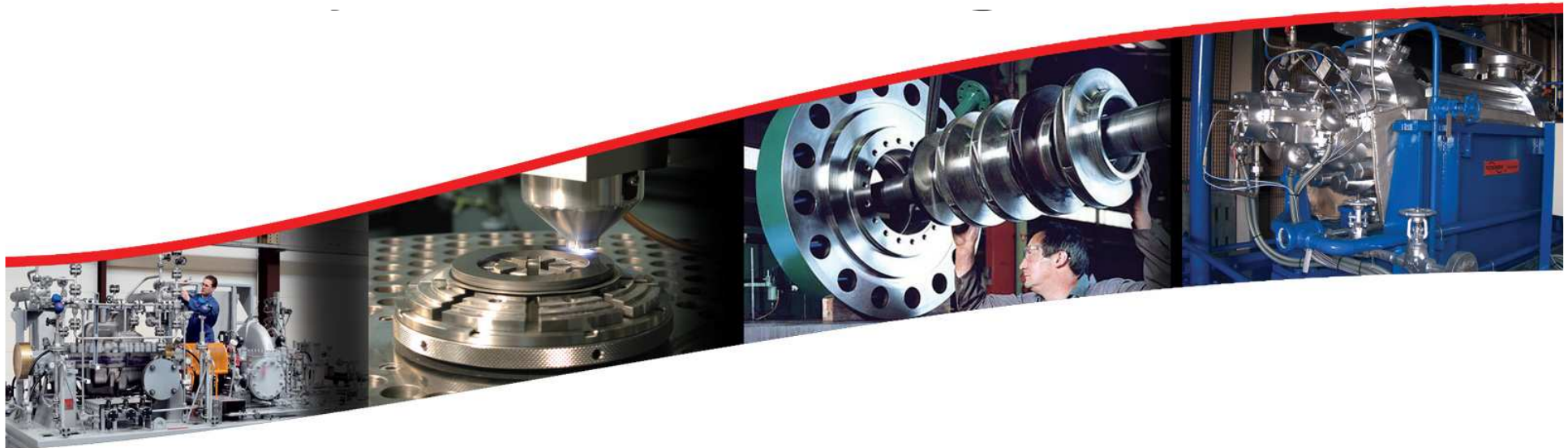




# Affinity Customer Portal



October 2015

*Experience In Motion*

# ***Affinity Customer Portal***

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# Introduction

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- **Affinity Customer Portal** is Flowserve's new browser based interactive pump selection program for customers
- This tool replaces FlowSelex™ Customer Portal and introduces several enhanced features.
- Affinity is a web-based tool that delivers immediate, real-time access to the latest, most accurate data
- The new platform offers a more streamlined and efficient approach to selecting pumps
- Users can select a pump for a new application or select a specific pump size from a pump list
- Users can also save selections for future reference and generate technical documents

# Technical Requirements

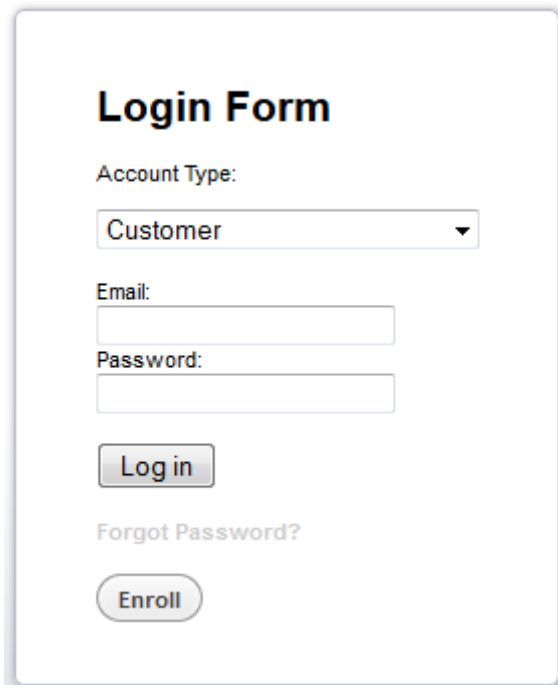
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- **Supported Browsers:** Mozilla Firefox, version 25 or higher and Internet Explorer, version 10 or higher.  
**Helpful Hint :** The latest version of Google Chrome no longer supports Java and therefore impacts the full capability of Affinity
- **Adobe Acrobat Reader:** 9.3 or higher
- **Java:** Version 8
- **Allow Pop-ups from this site**
- **Screen Resolution –1366 x 768 or higher is recommended.**
  - Lower resolutions may cause page content wrapping

# Registration Process

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- Go to: [flowserve.bigmachines.com](http://flowserve.bigmachines.com) and select 'Customer' from the drop down 'Account Type'
- A button will appear under the 'Log In' button
- Click 'Enroll'



The screenshot shows a 'Login Form' with the following elements:

- Account Type:** A dropdown menu with 'Customer' selected.
- Email:** An empty text input field.
- Password:** An empty text input field.
- Log in:** A rectangular button.
- Forgot Password?:** A link.
- Enroll:** A rounded rectangular button located below the 'Forgot Password?' link.

# Registration Process

- Fill in the Registration information
- Agree to the Flowserve Terms
- Click on “Submit”

### Affinity Registration Form

Please provide us with some information about yourself.

**\*Email:**

**\*Name:**  
   
First Last

**\*Job Title:**

**\*Phone:**

**\*Company:**

**\*Office/Branch Location:**  
  
Street Address  
  
Address Line 2  
  
City    
State / Province / Region  
   
Postal / Zip Code    
Country

**Flowserve Sales Rep:**  
   
First Last

**Flowserve Sales Rep Email:**

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



# Registration Process

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- Look for an email from [affinity\\_registration@flowserve.com](mailto:affinity_registration@flowserve.com)
- Click on the link in the email to login

## Helpful Hints:

- Save the login screen as a bookmark or favorite
- The password you receive is a random generated password. Please keep the registration email for reference when signing in. Your password can be reset by Flowserve, but we'll need to know the password desired plus a security question and answer. This will need to be set up once you received your password for the first time by emailing [affinitysupport@flowserve.com](mailto:affinitysupport@flowserve.com)

**affinity\_registration@flowserve.com** 10:51 AM (4 minutes ago) ☆  

to **XXXXXXXXXXXX**, affinitysupport, me ▾

Dear **XXXX**

Thank you for your registering for an Affinity account. Your login details are below.

Username [XXXXXXXXXXXXXXXXXXXX](#)  
Password **XXXXXX**

You can log on <http://flowserve.bigmachines.com> | by setting your Account Type to 'Customer', entering your credentials and clicking 'Log in' (or hitting Enter).

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 with their own account or register for their own account if they do not already have one.

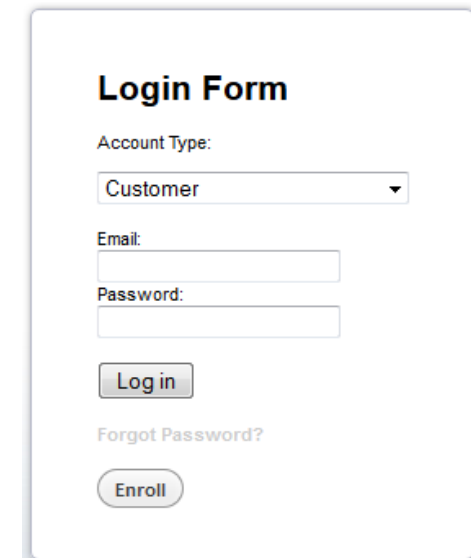
For support or if you have not registered for an account, please email [affinitysupport@flowserve.com](mailto:affinitysupport@flowserve.com)

Thank you  
Affinity Administrators

# Logging in to Affinity

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- **Go to: flowserve.bigmachines.com**
- **Select 'Customer' from the drop down box**
- **User Name is your email address**
  - Note this is the email address that was entered during registration.
  - Is the full email address including everything after the @ symbol.
- **Enter your Password**
  - It is suggested that you copy and paste the password from the initial email.
- **Click "Login"**
- **You are now on the Affinity Home page**



The screenshot shows a login form titled "Login Form". It includes an "Account Type:" dropdown menu with "Customer" selected. Below this are input fields for "Email:" and "Password:". A "Log in" button is positioned below the password field. At the bottom of the form, there is a "Forgot Password?" link and an "Enroll" button.



# Home Page


- This will include information and updates about the program.

Share Key : **XXXXXXXX**  
Email : **XXXXXXXXXXXX@flowserve.com**  
Logout

Home New Quote Quote Manager

## Affinity™ Pump Selection Tool

The Affinity Pump Selection Tool offers users even greater ease and flexibility to quickly and accurately identify solutions for their pumping needs.



Affinity is the latest state-of-the-art pump selection program from Flowserve. Providing support for **80-plus products**, Affinity is a Web-based tool that delivers immediate, real-time access to the latest, most accurate data on Flowserve pumps. Customers have access to the same pump selection tool that is used by Flowserve application engineers, while maintaining the familiar FlowSelex Portal user interface.

### Easy to Use

Affinity is extremely user-friendly and intuitive. Use it to size a pump for a new application or obtain performance information for an existing installed unit. Users can save selections for future reference and generate technical documents specific to their hydraulic selection. They can also request their Flowserve representative to review their selections and provide a formal quote.

Affinity retains many of the user-favorite capabilities introduced in FlowSelex Portal, including:

- Search results presented in tabular or curve form
- Dynamic and trackable full-size curves which display data points as you move your cursor over them
- Convenient links to supplemental product information, including product brochures and user instructions



[View pump products supported by Affinity Portal.](#)

### System Requirements

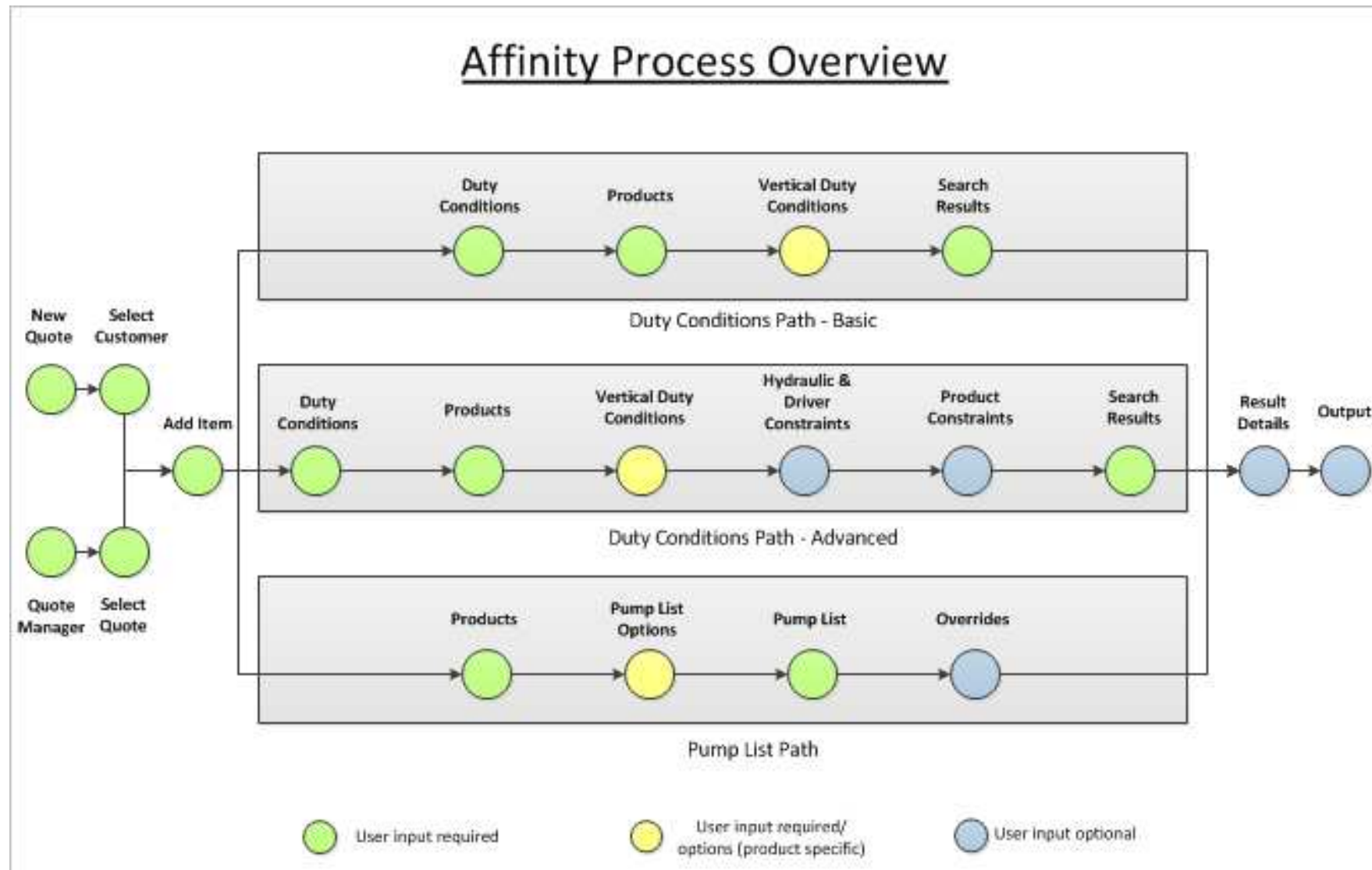
Affinity Pump Selection Tool requires the following technical requirements and configurations:

- Supported Browsers: **Firefox 25 or higher** or **IE9 or higher**
- Adobe Acrobat Reader: **9.3 or higher**
- Java: **Version 6 or higher**

**Questions, concerns or comments?**  
Send your feedback about Affinity to: [AffinitySupport@flowserve.com](mailto:AffinitySupport@flowserve.com)

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# Process Overview



# New Quote

To create a new selection you will need to create a quote or select an existing quote. For a new quote select the 'New Quote' tab. You will see:

- **Customer Selection:** The fields shown below will be automatically populated with the information you provided on the registration form, but can be edited as necessary.
- **Continue to Create Quote:** Click this button, once you are ready to make a selection.

The screenshot shows the 'New Quote' page in the Flowserve system. At the top left is the Flowserve logo. On the right, a user profile box displays 'User Name: XXXXXXXX', 'Email: XXXXXXXXXXXXXXXX', and a 'Logout' link. Below the header is a navigation bar with 'Home', 'New Quote', and 'Quote Manager' tabs. A blue box highlights a 'Continue to Create Quote' button. The main content area is titled 'Customer Selection' and contains a 'Quote to Customer:' section with input fields for Name, Address, City, State, Zip, and Country.

# Quote Information

- Information listed in the quote manager is not required but when filled in it will be stored with your quote. As you start to accumulate quotes this information can help you to better manage and access them.
- The top two Panels (Quote Manager and Line Details) are collapsible by clicking anywhere on the gray panel line.

The screenshot displays the FLOWSERVE Quote Manager interface. At the top, there is a red header with the FLOWSERVE logo and a 'Logout' button. Below the header is a navigation bar with 'Home', 'New Quote', and 'Quote Manager' tabs. The main content area is divided into three sections: 'Quote Manager', 'Line Details', and 'Customer Selection'. The 'Quote Manager' section has three tabs: 'Quote Header', 'Quote Documents/ Notes', and 'Quote Access'. The 'Quote Header' tab is active, showing fields for 'Quote Number', 'Customer Ref #', 'Project Name', 'Project Description', 'Originator', 'Created Date', and 'Last Modified'. The 'Line Details' section shows a table with columns for 'Line', 'Edit', 'Customer Tag', 'Alt', 'Rev', 'Qty', 'Product Line', 'Description', 'Stages', and 'Material'. Below the table are buttons for 'Add Item', 'Delete Item(s)', 'Update', 'Set Output Documents', 'Copy From Another Quote', and 'Toggle Alternate'. The 'Customer Selection' section has a 'Quote to Customer:' label and fields for 'Name', 'Address', and 'City'.

# Quote Information

- **Quote Manager:** This panel includes three tabs (Quote Header, Quote Documents/Notes and Quote Access).
  - **Quote Header:** This tab includes additional information in which you can customize your quote for easy recognition.
  - **Quote Documents/Notes:** This tab allows you to add notes to your quote.
  - **Quote Access:** This tab allows you to share your quote with other users and /or send an email to a Flowserve representative to request help with a selection **or** request for pricing.

The image displays three screenshots of the 'Quote Manager' interface, illustrating the different tabs and their content.

**Top Left Screenshot (Quote Header tab):** Shows fields for 'Quote Number' (masked with 'XXXXXXXX'), 'Customer Ref #', 'Project Name', and 'Project Description'. It also includes 'Originator' and 'Created Date' fields.

**Top Right Screenshot (Quote Documents/Notes tab):** Shows a 'Notes' text area.

**Bottom Screenshot (Quote Access tab):** Shows an 'Email Address' field (with '@flowserve.com' pre-filled), a 'Request Comments' text area, and buttons for 'Request Flowserve Assistance', 'Request not sent', and 'Share Quote With Another User'.

# Quote Information: Request Flowserve Assistance

- **Request Flowserve Assistance:** Go to the 'Quote Access' tab to request help from a Flowserve associate. Type in the email address of the person from whom you're seeking assistance. Note the '@flowserve.com' is not needed as it is already there. Add any request comments, if necessary and then click 'Request Flowserve Assistance'. This will send an email to the Flowserve associate with your quote information and any comments.

**Quote Manager**

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

Email Address: XXXXXXX@flowserve.com

Request Comments:

Request Flowserve Assistance

Share Quote With Another User

**From:** XXXXXXXXXXXXXXXX@flowserve.com **Sent:** Thu 10/2/2014 3:30 PM  
**To:** XXXXXXXXXXXXXXXX@flowserve.com  
**Cc:**  
**Subject:** Assistance requested for Affinity Quote: 187122306

Assistance is requested for Affinity Quote number 187122306 created on 09/02/2014 for Bonnie Brezinsky.

**Additional Comments:**  
I am having an issue with the selection.

This email was generated by testflowserve.bigmachines.com

Please log on at <http://testflowserve.bigmachines.com>

NOTICE: The information contained in this e-mail, and attachment(s) thereto, is confidential and may contain attorney - client privileged communications. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately and delete the e-mail from your computer system without retaining any copies. Thank you.

**Helpful Hint:** The email will also be sent to your registration email address so that you have a record of the request


# Quote Information: Quote Sharing

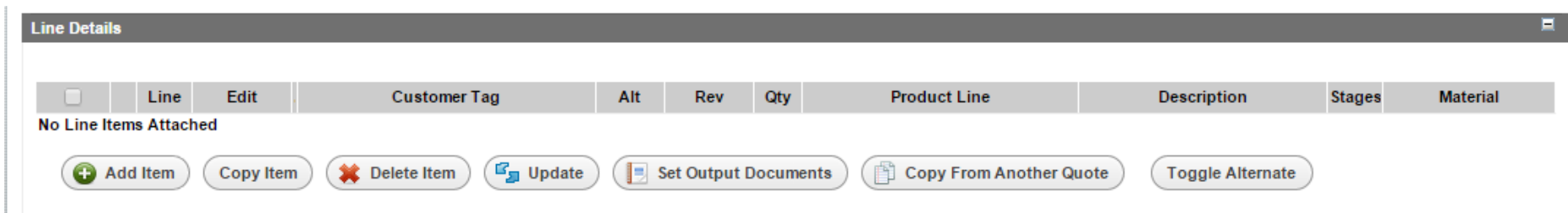
- **Quote Sharing:** Go to the 'Quote Access' tab to share a quote. Click the 'Share Quote With Another User' button. Type in the Share Key or Username of the person you want to share with and click 'Add'. Once all users have been added make sure the you hit the 'Assign' button to finalize the process
- **Helpful Hint:** In order to share you will need to know the person's Share Key or Username. The Share Key and Username are located in the upper right corner of the screen in the maroon box. Ask the person you want to share with to provide their Share Key or Username information so that you can add them. The Username will be the full email address used in the account for distributors and their short name (email less @flowserve.com) for FLS users.

The screenshot shows the 'Quote Manager' interface. It features three input fields for adding users: 'Affinity Share Key' with a placeholder 'Enter Share Key', 'Distributor UserName' with a placeholder 'Enter Distributor Username', and 'Flowserve UserName' with a placeholder 'Enter Flowserve SalesRep Usernam'. Each field has an 'Add' button. Below these fields is a 'Shared Users' section. A blue arrow points from the 'Helpful Hint' text to a red box in the upper right corner of the interface. This red box contains the text 'Share Key :XXXXXXXXXX' and 'Email :XXXXXXXXXX@XXXXXXX', along with a 'Logout' button.



# Quote Information

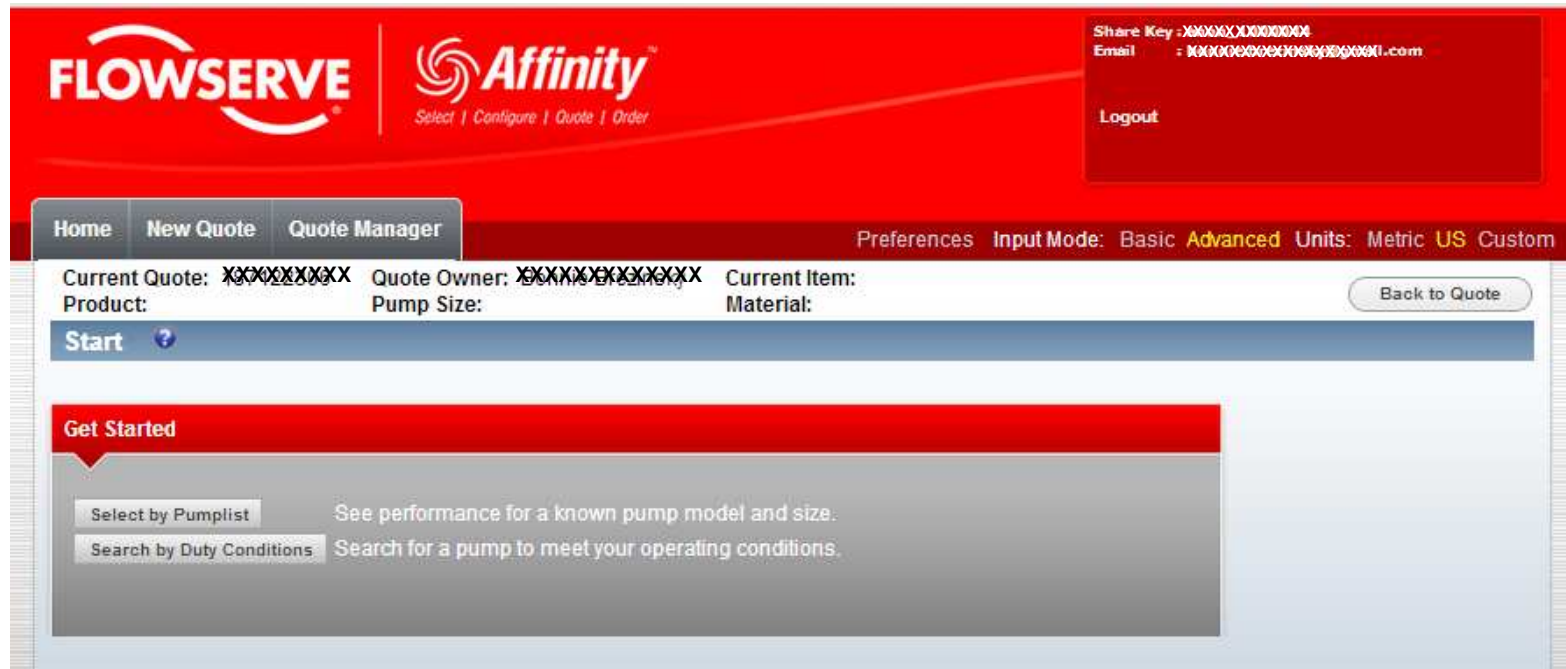
- **Line Details:** This panel shows you all the selections you have made along with some general information. This is where you can add, copy, delete, look at the technical information (Curve, Hydraulic Details, GA, etc.), and change alternate and primary selections. To use any of these functions simply select the item and hit the button.
  - **Add Item:** This button is used to add a selection. Click to begin pump configuration
  - **Copy Item:** This button creates a copy of any of the items already created. Note you can only copy one item at a time.
  - **Delete Item(s):** This button deletes any item you have created. You can delete more than one item at a time. (Once an item is deleted it's gone forever, so make sure to double check your selections.)
  - **Update:** This will refresh the page to allow any updates to happen.
  - **Set Output Documents:** This button allows you to view the technical documents of the pumps you have selected. You can view more than one item at a time in this screen.
  - **Copy From Another Quote:** This button allows you to copy an item or items from a previous quote you have created.
  - **Toggle Alternate:** This button switches the alternate and primary selections. Simply select the Alternate item and hit this button to make it the new primary selection. The previous primary selection will become an alternate.
  -  **P:** This button will be located in the 'Edit' column next to the line item. This will allow you to go back into the line item to view or edit. This will only appear once an item has been saved.





# Selection

- **When you click 'Add Item' you will be presented with two options:**
- **Select by Pump List**
  - Choose this option if you want to see the performance for a known pump model and size. Once you have chosen the pump model and size, you can set the operating speed, impeller diameter and, if appropriate, the number of stages. The performance for the selected input parameters will be displayed.
- **Search By Duty Conditions**
  - Choose this option if you have known operating parameters and you want to search for a pump to meet those parameters. A list of pumps that meet your criteria will be displayed with high level performance data to aid in choosing a specific pump model and size. Simply choose a pump size to see the full performance details.



# Selection : Preferences

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- **Preferences:** You can set default preferences for the selections you commonly use. It is located in the thin red bar at the top. Here you can set your defaults for:
  - **General**
    - **Duty Conditions:** Frequency, liquid type, max temperature, hydraulic selection, test tolerances and construction which will be found on the Duty Conditions page when you make a selection.
    - **Product Line Filters:** Industry, product classification and orientation which will be found on the Products page.
    - **Driver:** Driver sizing spec, the site voltage, service factor, driver design and drive sourcing. These items can be found on the Hydr./Driver Constraints page through out the selection process.
    - **Choice/Reject List Option:** Specify whether or not to suppress search results that are not even close to meeting your input parameters.
    - **Pump List Pre-Selection Option:** Specify if the list of products available for selection should be limited by the duty conditions you entered. If you uncheck this box, some products may not yield any acceptable selections.
    - **Screen Layout:** Specify the Products page screen layout. You can choose between horizontal (side by side tables) or vertical (product table above the selected product table).
    - **Other Preferences:** Misc. preferences such as document language and search results page size.
  - **Product Lines**
    - Select product lines that you wish to be shown as a favorite product on the Products page.

Preferences

Input Mode: Basic Advanced Units: Metric US Custom

# Selection : Input Mode and Units

## Input Mode and Units

The screenshot shows a dark red header bar with two white buttons. The first button is labeled 'Input Mode:' and contains the text 'Basic' and 'Advanced'. The second button is labeled 'Units:' and contains the text 'Metric', 'US', and 'Custom'. Both buttons have a yellow border, indicating they are the active selection.

- Click on “Basic” to enter minimum duty conditions to make a pump selection:

The screenshot shows a window titled 'Basic Duty Conditions'. It contains four input fields: 'Rated flow: \*' with a value of 0.0 and units 'USgpm', 'Rated head: \*' with a value of 0.00 and units 'ft', 'Frequency:' with a dropdown menu set to 60 and units 'Hz', and 'Quantity of pumps:' with a value of 1.

- Click on “Advanced” to set pump parameters and hydraulic impacting features:

The screenshot shows a window titled 'Advanced Duty Conditions'. It contains multiple input fields and dropdown menus: 'Rated NPSHa:' (Ample, ft), 'Rated viscosity:' (1.0, cSt), 'Specific gravity:' (1.000), 'Max suction press:' (0.0, psig), 'Rated suction press:' (0.0, psig), 'Max temperature:' (60, F), 'Vapor pressure:' (0.00, psia), 'Service:', 'Liquid description:', 'Liquid type:' (Other), 'Flammable:' (checkbox), 'Toxic:' (checkbox), 'H2S:' (checkbox), 'Hydraulic selection:' (No specification), 'Construction:' (No specification), and 'Test tolerances:' (Hydraulic Institute Le).

- Users can toggle between Basic Mode and Advanced Mode at any time
- Units can be set to US standard, Metric standard, or Custom settings
- Helpful Hint:** The Input Mode and Unit you are currently using will be in yellow text.

# Selection : Navigation

## Navigation:

The screenshot displays the Flowserve Affinity web application interface. At the top, there are logos for FLOWSERVE and Affinity, along with a navigation menu (Home, New Quote, Quote Manager) and user information (Share Key, Email, Logout). Below the navigation bar, there are tabs for Home, New Quote, and Quote Manager. The main content area shows a quote summary with fields for Current Quote (233205228), Product (HPX High Press. C-L Mtd), Pump Size (6HPX12-H), Current Item (Product Line Path), and Material (S6). A navigation bar at the top of the main content area includes tabs for Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints, Search Results, Result Details, and Output. The 'Hydr./Driver Constraints' tab is currently selected and highlighted in dark gray. Below the navigation bar, there are 'Back' and 'Next' buttons, and a 'Pump Search' button. The main content area displays a form for 'Basic Duty Conditions' with fields for Rated flow (811.5 USgpm), Rated head (129.06 ft), Frequency (60 Hz), and Quantity of pumps (1).

- Navigate by clicking the “Back” or “Next” Button
- Users can also navigate by clicking the page name or tab on the navigation bar at the top of each page
- **Helpful Hint:** You can tell where you are in the process by the Black Tab. Dark Gray tabs are the available tabs that you can navigate and Light Gray tabs are not applicable at the moment.

# Selection : Product Filtering

## Product Filtering

- Products are automatically filtered by the entered duty conditions
- Products can be also be filter by
  - Industry
  - Classification
  - Orientation

The screenshot shows a software interface for product selection. At the top, there is a navigation bar with tabs: Start, Products (selected), Pump List Options, Pump List, Overrides, Result Details, Features, and Output. Below the navigation bar are 'Back' and 'Next' buttons. The 'Filters' section contains three dropdown menus: Industry (set to 'All'), Classification (set to 'All'), and Orientation (set to 'All'). The 'Product Lines' section includes instructions to select a product line and a note that a red asterisk indicates a non-current product. It features a table of 'Available Product Lines' with columns for Group, Product Line, Max Flow (USgpm), and Max Head (ft). A 'Selected Product Line' box on the right currently displays 'No product line selected'.

Group	Product Line	Max Flow (USgpm)	Max Head (ft)
▲	ESP3 Vertical Sump	4,500.0	400.00
●	FRBH Stock Pump	35,000.0	400.00
●	GT Two Stage HSC	4,600.0	1,290.00
●	Innomag TB Mag ASME	1,500.0	540.00
●	Innomag TB Mag ISO	880.6	328.08
●	Innomag TB Mag Vertical	500.0	380.00
●	Innomag U Mag	500.0	200.00

# Selection : Product Information

## Product Information

Click on the product name to view:

- Enlarged Image
- Operating Conditions (on second tab)
- Links to the Product Bulletin in 8 ½ x 11 & A4 formats
- Link to the IOM Manual (where available)

Product Line Detail

Product Line: ESP3 Vertical Sump

General Operating Conditions

ESP3 Vertical Sump

Literature

- Product Bulletin in 8 1/2 x 11 Format
- Product Bulletin in A4 Format

# Selection

## Search Results

This tab shows your results based on the parameters that were entered and will automatically sort the results by descending Efficiency.

**Helpful Hint:** You can sort results by any of the columns by clicking the Column Header.

**Helpful Hint:** The columns can also be customized to the order of preference by clicking the 'Customize Columns' button.

	Status	Pump Type	Curve	Stages	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter
<input type="checkbox"/>	✔	1K1.5x1-82RV M3 ST		1	3500	87.7	7.0	49.5	5.35	65.6
<input type="checkbox"/>	✔	1K3x1.5-82RV M3 ST		1	3500	61.6	5.0	48.9	6.19	67.1
<input type="checkbox"/>	✔	1K3x1.5-62RV M3 ST		1	3500	52.1	4.7	48.4	6.96	83.0
<input checked="" type="checkbox"/>	✔	1K1.5x1-62RV M3 ST		1	3500	100.0	5.3	46.1	5.78	91.0
<input type="checkbox"/>	✔	1K3x2-62RV M3 ST		1	3500	34.7	6.0	45.5	7.92	85.0
<input type="checkbox"/>	✔	2K3x2-13RV M3 ST		1	1750	40.7	2.1	44.6	9.45	76.9
<input type="checkbox"/>	✔	2K3x1.5-10ARV M3 S		1	1750	59.6	2.5	43.1	8.16	96.3
<input type="checkbox"/>	⚠	2K2x1-10ARV M3 ST		1	1750	92.9	2.4	41.5	6.14	103.1
<input type="checkbox"/>	✔	2K3x2-10ARV M3 ST		1	1750	39.1	3.0	41.0	9.93	96.9
<input type="checkbox"/>	✔	2K3x1.5-13RV M3 ST		1	1750	48.8	1.1	40.9	8.60	75.5



# Selection

## Result Details

Once you have selected a pump the result details page will provide further information about the pump you have selected

## Output

Once you have selected a pump the output tab will allow you to view the curve, datasheets, general arrangement document as well as other documents associated with that selection.

The screenshot shows two screenshots of a software interface. The top screenshot is the 'Result Details' tab, and the bottom screenshot is the 'Output' tab.

**Result Details Tab:**

- Navigation: Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints, Search Results, **Result Details**, Output
- Buttons: Back, Next, Pump Search, Save Selection
- View Curve button
- Pump Information:**
  - Quantity of pumps: 1
  - Type: MARK 3
  - Size: 2K6x4-13ARV M3 ST
  - Stages: 1
  - Curve: MIII8125BV
  - Hydraulic reference no.: 186
  - Selection Status: ✔ Acceptable
- Performance Details:**
  - Hydraulic power: 25.3 hp
  - Pump speed: 1780 rpm
  - Pump overall efficiency: 82.1 %
  - NPSH3: 9.5 ft
  - Rated power: 30.8 hp
  - Max power: 33.9 hp
  - Nss: 10,000 Nss

**Output Tab:**

- Navigation: Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints, Search Results, **Result Details**, **Output**
- Buttons: Back, Next, Pump Search, Quick Save, Save Selection
- Technical Item Documents:**
  - Select Language: English (for Technical Documents only)
  - Select All Technical Documents
    - Standard Curve
    - Speed Vs Torque Curve
    - Multi Speed Curve
    - Parallel Curve
    - Series Curve
    - GA
    - Hydraulic Datasheet
    - Construction Datasheet

**Helpful Hint:** The save buttons are located on these two screens. Hit 'Save Selection', then type in a Customer Tag No and hit 'Save as New Item'.



# Saving Selection

You can save your selection from either the Result Details tab or the Output tab.

The screenshot shows a software interface with several tabs: Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints, Search Results, Result Details, and Output. The 'Result Details' tab is active. A 'View Curve' button is visible on the left. A 'Save Selection' button is highlighted with a red box in the top right corner. Below the tabs, there are 'Back' and 'Next' navigation buttons, and a 'Pump Search' button. The main content area is divided into several sections: 'Rated Condition', 'Pump Information', 'Duty Conditions', 'Performance Details', and a 'Save Item' dialog box. The 'Pump Information' section lists: Quantity of pumps: 1, Type: MARK 3, Size: 2K6x4-13ARV M3 ST, Stages: 1, Curve: MIII8125BV, Hydraulic reference no.: 186, Selection Status: Acceptable. The 'Duty Conditions' section lists: Flow: (blank), Head: (blank), NPSHa: (blank), Rated suction p: (blank), Altitude: (blank), Service: (blank). The 'Performance Details' section lists: Hydraulic power: 25.3 hp, Impeller diamete: (blank), 11.00 in, 13.00 in, 9.00 in, 1,009.1 USgpm, 99.1 %. The 'Save Item' dialog box is open, showing: Quote Number: 398684590, Customer: Bonnie Brezinsky, Customer Tag No.: (input field), Description: (input field). Below the dialog box, there are buttons: Save, Save as New Item, Save as Alternate, Save as Revision, and Close. The 'Save' button is highlighted with a red box.

Hit 'Save Selection' and type in the Customer Tag No you would like to use. Then hit 'Save'.

**Helpful Hint:** Once saved for the first time you will have other options available such as Save as New Item, Save as Alternate or Save as Revision.

# Selection : Help

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## Help

Additional help can be accessed throughout Affinity, where ever a question mark symbol is displayed.

Click  to display:

- Page level help – explains the available functionality on the particular page. This will be located in the upper left of the page.
- Section level help – explains the purpose of fields and terminology within the section. This will be located in the gray bar of a particular section.



# Quote Manager

When accessing a previous quote, click on the 'Quote Manager' tab. This screen will show all quotes created by you or shared with you by other users. You can either navigate through this view or organize your quotes to make them easier to find.

The screenshot displays the 'Quote Manager' interface. At the top, there are navigation tabs: 'Home', 'New Quote', and 'Quote Manager'. Below the tabs, there are buttons for 'Search', 'New Quote', and 'Refresh'. On the left side, there is a sidebar with 'Views' (a dropdown menu), 'Manage' and 'Refine' icons, 'Folders' (listing '[Default]' and '[Trash]'), and an 'Edit' button. The main area is titled 'Affinity - Manager' and contains a table with the following columns: 'Select', 'Quote ID', 'Created On', 'Originator', 'Cust Reference', and 'Project Name'. The table lists three quotes:

Select	Quote ID	Created On	Originator	Cust Reference	Project Name
<input type="checkbox"/>	<a href="#">398684590</a>	06/30/2015	XXXXXXXXXX	Waste Water Treatment Facility	Sacramento, CA
<input type="checkbox"/>	<a href="#">236125635</a>	07/10/2014	XXXXXXXXXX	Pipeline Project	Canada
<input type="checkbox"/>	<a href="#">233205228</a>	07/01/2014	XXXXXXXXXX	700 MW Power Plant	North Carolina

Below the table, there are controls: 'Select All', 'Select Folder: [Default]', and a 'Move' button. At the bottom right of the table area, it shows '1 - 3 of 3 | Back to Top'. At the very bottom of the interface, there are buttons for 'Search', 'New Quote', and 'Refresh'.

# Quote Manager : Existing Quotes

You can add new selections to existing quotes, by accessing the previous quote in the Quote Manager.

- Find the previous quote you have created and click on the Quote Number hyperlink to open that quote. You will then be able to Add or Edit Items from that quote.

The screenshot displays the 'Quote Manager' interface within the 'Affinity - Manager' application. The interface includes a navigation bar with 'Home', 'New Quote', and 'Quote Manager' tabs. Below the navigation bar, there are buttons for 'Search', 'New Quote', and 'Refresh'. The main content area features a table with the following columns: 'Select', 'Quote ID', 'Created On', 'Originator', 'Cust Reference', and 'Project Name'. The table contains three rows of data, each with a checkbox in the 'Select' column and a redacted 'Originator' field. Below the table, there are controls for 'Select All', 'Select Folder', and 'Move'. The bottom right corner of the interface shows '1 - 3 of 3 | Back to Top' and another set of 'Search', 'New Quote', and 'Refresh' buttons.

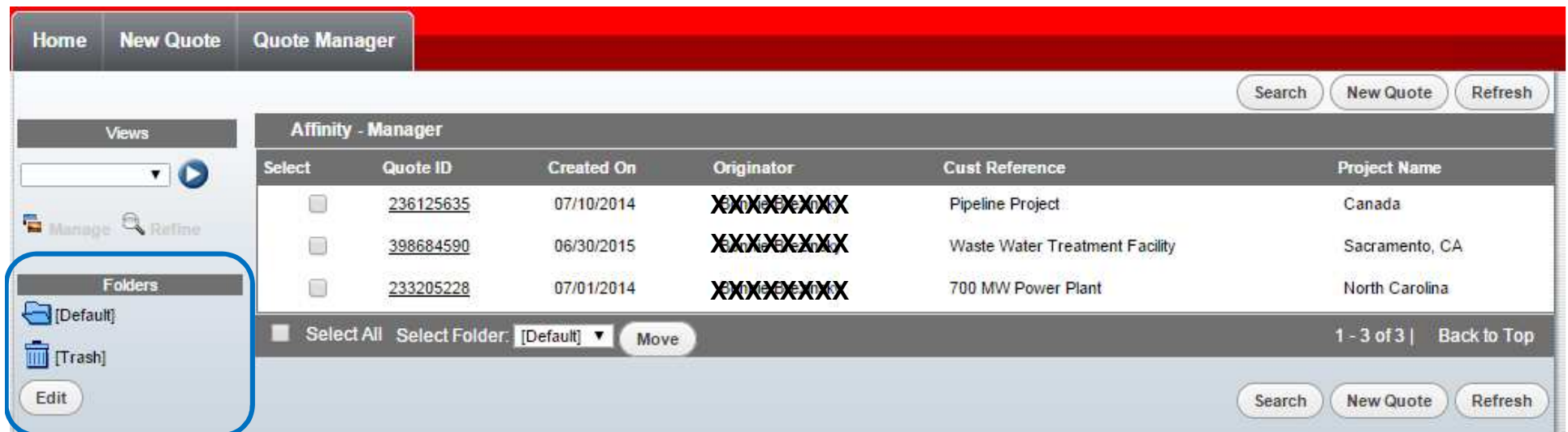
Select	Quote ID	Created On	Originator	Cust Reference	Project Name
<input type="checkbox"/>	<a href="#">236125635</a>	07/10/2014	XXXXXXXXXX	Pipeline Project	Canada
<input type="checkbox"/>	<a href="#">398684590</a>	06/30/2015	XXXXXXXXXX	Waste Water Treatment Facility	Sacramento, CA
<input type="checkbox"/>	<a href="#">233205228</a>	07/01/2014	XXXXXXXXXX	700 MW Power Plant	North Carolina

# Quote Manager

## Organizing Your Quotes

### Folders

- Can be used to group quotes
- Quotes can be dragged and dropped into a folder
- To add folders click 'Edit'



The screenshot displays the 'Quote Manager' interface. At the top, there are navigation tabs for 'Home', 'New Quote', and 'Quote Manager'. Below the tabs, there are buttons for 'Search', 'New Quote', and 'Refresh'. The main content area is titled 'Affinity - Manager' and contains a table with the following columns: 'Select', 'Quote ID', 'Created On', 'Originator', 'Cust Reference', and 'Project Name'. The table lists three quotes with their respective details. Below the table, there are controls for 'Select All', 'Select Folder', and 'Move'. At the bottom right, there are buttons for 'Search', 'New Quote', and 'Refresh'. On the left side, there is a sidebar with a 'Views' section and a 'Folders' section. The 'Folders' section is highlighted with a blue box and contains '[Default]' and '[Trash]' folders, along with an 'Edit' button.

Select	Quote ID	Created On	Originator	Cust Reference	Project Name
<input type="checkbox"/>	<a href="#">236125635</a>	07/10/2014	XXXXXXXXXX	Pipeline Project	Canada
<input type="checkbox"/>	<a href="#">398684590</a>	06/30/2015	XXXXXXXXXX	Waste Water Treatment Facility	Sacramento, CA
<input type="checkbox"/>	<a href="#">233205228</a>	07/01/2014	XXXXXXXXXX	700 MW Power Plant	North Carolina

# Quote Manager

## Organizing your Quotes

### ■ Folders

- Type in the folder name and hit 'Create'.
- You can then rename or remove folders by selecting the folder and hitting the appropriate action.
- Click 'Back' to go back to the Quote Manager screen

The screenshot shows the 'Admin Folders' section of the Quote Manager interface. At the top, there are navigation tabs for 'Home', 'New Quote', and 'Quote Manager'. Below the tabs, the 'Admin Folders' section is divided into two main areas: 'Create a New Folder' and 'Edit a Folder'. The 'Create a New Folder' area has a text input field for 'Folder Name:' and a 'Create' button. The 'Edit a Folder' area has a dropdown menu for 'Select a Folder:' with '1300 MW Combined Cycle Plant' selected, a text input field for 'New Name:', and 'Rename' and 'Remove' buttons. At the bottom right of the interface, there are 'Back to Top' and 'Back' buttons.

# Support

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- Users should direct questions and issues to [AffinitySupport@flowserve.com](mailto:AffinitySupport@flowserve.com):
  - Please provide a detailed description of the issue including the Operating System used, Browser (name & version) and Quote Number.
  - Where possible, please include a screen shot of issue in the request

# Annex: Examples

- Selection Example: Pumplist Path
- Selection Example: Duty Condition Path

The screenshot displays the 'Quote Manager' application interface. At the top right, there are 'Discard' and 'Save' buttons. The main area is divided into two sections: 'Quote Header' and 'Line Details'.

**Quote Header:**

- Quote Number: 398684590
- Customer Ref #: Waste Water Treatment
- Project Name: Sacramento, CA
- Project Description: (Empty text box)
- Originator: XXXXXXXX
- Created Date: 06/30/2015
- Last Modified: 06/30/2015 9:08 AM

**Line Details:**

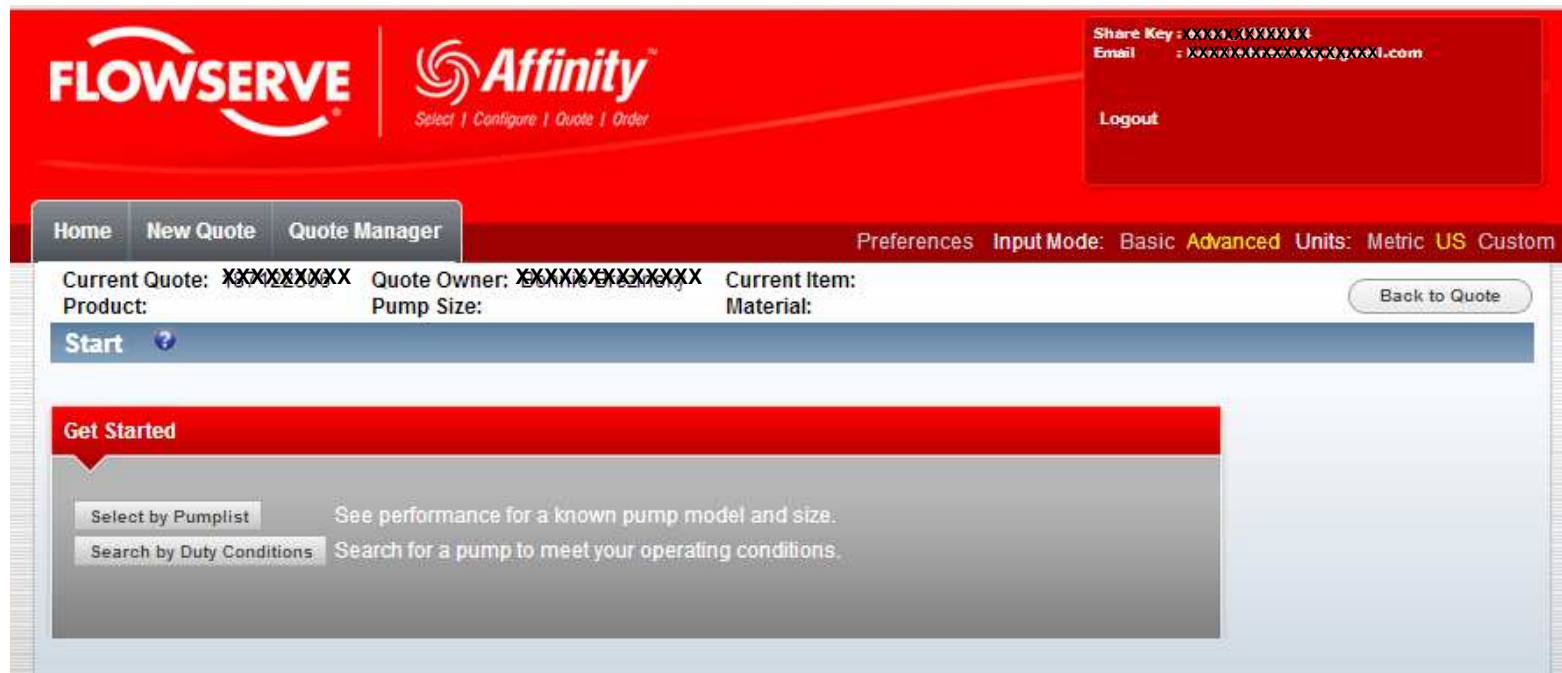
<input type="checkbox"/>	Line	Edit	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material
<input type="checkbox"/>	1 H	P	Test123	0	1	1	Mark 3 & LoFlo ANSI	1K1.5x1-62RV M3 ST	1	DCI
<input type="checkbox"/>	2 H	P	Test 321	0	1	1	VTP Wet Pit	10EKY	1	B30

Below the table are several action buttons: Add Item, Copy Items, Delete Item, Update, Set Output Documents, Copy From Another Quote, and Toggle Alternate.



# Example: PumpList

- Click 'Add Item'
  - Select by Pumplist for this Example



# Example: PumpList

- In this example, an Overhung horizontal pump will be selected
  - You can use the Classification 'Overhung, close coupled, horizontal & vertical' as well as the Orientation 'Horizontal' to narrow down the choices.
  - Select a Mark 3 & LoFlo ANSI.

The screenshot shows the 'Pump List' interface with the following filters: Industry: All, Classification: Overhung, close coupled, horizontal & vertical, Orientation: Horizontal. The table below lists the available product lines, with 'Mark 3 & LoFlo ANSI' highlighted as the selected product line.

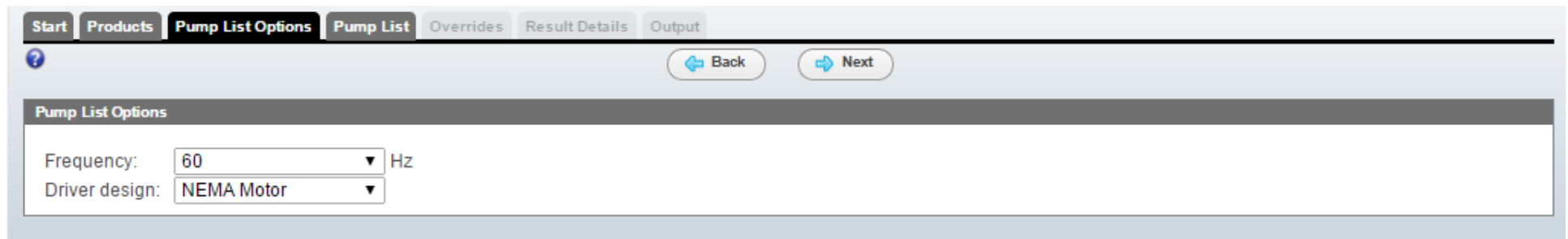
Group	Product Line	Max Flow (USgpm)	Max Head (ft)	Min Temp. (°F)	Max Temp. (°F)	Max Viscosity (cSt)	Max Suction Press. (psig)
	CPX Close Coupled	2,641.7	524.93	14	302	500.00	145.0
	D-814 Foot Mounted	2,000.0	475.00	-20	250	1,600.00	75.0
	D-824 Close Coupled	2,000.0	475.00	-20	250	1,600.00	75.0
	Innomag TB Mag ASME	1,500.0	540.00	-20	250	300.00	350.0
	Innomag TB Mag ISO	880.6	328.08	-20	250	300.00	290.1
	Innomag U Mag	500.0	200.00	-20	250	200.00	300.0
<input checked="" type="radio"/>	<b>Mark 3 &amp; LoFlo ANSI</b>	<b>7,400.0</b>	<b>985.00</b>	<b>-200</b>	<b>700</b>	<b>2,000.00</b>	<b>360.0</b>
	Mark 3 HiChr ANSI	4,200.0	450.00	0	340	2,000.00	360.0
	Mark 3 ISO CC	2,641.7	524.93	14	302	500.00	145.0
	MENBLOC Foot Mounted	3,082.0	328.08	23	230	10.00	145.0
	MSP In-Line	154.1	2,952.76	-58	392	100.00	290.1
	PolyChem Mag ANSI	880.0	450.00	-20	300	300.00	280.0
	PolyChem Sealed ANSI	1,400.0	760.00	-20	300	1,000.00	280.0
	SMP C/C Water	600.0	240.00	-20	250	1,600.00	150.0

Selected Product Line: Mark 3 & LoFlo ANSI

Footer: Affinity™ Version: 1.3.8.2 | Follow us on: f t | © 2014 Flowserve Corporation

# Example: PumpList

- **Product List Options Page**
  - Set the Frequency and Driver Design
    - For this example leave as 60 Hz and NEMA Motor.



The screenshot shows a software interface with a navigation bar at the top containing tabs: Start, Products, Pump List Options (active), Pump List, Overrides, Result Details, and Output. Below the tabs are 'Back' and 'Next' buttons. The main content area is titled 'Pump List Options' and contains two dropdown menus: 'Frequency: 60 Hz' and 'Driver design: NEMA Motor'.

**Helpful Hint:** Navigation can be done with the Back/Next buttons or the tabs at the top.

# Example: PumpList

## ■ Pump List

- The list of hydraulics (pump size & speed combination) is filtered by frequency.
- Select the 1K1.5x1-62RV with a Min RPM of 3001 and Max RPM of 3600.

Start Products Pump List Options Pump List Overrides Result Details Output

Product Line: Mark 3 & LoFlo ANSI

Pump List

Please select a pump type

Selected Pump Type: 1K1.5x1-62RV M3 ST

	Pump Type	Min RPM	Max RPM	Stages	Flow BEP	Curve No.
<input type="radio"/>	1K1.5x1-62OP M3 ST	3001	3600	1	114.5	MIII7035V
<input type="radio"/>	1K1.5x1-62OP M3 ST	1501	1800	1	59.3	MIII7037V
<input type="radio"/>	1K1.5x1-62OP M3 ST	1001	1200	1	38.3	MIII7039V
<input checked="" type="radio"/>	1K1.5x1-62RV M3 ST	3001	3600	1	101.9	MIII7030V
<input type="radio"/>	1K1.5x1-62RV M3 ST	1501	1800	1	51.9	MIII7032V
<input type="radio"/>	1K1.5x1-62RV M3 ST	1001	1200	1	34.0	MIII7034V
<input type="radio"/>	1K1.5x1-82OP M3 ST	3001	3600	1	150.2	MIII7045AV
<input type="radio"/>	1K1.5x1-82OP M3 ST	1501	1800	1	75.6	MIII7047AV
<input type="radio"/>	1K1.5x1-82OP M3 ST	1001	1200	1	51.8	MIII7049AV
<input type="radio"/>	1K1.5x1-82RV M3 ST	3001	3600	1		
<input type="radio"/>	1K1.5x1-82RV M3 ST	1501	1800	1		
<input type="radio"/>	1K1.5x1-82RV M3 ST	1001	1200	1		
<input type="radio"/>	1K3x1.5-62OP M3 ST	3001	3600	1		
<input type="radio"/>	1K3x1.5-62OP M3 ST	1501	1800	1		

**Helpful Hint:** If a pump has been selected the size/model will be shown at the top of the table.

# Example: PumpList

## ■ Overrides

- You can override the default values to suite your needs
- Not all options can be overridden, depending on the product line selected.

The screenshot shows the 'Overrides' tab in the PumpList software. The navigation bar at the top includes 'Start', 'Products', 'Pump List Options', 'Pump List', 'Overrides', 'Result Details', and 'Output'. Below the navigation bar, there are 'Back' and 'Next' buttons. The main content area displays the following information:

Product Line: Mark 3 & LoFlo ANSI  
Pump Type: 1K1.5x1-62RV M3 ST

**Pump Type Overrides**

Stages Override	Speed Override	Diameter Override
Allowable Range: 1 Set Stages to: <input type="text" value="1"/>	Allowable Range: 3001 - 3600 Set Speed to: <input type="text" value="3500"/>	Select Diameter: <input type="text" value="6.25"/> in

**\*Change the selected diameter to 5.69 in.**

# Example: PumpList

## ■ Result Details Page

- This page shows the detailed performance for your selection

**Helpful Hint:** The duty conditions provided will be at the BEP point for the pump. If you need to adjust the conditions you can hit the 'Edit Duty Conditions' button on the left side.

**\*At this point Save the selection as Test123 and go Back to Quote.**

# Example: PumpList

- **Line Details**
  - Now the item is shown below.

**Quote Manager**

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

Quote Number: 398684590      Originator: ~~XXXXXXXX~~  
Customer Ref #: Waste Water Treatment      Created Date: 06/30/2015  
Project Name: Sacramento, CA      Last Modified: 06/30/2015 8:40 AM  
Project Description:

---

**Line Details**

<input type="checkbox"/>	Line	Edit	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material
<input type="checkbox"/>	1	H P	Test123	0	1	1	Mark 3 & LoFlo ANSI	1K1.5x1-62RV M3 ST	1	DCI



# Example: Duty Conditions

- Click 'Add Item'
  - Search by Duty Conditions for this Example

The screenshot displays the FLOWSERVE Affinity web application interface. The top navigation bar is red and features the FLOWSERVE logo on the left and the Affinity logo with the tagline "Select | Configure | Quote | Order" in the center. On the right side of the navigation bar, there is a "Share Key" field with a masked value, an "Email" field with a masked value, and a "Logout" button. Below the navigation bar, there are tabs for "Home", "New Quote", and "Quote Manager". To the right of these tabs, there are links for "Preferences", "Input Mode: Basic", "Advanced" (highlighted), and "Units: Metric", "US", "Custom". Below the navigation bar, there are fields for "Current Quote: XXXXXXXX", "Quote Owner: XXXXXXXXXXXX", "Current Item: XXXXXXXX", "Product:", "Pump Size:", and "Material:". A "Back to Quote" button is located to the right of these fields. Below the fields, there is a "Start" button with a question mark icon. The main content area is titled "Get Started" and contains 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." The "Search by Duty Conditions" option is highlighted with a red border.



# Example: Duty Conditions

## ■ Duty Conditions

- This page allows you to enter the hydraulic selection criteria for your pump.
- For this example use: 1,000 gpm and 100 ft. TDH

(\*) Required field

**Basic Duty Conditions**

Rated flow: \* 1000 USgpm      Frequency: 60 Hz  
Rated head: \* 100 ft      Quantity of pumps: 1

**Advanced Duty Conditions**

Rated NPSHa:	Ample	ft	Service:	
Rated viscosity:	1.00	cSt	Liquid description:	
Specific gravity:	1.000		Liquid type:	Other
Max suction press:	0.0	psig	Flammable:	<input type="checkbox"/>
Rated suction press:	0.0	psig	Toxic:	<input type="checkbox"/>
Max temperature:	60	°F	Hydraulic selection:	No specif
Vapor pressure:	0.00	psia	Construction:	No specif
			Test tolerances:	Hydraulic

**Additional Duty Conditions**

**Helpful Hint:** If you have multiple duty conditions that need to be met with a pump, you can expand the panel 'Additional Duty Conditions' by clicking the plus sign in the right corner of the panel.

# Example: Duty Conditions

## ■ Products

- This page allows you to choose the Flowserve product for your search.
- This example will use a Vertical, Wet Pit Pump.
  - Classification is 'Vertically suspended, discharge through column'
  - Then check the box next to VTP Wet Pit and click 'Add'.

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

Current Quote: 161430365 Quote Owner: Bonnie Brezinksy Current Item: Product: Pump Size: Material: Back to Quote Details

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

Filters Industry: All Classification: All Orientation: All

Product Lines

Please select one or more product lines  
Click on the product line name to view detailed product line information  
\* - Indicates a non-current product and should only be used for reference

Available Product Lines Count: 9/9 (filtered / total) Show

Group	Product Line	Max Flow (USgpm)
GT Two Stage HSC	4,600.0	1,
LNN Single Stage HSC <= 350	154,100.4	98
LNN Single Stage HSC >= 400	154,100.4	98
Mark 3 & LoFlo ANSI	7,400.0	98
QL Canned	176,114.7	2,
QL Wet Pit	176,114.7	2,
VTP Canned	25,000.0	5,
VTP Wet Pit	50,000.0	5,
WXH Ring Section	6,498.6	10

Selected Product Lines

No product lines selected

Add Add with Companions Remove Remove All

**Helpful Hint:** You can use the filters at the top to narrow down the pump choices.

# Example: Duty Conditions

## ■ Vertical Duty Conditions

- This page allows you to enter additional information specific to vertical pump configurations.
- Input the sump depth of 20 ft. and size the pump for the bottom of the pit.

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

Back Next Pump Search

**Vertical Duty Conditions**

Rated head: 100.00 ft @ Discharge flange centerline  
Rated NPSHa: Ample ft @ Low liquid level  
Altitude: 0.00 ft

Pump length strategy: Maximize length for sump depth value of 0.00 ft  
Distance from mounting surface to sump bottom: Enter value value of 20 ft  
Distance from mounting surface to low liquid level: Unknown value of 0.00 ft

- This screen will only be available when selecting a vertical pump. If a horizontal pump has been selected the program will automatically by-pass this screen.

# Example: Duty Conditions

## ■ Hydraulics and Driver Constraints

- This page allows you to define additional selection criteria from the pump and driver.
- For this example, change the site voltage to 480 V

The screenshot displays a software interface with a navigation bar at the top containing tabs: Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints (active), Product Constraints, Search Results, Result Details, and Output. Below the navigation bar are buttons for Back, Next, and Pump Search. The main content area is divided into three sections:

- Hydraulic Constraints:** A table of parameters with input fields. The 'Normal/rated straddle BEP' checkbox is checked. The 'Normal flow' field is set to 'N/A' with units 'USgpm'. The 'Min head rise to Shut Off [%]' field is 'N/A'. The 'Max head ratio [%]' field is 'N/A'. The 'Min diameter ratio [% min dia:]' field is 'N/A'. The 'Max diameter ratio [% max dia:]' field is 'N/A'. The 'Min NPSHa margin:' field is 'N/A' with units 'ft'. The 'Maximum Nss [US units:]' field is 'N/A'. The 'Minimum flow [% of BEP:]' field is 'N/A'. The 'Parallel Operation:' checkbox is checked. The 'Non droop curve:' checkbox is checked. The 'Maximum flow [% of BEP:]' field is 'N/A'. The 'Minimum efficiency [%:]' field is 'N/A'. The 'Max diameter [% dia range:]' field is 'N/A'. The 'Head at shut off not to exceed:' field is 'N/A'. The 'Max power not to exceed:' field is 'N/A'. The 'MCSF not to exceed:' field is 'N/A'. The 'Max flow must exceed:' field is 'N/A'. The 'MAWP basis max SG:' field is 'N/A'. The 'MAWP basis max impeller dia:' checkbox is checked. The 'Possible Vacuum Service or Exposure:' checkbox is checked.
- Alternate Hydraulic Conditions:** A section with a question mark icon, currently empty.
- Driver Constraints:** A section with a question mark icon containing dropdown menus and checkboxes. 'Driver sourced by:' is set to 'FPD'. 'Site voltage:' is set to '480'. 'Motor starting method:' is set to 'Direct on line (DOL)'. 'Orientation:' is set to 'Auto Select'. 'Driver design:' is set to 'NEMA Motor'. 'Sizing spec:' is set to 'Max Power (MCSF to EOC) with SF'. 'Service factor:' is set to '1.0'. 'Speed:' is set to 'Standard speed'. The 'Variable Frequency Driver:' checkbox is checked.

**Helpful Hint:** The Driver Sourced By, Sizing Spec, Site Voltage, Service Factor and Driver Design can be set in Preferences for all quotes.

# Example: Duty Conditions

## ■ Product Constraints

- This page allows you to specify constraints for the product you selected.
- In this example, change the drive shaft constraint to Solid shaft

The screenshot shows a software interface for configuring constraints. The top navigation bar includes tabs for Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints (selected), Search Results, Result Details, and Output. Below the navigation bar are buttons for Back, Next, and Pump Search. The main content area is titled "Select a product line for configuring constraints" and shows "Product Line: VTP Wet Pit" with buttons for Restore Defaults, Collapse Categories, and Expand Categories. The constraints are organized into several sections:

- Material:** A table with columns for Constraint, Selected Choice, Casing, and Impeller. The selected choice for Material is B30, Casing is CL30 C.Iron, and Impeller is Bronze.
- Site Conditions:** A table with columns for Constraint and Selected Choice. The selected choice for Customer's sump/can opening is Circular sump/can opening diameter [100.00 in].
- PSI Program:** A table with columns for Constraint and Selected Choice. The selected choice for Type of delivery is Standard delivery selection.
- Driver:** A table with columns for Constraint and Selected Choice. The selected choice for Driver shaft is Solid shaft driver.
- Bowl Assembly:** A table with columns for Constraint and Selected Choice. The selected choices are: Bowl construction (Automatic upgrade), Bowl Bolting Material (Automatic upgrade), Bowl lining (Automatic upgrade), Bowl bearing materials (Bronze), and Bowl wear ring material (None).

**Helpful Hint:** When a constraint is changed that affects other constraints on this page you will get a notification that other items have been automatically updated.

# Example: Duty Conditions

## Search Results

- This page shows a table of the available pump sizes for the search criteria.
- For this example, First sort by RPM by clicking the header 'RPM'
- Then select the 10EKY pump by clicking the blue hyperlink.

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

Back Next Pump Search

View Thumbnails

Search Results

Count: 304/491  Hide Near Misses  Hide Invalid Selections     Page Size: 10

<input type="checkbox"/>	Status	Pump Type	Curve	Stages	RPM	% BEP	NPSH3	Efficiency	Max Power	% Max Diameter	
<input type="checkbox"/>	✓	10EML		1	3550	114.2	29.6	75.2	40.2	91.9	
<input type="checkbox"/>	✓	10EKY		1	3550	109.5	19.4	76.8	39.9	89.3	
<input type="checkbox"/>	⚠	10EJH		1	3550	139.3	77.9	64.2	46.6	90.3	<a href="#">Rui</a>
<input type="checkbox"/>	✓	10EGH		1	3550	87.6	19.9	71.8	42.9	85.4	
<input type="checkbox"/>	⚠	08EHL		3	3550	136.0	55.6	61.8	54.8	98.0	<a href="#">Bo</a>
<input type="checkbox"/>	✓	10EHL		1	3540	100.4	23.7	77.3	39.8	91.9	
<input type="checkbox"/>	⚠	16EMM		1	1780	42.3	29.7	54.8	74.2	88.5	<a href="#">Bo</a>
<input type="checkbox"/>	⚠	18ENL		1	1780	21.9	22.5	25.7	124	83.2	<a href="#">Bo</a>
<input type="checkbox"/>	⚠	18EKH		1	1780	36.1	15.5	48.5	76.0	82.7	<a href="#">Bo</a>
<input type="checkbox"/>	⚠	18EKL		1	1780	38.8	7.7	49.5	66.7	85.3	<a href="#">Bo</a>

1 2 3 4 5 6 7 8 9 10



# Example: Duty Conditions

## Results Details

- This page allows you to review the hydraulic performance of the selected pump size.

**Rated Condition**

Pump Information	Duty Conditions
Quantity of pumps: 1	Flow: 1,000.0 USgpm
Type: VTP/Ind	Liquid type: Other
Size: 10EKY	Head @ discharge Flange: 100.00 ft
Stages: 1	Liquid description: Ample ft
Curve: EC-1438	NPSHa @ LLL: Ample ft
Hydraulic reference no.: 34	Rated suction press: 0.0 psig
Selection Status: <span style="color: green;">✔</span> Acceptable	Altitude: 0.00 ft
	Service:
	Liquid type: Other
	Ambient air temp: N/A
	Flammable: No
	Toxic: No
	H2S: No
	Requested material: B30
	Selected material: B30
	Specific Gravity: 1.000
	Max pumping temp: 60 °F
	Viscosity: 1.00 cSt
	Vapor pressure: 0.00 psia
	Frequency: 60 Hz

**Performance Details**

Hydraulic power: 29.9 hp	Impeller diameters:	Rated/Max diameter: 89.3 %
Pump speed: 3550 rpm	Rated: 6.81 in	Max head: 192.56 ft
Pump overall efficiency: 76.8 %	Maximum: 7.62 in	Head rise to Shut Off: 61.6 %
Casing/Bowl efficiency: 78.5 %	Minimum: 6.63 in	Head rated / Head max: 71.8 %
NPSH3: 19.4 ft		
Rated power: 38.9 hp	Flow BEP: 913.6 USgpm	MCSF: 323.8 USgpm
Max power: 39.9 hp	Flow as % BEP: 109.5 %	
Nss: 11,620 (US units)		

**Driver Details**

Driver Speed : 3600 rpm <span style="border: 1px solid gray; padding: 2px;">Change</span>	Motor Rating : 40.0 hp / 29.8 kW <span style="border: 1px solid gray; padding: 2px;">Change</span>
Frame Size :	% over rated power : 2.8%
Driver sizing spec : Max power (MCSF to EOC) with SF	% over max power : 0.2%
Driver type: NEMA Motor	Overload capacity : NA USgpm
Driver orientation: Vertical	Service factor: 1.00
Driver voltage: 480	% over max system power: 0.0%
	Max system power: 0.0 hp

# Example: Duty Conditions

## ■ Output

- This page allows you to select and view Output Documents for the item.
- Curve preferences are also located here.

The screenshot displays the 'Output' tab in a software application. The top navigation bar includes tabs for Start, Duty Conditions, Products, Vertical Duty Conditions, Hydr./Driver Constraints, Product Constraints, Search Results, Result Details, and Output. Below the navigation bar are buttons for Back, Next, and Pump Search. A 'Save Selection' button is visible in the top right corner. The main content area is titled 'Technical Item Documents' and features a language dropdown set to 'English'. A list of document types is shown with checkboxes: Select All Technical Documents, Standard Curve, Speed Vs Torque Curve, Multi Speed Curve, Parallel Curve, Series Curve, GA, Hydraulic Datasheet, and Construction Datasheet. At the bottom of this section are buttons for Preview, Curve Preferences, Export Curve Data, and Document Order. A 'Curve Preferences' dialog box is open, showing settings for General Curve Preferences (Curve Position: Power over head, Grid Size: Fine, MCSF: Draw MCSF curve) and Selection Curve Preferences (Static Head: 0.00 ft). The dialog box also includes options for Page Orientation (Portrait/Landscape) and Axis Scale (Optimal scale/User defined).

**Helpful Hint:** This page is also available through the PumpList selection Path.

\* From here save the selection as Test 321



# Example: Duty Conditions

- **Line Details**
  - Now the second item is shown below.

The screenshot displays a software interface with a red header bar containing navigation tabs: Home, New Quote, and Quote Manager. Below the header, there are buttons for Discard and Save. The main content area is titled 'Quote Manager' and has three sub-tabs: Quote Header, Quote Documents/ Notes, and Quote Access. The Quote Header tab is active, showing the following information:

- Quote Number: 398684590
- Customer Ref #: Waste Water Treatment
- Project Name: Sacramento, CA
- Project Description: (empty text area)
- Originator: XXXXXXXX
- Created Date: 06/30/2015
- Last Modified: 06/30/2015 9:08 AM

Below the Quote Manager section is the 'Line Details' section, which contains a table with the following data:

Line	Edit	Customer Tag	Alt	Rev	Qty	Product Line	Description	Stages	Material
1	H P	Test123	0	1	1	Mark 3 & LoFlo ANSI	1K1.5x1-62RV M3 ST	1	DCI
2	H P	Test 321	0	1	1	VTP Wet Pit	10EKY	1	B30

At the bottom of the Line Details section, there are several action buttons: Add Item, Copy Items, Delete Item, Update, Set Output Documents, Copy From Another Quote, and Toggle Alternate.