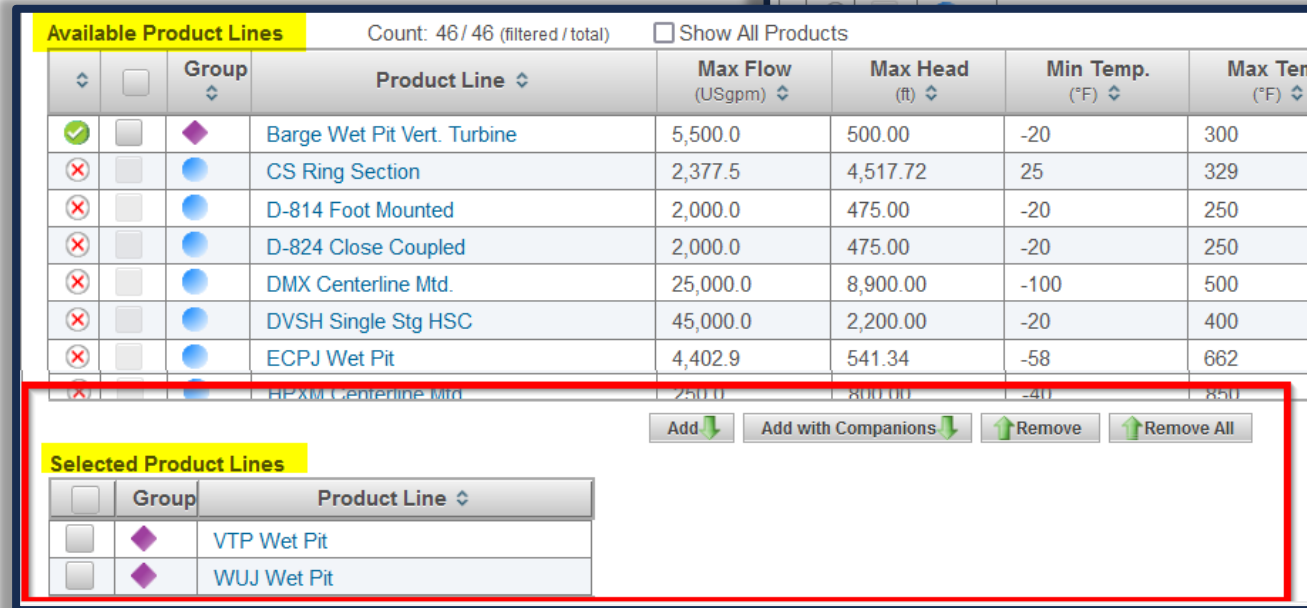
# Duty Conditions Method - Products Page continued

- ❑ **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 ...



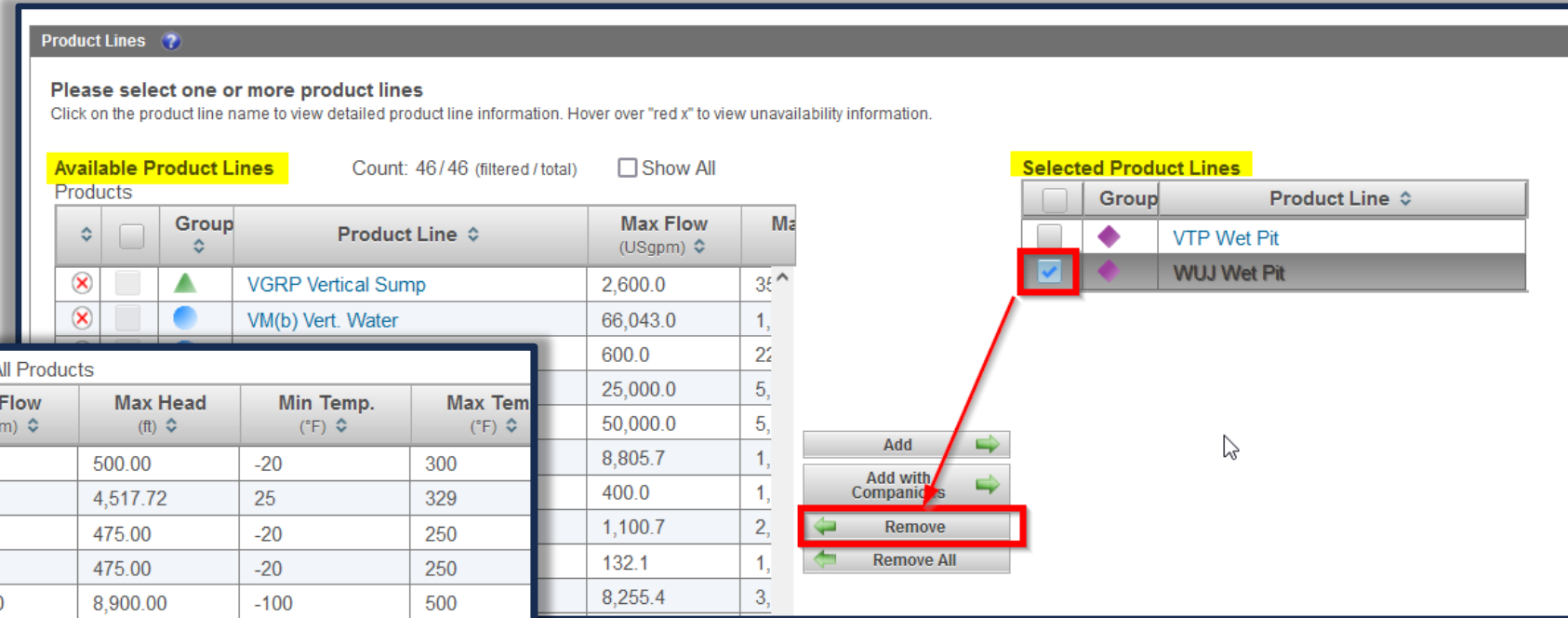
Available Product Lines Count: 46 / 46 (filtered / total) ☐ Show All Products

	Group	Product Line	Max Flow (USgpm)	Max Head (ft)	Min Temp. (°F)	Max Temp. (°F)
<input checked="" type="checkbox"/>	◆	Barge Wet Pit Vert. Turbine	5,500.0	500.00	-20	300
<input checked="" type="checkbox"/>	●	CS Ring Section	2,377.5	4,517.72	25	329
<input checked="" type="checkbox"/>	●	D-814 Foot Mounted	2,000.0	475.00	-20	250
<input checked="" type="checkbox"/>	●	D-824 Close Coupled	2,000.0	475.00	-20	250
<input checked="" type="checkbox"/>	●	DMX Centerline Mtd.	25,000.0	8,900.00	-100	500
<input checked="" type="checkbox"/>	●	DVSH Single Stg HSC	45,000.0	2,200.00	-20	400
<input checked="" type="checkbox"/>	●	ECPJ Wet Pit	4,402.9	541.34	-58	662
<input checked="" type="checkbox"/>	●	HPXM Centerline Mtd.	250.0	800.00	-20	850

Selected Product Lines

	Group	Product Line
<input type="checkbox"/>	◆	VTP Wet Pit
<input type="checkbox"/>	◆	WUJ Wet Pit

Add Add with Companions Remove Remove All



Product Lines [?](#)

Please select one or more product lines  
Click on the product line name to view detailed product line information. Hover over "red x" to view unavailability information.

Available Product Lines Count: 46 / 46 (filtered / total) ☐ Show All

Products

	Group	Product Line	Max Flow (USgpm)	Max Head (ft)	Min Temp. (°F)	Max Temp. (°F)
<input checked="" type="checkbox"/>	◆	VGRP Vertical Sump	2,600.0	35		
<input checked="" type="checkbox"/>	●	VM(b) Vert. Water	66,043.0	1,		
<input checked="" type="checkbox"/>			600.0	22		
<input checked="" type="checkbox"/>			25,000.0	5,		
<input checked="" type="checkbox"/>			50,000.0	5,		
<input checked="" type="checkbox"/>			8,805.7	1,		
<input checked="" type="checkbox"/>			400.0	1,		
<input checked="" type="checkbox"/>			1,100.7	2,		
<input checked="" type="checkbox"/>			132.1	1,		
<input checked="" type="checkbox"/>			8,255.4	3,		

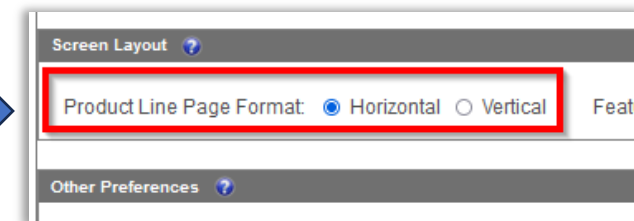
Selected Product Lines

	Group	Product Line
<input type="checkbox"/>	◆	VTP Wet Pit
<input type="checkbox"/>	◆	WUJ Wet Pit

Add Add with Companions Remove Remove All

- ❑ 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**.



Screen Layout [?](#)

Product Line Page Format: ☒ Horizontal ☐ Vertical

Other Preferences [?](#)

# Duty Conditions Method - Products Page Filters

The screenshot shows the 'Products' page with filters for Industry, Classification, and Orientation, all set to 'All'. Below the filters, the 'Product Lines' section displays a table of available product lines. A red box highlights the 'Show All Products' checkbox. A red arrow points from the 'Show All Products' checkbox to the 'DMX Centerline Mtd.' product line. Another red arrow points from the 'Show All Products' checkbox to the 'ESP3 Vertical Sump' product line. A third red arrow points from the 'Show All Products' checkbox to the 'HED 2 Stage API 610' product line. A fourth red arrow points from the 'Show All Products' checkbox to the 'HPX 6000 API 610 Slurry' product line. A fifth red arrow points from the 'Show All Products' checkbox to the 'HPX Centerline Mtd.' product line. A red box highlights the 'Add' button. A red box highlights the 'Add with Companions' button. A red box highlights the 'Remove' button. A red box highlights the 'Remove All' button. A red box highlights the 'Unavailable due to: Rated flow Incompatible with currently selected product(s)' message.

Group	Product Line
DMX Centerline Mtd.	DMX Centerline Mtd.
DVSH Single Stg HSC	DVSH Single Stg HSC
ECP1 Wet Pit	ECP1 Wet Pit
ESP3 Vertical Sump	ESP3 Vertical Sump
Unavailable due to: Rated flow Incompatible with currently selected product(s)	
HED 2 Stage API 610	HED 2 Stage API 610
HPX 6000 API 610 Slurry	HPX 6000 API 610 Slurry
HPX Centerline Mtd.	HPX Centerline Mtd.

Count: 26/26 (filtered / total)

Selected Product Lines

Group	Product Line
DMX Centerline Mtd.	DMX Centerline Mtd.

Buttons: Add, Add with Companions, Remove, Remove All

- ❑ 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.

The screenshot shows the 'User Preferences' dialog box with the 'Product Lines' tab selected. A red box highlights the 'Lines not chosen to be displayed.' message. A red arrow points from the 'Lines not chosen to be displayed.' message to the 'ESP3 Vertical Sump' product line. A red arrow points from the 'Lines not chosen to be displayed.' message to the 'FP Ring Section' product line. A red arrow points from the 'Lines not chosen to be displayed.' message to the 'FRBH Stock Pump and Group 4' product line.

Product Line	Mult
ESP3 Vertical Sump	
FP Ring Section	
FRBH Stock Pump and Group 4	

- ❑ 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).

Available Product Lines Count: 65/65 (filtered / total) ☐

Show All Products

		Group	Product Line	Max (USG)
✓	<input type="checkbox"/>	●	<a href="#">HDX Centerline Mtd.</a>	30,
✓	<input type="checkbox"/>	●	<a href="#">HED 2 Stage API 610</a>	15,
✓	<input type="checkbox"/>	●	<a href="#">HPX 6000 API 610 Slurry</a>	20,
✓	<input type="checkbox"/>	●	<a href="#">HPX Centerline Mtd.</a>	19,
✓	<input type="checkbox"/>	●	<a href="#">HPX High Press. C/L Mtd.</a>	12,

Available Product Lines Count: 65/65 (filtered / total) ☐

Show All Products

		Group	Product Line	Max (USG)
✓	<input type="checkbox"/>	●	<a href="#">HDX Centerline Mtd.</a>	30,
✓	<input type="checkbox"/>	●	<a href="#">HED 2 Stage API 610</a>	15,
✓	<input type="checkbox"/>	●	<a href="#">HPX 6000 API 610 Slurry</a>	20,
✓	<input type="checkbox"/>	●	<a href="#">HPX Centerline Mtd.</a>	19,

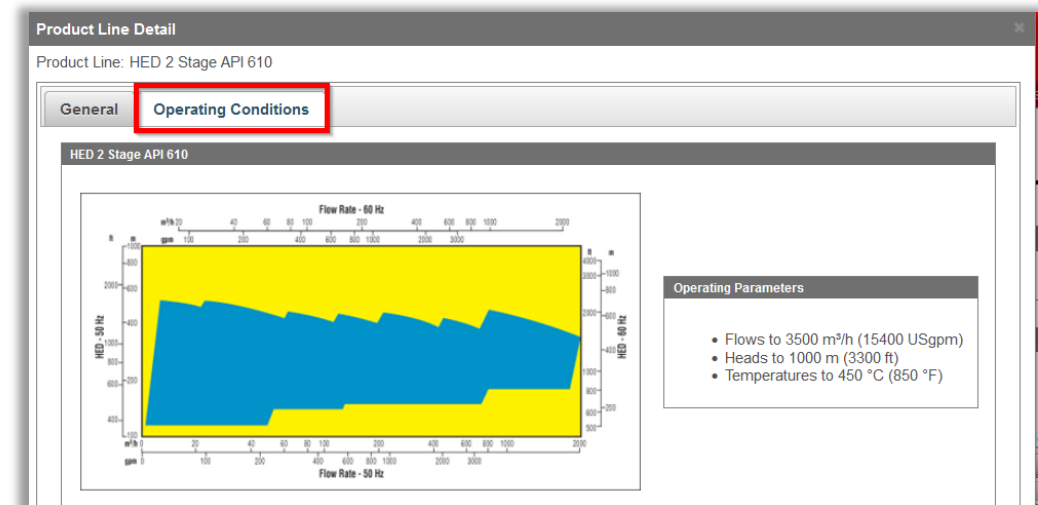
HED (BB2) Radially Split, Two Stage

# 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.)

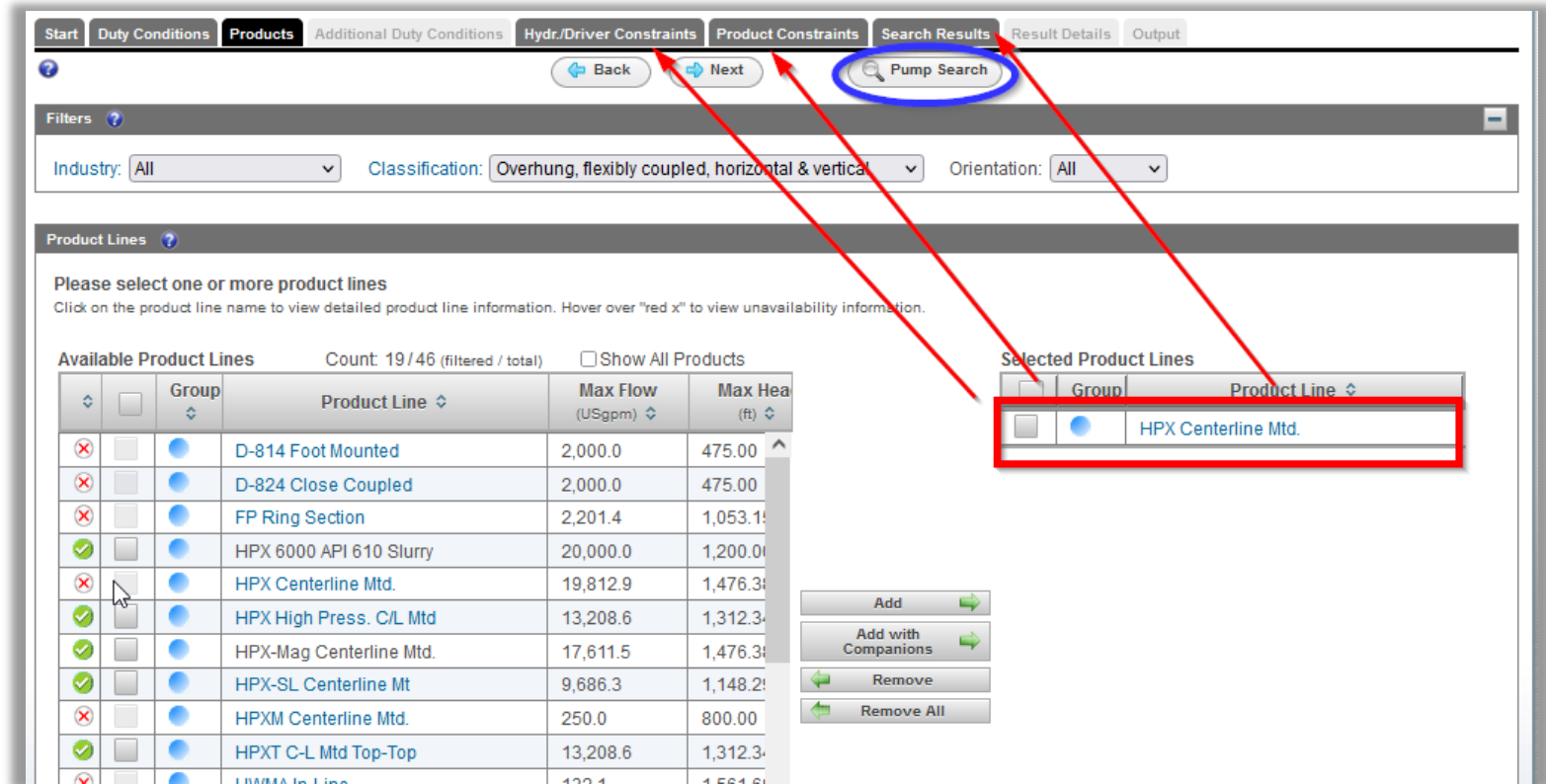


- ❑ If the Operating Conditions tab screen is opened, a basic range chart and operating parameters will be seen.



# 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.

The screenshot shows the 'Take Off Conditions' tab selected in the top navigation bar. The interface includes a 'Back' button, a 'Next' button, and a 'Pump Search' button. The main content area contains the following fields:

Field	Value	Unit
Flow at discharge *	1,000.0	USgpm
Flow rate takeoff desired *	0.0	USgpm
Head at discharge *	4,000.00	ft
Head value takeoff desired *	0.00	ft
Impeller trimming options for takeoff conditions	Trimmed to meet conditions	

The screenshot shows the 'Vertical Duty Conditions' tab selected in the top navigation bar. The interface includes a 'Back' button, a 'Next' button, and a 'Pump Search' button. The main content area contains the following fields:

Field	Value	Unit	Additional Info
Rated head:	240.00	ft	@ Discharge flange centerlin
Rated NPSHa:	Ample	ft	@ Low liquid level
Altitude:	0.00	ft	
Pump length strategy:	As required for NPSH and submergence		
Distance from mounting surface to sump bottom:	Unknown		value of 0.00 ft
Distance from mounting surface to low liquid level:	Unknown		value of 0.00 ft



# 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 additional % 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  $\{10.00 + (10\% \times 10.00)\}$
  - **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.

# 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: Size and type: Material:

Start Duty Conditions Products Vertical Duty Conditions Hydr./Driver Constraints **Product Constraints** Search Results Result D

Back Next Pump Search

Select a product line for configuring constraints

Product Line: VTP Wet Pit Restore Defaults Collapse Categories Expand Categories

Material +

Site Conditions +

Scope +

Driver +

Bowl Assembly -

Constraint	Selected Choice
Bowl Efficiency Type	Standard
Suction bearing plug	Automatic upgrade
Bowl construction	Automatic upgrade
Bowl Bolting Material	Automatic upgrade
Bowl lining	Automatic upgrade
Bowl bearing materials	Bronze
Bowl wear ring material	None
Bowl shaft material	Automatic upgrade
Bowl/Lineshaft split	Separate bowl and lineshaft
Impeller design	All impeller types
Impeller material	Automatic upgrade
Thrust balanced impeller	Not fitted
Impeller fastening method	Automatic upgrade
Impeller wear ring material	None
Suction intake type	Suction Bell
Bell trimming	Automatic upgrade
Strainer type	Basket strainer
Strainer material	Galvanized Steel

Discharge Head Assembly -

# 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.

Max column friction loss rate

Select	Choice	User Value
<input checked="" type="radio"/>	Flowserve standard friction loss rate	8.0 %
<input type="radio"/>	AWWA standard friction loss rate	5.0 %
<input type="radio"/>	Customer specified friction loss rate	2.0 %

**Constraint Note** Max Column Friction loss rate allows the user to specify customer limitations. The lower the % entered, the larger the column pipe size required.

**Choice Note** Standard allowable limit is 8 ft per 100 ft of column (8%)

OK Cancel

Column diameter selection method

Select	Choice	User Value
<input type="radio"/>	Automatic select	
<input checked="" type="radio"/>	Customer specified	4.00

**Constraint Note** Column Pipe Size Method

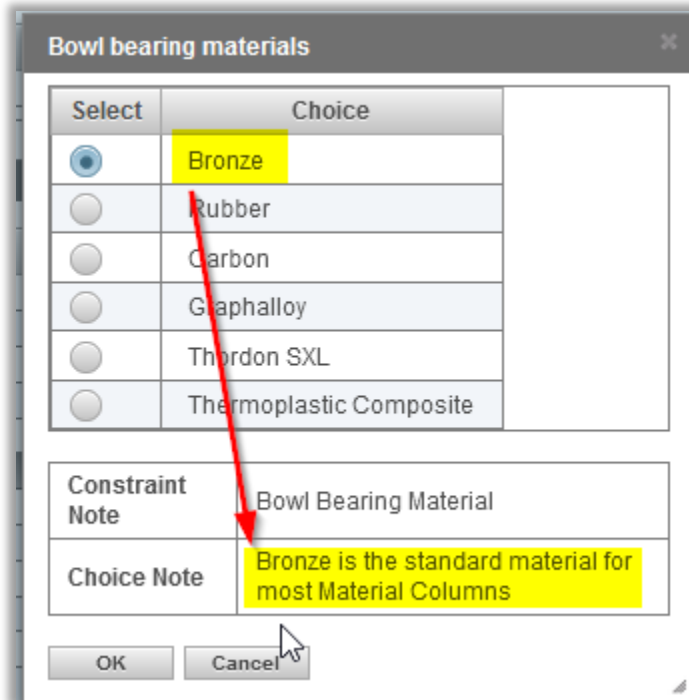
**Choice Note** Customer Specified diameters available for user to specify one of the standard nominal column diameters available in the pick list. This may be needed for existing customer installations or to give the user a way to consider other options.

OK Cancel

4.00  
6.00  
8.00  
10.00  
12.00  
14.00  
16.00  
18.00  
20.00  
24.00  
30.00  
36.00  
42.00

# 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.



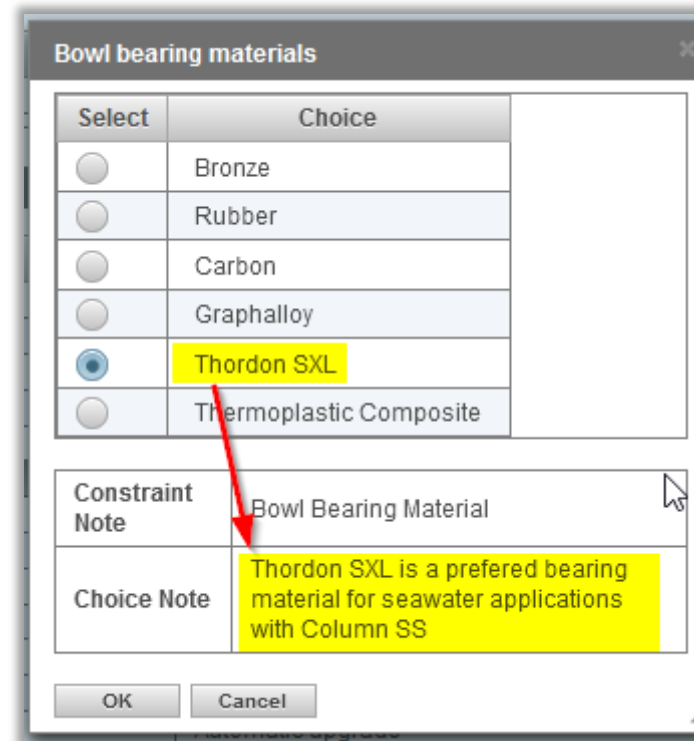
The screenshot shows a dialog box titled "Bowl bearing materials". It contains a table with two columns: "Select" and "Choice". The "Bronze" option is selected, indicated by a blue dot in the "Select" column. Below the table, there are two text areas: "Constraint Note" and "Choice Note". The "Choice Note" contains the text "Bronze is the standard material for most Material Columns". A red arrow points from the "Bronze" option in the table to the "Choice Note" text area. At the bottom, there are "OK" and "Cancel" buttons.

Select	Choice
<input checked="" type="radio"/>	Bronze
<input type="radio"/>	Rubber
<input type="radio"/>	Carbon
<input type="radio"/>	Graphalloy
<input type="radio"/>	Thordon SXL
<input type="radio"/>	Thermoplastic Composite

Constraint Note: Bowl Bearing Material

Choice Note: Bronze is the standard material for most Material Columns

OK Cancel



The screenshot shows the same dialog box titled "Bowl bearing materials". In this instance, the "Thordon SXL" option is selected, indicated by a blue dot in the "Select" column. The "Choice Note" now contains the text "Thordon SXL is a preferred bearing material for seawater applications with Column SS". A red arrow points from the "Thordon SXL" option in the table to the "Choice Note" text area. At the bottom, there are "OK" and "Cancel" buttons.

Select	Choice
<input type="radio"/>	Bronze
<input type="radio"/>	Rubber
<input type="radio"/>	Carbon
<input type="radio"/>	Graphalloy
<input checked="" type="radio"/>	Thordon SXL
<input type="radio"/>	Thermoplastic Composite

Constraint Note: Bowl Bearing Material

Choice Note: Thordon SXL is a preferred bearing material for seawater applications with Column SS

OK Cancel

# 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.
- ❑ 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.
- ❑ 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](mailto:Affinitysupport.com)

Select	Choice
<input checked="" type="radio"/>	Automatic upgrade
<input type="radio"/>	N/A - No Bolting - Threaded Bowls
<input type="radio"/>	Steel A-449 Capscrews
<input type="radio"/>	Steel A-193/B7 Studs/Nuts
<input type="radio"/>	316 SS A-193/B8M Capscrews
<input type="radio"/>	316 SS A-193/B8M Studs/Nuts
<input type="radio"/>	17-4PH Capscrews
<input type="radio"/>	17-4PH Studs/Nuts

Select	Choice	User Value
<input checked="" type="radio"/>	Automatic select	
<input type="radio"/>	Customer specified	<input type="text"/> in

Select	Choice
<input checked="" type="radio"/>	Thrust stand not supplied
<input checked="" type="radio"/>	17,500 hours
<input checked="" type="radio"/>	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 Results



Start Duty Conditions Products Additional Duty Conditions Hydr./Driver Constraints Product Constraints **Search Results** Result Details Output

Back Next Pump Search

View Thumbnails

Search Results ?

Count: 4/4 ☐ Hide Near Misses ☒ Hide Invalid Selections Hide Selected Show Only Selected Show All **Customize columns** Page Size: 10

<input type="checkbox"/>	Status	Size & Type	Curve Number	CS	Stg	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter	Price Index
<input checked="" type="checkbox"/>	✓	2K6x4-13ARV M3 ST	MI118125BV	●	1	1780	120.7	17.0	78.3	61.3	98.6	1.0000
<input type="checkbox"/>	⚠	3K8x6-14ARV M3 ST	MI118325DV	▼	1	1780	81.9	14.0	77.4	72.3	84.4	1.5563
<input type="checkbox"/>	⚠	3K6x4-16RV M3 ST	MI118410V	▼	1	1780	130.3	18.7	70.9	66.2	80.9	1.5110
<input type="checkbox"/>	⚠	3K10x8-14RV M3 ST	MI118415AV	▼	1	1780	41.2	18.8	54.1	87.0	83.0	REFER

1

# 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

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

1

2

3

4

5

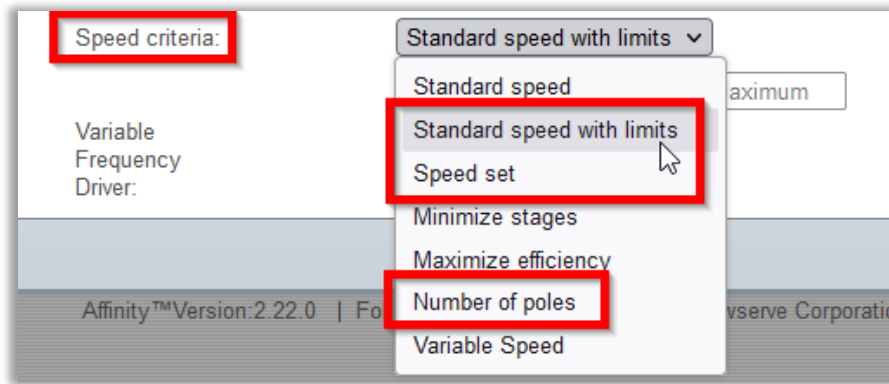
▶▶

▶



# 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.



Count: 121/151 ☐ Hide Near Misses ☒ Hide Invalid Selections

	Status	Size & Type	Curve Number	CS	Stg	RPM	% BEP	NPSH
<input type="checkbox"/>	✓	20EKL	EC-1357		4	1185	102.5	11.2
<input type="checkbox"/>	✓	17EPL	EC-1596		7	1185	98.8	10.2
<input type="checkbox"/>	✓	18EKH	EC-1448		2	1780	100.3	19.1
<input type="checkbox"/>	⚠	18EKL	EC-1447		2	1780	98.2	21.4
<input type="checkbox"/>	⚠	24EML	EC-2695		4	890	90.6	9.7
<input type="checkbox"/>	✓	20EKH	EC-1363		3	1185	91.1	10.2
<input type="checkbox"/>	⚠	16EMM	88500836		2	1780	106.8	30.8
<input type="checkbox"/>	✓	12EQH	EC-1847		6	1770	108.7	26.0
<input type="checkbox"/>	✓	20EKY/20EKL	EC-1410/EC-1357		3	1185	89.2	8.2
<input type="checkbox"/>	⚠	26ECY/26ECM	88517440/88517441		3	890	105.9	7.5
<input type="checkbox"/>	⚠	24EMH	EC-2697		4	890	89.8	9.5
<input type="checkbox"/>	✓	23EKM	EC-2011		4	890	78.2	8.9
<input type="checkbox"/>	⚠	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5
<input type="checkbox"/>	✓	15EHM	EC-2392		3	1775	118.3	21.5
<input type="checkbox"/>	✓	18ENL	EC-1455		5	1185	84.9	11.4
<input type="checkbox"/>	✓	14ENH	EC-1354		4	1775	113.5	26.4
<input type="checkbox"/>	✓	16ENH	EC-1822		3	1775	87.2	24.5
<input type="checkbox"/>	⚠	15EBM	EC-2432		9	1190	112.0	14.3
<input type="checkbox"/>	✓	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4
<input type="checkbox"/>	✓	16ENL	EC-2339		3	1775	88.1	16.2
<input type="checkbox"/>	⚠	24ECY/24ECM	88517436/88517437		2	1185	109.0	11.3
<input type="checkbox"/>	✓	18ENY/18ENL	EC-1412/EC-1455		5	1185	86.3	8.7
<input type="checkbox"/>	⚠	24ECY/24ECH	88517436/88517439		2	1185	109.2	11.3
<input type="checkbox"/>	⚠	14EBH	EC-2426		5	1775	115.8	24.3
<input type="checkbox"/>	✓	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 from 121 out of possible 151, to 36 out of possible 55. This is still a lot of pumps.

Search Results													
Count: 36/55		<input type="checkbox"/> Hide Near Misses		<input checked="" type="checkbox"/> Hide Invalid Selections		Hide Selected		Show Only Selected		Show All		Customize columns	
<input type="checkbox"/>	Status	Size & Type	Curve Number	CS	Stg	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter	Price Index	
<input type="checkbox"/>	✓	18EKH	EC-1448		2	1780	100.3	19.1	82.4	219	91.8	1.2718	
<input type="checkbox"/>	⚠	18EKL	EC-1447		2	1780	98.2	21.4	82.3	215	100.0	1.3224	
<input type="checkbox"/>	⚠	16EMM	88500836		2	1780	106.8	30.8	81.9	216	98.3	1.0000	
<input type="checkbox"/>	✓	12EQH	EC-1847		6	1770	108.7	26.0	81.6	223	97.9	1.1700	
<input type="checkbox"/>	⚠	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5	80.5	238	89.9	1.2120	
<input type="checkbox"/>	✓	15EHM	EC-2392		3	1775	118.3	21.5	80.4	221	94.2	1.1696	
<input type="checkbox"/>	✓	14ENH	EC-1354		4	1775	113.5	26.4	80.2	222	96.1	1.1498	
<input type="checkbox"/>	✓	16ENH	EC-1822		3	1775	87.2	24.5	80.0	260	91.9	1.1696	
<input type="checkbox"/>	✓	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4	79.8	226	90.9	1.3302	
<input type="checkbox"/>	✓	16ENL	EC-2339		3	1775	88.1	16.2	79.6	254	94.5	1.2202	
<input type="checkbox"/>	⚠	14EBH	EC-2426		5	1775	115.8	24.3	79.5	226	96.3	1.3202	
<input type="checkbox"/>	✓	18EKY/18EKH	EC-1460/EC-1448		2	1780	92.8	13.4	79.3	229	83.5	1.3302	
<input type="checkbox"/>	✓	16EHM	88491606		2	1775	86.1	19.7	79.2	260	97.1	1.0000	
<input type="checkbox"/>	⚠	17ETMH	88376558		2	1770	100.1	24.7	78.9	235	90.4	REFER	
<input type="checkbox"/>	⚠	17ETMY/17ETML	88376559/88376557		2	1770	102.5	19.2	78.5	229	98.0	REFER	
<input type="checkbox"/>	✓	16ENY/16ENL	EC-1415/EC-2339		3	1775	91.0	15.5	78.5	238	92.4	1.2626	
<input type="checkbox"/>	⚠	17ETML	88376557		3	1770	122.1	25.2	78.1	234	90.9	REFER	
<input type="checkbox"/>	✓	16ENY/16EMM	EC-1415/88500836		3	1775	116.5	15.5	77.9	228	88.7	1.2122	
<input type="checkbox"/>	✓	20EKL	EC-1357		2	1780	77.7	18.7	77.6	231	83.2	1.5786	
<input type="checkbox"/>	⚠	VTP-800 WU-4M	800 WUC-4M / 0		2	1750	87.7	17.9	77.3	239	90.1	1.7747	
<input type="checkbox"/>	✓	15EHL	EC-2390		4	1775	128.8	30.3	77.3	244	100.0	1.3899	
<input type="checkbox"/>	⚠	14EHM	88500835		4	1780	122.2	29.2	77.2	244	97.2	1.1974	
<input type="checkbox"/>	⚠	17ETMY/17ETMH	88376559/88376558		2	1770	99.4	19.2	77.2	246	86.8	REFER	
<input type="checkbox"/>	✓	15EHY/15EHL	87052643/EC-2390		4	1775	123.3	16.7	77.0	242	95.8	1.4324	
<input type="checkbox"/>	✓	14ENL	EC-2336		5	1775	119.9	20.9	74.3	276	99.5	1.2852	

# 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 Selected** button.


Search Results

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

<input type="checkbox"/>	Status	Size & Type	Curve Number	CS	Stg	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter	Price Index	Information
<input type="checkbox"/>	✓	18EKH	EC-1448		2	1780	100.3	19.1	82.4	219	91.8	1.2718	
<input checked="" type="checkbox"/>	⚠	18EKL	EC-1447		2	1780	98.2	21.4	82.3	215	100.0	1.3224	Non-current
<input checked="" type="checkbox"/>	⚠	16EMM	88500836		2	1780	106.8	30.8	81.9	216	98.3	1.0000	Non-current
<input type="checkbox"/>	✓	12EQH	EC-1847		6	1770	108.7	26.0	81.6	223	97.9	1.1700	
<input type="checkbox"/>	⚠	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5	80.5	238	89.9	1.2120	Below min impeller diameter
<input type="checkbox"/>	✓	15EHM	EC-2392		3	1775	118.3	21.5	80.4	221	94.2	1.1696	
<input type="checkbox"/>	✓	14ENH	EC-1354		4	1775	113.5	26.4	80.2	222	96.1	1.1498	
<input type="checkbox"/>	✓	16ENH	EC-1822		3	1775	87.2	24.5	80.0	260	91.9	1.1696	
<input type="checkbox"/>	✓	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4	79.8	226	90.9	1.3302	
<input type="checkbox"/>	✓	16ENL	EC-2339		3	1775	88.1	16.2	79.6	254	94.5	1.2202	
<input checked="" type="checkbox"/>	⚠	14EBH	EC-2426		5	1775	115.8	24.3	79.5	226	96.3	1.3202	Non-current
<input type="checkbox"/>	✓	18EKY/18EKH	EC-1460/EC-1448		2	1780	92.8	13.4	79.3	229	83.5	1.3302	
<input type="checkbox"/>	✓	16EHM	88491606		2	1775	86.1	19.7	79.2	260	97.1	1.0000	
<input checked="" type="checkbox"/>	⚠	17ETMH	88376558		2	1770	100.1	24.7	78.9	235	90.4	REFER	Non-current
<input checked="" type="checkbox"/>	⚠	17ETMY/17ETML	88376559/88376557		2	1770	102.5	19.2	78.5	229	98.0	REFER	Non-current
<input checked="" type="checkbox"/>	✓	16ENY/16ENL	EC-1415/EC-2339		3	1775	91.0	15.5	78.5	238	92.4	1.2626	
<input checked="" type="checkbox"/>	⚠	17ETML	88376557		3	1770	122.1	25.2	78.1	234	90.9	REFER	Non-current
<input checked="" type="checkbox"/>	✓	16ENY/16EMM	EC-1415/88500836		3	1775	116.5	15.5	77.9	228	88.7	1.2122	
<input checked="" type="checkbox"/>	✓	20EKL	EC-1357		2	1780	77.7	18.7	77.6	231	83.2	1.5786	
<input checked="" type="checkbox"/>	⚠	VTP-800 WU-4M	800 WUC-4M / 0		2	1750	87.7	17.9	77.3	239	90.1	1.7747	Constraint conflict
<input checked="" type="checkbox"/>	✓	15EHL	EC-2390		4	1775	128.8	30.3	77.3	244	100.0	1.3899	
<input checked="" type="checkbox"/>	⚠	14EHM	88500835		4	1780	122.2	29.2	77.2	244	97.2	1.1974	Non-current
<input checked="" type="checkbox"/>	⚠	17ETMY/17ETMH	88376559/88376558		2	1770	99.4	19.2	77.2	245	86.8	REFER	Non-current
<input checked="" type="checkbox"/>	✓	15EHY/15EHL	87052643/EC-2390		4	1775	123.3	16.7	77.0	242	95.8	1.4324	
<input checked="" type="checkbox"/>	✓	14ENL	EC-2336		5	1775	119.9	20.9	74.3	276	99.5	1.2852	

1 2

# 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 Results

Count: 36/55

☐ Hide Near Misses









































☒ Hide Invalid Selections

Hide Selected

Show Only Selected

Show All

Customize columns

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

12

# 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     Page Size: 10

<input type="checkbox"/>	Status ▾	Size & Type ▾	Curve Number ▾	CS ▾	Stg ▾	RPM ▾	% BEP ▾	NPSH3 ▾	Efficiency ▾	Max Power ▾	% Max Diameter ▾	Price Index ▾
<input type="checkbox"/>	✓	18EKH	EC-1448		2	1780	100.3	19.1	82.4	219	91.8	1.2718
<input type="checkbox"/>	✓	12EQH	EC-1847		6	1770	108.7	26.0	81.6	223	97.9	1.1700
<input type="checkbox"/>	⚠	16ENY/16ENH	EC-1415/EC-1822		3	1775	91.0	15.5	80.5	238	89.9	1.2120
<input type="checkbox"/>	✓	15EHM	EC-2392		3	1775	118.3	21.5	80.4	221	94.2	1.1696
<input type="checkbox"/>	✓	14ENH	EC-1354		4	1775	113.5	26.4	80.2	222	96.1	1.1498
<input checked="" type="checkbox"/>	✓	16ENH	EC-1460/EC-1447		3	1775	87.2	24.5	80.0	260	91.9	1.1696
<input checked="" type="checkbox"/>	✓	18EKY/18EKL	EC-1460/EC-1447		2	1780	97.1	13.4	79.8	226	90.9	1.3302
<input checked="" type="checkbox"/>	✓	16ENL	EC-2339		1	1775	88.1	16.2	79.6	254	???	1.2202
<input checked="" type="checkbox"/>	✓	18EKY/18EKH	EC-1460/EC-1448		2	1780	92.8	13.4	79.3	229	83.5	1.3302
<input checked="" type="checkbox"/>	✓	16EHM	88491606		2	1775	86.1	19.7	79.2	260	???	1.0000

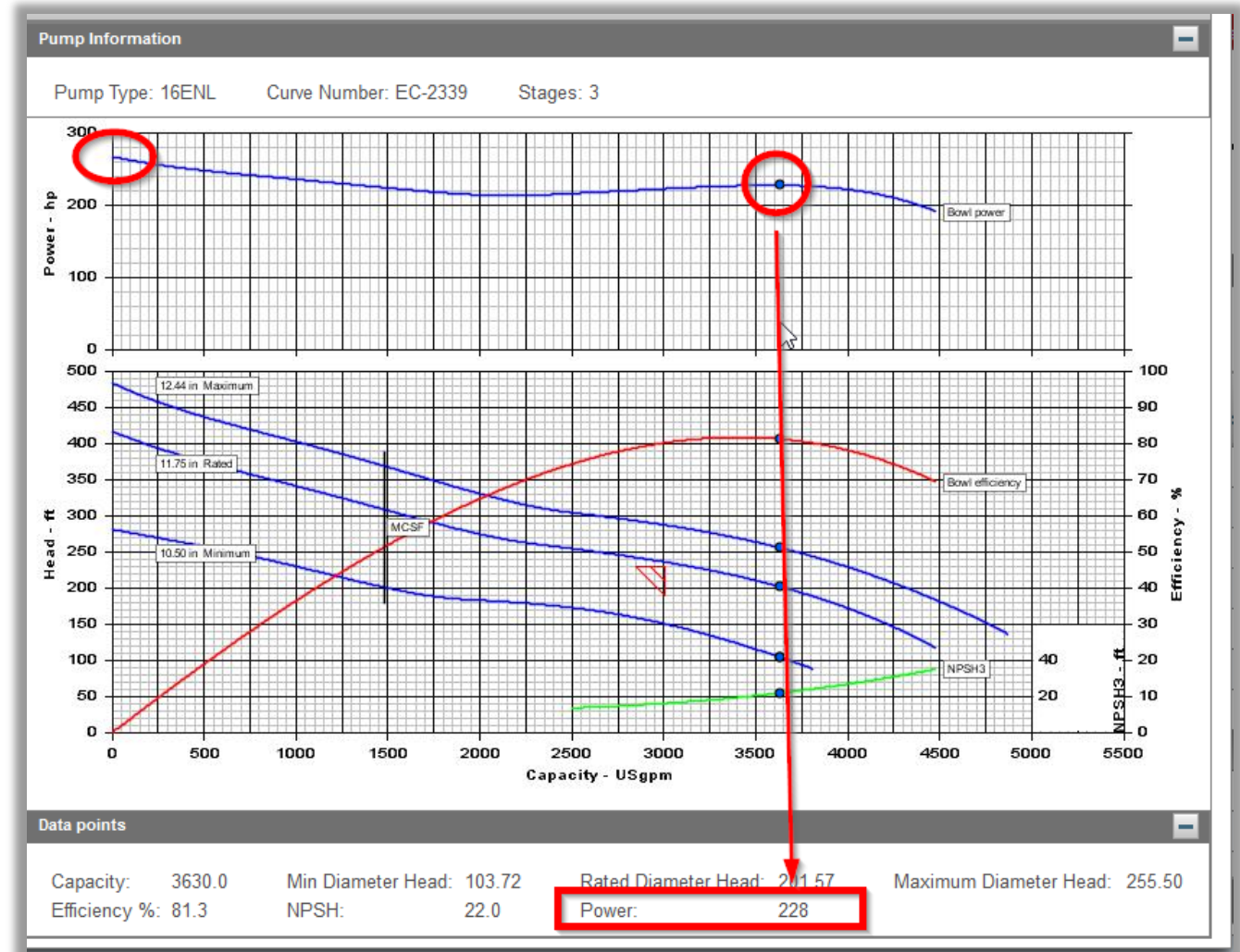
Quick Curve

1




# 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.

 View Thumbnails

Search Results ?

Count: 33/55 ☐ Hide Near Misses ☒ Hide Invs

<input type="checkbox"/>	Status ▾	Size & Type ▾
<input checked="" type="checkbox"/>	✓	18EKH
<input checked="" type="checkbox"/>	✓	12EQH
<input checked="" type="checkbox"/>	✓	15EHM
<input checked="" type="checkbox"/>	✓	14ENH
<input type="checkbox"/>	✓	16ENH

Thumbnail Curves

Print Thumbnail

✓ Size 18EKH	Stages 2	Speed 1,780	Efficiency 82.4%
Curve EC-1448	NPSH3 19.1 ft	Max Power 219 hp	% BEP 100.3%

✓ Size 12EQH	Stages 6	Speed 1,770	Efficiency 81.6%
Curve EC-1847	NPSH3 26.0 ft	Max Power 223 hp	% BEP 108.7%

✓ Size 15EHM	Stages 3	Speed 1,775	Efficiency 80.4%
Curve EC-2392	NPSH3 21.5 ft	Max Power 221 hp	% BEP 118.3%

✓ Size 14ENH	Stages 4	Speed 1,775	Efficiency 80.2%
Curve EC-1354	NPSH3 26.4 ft	Max Power 222 hp	% BEP 113.5%



# 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

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

< 1 >

# 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.

Start Duty Conditions Products Vertical Duty Conditions Hydr./Driver Constraints Product Constraints Search Results **Result Details** Output

Back Next Pump Search

**View Curve** **Save Selection**

**Rated Condition**

**Selection Info:** Selection has additional information. Click here for information.

**Pump Information**

Quantity of pumps: 1  
Type: VTP Wet Pit  
Size: 18EKH  
Stages: 2 **Edit Stages**  
Curve number(s): EC-1448  
Hydraulic reference nos.: 99  
Requested material: B30  
Selected material: B30  
Selection status: **Acceptable**

**Duty Conditions**

Requested flow: 3,000.0 USgpm Service: Other Frequency: 60 Hz  
Actual flow: 3,000.0 USgpm Liquid type: Other  
Head @ discharge flange: 230.00 ft Liquid description: Other  
Actual head: 230.00 ft Specific gravity: 1.000  
Max pumping temperature: 60 °F Viscosity: 1.00 cSt  
Min pumping temperature: 32 °F NPSHa @ LLL: Ample ft  
Max air temperature: 104 °F Rated suction pressure: 0.0 psig  
Min air temperature: -4 °F Vapor pressure: 0.00 psia  
Static head: 0.00 ft Altitude: 0.00 ft

**Performance Details**

Hydraulic power basis requested Q & H: 177 hp  
Hydraulic power basis actual Q & H: 177 hp  
Pump speed: 1780 rpm  
Pump overall efficiency: 82.4 %  
Casing/Bowl efficiency: 83.1 %  
NPSH3 @ Impeller eye: 19.1 ft  
Rated brake power: 214 hp  
Maximum brake power: 219 hp  
Ns: 2,483 (US)  
Nss (per eye): 10,090 (US)

Impeller diameters:  
Rated: 13.25 in  
Maximum: 14.44 in  
Minimum: 11.50 in  
MCSF: 1,157.0 USgpm  
Pump WR² at 1780 rpm: 17.77 lb-ft²

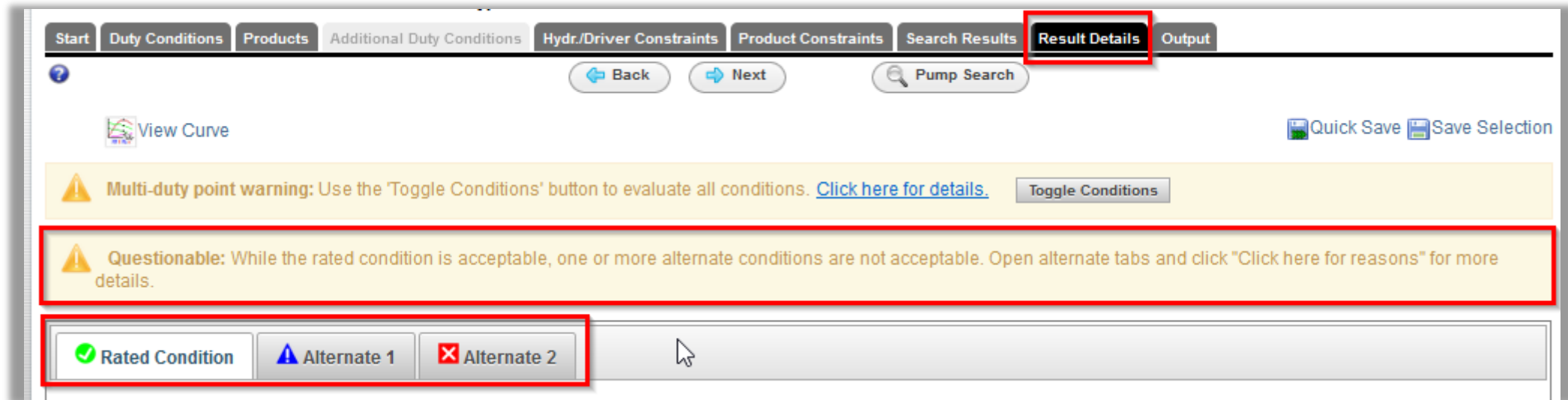
Rated/max diameter: 91.8 %  
Maximum head: 343.74 ft  
Head rise to shut off: 46.2 %  
Head rated / Head max: 77.6 %  
Head max / Head rated: 128.9 %  
Flow at BEP: 2,992.1 USgpm  
Flow as % of BEP: 100.3 %

**Driver Details**

Driver Synchronous Speed : 1800 rpm **Change** Driver rating: 250 hp / 186 kW **Change**  
Frame size: 16.6%

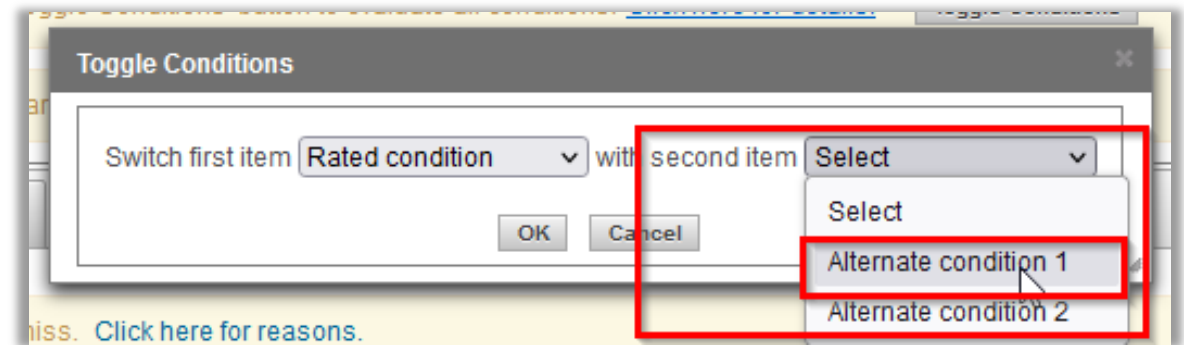
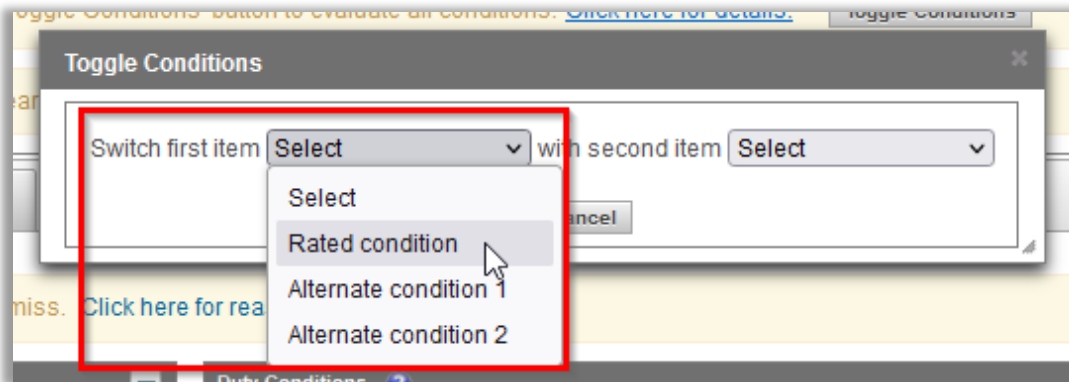
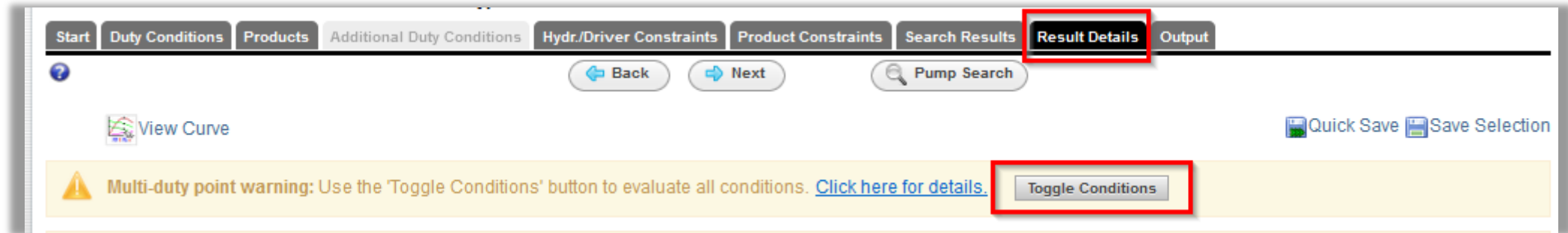
# Results Details page – Alternate Duty Conditions

- ❑ 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.



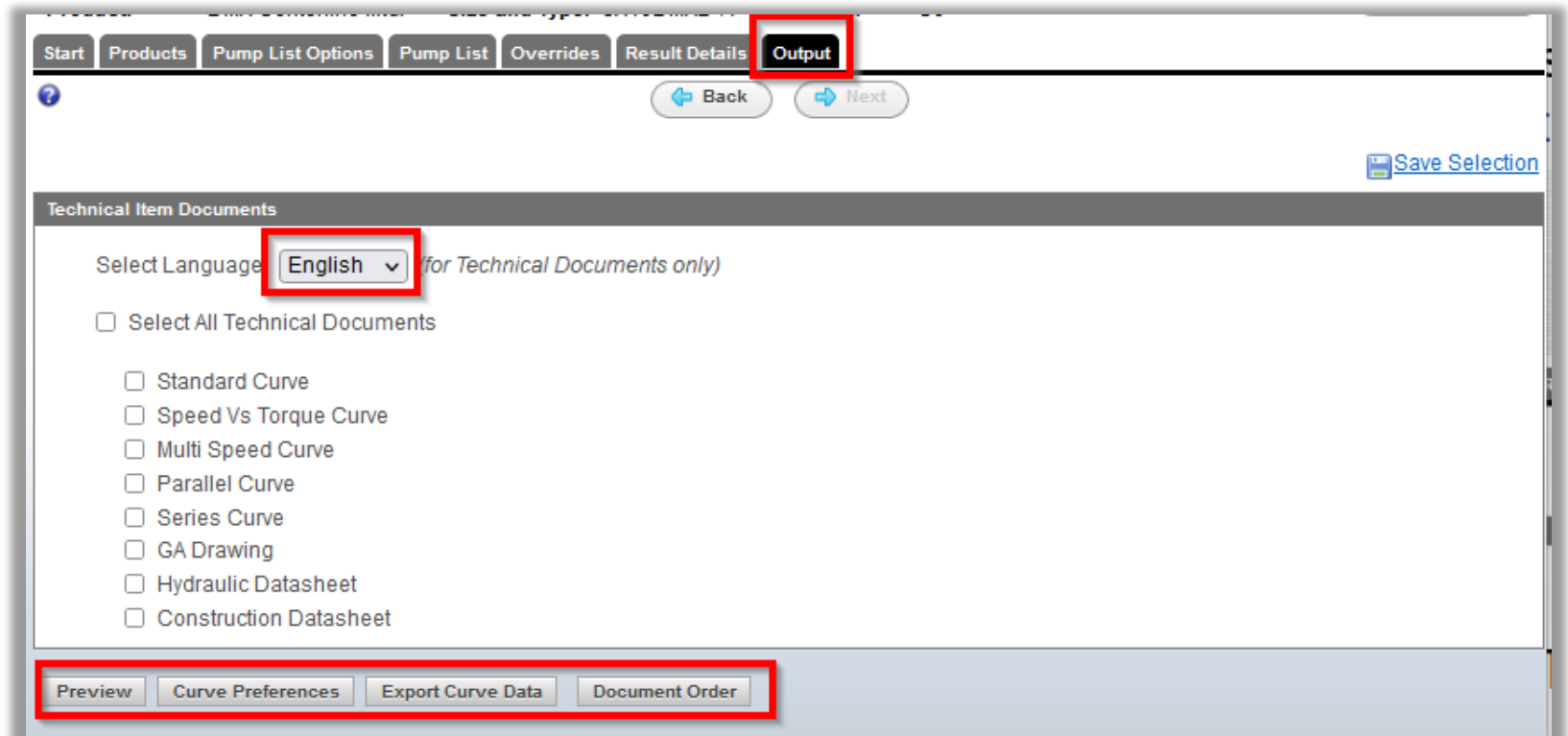
# Results Details page – Alternate Duty Conditions

- ❑ 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 elsewhere 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.

Curve Preferences

Centrifugal Rotary

General Curve Preferences

Curve Position

- ☒ Power over head
- ☐ Head over power

Page Orientation

- ☒ Portrait
- ☐ Landscape

Grid Size

- ☒ Fine
- ☐ Coarse

Axis Scale

- ☒ Optimal scale
- ☐ User defined

MCSF

- ☒ Draw MCSF curve

Water curves

- ☐ Draw Water curves

Preferred operating regions

- ☐ Display preferred operating regions

Alternate Duty Conditions

- ☐ One page with rated curve & all duty points
- ☒ One page with all curves & all duty points
- ☐ Page per duty condition

Save As Default Restore Defaults

Selection Curve Preferences

Static Head

- ☒ Draw system curve

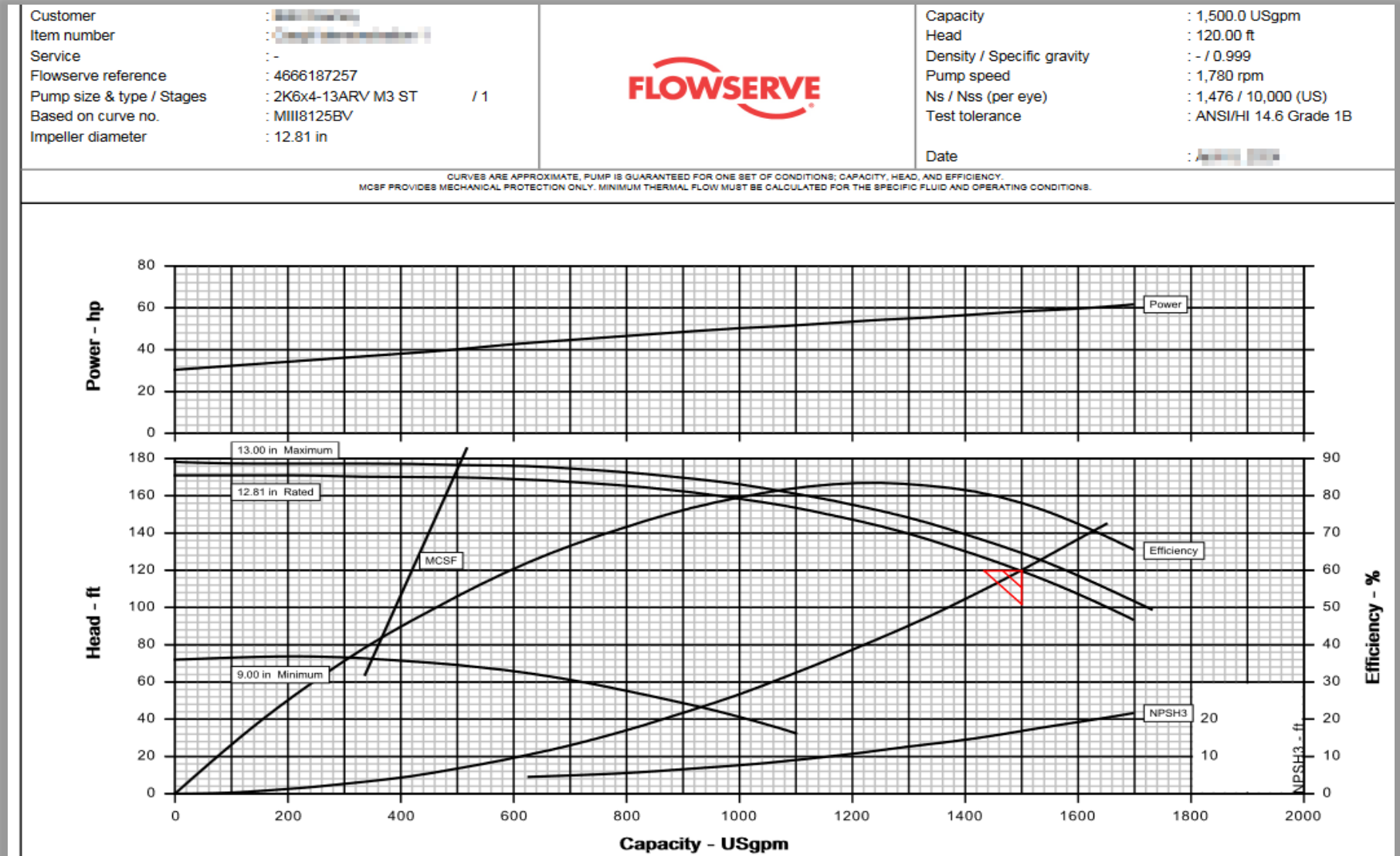
Vertical Sump Pump Options

- ☒ Same as duty conditions
- ☐ Casing discharge centerline
- ☐ Discharge flange centerline
- ☐ Low liquid level

OK Cancel

# 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.

Technical Item Documents

Select Language English (for Technical Documents only)

☐ Select All Technical Documents

- ☒ Standard Curve
- ☐ Speed Vs Torque Curve
- ☒ Multi Speed Curve [Multi Speed Curve Options\\*](#)
- ☒ Parallel Curve [Series/Parallel Curve Options\\*](#)
- ☒ Series Curve
- ☐ GA Drawing
- ☐ Hydraulic Datasheet
- ☐ Construction Datasheet

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

Multi Speed Curve

Set Speeds

☒ Speed ☐ Frequency

Pump speed: 1780

- ☒ Speed 1:  rpm
- ☒ Speed 2:  rpm
- ☒ Speed 3:  rpm
- ☐ Speed 4:  rpm
- ☐ Speed 5:  rpm

OK Cancel

- ❑ For Parallel or Series Curves, enter the quantity and hit “OK”.

Multiple Pump Operation

Setup

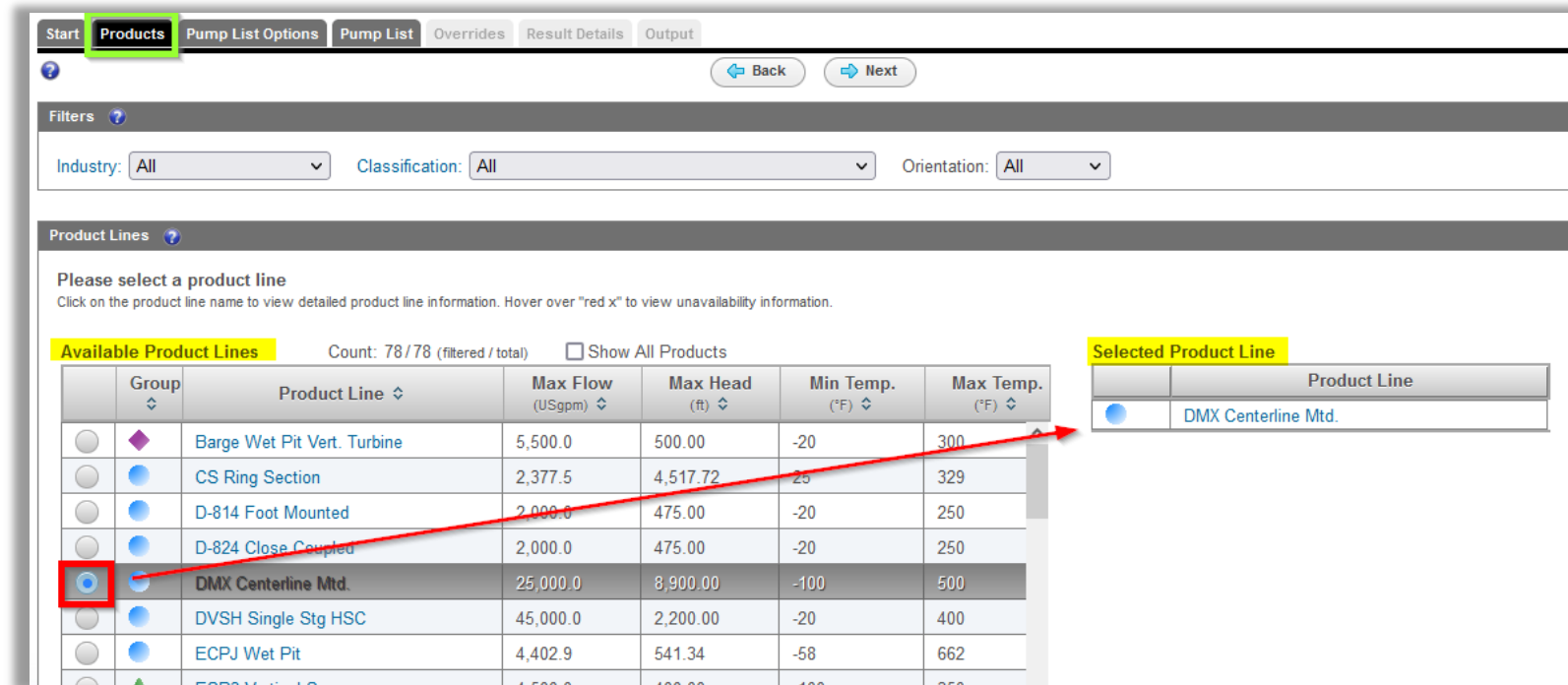
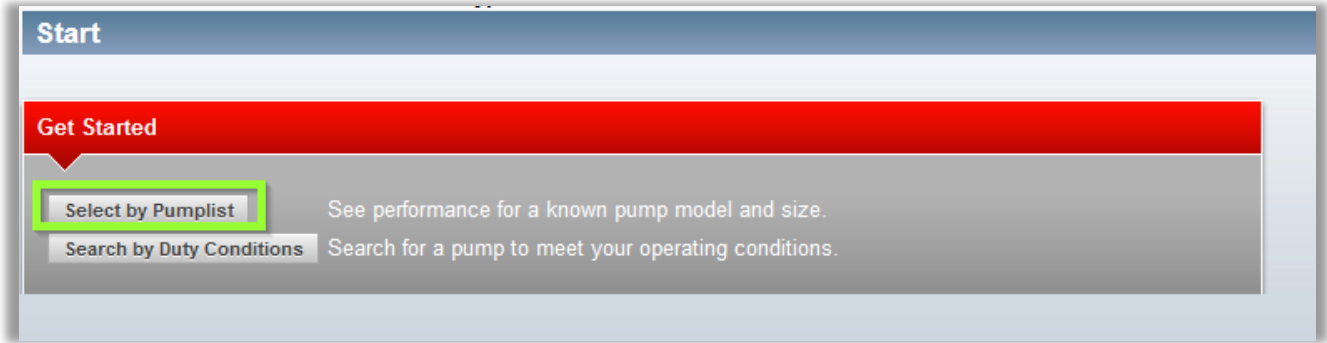
Setup values are used for both parallel and series curves.

Number of pumps:

OK Cancel

# 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.

The image displays three overlapping screenshots of the Flowserve Affinity software interface, illustrating the 'Select by PUMPLIST' process.

**Screenshot 1 (Left): Pump List Options**

- Navigation tabs: Start, Products, **Pump List Options** (highlighted), Pump List, Overrides, Result Details, Output.
- Frequency: 60 Hz
- Driver design: NEMA motor

**Screenshot 2 (Middle): Pump List**

- Navigation tabs: Start, Products, Pump List Options, **Pump List** (highlighted), Overrides, Result Details, Output.
- Product Line: DMX Centerline Mtd.
- Pump List: Please select a pump type. Selected Pump Type: 3X10DMXD-A.

	Pump Type	Min RPM	Max RPM
<input type="radio"/>	3X8 DMX -A	1780	6250
<input type="radio"/>	3X8 DMX -B	1780	6250
<input checked="" type="radio"/>	3X10DMXD-A	1780	6250
<input type="radio"/>	3X10DMXD-B	1780	6250
<input type="radio"/>	3X10DMX -A	1780	6250
<input type="radio"/>	3X10DMX -B	1780	6250

**Screenshot 3 (Right): Overrides**

- Navigation tabs: Start, Products, Pump List Options, Pump List, **Overrides** (highlighted), Result Details, Output.
- Product Line: DMX Centerline Mtd.
- Pump Type: 3X10DMXD-A
- Pump Type Overrides:

Stages Override	Speed Override	Diameter Override
Allowable range: 4 - 14 Set stages to: 14	Allowable range: 1780 - 6250 Set speed to: 3560	Select diameter: 9.56

# 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.

**Pump Information**

Quantity of pumps:	1
Type:	DMX Centerline Mtd.
Size:	3X100MMD-A
Stages:	14 <b>Min. Stages</b>
Curve number(s):	3X100MMD-1-1
Hydraulic reference nos.:	75
Requested material:	S6
Selected material:	S6
Selection status:	Acceptable

**Duty Conditions**

Requested flow:	766.8 USgpm	Service:	Other	Frequency:	60 Hz
Actual flow:	766.8 USgpm	Liquid type:	Other	Flammable:	No
Requested head:	4,268.69 ft	Liquid description:	1.000	Toxic:	No
Actual head:	4,268.69 ft	Specific gravity:	1.000	H2S present:	No
Max pumping temperature:	60 °F	Viscosity:	1.00 cSt	HF present:	No
Min pumping temperature:	32 °F	NPSHa:	Ample ft	Test tolerances:	ANSI/HL 14.6 Grade 1B
Max air temperature:	104 °F	Rated suction pressure:	0.0 psig		
Min air temperature:	-4 °F	Vapor pressure:	0.00 psia		
Static head:	0.00 ft	Altitude:	0.00 ft		

**Performance Details**

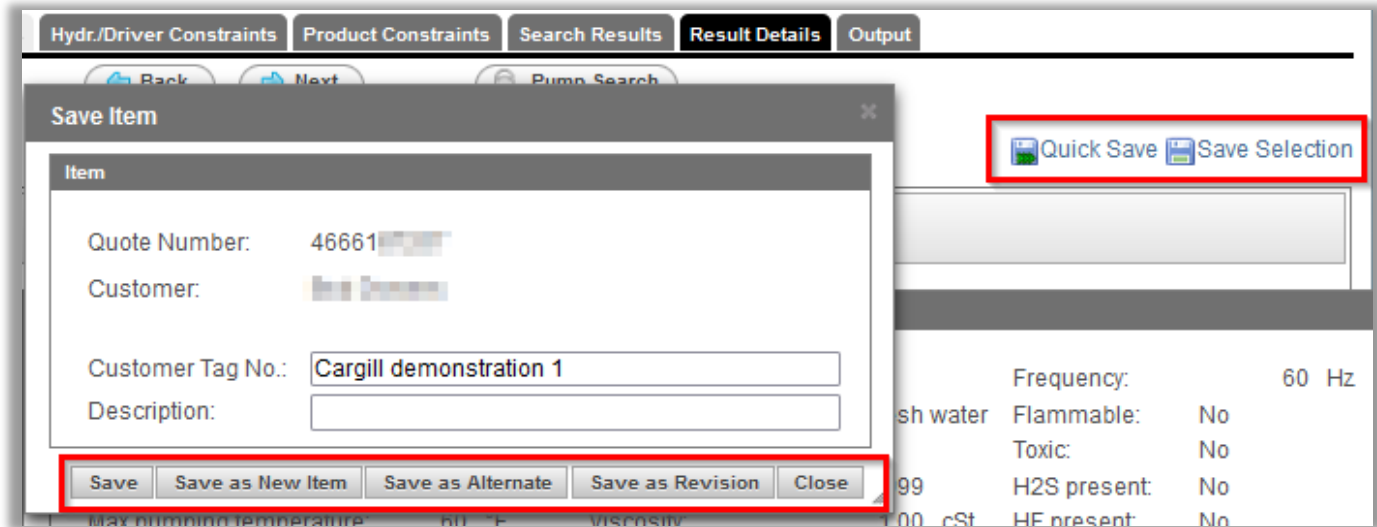
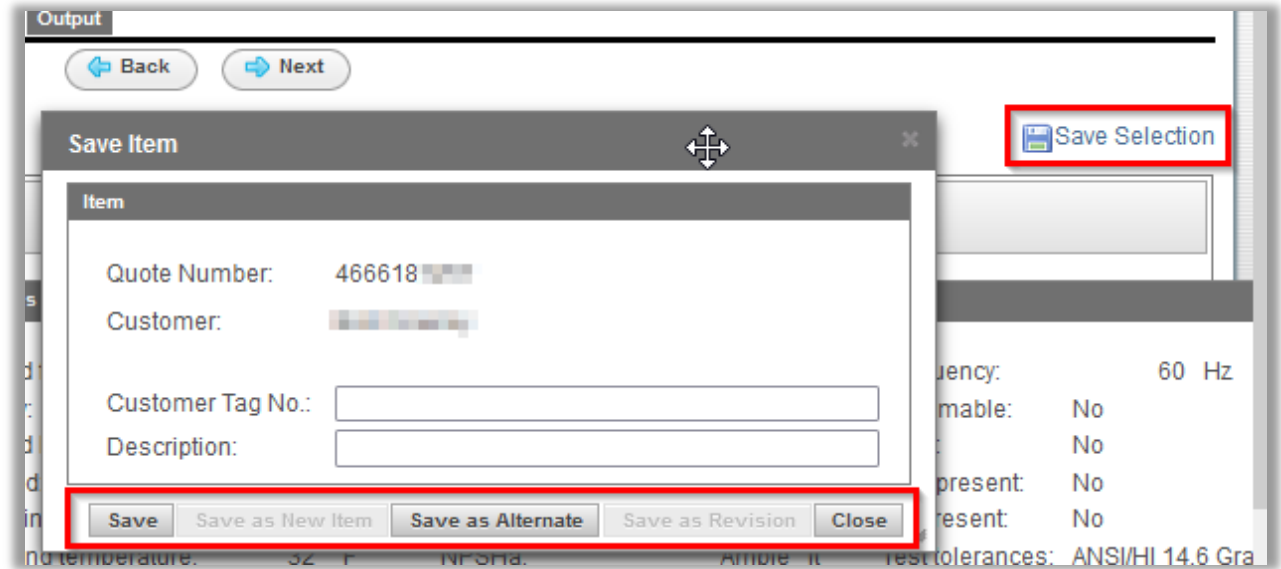
Hydraulic power basis requested Q & H:	827 hp	Impeller diameters:	Rated/max diameter:	100.0 %
Hydraulic power basis actual Q & H:	827 hp	Rated:	Maximum head:	5,267.79 ft
Pump speed:	3560 rpm	Maximum:	Head rise to shut off:	23.4 %
Pump overall efficiency:	75.3 %	Minimum:	Head rated / Head max:	100.0 %
NPSH3:	15.5 ft	MCSF:	Head max / Head rated:	100.0 %
Rated brake power:	1,097 hp	Pump WR* at 3560 rpm:	Flow at BEP:	766.9 USgpm
Maximum brake power:	1,148 hp		Flow as % of BEP:	100.0 %
Ns:	1,352 (US)			
Nss (per eye):	8,930 (US)			

**Driver Details**

Driver Synchronous Speed:	3600 rpm <b>Change</b>	Driver rating:	1,250 hp / 932 kW <b>Change</b>
Frame size:		% over rated power:	13.9%
Driver sizing spec:	Max Power(MCSF to EOC) using SF	% over max power:	8.9%
Driver type:	NEMA motor	Overload capacity:	N/A USgpm
Driver orientation:	Horizontal	Service factor:	1.00
Driver voltage:	480 V	% over max system power:	0.0%
Motor phases:	0	Max system power:	0.0 hp
Site voltage:	480 V		

# 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 (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.

Quote #	Customer Name	Created By	Creation Date
24504		anon	2020-03-23 08:42:39.0
39683		anon	2022-03-22 08:31:13.0
42180		anon	2022-09-05 11:09:11.0
46393		anon	2023-09-27 07:26:08.0
46661		anon	2023-10-24 05:15:33.0
48131		anon	2024-03-07 15:35:13.0
48165		anon	2024-03-11 13:50:48.0

- 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.

Line Number	Customer Tag Number	Pump Line	Pump Size/Stages	Material
1	Cargill demonstration 1	Mark 3 & LoFlo ANSI	2K6x4-13ARV M3 ST/1	DCI
2	Cargill demonstration 1	Mark 3 & LoFlo ANSI	2K6x4-13ARV M3 ST/1	DCI
3	Cargill demonstration 1	Mark 3 & LoFlo ANSI	2K6x4-13ARV M3 ST/1	DCI
4	Cargill demonstration 1	Mark 3 & LoFlo ANSI	3K8x6-14ARV M3 ST/1	DCI
5	Cargill actual pump P4091	Mark 3 & LoFlo ANSI	3K10x8-17RV M3 ST/1	D/C
6	d814	D-814 Foot Mounted	D814-2.5X1.5X5T/1	STD
7	DMX test 2	DMX Centerline Mtd.	3X10DMXD-A/14	S6

- 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.

Line Details

VIEW FREEZE ADD ITEM RECONFIGURE COP

<input type="checkbox"/>	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description
<input checked="" type="checkbox"/>	1		Cargill	0	1	1	Mark 3 & LoFlo	2K6x4-13ARV M3 ST
<input checked="" type="checkbox"/>	2		Cargill	0	1	1	Mark 3 & LoFlo	3K8x6-14ARV M3 ST
<input checked="" type="checkbox"/>	3		Cargill	1	2	1	Mark 3 & LoFlo	2K6x4-13ARV M3 ST
<input checked="" type="checkbox"/>	4		Cargill	1	1	1	Mark 3 & LoFlo	3K8x6-14ARV M3 ST
<input checked="" type="checkbox"/>	5		Cargill actual pump	0	1	1	Mark 3 & LoFlo	3K10x8-17RV M3 ST

Page 1 of 1 (1-5 of 5 items) 5 selected

SET OUTPUT DOCUMENTS TOGGLE ALTERNATE

Home New Quote Quote Manager

Current Quote: 4666 Quote Owner: Current Item: Back to Quote  
Product: Size and Type: Material:

Document Bundling

Note: If your "Performance Curve" below appears as N/A, open the item and click the "Quick Save" link.

☐ Technical Summary Document Order Preview Save and Close Cancel

<input type="checkbox"/>	#	Status	Name	Rev	Alt	Performance Curve	Hydraulic Datasheet	Construction Datasheet	GA Drawing	Series Curve	Parallel Curve	Multi Speed Curve	Speed vs. Torque Curve
<input type="checkbox"/>	1	✓	Cargill demonstration 1	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2	▲	Cargill demonstration 1	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	3	✓	Cargill demonstration 1	2	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4	▲	Cargill demonstration 1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	5	✓	Cargill actual pump P4091	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>

Document Order Preview Save and Close Cancel

# 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**

Note: If your "Performance Curve" below appears as N/A, open the item and click the "Quick Save" link.

☒ Technical Summary 1

Document Order Preview Save and Close Cancel

Selected Items													
<input type="checkbox"/>	#	Status	Name	Rev	Alt	Performance Curve <input type="checkbox"/>	Hydraulic Datasheet <input type="checkbox"/>	Const. Datasheet <input type="checkbox"/>	<span style="border: 1px solid blue; padding: 2px;">4</span> GA Drawing <input checked="" type="checkbox"/>	Series Curve <input type="checkbox"/>	Parallel Curve <input type="checkbox"/>	Multi Speed Curve <input type="checkbox"/>	Speed vs. Torque Curve <input type="checkbox"/>
<span style="border: 1px solid red; padding: 2px;">2</span> <input checked="" type="checkbox"/>	1	✓	Cargill demonstration 1	1	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	2	✓	Cargill demonstration 1	1	0	<span style="border: 1px solid blue; padding: 2px;">3</span> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	3	✓	Cargill demonstration 1	2	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4	⚠	Cargill demonstration 1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	5	✓	Cargill actual pump P4091	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	6	⚠	d814	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	7	✓	DMX test 2	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>

Document Order Preview Save and Close Cancel

# Document Bundling Page -Technical Summary

## Example of Technical Summary



## 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 %	

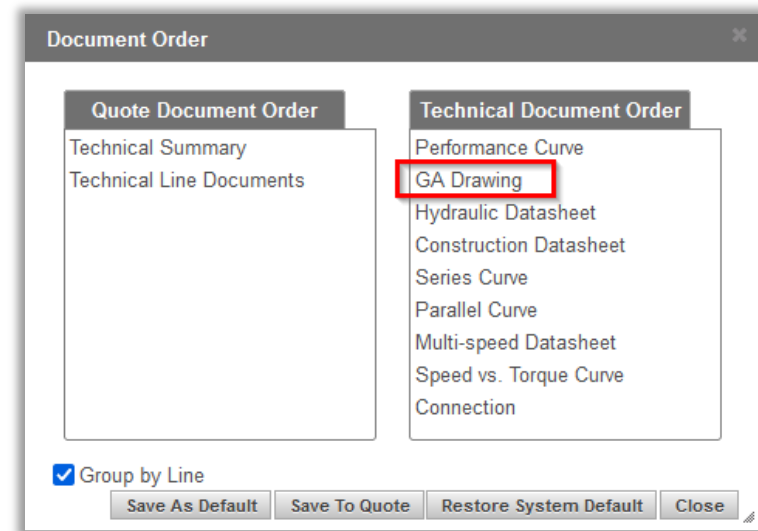
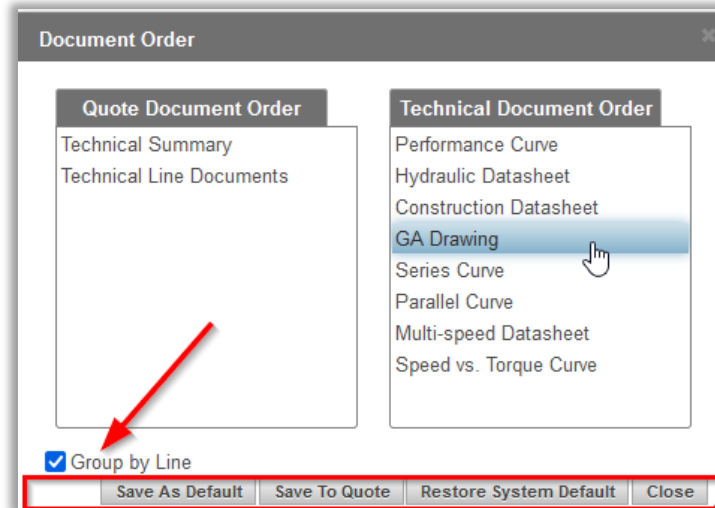
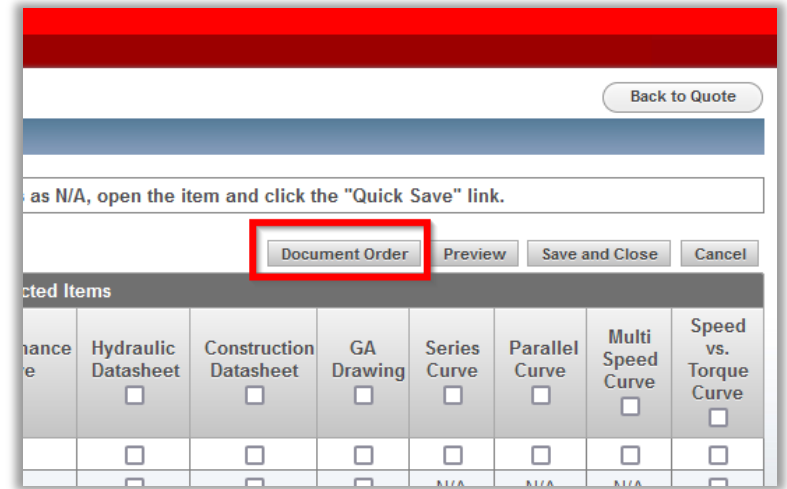
### Alternate Selection Summary - Centrifugal

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 %	



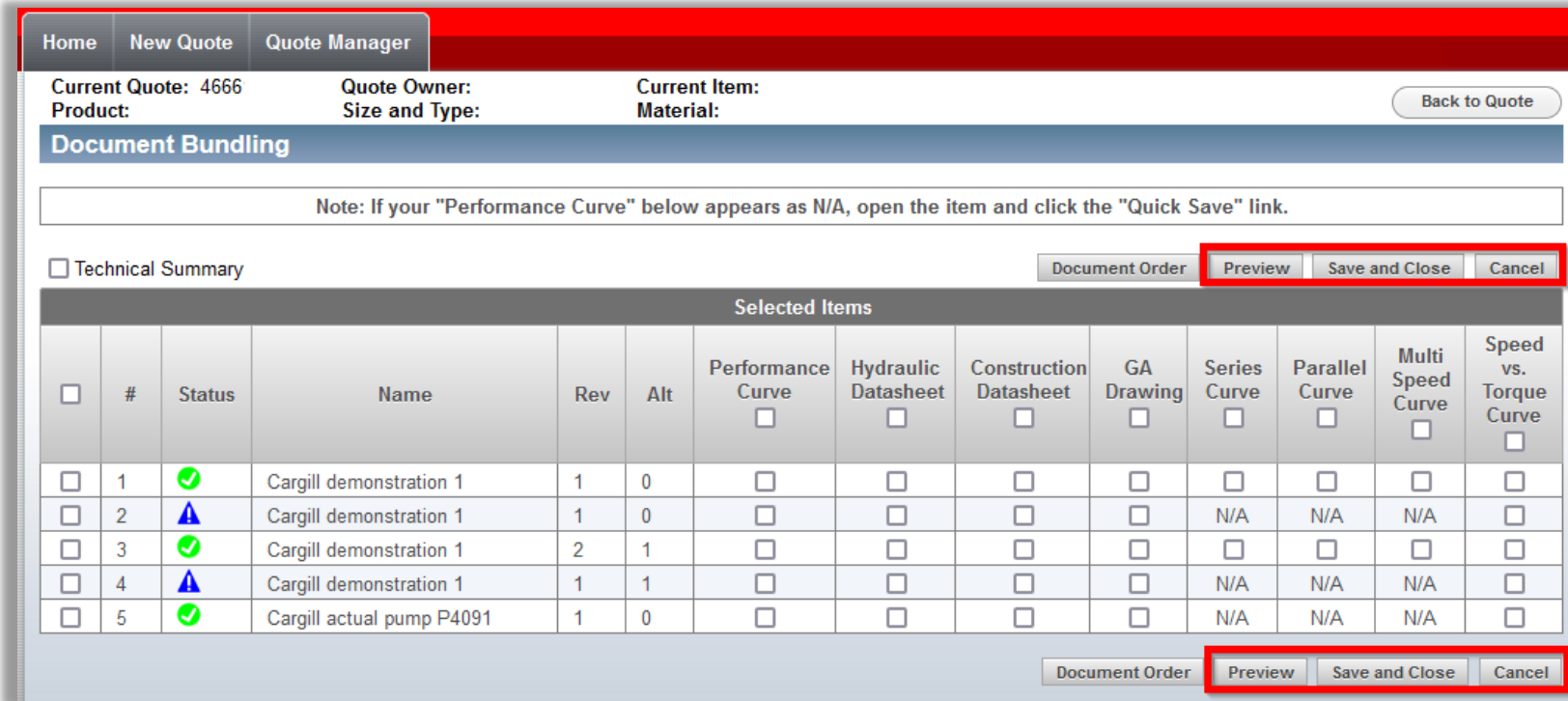
# Document Bundling Page – Document Order

- ❑ 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.



Home New Quote Quote Manager

Current Quote: 4666 Quote Owner: Current Item: Product: Size and Type: Material: Back to Quote

### Document Bundling


Note: If your "Performance Curve" below appears as N/A, open the item and click the "Quick Save" link.

☐ Technical Summary Document Order Preview Save and Close Cancel

	#	Status	Name	Rev	Alt	Performance Curve	Hydraulic Datasheet	Construction Datasheet	GA Drawing	Series Curve	Parallel Curve	Multi Speed Curve	Speed vs. Torque Curve
<input type="checkbox"/>	1	✓	Cargill demonstration 1	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2	⚠	Cargill demonstration 1	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	3	✓	Cargill demonstration 1	2	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4	⚠	Cargill demonstration 1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>
<input type="checkbox"/>	5	✓	Cargill actual pump P4091	1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A	N/A	<input type="checkbox"/>


Document Order Preview Save and Close Cancel

# 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.





VIEW ▾



ERP





 FREEZE

ADD ITEM

RECONFIGURE

<input type="checkbox"/>	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	M
<input type="checkbox"/>	1	H p	Proman J401 A/B	0	1	1	ERP Centerline	ERP 150-319	1	S-5	0.0
<input type="checkbox"/>	2	F p	P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4	1.0
<input type="checkbox"/>	3	F p	P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.0
<input type="checkbox"/>	4	H p	test save	0	1	1	VTP Wet Pit	20EKL	4	B30	1.0
<input type="checkbox"/>	5	F p	ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	DCI	1.0
<input type="checkbox"/>	6	H p	Marterial not avail	0	1	1	D-814 Foot	D814-2.5X1.5X5T	1	STD	1.0
<input type="checkbox"/>	7	F p	P-62 alt1	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.0

VIEW ▾

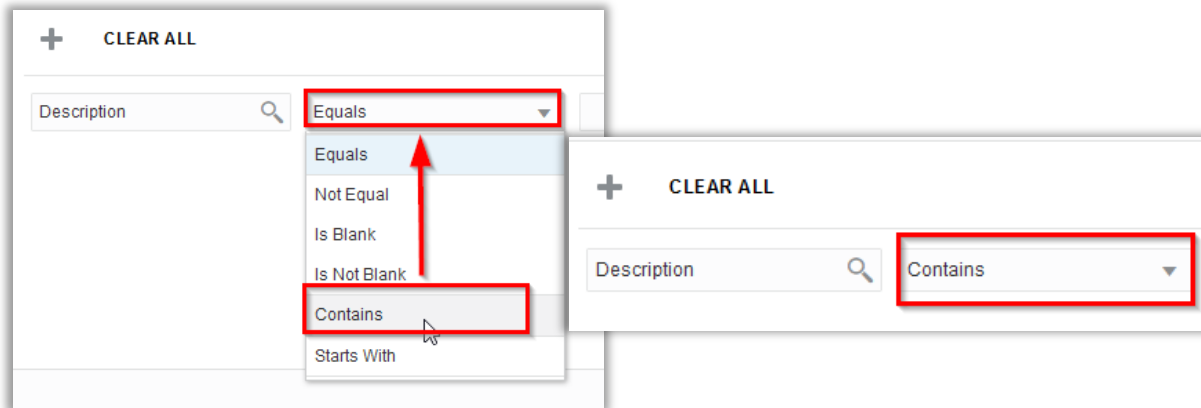
ERP

</

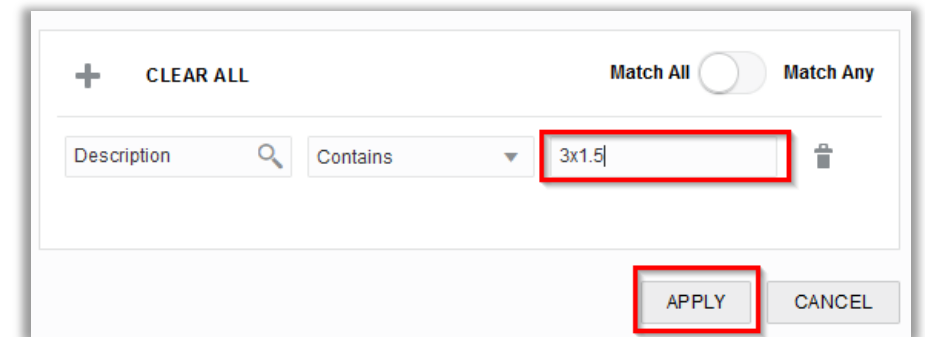
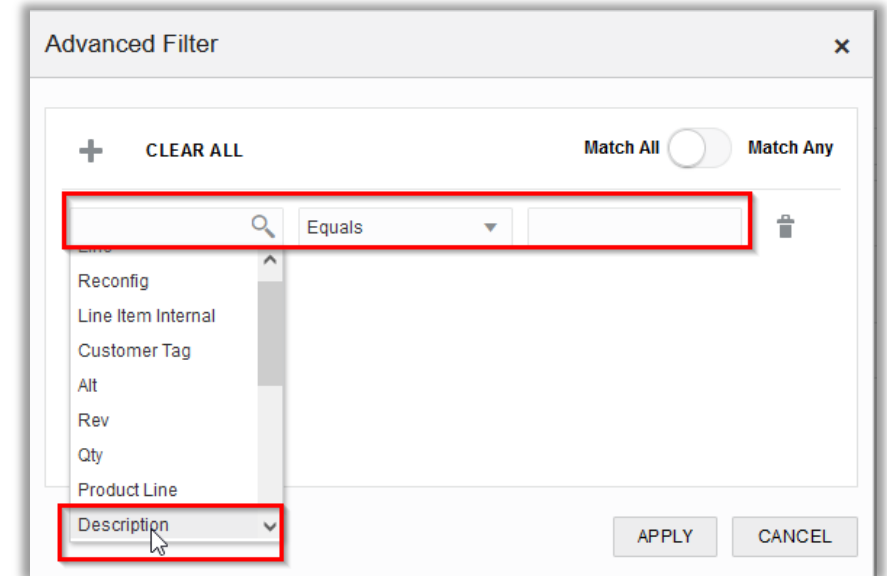


# Quote Screen – Line Details Panel - Filters

- ❑ 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.

CLEAR ALL

Match All

☐

Match Any

Description

Contains

3x1.5

APPLY

CANCEL

VIEW

ADD FILTER

FREEZE

ADD ITEM

RECONFIGURE

CONF

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

VIEW

☐

Line

☐

2

☐


3



☐

5


☐


7

VIEW 

EDIT FILTER










 FREEZE

ADD ITEM

RECONFIGURE

COPY ITEMS

DEL

	Line 	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	Multi.	U
	2		P-62	0	1	1	Mark 3 & LoFlo	1 1/2x1.5-32RV M3 ST	1	D4	1.000	
	3		P-62	0	1	1	Mark 3 & LoFlo	1 1/2x1.5-32RV M3 ST	1	D4L	1.000	
	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1 1/2x1.5-32RV M3 ST	1	DCI	1.000	
	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	1 1/2x1.5-32RV M3 ST	1	D4L	1.000	
	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1 1/2x1.5-32RV 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.

Advanced Filter

+ CLEAR ALL Match All Match Any

Description Contains 3x1.5

APPLY CANCEL

Advanced Filter

+ CLEAR ALL Match All Match Any

Description Contains 3x1.5

Material Equals D4L

APPLY CANCEL

- ❑ The new list has been reduced further basis the additional search for Material and the **Match All** setting.

Line Details

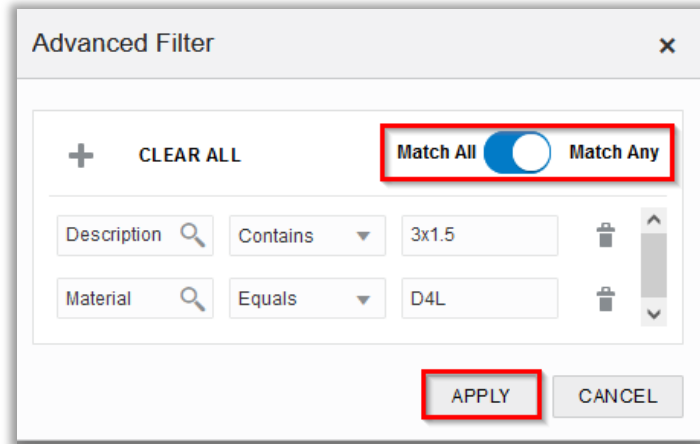
Not Synced Yet

VIEW EDIT FILTER FREEZE ADD ITEM RECONFIGURE COPY ITEMS

	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material
<input type="checkbox"/>	3		P-62	0	1	1	Mark 3 & LoFlo	K3x1.5-42RV M3 ST	1	D4L
<input type="checkbox"/>	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	K3x1.5-42RV M3 ST	1	D4L
<input type="checkbox"/>	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	K3x1.5-42RV M3 ST	1	D4L

# 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 either Description Containing 3x1.5 or Material Equal to D4L is shown.



Advanced Filter

+ CLEAR ALL

Match All ☒ Match Any

Description Contains 3x1.5

Material Equals D4L

APPLY CANCEL

VIEW

EDIT FILTER

FREEZE

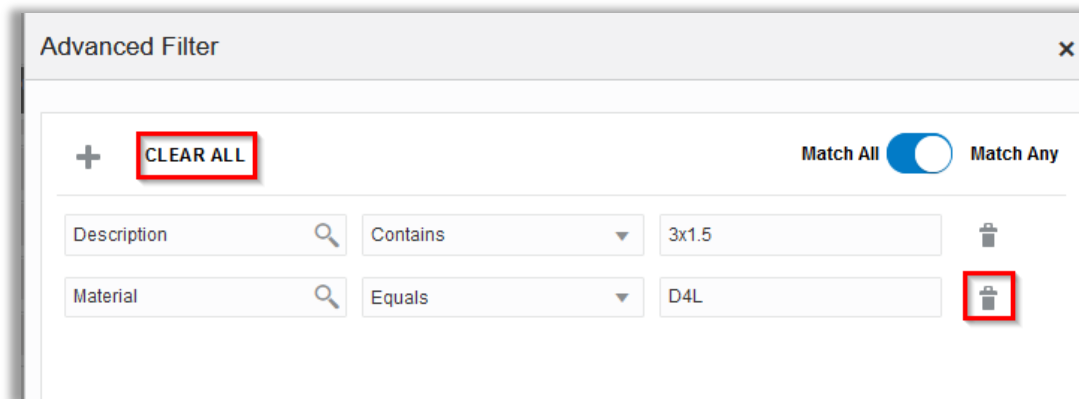
ADD ITEM

RECONFIGURE

CONF

<input type="checkbox"/>	Line	Reconfig	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material
<input type="checkbox"/>	2		P-62	0	1	1	Mark 3 & LoFlo	1 3x1.5-2RV M3 ST	1	D4
<input type="checkbox"/>	3		P-62	0	1	1	Mark 3 & LoFlo	1 3x1.5-2RV M3 ST	1	D4L
<input type="checkbox"/>	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1 3x1.5-2RV M3 ST	1	DCI
<input type="checkbox"/>	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	2K3x2-10ARV M3 ST	1	D4L
<input type="checkbox"/>	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1 3x1.5-2RV M3 ST	1	D4L

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



Advanced Filter

+ CLEAR ALL

Match All ☒ Match Any

Description Contains 3x1.5

Material Equals D4L

# 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.

VIEW	Line	Rec...	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material	Multi.	Unit Price
<input type="checkbox"/>	1		Proman J401 A/B	0	1	1	ERPN Centerline	ERPN 150-319	1	S-5	0.680	REFER
<input type="checkbox"/>	2		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4	1.000	37,532
<input type="checkbox"/>	3		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.000	REFER-P
<input type="checkbox"/>	4		test save	0	1	1	VTP Wet Pit	20EKL	4	B30	1.000	REFER
<input type="checkbox"/>	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	DCI	1.000	10,461
<input type="checkbox"/>	6		Marterial not avail	0	1	1	D-814 Foot	D814-2.5X1.5X5T	1	STD	1.000	
<input type="checkbox"/>	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	2K3x2-10ARV M3 ST	1	D4L	1.000	
<input type="checkbox"/>	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1	D4L	1.000	
<input type="checkbox"/>	9		Vallen-Merck	0	1	1	Mark 3 & LoFlo	1K1.5x1-62RV M3 ST	1	D/C	0.495	
<input type="checkbox"/>	10		Reconfig symbols	0	1	1	DMX Centerline	3X10DMXD-A	14	S6	0.680	

VIEW	Line	Rec...	Customer Tag	Alt	Rev	Qty	Product Line	Description	Multi.	Unit Price	Total Price	Lead Time
<input type="checkbox"/>	1		Proman J401 A/B	0	1	1	ERPN Centerline	ERPN 150-319	0.680	REFER	REFER	REFER
<input type="checkbox"/>	2		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1.000	37,532	37,532	21
<input type="checkbox"/>	3		P-62	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1.000	REFER-P	REFER-P	REFER
<input type="checkbox"/>	4		test save	0	1	1	VTP Wet Pit	20EKL	1.000	REFER	REFER	REFER
<input type="checkbox"/>	5		ALL FLUIDS	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1.000	10,461	10,461	12
<input type="checkbox"/>	6		Marterial not avail	0	1	1	D-814 Foot	D814-2.5X1.5X5T	1.000	REFER	REFER	REFER
<input type="checkbox"/>	7		P-62 alt1	0	1	1	Mark 3 & LoFlo	2K3x2-10ARV M3 ST	1.000	REFER-P	REFER-P	REFER
<input type="checkbox"/>	8		P-62 alt2	0	1	1	Mark 3 & LoFlo	1K3x1.5-82RV M3 ST	1.000	REFER-P	REFER-P	REFER
<input type="checkbox"/>	9		Vallen-Merck	0	1	1	Mark 3 & LoFlo	1K1.5x1-62RV M3 ST	0.495	REFER	REFER	REFER
<input type="checkbox"/>	10		Reconfig symbols	0	1	1	DMX Centerline	3X10DMXD-A	0.680	REFER	REFER	REFER

# 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 17:01:00**

[External] Assistance requested for Affinity Quote: 4813146596

twahoo@neverland.net

To: I  
Cc: I

*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. Emails will not work.

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

Email Address: jsmithoroniskow @flowserve.com

Request Comments: Please

REQUEST FLOWSERVE ASSISTANCE

**SHARE QUOTE WITH ANOTHER USER**

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

Share Key: anon\_

Email: @flowserve.net

My Profile | Logout

User Name: @flowserve.com

Email: @flowserve.com

Company: flowserve

My Profile | Logout

- ❑ 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.

Affinity Share Key: anon\_1000029 **ADD**

Distributor UserName: Enter Distributor Username **ADD**

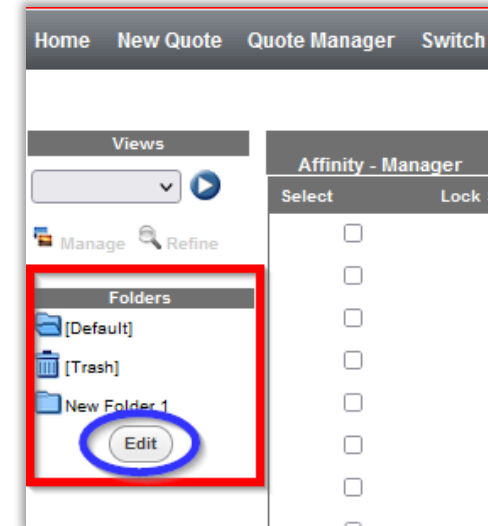
Flowserve UserName: Enter Flowserve SalesRep Username **ADD**

Shared Users

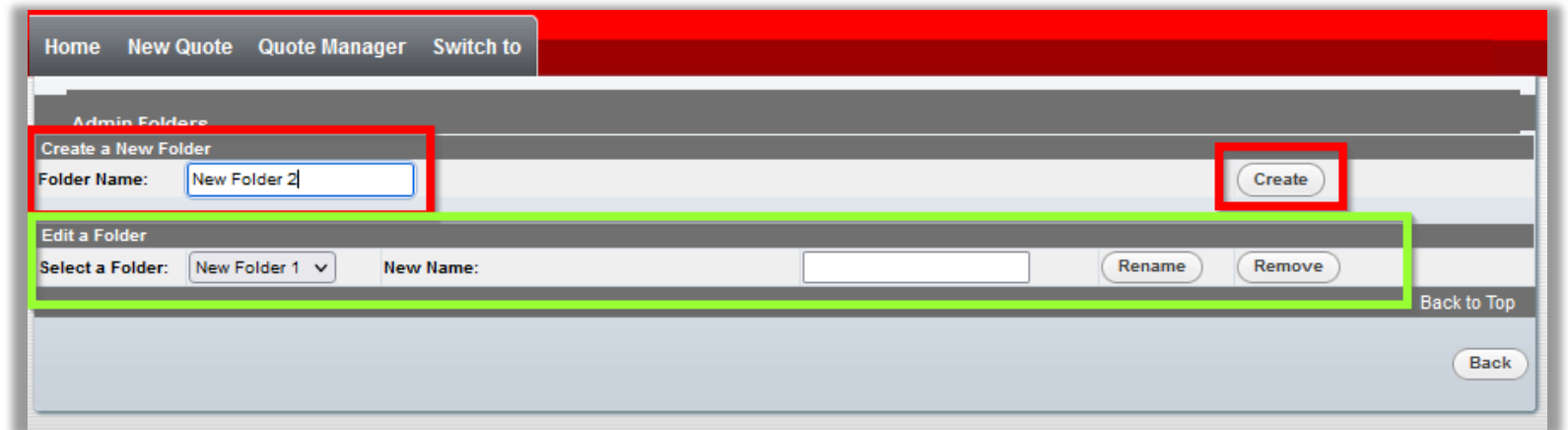
**ASSIGN** **BACK**

# 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.

The image displays two side-by-side screenshots of the Affinity Manager interface, illustrating the process of moving quotes between folders. Red boxes and arrows highlight the specific actions being performed.

**Left Screenshot (Initial State):**

- The **Folders** list on the left includes **[Default]**, **[Trash]**, **New Folder 1**, and **New Folder 2**. **[Default]** is highlighted.
- The main table has columns: **Select**, **Lock Status**, and **Quote ID**.
- Three rows are selected (checked in the **Select** column):
  - Quote ID: 4868187257
  - Quote ID: 4828949936
  - Quote ID: 4816508775
- At the bottom, the **Select Folder:** dropdown is set to **[Default]**, and the **Move** button is highlighted.

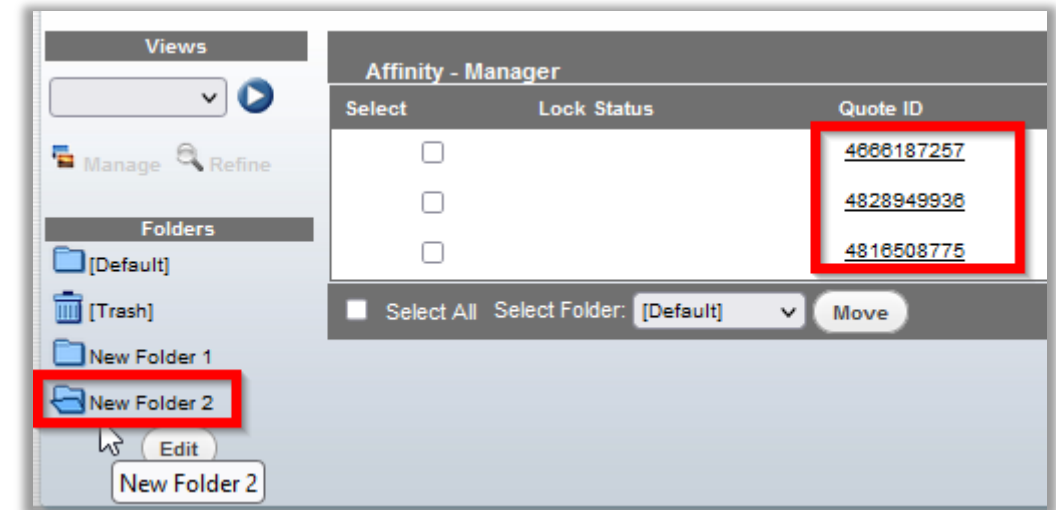
**Right Screenshot (After Move):**

- The **Folders** list remains the same.
- The main table shows the same list of quotes, but the three selected quotes are now highlighted in yellow, indicating they have been moved to **New Folder 1**.
- The **Select Folder:** dropdown is still set to **[Default]**, and the **Move** button is visible.

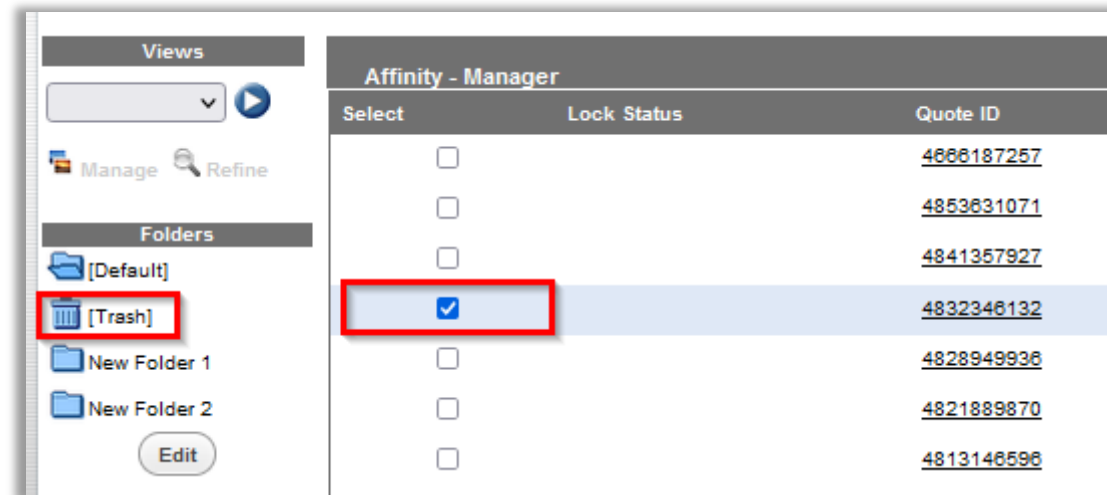
Red arrows connect the selected quotes in the left screenshot to their corresponding highlighted rows in the right screenshot, demonstrating the successful move operation.

# Quote Manager – Organizing Quotes

- ❑ Opening New Folder 2 reveals the moved quotes.

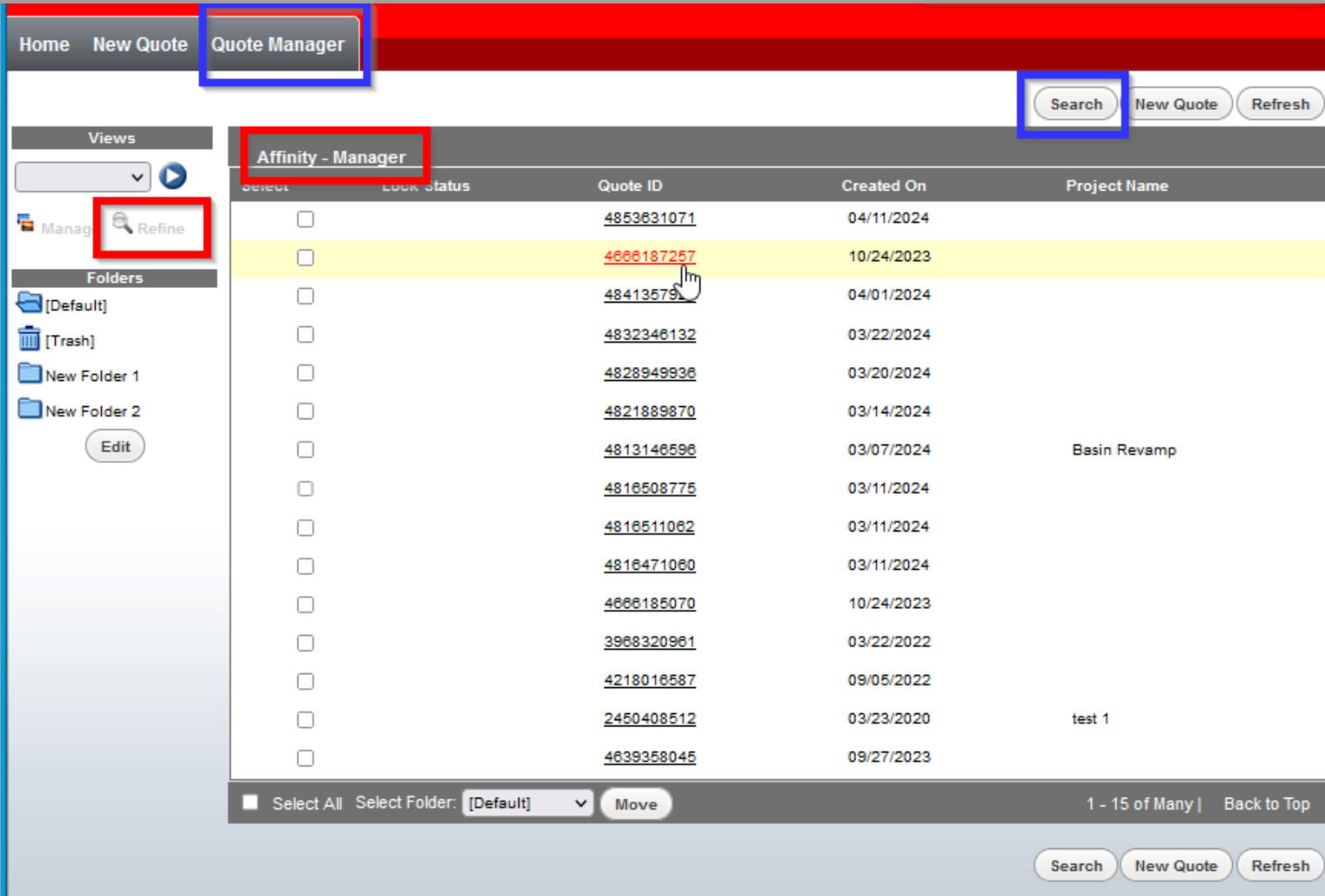


- ❑ To delete a quote, select it and move to the **Trash** folder.



# 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.



The screenshot displays the 'Affinity Manager' interface. At the top, a navigation bar includes 'Home', 'New Quote', and 'Quote Manager' (highlighted with a blue box). On the right, there are buttons for 'Search' (highlighted with a blue box), 'New Quote', and 'Refresh'. The left sidebar shows 'Views' with a dropdown and a 'Refine' button (highlighted with a red box), and 'Folders' with options like '[Default]', '[Trash]', 'New Folder 1', and 'New Folder 2'. The main area is titled 'Affinity - Manager' (highlighted with a red box) and contains a table of quotes. The table has columns for 'Select', 'Lock Status', 'Quote ID', 'Created On', and 'Project Name'. One row is highlighted in yellow, and a mouse cursor is pointing at the 'Quote ID' '4666187257'. At the bottom, there are controls for 'Select All', 'Select Folder: [Default]', and a 'Move' button. The bottom right corner shows '1 - 15 of Many | Back to Top' and buttons for 'Search', 'New Quote', and 'Refresh'.

Select	Lock Status	Quote ID	Created On	Project Name
<input type="checkbox"/>		<a href="#">4853631071</a>	04/11/2024	
<input type="checkbox"/>		<a href="#">4666187257</a>	10/24/2023	
<input type="checkbox"/>		<a href="#">48413579</a>	04/01/2024	
<input type="checkbox"/>		<a href="#">4832346132</a>	03/22/2024	
<input type="checkbox"/>		<a href="#">4828949936</a>	03/20/2024	
<input type="checkbox"/>		<a href="#">4821889870</a>	03/14/2024	
<input type="checkbox"/>		<a href="#">4813146596</a>	03/07/2024	Basin Revamp
<input type="checkbox"/>		<a href="#">4816508775</a>	03/11/2024	
<input type="checkbox"/>		<a href="#">4816511062</a>	03/11/2024	
<input type="checkbox"/>		<a href="#">4816471060</a>	03/11/2024	
<input type="checkbox"/>		<a href="#">4666185070</a>	10/24/2023	
<input type="checkbox"/>		<a href="#">3968320961</a>	03/22/2022	
<input type="checkbox"/>		<a href="#">4218016587</a>	09/05/2022	
<input type="checkbox"/>		<a href="#">2450408512</a>	03/23/2020	test 1
<input type="checkbox"/>		<a href="#">4639358045</a>	09/27/2023	

# 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.

The screenshot displays the 'Step 1: Select Filters' search tool interface. The interface is split into two panes. The top pane shows 'Filter Attributes' with 'Special Attributes' and 'Quote Attributes' sections. The bottom pane shows 'Line Attributes'. The 'Next' button is highlighted in the top right. The 'Product Line' checkbox under 'Line Attributes' is checked and highlighted.

**Step 1: Select Filters**

**View Builder**

**Filter Attributes**

**Special Attributes**

☐ Selected Currency

**Quote Attributes**

☐ Quote Id ☐ Created On ☐ Project Name

☐ Initial Submit Date ☐ Last Submit Date ☐ Sold To TPI

☐ End TPI # ☐ Distributor Proposal Stage ☐ Expected Booking Date

☐ QS Quote Type

☐ QS Dely Reqd

☐ QS Spec Compliance

☐ QS TandCs

☐ QS Customer Quote Ref

☐ QS Competitor List

☐ QS Power Evaluation

☐ QS Condition

**Line Attributes**

☐ Quantity ☐ Pump Size ☒ Product Line

☐ Stages ☐ Customer Tag ☐ Material

☐ Rated Flow, Usgpm ☐ Rated head, ft ☐ Pump Speed

☐ Driver Power, HP ☐ Driver Power, kW ☐ Curve no

☐ Service ☐ Specific gravity ☐ Viscosity, cP

☐ Hydraulic power, hp ☐ Efficiency (pump overall) ☐ Rated power, hp

☐ NPSH3, ft ☐ Rated suction pressure, psig ☐ Max suction pressure, psig

☐ Max temperature, F ☐ Vapor pressure, psia ☐ Rated NPSHa, ft

☐ Max head, ft ☐ Max power, hp ☐ Max impeller dia, in

☐ Rated impeller dia, in ☐ BEP flow, Usgpm ☐ % BEP flow

☐ Dia ratio (max/rated) ☐ Head rise to SO ☐ Head ratio (rated/max)

☐ Frequency ☐ Liquid type ☐ Liquid description

☐ Config BU ☐ Lead Time ☐ Config Status Line

☐ Driver Quoted Amount ☐ Line # ☐ Test Tolerance

☐ configScopeActual\_line ☐ Product Code

**Back to Top**



# 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.

The screenshot displays the 'Step 2: Select Columns' interface of the Flowserve Affinity search tool. The interface is divided into two main sections: 'Column Attributes' and 'Quote Attributes'. The 'Quote Attributes' section is expanded, showing a list of attributes with checkboxes. The following attributes are selected:

- ☒ Quote Id
- ☒ Project Name
- ☒ QS Sale Rep

The 'Next' button is highlighted with a red box, indicating the next step in the process. Other buttons visible include 'Previous', 'View Manager', and 'Close'.

# 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.

The screenshot shows the 'Search Editor' interface. At the top, there are navigation buttons: 'Previous', 'View Manager', 'Search' (highlighted with a red box), and 'Close'. Below these are step indicators: 'Step 1: Select Filters > Step 2: Select Columns > Step 3: Editor' (with 'Step 3: Editor' highlighted by a red box). The main section is titled 'Search Editor' and includes a 'Page Length' dropdown set to '25'. There are two main sections: 'Filter Attributes' and 'Column Attributes'. In the 'Filter Attributes' section, there is a table with columns 'Attribute', 'Comparator', and 'Value'. The 'Attribute' column has 'Product Line' selected. The 'Comparator' column has a dropdown menu open, showing options like '=', '<', '>', and '<='. The 'Value' column has 'Mark 3%' entered. A red box highlights the entire 'Filter Attributes' section, and a blue circle highlights the 'Comparator' dropdown. A blue arrow points from the 'Comparator' dropdown to a similar dropdown in the 'Column Attributes' section. The 'Column Attributes' section has a table with columns 'Order Number', 'Attribute', and 'Display as Link'. The table lists three attributes: 'Quote Id' (Order 1), 'Project Name' (Order 2), and 'QS Sale Rep' (Order 3). The 'Display as Link' column has checkboxes, with the first one checked. At the bottom, there are navigation buttons: 'Previous', 'View Manager', 'Search' (highlighted with a red box), and 'Close'. A 'Back to Top' link is also present.

# 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.

The screenshot displays the 'Ad Hoc Search' interface. At the top right are buttons for 'Back', 'Export', and 'Close'. Below the title bar, the 'Search Results' section contains a 'Name' field with 'Ad Hoc Search 1' and a 'Description' field with 'Search test 1 portal'. A 'Save As View' button is located to the right of the description field. Below this, a red box highlights the header 'Search Results for Process : Affinity'. Underneath is a table with columns: 'Select', 'Quote Id', 'Project Name', and 'QS Sale Rep'. The table contains two rows of data. The first row has a checkbox, the link '4888187257', and empty cells for the other two columns. The second row has a checkbox, the link '4813148598', and the text 'Basin Revamp' in the 'Project Name' column. At the bottom of the table area, there is a 'Select All' checkbox, a 'Select Folder' dropdown menu set to '[Default]', and a 'Move' button. To the right of these controls, it says '1 - 2 of Many' and 'Back to Top'. At the very bottom right are buttons for 'Back', 'Export', and 'Close'.

Select	Quote Id	Project Name	QS Sale Rep
<input type="checkbox"/>	<a href="#">4888187257</a>		
<input type="checkbox"/>	<a href="#">4813148598</a>	Basin Revamp	

# 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 Comparator 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.

The screenshot displays the Affinity Manager interface. On the left, the 'Views' dropdown menu is open, showing a list of saved views: 'Ad Hoc Search 1', '[All Affinity Flowserve Quotes]', 'My Approval Search', '[All Affinity Distributor Quotes]', '[[All Affinity Customer Quotes]]', and '[Distributor Quotes with Company filter]'. The 'Ad Hoc Search 1' view is highlighted. The main area shows the 'Search Editor' with the following details:

- Label:** All Affinity Flowserve Quotes
- Description:** Default View for all Affinity Users.

The 'Filter Attributes' section contains a table with the following data:

Attribute	Comparator	Value	Range Comparator	Value
Quote Id	=	4853831071		

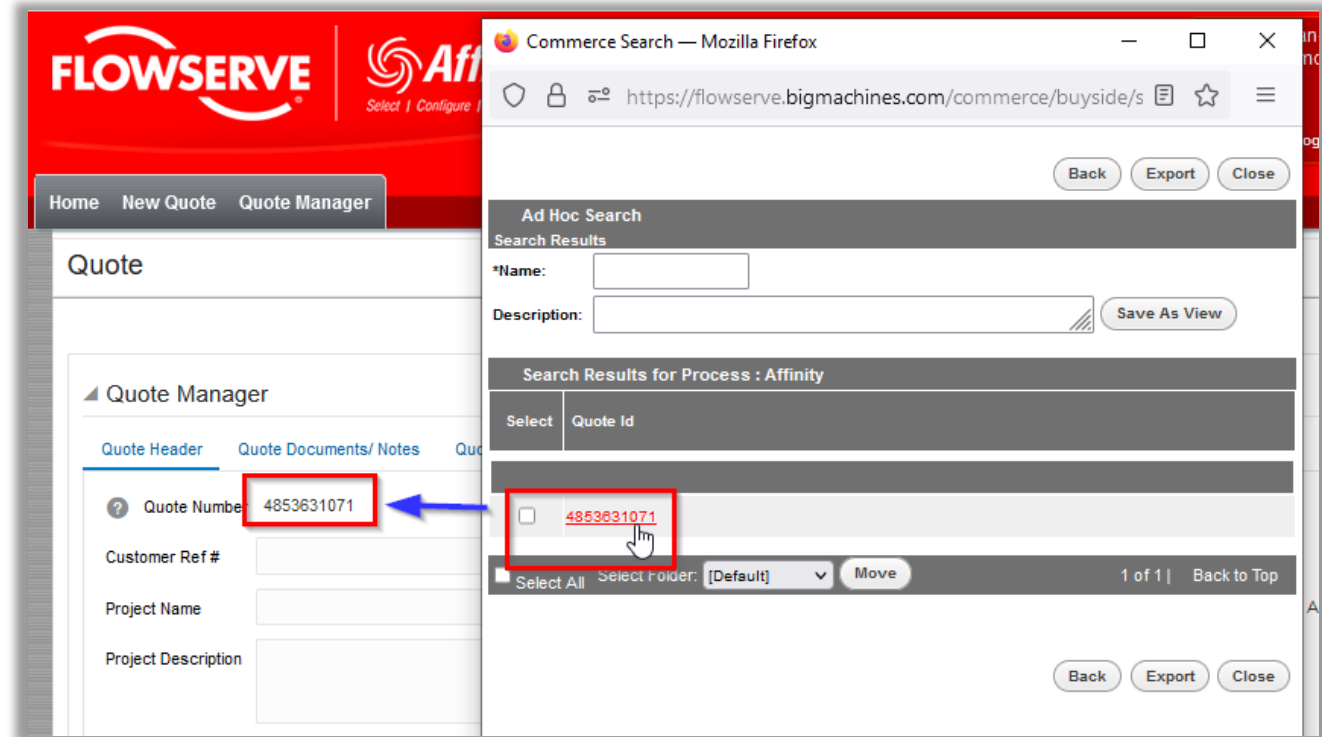
The 'Column Attributes' section contains a table with the following data:

Order Number	Attribute	Display as Link
1	Quote Id	<input checked="" type="checkbox"/>

At the bottom of the interface, there are buttons for 'Previous', 'View Manager', 'Search', and 'Close'. The 'Search' button is highlighted.

# 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](mailto:Affinitysupport.com)
- ❑ For issues with the program operation, contact [Affinitysupport.com](mailto: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.