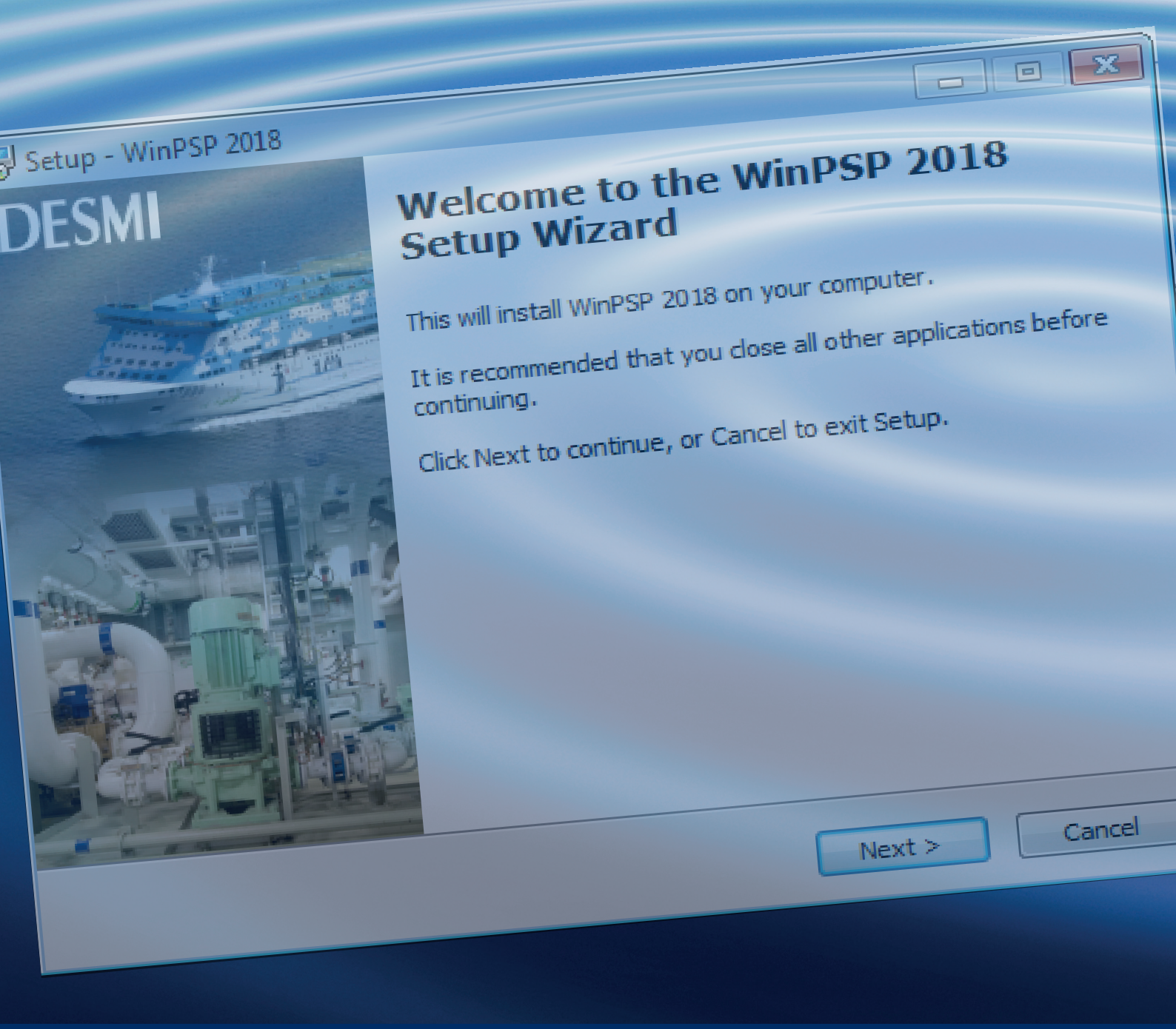


# Introduction to DESMI Pumps Selection Program WinPSP (A)

Issued-by: PDM-Library



DESMI

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## Disclaimer

DESMI will not be responsible for any damages caused by the use or misuse of this selection program.

The program is distributed with no warranty expressed or implied.

DESMI will not be responsible for any losses incurred, either directly or indirectly, by the use of this program.

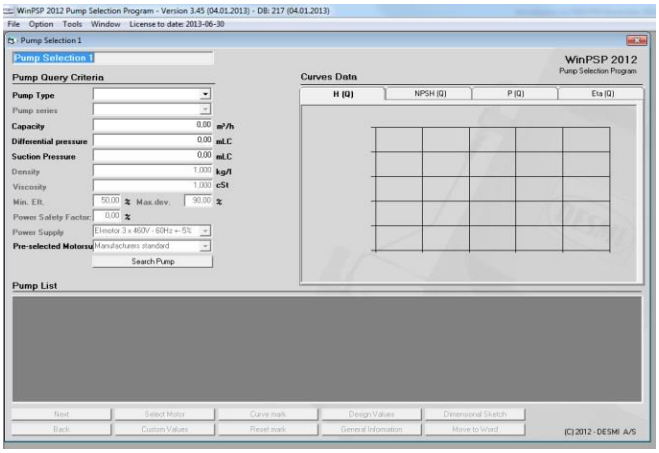
DESMI reserves the right to make modifications at any time.

Specifications are subject to change without notice.

## Example on how to select a DESMI pump in Win-PSP

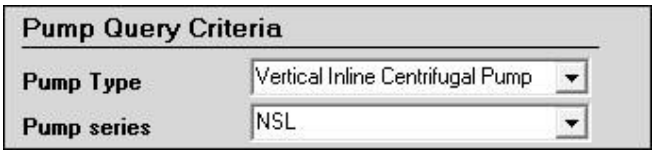
When selecting a pump, all the white areas are used to specify the pumps performance.

**This pump selection example is based on the following specifications:**



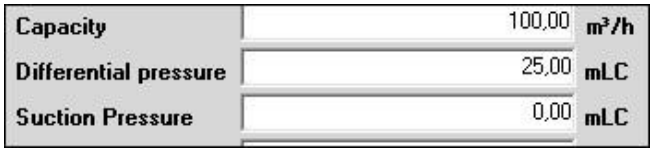

| | |
|---|---|
| **Media:** | **Fresh water** |
| **Pump type:** | **Vertical in-line** |
| **Pump series:** | **NSL** |
| **Capacity:** | **100 $m^3/h$** |
| **Pressure:** | **25 mLC** |

## Step 1: Pump type and series



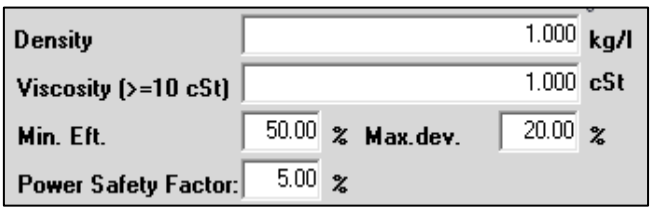

To select pump type click on “Pump Type” and “Pump series” scroll bars. The DESMI pump types are now displayed. Select required type and series. Series description can be found in pump manual on www.desmi.com

## Step 2: Capacity and pressure




Type in required capacity and differential pressure. Type in suction pressure while it is required or keep it zero. Press enter to make next input field available.

## Step 3: Features




Type in each white field under following guide.

**Density:** Fresh water has a density of 1.000 kg/l, and seawater 1.025 kg/l**.**

**Viscosity:** Clean water has a viscosity of 1.000 cSt.

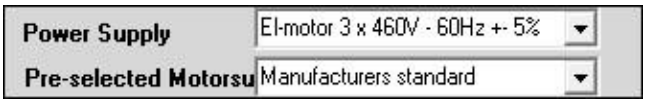
**Min. Eft:** This feature will automatically force the program to select a pump, which has a minimum efficiency of 50% in the duty point.

**Max. dev.:** This feature will automatically force the program to select a pump, which differential pressure is within +/-20% on user’s pre-selected differential pressure.

**Power Safety Factor:** This feature will automatically force the program to select a motor, which rate power output is at least 5% larger than maximum pump shaft power.

## Step 4: Voltage and frequency

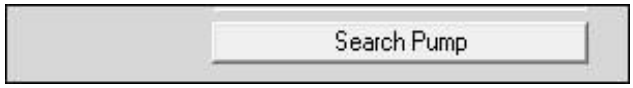
**Power Supply:** Click on “Power Supply” scroll bar and select one type that meets your requirements.




**Pre-selected Motor:** This feature allows the user to select between a various ranges of electric motors. The manufacturer’s standard is DESMI motor produced by BEVI.
*If your preference is not in DESMI default supply scope, other brand IEC standard motors or NEMA standard motors can be delivered according to agreement with DESMI. Please continue the selection with choosing manufacturer’s standard and later ask DESMI to revise the motor brand in selection output.*

## Step 5: Search

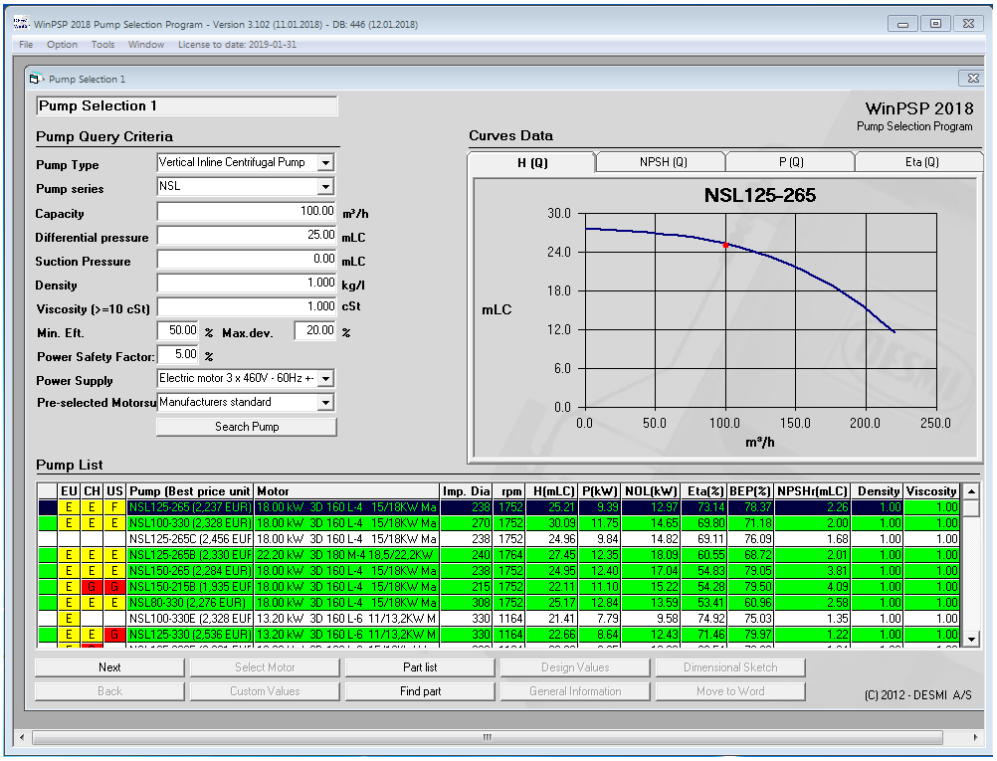
Press “Search Pump” button and the program will now find the pumps that meets your specifications.




## Step 6: Selecting pump model

Given the different options of the NSL models, NSL125-265 is chosen on the basis of:

**Efficiency, NPSH, speed, el-motor size and cost index etc.:**



Pump (Best price unit) is only an estimated guide price for pump unit only.
Click on the bar of NSL125-265, and press “Next” button at the bottom left, the pump model is now selected.

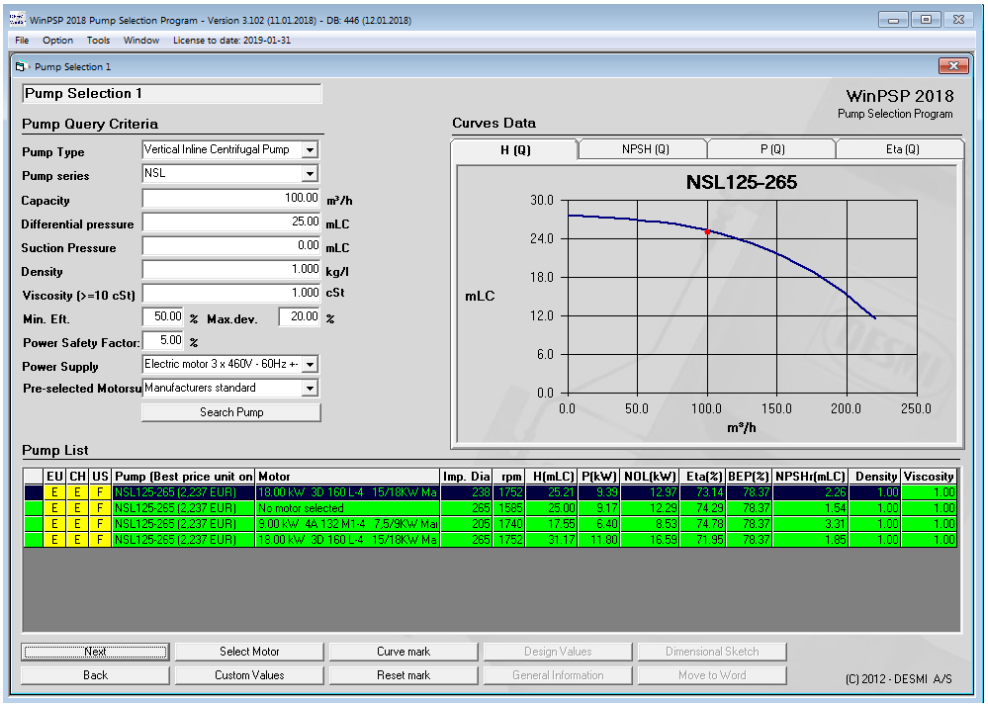
## Step 7: Selecting pump working scenario

Four pump working scenarios on selected pump model are given.

1. Required capacity and differential pressure with system calculated impeller diameter and nominal rotation speed.
2. Required capacity and differential pressure with full size impeller and system calculated rotation speed.
3. Required capacity and system calculated differential pressure with minimum impeller diameter and nominal rotation speed.
4. Required capacity and system calculated differential pressure with full size impeller and nominal rotation speed.

The working scenario is selected on the basis of:

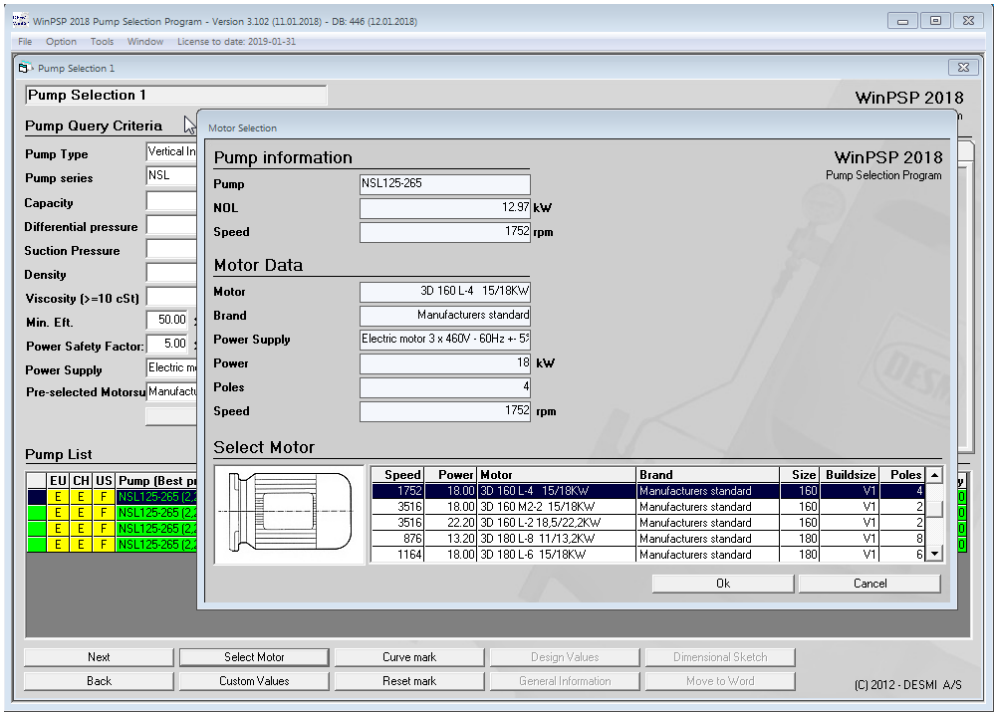
**Required duty point and rotation speed:**



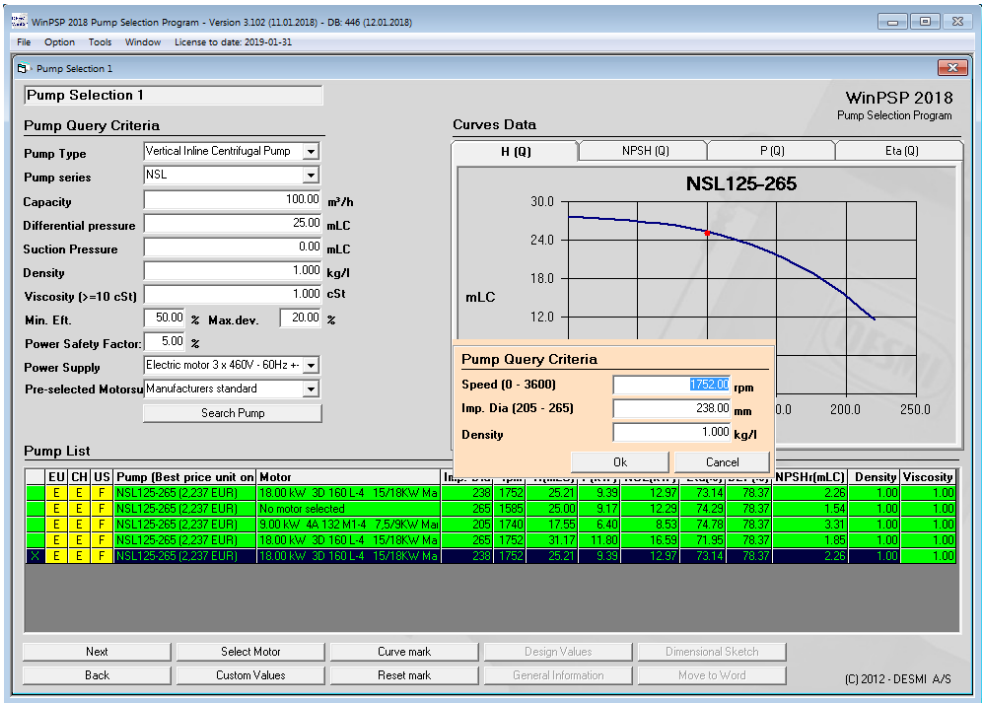

In this case, system calculated impeller diameter and nominal rotation speed is selected. As a consequence the suitable motor is selected by system. It is 18.00 kW manufacturer´s standard 3D 160 L-4.
Press "Next" button at the bottom left, to finalize the pump working scenario.
Press “Back” button at the bottom left, to re-select pump model.

*Below description is prepared for advanced user who has adequate pump, pumping and motor technical knowledge to customize working scenario by own. DESMI does not guarantee that your designed working scenario can be achieved by DESMI pumps. Please consult DESMI on the feasibility of your customized working scenario.*

1. *If you want to select another size of motor, press “Select Motor” button at the bottom left side, to select another motor in pop up window. Click on “OK” button to finish the selection and close the sub-window. Now your selection is displayed in working scenario list.*



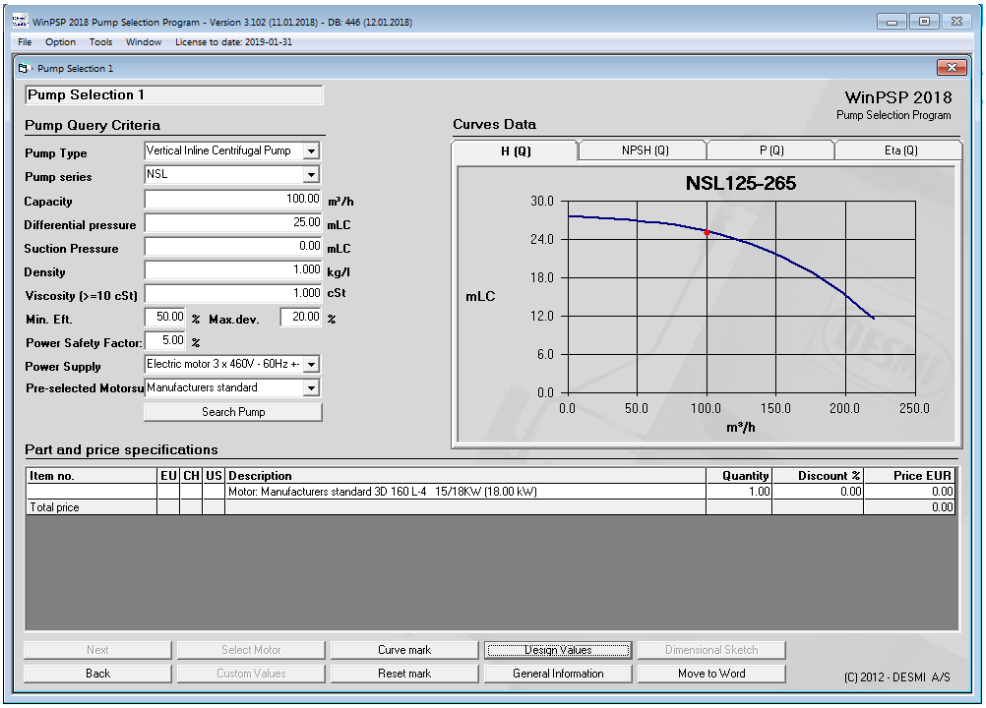

2. *If you want to change the rotation speed and impeller diameter, press “Custom Values” button at the bottom left side, to enter in designed speed and impeller diameter in pop up window. Click on “OK” button to finish the selection and close the sub-window. Now your selection is displayed in working scenario list.*




3. *Press "Next" button at the bottom left, to finalize the pump working scenario.*

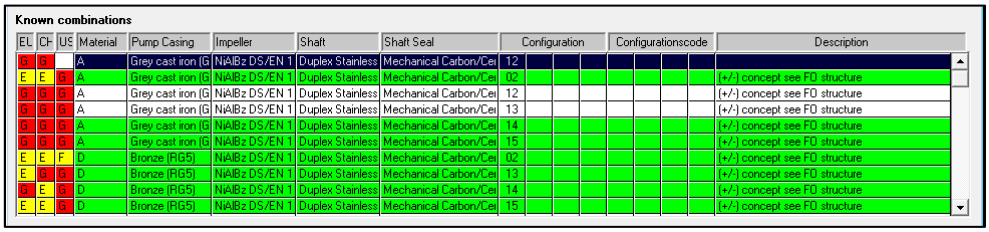
## Step 8: Design values

Press “Design values” button at the bottom right to pop up a sub-window to select pump features on main parts material, configuration, motor, manometers and shaft seal material, etc.

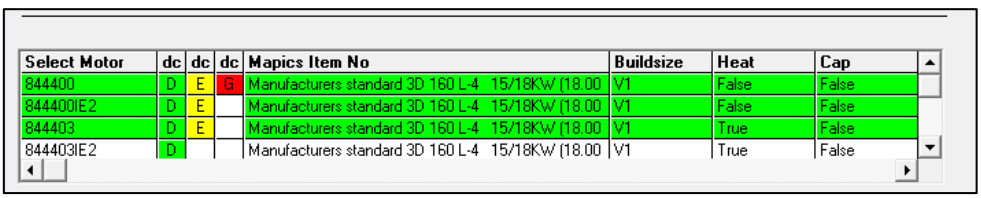



## Step 9: Configuration and feature options

**Known combination:** Click on one bar to select suitable material and configuration. Other material can be delivered according to agreement with DESMI.
Pump configuration description can be found in pump manual on [www.desmi.com](http://www.desmi.com)

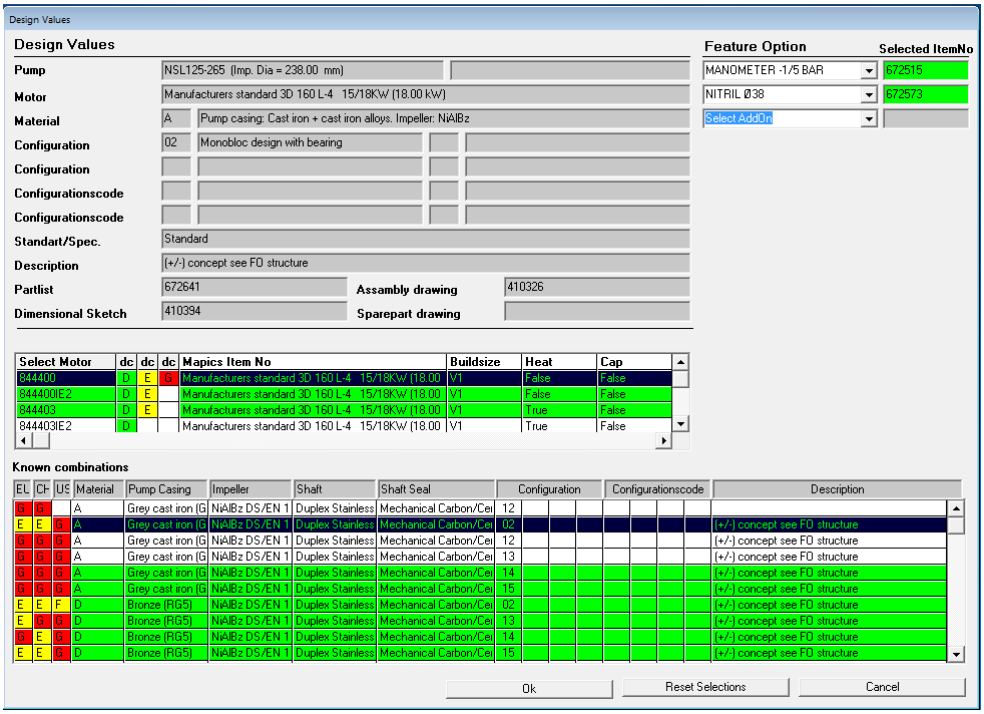



**Select Motor:** Click on one bar to select suitable efficiency class, heating element and rain cap. More features can be delivered according to agreement with DESMI.



**Feature Option**: Click on scroll bars to select manometers and shaft seal material.
NITRIL is for seawater application and EPDM for high temperature applications.
Keep “Select Addon” scroll bar unselected if pump should not be with priming function.

Press “Ok” button at the bottom to finish the configuration and feature option selection, and close the sub-window.



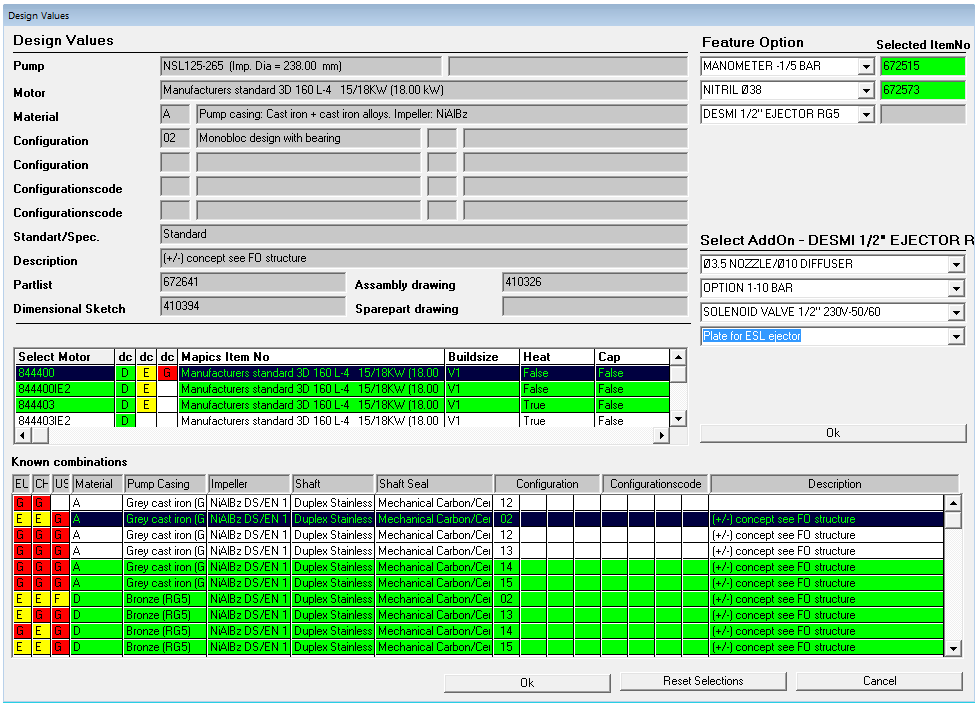

If pump should be with priming function, instead of press “Ok” button at the bottom, click on “Select Addon” scroll bar to configure priming device according to following guide.

## Step 9a: Priming Ejector as an option

Please read user manual while priming ejector to be configured.

https://www.desmi.com/UserFiles/file/Manuals/Marine_and_Offshore/T1521UK.pdf

Click on “Select Addon” scroll bar, select one type of priming device. In this case “DESMI ½” EJECTOR RG5” is selected. Now a new selection area pop up. Click on each scroll bar and select the required feature. After all features have been selected, press “Ok” button in pop up area to finish the priming feature selection and close the pop up area. Press “Ok” button at the bottom to finish the configuration and feature option selection and close the sub-window.

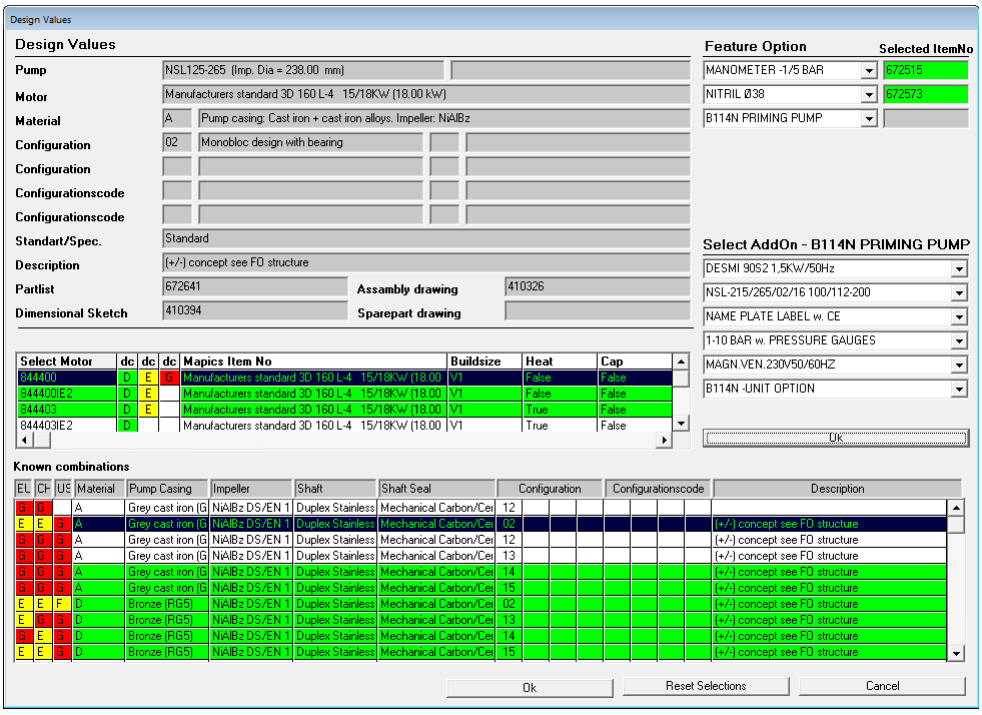



## Step 9b: Priming Pump B114 as an option

Please read user manual while priming pump to be configured.

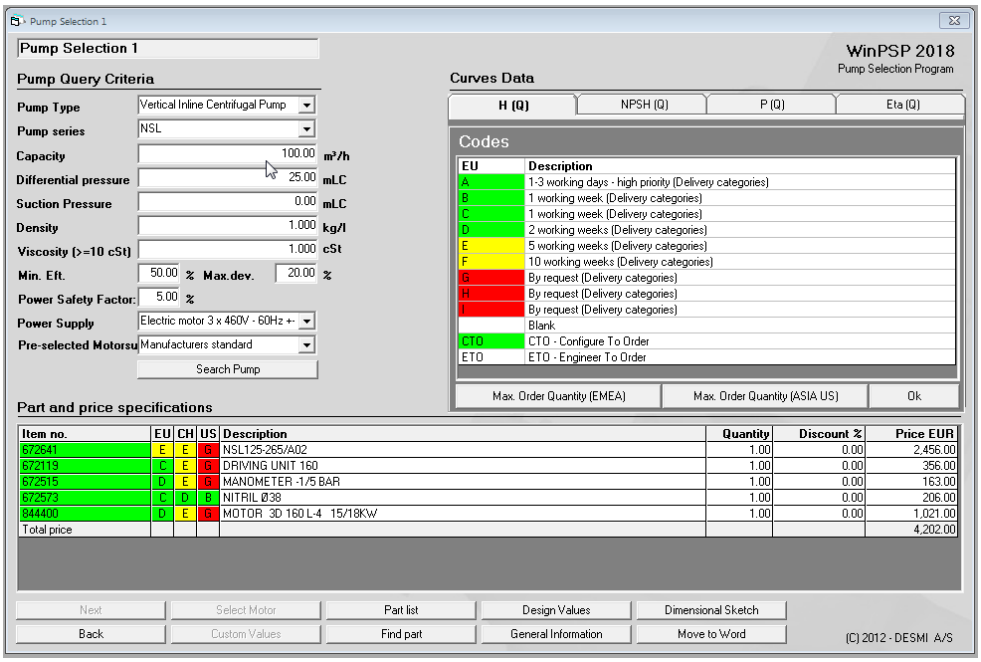
https://www.desmi.com/UserFiles/file/Manuals/Marine_and_Offshore/T1488UK.pdf

Click on “Select Addon” scroll bar, select one type of priming device. In this case “B114N PRIMING PUMP” is selected. Now a new selection area pop up. Click on each scroll bar and select the required feature. After all features have been selected, press “Ok” button in pop up area to finish the priming feature selection and close the pop up area. Press “Ok” button at the bottom to finish configuration and feature option selection and close the sub-window.



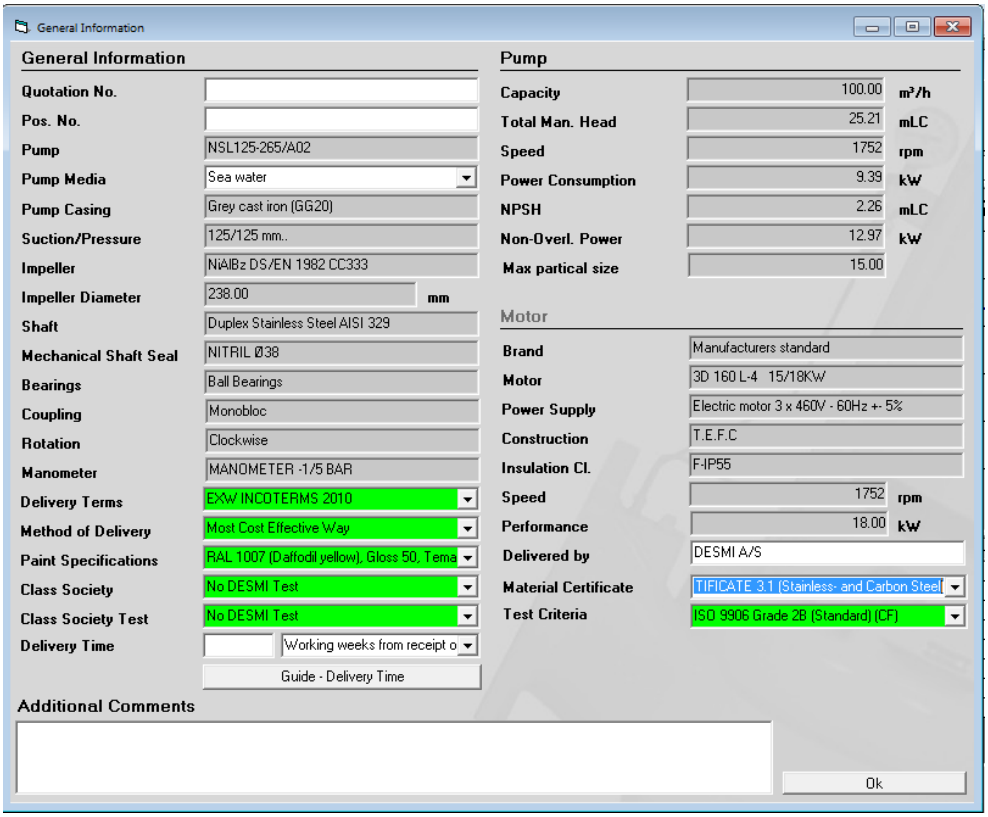
## Step 10: Delivery terms

A three-column codes are displayed on right side of “Item no.” list. The codes describe the expected delivery time for each item. “EU” means expected delivery time in EMEA (Europe). “CH” means expected delivery time in APAC (Asia). “US” means expected delivery time in North America. Click any frame in the column, a list with the expected delivery time definition will pop up. Click “Ok” in pop up area to close the sub-window. Please note that only delivery times marked with green color need not to be verified by the DESMI Planning Department.



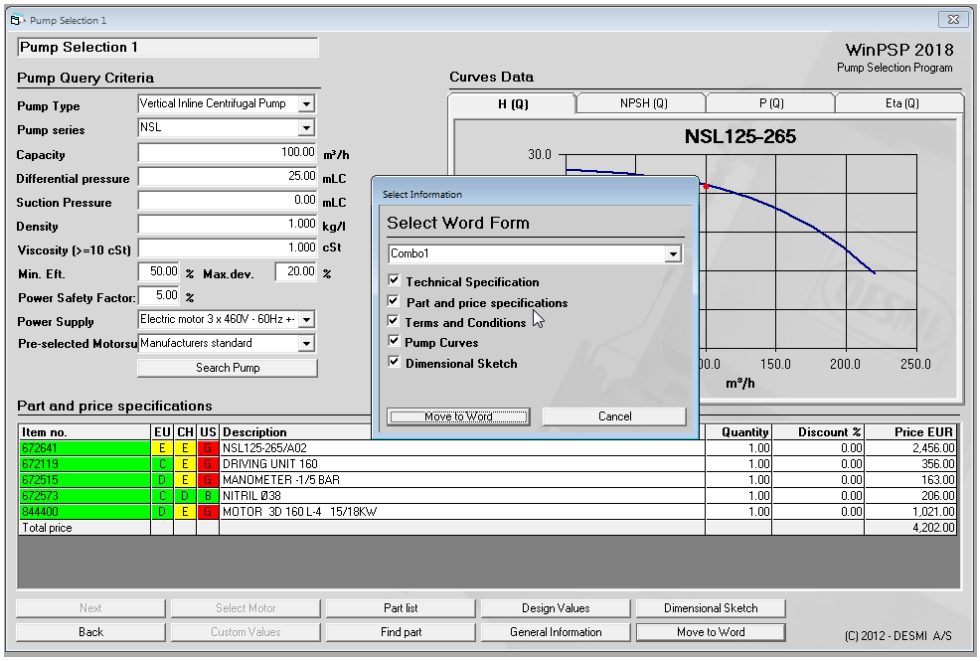
## Step 11: Additional information

Click on “General Information”, a sub-window pop up, it is possible to add further terms and conditions such as delivery terms, method of delivery, class society, special paint, certificates etc.
Press “Ok” button at the bottom right to finish the selection and close this sub-window.



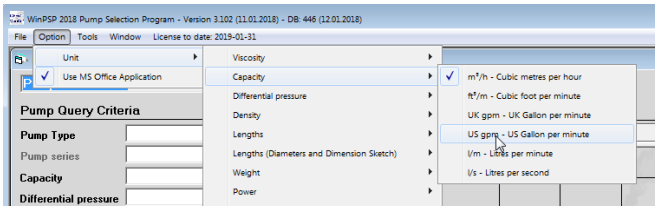
## Step 12: Move to Word

Click on “Move to Word” at the bottom, one sub-window will pop up. Select required subjects, and press “Move to Word” button in pop up area, It is now possible to generate a Word file including technical specification, parts and price list, terms and conditions, pump curves and dimensional sketch.

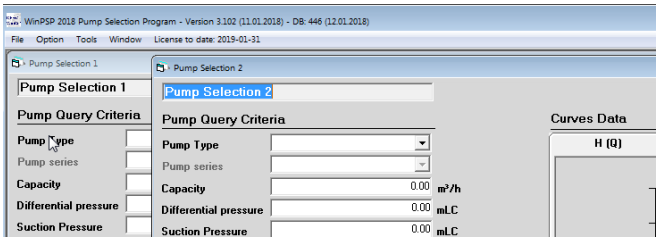



## Supplement

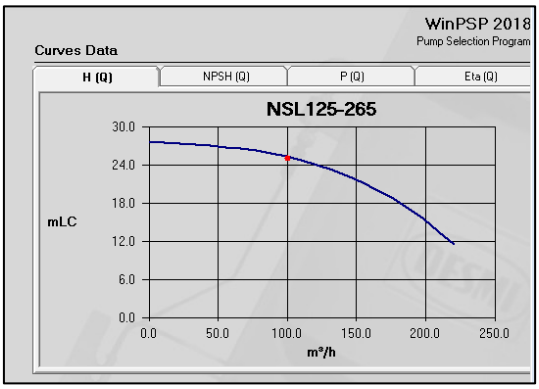
1. The program default unit is metric system.
If other measuring systems is preferred, please choose your preference by click “Option” menu in upper main menu bar.

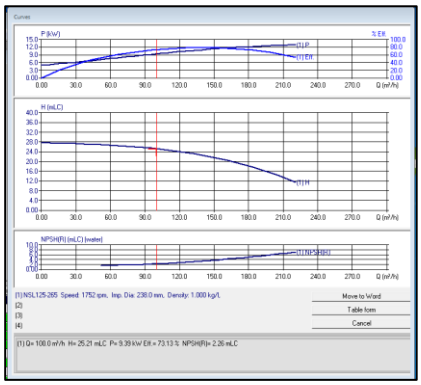



2. If you want the program to calculate with multi specifications, please click “File” to open more selection window.



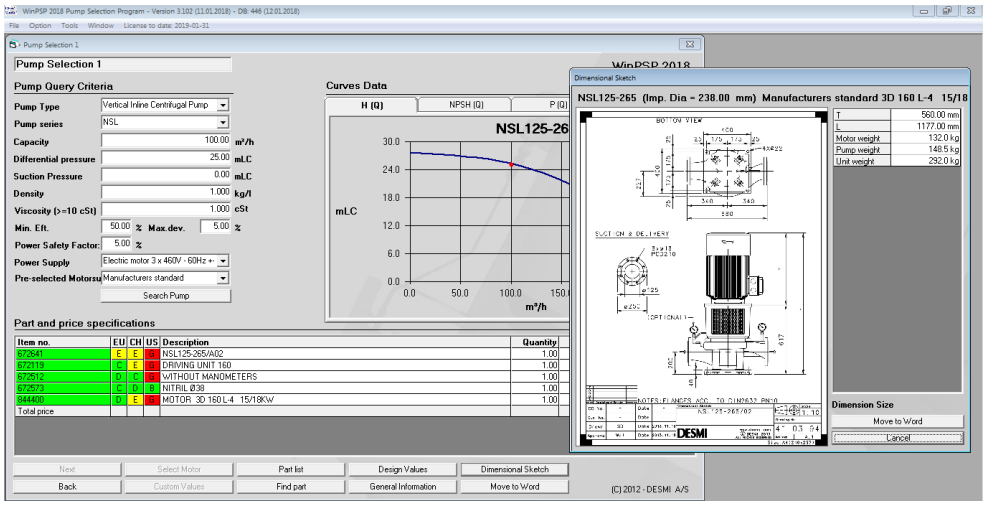
3. In step 7: Selecting pump working scenario, if you want to review H(Q), NPSH(Q), P(Q) and Eta(Q) in one sheet, double click frame of any one curve, a sub-window will pop up with all curves in one sheet.



Click on the curve in sub-window, you may read the Q, H, P, Eta and NPSHr value on any point of the curve. Click on “Move to Word” button in sub-window, you may export the curve to Word file. Click on “Cancel” button in sub-window, close the sub-window.

4. In step 12: Move to Word, if you want to review the dimensional sketch before export it, click on “Dimensional Sketch” button, a sub-window will pop up with dimensional sketch and pump weight. If you want to export the Sketch individually, click on “Move to Word” button to generate a Word file. Click on “Cancel” button to close the sub-window.




Thank you for your interest in DESMI´s products.

For a price quote please send the selection to ssemea@desmi.com or call the DESMI Support Team on Tel. +45 96328111.

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The mission of DESMI is to develop, manufacture, sell and service pumps and pumping systems, environmental equipment, and special products related to these areas.

MARINE & OFFSHORE | INDUSTRY | OIL SPILL RESPONSE | DEFENCE & FUEL | UTILITY



DESMI