



HyDraw[®] Library Manager 2019 User Manual



HyDraw® Library Manager 2019



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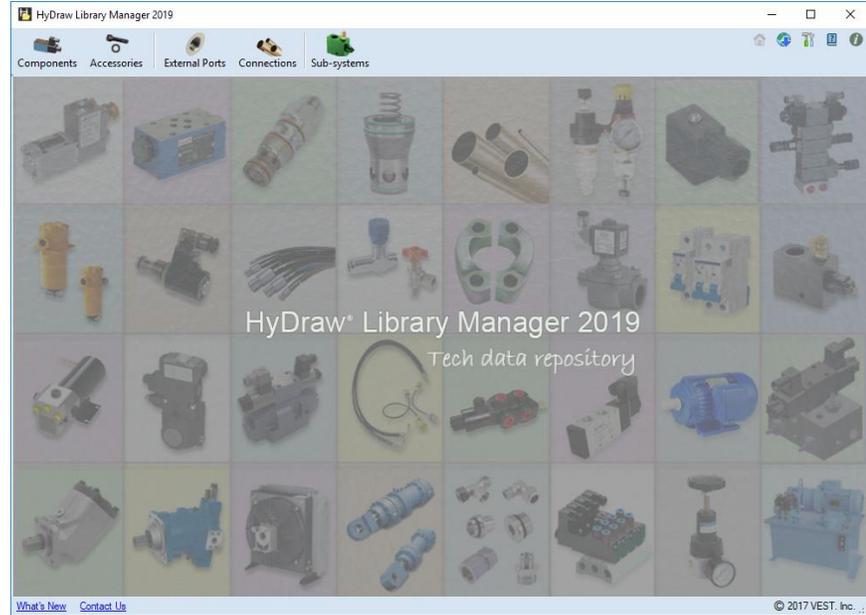
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1. Introduction

HyDraw® Library Manager 2019 makes symbol and component library management easy.

- ✓ Fast and easy component building and maintenance.
- ✓ Edit components to your specific need.
- ✓ Assign components with the related accessories, documents, and CAD files (2D/3D component image/video).
- ✓ Component design and model properties parameters are included to design customized component model and sub-system.
- ✓ Exhaustive list of external ports and cavity/footprint of different manufacturers included.
- ✓ Search command to find symbol or component with required properties.
- ✓ Both Imperial and Metric units. Conversion from imperial to metric and vice-versa.
- ✓ GUI interface with helpful icons and tool tips.
- ✓ Context menu quick access to relevant commands.
- ✓ Protection against accidental deletion of essential component properties.
- ✓ Network enabled, enhances productivity of the design and engineering team.
- ✓ Multiple users within a local area network can share a common HyDraw library and database.
- ✓ Import Component Model Data and ERP data from Excel into HyDraw.



HyDraw Library Manager Home Page

2. Installation

The HyDraw® installation program installs the HyDraw Library Manager 2019 on your computer system.

System Requirements

- Windows 7/8.1/10
 - Microsoft .NET Framework version 4.5 or higher
 - Adobe Reader 10.0 or higher
 - HyDraw CAD 2019
 - *Microsoft Excel 2013 or higher
- *Required only for importing Model data into HyDraw Library*

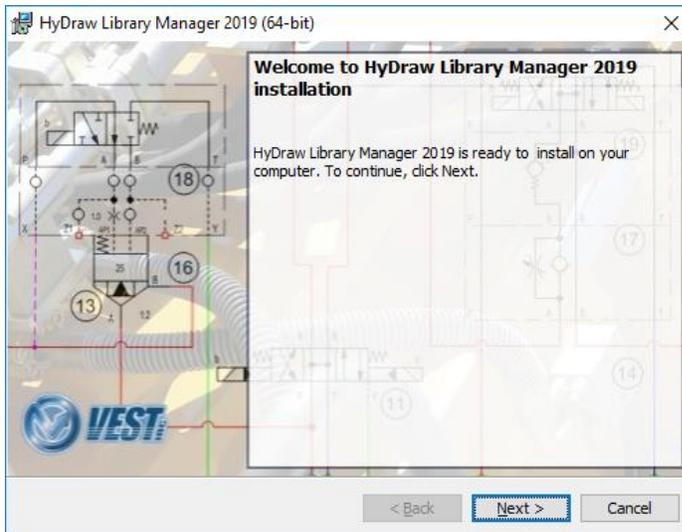
Installation

1. Run the self-extracting exe, **HyDraw Library Manager 2019.0.0.1 R x64 EN Setup.exe/HyDraw Library Manager 2019.0.0.1 R x64 IT Setup.exe** from the Downloaded installation and Unzip or run the Setup.exe from the DVD.

The installation program starts and guides you through the installation process.

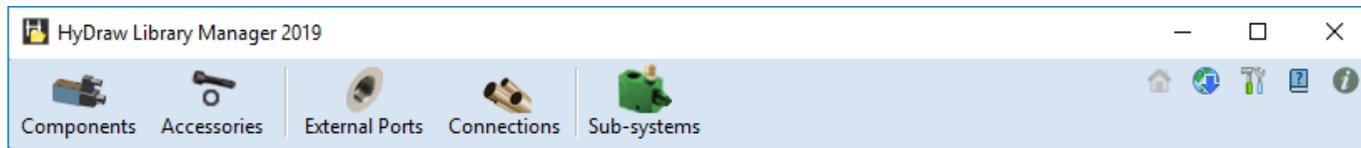
2. Read the **Readme** from the download page or from the DVD, if required.

HyDraw Library Manager 2019 is installed on the system and displayed in the Windows Start > All Apps > VEST



Installation Wizard

3. HyDraw Library Manager Menu bar



Library Manager Menu bar

Components

Manage Components

Accessories

Manage Accessories

External Ports

Manage External Ports

Connections

Manage Connections

Sub-Systems

Manage Sub-Systems

Home

Click  to open the Home page.

Update Symbol Library

Click  to update local library with new or modified symbols available on FluidPowerTools.com.

Options

Click  to set the **Unit**, **Library path** and **Internet settings**.

User Manual

Click  to open the HyDraw Library Manager User Manual.

About HyDraw Library Manager

Click  to view the Version and Build number of the installed HyDraw Library Manager.

Exit

Click  to exit the HyDraw Library Manager.

4. Update Symbol Library

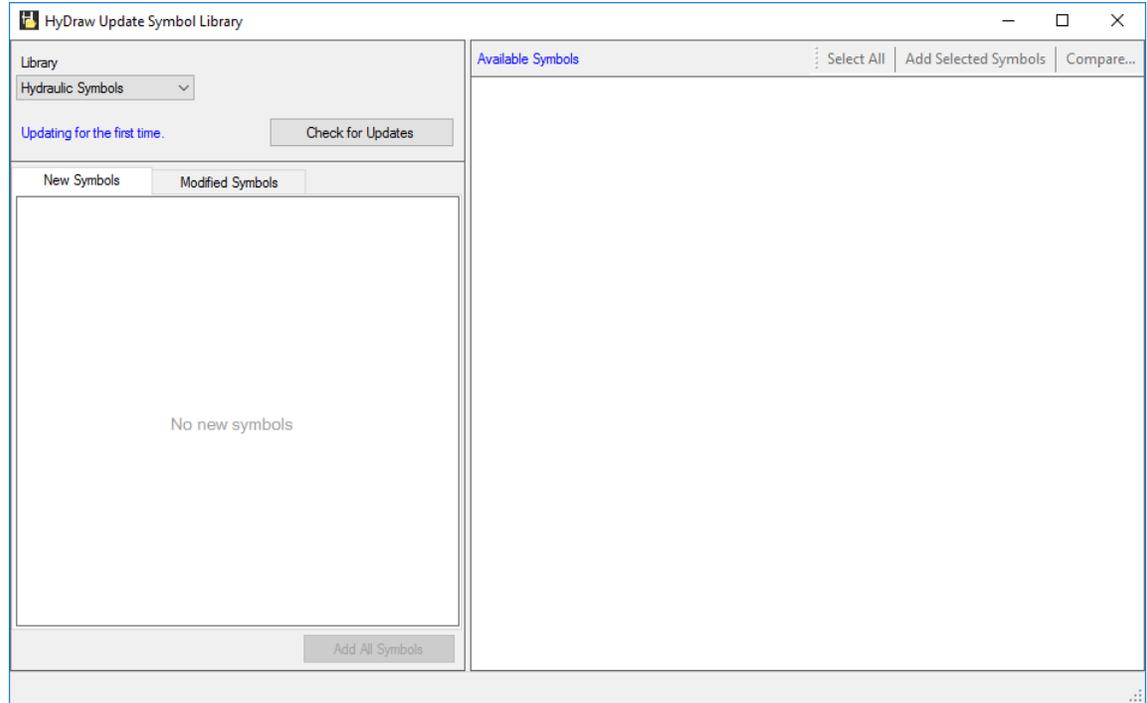
Update your local library with new or modified symbols available on the FluidPowerTools.com website.

1. Click  the **Update Symbol Library** icon on the menu bar to update the symbol library.

The HyDraw® Update Symbol Library dialog box displays.

2. Select the required library.
3. Click Check for Updates.

The program downloads the list of new symbols and modified symbols.



HyDraw Update Symbol Library

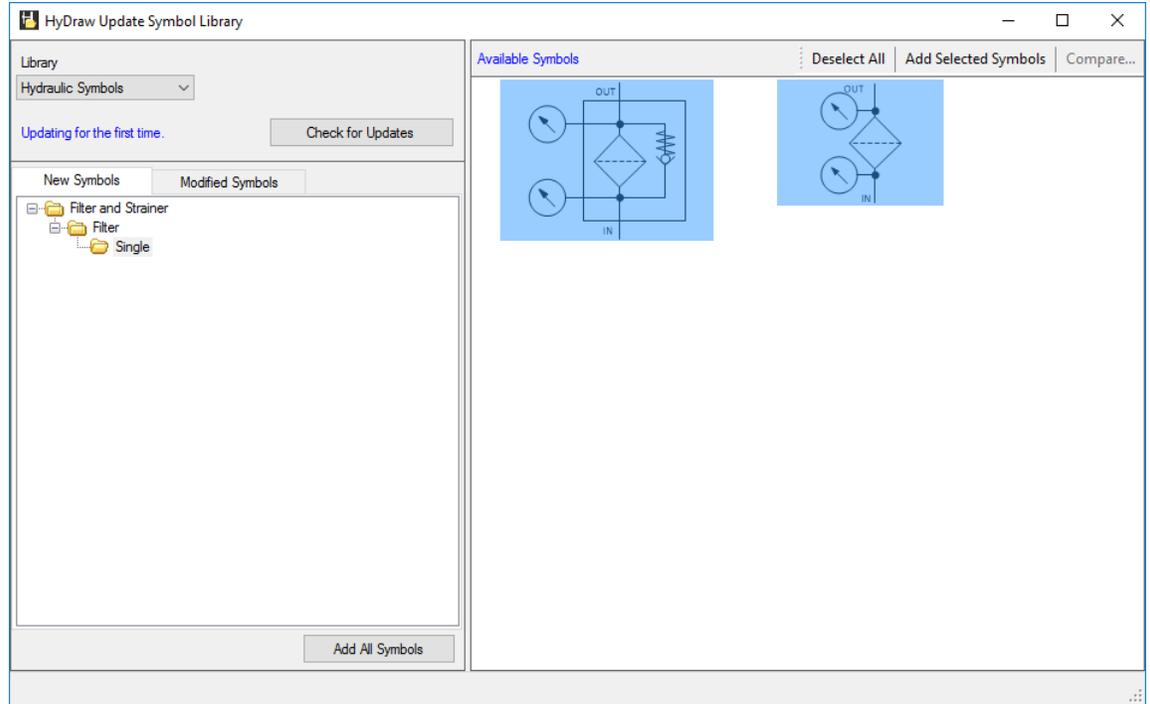
Add New Symbols

The New Symbols tab displays the tree view of the symbol folders in the left pane. When a folder is selected, the Available Symbols are displayed in the right pane.

1. Click the **Add All Symbols** button to download all the new symbols from the FluidPowerTools.com website and update the local library.
2. Click **Select All** to select all the symbols displayed in the right pane.

3. Click **Add Selected Symbols** to update the currently selected symbols to the local library

*You can select a single symbol or multiple symbols by drag select or Use **Ctrl + C** to select multiple symbols.*

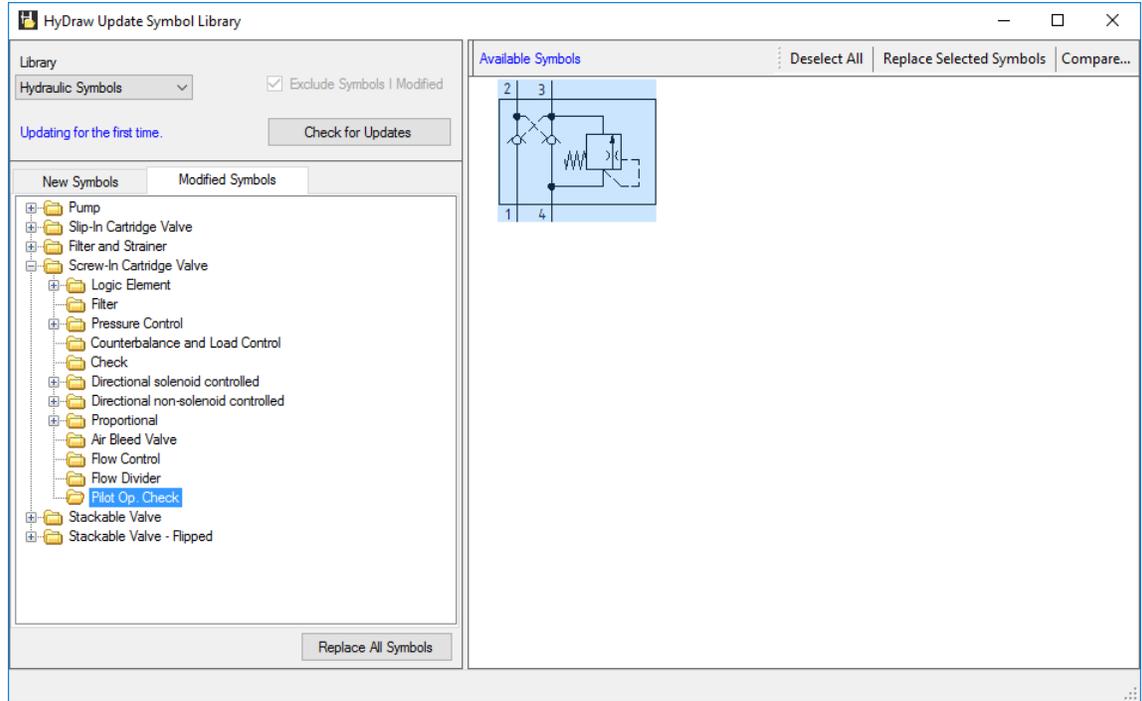


HyDraw Update Symbol Library – New Symbols

Replace Modified Symbols

The Modified Symbols tab shows the tree view of the symbol folders in the left pane. When a folder is selected, Available Symbols are displayed in the right pane.

1. Select the **Exclude Symbols I Modified** checkbox, if you do not want to list the current library symbol(s) modified.
2. Click the **Replace All Symbols** button to replace all the modified symbols from the FluidPowerTools.com website and update the local library.
3. Click **Select All** to select all the symbols displayed in the right pane.
You can select a single symbol or multiple symbols by drag select or Use Ctrl + C to select multiple symbols.
4. Click **Replace Selected Symbols** to replace currently selected symbols to the local library.

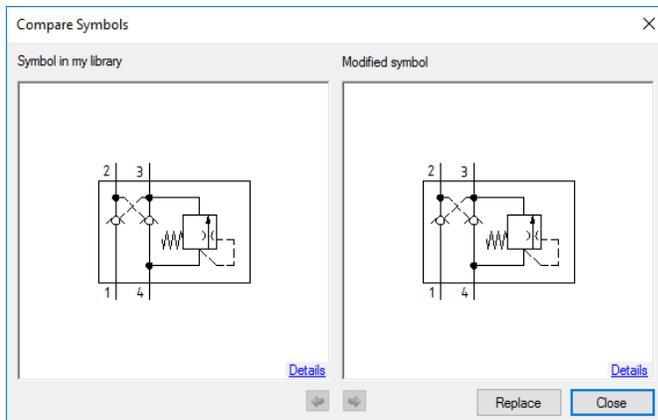


HyDraw Update Symbol Library – Modified Symbols

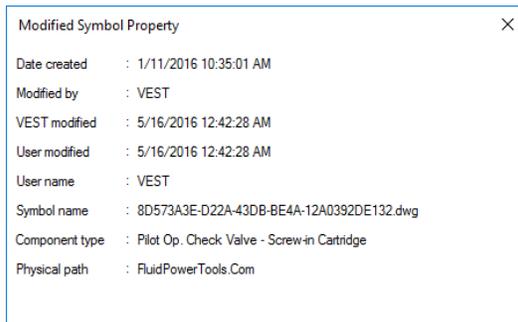
Compare Symbols

View and compare a symbol in **My Local Library** and the modified symbol available in the **FluidPowerTools.com** website.

Click **Details** to view the modified symbol property of a symbol in **My Library** and the modified symbol available in the **FluidPowerTools.com Library**.



Compare Symbols



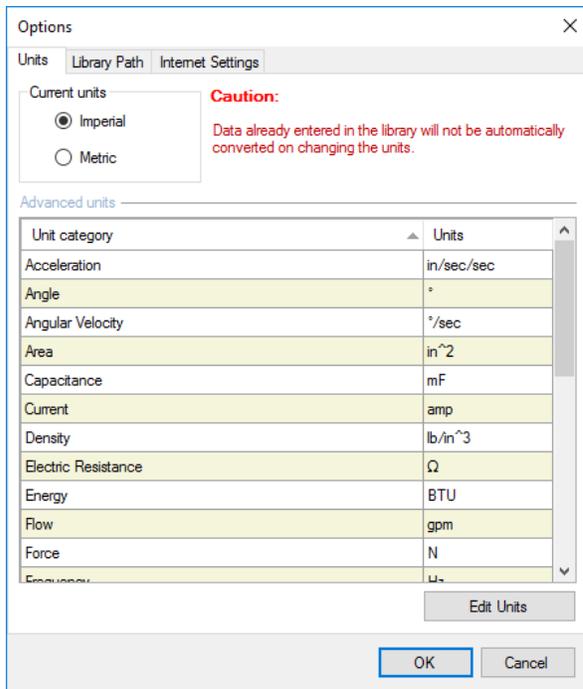
Modified Symbol Property

5. Options

Set Units, Library Path and Internet Settings.

Click  , the **Options** icon, on the menu bar to set **Units**, **Library Path** and **Internet Settings**.

The HyDraw Library Manager Options dialog box displays.



The dialog box is titled "Options" and has three tabs: "Units", "Library Path", and "Internet Settings". The "Units" tab is selected. It features a "Current units" section with two radio buttons: "Imperial" (selected) and "Metric". A red "Caution:" message states: "Data already entered in the library will not be automatically converted on changing the units." Below this is a section for "Advanced units" containing a table with two columns: "Unit category" and "Units". The table lists various physical quantities and their corresponding units. At the bottom of the dialog are "OK" and "Cancel" buttons, and an "Edit Units" button is located below the table.

Unit category	Units
Acceleration	in/sec/sec
Angle	°
Angular Velocity	°/sec
Area	in ²
Capacitance	mF
Current	amp
Density	lb/in ³
Electric Resistance	Ω
Energy	BTU
Flow	gpm
Force	N
Frequency	Hz

HyDraw Library Manager Options

Units

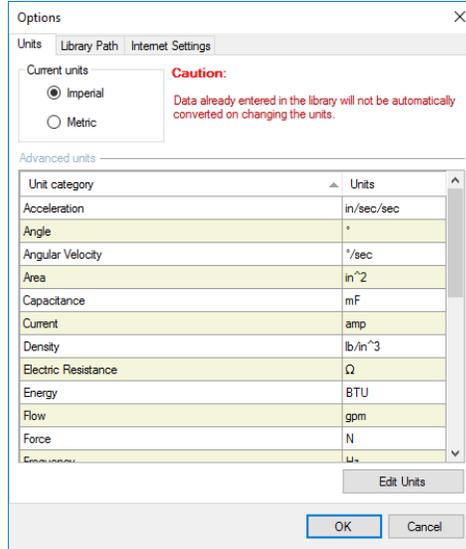
1. Click the **Units** tab.
2. Select the Current units system you want to work with.

If you change the unit system in the library, the data, which is already available in the drawing and library will not be converted automatically.

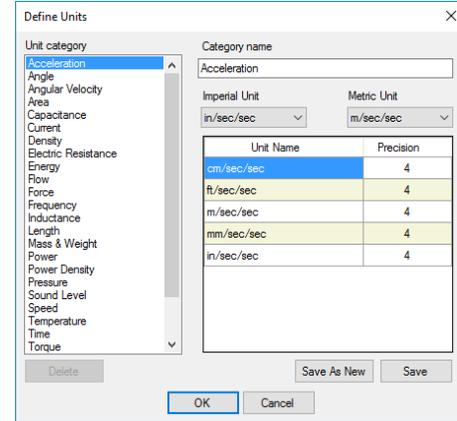
3. Click the **Edit Units** button.
The Define Units dialog box displays.

4. Select the Unit category.
5. Set the Imperial unit.
6. Set the Metric unit.
7. Set the decimal **precision**.
8. Click **Save**.

If required, change the Category name and click **Save As New** to add the new Unit category.



Options dialog box – Units tab



Define Units dialog box

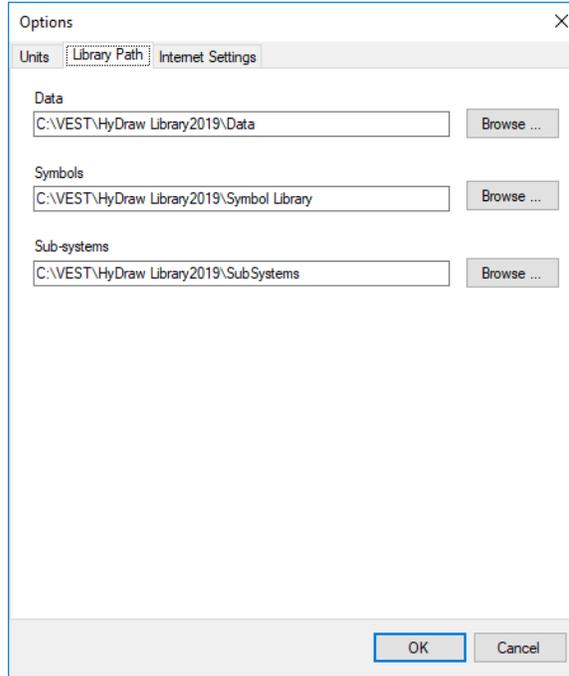
Library Path

1. Click the **Library Path** tab.
2. Click **Browse...** to navigate to the folder, where the HyDraw® Library data is installed.
3. Similarly browse for the Symbol library and Sub-Systems.
4. Click **OK**.

All the HyDraw Library paths are configured.

Note:

The Library path can be configured to the common network path.



Set Library Path

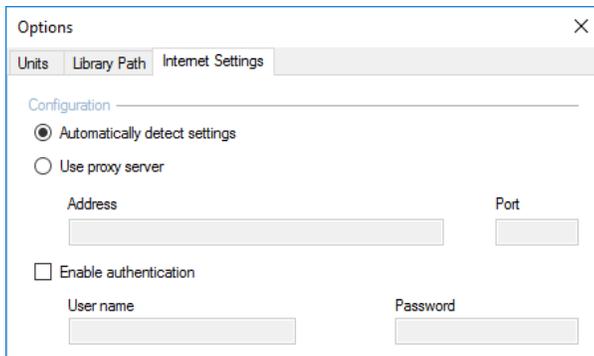
Internet Settings

Configure the Internet settings of the HyDraw Library Manger 2019 to access FluidPowerTools.com.

Click the **Internet Settings** tab to configure the Internet settings.

Automatic Settings Detection

If your computer is connected to the Internet through a direct LAN connection, then select the configuration, **Automatically detect settings**.



The screenshot shows the 'Options' dialog box with the 'Internet Settings' tab selected. Under the 'Configuration' section, the radio button for 'Automatically detect settings' is selected. The 'Address' and 'Port' fields are empty. The 'Enable authentication' checkbox is unchecked, and the 'User name' and 'Password' fields are also empty.

Internet Settings – Automatically detect settings

Proxy Connection

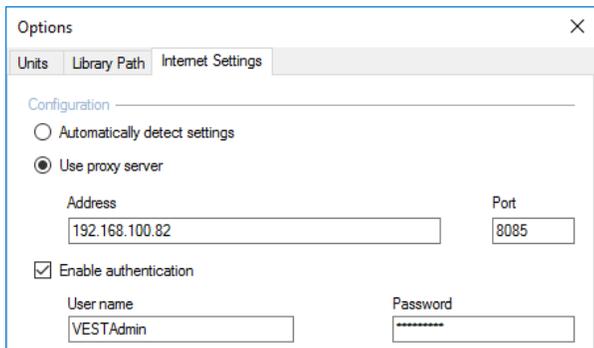
If your computer is connected to the Internet through a web proxy server, then select **Use proxy server**.

Configure the proxy settings.

1. Enter **Address**.
2. Enter the **Port** number.
3. Enter authentication details, if required.

You may refer to the settings that may be already defined in your web browser.

4. Click **OK** to save.

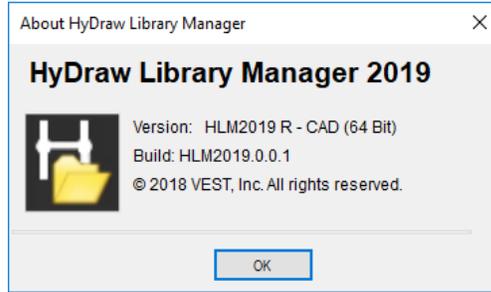


The screenshot shows the 'Options' dialog box with the 'Internet Settings' tab selected. Under the 'Configuration' section, the radio button for 'Use proxy server' is selected. The 'Address' field contains '192.168.100.82' and the 'Port' field contains '8085'. The 'Enable authentication' checkbox is checked, and the 'User name' field contains 'VESTAdmin' and the 'Password' field contains a masked password '*****'.

Internet Connection Settings – Use Proxy Server

About HyDraw Library Manager

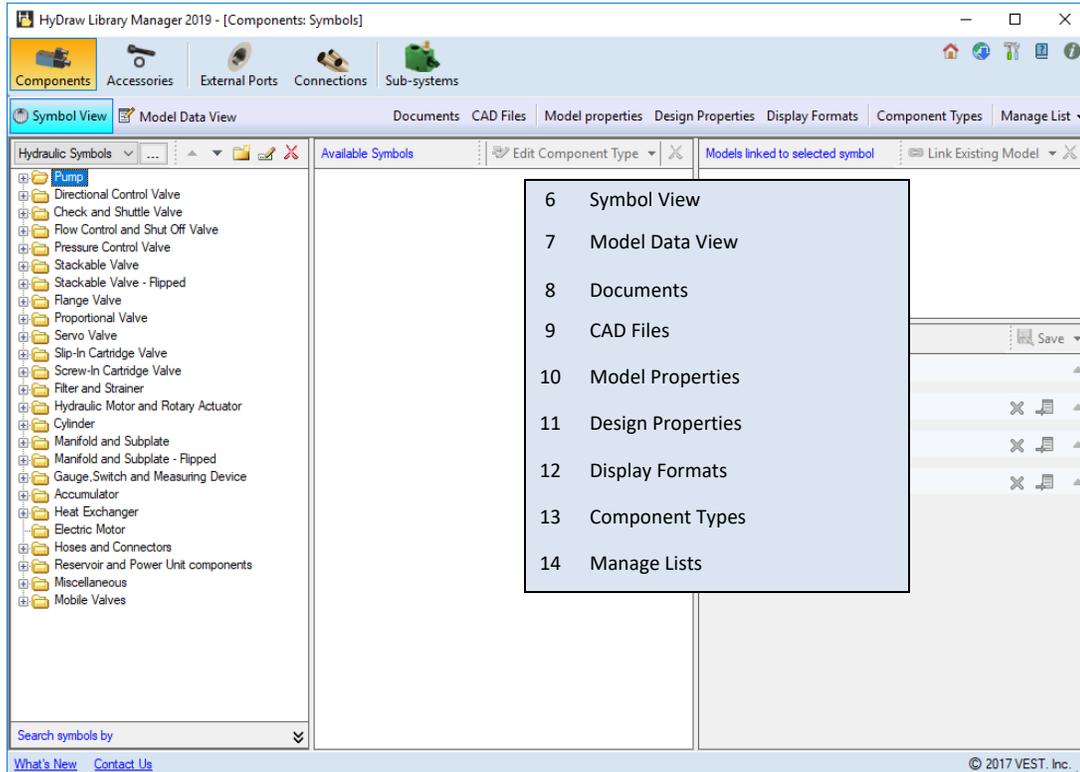
Click  the **About Library Manager** icon on the menu bar to display the version and build number of the installed HyDraw Library Manager.



About HyDraw Library Manager

Components

Manage symbols, model data, documents, CAD files, component models and their properties, linked accessories and lists.



6. Components - Symbol View

Components > Symbol view

Components in **Symbol View** have three sections (column wise).

- Library
- Available Symbols (*Drawing*)
- Models linked to the selected symbol

The screenshot shows the HyDraw Library Manager 2019 interface for the 'Components: Symbols' view. The top menu bar includes 'Components', 'Accessories', 'External Ports', 'Connections', and 'Sub-systems'. Below the menu bar, there are tabs for 'Symbol View' and 'Model Data View'. The main window is divided into three sections:

- Library (Left):** A tree view showing a hierarchy of hydraulic symbols. The 'Check' symbol is selected under the 'Check' folder.
- Available Symbols (Center):** A grid of hydraulic symbols, including a check valve, a flow control valve, a pressure control valve, and a hand pump.
- Model Data (Right):** A panel showing the properties of the selected symbol. It includes a table for 'Model Data' and a section for 'Accessories'.

Model Data Table:

Model Code	CXDAXCN
Model Family	CXDA
Part Number	
Description	Check Valve
Manufacturer	Sun Hydraulics
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	20
Pressure Loss @ Rated	
Rated Pressure (psi)	5000
Type	
Cavity/Footprint/Interfac	T-13A
Cracking Pressure (psi)	
Installation Torque (Ste	30-35 lb ft./45-50 Nm
Installation Torque (Alum	30-35 lb ft./45-50 Nm
Catalog Number	

Accessories Table:

Quantity	{ 900-010-002 }
Model Code	900-010-002
Model Family	900-010
Part Number	
Description	Seal Kit
Manufacturer	Sun Hydraulics
Cost	
List Price	

HyDraw Library Manager (Components - Symbol View)

Library Section

The Library section displays a logically structured tree-view library.

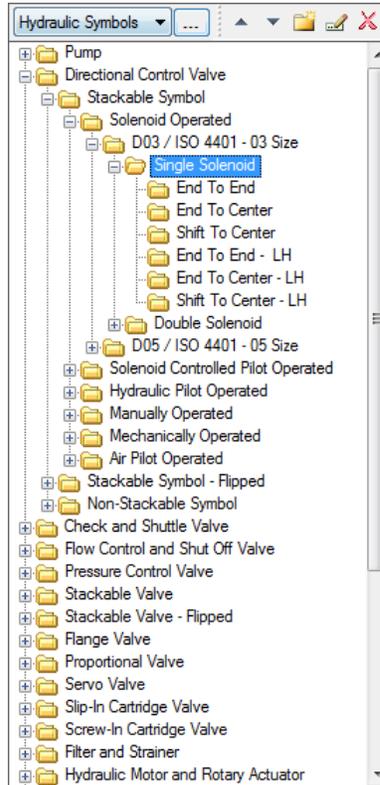
Click the required folder to display the symbols in the Drawing section.

You can:

- Create a new library
- Create a new folder
- Rename an existing folder
- Delete a folder
- Move a folder up or down to customize the tree view

When you delete a folder, it deletes all its sub folders along with the symbols.

The commands are displayed as icons on the caption bar and in the context menu.



Library tree view

Add New Folder

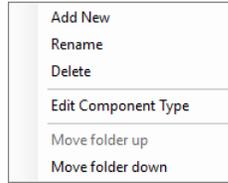
1. Right click the required folder in the library folder section and select **Add New** from the context menu.
Or

Click  button on the caption bar.

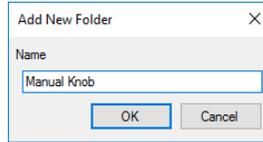
The Add New Folder dialog box displays.

2. Enter the name of the new folder and click **OK**.

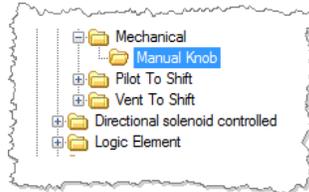
The new folder is created.



Library context menu



Add New Folder dialog box



Folder created under selected category

Create New Custom Symbol Library

Create a new custom Symbol library from scratch.

1. Click .
The Manage Symbol Library dialog box displays.
2. Enter Library name.
3. Select the **None** option from the Parent library drop down.
4. Click **Add New**.
5. Click **Close**.

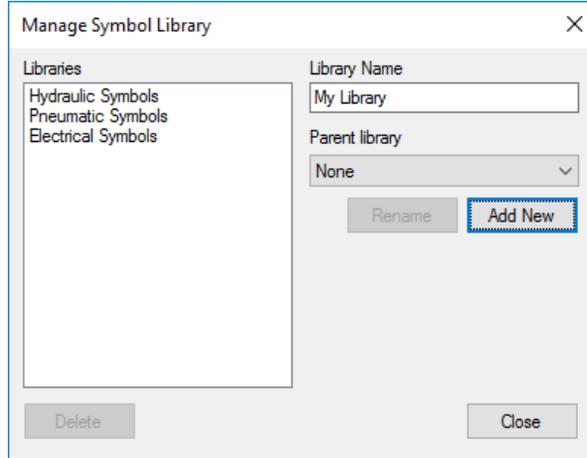
Note:

The user-created libraries can be

- Renamed by clicking the Rename button.
- Deleted by clicking the Delete button.

CAUTION!

The deleted libraries cannot be recovered.



Manage Symbol Library

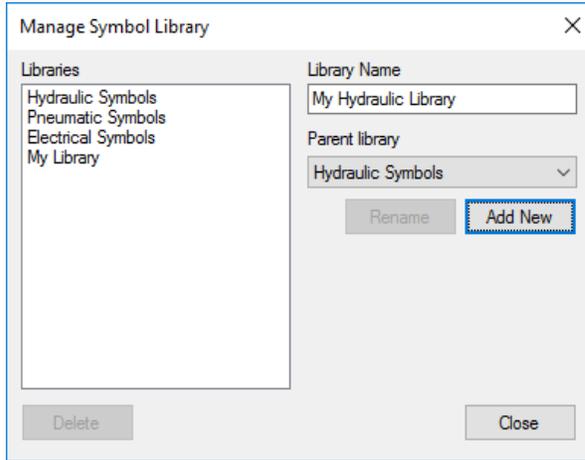
Create New Child Symbol Library

Create a new child Symbol library from any of the three parent libraries: Hydraulic symbols, Pneumatic symbols, and Electrical symbols.

1. Click .

The *Manage Symbol Library dialog box* displays.

2. Enter Library Name.
3. Select the required option from the Parent library drop down: Hydraulic Symbols/Pneumatic Symbols/Electric Symbols.
4. Click **Add New**.
5. Click **Close**.



Manage Symbol Library

Note:

The user-created libraries can be

- Renamed by clicking the Rename button.
- Deleted by clicking the Delete button.

CAUTION!

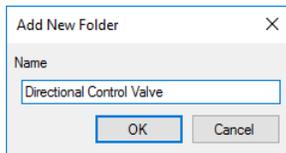
The deleted libraries cannot be recovered.

Add Symbols to Child Symbol Library from Parent Library

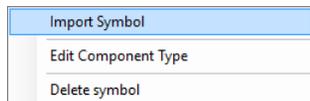
Add New Folder

1. Right click the required folder in the library folder section and select **Add New** from the context menu.

or Click  button on the caption bar.



Add New Folder dialog box



Symbols Context Menu

The Add New Folder dialog box displays.

2. Select the **Import Symbol** option from the middle section caption bar drop-down.

The Import Symbol from Parent Library dialog box displays.

3. Traverse through the library on the left pane and select the required folder.

The available symbols are listed in the middle pane.

4. Click **Select All** to select all the symbols.

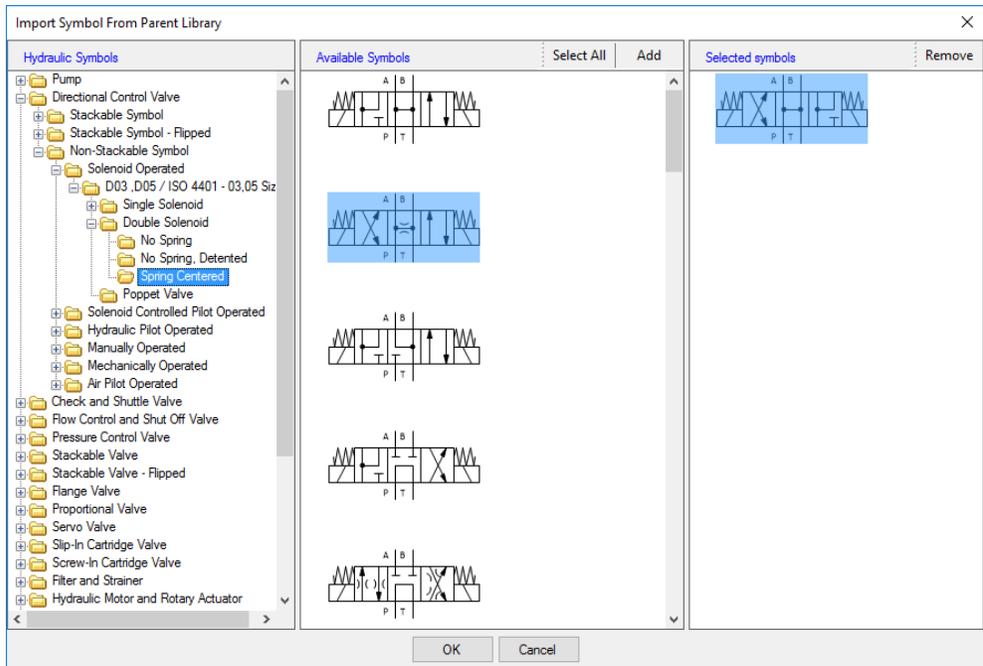
or Click the **symbol** to select or Press **Ctrl + symbol** to select more symbols.

5. Click the **Add** button.

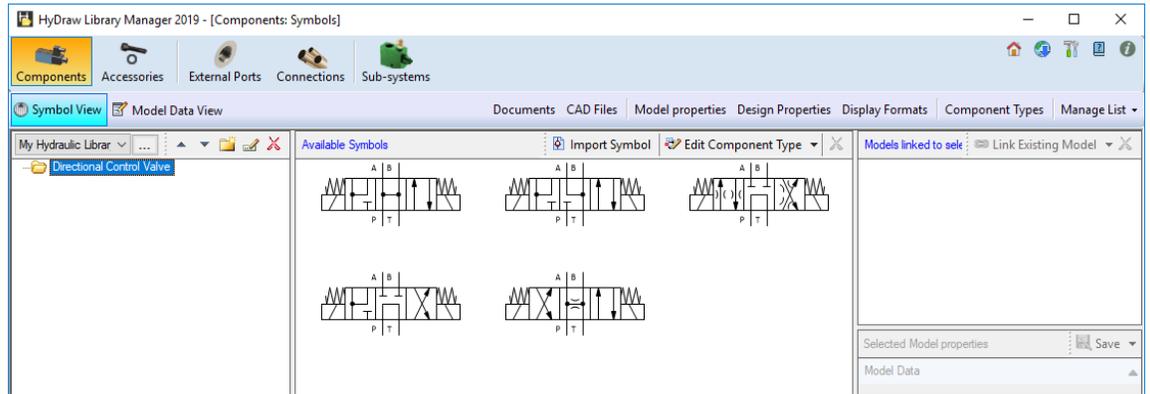
The selected symbols are listed in the right pane.

6. Review and remove the symbols that are not required by clicking the **Remove** button.

7. Click **OK** to import the symbols.



Import Symbols from Parent Library



Component Library

Search symbols by

Search symbols, per parameters:
Date modified, Component type, Model
Code and Model description.

Search symbols by 

Date modified
 

Component type
 

Model Code

Model description

Search symbols by

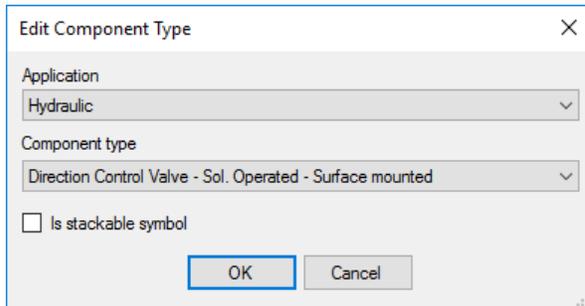
Edit Component Type

1. Select the symbol in the drawing to edit the component type.
2. Click **Edit Component Type** on the caption bar.

The Edit Component Type dialog box displays.

3. Select the required application and the component type.
4. Click **OK**.

The specified component type is saved to the selected component.



Dialog box titled "Edit Component Type" with a close button (X) in the top right corner. The dialog contains two dropdown menus: "Application" (set to "Hydraulic") and "Component type" (set to "Direction Control Valve - Sol. Operated - Surface mounted"). Below the dropdowns is a checkbox labeled "Is stackable symbol" which is currently unchecked. At the bottom of the dialog are "OK" and "Cancel" buttons.

Edit Component Type

Delete symbol

Select , the delete icon on the caption bar to delete the selected symbol.

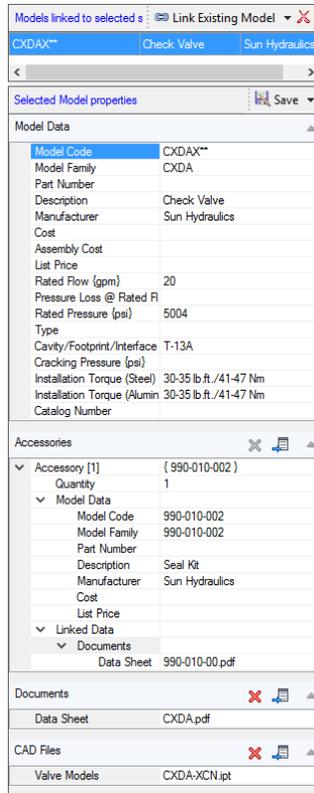
The symbol is deleted from the library.

Models linked to selected symbol

The Models linked to selected symbol section displays models, accessories, documents, and CAD files linked to the selected symbol.

Three functionalities:

- Link Existing Model
- Create New Model and Link
- Import Model Data and Link



Models linked to selected s	
CXDAX**	Check Valve Sun Hydraulics

Selected Model properties	
Model Data	
Model Code	CXDAX**
Model Family	CXDA
Part Number	
Description	Check Valve
Manufacturer	Sun Hydraulics
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	20
Pressure Loss @ Rated Fl	
Rated Pressure (psi)	5004
Type	
Cavity/Footprint/Interface	T-13A
Cracking Pressure (psi)	
Installation Torque (Steel)	30-35 lb.ft./41-47 Nm
Installation Torque (Alumin	30-35 lb.ft./41-47 Nm
Catalog Number	

Accessories	
Accessory [1]	{ 990-010-002 }
Quantity	1
Model Data	
Model Code	990-010-002
Model Family	990-010-002
Part Number	
Description	Seal Kit
Manufacturer	Sun Hydraulics
Cost	
List Price	
Linked Data	
Documents	
Data Sheet	990-010-00.pdf

Documents	
Data Sheet	CXDA.pdf

CAD Files	
Valve Models	CXDA-XCN.ipt

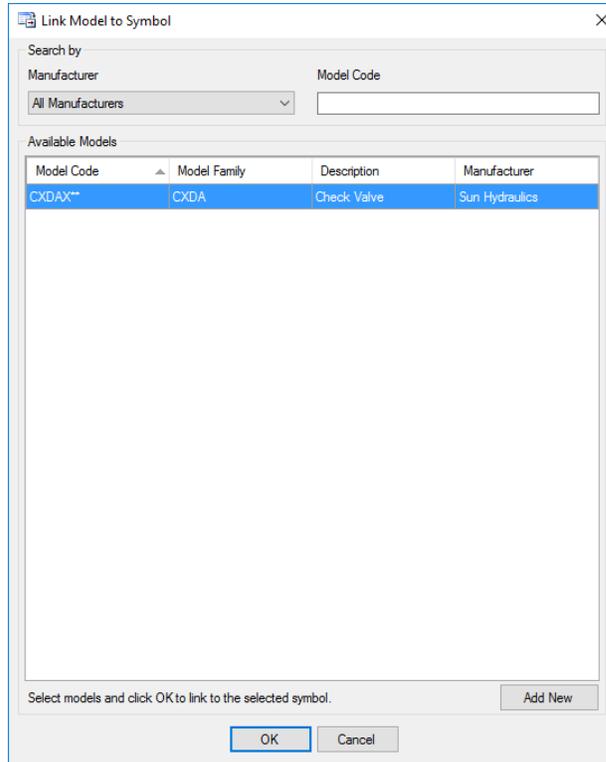
Model Properties Section

Link Models to Symbol

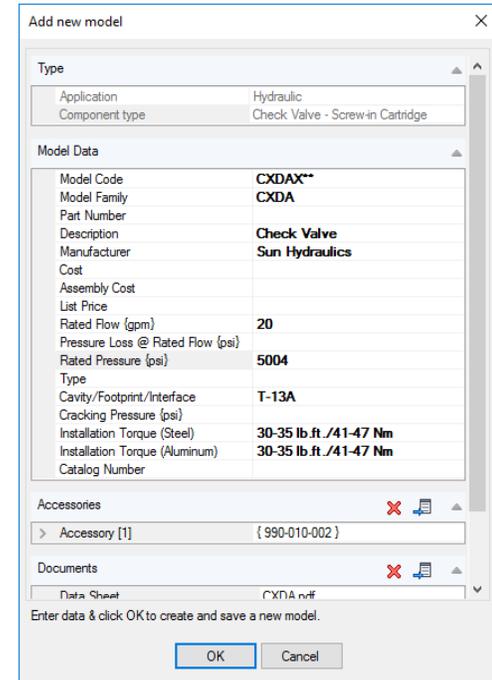
Link the selected symbol to the existing models available in the library.

1. Select models and click **OK** to link the selected symbol.
2. Click **Add New** to create new models and link it with the selected symbol, then save it in the library.

The Add New Model dialog box displays.



Link Model to Symbol

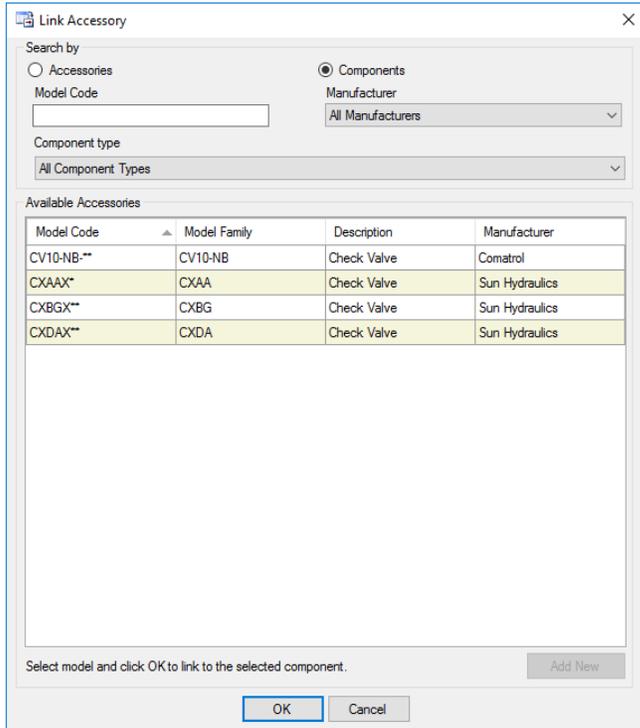


Add New Model dialog box

Accessories

1. Link Component as accessories

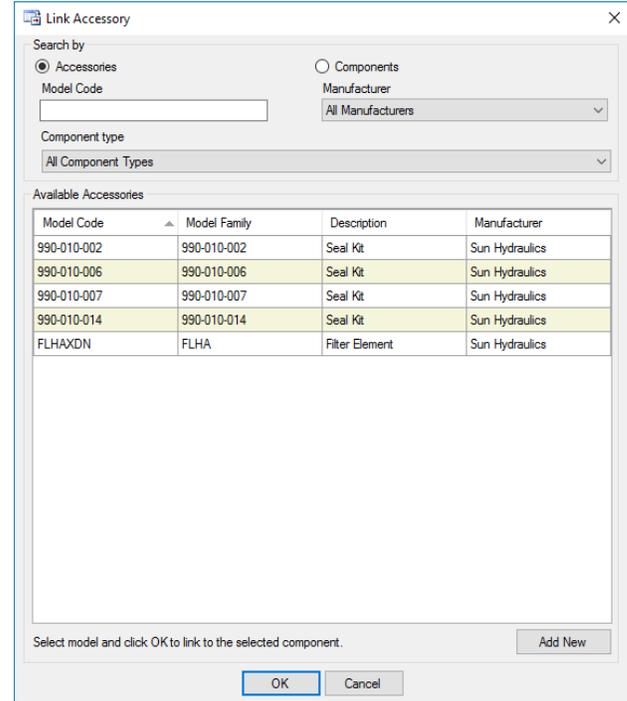
Link existing components as accessory available in the library to the selected model.



Link Component as Accessory

2. Link Accessories

Link selected model to the existing accessories available in the library.

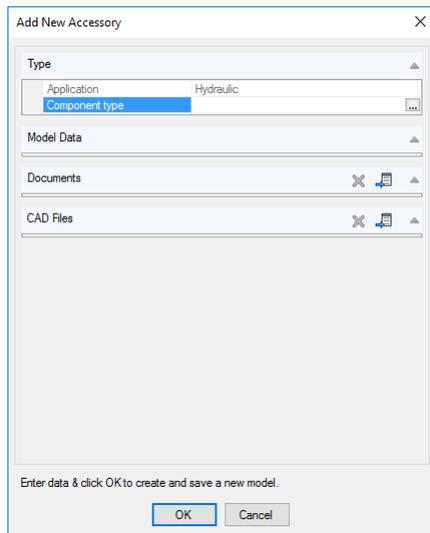


Link Accessory

Add New Accessory to the Library

1. Click **Add New** button to add a new accessory to the library.

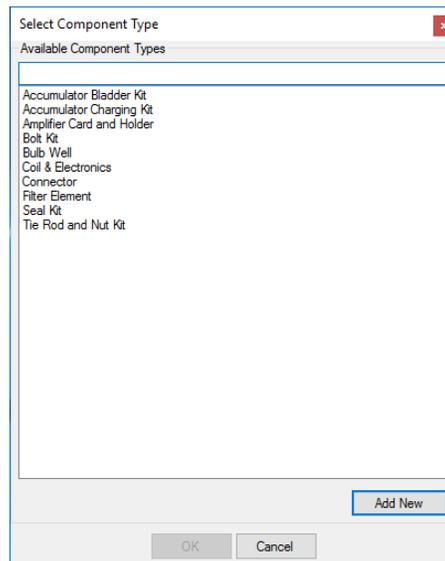
The Add New Accessory dialog box displays.



Add New Accessory dialog box

2. Select component type and click , the browse button on the caption.

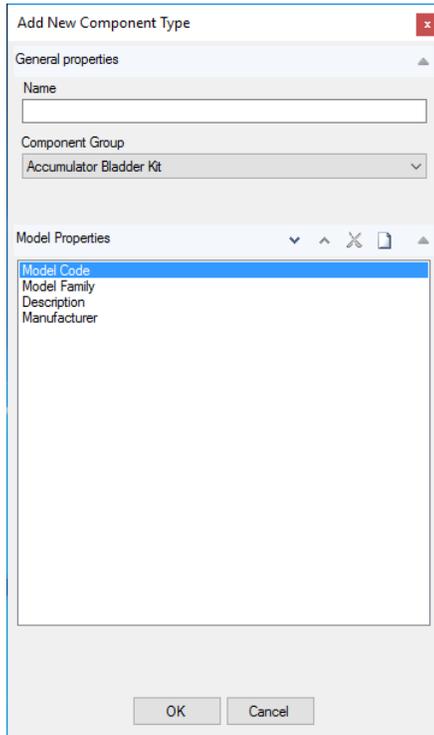
The Select Component Type dialog box displays.



Select Component Type dialog box

3. Select a component type from **Available Component Types** and click **OK**.
4. To add new component type, click the **Add New** button.

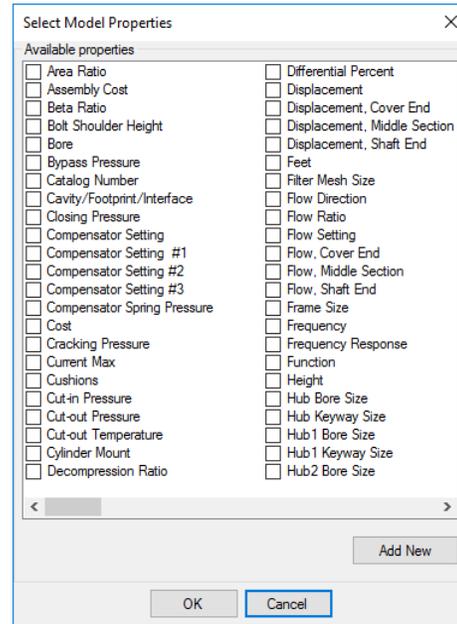
The Add New Component Type dialog box displays.



Add New Component Type

5. Enter the **Name** of the component type.
6. Select Component Group.

The Select Model Properties dialog box displays.



Select Model Properties

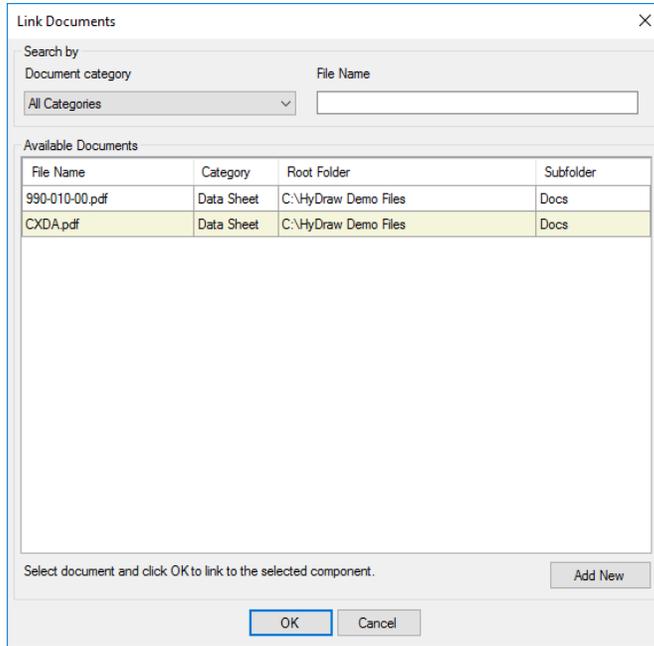
7. Click **Add New** property.
8. Select the required model properties to add to your accessories.
9. Click **OK**.

Note:

Refer Chapter 10, Components – Model Properties for Add New

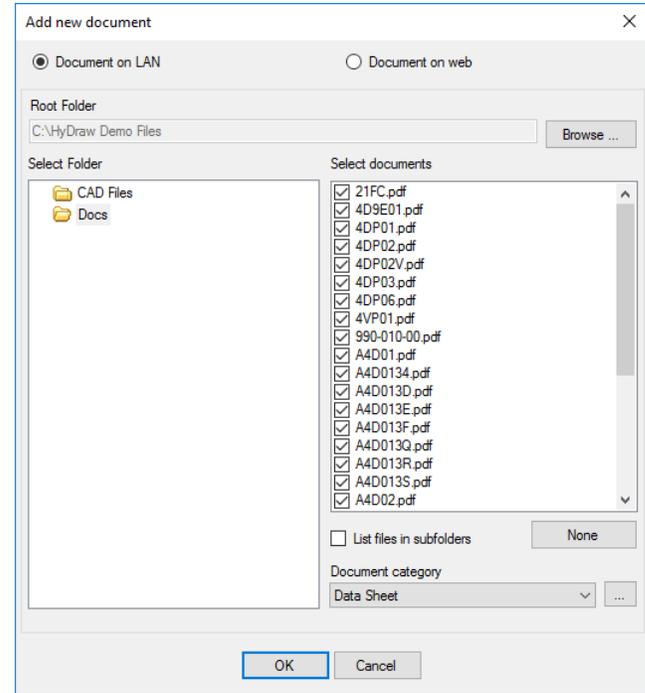
Documents

Link the selected model to the existing documents available in the local library.



Link Documents

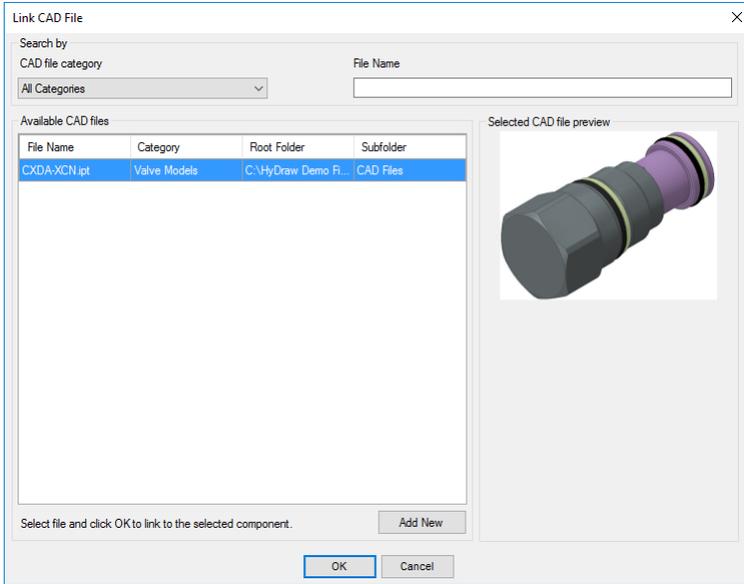
Add a new document and link it to the selected model.



Add New Document

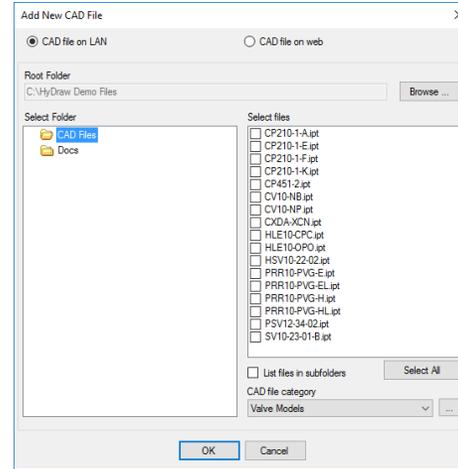
CAD Files

Link a selected model to existing CAD files available in the library.

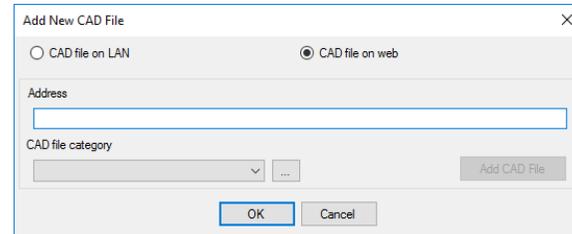


Link CAD File

Add a new CAD file and link it to the selected model.



Add New CAD File – From LAN



Add New CAD File - From Web

Create New Model and Link

1. Create a new model for the selected symbol and link.
2. Enter model data, link accessories, documents and CAD files.
3. Click **OK** to link the selected symbol.

Application: Hydraulic
Component type: Check Valve - Screw-in Cartridge

Model Data	
Model Code	
Model Family	
Part Number	
Description	
Manufacturer	
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	
Pressure Loss @ Rated Flow (psi)	
Rated Pressure (psi)	
Type	
Cavity/Footprint/Interface	
Cracking Pressure (psi)	
Installation Torque (Steel)	
Installation Torque (Aluminum)	
Catalog Number	

Accessories: [X] [Add] [Up]

Documents: [X] [Add] [Up]

CAD Files: [X] [Add] [Up]

Enter data & click OK to create and save a new model.

OK Cancel

Create New Model

Import Model Data and Link

The **Import** command imports model data in the Microsoft Excel Sheet into HyDraw Library and links it to the selected symbol. Refer Chapter 7, Components – Model Data view, Section Import, Page No. 34.

7. Components - Model Data View

View all the available components and their properties.

Components > Model Data View

Model Data Manager has three sections (column wise):

- Search by
- Available Models
- Selected Model Properties

The screenshot shows the HyDraw Library Manager 2019 interface. The main window is titled "HyDraw Library Manager 2019 - [Components: Symbols]". The top menu bar includes "Documents", "CAD Files", "Model properties", "Design Properties", "Display Formats", "Component Types", and "Manage List". The "Model Data View" tab is active.

The interface is divided into three main sections:

- Search by:** Includes filters for Application (Hydraulic), Component type (All Component Types), Manufacturer (All Manufacturers), and Model Code.
- Available Models:** A table listing various hydraulic components.
- Selected Model properties:** A detailed view of the selected model, CP102-1-B-16S-005, showing its description, manufacturer, and various technical specifications.

Model Code	Model Family	Description	Manufacturer
CE032C07L00N	CE	Slip-in Cartridge Insert	Parker
CE032S01L00N	CE	Slip-in Cartridge Insert	Parker
CE032S04L00N	CE	Slip-in Cartridge Insert	Parker
CE032S07L00N	CE	Slip-in Cartridge Insert	Parker
CP102-1-B-16S-005	CP102-1	Check Valve	Sauer-Danfoss
CP208-4-B-4S-E-C-300	CP208-4	Direct Acting Pressure Rel...	Sauer-Danfoss
CP230-2-B-6S-A-C-100	CP230-2	Direct Acting Pressure Red...	Sauer-Danfoss
CP310-2-B-8S-A-2.5	CP310-2	Priority Flow Control Valve	Sauer-Danfoss
CP610-2-B-8S-K	CP610-2	Needle Valve	Sauer-Danfoss
CP618-1-B-6S-B	CP618-1	Needle Valve	Sauer-Danfoss
CV08-20-0-N-4	CV08-20	Check Valve	HydraForce
CV3-10-P-0-00-003-00	CV3-10	Check Valve	Eaton
CVH103P	CVH103P	Check Valve	Parker
CXDAXCN	CXDA	Check Valve	Sun Hydraulics
CXHAXCN	CXHA	Check Valve	Sun Hydraulics
D02B2-0-0N	D02B2	Check Valve	Parker
D1VW001ENA	D1V	Direction Control Valve	Parker
D1VW002CNA	D1V	Direction Control Valve	Parker
D1VW002ENA	D1V	Direction Control Valve	Parker
D1VW004CNA	D1V	Direction Control Valve	Parker
D1VW009CNA	D1V	Direction Control Valve	Parker
D81VW001C1NA	D81V	Direction Control Valve	Parker
DAACMCN	DAAC	2/2 Way N.C. Solenoid Op...	Sun Hydraulics
DB08A-01-C-N-330V300	DB08A-01	Direct Acting Pressure Reli...	Hydac
DB10K1-4X/50YV	DB	Pilot Operated Pressure Re...	Bosch Rexroth
DBD610P1X/25	DBD	Direct Acting Pressure Reli...	Bosch Rexroth
DLDAMCN	DLDA	2/2 Way N.C. Solenoid Op...	Sun Hydraulics

The "Selected Model properties" panel for CP102-1-B-16S-005 shows the following details:

- Application: Hydraulic
- Component type: Check Valve - Screw-in Cartridge
- Model Code: CP102-1-B-16S-005
- Model Family: CP102-1
- Part Number: CP102-1
- Description: Check Valve
- Manufacturer: Sauer-Danfoss
- Cost: [Blank]
- Assembly Cost: [Blank]
- List Price: [Blank]
- Rated Flow (gpm): 55
- Pressure Loss @ Rated: [Blank]
- Rated Pressure (psi): 3000
- Type: Poppet
- Cavity/Footprint/Interfac: SDC16-2
- Cracking Pressure (psi): [Blank]
- Installation Torque (Steel): 90-100 lb.ft. / 122-136 Nm
- Installation Torque (Alum): 90-100 lb.ft. / 122-136 Nm
- Catalog Number: BLN-10201 • 520L0588 • Re

The "Accessories" section is empty. The "Documents" section shows "Symbols linked to selected model" with a diagram of a check valve symbol.

HyDraw Library Manager – (Components - Model Data View)

Search by

Search for model or all models of a particular component type, manufacturer, or models of any component type of any manufacturer.

Search by	
Application	<input type="text" value="Hydraulic"/>
Component type	<input type="text" value="All Component Types"/>
Manufacturer	<input type="text" value="All Manufacturers"/>
Model Code	<input type="text"/>

Search by Section

Available Models

The Available Models section displays four mandatory properties: Model Code, Model Family, Description, and Manufacturer.

Import model data from the Excel sheet, Create a **New** model or **Delete** an existing model by selecting the icons on the caption bar.

Note:

- You can also delete a single model or multiple models; right click and then select **Delete Model(s)** from the context menu.
- Link documents or CAD files either to a single model or multiple models from the **Link Documents** and **Link CAD Files** options in the context menu.
- Link accessories either to a single model or multiple models from the **Link Accessories** option in the context menu.

Available Models				Import	New	X
Model Code	Model Family	Description	Manufacturer			
CV08-20-0-N-4		valve	HydraForce			
CV3-10-P-0-00-003-00		valve	Eaton			
CVH103P		valve	Parker			
CXDAXCN		valve	Sun Hydraulics			
CXHAXCN		valve	Sun Hydraulics			
D02B2-0.0N	Druz	check valve	Parker			

Available Models Section

Import

Import model data from Microsoft Excel / your ERP system into the HyDraw library

Update properties, such as list price, cost, and assembly cost of the models in the HyDraw library with the changes made in your ERP data.

Note:

1. Manually Export model data from your ERP system into Microsoft Excel.
2. Manually link models to the following items after importing the data into the library.
Symbol, CAD file, Documents, Accessories
3. To add more data in addition to the properties available in your ERP, add the data into the Microsoft Excel sheet before importing into the HyDraw library.

Import Model Data from Excel

1. Click **Import**.

The Import Model Data from Excel dialog box displays.

2. Browse and select the Excel file with the model data.

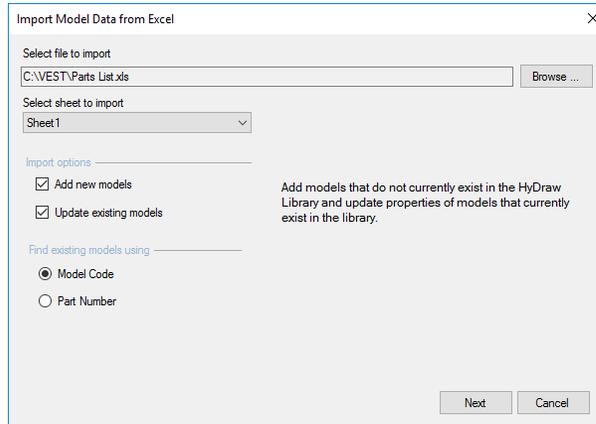
The program populates the Select sheet to import the drop-down list with the sheet names.

3. Select the sheet you want to import.
4. Select the **Import** options.

Select the Add new models option or Select the Update existing models option to update the properties in the HyDraw library.

5. Click **Next** to continue.

The Select columns to import page displays with a list of columns in the selected sheet.



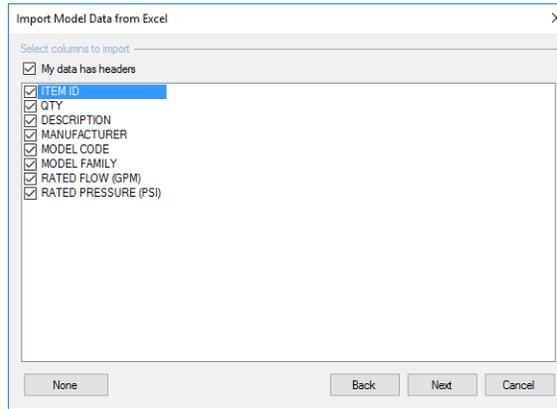
Import Model Data from Excel

6. Select the **My data has headers** option, if there are headers for columns in the Excel sheet.

The column names in the list changes to the column headers.

7. Click **Next** to continue.

The Map Properties page appears with the list of columns selected to import.



Import Model Data from Excel – Select Columns to import

Note:

- Use the Select All option to select all the items in the list. This is a toggle button. When you click on the button, the text will toggle 'Select All/None'.
- The last used columns are selected by default, the next time you run the command.

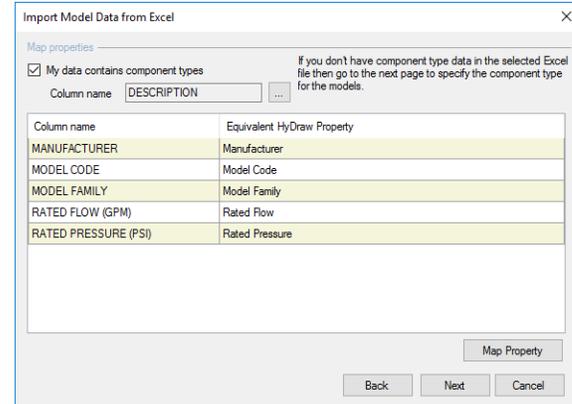
The Column name for HyDraw property mapping will be saved in the library and equivalent properties will be assigned automatically, the next time you run the command.

If the mapping information is not available in the library, then the program will automatically assign the equivalent property, if the column name is same as the property name.

8. Select the My data contains component types option.

9. Click  to select the column containing the component types.

Use this option, if you have component types available in the Excel sheet for each model.



Import Model Data from Excel – Map Properties

Map Property

1. Select the column name and click **Map Property**.

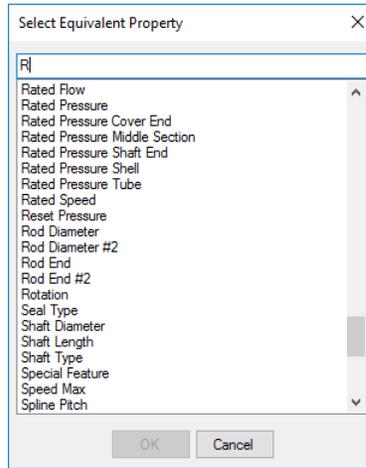
The Select Equivalent Property dialog box displays.

2. Select the property and click **OK**.
3. Repeat the above steps and assign equivalent property for all the columns.
4. Click **Next** to continue.

The Available Model Data page displays with all the models in the selected sheet.

Note:

1. The data in Excel must have all mandatory properties, such as Model Code, Model Family, Manufacturer, and Description. You will not be able to continue, if any of these four items are missing.
2. If Part Number is selected to find the existing model, then Part Number also becomes a mandatory field.
3. If component types are not entered in the Excel sheet, then you can specify the component type from the last page of this wizard.



Select Equivalent Property

Assigning Component Type

1. Select the models.

You can select multiple models from the list.

2. Click Assign Component Type.

The Select Component Type dialog box displays.

3. Select the appropriate component type and click **OK**.

Importing Model Data

1. Select the models to import.

2. Click **Import** to import the selected models into the library.

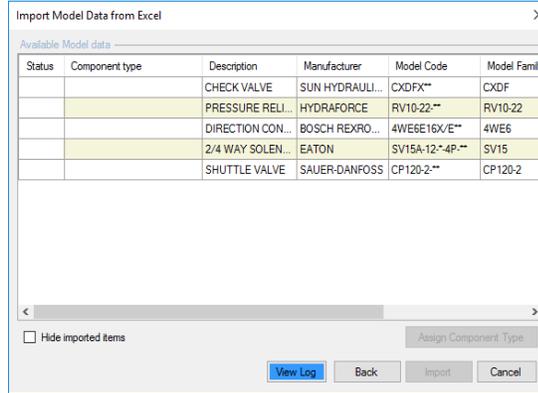
3. Repeat the above steps to import all the models.

If the Hide imported items option is selected, then the program hides the successfully imported items from the list.

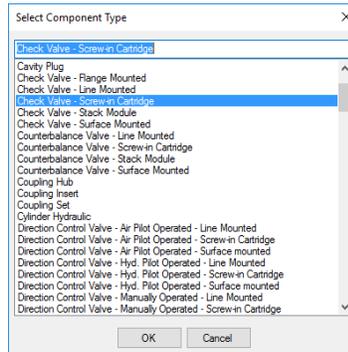
The successfully imported data is indicated by  and non-imported data is indicated by  in the Status column.

Note:

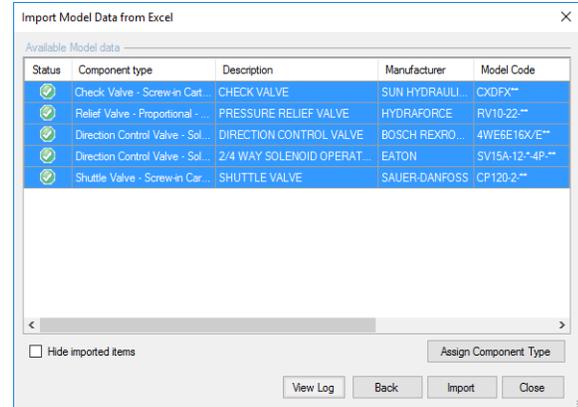
The Application option, such as Hydraulic, Pneumatic, and Electrical, selected in the Manage Model Data page will be assigned to all the models.



Import Model Data from Excel – Available Model Data



Select Component Type



Import Model Data from Excel: Imported Model Data

Selected Model properties

The Selected Model properties section displays the properties of the selected model.

Change the property of the model in the Model Data section.

1. Enter new properties and click **Save** to save the model properties.
2. Click **Save As** to save it as a new model.

You can also link accessories, documents, CAD files and symbols to the selected model.

Note:

You can link a single accessory or multiple accessories from library to the selected model.

Drag select, then click OK in the **Link Accessory** dialog box.

Selected Model properties		Save
Application	Hydraulic	^
Component type	Check Valve - Screw-in Cartri	
Model Data		
Model Code	CXAA*	
Model Family	CXAA	
Part Number		
Description	Check Valve	
Manufacturer	Sun Hydraulics	
Cost		
Assembly Cost		
List Price		
Rated Flow (gpm)	5	
Pressure Loss @ Rated		
Rated Pressure (psi)	5004	
Type		
Cavity/Footprint/Interfac	T-8A	
Cracking Pressure (psi)		
Installation Torque (Stee	20-25 lb ft./27-34 Nm	
Installation Torque (Alur	20-25 lb ft./27-34 Nm	
Catalog Number		

Symbols linked to selected model		←	→	📄	✖
					

Selected Model properties Section

Link Symbol

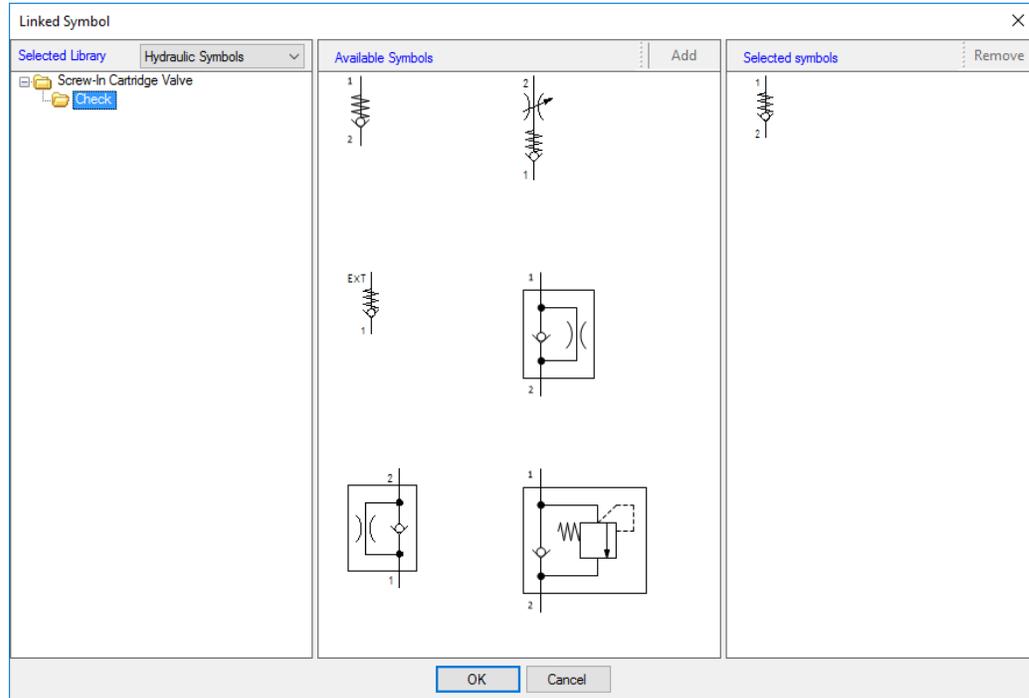
1. Click  in the Symbols linked to selected mode section.

The Linked Symbol dialog box displays.

2. Browse through the folders in the first pane.
3. View the **Available Symbols** in the selected folder.
4. Select the symbol to link and click **Add** in the **Selected symbols** pane.
5. Click **OK** to link the selected symbols.

Click   to traverse through the linked symbols.

Click  to delete the linked symbols.



Linked Symbol dialog box

8. Documents

Organize documents in the library.

Components > Documents

Documents window has three sections (column wise):

- Search by
- Available Documents
- Selected Document properties

The screenshot shows the HyDraw Library Manager 2019 interface. The 'Documents' window is active, displaying a list of documents. The 'Search by' section on the left has a dropdown menu set to 'All Categories' and an empty text field for 'File Name'. The 'Available Documents' section is a table with the following data:

File Name	Category	Root Folder	Subfolder
R06E3.pdf	Data Sheet	https://secure.fluidpo...	Parker\HY 15-6501-US
AP04G2YP.pdf	Data Sheet	https://secure.fluidpo...	Parker\HY 15-6501-US
A02B2.pdf	Data Sheet	https://secure.fluidpo...	Parker\HY 15-6501-US
SV4-10-C.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
SV4-10-3.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
PFR2-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
NV1-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
FDC1-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
FAR1-12.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
FAR1-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
ERV2-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
ERV1-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
DP52-20.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
CV3-10.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
GS0452D.pdf	Data Sheet	https://secure.fluidpo...	Parker\HY 15-6501-US
GS0257.pdf	Data Sheet	https://secure.fluidpo...	Parker\HY 15-6501-US
SV9-10-A.pdf	Data Sheet	https://secure.fluidpo...	Eaton\V-LOV-MC001-D-4 E4
OD.21.01.18.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
04.05.04.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
OD.13.11.51.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
OD.11.01.18.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
OD.14.31.58.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
OD.94.01.18.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
OD.94.05.36.pdf	Data Sheet	https://secure.fluidpo...	Rexroth\Bosch Rexroth Oil Control Rev.0208
SV12-24.pdf	Data Sheet	https://secure.fluidpo...	HydraForce\Cartridge Valves 03-31-2009
SV08-24.pdf	Data Sheet	https://secure.fluidpo...	HydraForce\Cartridge Valves 03-31-2009
SV08-30.pdf	Data Sheet	https://secure.fluidpo...	HydraForce\Cartridge Valves 03-31-2009

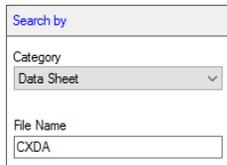
The 'Selected Document properties' section on the right shows the following details for the selected document 'A02B2.pdf':

- Root Folder: https://secure.fluidpower.com/HyDrawOnline/Down...
- File Name: Parker\HY 15-6501-US\A02B2.pdf
- Document category: Data Sheet

HyDraw Library Manager – (Components - Documents)

Search by

Search for a particular document belonging to a category.



Search by

Category
Data Sheet

File Name
CXDA

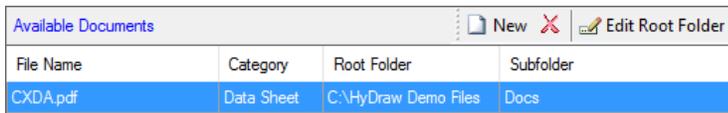
Search by Section

Available Documents

The Available Documents section displays all the available documents for a category or all categories.

Create a new document or delete a document by selecting the required icon on the caption bar.

- Click **Edit Root Folder** to edit the path of the folder containing the document.



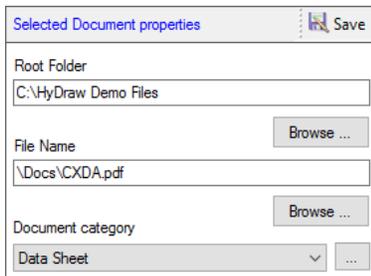
File Name	Category	Root Folder	Subfolder
CXDA.pdf	Data Sheet	C:\HyDraw Demo Files	Docs

Available Documents Section

Selected Document properties

The Selected Documents properties section displays the category, path of the root folder, and the file of the selected document.

- Click **Browse** to change the root folder path and the file name.
- Click **Save** document to save the changes made to the document.



Selected Document properties

Root Folder
C:\HyDraw Demo Files

File Name
\Docs\CXDA.pdf

Document category
Data Sheet

Selected Document properties Section

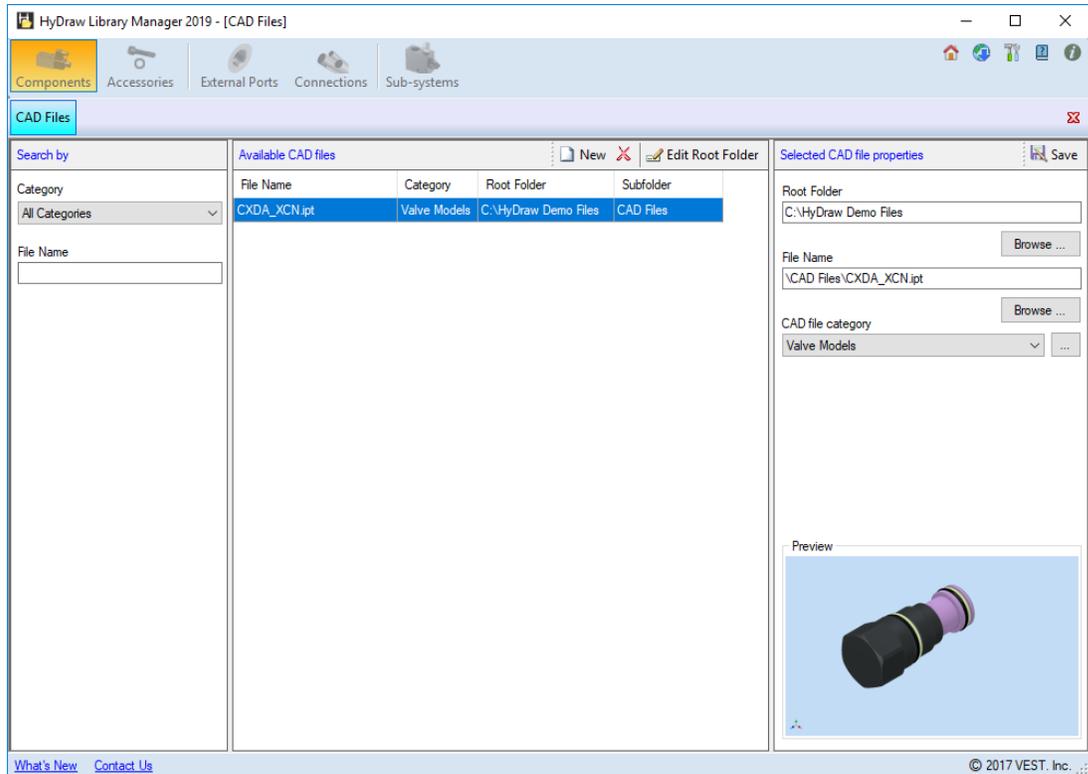
9. CAD Files

Organize CAD files in the library.

Components > CAD Files

CAD Files window has three sections (column wise):

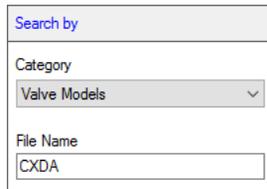
- Search by
- Available CAD files
- Selected CAD file properties



HyDraw Library Manager – (Components - CAD files)

Search by

Search for a particular CAD file belonging to a category.



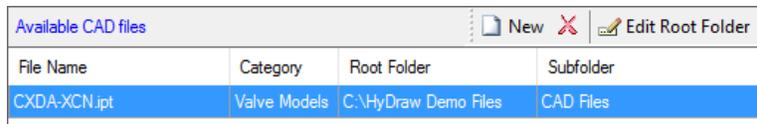
Search by Section

Available CAD files

The Available CAD files section displays the CAD file name, category, root folder, and sub folder.

Create a **New** CAD file or  delete a CAD file by selecting the required icon on the caption bar.

- Click **Edit Root Folder** to edit the path of the CAD file.



File Name	Category	Root Folder	Subfolder
CXDA-XCN.ipt	Valve Models	C:\HyDraw Demo Files	CAD Files

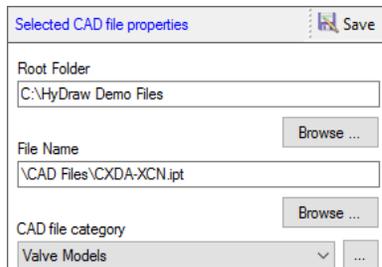
Available CAD files Section

Selected CAD file properties

The Selected CAD file properties section displays the selected CAD file name, category, and root folder.

It also displays the image of the selected CAD file in the Preview pane.

- Click **Browse** to change the root folder path and file name.
- Click **Save** to save the changes made to the CAD file.



Selected CAD file properties Section

10.Components - Model Properties

Manage the properties of the component model.

Components > Model Properties

Component Model Properties window is broadly divided into two sections:

- Model Properties
- Selected property definition

Name	Data type	Unit category	Unit	Display in drawing
Area Ratio	Text			<input type="checkbox"/>
Assembly Cost	Currency			<input type="checkbox"/>
Beta Ratio	Text			<input checked="" type="checkbox"/>
Bolt Shoulder Height	Number	Length	in	<input type="checkbox"/>
Bore	Number	Length	in	<input checked="" type="checkbox"/>
Bypass Pressure	Number	Pressure	psi	<input type="checkbox"/>
Catalog Number	Text			<input type="checkbox"/>
Cavity/Footprint/Interface	Text			<input checked="" type="checkbox"/>
Closing Pressure	Number	Pressure	psi	<input type="checkbox"/>
Compensator Setting	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #1	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #2	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #3	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Spring Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cost	Currency			<input type="checkbox"/>
Cracking Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Current Max	Number	Current	amp	<input type="checkbox"/>
Cushions	Text			<input type="checkbox"/>
Cut-in Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Temperature	Text			<input type="checkbox"/>
Cylinder Mount	Text			<input type="checkbox"/>

Selected property definition

Name: Cracking Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Display in drawing

Assign to Component Type

HyDraw Library Manager – (Components - Model Properties)

Model Properties

Manage Model properties, their data type, and unit category.

Create a **New** model property or

 delete one by selecting the icons on the caption bar.

Model Properties New 				
Name	Data type	Unit category	Unit	Display in drawing
Area Ratio	Text			<input type="checkbox"/>
Assembly Cost	Currency			<input type="checkbox"/>
Beta Ratio	Text			<input checked="" type="checkbox"/>
Bolt Shoulder Height	Number	Length	in	<input type="checkbox"/>
Bore	Number	Length	in	<input checked="" type="checkbox"/>
Bypass Pressure	Number	Pressure	psi	<input type="checkbox"/>
Catalog Number	Text			<input type="checkbox"/>
Cavity/Footprint/Interface	Text			<input checked="" type="checkbox"/>
Closing Pressure	Number	Pressure	psi	<input type="checkbox"/>
Compensator Setting	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #1	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #2	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #3	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Spring Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cost	Currency			<input type="checkbox"/>
Cracking Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Current Max	Number	Current	amp	<input type="checkbox"/>
Cushions	Text			<input type="checkbox"/>
Cut-in Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Temperature	Text			<input type="checkbox"/>
Cylinder Mount	Text			<input type="checkbox"/>
Decompression Ratio	Text			<input type="checkbox"/>
Description	Text			<input type="checkbox"/>

Model properties section

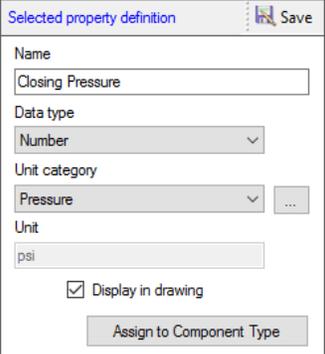
Selected property definition

Edit the name of the model property, data type, unit category, and unit.

1. Select **Display in drawing** to display the property in the drawing.
2. Click **Assign to Component Type** to assign the selected property to one or more component types.
3. Click **Save** to save the changes of the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.



Selected property definition

Name
Closing Pressure

Data type
Number

Unit category
Pressure

Unit
psi

Display in drawing

Assign to Component Type

Selected property definition Section

Assign Property to Component Type

1. Click **Assign to Component Type** in the Selected property definition section.

The Assign Property to Component Type dialog box displays.

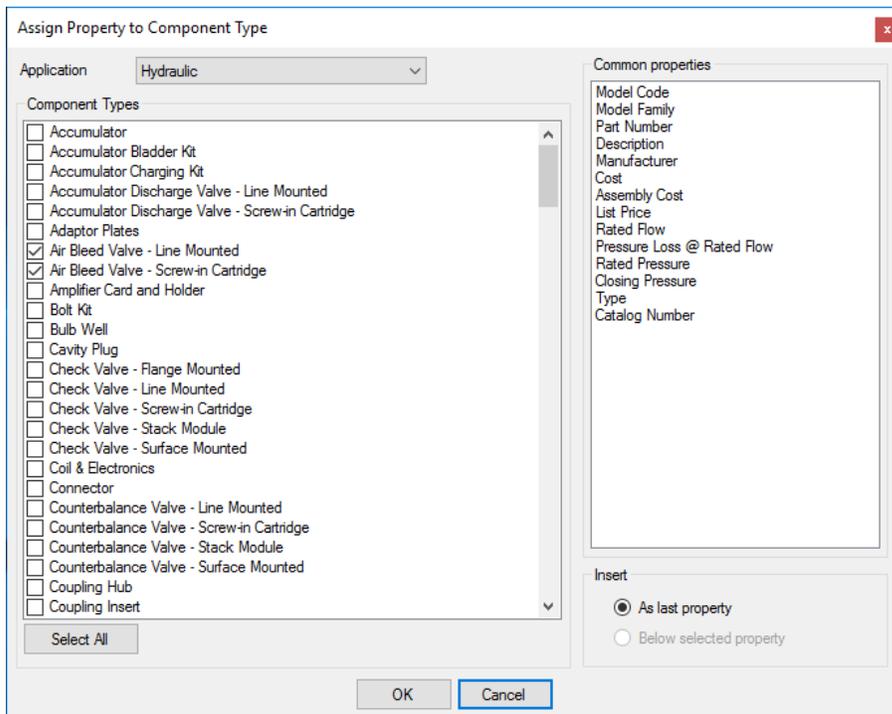
2. Select Application.
3. Select the available **Component types** to include the property.

Or

Click the **Select All** button to select all the component types.

*On the basis of the selected component properties, the **Common properties** are displayed in the listing on the right.*

4. Select any one of the Insert options, **As last property/Below selected property**.
5. Click **OK** to apply and exit.



Assign Property to Component Type

11.Components - Design Properties

Manage the design properties of the component model.

Components > Design Properties

Design Properties has two sections:

- Design Properties
- Selected property definition

The screenshot shows the 'HyDraw Library Manager 2019 - [Design Properties]' window. The main area contains a table of design properties, and the right side shows the 'Selected property definition' panel for the 'Pressure' property.

Name	Data type	Unit category	Unit	Display in drawing	Linked model property
Cleanliness Rating	Text			<input type="checkbox"/>	ISO Cleanliness Rating
Displacement	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement
Displacement, Cover End	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Cover
Displacement, Middle Section	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Middle
Displacement, Shaft End	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Shaft
Flow	Number	Flow	gpm	<input type="checkbox"/>	Rated Flow
Flow, Cover End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Cover End
Flow, Middle Section	Number	Flow	gpm	<input type="checkbox"/>	Flow, Middle Section
Flow, Shaft End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Shaft End
Power	Number	Power	HP	<input type="checkbox"/>	Power Rating
Pressure, Middle Section	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Midd
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>	Rated Pressure
Pressure, Cover End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Cove
Pressure, Shaft End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Shaft
Torque	Number	Torque	Lbf-ft	<input type="checkbox"/>	Torque
Volume	Number	Volume	Gallon	<input type="checkbox"/>	Volume

The 'Selected property definition' panel for 'Pressure' shows the following settings:

- Name: Pressure
- Data type: Number
- Unit category: Pressure
- Unit: psi
- Linked model property: Rated Pressure
- Search operator: >=
- Search tolerance +/-: 25 %
- Display in drawing
- Assign to Component Type

HyDraw Library Manager (Components - Design Properties)

Design Properties

Manage Design properties, their data type, category and unit.

You can also create a **New** design property or  delete one by selecting the required icon on the caption bar.

Design Properties New 							
Name	Data type	Unit category	Unit	Display in drawing	Linked model property	Search operator	Search Tolerance (%)
Cleanliness Rating	Text			<input type="checkbox"/>	ISO Cleanliness Rating		
Displacement	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement	>=	25
Displacement, Cover End	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Cover End	>=	25
Displacement, Middle Section	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Middle Section	>=	25
Displacement, Shaft End	Number	Volumetric Di...	Cu. in/Rev	<input type="checkbox"/>	Displacement, Shaft End	>=	25
Flow	Number	Flow	gpm	<input type="checkbox"/>	Rated Flow	>=	25
Flow, Cover End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Cover End	>=	25
Flow, Middle Section	Number	Flow	gpm	<input type="checkbox"/>	Flow, Middle Section	>=	25
Flow, Shaft End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Shaft End	>=	25
Power	Number	Power	HP	<input type="checkbox"/>	Power Rating	>=	25
Pressure, Middle Section	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Middle Section	>=	25
Pressure	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure	>=	25
Pressure, Cover End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Cover End	>=	25
Pressure, Shaft End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Shaft End	>=	25
Torque	Number	Torque	Lbf-ft	<input type="checkbox"/>	Torque	>=	25
Volume	Number	Volume	Gallon	<input type="checkbox"/>	Volume	>=	25

Design Properties section

Selected property definition

Edit the name of the model property, data type, unit category, and unit.

1. Select **Display in drawing** to display the property in the drawing.

2. Click **Assign to Component Type** to assign the selected property to one or more component types.

The *Assign Property to Component Type dialog box displays.*

3. Select Application.

4. Select the available **Component types** to include the property.

Or

Click the **Select All** button to select all the component types.

*On the basis of the selected component properties. the **Common properties** are displayed in the listing on the right.*

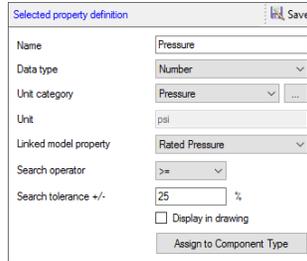
5. Select Insert, As last property/Below selected property.

Click **OK** to apply and exit.

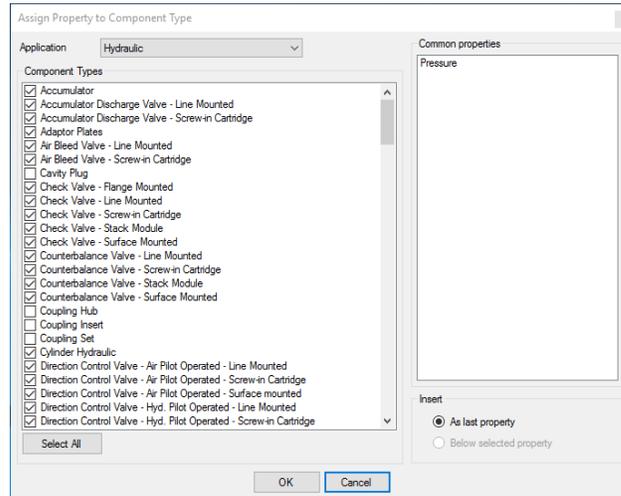
6. Click **Save** to save the changes to the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.



Selected property definition Section



Assign Property to Component Type

12.Components - Display Formats

Assign Display formats for components to display properties with prefix and/or suffix.

Display compound properties using the display format.

Components > Display Formats

Manage Display Formats window has two sections:

- Available Display Formats
- Selected Display Format

HyDraw Library Manager 2019 - [Display Formats]

Components Accessories External Ports Connections Sub-systems

Display Formats

Available Display Formats

Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit
Beta Ratio		Beta Ratio	<input type="checkbox"/>				<input type="checkbox"/>
Cavity/Footprint/I...		Cavity/Footprint/I...	<input type="checkbox"/>				<input type="checkbox"/>
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Cracking Pressure		Cracking Pressure	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Cylinder Size	∅	Bore	<input type="checkbox"/>	x		Rod Diameter	<input type="checkbox"/>
Displacement		Displacement	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Displacement, Co...		Displacement, Co...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Displacement, M...		Displacement, M...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Displacement, Sh...		Displacement, Sh...	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Flow Setting		Flow Setting	<input checked="" type="checkbox"/>				<input type="checkbox"/>
Micron Rating		Micron Rating	<input type="checkbox"/>				<input type="checkbox"/>
Nominal Size		Nominal Size	<input type="checkbox"/>				<input type="checkbox"/>
Pilot Ratio		Pilot Ratio	<input type="checkbox"/>				<input type="checkbox"/>
Port Size		Port Size	<input type="checkbox"/>				<input type="checkbox"/>
Port Size Ext		Port Size, A	<input type="checkbox"/>				<input type="checkbox"/>
Port Size Ret		Port Size, B	<input type="checkbox"/>				<input type="checkbox"/>
Port Size, Aux. R...		Port Size, Aux. R...	<input type="checkbox"/>				<input type="checkbox"/>
Port Size, Drain		Port Size, Drain	<input type="checkbox"/>				<input type="checkbox"/>

Selected Display Format

Name
Cylinder Size

Linked property 1
Bore

Prefix
∅

Suffix

Display unit

Linked property 2
Rod Diameter

Prefix
x

Suffix

Display unit

Linked property 3
Stroke

Prefix
/

Suffix

Display unit

Assign to Component Type

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HyDraw Library Manager (Components - Display Formats)

Available Display Formats

- The Available Display Formats section displays all the formats and properties that are marked with the display in the drawing.
- Create **New Display Format** or delete by selecting the required icon on the caption bar.

Available Display Formats New 									
Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix	Pre ^
Beta Ratio		Beta Ratio	<input type="checkbox"/>				<input type="checkbox"/>		
Cavity/Footprint/1...		Cavity/Footprint/1...	<input type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Cracking Pressure		Cracking Pressure	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Cylinder Size	∅	Bore	<input type="checkbox"/>	x		Rod Diameter	<input type="checkbox"/>	/	
Displacement		Displacement	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Co...		Displacement, Co...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Mi...		Displacement, Mi...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Sh...		Displacement, Sh...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Flow Setting		Flow Setting	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Micron Rating		Micron Rating	<input type="checkbox"/>				<input type="checkbox"/>		
Nominal Size		Nominal Size	<input type="checkbox"/>				<input type="checkbox"/>		
Pilot Ratio		Pilot Ratio	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size		Port Size	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size Ext		Port Size, A	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size Ret		Port Size, B	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Aux. R...		Port Size, Aux. R...	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Drain		Port Size, Drain	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Gauge		Port Size, Gauge	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Inlet		Port Size, Inlet	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Outlet		Port Size, Outlet	<input type="checkbox"/>				<input type="checkbox"/>		

Available Display Formats Section

Selected Display Format

Assign Display Format: Name, Linked Property 1, Linked Property 2 and Linked Property 3 and their Display Unit, Prefix and Suffix.

Define Display Property

1. Enter **Name** of the display format.
For the Linked property 1

2. Click 

The *Select Property dialog box* displays.

- i. Select Model Property/Design Property.

Note:

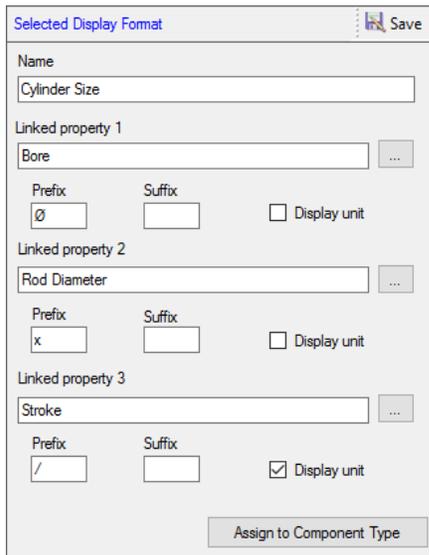
The properties that are marked, *Display in drawing*, are visible.

- ii. Select a property from the available properties.
- iii. Click **OK** to apply and exit.
- iv. Select **Display Unit**, if available.
- v. Enter **Prefix**.
- vi. Enter **Suffix**.

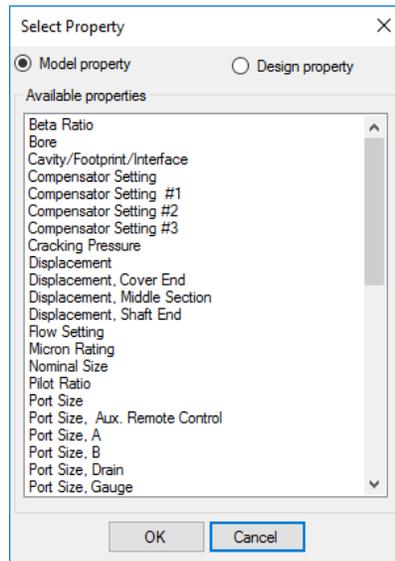
Repeat the same procedure for Linked Property 2 and Linked Property 3.

3. Click Assign to Component Type.

The *Assign Display Format to Component Type dialog box* displays.

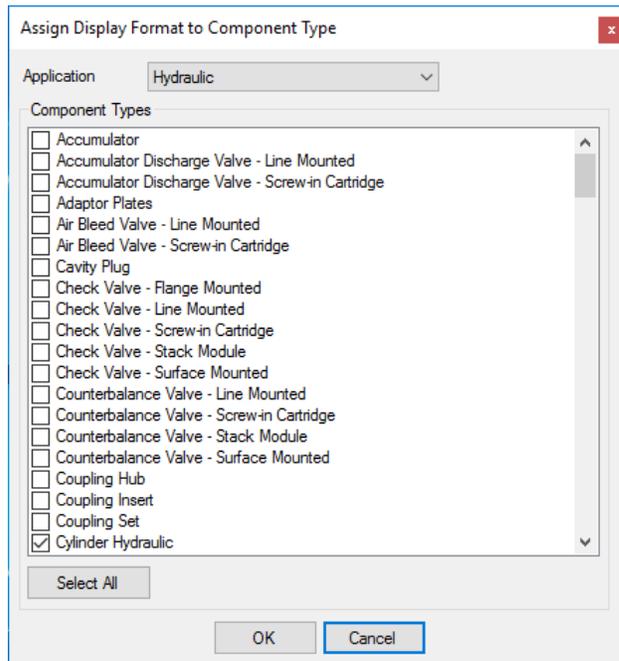


Selected Display format Section



Select Property

4. Select Application.
5. Select one or more listed component types
6. Click **Select All** to select all component types.
7. Click **OK** to apply and exit.
8. Click **Save**.



Assign Display Format to Component Type

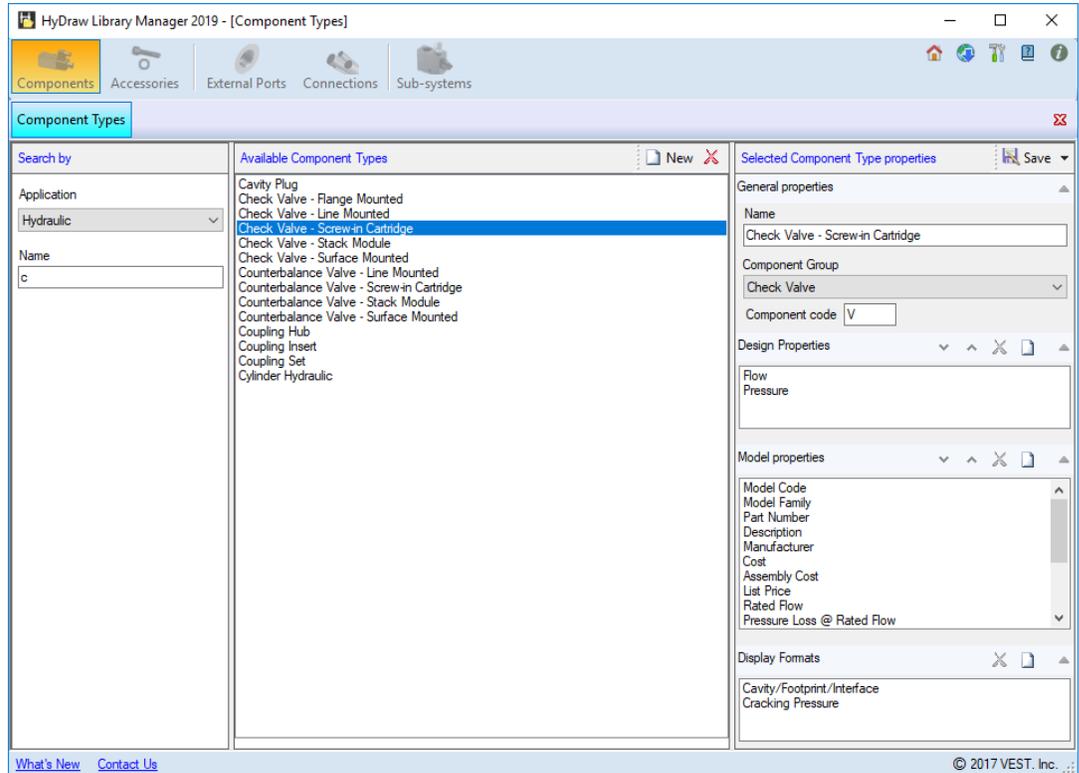
13. Components - Component Types

View all available component types and their properties.

Components > Component Types

Component Types window has three sections:

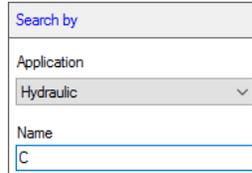
- Search by
- Available Component Types
- Selected Component Type properties



HyDraw Library Manager – (Components - Component Types)

Search by

Search for a particular application, component type or all component types.



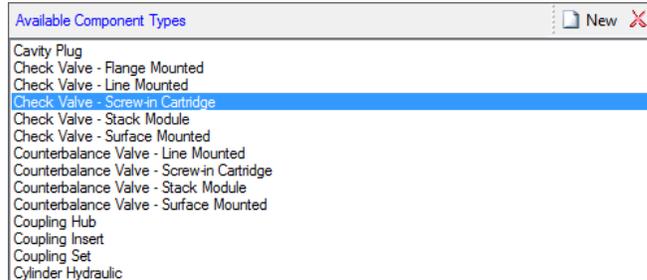
A dialog box titled "Search by" with a light gray header. Below the header, there are two sections. The first section is labeled "Application" and contains a dropdown menu with "Hydraulic" selected and a downward arrow. The second section is labeled "Name" and contains a text input field with the letter "C" entered.

Search by Section

Available Component Types

The Available Component Types section displays all available component types.

Create a **New** component type or  delete a component type by selecting the required icon on the caption bar.



A window titled "Available Component Types" with a light gray header. The header contains a "New" button with a plus icon and a delete icon. The main area is a list of component types, with "Check Valve - Screw-in Cartridge" highlighted in blue. The list includes: Cavity Plug, Check Valve - Flange Mounted, Check Valve - Line Mounted, Check Valve - Screw-in Cartridge, Check Valve - Stack Module, Check Valve - Surface Mounted, Counterbalance Valve - Line Mounted, Counterbalance Valve - Screw-in Cartridge, Counterbalance Valve - Stack Module, Counterbalance Valve - Surface Mounted, Coupling Hub, Coupling Insert, Coupling Set, and Cylinder Hydraulic.

Available Component Types Section

Selected Component Type properties

The Selected Component Type properties section displays

- General Properties
- Design Properties
- Model Properties
- Display Formats

Save the properties of the component type after making changes.

Or

Save As a new component type.

Save commands are available on the caption bar.

Selected Component Type properties

Save

General properties

Name
Check Valve - Screw-in Cartridge

Component Group
Check Valve

Component code
V

Design Properties

Flow
Pressure

Model properties

Model Code
Model Family
Part Number
Description
Manufacturer
Cost
Assembly Cost
List Price
Rated Flow
Pressure Loss @ Rated Flow

Display Fomats

Cavity/Footprint/Interface
Cracking Pressure

Selected Component Type properties section

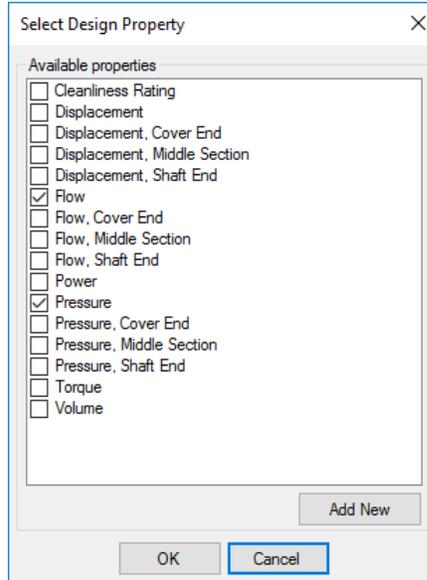
General Properties

This section displays the name of the Component Type, Component Group and the Component Code.

Design Properties

This section displays the available design properties. You can also add new design properties.

1. Click  on the Design properties caption bar to display the Select Design Property dialog box.
2. Select any property checkbox to display them in the Design Property section.
3. Click **Add New** to display the Define Component Properties dialog box.

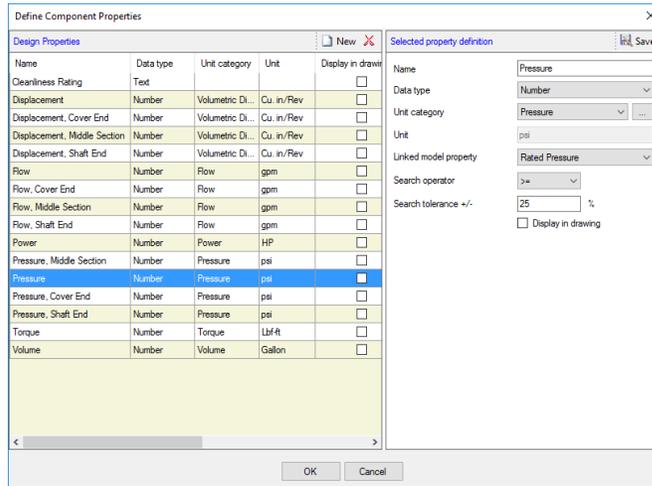


Select Design Property dialog box

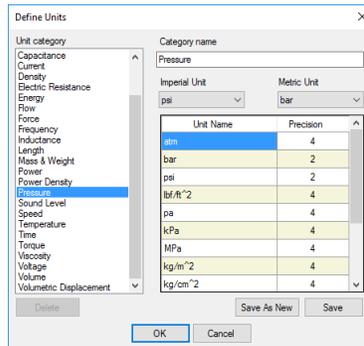
4. Click **New** to add new property.
5. Select **Display in drawing** to display the property in the drawing.
6. Click  in the selected property definition section to display the Define Units dialog box.
7. Click **Save** to save the new property and update the existing property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.



Define Component Properties

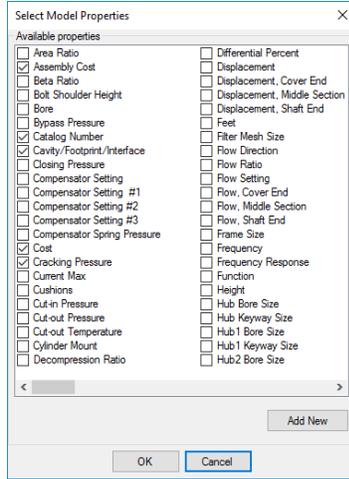


Define Units

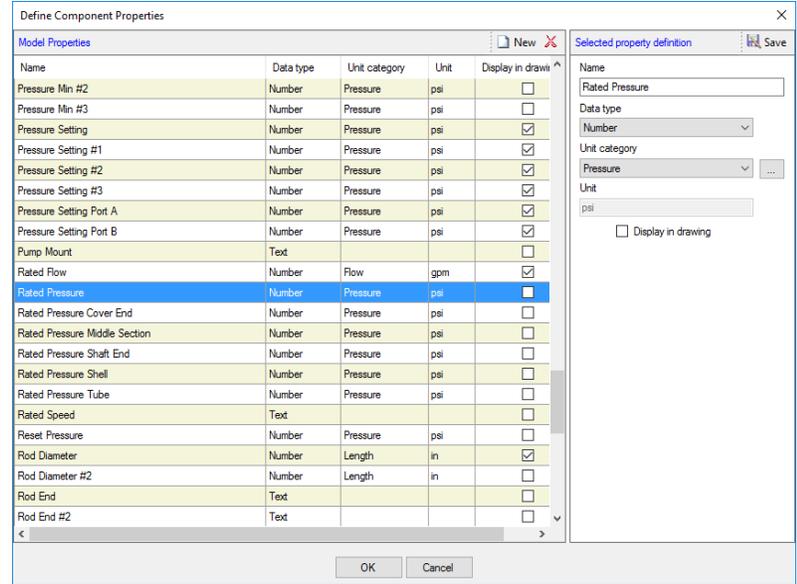
Model Properties

This section displays the available model properties. You can also add new model properties.

1. Click  on the Model properties caption bar to display the Select Model Properties dialog box.
2. Select any property checkbox to display it in the Model Property section.
3. Click **Add New** to display the Define Component Properties dialog box.
4. Click **New** to add new property.
5. Click  in the Selected property definition section to display the Define Units dialog box.
6. Select the **Display in drawing** checkbox to display the model property in the drawing.
7. Click **Save** to save the new property or update the existing property.



Select Model Properties dialog box



Define Component Properties

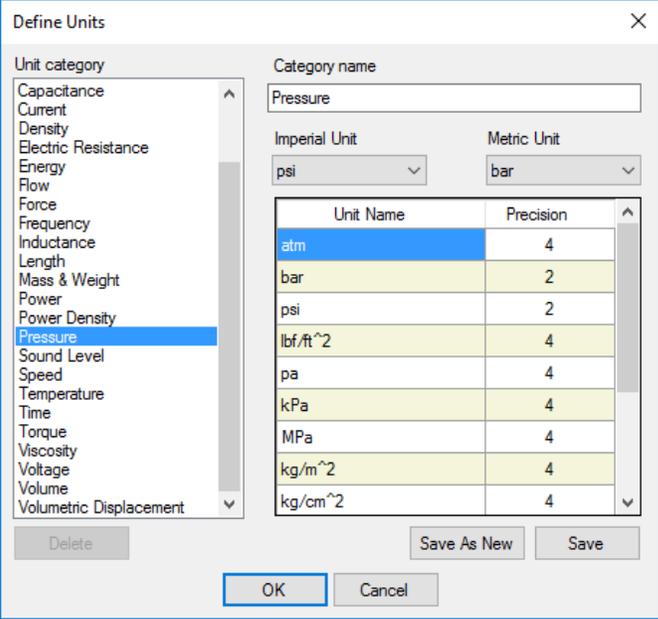
Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

Define Units

View/Edit units.

1. Select **Unit Category**.
2. Edit **Category name**, if required.
3. Select **Imperial unit**.
4. Select **Metric unit**.
5. Select **Unit Name**.
6. Enter the **precision** up to four decimal places.
7. Click **Save As New** to add a new category.
8. Click **Save** to update an existing category.



The 'Define Units' dialog box is shown with the 'Pressure' category selected. The 'Category name' is 'Pressure'. The 'Imperial Unit' is 'psi' and the 'Metric Unit' is 'bar'. A table lists unit names and their precision values.

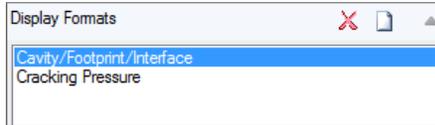
Unit Name	Precision
atm	4
bar	2
psi	2
lbf/ft ²	4
pa	4
kPa	4
MPa	4
kg/m ²	4
kg/cm ²	4

Define Units dialog box

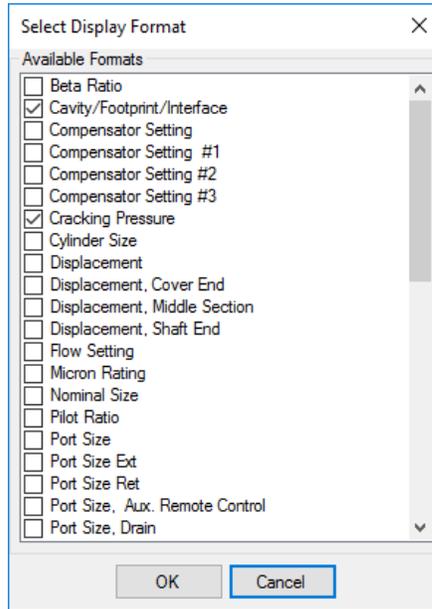
Display Formats

View/Edit display formats.

1. Click  on the Display Formats caption bar to display the Select Display Formats dialog box.
2. Select any property checkbox to display it in the Display Formats section.
3. Click **OK**.
4. You can also click  to delete an existing display format.



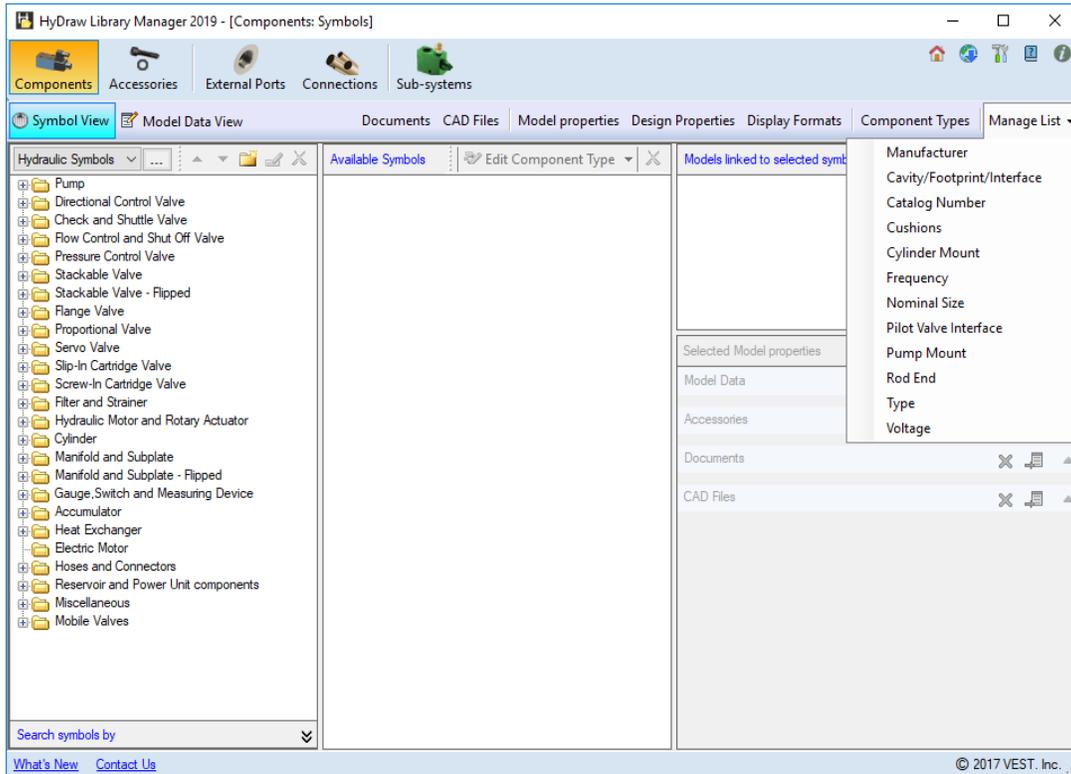
Display Formats section



Select Display Format dialog box

14. Manage List

Manage Manufacturer, Cavity/Footprint/Interface, Catalog Number, Cushions, Cylinder Mount, Frequency, Nominal Size, Pilot Valve Interface, Pump Mount, Rod End, Type and Voltage.



Manufacturer

View all available manufacturers. You can also create a new manufacturer, and delete a manufacturer.

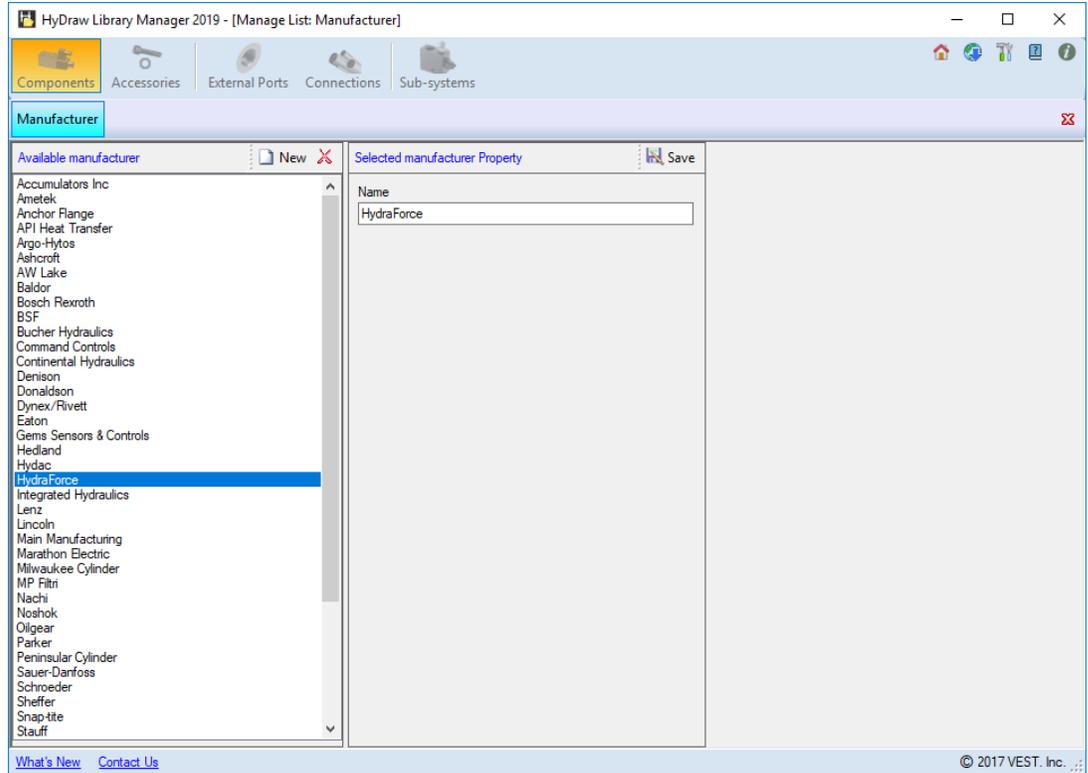
Components

> Manage List

> Manufacturer

Manufacturer has two sections:

- Available manufacturer
- Selected manufacturer property



HyDraw Library Manager 2019 – [Manage List: Manufacturer]

Cavity/Footprint/Interface

Search a specific cavity/footprint or cavities/footprints of all categories.

Components > Manage List

> Cavity/Footprint/Interface

Cavity/Footprint/Interface has three sections:

- Search by
- Available Cavities/Footprints
- Selected Cavity/Footprint properties

The screenshot shows the HyDraw Library Manager 2019 interface. The title bar reads "HyDraw Library Manager 2019 - [Manage List: Cavity/Footprint/Interface]". The main window is divided into several sections:

- Search by:** A section on the left with a "Category" dropdown menu set to "All Categories" and a "Cavity/Footprint Name" text input field.
- Available Cavities/Footprints:** A central table with columns for "Cavity/Footprint" and "Category". The table contains the following data:

Cavity/Footprint	Category
#10 SAE	SAE O-ring
#12 SAE	SAE O-ring
#14 SAE	SAE O-ring
#16 SAE	SAE O-ring
#2 SAE	SAE O-ring
#20 SAE	SAE O-ring
#24 SAE	SAE O-ring
#3 SAE	SAE O-ring
#32 SAE	SAE O-ring
#4 SAE	SAE O-ring
#5 SAE	SAE O-ring
#6 SAE	SAE O-ring
#8 SAE	SAE O-ring
003	Bosch Rexroth
004	Bosch Rexroth
019-E	Bosch Rexroth
03030	Hydac
03230	Hydac
04220	Hydac
05030	Hydac
05220	Hydac
05330	Hydac
- Selected Cavity/Footprint properties:** A section on the right with a "Cavity/Footprint Name" text input field containing "#2 SAE" and a "Category" dropdown menu set to "SAE O-ring".

At the bottom of the window, there are links for "What's New" and "Contact Us" on the left, and a copyright notice "© 2017 VEST, Inc." on the right.

HyDraw Library Manager – (Components - Manage List - Cavity/Footprint/Interface)

Search by

Search for a cavity/footprint in a category or cavities/footprints in all categories.

Search by
Category SAE O-ring
Cavity/Footprint Name #2

Search by Section

Available Cavities/Footprints

The Available Cavities/Footprints section displays the cavities/footprints and the category to which it belongs.

You can also create a **New** or  delete a cavity/footprint by selecting the required icon on the caption bar.

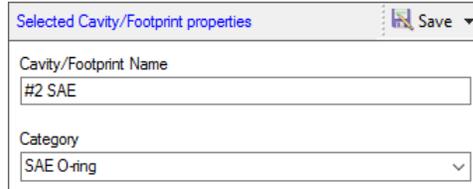
Available Cavities/Footprints  	
Cavity/Footprint	Category
#2 SAE	SAE O-ring
#20 SAE	SAE O-ring
#24 SAE	SAE O-ring

Available Cavities/Footprints Section

Selected Cavity/Footprint properties

The Selected Cavity/Footprint properties section displays the Cavity/Footprint name and category of the selected cavity.

1. Select the Cavity/Footprint name or edit, if required.
2. Enter a new category or select an existing category.
3. Click **Save** or **Save As**, as required.



The screenshot shows a dialog box titled "Selected Cavity/Footprint properties". At the top right, there is a "Save" button with a dropdown arrow. Below the title bar, there are two input fields. The first is labeled "Cavity/Footprint Name" and contains the text "#2 SAE". The second is labeled "Category" and is a dropdown menu with "SAE O-ring" selected.

Selected Cavity/Footprint properties Section

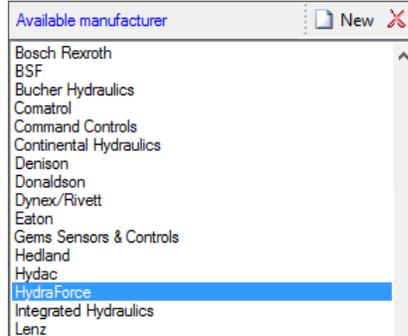
Note:

- Manage the Master Properties list of Cushions, Cylinder Mounts, Frequency, Nominal Size, Pilot Valve Interface, Pump Mount, Rod End Type, and Voltage; similarly, as you manage the list of manufacturers.

Available manufacturer

The Available manufacturer section displays the list of all manufacturers available in the library.

You can create a **New** manufacturer and  delete any manufacturer by selecting the required icon on the caption bar.



Available manufacturer Section

Selected manufacturer Property

Add New

1. Click **New** to add a new manufacturer.
2. Click **Save**.

Edit

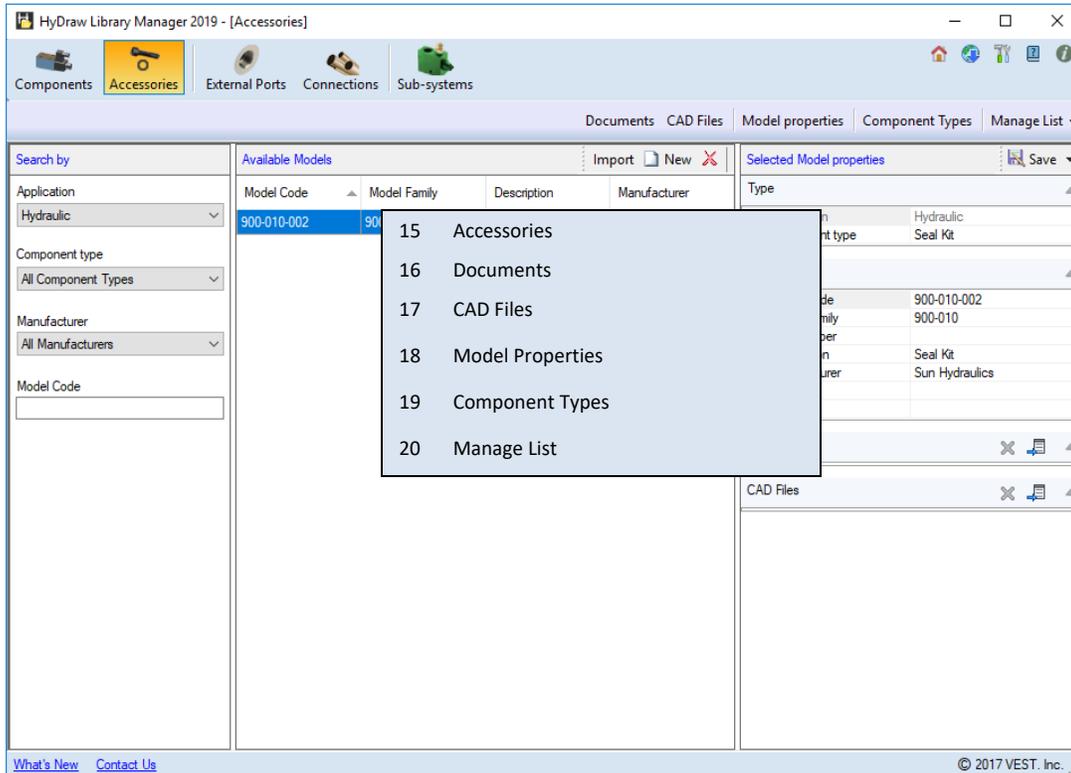
1. Select the existing manufacturer name.
2. Edit the manufacturer name.
3. Click **Save**.



Selected manufacturer property

Accessories

Manage Accessories, Documents, CAD File, Model properties, Component Types, and Manage List.

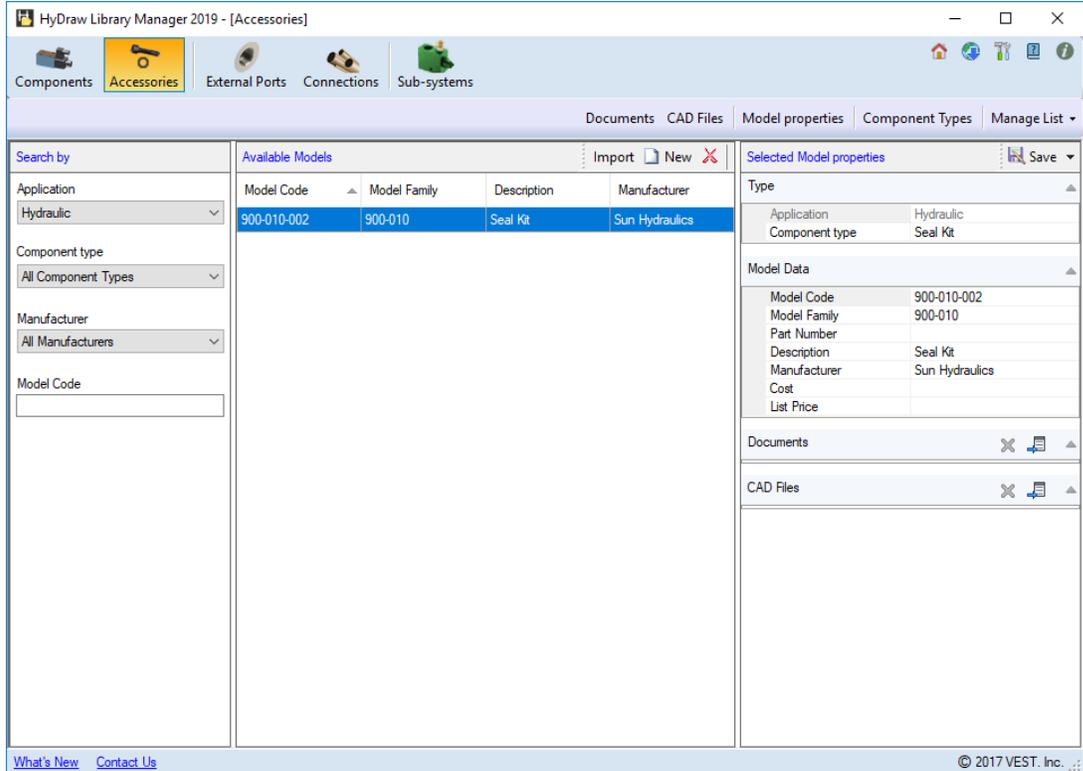


15. Accessories

Manage Accessories, Documents, CAD File, Model properties, Component Types, and List.

Accessories Library has three sections (column wise).

- Search by
- Available Models
- Selected Model properties



HyDraw Library Manager – (Accessories)

Search by

Search for a particular accessory by application, component type, manufacturer and model code of a particular component type.

Search by
Application Hydraulic
Component type Seal Kit
Manufacturer All Manufacturers
Model Code 990

Search by Section

Available Models

The Available models section displays all the accessories for the selected component type of a manufacturer or all manufacturers.

Create a **New** model or  delete a model by selecting the icons on the caption bar.

The **Import** option enables you to import accessory data from Microsoft Excel.

Note:

- You can delete model either one by one or drag select to delete multiple models.
- From right click context menu, you can link Docs/CAD files either one by one or drag select to link multiple Docs/CAD files.
- Refer Chapter 7, Components – Model Data view, Section Import, Page No. 29.

Available Models				Import	New	
Model Code	Model Family	Description	Manufacturer			
990-010-002	990-010-002	Seal Kit	Sun Hydraulics			
990-010-006	990-010-006		Hydraulics			
990-010-007	990-010-007		Hydraulics			
990-010-014	990-010-014		Hydraulics			
FLHAXDN	FLHA		Hydraulics			

New Model

Delete Model(s)

Link Documents

Link CAD Files

Available Models Section

Selected Model properties

View/Edit the model properties of the selected model accessory.

Link documents and CAD files to the selected model.

Click **Save** or **Save As**, as required.

Selected Model properties		Save
Type ▲		
Application	Hydraulic	
Component type	Seal Kit	
Model Data ▲		
Model Code	990-010-002	
Model Family	990-010-002	
Part Number		
Description	Seal Kit	
Manufacturer	Sun Hydraulics	
Cost		
List Price		
Documents ✕ 📄 ▲		
Data Sheet	990-010-00.pdf	
CAD Files ✕ 📄 ▲		
Valve Models	990-010-002.ipt	

Selected Model properties section

16. Documents

*Select and link **documents** from the library or delete the linked documents.*

Note: Refer Chapter 8, Documents for detailed usage.

17.CAD Files

*Select and link **CAD files** from the library or delete the linked CAD files.*

Note: Refer Chapter 9, CAD Files for details.

18. Accessories - Model Properties

Manage the Model properties of accessories. These properties are common to components, accessories, and sub-systems.

The screenshot shows the 'HyDraw Library Manager 2019 - [Model properties]' window. The 'Accessories' tab is active. The main area displays a table of model properties. The 'Closing Pressure' property is selected, and its details are shown in the 'Selected property definition' pane on the right.

Name	Data type	Unit category	Unit	Display in drawing
Area Ratio	Text			<input type="checkbox"/>
Assembly Cost	Currency			<input type="checkbox"/>
Beta Ratio	Text			<input checked="" type="checkbox"/>
Bolt Shoulder Height	Number	Length	in	<input type="checkbox"/>
Bore	Number	Length	in	<input checked="" type="checkbox"/>
Bypass Pressure	Number	Pressure	psi	<input type="checkbox"/>
Catalog Number	Text			<input type="checkbox"/>
Cavity/Footprint/Interface	Text			<input checked="" type="checkbox"/>
Closing Pressure	Number	Pressure	psi	<input type="checkbox"/>
Compensator Setting	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #1	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #2	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #3	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Spring Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cost	Currency			<input type="checkbox"/>
Cracking Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Current Max	Number	Current	amp	<input type="checkbox"/>
Cushions	Text			<input type="checkbox"/>
Cut-in Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Temperature	Text			<input type="checkbox"/>
Cylinder Mount	Text			<input type="checkbox"/>

The 'Selected property definition' pane for 'Closing Pressure' shows:

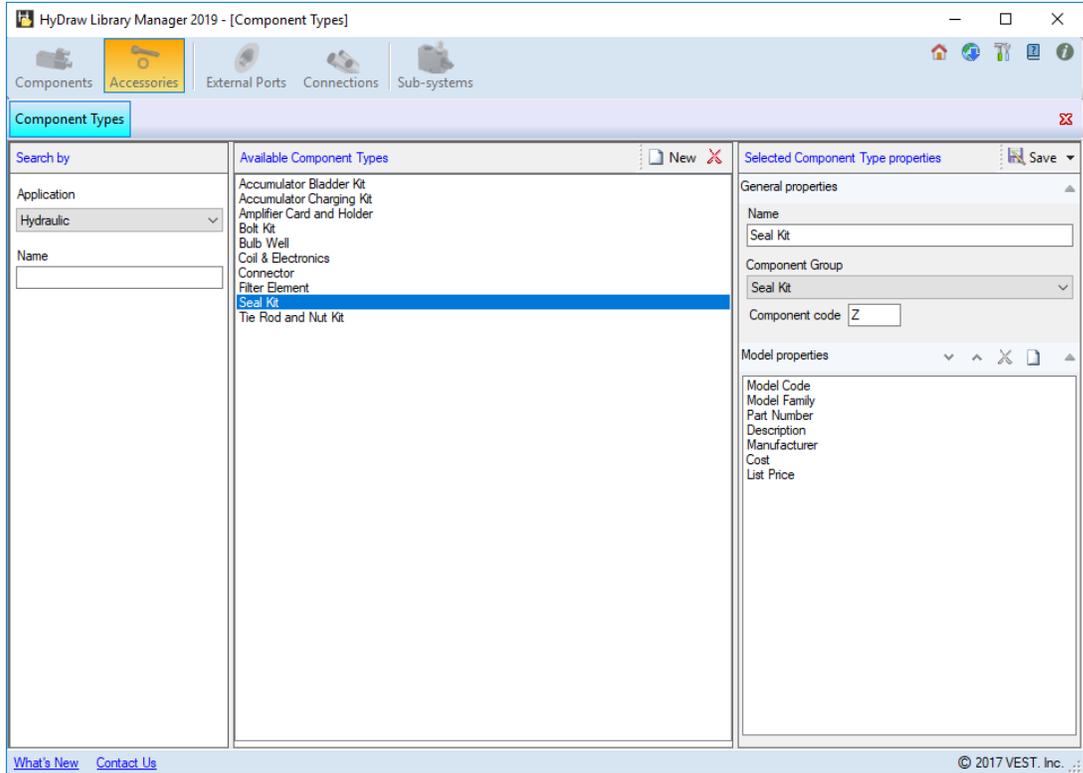
- Name: Closing Pressure
- Data type: Number
- Unit category: Pressure
- Unit: psi
- Display in drawing:
- Assign to Component Type: [Button]

Note: Refer Chapter 10, Components – Model Properties for details.

19. Accessories - Component Types

Component Types window has three sections (column wise):

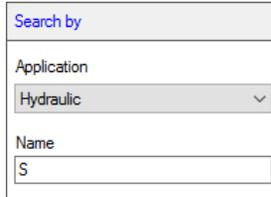
- Search by
- Available Component Type
- Selected Component Type properties



HyDraw Library Manager – (Accessories - Component Types)

Search by

Search by application and for a particular component or all component types of accessory.



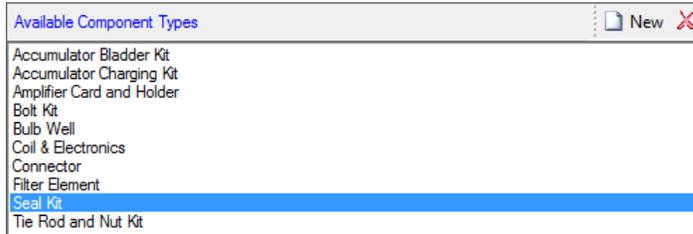
A search dialog box with a title bar that says "Search by". It contains two input fields: "Application" with a dropdown menu showing "Hydraulic" and a downward arrow, and "Name" with a text input field containing the letter "S".

Search by section

Available Component Types

The Available Component Types section displays all available component types.

You can also create a **New** component type or  delete a component type by selecting the required icon on the caption bar.



A list titled "Available Component Types" with a caption bar containing a "New" button and a delete icon. The list contains the following items: Accumulator Bladder Kit, Accumulator Charging Kit, Amplifier Card and Holder, Bolt Kit, Bulb Well, Coil & Electronics, Connector, Filter Element, Seal Kit (highlighted in blue), and Tie Rod and Nut Kit.

Available Component Types Section

Selected Component Type properties

The Selected Component Type properties section displays Component Type Name, Component group, Component Code and Model properties.

Save the properties of the component type after editing.

Or

Save As a new component type.

The Save commands are available on the caption bar.

Refer Chapter 10, Components – Model Properties for details.

Selected Component Type properties

Save

General properties

Name
Seal Kit

Component Group
Seal Kit

Component code Z

Model properties

- Model Code
- Model Family
- Part Number
- Description
- Manufacturer
- Cost
- List Price

Selected Component Type properties section

20. Manage List

Note: Refer Chapter 14, Manage List.

External Ports

HyDraw Library Manager 2019 - [External Ports]

Components Accessories **External Ports** Connections Sub-systems

Model properties Design Properties Display Formats

Search by

Port Type
All Port Types

Port Size
#2

Port Type	Port Size	Description	Mounting	Nominal ID (in)	Cavity Name
SAE O-ring	#2 SAE	#2 SAE	Threaded	0.215	#2 SAE
SAE O-ring	#20 SAE	#20 SAE	Threaded	1.278	#20 SAE
SAE O-ring	#24 SAE	#24 SAE	Threaded	1.5	#24 SAE

21 External Ports
22 Model Properties
23 Design Properties
24 Display Formats

Selected Port properties

Port Type SAE O-ring
Port Size #2 SAE
Description #2 SAE
Mounting Threaded
Nominal ID (in) 0.215
Cavity Name #2 SAE
Rated Pressure (psi) 6000
Pressure Line Max Fl. 4
Return Line Max Flow 2
With O-ring No
With Through Bolt Hk No

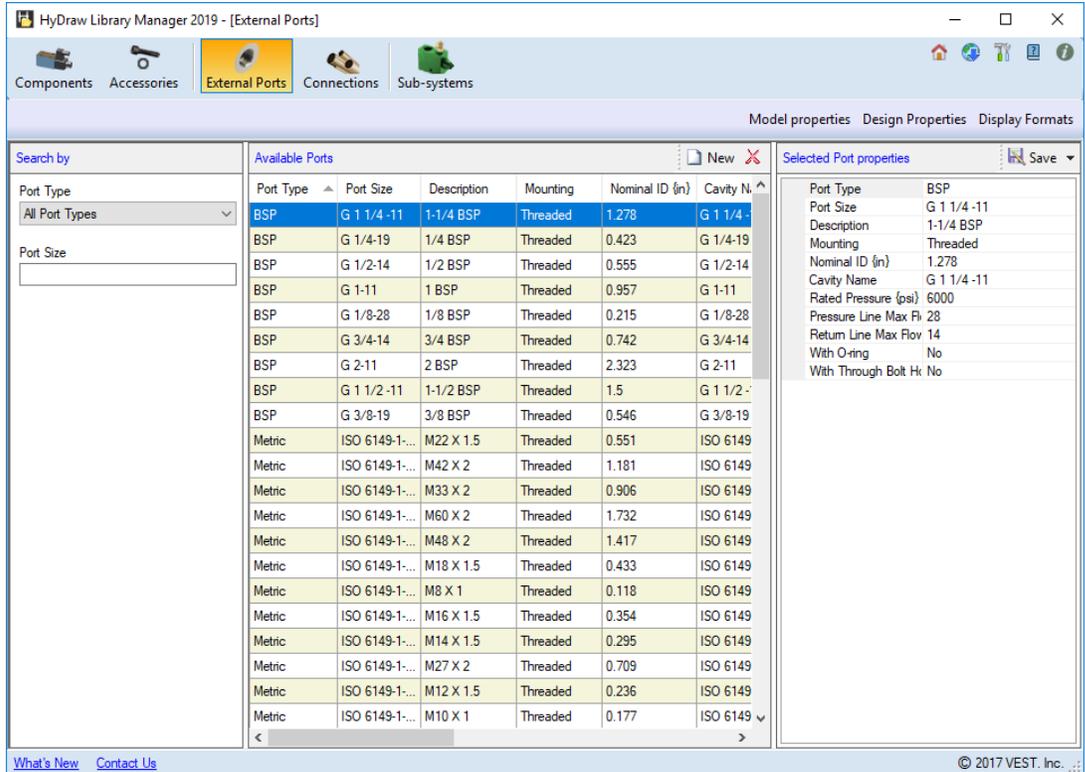
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21.External Ports

Manage External ports: Model properties, Design properties and Display formats.

External Ports window has three sections (column wise):

- Search by
- Available Ports
- Selected Port properties



HyDraw Library Manager – (External Ports)

Search by

Search for a particular external port type and port size.

Search by

Port Type
All Port Types

Port Size
#2

Search by Section

Available Ports

The Available Ports section displays all the available ports based on the search criteria.

Create a **New** port or  delete a port by selecting the required icon on the caption bar.

Available Ports						New 
Port Type	Port Size	Description	Mounting	Nominal ID {in}	Cavity Name	
SAE O-ring	#2 SAE	#2 SAE	Threaded	0.215	#2 SAE	
SAE O-ring	#20 SAE	#20 SAE	Threaded	1.278	#20 SAE	
SAE O-ring	#24 SAE	#24 SAE	Threaded	1.5	#24 SAE	

Available Ports Section

Selected Port properties

The Selected Port properties section displays the properties of the selected port.

- Click **Save** on the caption bar to save port properties.
- Click **Save As** on the caption bar to save as a new port.

Port Type	SAE O-ring
Port Size	#2 SAE
Description	#2 SAE
Mounting	Threaded
Nominal ID {in}	0.215
Cavity Name	#2 SAE
Rated Pressure {psi}	6000
Pressure Line Max Flow {gpm}	4
Return Line Max Flow {gpm}	2
With O-ring	No
With Through Bolt Holes	No

Selected Port properties

22.External Ports - Model Properties

Manage properties of the external port models.

External Port Model Properties window has two sections:

- Model Properties
- Selected property definition

HyDraw Library Manager 2019 - [Model properties]

Components Accessories **External Ports** Connections Sub-systems

Model properties

Name	Data type	Unit category	Unit	Display in drawing
Port Type	Text			<input type="checkbox"/>
Description	Text			<input type="checkbox"/>
Port Size	Text			<input checked="" type="checkbox"/>
Cavity Name	Text			<input type="checkbox"/>
Rated Pressure	Number	Pressure	psi	<input type="checkbox"/>
Pressure Line Max Flow	Number	Flow	gpm	<input type="checkbox"/>
Return Line Max Flow	Number	Flow	gpm	<input type="checkbox"/>
Mounting	Text			<input type="checkbox"/>
Nominal ID	Number	Length	in	<input type="checkbox"/>
With O-ring	Yes/No			<input type="checkbox"/>
With Through Bolt Holes	Yes/No			<input type="checkbox"/>

Selected property definition

Name: Rated Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Display in drawing

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HyDraw Library Manager (External Ports - Model Properties)

Model Properties

Display all available model properties, their data type, category, and unit.

Create a **New** model property or delete by selecting the required icon on the caption bar.

Model Properties					New	X	^	v
Name	Data type	Unit category	Unit	Display in drawing				
Port Type	Text			<input type="checkbox"/>				
Description	Text			<input type="checkbox"/>				
Port Size	Text			<input checked="" type="checkbox"/>				
Cavity Name	Text			<input type="checkbox"/>				
Rated Pressure	Number	Pressure	psi	<input type="checkbox"/>				
Pressure Line Max Flow	Number	Flow	gpm	<input type="checkbox"/>				
Return Line Max Flow	Number	Flow	gpm	<input type="checkbox"/>				
Mounting	Text			<input type="checkbox"/>				
Nominal ID	Number	Length	in	<input type="checkbox"/>				
With O-ring	Yes/No			<input type="checkbox"/>				
With Through Bolt Holes	Yes/No			<input type="checkbox"/>				

Model Properties Section

Selected property definition

Edit the name of the model property, data type, unit category, and unit.

1. Select **Display in drawing** to display the property in the drawing.
2. Click **Save** to save the changes to the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

Selected property definition  Save

Name

Data type

Unit category
 ...

Unit

Display in drawing

Selected property definition section

23.External Ports - Design Properties

Manage the design properties of the external port.

External Ports Design Properties window has two sections:

- Design Properties
- Selected property definition

HyDraw Library Manager 2019 - [Design Properties]

Components Accessories External Ports Connections Sub-systems

Design Properties

Name	Data type	Unit category	Unit	Display in drawing
Pressure	Number	Pressure	psi	<input type="checkbox"/>
Flow	Number	Flow	gpm	<input type="checkbox"/>

Selected property definition Save

Name
Pressure

Data type
Number

Unit category
Pressure

Unit
psi

Display in drawing

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HyDraw Library Manager (External Ports - Design Properties)

Design Properties

Display all design properties, their data type, category, and unit.

Create a new design property or  delete one by selecting the required icon on the caption bar.

Design Properties					New   
Name	Data type	Unit category	Unit	Display in drawing	
Pressure	Number	Pressure	psi	<input type="checkbox"/>	
Flow	Number	Flow	gpm	<input type="checkbox"/>	

Design Properties Section

Selected property definition

Edit the name of the model property, data type, unit category, and unit.

Select **Display in drawing** to display the property in the drawing.

Click **Save** to save the changes to the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

Selected property definition 

Name

Data type

Unit category
 

Unit

Display in drawing

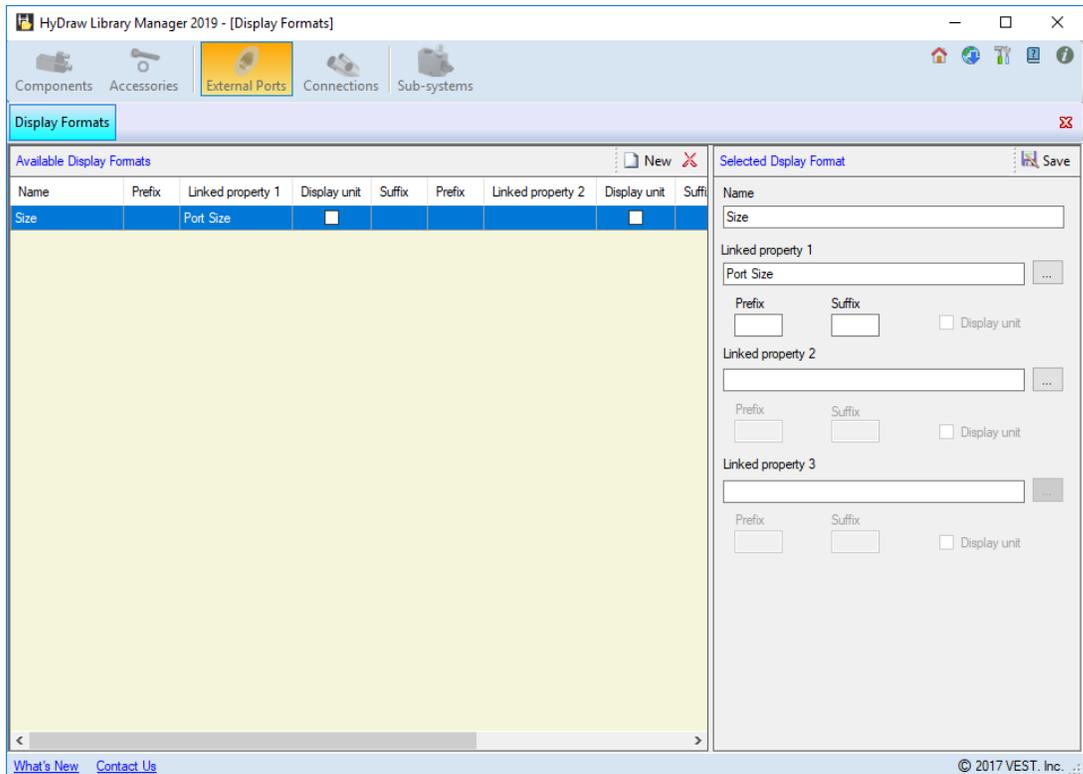
Selected property definition Section

24.External Ports - Display Formats

Assign Display formats to external ports and display properties with prefix and/or suffix. Display compound properties using the display format.

Display Formats window has two sections:

- Available Display Formats
- Selected Display Format



HyDraw Library Manager – (External Ports - Display Formats)

Available Display Formats

- The Available Display Formats section displays all formats and properties that are marked with the display in the drawing.
- Create a **New** Display format or  delete by selecting the required icon on the caption bar.

Available Display Formats										New 
Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix	Prefix	
Size		Port Size	<input type="checkbox"/>				<input type="checkbox"/>			

Available Display Formats Section

Selected Display Format

The Selected Display Format section displays Name, Linked property 1, Linked property 2 and Linked property 3 and their Display unit, Prefix and Suffix.

Define Display Property

1. Enter the name of the display format.
2. For the Linked property 1
 - i. Click .

The Select Property dialog box displays.

- ii. Select **Model property** or **Design property**.

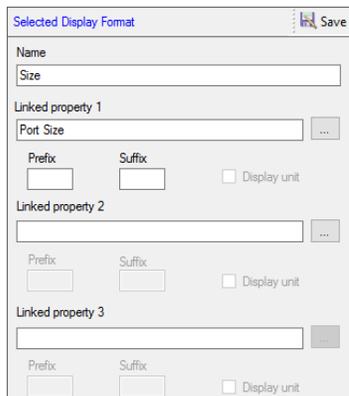
Note:

The properties that are marked for *Display in drawing* are only visible.

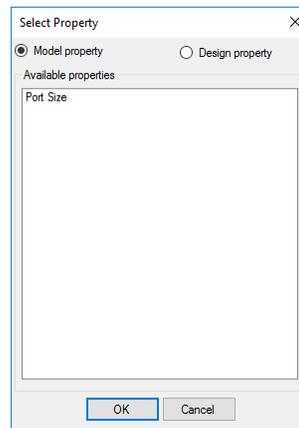
- iii. Select a property from the available properties.
- iv. Click **OK** to apply and exit.
- v. Select **Display unit**, if available.
- vi. Enter **Prefix**.
- vii. Enter **Suffix**.

Repeat the same procedure for Linked property 2 and Linked property 3.

3. Click **Save** to save the Display Format.



Selected Display Format Section



Select Property

Connections

View all the available connections (pipes, tubes and hoses), model properties, design properties, display formats, connection lines and connectors.

The screenshot shows the HyDraw Library Manager 2019 - [Connections] window. The interface includes a top navigation bar with icons for Components, Accessories, External Ports, Connections (highlighted), and Sub-systems. Below this is a secondary navigation bar with tabs for Model properties, Design Properties, Display Formats, Connection Lines, and Connectors. The main area is divided into three sections: Search by, Available Pipes, and Selected Pipe Properties.

The Search by section has dropdown menus for Type (Pipe) and Material (Seamless Steel Schedule 160). The Available Pipes section is a table with columns for Pressure (psi) and Nominal Diameter (in). A context menu is overlaid on the table, listing options 25 through 30: Connections, Model Properties, Design Properties, Display Formats, Connection Lines, and Connectors.

Pressure (psi)	Nominal Diameter (in)	Material	Weight (lb/ft)
3334	1/2 Thre	Seamless Steel Schedule 160	5.187
3528	3/4 Thre	Seamless Steel Schedule 160	0.466
3187	1 Thre	Seamless Steel Schedule 160	0.614
2490	1 1/4 Th	Seamless Steel Schedule 160	0.815
2642	1/2 Thre	Seamless Steel Schedule 160	1.16
2875	2 Thre	Seamless Steel Schedule 160	1.338
2305	2 1/2 Th	Seamless Steel Schedule 160	1.687
2401	3 Thre	Seamless Steel Schedule 160	2.125
2447	4 Thre	Seamless Steel Schedule 160	2.624
2453	5 Thre	Seamless Steel Schedule 160	3.438
2456	6 Thre	Seamless Steel Schedule 160	4.313
5129	1/2 Welded	Seamless Steel Schedule 160	0.466
5544	3/4 Welded	Seamless Steel Schedule 160	0.614
5127	1 Welded	Seamless Steel Schedule 160	0.815
3972	1 1/4 Welded	Seamless Steel Schedule 160	1.16
3941	1/2 Welded	Seamless Steel Schedule 160	1.338
3921	2 Welded	Seamless Steel Schedule 160	1.687
3517	2 1/2 Welded	Seamless Steel Schedule 160	2.125
3395	3 Welded	Seamless Steel Schedule 160	2.624
3219	4 Welded	Seamless Steel Schedule 160	3.438
3074	5 Welded	Seamless Steel Schedule 160	4.313

The Selected Pipe Properties section shows details for the selected pipe (3334):

Pressure (psi)	3334
Nominal Diameter (in)	1/2 Threaded
Material	Seamless Steel Schedule 160
Weight (lb/ft)	0.466
Outer Diameter (in)	0.84
Inner Diameter (in)	0.187

At the bottom of the window, there are links for What's New and Contact Us, and a copyright notice for © 2017 VEST, Inc.

25.Connections

View all the available pipes, tubes and hoses and their properties. Delete and create new pipes, tubes and hoses, using the icons on the caption bar.

Connections window has three sections (column wise):

- Search by
- Available Pipes/Tubes/Hoses
- Selected Pipe/Tube/Hose properties

HyDraw Library Manager 2019 - [Connections]

Components Accessories External Ports **Connections** Sub-systems

Model properties Design Properties Display Formats Connection Lines Connectors

Search by

Type
Pipe

Material
Seamless Steel Schedule 160

Available Pipes

Pressure (psi)	Nominal Size	Material	Inner Diameter
3334	1/2 Threaded	Seamless Steel Schedule 160	0.466
3528	3/4 Threaded	Seamless Steel Schedule 160	0.614
3187	1 Threaded	Seamless Steel Schedule 160	0.815
2490	1 1/4 Threaded	Seamless Steel Schedule 160	1.16
2642	1/2 Threaded	Seamless Steel Schedule 160	1.338
2875	2 Threaded	Seamless Steel Schedule 160	1.687
2305	2 1/2 Threaded	Seamless Steel Schedule 160	2.125
2401	3 Threaded	Seamless Steel Schedule 160	2.624
2447	4 Threaded	Seamless Steel Schedule 160	3.438
2453	5 Threaded	Seamless Steel Schedule 160	4.313
2456	6 Threaded	Seamless Steel Schedule 160	5.187
5129	1/2 Welded	Seamless Steel Schedule 160	0.466
5544	3/4 Welded	Seamless Steel Schedule 160	0.614
5127	1 Welded	Seamless Steel Schedule 160	0.815
3972	1 1/4 Welded	Seamless Steel Schedule 160	1.16
3941	1/2 Welded	Seamless Steel Schedule 160	1.338
3921	2 Welded	Seamless Steel Schedule 160	1.687
3517	2 1/2 Welded	Seamless Steel Schedule 160	2.125
3395	3 Welded	Seamless Steel Schedule 160	2.624
3219	4 Welded	Seamless Steel Schedule 160	3.438
3074	5 Welded	Seamless Steel Schedule 160	4.313

Selected Pipe Properties

Pressure (psi)	3334
Nominal Size	1/2 Threaded
Material	Seamless Steel Schedule 160
Inner Diameter (in)	0.466
Outer Diameter (in)	0.84
Wall Thickness (in)	0.187
Schedule	

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HyDraw Library Manager – (Connections)

Search by

Filter the selection on the Type i.e. Pipe/Tube/Hose and Material.

Search by
Type
Pipe ▾
Material
Seamless Steel Schedule 160 ▾

Search by Section

Available Pipes, Tubes & Hoses

The Available Pipes, Tubes & Hoses section displays all the pipes, tubes and hoses available for the selected Type and Material.

- Create a **New** pipe/tube/hose.
- Delete an existing pipe/tube/hose.

Available Pipes						New ✕
Material ▲	Nominal Size	Inner Diameter {in}	Outer Diameter {in}	Wall Thickness {in}	Pressure {psi}	
Seamless Steel Schedule 160	1/2 Threaded	0.466	0.84	0.187	3334	
Seamless Steel Schedule 160	1/2 Welded	0.466	0.84	0.187	5129	
Seamless Steel Schedule 160	3/4 Welded	0.614	1.05	0.218	5544	
Seamless Steel Schedule 160	3/4 Threaded	0.614	1.05	0.218	3528	
Seamless Steel Schedule 160	1 Welded	0.815	1.315	0.25	5127	
Seamless Steel Schedule 160	1 Threaded	0.815	1.315	0.25	3187	

Available Pipes Section

Available Tubes						New ✕
Material ▲	Nominal Size	Inner Diameter {in}	Outer Diameter {in}	Wall Thickness {in}	Pressure {psi}	▲
304 SS	3/16	0.118	0.188	0.035	8200	
304 SS	1/4	0.12	0.25	0.065	11750	
304 SS	3/16	0.132	0.188	0.028	6400	
304 SS	1/4	0.152	0.25	0.049	8650	
304 SS	1/4	0.18	0.25	0.035	5950	

Available Tubes Section

Selected Pipe/Tube/Hose properties

The Selected Pipe/Tube/Hose properties section displays the properties of the selected pipe/tube/hose.

Click **Save** to update the existing pipe/tube/hose data.

Click **Save As** to create a new pipe/tube/hose data.

Selected Pipe Properties	
Material	Seamless Steel Schedule 160 ...
Nominal Size	1/2 Threaded
Pressure	2642
Inner Diameter	1.338
Outer Diameter	1.9
Wall Thickness	0.281

Selected Pipe properties Section

26.Connections - Model Properties

Manage properties of the connections.

Connections Model Properties window has two sections:

- Model Properties
- Selected property definition

HyDraw Library Manager 2019 - [Model properties]

Components Accessories External Ports **Connections** Sub-systems

Model properties

Name	Data type	Unit category	Unit	Display in drawing
Connection Type	Text			<input type="checkbox"/>
Flow to Actuator	Number	Flow	gpm	<input type="checkbox"/>
Flow to Tank	Number	Flow	gpm	<input type="checkbox"/>
Grade	Text			<input type="checkbox"/>
Inner Diameter	Number	Length	in	<input type="checkbox"/>
Size	Text			<input type="checkbox"/>
Manufacturer	Text			<input type="checkbox"/>
Material	Text			<input type="checkbox"/>
Minimum Bend Radius	Number	Length	in	<input type="checkbox"/>
Nominal Size	Text			<input type="checkbox"/>
Outer Diameter	Number	Length	in	<input checked="" type="checkbox"/>
Part Number	Text			<input type="checkbox"/>
Pressure Class	Text			<input type="checkbox"/>
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Schedule	Text			<input type="checkbox"/>
Temperature Range	Number	Temperature	°C	<input type="checkbox"/>
Type	Text			<input type="checkbox"/>
Wall Thickness	Number	Length	in	<input checked="" type="checkbox"/>

Selected property definition

Name: Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Display in drawing

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HyDraw Library Manager – (Connections - Model Properties)

Model Properties

The Model Properties section displays all available connection model properties, their data type, category, and unit.

Create a **New** model property or  delete one, by selecting the required icon on the caption bar.

Model Properties  				
Name	Data type	Unit category	Unit	Display in drawing
Connection Type	Text			<input type="checkbox"/>
Flow to Actuator	Number	Flow	gpm	<input type="checkbox"/>
Flow to Tank	Number	Flow	gpm	<input type="checkbox"/>
Inner Diameter	Number	Length	in	<input type="checkbox"/>
Size	Text			<input type="checkbox"/>
Type	Text			<input type="checkbox"/>
Material	Text			<input type="checkbox"/>
Nominal Size	Text			<input type="checkbox"/>
Outer Diameter	Number	Length	in	<input checked="" type="checkbox"/>
Pressure	Number	Pressure	psi	<input type="checkbox"/>
Wall Thickness	Number	Length	in	<input checked="" type="checkbox"/>

Model Properties Section

Selected property definition

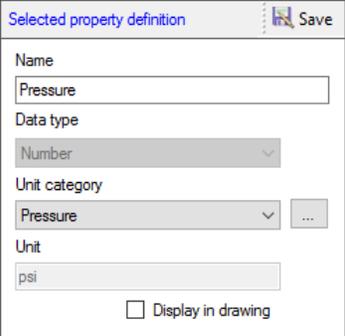
Edit the name of the connection model property, data type, unit category, and unit.

Select **Display in drawing** to display the property in the drawing.

Click **Save Property**.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.



Selected property definition

Name
Pressure

Data type
Number

Unit category
Pressure

Unit
psi

Display in drawing

Selected property definition Section

27.Connections - Design Properties

Manage design properties of the connections.

Connections Design Properties window has two sections:

- Design Properties
- Selected property definition

Name	Data type	Unit category	Unit	Display in drawing
Max Flow	Number	Flow	gpm	<input type="checkbox"/>
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Diameter	Number	Length	in	<input type="checkbox"/>

Selected property definition

Name: Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Display in drawing

HyDraw Library Manager – (Connection - Design Properties)

Design Properties

The Design Properties section displays all design properties, their data type, category, and unit.

Create a **New** connection design property or  delete by selecting the required icon on the caption bar.

Design Properties  				
Name	Data type	Unit category	Unit	Display in drawing
Max Flow	Number	Flow	gpm	<input type="checkbox"/>
Pressure	Number	Pressure	psi	<input type="checkbox"/>

Design Properties section

Selected property definition

Edit the name of the design property, data type, unit category, and unit.

Select **Display in drawing** to display the property in the drawing.

Click **Save**.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

Selected property definition 	
Name	<input type="text" value="Pressure"/>
Data type	<input type="text" value="Number"/>
Unit category	<input type="text" value="Pressure"/> 
Unit	<input type="text" value="psi"/>
<input type="checkbox"/> Display in drawing	

Selected property definition section

28.Connections - Display Formats

Assign display formats to connection lines display properties with suffix and/or prefix.

Display compound properties using the display format.

Manage Display Formats has two sections:

- Display Formats
- Selected Display Format

The screenshot shows the 'HyDraw Library Manager 2019 - [Display Formats]' window. The 'Connections' tab is active. The 'Available Display Formats' table is as follows:

Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix
Size		Outer Diameter	<input type="checkbox"/>	x		Wall Thickness	<input type="checkbox"/>	

The 'Selected Display Format' panel shows the configuration for the 'Size' format:

- Name: Size
- Linked property 1: Outer Diameter
- Prefix:
- Suffix:
- Display unit:
- Linked property 2: Wall Thickness
- Prefix: x
- Suffix:
- Display unit:
- Linked property 3:
- Prefix:
- Suffix:
- Display unit:

HyDraw Library Manager 2019 - (Connections - Display Formats)

Display Formats

- The Display Formats section displays all formats and properties that are marked with the display in the drawing.
- Create a **New** Display Format or  delete by selecting the required icon on the caption bar.

Available Display Formats  											
Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix	Prefix	Linked property 3	Display unit
Size		Outer Diameter	<input type="checkbox"/>		x	Wall Thickness	<input type="checkbox"/>				<input type="checkbox"/>

Display Formats Section

Selected Display Format

Assign Display formats: Name, Linked property 1, Linked property 2, and Linked property 3 and their Display unit, Prefix and Suffix.

Define Display Property

1. Enter the name of the display format.
2. Click  browse for the linked property 1.
The Select Property dialog box displays.
3. Select Model property/Design property.

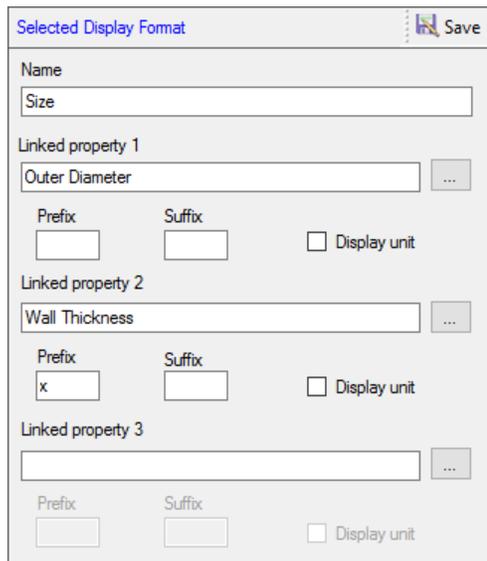
Note:

Properties that are marked for *Display in drawing* are only visible.

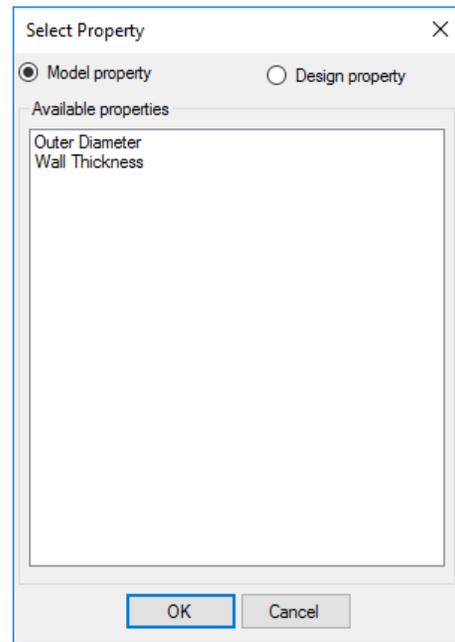
The properties that are defined as Display in the drawing do not appear automatically in the drawing; you need to add the Display Formats to the Connectors.

- Select a property from the available properties.
- Click **OK** to apply and exit.
- Select **Display Unit**, if available.
- Enter **Prefix**.
- Enter **Suffix**.

4. Repeat the same procedure for Linked property 2 and Linked property 3.
5. Click Save Display Format.



Selected Display Format Section



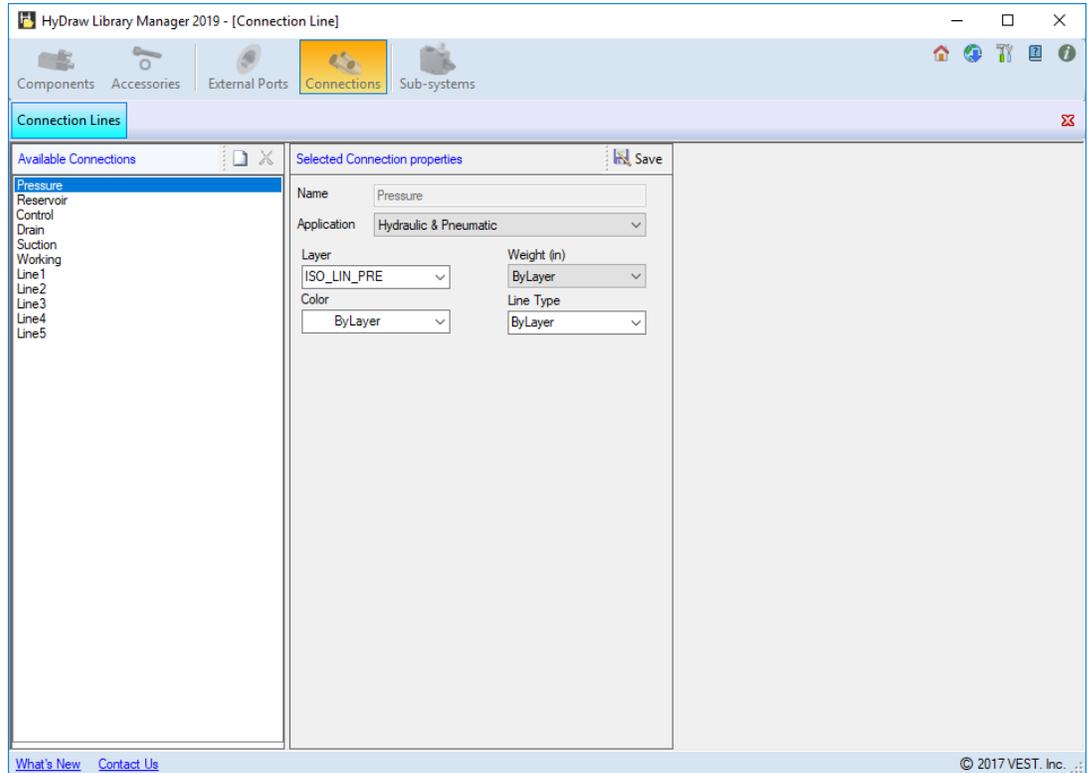
Select Property

29.Connections - Connection Lines

Add, modify or delete connections. Customize application, layer, connection's color, line weight and line type.

Connection Lines window has two sections (column wise):

- Available Connections
- Selected Connection properties



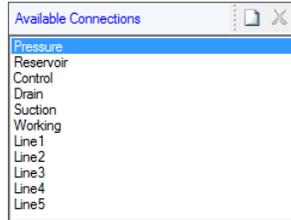
HyDraw Library Manager – (Connections - Connection Lines)

Available Connections

The Available Connections section displays all available connections.

Create a **new** connection type or delete a connection type by selecting the required icon on the caption bar.

Select any connection to view its properties in the selected Connection properties section.

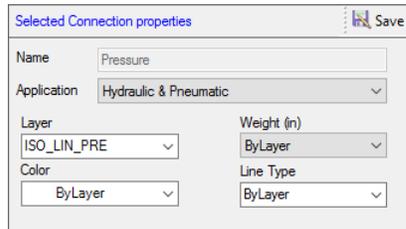


Available Connections Section

Selected Connection properties

Customize the application, and its general properties, such as layer, weight, color, and line type.

Click **Save** to save the changes.



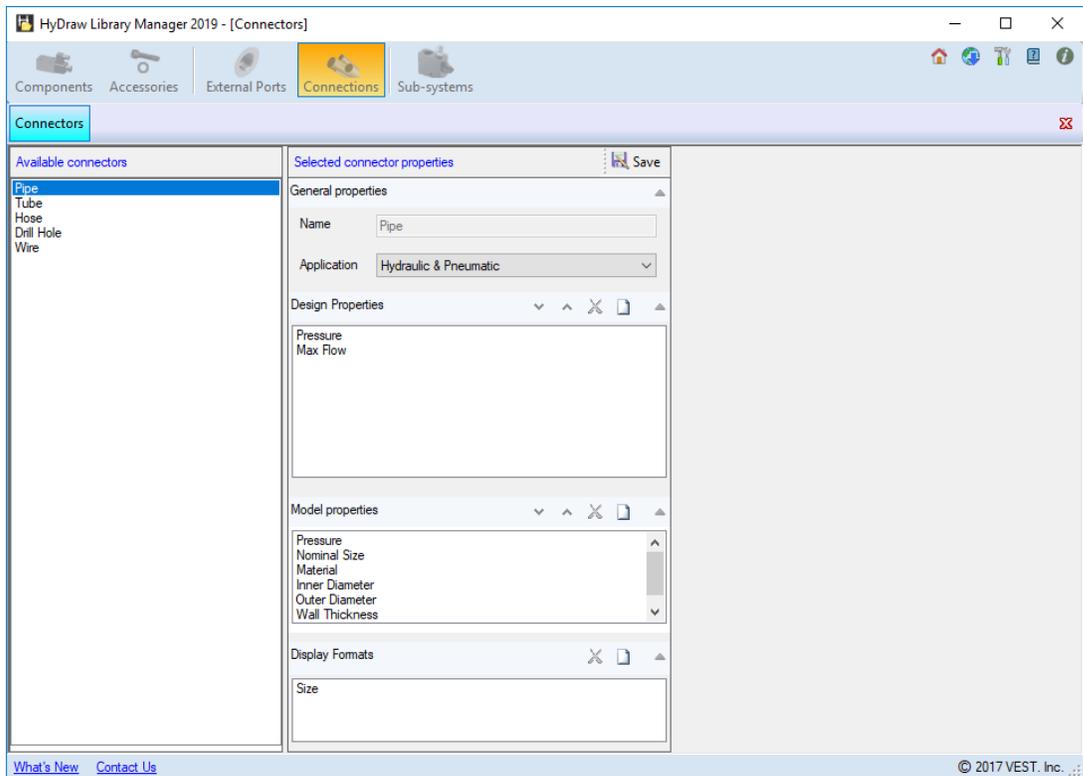
Selected Connection properties Section

30.Connections - Connectors

Customize application, add, modify or delete design properties, model properties and display formats.

Connectors window has two sections (column wise):

- Available Connectors
- Selected connector properties



HyDraw Library Manager – (Connections - Connectors)

Available Connectors

The Available Connectors section displays all available connectors.

Select any connector to view its properties in the selected connector properties section.

Note:

You cannot add or delete connectors.



Available Connectors Section

Selected connectors properties

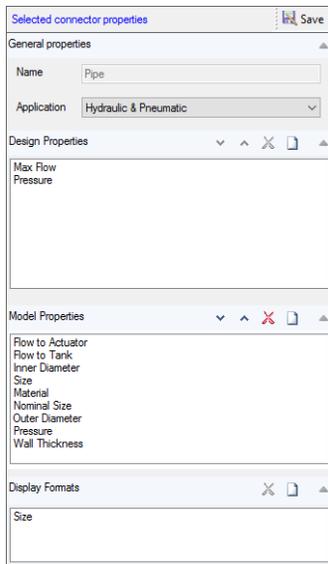
The Selected connectors properties section displays:

- General Properties
- Design Properties
- Model Properties
- Display Formats

General properties

Customize the application type of connector.

Click **Save** to save the changes.



Selected Connection properties Section

Design Properties

The Design Properties section displays the available design properties. You can also add new design properties, similar to components.

Model Properties

The Model Properties section displays the available model properties. You can also add new model properties, similar to components.

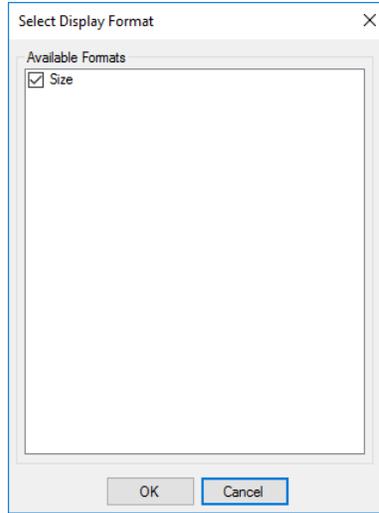
Display Formats

The *Display Formats* section displays the available *Display formats*.

1. Click  on the **Display Formats** caption bar.

The *Select Display Format dialog box* displays.

2. Select any format checkbox and click **OK** to display it in the *Display formats* section.
3. Click  to delete the selected format.



Select Display Format

Sub-Systems

Manage group of symbols, ports, connections and their model data. Assign sub-system models properties, link accessories, documents and CAD files.

HyDraw Library Manager 2019 - [Sub System : Symbol]

Components Accessories External Ports Connections Sub-systems

Symbol View Model Data View Documents CAD Files Model properties Design Properties Display Formats Sub-System Types

Available Symbols

Models linked to selected symbol Link Existing Model

Model Code	Model Name	Manufacturer
RP2700	Pump Motor Ase...	Custom

Selected Model properties Save

Model Data

Model Code	RP2700
Model Family	RP
Manufacturer	Custom
Description	Pump Motor Assembly
Part Number	M100020
Power Rating (HP)	10
Rated Flow (gpm)	26.5
Rated Pressure (psi)	5000

Accessories

Documents

CAD Files

31 Symbol View
32 Model Data View
33 Documents
34 CAD Files
35 Model Properties
36 Design Properties
37 Display Formats
38 Sub-System Types

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31.Sub-Systems - Symbol View

Sub-Systems > Symbol View

Sub-System in **Symbol View** has three sections (column wise).

- Library
- Available Symbols (of Sub-System)
- Models linked to the selected symbol

HyDraw Library Manager 2019 - [Sub System : Symbol]

Components Accessories External Ports Connections Sub-systems

Symbol View Model Data View Documents CAD Files Model properties Design Properties Display Formats Sub-System Types

Available Symbols

Models linked to selected symbol Link Existing Model

Model Code	Symbol Name	Manufacturer
RP2700	Pump Motor Asse...	Custom

Selected Model properties Save

Model Data

Model Code	Value
Model Family	RP
Manufacturer	Custom
Description	Pump Motor Assembly
Part Number	M100020
Power Rating (HP)	10
Rated Flow (gpm)	26.5
Rated Pressure (psi)	5000

Accessories Documents CAD Files

What's New Contact Us © 2017 VEST, Inc.

HyDraw Library Manager (Sub-System - Symbol View)

Library Section

The Library section displays a logically structured tree-view library.

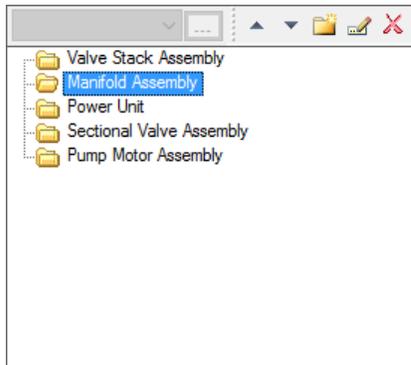
Click the required folder to display the symbol in the drawing section.

You can:

- Create a new library
- Create a new folder
- Rename an existing folder
- Delete a folder
- Move a folder up or down to customize the tree view

When you delete a folder, it deletes all its sub folders along with the symbols.

The commands are displayed as icons on the caption bar and in the context menu.



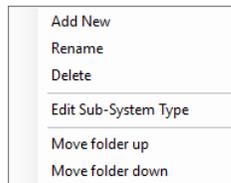
Library tree view

Add New Folder

1. Right click the required folder in the library folder section and select **Add New** from the context menu.

Or

Click  button on the caption bar.

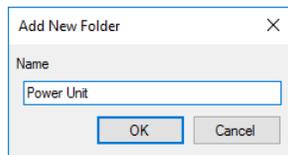


Library context menu

The Add New Folder dialog box displays.

2. Enter the name of the new folder and click **OK**.

The new folder is created.



Add New Folder dialog box

Rename Folder

1. Right click the required folder in the library folder section and select **Rename** from the context menu.

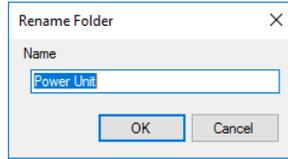
Or

Click  button on the caption bar.

The Rename Folder dialog box displays.

2. Enter the name of the folder and click **OK**.

The folder is renamed.



Rename Folder dialog box

Delete Folder

1. Right click the required folder in the library folder section and select **Delete** from the context menu.

Or

Click  button on the caption bar.

The HyDraw Library Manager dialog box displays.

Click **Yes** to delete the folder and its contents.

Caution!

The deleted folder and its contents cannot be recovered.

Available Symbols

The Available Symbols section displays the symbols for selected folder.

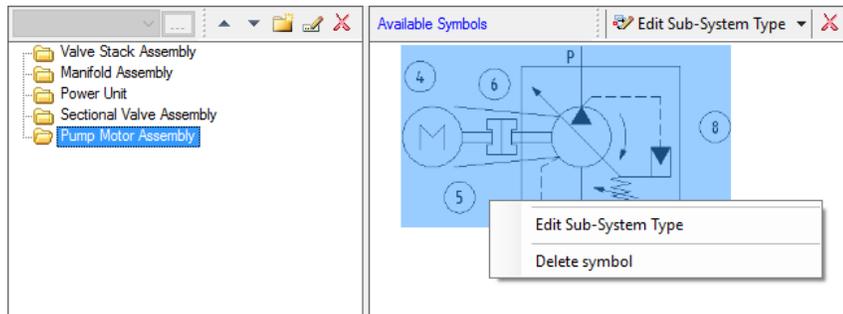
You can:

- Edit Sub-System Type
- Delete a Symbol

The commands are displayed as icons on the caption bar and in the context menu.

Note:

HyDraw CAD users browse to the Drawing application > Library Explorer > Sub-System to add a new symbol.



Available Symbols

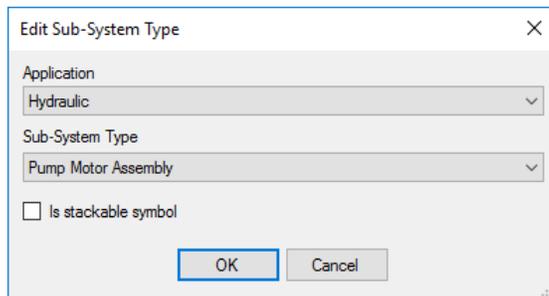
Edit Sub-System Type

1. Select the symbol in the drawing to edit the sub-system type.
2. Click **Edit Sub-System Type** on the caption bar.

The Edit Sub-System Type dialog box displays.

3. Select the required application and the sub-system type.
4. Click **OK**.

The specified sub-system type is saved to the selected symbol.



Edit Sub-System Type

Delete Symbol

Select the icon on the caption bar to delete the selected symbol.

The selected symbol is deleted from the library.

Models linked to selected symbol

The Models linked to selected symbol section displays models, accessories, documents, and CAD files.

Two functionalities:

- Link Existing Model
- Create New Model and Link

The screenshot shows a software interface window titled "Models linked to selected symbol". At the top right, there is a button "Link Existing Model" with a dropdown arrow and a close icon. Below this is a list of models with columns for model name, description, and manufacturer. The first model is "RP2700" with description "Pump Motor Assembly" and manufacturer "Custom".

Below the list is a section titled "Selected Model properties" with a "Save" button. It contains a table of "Model Data" for the selected model:

Model Code	RP2700
Model Family	RP
Manufacturer	Custom
Description	Pump Motor Assembly
Part Number	M100020
Power Rating (HP)	10
Rated Flow (gpm)	26.5
Rated Pressure (psi)	5000

Below this is an "Accessories" section with a table of accessory data:

Accessory [1]	{CNP2842TX}
Quantity	1
Model Data	
Model Code	CNP2842TX
Model Family	CNP
Part Number	RN524200
Description	Connector
Manufacturer	Custom
Cost	
Assembly Cost	
List Price	29.75
Lights	No
Type	Piston

At the bottom are sections for "Documents" and "CAD Files", each with a close icon and a dropdown arrow.

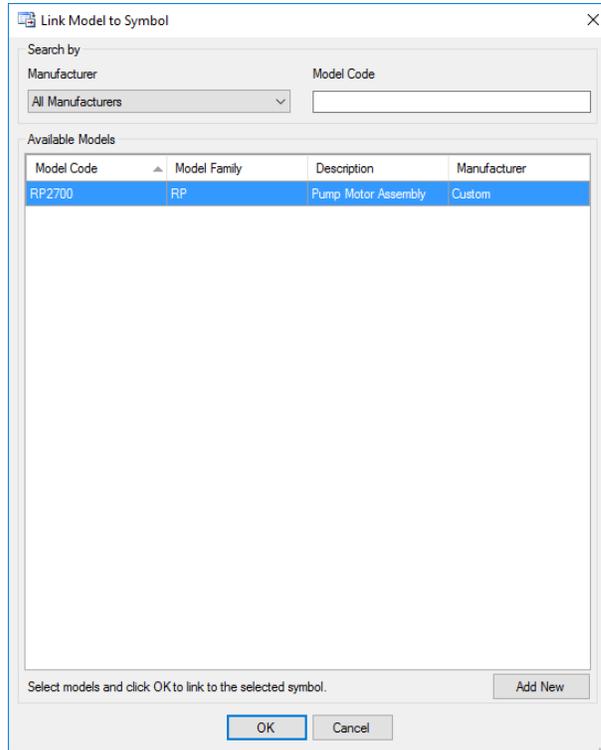
Model linked to selected symbol

Link Models to Symbol

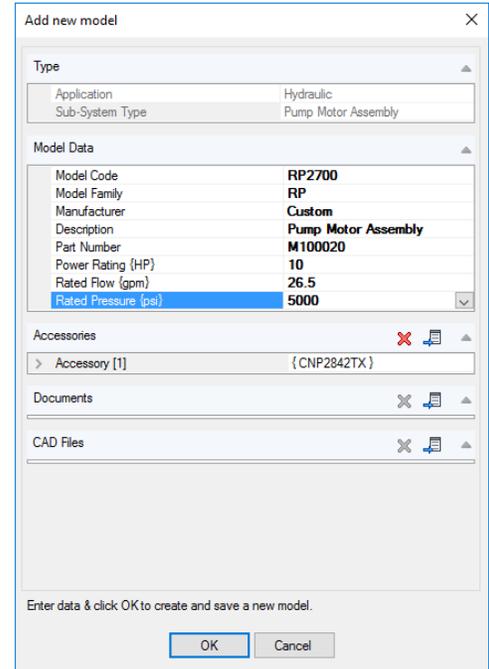
Link the selected symbol to the existing models available in the library.

1. Select models and click **OK** to link the selected symbol.
2. Click **Add New** to create new models and link it with the selected symbol, then save it in the library.

The Add New Model dialog box displays.



Link Model to Symbol

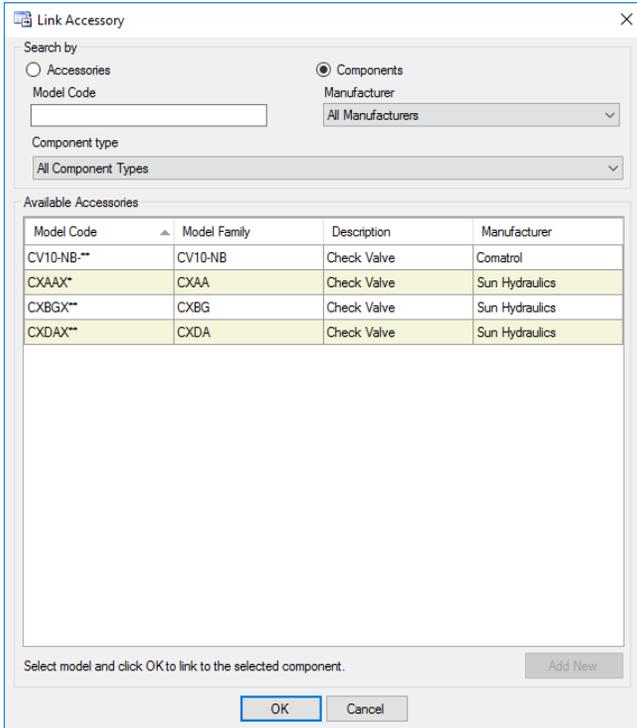


Add New Model dialog box

Accessories

1. Link Component as Accessories

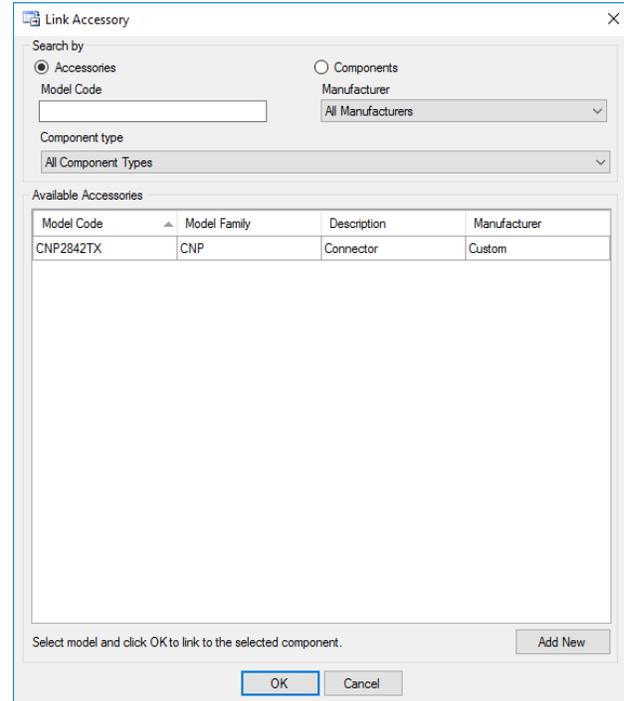
Link existing components as accessories available in the library to selected model.



Link Component as Accessory

2. Link Accessories

Link selected model to the existing accessories available in the library.

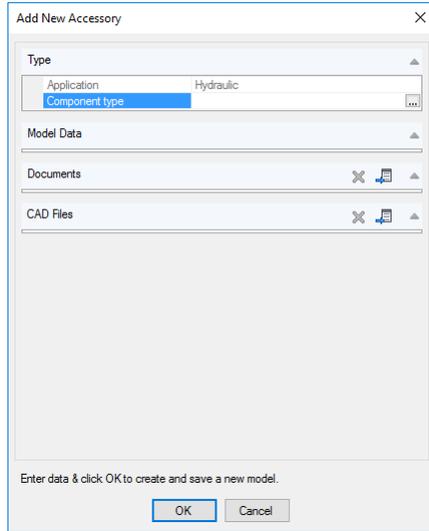


Link Accessory

Add New Accessory to the Library

3. Click the **Add New** button to add a new accessory to the library.

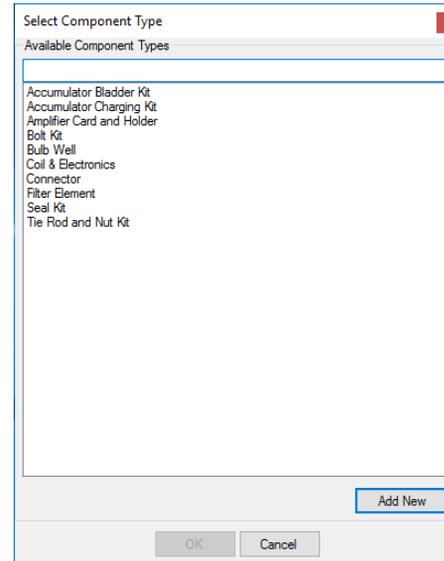
The Add New Accessory dialog box displays.



Add New Accessory dialog box

4. Select component type and click , the browse button on the caption bar.

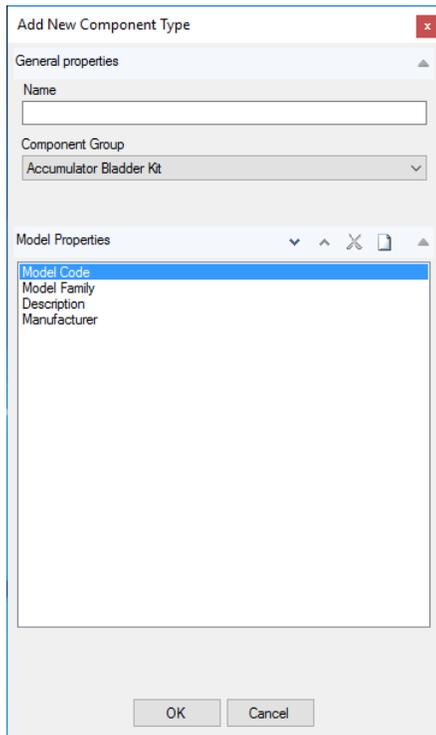
The Select Component Type dialog box displays.



Select Component Type dialog box

5. Select a component type from **Available Component Types** and click **OK**.
6. To add new component type, click the **Add New** button.

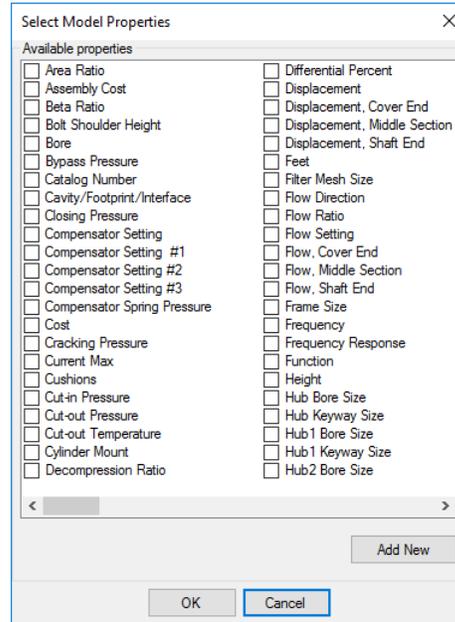
The Add New Component Type dialog box displays.



Add New Component Type

7. Enter the **Name** of the component type.
8. Select Component Group.

The Select Model Properties dialog box displays.



Select Model Properties

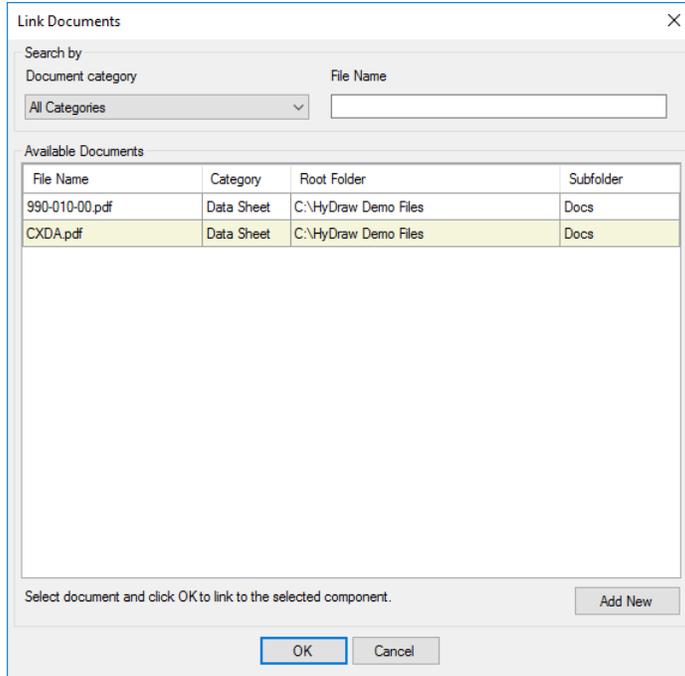
9. Click **Add New** property.
10. Select the required model properties to add to your accessories.
11. Click **OK**.

Note:

Refer Chapter 34, Sub-Systems – Model Properties for Add New

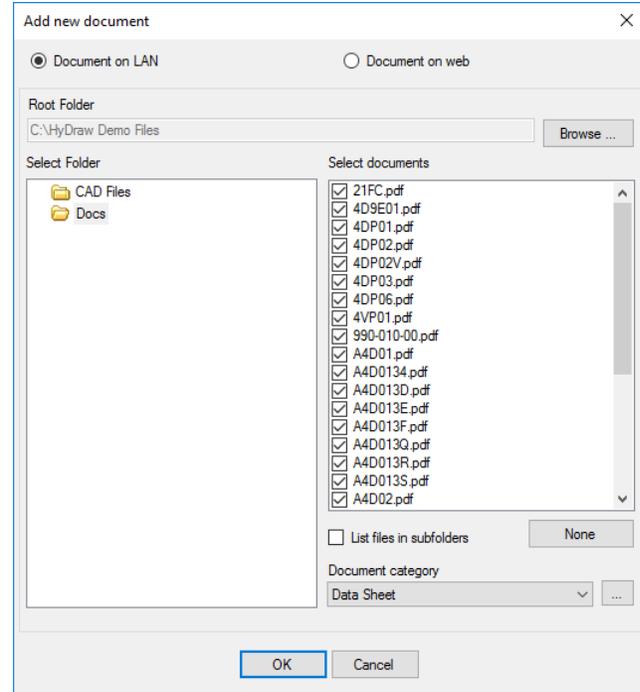
Documents

Link the selected model to the existing documents available in the local library.



Link Documents

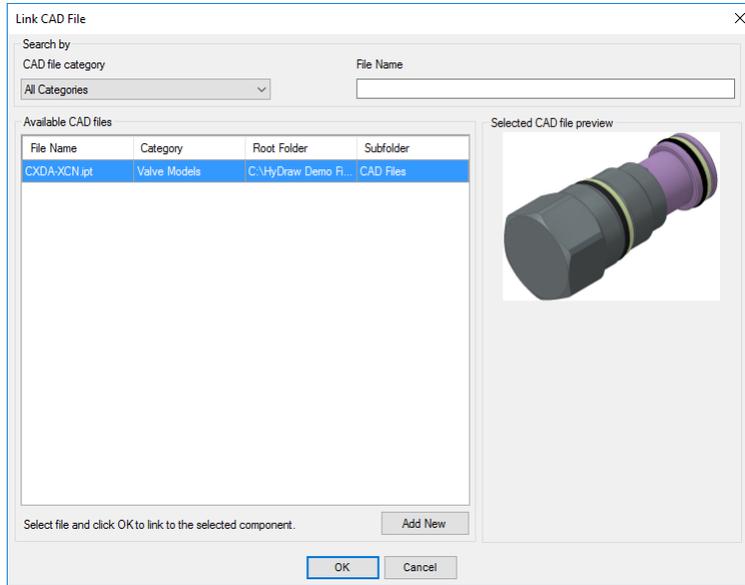
Add a new document and link it to the selected model.



Add New Document

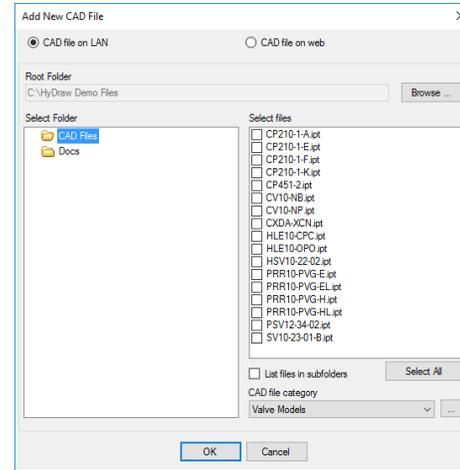
CAD Files

Link a selected model to the existing CAD files available in the library.

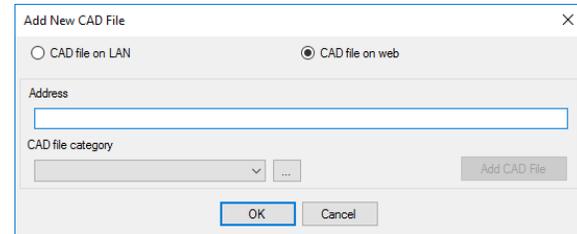


Link CAD File

Add a new CAD file and link it to the selected model.



Add New CAD File – From LAN



Add New CAD File - From Web

Create New Model and Link

1. Create a new model for the selected symbol and link.
2. Enter model data, link accessories, documents and CAD files.
3. Click **OK** to link the selected symbol.

Enter data & click OK to create and save a new model.

Create New Model

32.Sub-Systems - Model Data View

View all the available components and their properties.

Sub-Systems > Model Data View

Model Data Manager has three sections (column wise):

- Search by
- Available Models
- Selected Model properties

HyDraw Library Manager 2019

Components Accessories External Ports Connections Sub-systems

Symbol View Model Data View Documents CAD Files Model properties Design Properties Display Formats Sub-System Types

Search by

Application: Hydraulic

Sub-System Types: All Sub-System type

Manufacturer: All Manufacturers

Model Code: []

Model Code	Model Family	Description	Manufacturer
RP2700	RP	Pump Motor Assembly	Custom

Selected Model properties

Type

Application: Hydraulic

Sub-System Type: Pump Motor Assembly

Model Data

Model Code: RP2700

Model Family: RP

Manufacturer: Custom

Description: Pump Motor Assembly

Part Number: M100020

Power Rating (HP): 10

Rated Flow (gpm): 26.5

Rated Pressure (psi): 5000

Accessories

Documents

Symbols linked to selected model

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HyDraw Library Manager – (Sub-Systems - Model Data View)

Search by

Search for model or all models of a particular sub-system type, manufacturer, or models of any sub-system type of any manufacturer.

Search by
Application Hydraulic ▾
Sub-System Types All Sub System type ▾
Manufacturer All Manufacturers ▾
Model Code R

Search by Section

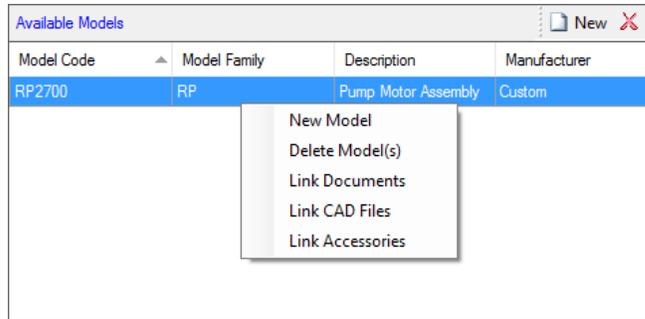
Available Models

The Available Models section displays four mandatory properties: Model Code, Model Family, Description, and Manufacturer.

Create a **New** model or **Delete** an existing model by selecting the icons on the caption bar.

Note:

- You can also delete a single model or multiple models; Right click and then select **Delete Model(s)** from the context menu.
- Link documents or CAD files either to a single model or multiple models from the **Link Documents** and **Link CAD Files** options in the context menu.
- Link accessories either to a single model or multiple models from the **Link Accessories** in the context menu.



Selected Model properties

The Selected Model properties section displays the properties of the selected model.

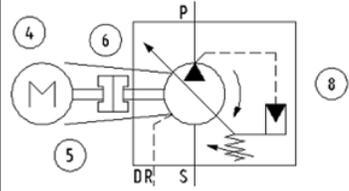
Change the property of the model in the Model Data section.

1. Enter new properties and click **Save** to save the model properties.
2. Click **Save As** to save it as a new model.

You can also link accessories, documents, CAD files and symbol to the selected model.

Note:

You can link a single accessory or multiple accessories from library: Drag select, and then click **OK** in the **Link Accessory** dialog.

Selected Model properties		Save
Type ▲		
Application	Hydraulic	
Sub-System Type	Pump Motor Assembly	
Model Data ▲		
Model Code	RP2700	
Model Family	RP	
Manufacturer	Custom	
Description	Pump Motor Assembly	
Part Number	M100020	
Power Rating (HP)	10	
Rated Flow (gpm)	26.5	
Rated Pressure (psi)	5000	
Accessories ✕ 📄 ▲		
▼ Accessory [1]	{CNP2842TX}	
Quantity	1	
> Model Data		
Documents ✕ 📄 ▲		
CAD Files ✕ 📄 ▲		
Symbols linked to selected model ⇄ 📄 ✕		
		

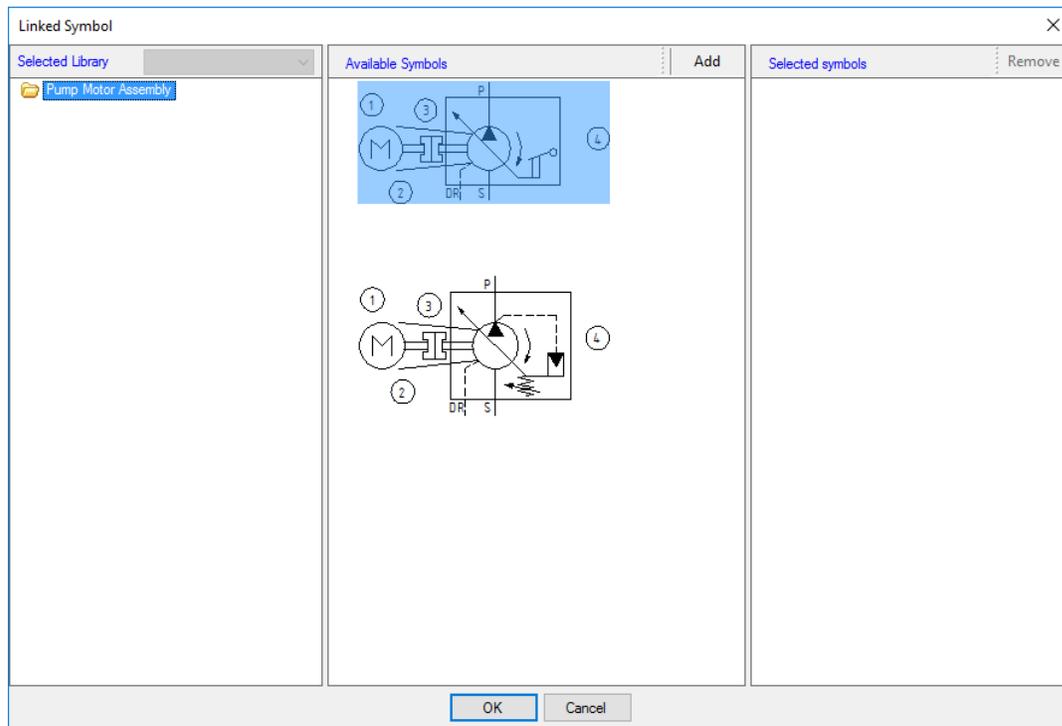
Selected Model properties Section

Link Symbol

1. Click  in the Symbol linked to selected mode top section.
2. Browse through the folders in the first pane.
3. View the **Available Symbols** in the selected folder.
4. Select the symbol to link and click **Add** in the **Available Symbols** pane.
5. Click **OK** to link the selected symbol.

Click   to traverse through the linked symbol.

Click  to delete the linked symbol.



Linked Symbol dialog box

33. Documents

Select and link documents from the library or delete the linked documents.

Note: Refer Chapter 8, Documents for detailed usage.

34. CAD Files

Select and link CAD files from the library or delete the linked CAD files.

Note: Refer Chapter 9, CAD Files for details.

35.Sub-Systems - Model Properties

Manage the properties of the sub-system model.

Sub-Systems > Model Properties

Sub-Systems: Model Properties window is broadly divided into two sections:

- Model Properties
- Selected property definition

HyDraw Library Manager 2019 - [Model properties]

Components Accessories External Ports Connections Sub-systems

Model properties

Name	Data type	Unit category	Unit	Display in drawing
Area Ratio	Text			<input type="checkbox"/>
Assembly Cost	Currency			<input type="checkbox"/>
Beta Ratio	Text			<input checked="" type="checkbox"/>
Bolt Shoulder Height	Number	Length	in	<input type="checkbox"/>
Bore	Number	Length	in	<input checked="" type="checkbox"/>
Bypass Pressure	Number	Pressure	psi	<input type="checkbox"/>
Catalog Number	Text			<input type="checkbox"/>
Cavity/Footprint/Interface	Text			<input checked="" type="checkbox"/>
Closing Pressure	Number	Pressure	psi	<input type="checkbox"/>
Compensator Setting	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #1	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #2	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #3	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Spring Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cost	Currency			<input type="checkbox"/>
Cracking Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Current Max	Number	Current	amp	<input type="checkbox"/>
Cushions	Text			<input type="checkbox"/>
Cut-in Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Temperature	Text			<input type="checkbox"/>
Cylinder Mount	Text			<input type="checkbox"/>
Decompression Ratio	Text			<input type="checkbox"/>

Selected property definition

Name: Closing Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Display in drawing

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HyDraw Library Manager – (Sub-System - Model Properties)

Model Properties

The Model Properties section displays all model properties, their data type, and unit category.

Create a **New** model property or

 delete one by selecting the icons on the caption bar.

Model Properties New 				
Name	Data type	Unit category	Unit	Display in drawing
Area Ratio	Text			<input type="checkbox"/>
Assembly Cost	Currency			<input type="checkbox"/>
Beta Ratio	Text			<input checked="" type="checkbox"/>
Bolt Shoulder Height	Number	Length	in	<input type="checkbox"/>
Bore	Number	Length	in	<input checked="" type="checkbox"/>
Bypass Pressure	Number	Pressure	psi	<input type="checkbox"/>
Catalog Number	Text			<input type="checkbox"/>
Cavity/Footprint/Interface	Text			<input checked="" type="checkbox"/>
Closing Pressure	Number	Pressure	psi	<input type="checkbox"/>
Compensator Setting	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #1	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #2	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Setting #3	Number	Pressure	psi	<input checked="" type="checkbox"/>
Compensator Spring Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cost	Currency			<input type="checkbox"/>
Cracking Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Current Max	Number	Current	amp	<input type="checkbox"/>
Cushions	Text			<input type="checkbox"/>
Cut-in Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Pressure	Number	Pressure	psi	<input type="checkbox"/>
Cut-out Temperature	Text			<input type="checkbox"/>
Cylinder Mount	Text			<input type="checkbox"/>
Decompression Ratio	Text			<input type="checkbox"/>
Description	Text			<input type="checkbox"/>

Model properties section

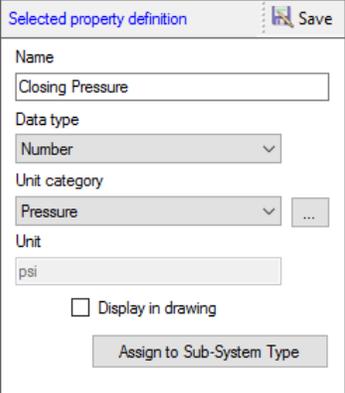
Selected property definition

Edit the name of the model property, data type, unit category, and unit.

1. Select **Display in drawing** to display the property in the drawing.
2. Click **Assign to Sub-System Type** to assign the selected property to one or more sub-system types.
3. Click **Save** to save the changes of the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.



Selected property definition

Name
Closing Pressure

Data type
Number

Unit category
Pressure

Unit
psi

Display in drawing

Assign to Sub-System Type

Selected property definition Section

Assign Property to Sub-System Type

1. Click **Assign to Sub-System Type** in the Selected property definition section.

The Assign Property to Sub-System Type dialog box displays.

2. Select Application.
3. Select the available **Sub-System Types** to include the property.

Or

Click the **Select All** button

*On the basis of the selected sub-system properties, the **Common properties** are displayed in the listing on the right.*

4. Select any one of the Insert option, **As last property/Below selected property**.
5. Click **OK** to apply and exit.

Assign Property to Sub-System Type

Application: Hydraulic

Sub-System Types:

- Manifold Assembly
- Power Unit
- Pump Motor Assembly
- Sectional Valve Assembly
- Valve Stack Assembly

Common properties:

- Model Code
- Model Family
- Manufacturer
- Description
- Part Number
- Power Rating
- Rated Flow
- Rated Pressure

Insert:

- As last property
- Below selected property

Select All

OK Cancel

Assign Property to Sub-System Type

36.Sub-Systems - Design Properties

Manage the design properties of the sub-system model.

Sub-Systems > Design Properties

Design Properties has two sections:

- Design Properties
- Selected property definition

Name	Data type	Unit category	Unit	Display in drawing	Linked model property
Cleanliness Rating	Text			<input type="checkbox"/>	ISO Cleanliness Rating
Displacement	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement
Displacement, Cover End	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Cover End
Displacement, Middle Section	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Middle Section
Displacement, Shaft End	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Shaft End
Flow	Number	Flow	gpm	<input type="checkbox"/>	Rated Flow
Flow, Cover End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Cover End
Flow, Middle Section	Number	Flow	gpm	<input type="checkbox"/>	Flow, Middle Section
Flow, Shaft End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Shaft End
Power	Number	Power	HP	<input type="checkbox"/>	Power Rating
Pressure, Middle Section	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Middle Sect.
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>	Rated Pressure
Pressure, Cover End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Cover End
Pressure, Shaft End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Shaft End
Torque	Number	Torque	Lbf-ft	<input type="checkbox"/>	Torque
Volume	Number	Volume	Gallon	<input type="checkbox"/>	Volume

Selected property definition

Name: Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Linked model property: Rated Pressure

Search operator: >=

Search tolerance +/-: 25 %

Display in drawing

HyDraw Library Manager (Sub-Systems - Design Properties)

Design Properties

The Design Properties section displays all design properties, their data type, category and unit.

You can also create a **New** design property or  delete one by selecting the required icon on the caption bar.

Design Properties  							
Name	Data type	Unit category	Unit	Display in drawing	Linked model property	Search operator	Search Tolerance (%)
Cleanliness Rating	Text			<input type="checkbox"/>	ISO Cleanliness Rating		
Displacement	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement	>=	25
Displacement, Cover End	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Cover End	>=	25
Displacement, Middle Section	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Middle Section	>=	25
Displacement, Shaft End	Number	Volumetric Di...	Cu. in./Rev	<input type="checkbox"/>	Displacement, Shaft End	>=	25
Flow	Number	Flow	gpm	<input type="checkbox"/>	Rated Flow	>=	25
Flow, Cover End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Cover End	>=	25
Flow, Middle Section	Number	Flow	gpm	<input type="checkbox"/>	Flow, Middle Section	>=	25
Flow, Shaft End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Shaft End	>=	25
Power	Number	Power	HP	<input type="checkbox"/>	Power Rating	>=	25
Pressure, Middle Section	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Middle Section	>=	25
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>	Rated Pressure	>=	25
Pressure, Cover End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Cover End	>=	25
Pressure, Shaft End	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Shaft End	>=	25
Torque	Number	Torque	Lb-ft	<input type="checkbox"/>	Torque	>=	25
Volume	Number	Volume	Gallon	<input type="checkbox"/>	Volume	>=	25

Design Properties section

Selected property definition

Edit the name of the model property, data type, unit category, and unit.

1. Select **Display in drawing** to display the property in the drawing.
2. Click **Assign to Sub-System Type** to assign the selected property to one or more sub-system types.

The Assign Property to Sub-System Type dialog box displays.

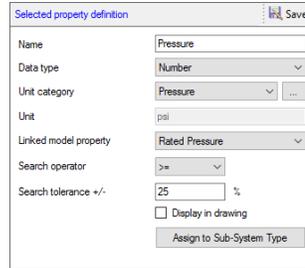
3. Select Application.
4. Select the available **Sub-System types** to include the property. Or Click the **Select All** button to select all the sub-system types.

*On the basis of the selected sub-system properties, the **Common properties** are displayed in the listing on the right.*

5. Select Insert, As last property/Below selected property.
Click **OK** to apply and exit.
6. Click **Save** to save the changes to the property.

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text,Currency, or Yes/No is selected in the Unit category box



Selected property definition

Name: Pressure

Data type: Number

Unit category: Pressure

Unit: psi

Linked model property: Rated Pressure

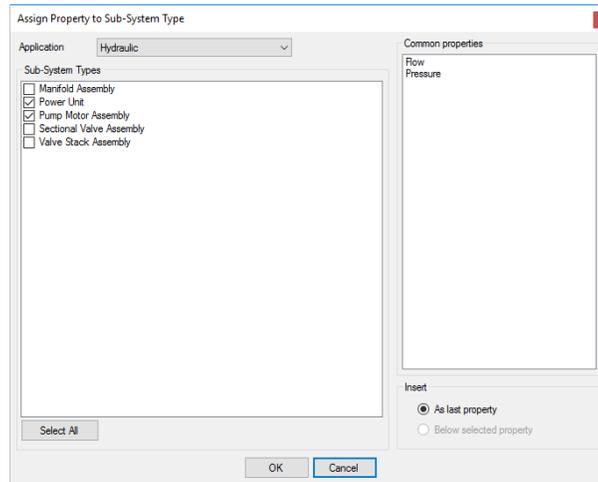
Search operator: >=

Search tolerance +/-: 25 %

Display in drawing

Assign to Sub-System Type

Selected property definition Section



Assign Property to Sub-System Type

Application: Hydraulic

Sub-System Types

- Manifold Assembly
- Power Unit
- Pump Motor Assembly
- Sectional Valve Assembly
- Valve Stack Assembly

Common properties

Flow Pressure

Insert

As last property

Below selected property

Select All

OK Cancel

Assign Property to Sub-System Type

37.Sub-Systems - Display Formats

Assign Display formats for sub-system to display properties with prefix and/or suffix.

Display sub-system properties using the display format.

Sub-Systems → Display Formats

Manage Display Formats window has two sections:

- Available Display Formats
- Selected Display Format

The screenshot shows the 'HyDraw Library Manager 2019 - [Display Formats]' window. The 'Available Display Formats' table is as follows:

Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix
Beta Ratio		Beta Ratio	<input type="checkbox"/>				<input type="checkbox"/>	
Cavity/Footprint/L...		Cavity/Footprint/L...	<input type="checkbox"/>				<input type="checkbox"/>	
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Cracking Pressure		Cracking Pressure	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Cylinder Size	∅	Bore	<input type="checkbox"/>		x	Rod Diameter	<input type="checkbox"/>	
Displacement		Displacement	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Displacement, Co...		Displacement, Co...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Displacement, Mi...		Displacement, Mi...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Displacement, Sh...		Displacement, Sh...	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Flow Setting		Flow Setting	<input checked="" type="checkbox"/>				<input type="checkbox"/>	
Micron Rating		Micron Rating	<input type="checkbox"/>				<input type="checkbox"/>	
Nominal Size		Nominal Size	<input type="checkbox"/>				<input type="checkbox"/>	
Pilot Ratio		Pilot Ratio	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size		Port Size	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size Ext		Port Size, A	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size Ret		Port Size, B	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size, Aux. R...		Port Size, Aux. R...	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size, Drain		Port Size, Drain	<input type="checkbox"/>				<input type="checkbox"/>	
Port Size, Gauge		Port Size, Gauge	<input type="checkbox"/>				<input type="checkbox"/>	

The 'Selected Display Format' section shows the configuration for 'Cylinder Size':

- Name: Cylinder Size
- Linked property 1: Bore
- Prefix: ∅
- Suffix: (empty)
- Display unit:
- Linked property 2: Rod Diameter
- Prefix: x
- Suffix: (empty)
- Display unit:
- Linked property 3: Stroke
- Prefix: /
- Suffix: (empty)
- Display unit:

HyDraw Library Manager (Sub-Systems - Display Formats)

Available Display Formats

- The Available Display Formats section displays all the formats and properties that are marked with the display in the drawing.
- Create **New** display format or delete by selecting the required icon on the caption bar.

Available Display Formats New 									
Name	Prefix	Linked property 1	Display unit	Suffix	Prefix	Linked property 2	Display unit	Suffix	Pre ^
Beta Ratio		Beta Ratio	<input type="checkbox"/>				<input type="checkbox"/>		
Cavity/Footprint/1...		Cavity/Footprint/1...	<input type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Compensator Set...		Compensator Set...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Cracking Pressure		Cracking Pressure	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Cylinder Size	∅	Bore	<input type="checkbox"/>	x		Rod Diameter	<input type="checkbox"/>	/	
Displacement		Displacement	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Co...		Displacement, Co...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Mi...		Displacement, Mi...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Displacement, Sh...		Displacement, Sh...	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Flow Setting		Flow Setting	<input checked="" type="checkbox"/>				<input type="checkbox"/>		
Micron Rating		Micron Rating	<input type="checkbox"/>				<input type="checkbox"/>		
Nominal Size		Nominal Size	<input type="checkbox"/>				<input type="checkbox"/>		
Pilot Ratio		Pilot Ratio	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size		Port Size	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size Ext		Port Size, A	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size Ret		Port Size, B	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Aux. R...		Port Size, Aux. R...	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Drain		Port Size, Drain	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Gauge		Port Size, Gauge	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Inlet		Port Size, Inlet	<input type="checkbox"/>				<input type="checkbox"/>		
Port Size, Outlet		Port Size, Outlet	<input type="checkbox"/>				<input type="checkbox"/>		

Available Display Formats Section

Selected Display Format

Assign Display Format: Name, Linked Property 1, Linked Property 2 and Linked Property 3 and their Display Unit, Prefix and Suffix.

Define Display Property

1. Enter **Name** of the display format.

For the **Linked property 1**.

2. Click .

The Select Property dialog box displays.

i. Select Model Property/Design Property.

Note:

The properties that are marked, *Display in drawing*, are visible.

ii. Select a property from the available properties.

iii. Click **OK** to apply and exit.

iv. Select **Display Unit**, if available.

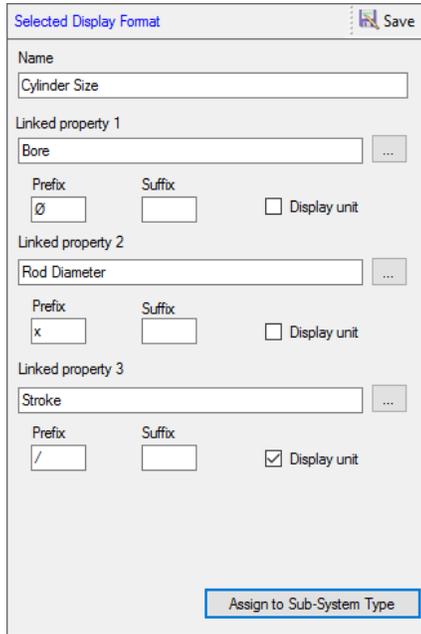
v. Enter **Prefix**.

vi. Enter **Suffix**.

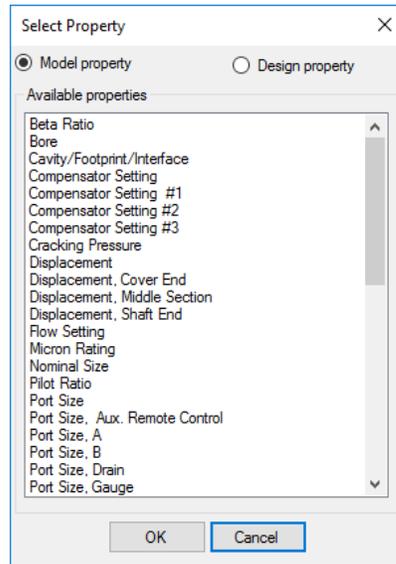
Repeat the same procedure for Linked property 2 and Linked property 3.

3. Click Assign to Sub-System Type.

The Assign Display Format to Sub-System Type dialog box displays.



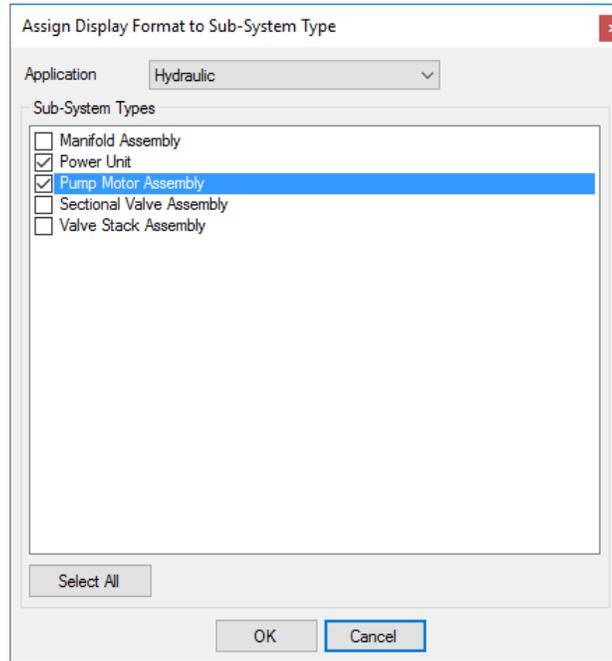
Selected Display Format Section



Select Property

In the Assign Display Format to Sub-System Type dialog box -

4. Select Application.
5. Select one or more listed sub-system types
or
Click **Select All** to select all sub-system types.
6. Click **OK** to apply and exit.
7. Click **Save**.



Assign Display Format to Sub-System Type

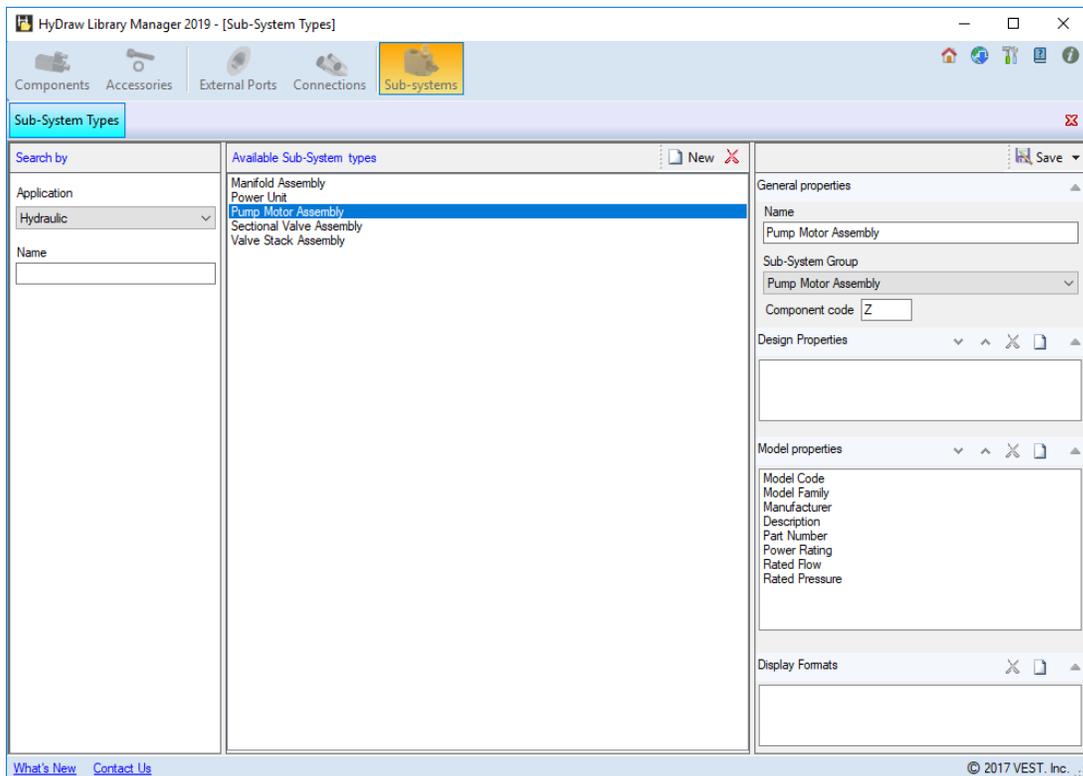
38. Sub-Systems - Sub-System Types

View all available sub-system types and their properties.

Sub-Systems → **Sub-System Types**

Sub-System Types window has three sections:

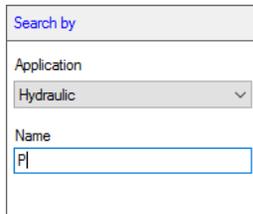
- Search by
- Available Sub-System Types
- Selected Sub-System Type properties



HyDraw Library Manager – (Sub-Systems – Sub-System Types)

Search by

Search for a particular application, sub-system type or all sub-system types.



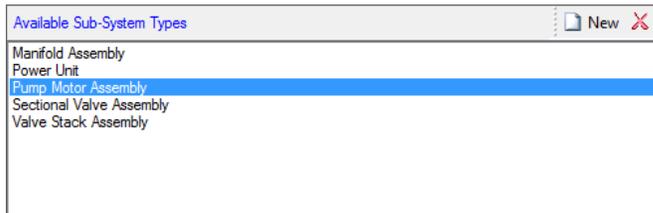
A dialog box titled "Search by" with a light gray header. Below the header, there are two input fields. The first is a dropdown menu labeled "Application" with "Hydraulic" selected and a downward arrow. The second is a text input field labeled "Name" containing the letter "P".

Search by Section

Available Sub-System Types

The Available Sub-System Types section displays all available Sub-System types.

Create a **New** Sub-System type or  delete a sub-system type by selecting the required icon on the caption bar.



A dialog box titled "Available Sub-System Types" with a light gray header. The header contains a "New" button with a document icon and a red "X" delete icon. Below the header, there is a list of sub-system types: "Manifold Assembly", "Power Unit", "Pump Motor Assembly", "Sectional Valve Assembly", and "Valve Stack Assembly". The "Pump Motor Assembly" item is highlighted with a blue background.

Available Sub-System Types Section

Selected Sub-System Type properties

The Selected Sub-System Type properties section displays

- General Properties
- Design Properties
- Model Properties
- Display Formats

Save the properties of the sub-system type after making changes.

Or

Save As a new sub-system type.

Save commands are available on the caption bar.

The screenshot shows a software window titled "Selected Sub-System Type properties" with a "Save" button in the top right corner. The window is divided into four main sections:

- General properties:** Contains a "Name" text box with "Pump Motor Assembly", a "Sub-System Group" dropdown menu also set to "Pump Motor Assembly", and a "Component code" text box with "Z".
- Design Properties:** A large empty text area.
- Model properties:** A list of properties: Model Code, Model Family, Manufacturer, Description, Part Number, Power Rating, Rated Flow, and Rated Pressure.
- Display Formats:** A large empty text area.

Selected Sub-System Type properties section

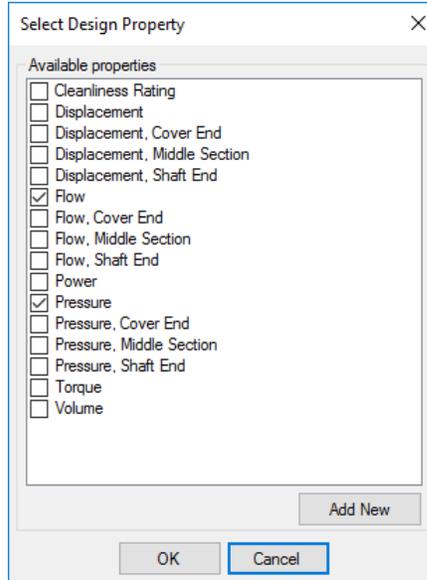
General Properties

This section displays the name of the Sub-System Type, Sub-System Group and the Component Code.

Design Properties

This section displays the available design properties. You can also add new design properties.

1. Click  on the Design properties caption bar to display the Select Design Property dialog box.
2. Select any property checkbox to display them in the Design Property section.
3. Click **Add New** to display the Define Component Properties dialog box.

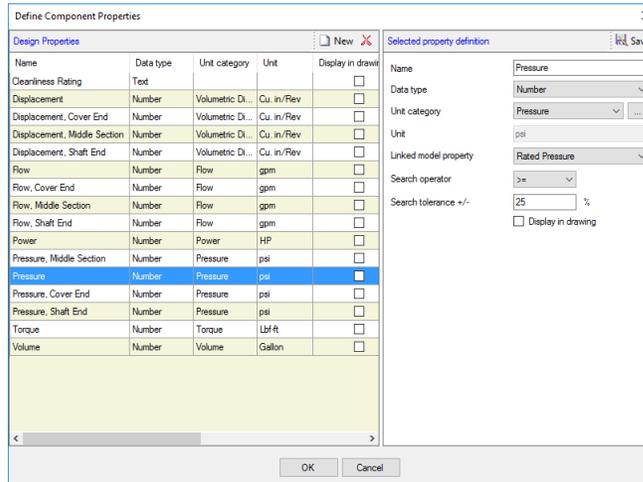


Select Design Property dialog box

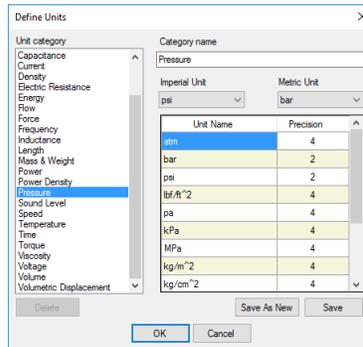
- Click **New** to add new property.
- Select **Display in drawing** to display the property in the drawing.
- Click  in the selected property definition section to display the Define Units dialog box.
- Click **Save** to save the new property and update the existing properties.

Note:

- You cannot delete essential design properties; hence  remains inactive on selection of essential model properties.
-  remains inactive if Text, Currency, or Yes/No is selected in the Data type box.



Define Component Properties

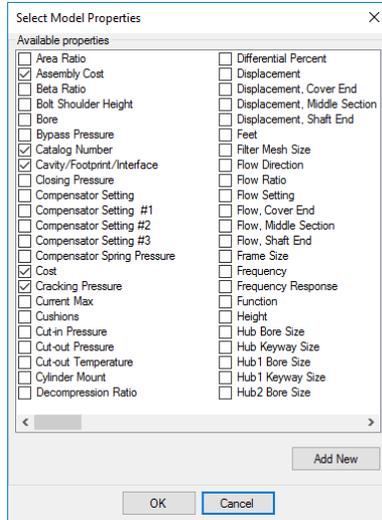


Define Units

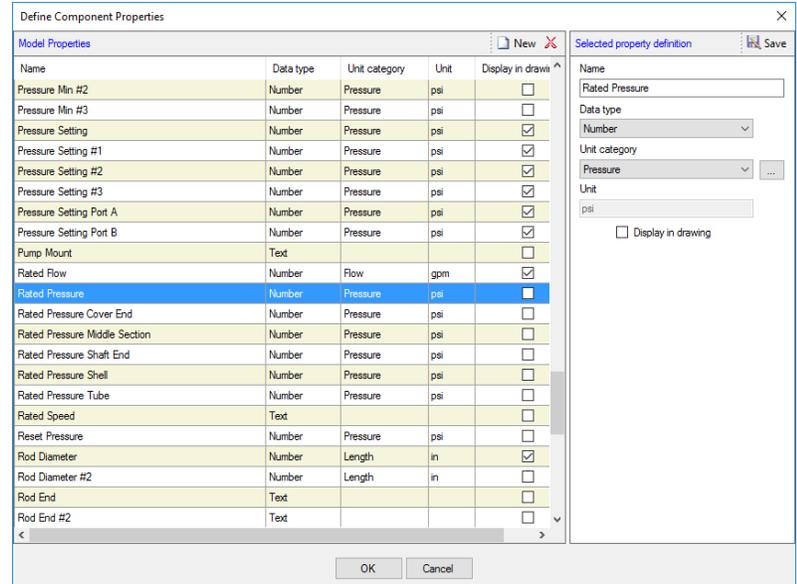
Model Properties

This section displays the available model properties. You can also add new model properties.

1. Click  on the Model Properties caption bar to display the Select Model Properties dialog box.
2. Select any property checkbox to display it in the Model Property section.
3. Click **Add New** to display the Define Component Properties dialog box.
4. Click **New** to add a new property.
5. Click  in the selected property definition section to display the Define Units dialog box.
6. Select the **Display in drawing** checkbox to display the model property in the drawing.
7. Click **Save** to save the new property or update the existing property.



Select Model Properties dialog box



Define Component Properties

Note:

- Essential model properties cannot be deleted; therefore,  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

Define Units

The Define Units dialog box display details of the selected Unit category.

1. Select **Unit Category**.
2. Edit **Category name**, if required.
3. Select **Imperial Unit**.
4. Select **Metric Unit**.
5. Select **Unit Name**.
6. Enter the **Precision** up to four decimal places.
7. Click **Save As New** to add a new category.
8. Click **Save** to update an existing category.

Define Units

Unit category

Category name

Imperial Unit

Metric Unit

Unit Name	Precision
atm	4
bar	2
psi	2
lbf/ft ²	4
pa	4
kPa	4
MPa	4
kg/m ²	4
kg/cm ²	4

Delete

Save As New

Save

OK

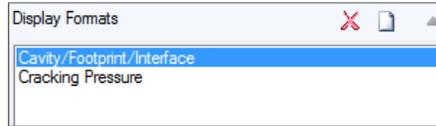
Cancel

Define Units dialog box

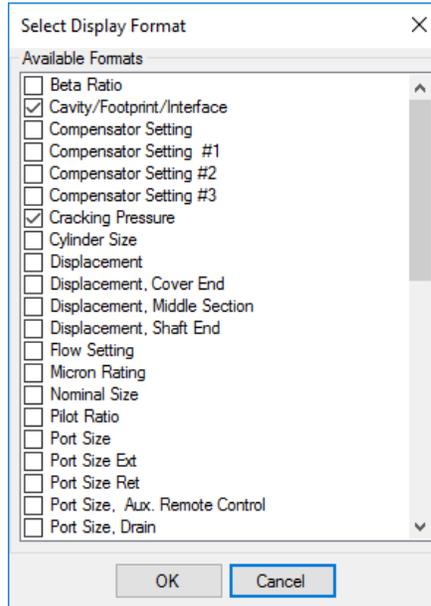
Display Formats

This section displays the available display formats.

1. Click  on the Display Formats caption bar to display the Select Display Format dialog box.
2. Select any property checkbox to display it in the Display Format section.
3. Click **OK**.
4. You can also click  to delete an existing display format.



Display Formats section



Select Display Format dialog box

Miscellaneous

39	Migrating Library
40	HyDraw Update from Excel Interface Manager
41	HyDraw Import Library

39. Migrating Library

Migrate your existing HyDraw Library to the new HyDraw Library format. (Migration of HyDraw Library 2018 or older versions)

1. Run the HyDraw Library Manager 2019
Start > All Apps > VEST
> **HyDraw Library Manager 2019**

The *Set library path* displays.

2. Enter the **Data library** path or Click **Browse...** and select the previous version of the HyDraw Library Path for the Data, Symbol, and Sub-systems library.
3. Click **OK**.

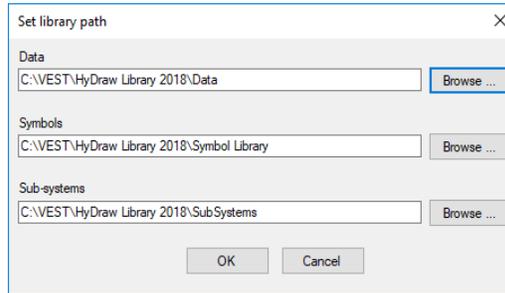
If the HyDraw library is 2018 version or older version, the *Migrate Data Library dialog box* displays.

The **Create a backup before migrating** option is selected by default.

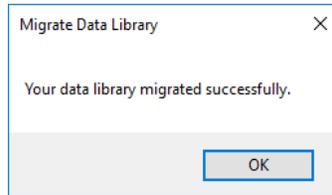
- In the HyDraw Library backup path, click **Browse...** and select the alternate backup path, if required.
- Click **OK** to migrate the library.

On successful migration, "Your data library migrated successfully" message box displays.

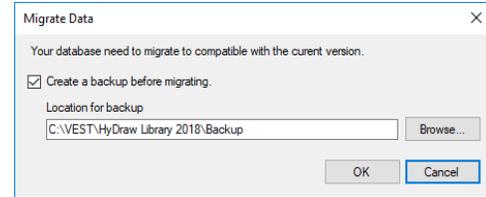
4. Click **OK** to exit.



Set library path



Migrate Data Library – Success Message



Migrate Data Library

40. HyDraw Update From Excel Interface Manager

Configure the Excel data settings XML file through this utility. This is an admin utility and only the administrator can use this configurator.

Run the HyDraw Update From Excel Interface Manager

Start
> All Apps
> VEST

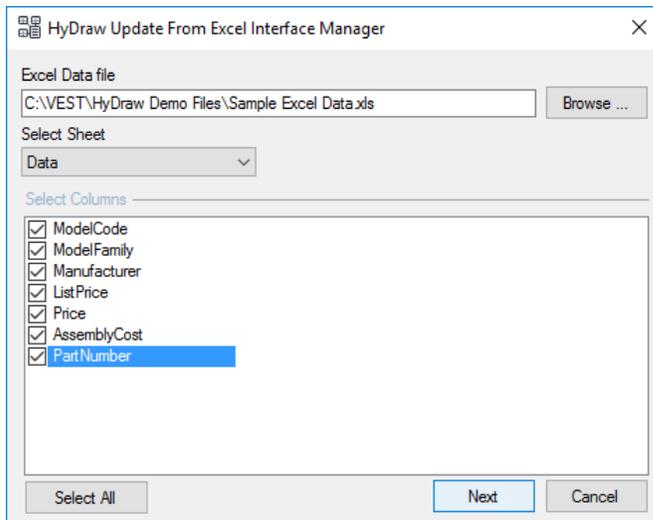
> **HyDraw Update From Excel Interface Manager**

The HyDraw Update From Excel Interface Manager dialog box displays.

1. Select the Excel file by clicking the **Browse** button.

All columns of the selected sheet populates in the data grid.

2. Select columns to include in the ERP Data settings XML and click **Next**.

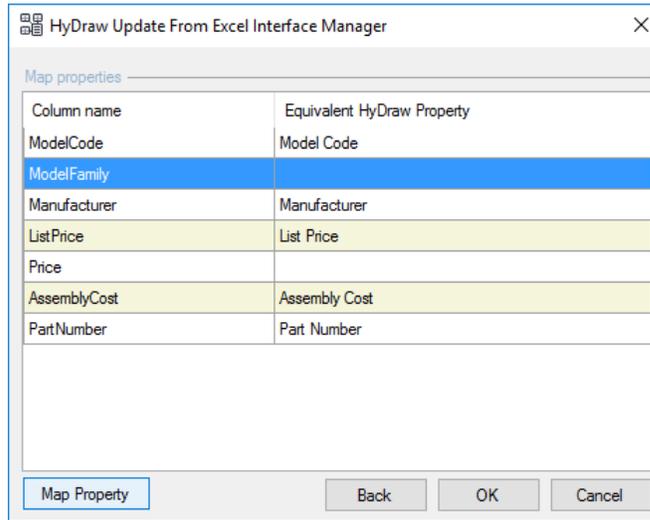


Update from Excel Interface Manager with Columns

The map properties data grid populates.

Automatically, the equivalent HyDraw properties will be assigned based on the Column name of the Excel file.

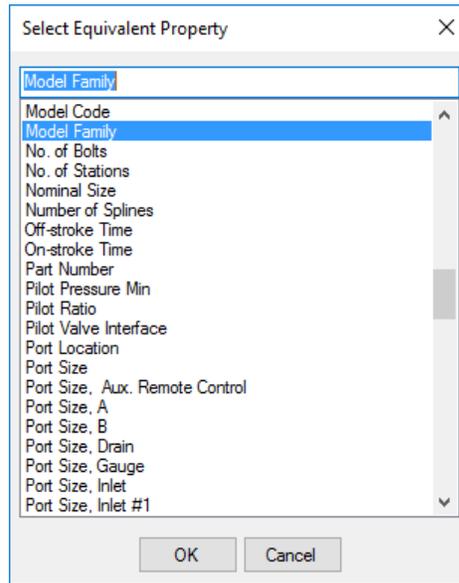
3. Manually map the unassigned property using the **Map Property** button.
4. Click the **OK** button after assigning all the properties.
5. Click the **Map Property** button to select the equivalent HyDraw property.
6. Click **OK** to assign the equivalent HyDraw property.



Update from Excel Interface Configurator with data

The data is stored in the XML file saved in the same location as the Excel data file.

The XML file is named, *ERPServiceConfiguration.xml*.

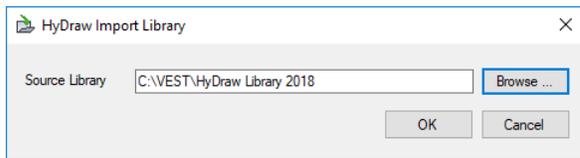


Map Property dialog

41. HyDraw Import Library

Import symbols, components, accessories, documents and CAD files from the source library to the destination library.

1. Access HyDraw Import Library
2019 from Start
> All Apps
> VEST
> **HyDraw Import Library 2019**



2. Click Browse...

The Browser For Folder dialog box displays.

HyDraw Import Library

3. Navigate to the required folder in the Browse for Folder dialog box.
4. Click **OK**.

The Selected Library displays in the Source Library.

5. Click **OK**.

Note:

Source Library Path selection should be the root library folder.

*(For example,
C:\VEST\HyDraw Library 2018)*

Symbols

Import a symbol library from the source library to the destination library.

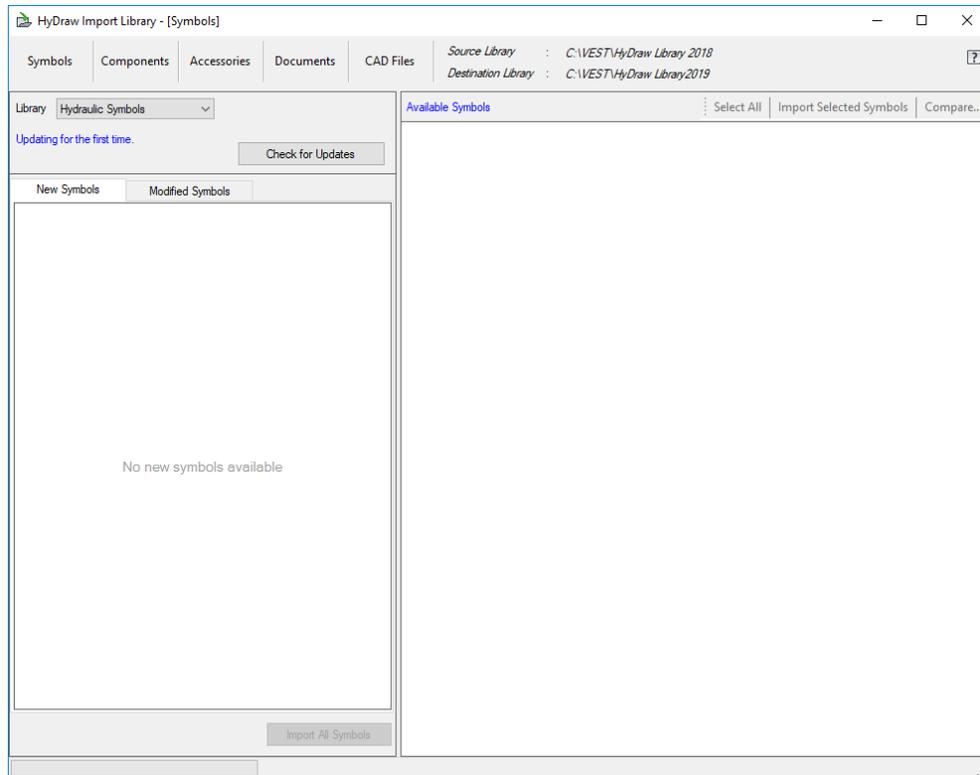
1. Click **Symbols**.

The Symbol Library page displays.

2. Select the required library.

3. Click Check for Updates.

The program downloads the list of new symbols and modified symbols.



HyDraw Import Library – Symbols

Import New Symbols

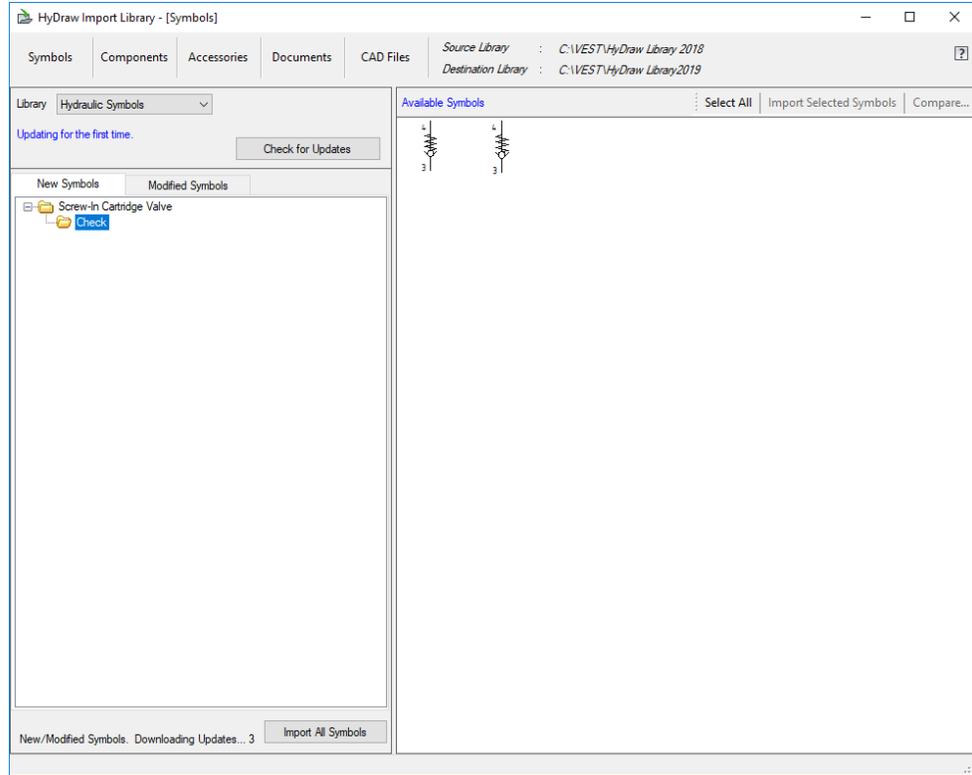
The **New Symbols** tab displays the tree view of the symbol folders in the left pane. When a folder is selected, the **Available Symbols** are displayed in the right pane.

1. Click the **Import All Symbols** button to import all the new symbols from the source library and update the destination library.

2. Click **Select All** to select all the symbols displayed in the right pane.

*You can select a single symbol or multiple symbols by drag select or Use **Ctrl + C** to select multiple symbols.*

3. Click **Import Selected Symbols** to import the selected symbols to the destination library.



HyDraw Import Library – Import New Symbols

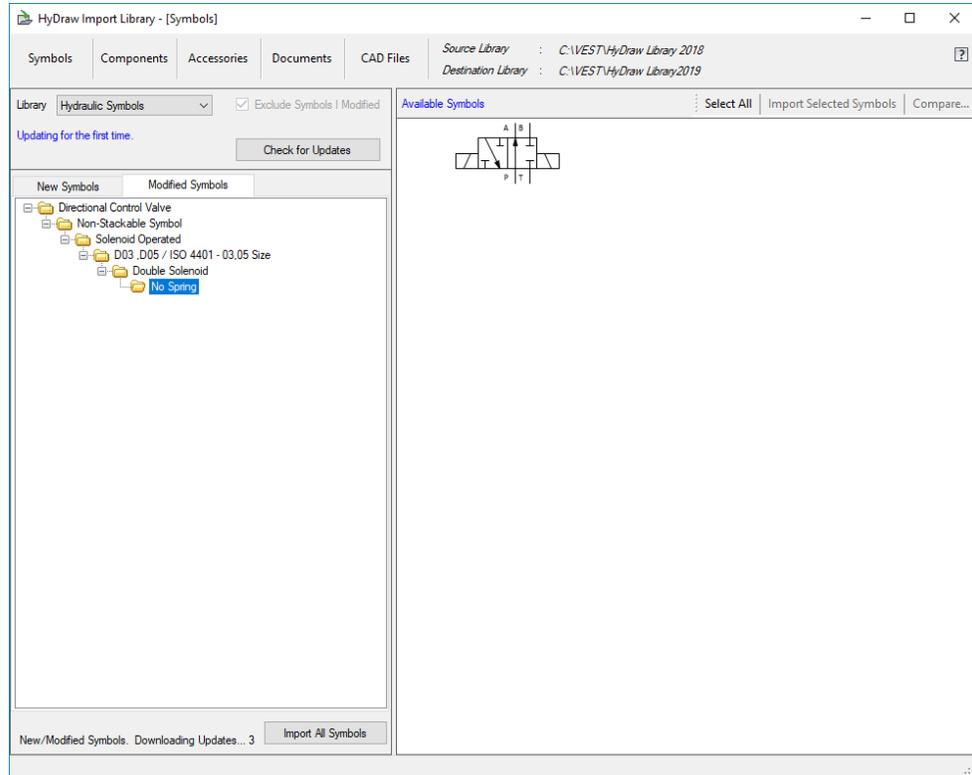
Import Modified Symbols

The **Modified Symbols** tab shows the tree view of the symbol folders in the left pane. When a folder is selected, **Available Symbols** are displayed in the right pane.

1. Select **Exclude Symbols: Modified** checkbox, if you don't want to list the destination library symbols modified by you.
2. Click the **Import All Symbols** button to copy all the modified symbols from the source library and update the destination library.
3. Click **Select All** to select all the symbols displayed in the right pane.

*You can select single symbol or multiple symbols by drag select or Use **Ctrl + C** to select the symbols.*

4. Click **Import Selected Symbols** to update the selected symbols to the destination library.

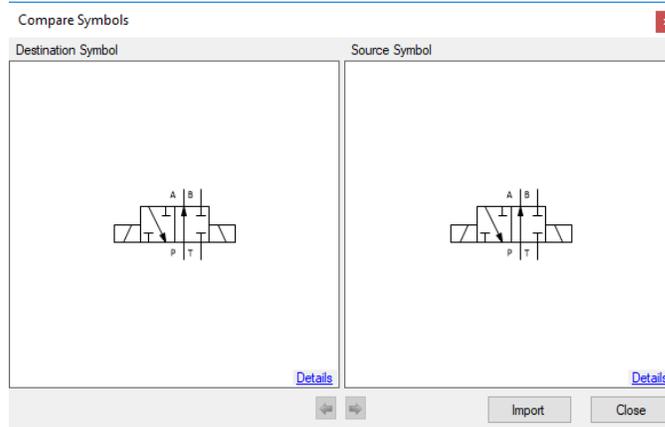


HyDraw Import Library – Import Modified Symbols

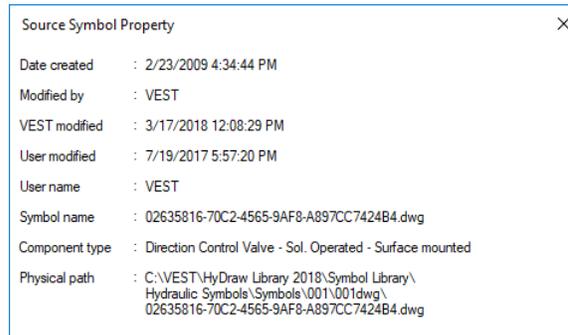
Compare Symbols

View and compare the symbol in the **Destination library** and the symbol available in the **Source Library**.

Click **Details** to view and compare the **Destination Symbol** property and **Source Symbol** property.



Compare Symbols



Compare Symbols - Details – Source Symbol Property

Components

Import components from the source library to the destination library.

1. Click Components.

The Components page displays.

2. Select the required library.
3. Enter the name of **Component type** to search from the source library.

4. Select the required **Component type** from the displayed list.

*When a folder is selected, **Available components** are displayed in the right pane.*

You can select either one by one or drag select multiple components.

5. Click Specify Component Type, if required.

The Select Component Type dialog box displays the destination library available for component types.

6. Select the required component type and click **OK**.

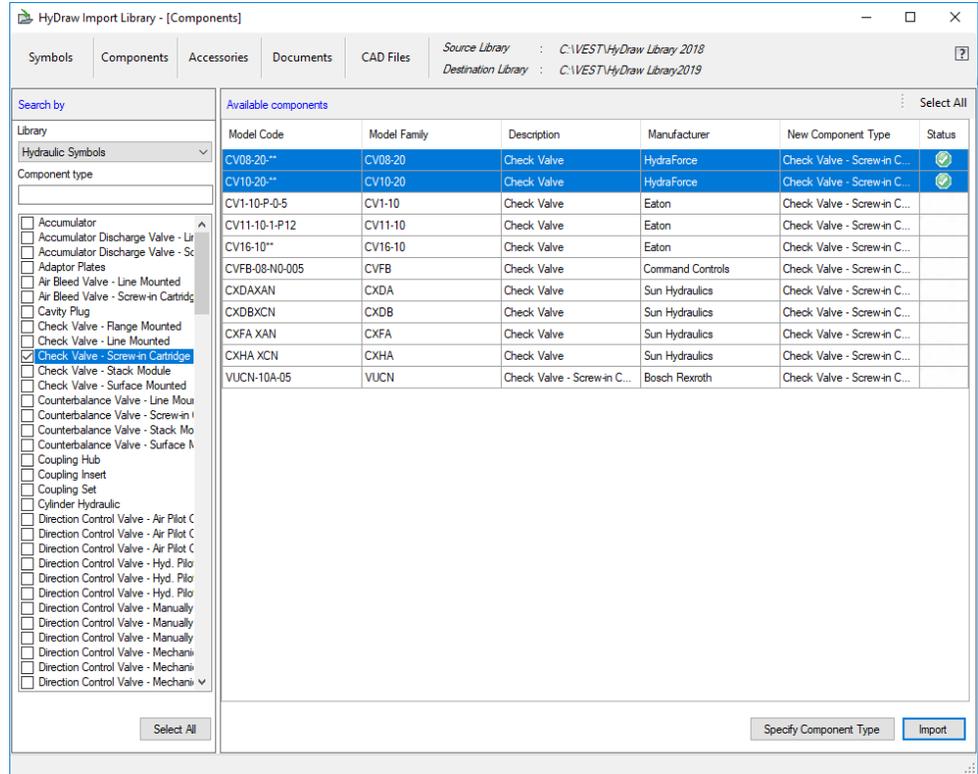
7. Click Import.

After successful completion, the Status is checked .

8. Repeat Steps 3 through 7 for each existing component type.

CAUTION

After successful **Import**, no further editing or overwriting is possible from this utility.



HyDraw Import Library – Import Components

Accessories

Import accessories from the source library to the destination library.

1. Click Accessories.

The Accessories page displays.

2. Select the required library.
3. Enter the name of **Accessories** type to search from the source library.

4. Select the required accessory type from the Accessories list.

*When a folder is selected, **Available Accessories** are displayed in the right pane.*

You can select either one by one or drag select multiple accessories.

5. Click Specify Component Type, if required.

The Select Component Type dialog box displays the destination library available for Accessories type.

6. Select the required accessory type and click **OK**.

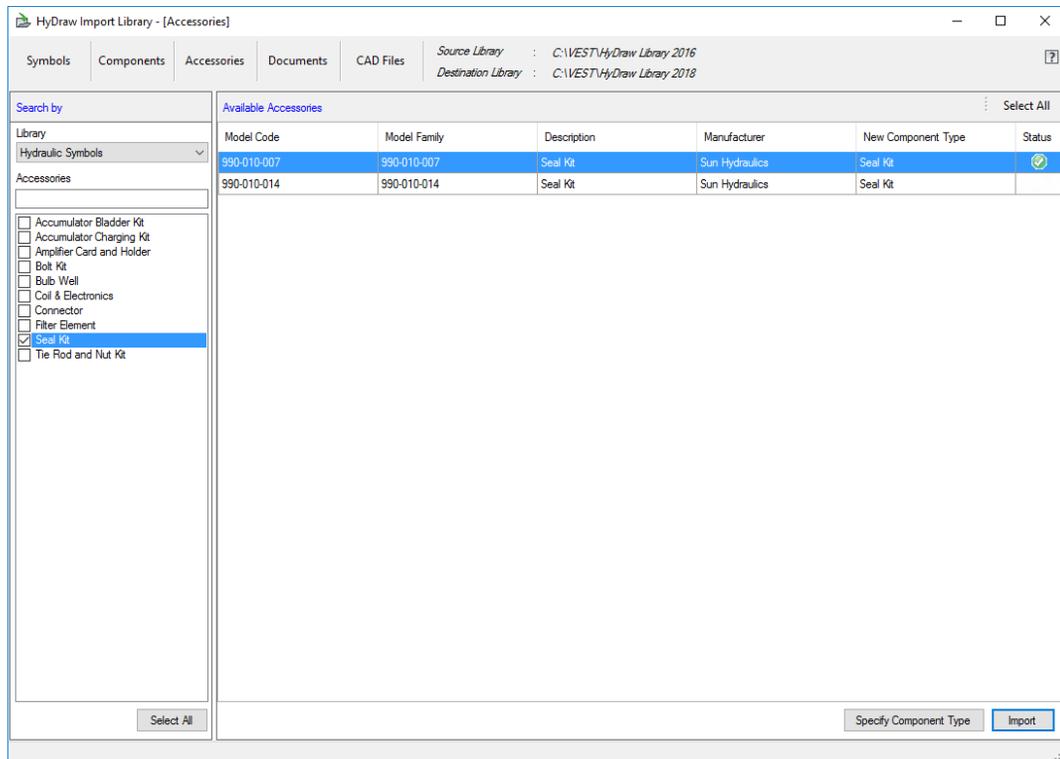
7. Click Import.

After successful completion, the Status is checked .

8. Repeat Steps 3 through 7 for each existing component type.

CAUTION

After successful **Import**, no further editing or overwriting is possible from this utility.



HyDraw Import Library – Import Accessories

Documents

Import documents from the source library to the destination library.

1. Click Documents.

The Documents page displays.

2. Select the required document(s) from the displayed **Categories**.

When a folder is selected, **Available Documents** are displayed in the right pane.

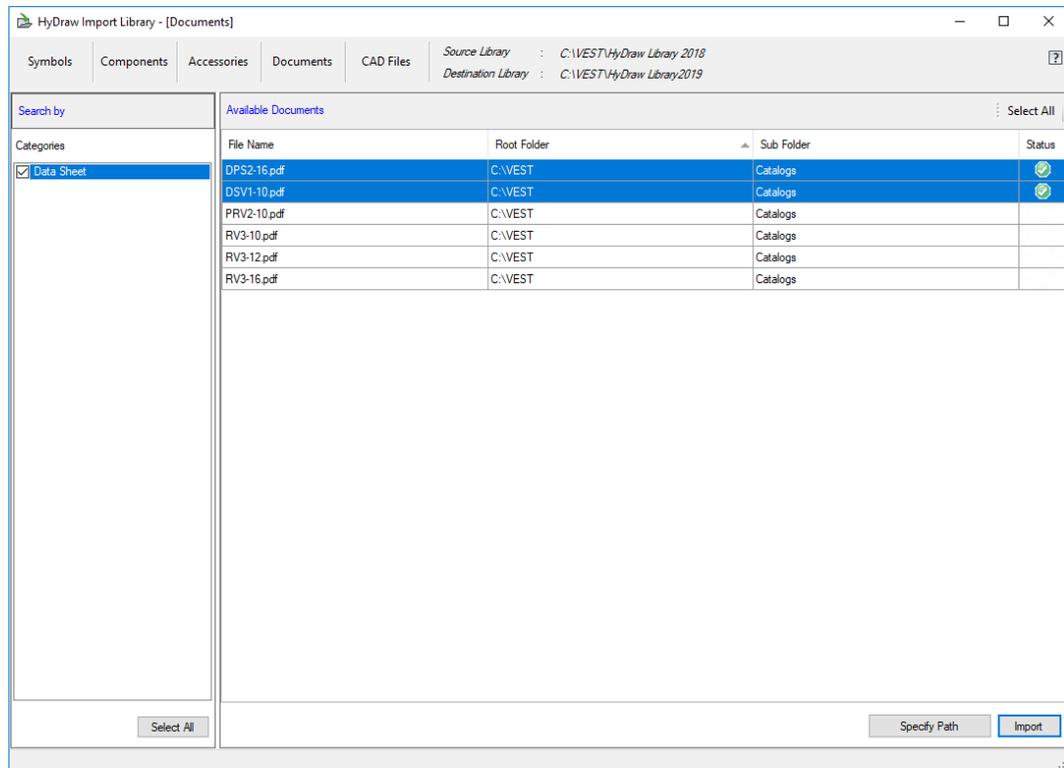
You can select either one by one or drag select multiple documents.

3. Click **Specify Path**, if required.

The Specify Path dialog box displays.

4. Select **Document on LAN**.

- Click **Browse...** button to select the **Root Folder**.
- The Browse For Folder dialog box displays.
- Select the root folder and click **OK**.
- Click **Browse...** button to select the **Sub Folder**.
- The Browse For Folder dialog box displays.
- Select the sub folder and click **OK**.
- Or
- Select **Document on Web**.
- Select existing URL or specify the root folder name in the **Root Folder** text box.
- Specify sub folder name in the **Sub Folder** text box.
- Click **OK**.



HyDraw Import Library – Import Documents

5. Click **Import**.

After successful completion, the Status is checked .

6. Repeat Steps 2 through 5 for each category.

CAUTION

After successful Import, no further editing or overwriting is possible from this utility.

CAD Files

Import CAD files from the source library to the destination library.

1. Click CAD Files.

The CAD Files page displays.

2. Select the required CAD files from the list of displayed **Categories**.

When a folder is selected,

Available CAD files are displayed in the right pane.

You can select either one by one or drag select multiple CAD files.

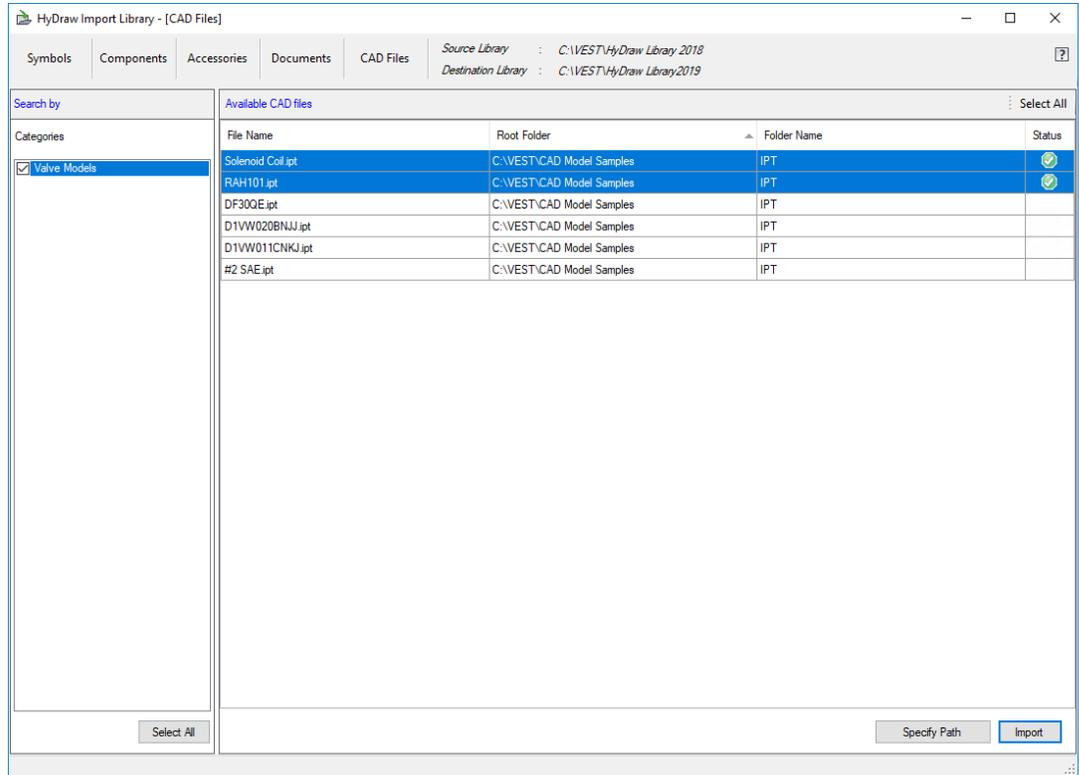
3. Click **Specify Path**, if required.

The *Specify Path* dialog box displays.

4. Select **CAD File on LAN**.

- Click **Browse...** button to select the **Root Folder**.
- The Browse For Folder dialog box displays.
- Select the root folder and click **OK**.
- Click **Browse...** button to select the **Sub Folder**.
- The Browse For Folder dialog box displays.
- Select the sub folder and click **OK**.

Or



HyDraw Import Library – Import CAD Files

- Select **CAD File on Web**.
 - Select existing URL or specify root folder name in the Root Folder text box.
 - Specify sub folder name in the Sub Folder text box.
 - Click **OK**.
5. Click **Import**.
- After successful completion, the Status is checked .
6. Repeat Steps 2 through 5 for each category.

CAUTION

After successful Import, no further editing or overwriting is possible from this utility.

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