

"Power-to-Design"

HyDraw[®]

Library Manager 2012



HyDraw[®]

Library Manager 2012



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General

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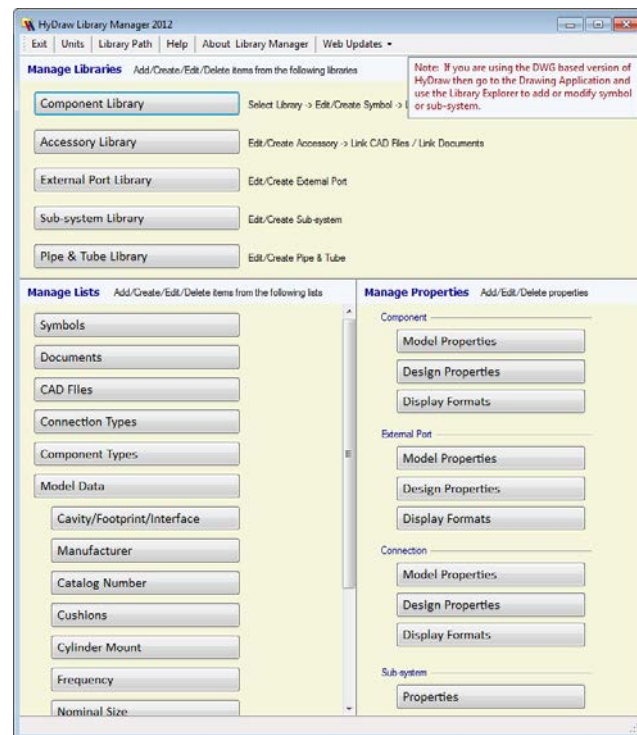
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1. Introduction

HyDraw® Library Manager 2012 makes symbol and component library management easy.

- ✓ Fast and easy component building and maintenance.
- ✓ Create new symbols and assign them with specific manufacturer properties.
- ✓ Dynamic Directional Control (DC) Valve design.
- ✓ Edit, delete symbols, or 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 helps find symbol or component with required properties.
- ✓ Both Imperial and Metric units and conversion from imperial to metric and vice-versa.
- ✓ GUI interface with helpful icons and tool tips.
- ✓ Context menu enables quick access to relevant command.
- ✓ Protection against accidental deleting essential properties of components.
- ✓ 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 2012 on your computer system.

System Requirements

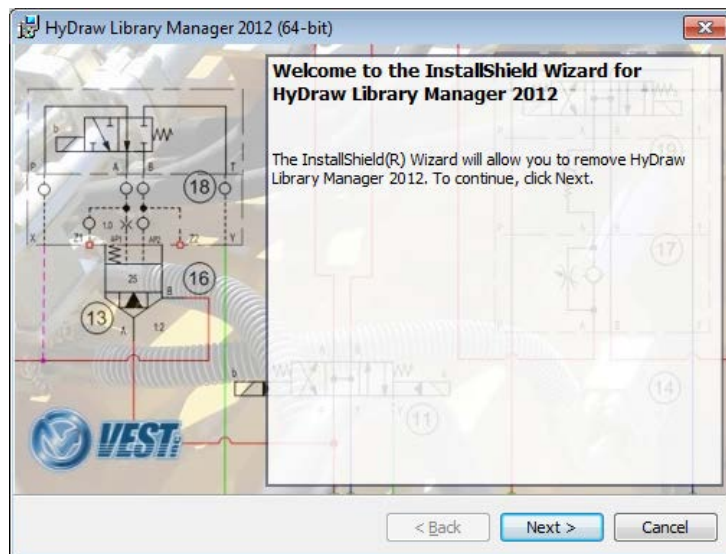
- Windows Vista SP1 or later/Windows 7
- Microsoft .NET Framework Version 3.5 or higher
- Adobe Reader 6.0 or higher
- HyDraw CAD⁶⁰⁰ / Microsoft Visio 2010 (32/64 Bit) with HyDraw V600.
- Excel* 2003 or higher
 - * Required only for importing Model data into HyDraw Library

1. Run the Setup.exe from the HyDraw Library Manager 2012 Installation, either from the downloaded installation or DVD.

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

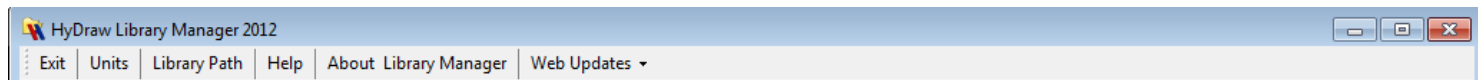
2. View **Read Me** from the Documentation section, if required.

HyDraw Library Manager 2012 is installed on the system and displayed in the Windows Start > Program menu.



Installation Wizard

3. HyDraw Library Manager Menu bar



Library Manager menu bar

Exit

Click **Exit** to exit from Library Manager.

Units

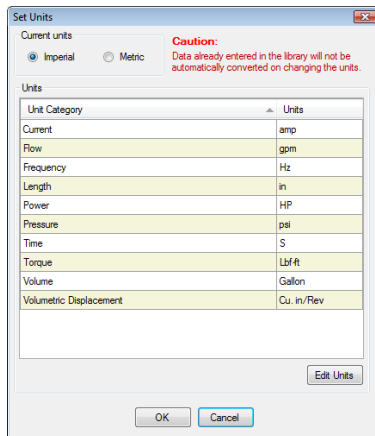
1. Click **Units** on the Library Manager menu bar.

The Set Units dialog box displays.

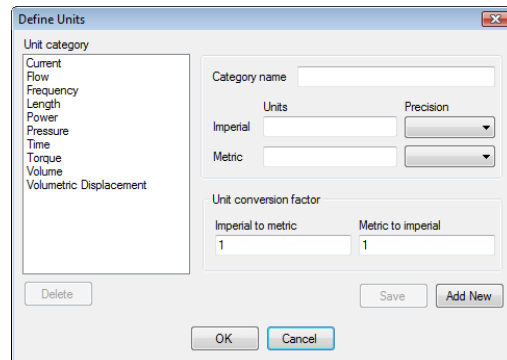
2. Select the current unit system you want to work with.

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 **Edit Units** to display the Define Units dialog box.
4. Find the respective Unit category conversion factor and set it up to four decimal precision.



Set Units dialog box



Define Units dialog box

Library Path

1. Click **Library Path** on the Library Manager menu bar.
The Set Library Path dialog box displays.
2. Click **Browse...** to navigate to the folder, where the HyDraw® Library data is installed.
3. Repeat step 2 for each specified HyDraw data path.
4. Click **OK**.

All HyDraw data paths are configured.

Note

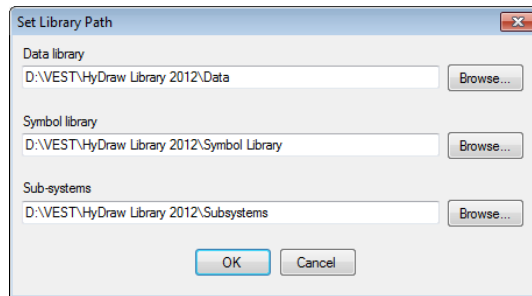
- All data paths shown are default.
You can configure to common network data paths.

Help

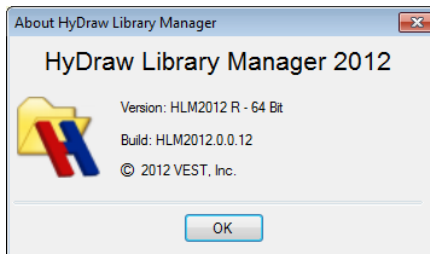
Click **Help** to open and read the HyDraw Library Manager User Manual.

About Library Manager

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



Set Library Path dialog box



About HyDraw Library Manager

Web Updates: Internet Settings

To access FluidPowerTool.com from HyDraw® Library Manager, the Internet settings of the HyDraw Library Manager requires configuration.

- Click **Web Updates**
➤ **Internet Settings**

The Internet Connection Settings dialog box displays.

Automatic settings detection

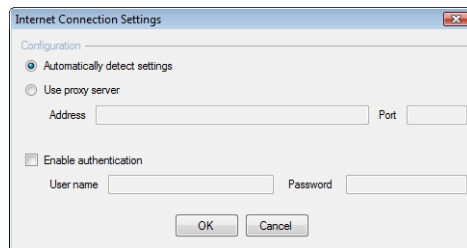
If your computer is connected to the Internet through a direct LAN connection, then select the **Automatically detect settings** option.

Configure LAN Settings

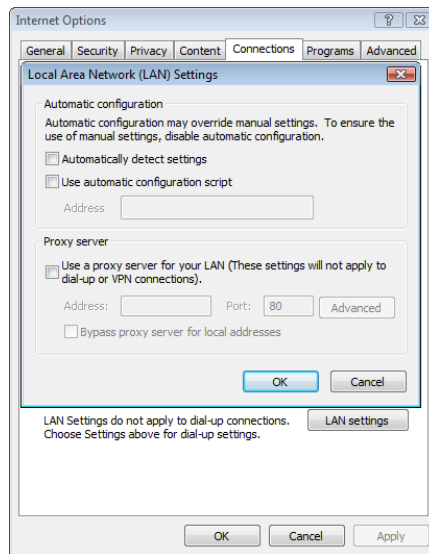
1. Open Internet Explorer.
2. Select Tools > **Internet Options**.
3. Select **LAN Settings** from the Connections tab.
4. Configure the LAN settings.

Note

- For direct connection you should deselect the 'Use a proxy server for your LAN' option in the LAN Settings dialog box.



Internet Connection Settings – Automatically detect settings



IE browser settings

Proxy Connection

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

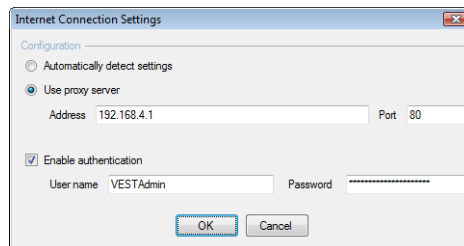
Configure the proxy settings.

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

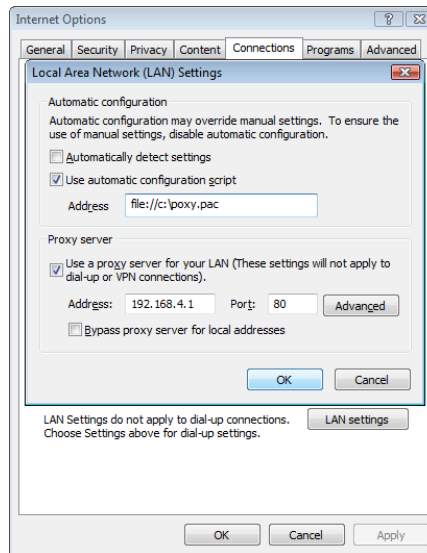
You may refer to the settings that may be already defined in your web browser.

Note

- If an automatic configuration script is used in the browser for proxy, then you can use the Proxy server settings from the LAN Settings dialog box in the browser, to configure your FluidPowerTools Proxy Connection settings.
- If you do not find proxy server details in the browser, then contact your system administrator.



Internet Connection Settings – Use Proxy Server



IE browser settings

Web Updates: Update Symbol Library

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

1. Click Web Updates > **Update Symbol Library**

The HyDraw® Update Symbol Library dialog box displays.

2. Select the **Visio** or **Dwg** option, per the current HyDraw version.
3. Select **Available Updates** from the following options:

Visio

- Since My Last Update
- V600 Library
- V500 Library
- V415.1 Library
- V415 Library

Dwg

- Since My Last Update
- CAD500 Library
- A500 Library

4. Click **Check for Updates**.

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

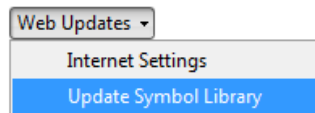
New Symbols Update

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

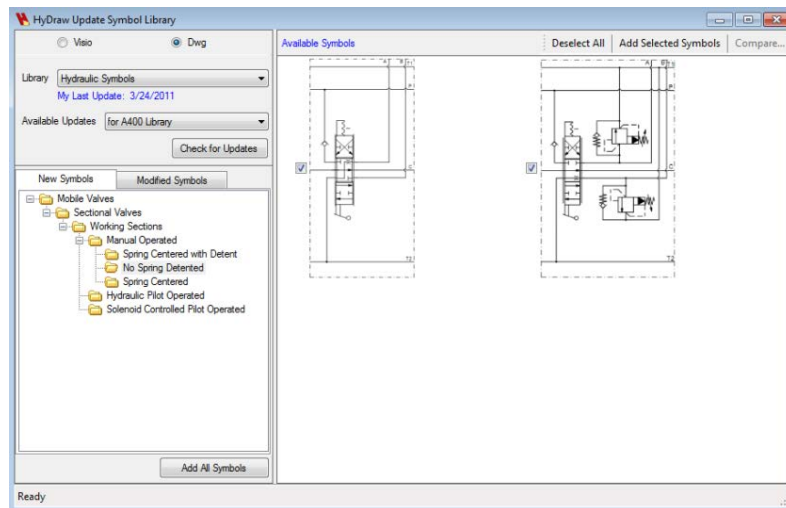
1. Click the **Add All Symbols** button to download all the new symbols from the FluidPowerTool.com website and update the local library.

In the right pane, the checkbox along each symbol enables selection of individual symbols.

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.



Web Updates :Update Symbol Library



HyDraw Update Symbol Library – New Symbols

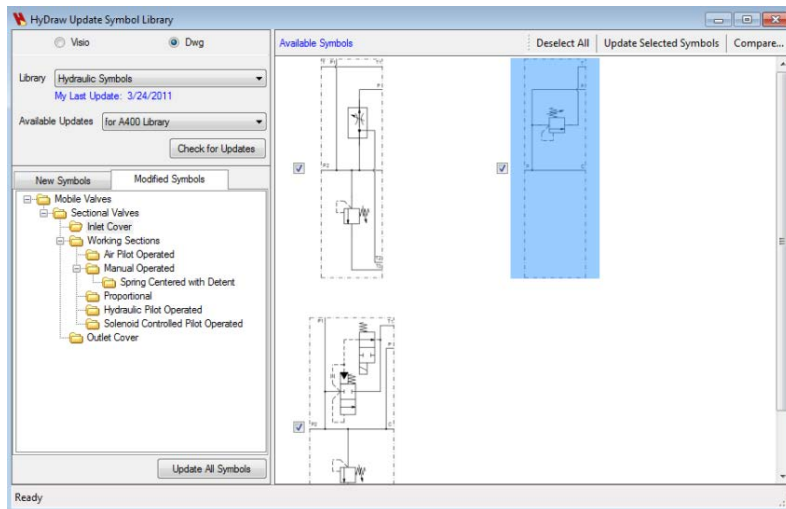
Modified Symbols Update

The **Modified Symbols** tab shows the tree view of the symbol folder in the left pane. When the 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 FluidPowerTool.com website and update the local library.

In the right pane, the checkbox along each symbol enables selection of individual symbols.

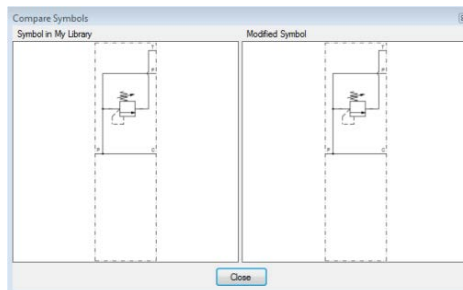
2. Click **Select All** to select all the symbols displayed in the right pane.
3. Click **Update Selected Symbols** to update the currently selected symbols to the local library.



HyDraw Update Symbol Library – Modified Symbols

Compare Symbols

The **Compare Symbols** option enables to view and compare the symbol in My Library and the modified symbol available in the FluidPowerTools.com website.



Compare Symbols

Manage Libraries

- 4 Managing Component Library
- 5 Managing Accessory Library
- 6 Managing External Port Library
- 7 Managing Sub-system Library
- 8 Managing Pipe & Tube Library

Manage Libraries Add/Create/Edit/Delete items from the following libraries

Component Library	Select Library -> Edit/Create Symbol -> Link Existing Model/Create New Model & Link
Accessory Library	Edit/Create Accessory -> Link CAD Files / Link Documents
External Port Library	Edit/Create External Port
Sub-system Library	Edit/Create Sub-system
Pipe & Tube Library	Edit/Create Pipe & Tube

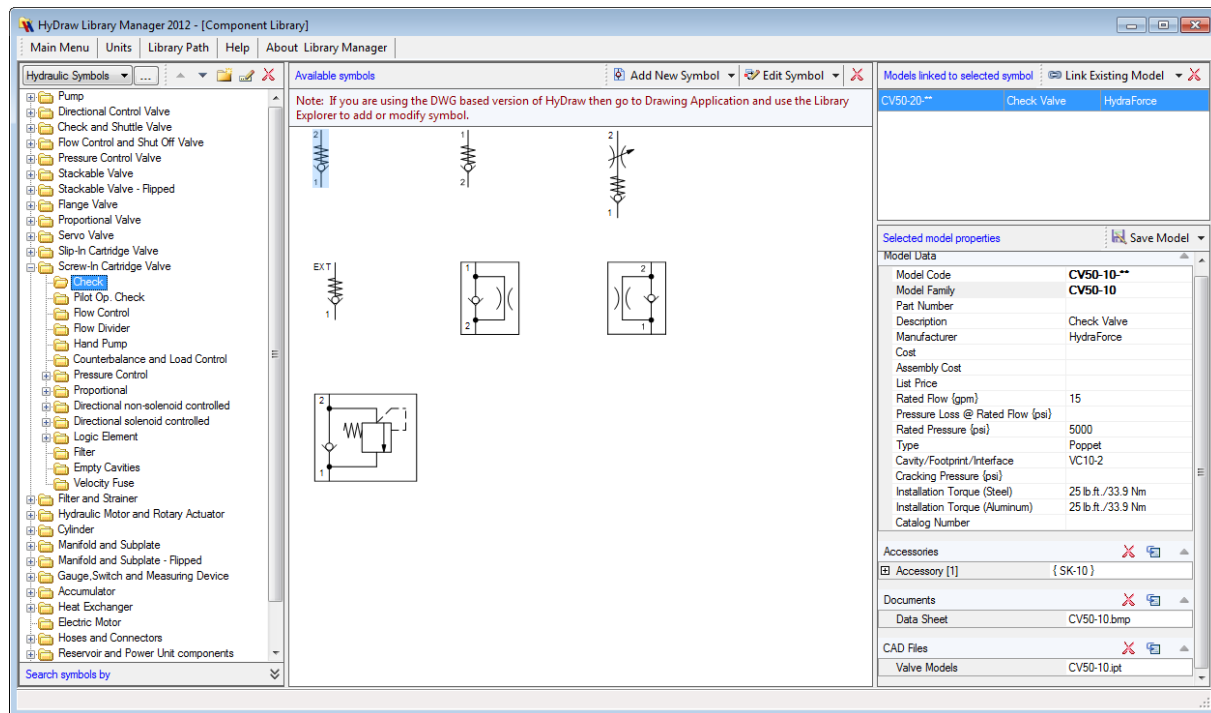
Note: If you are using the DWG based version of HyDraw then go to the Drawing Application and use the Library Explorer to add or modify symbol or sub-system.

4. Managing Component Library

Manage Component Library displays component models and their properties, linked accessories, documents, and CAD files.

Component Library has three sections (column wise).

- Library
- Drawing
- Model Properties



HyDraw Library Manager (Component Library)

Library section

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

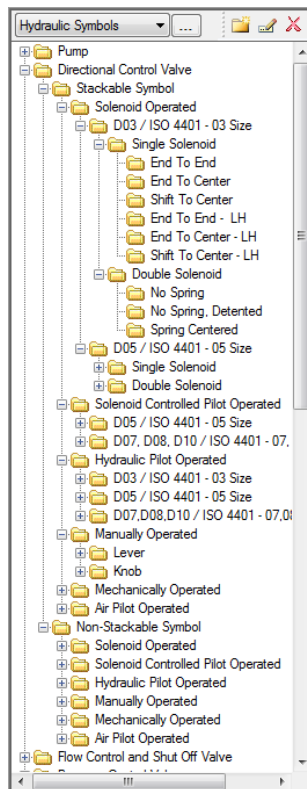
Click the required folder to display the symbols in the Drawing section.

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.

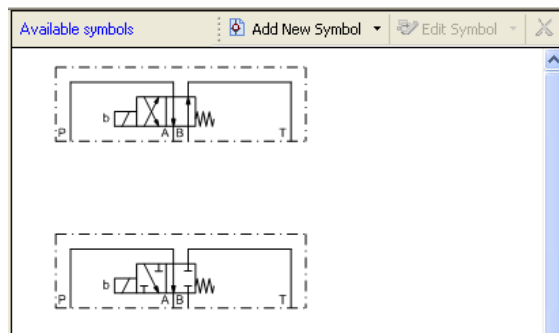
The commands are displayed as icons on the caption bar and in the context menu.



Library tree view

Drawing section

All available symbols of the selected library folder are displayed in the Drawing section.



Drawing section

Build New Symbol and Add to the Library

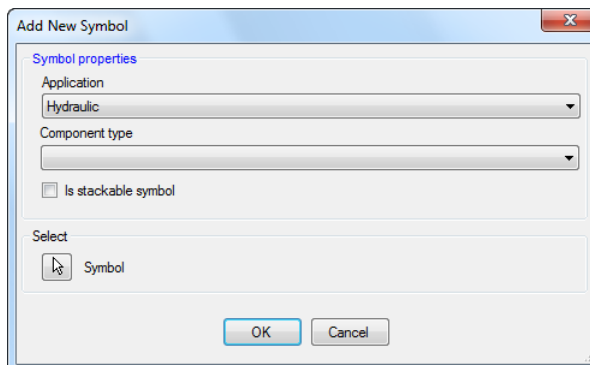
1. Click **Build New Symbol** on the caption bar of the Drawing section.

A Visio drawing page displays.

2. Build your symbol and click **Add New Symbol** to add it to the required folder.

Note

- If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add or modify symbols.



Add New Symbol dialog box

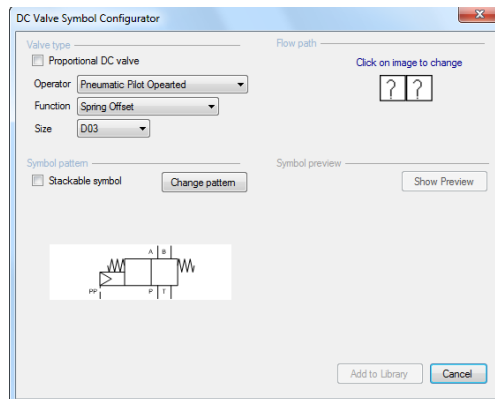
DC Valve Symbol Configurator (Functionality available only in the Visio based version of HyDraw)

Configure DC Valve from DC Valve Configurator and Add to the Library.

1. Click **Configurator** and **Add DC Valve Symbol** on the caption bar.

The DC Valve Symbol Configurator dialog box displays.

2. Click **Add to Library** to add the DC valve from the preview pane to the library.



DC Valve Symbol Configurator

Edit Symbol*

1. Select the symbol in the Drawing section to edit it.

A Visio drawing page displays.

2. Edit the symbol as required including Port names, Display format and Solenoid information then save it in the library.

Edit Component types

1. Click **Edit Component types** on the caption bar.

The Edit Component types dialog box displays.

2. Select the required application and the component type.

Add Visio Symbol*

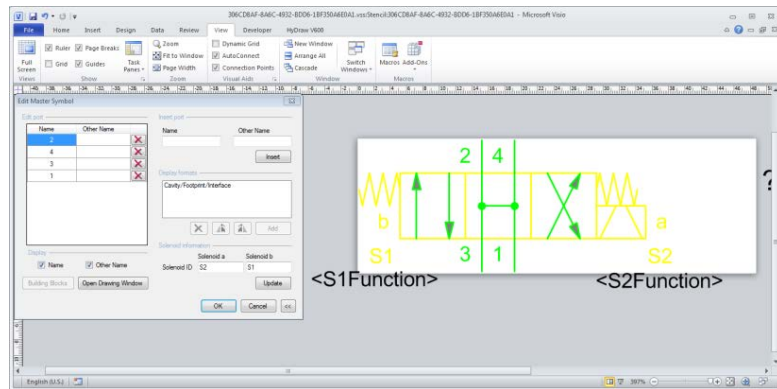
1. Create a new symbol in the Visio based version of HyDraw.
2. Click **Add Visio symbol** to add the Visio symbol file.

Delete symbol*

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

The symbol is deleted from the library.

Note: If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add/modify/delete symbol.



Edit Master Symbol – Port Names, Display Formats and Solenoid Information

Model Properties section

The Model Properties 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

*The **Import** option enables to Import Accessory data from Microsoft Excel and link the selected symbol.*

Refer, Chapter Model Data:Import for detailed usage.

Models linked to selected symbol: CV1-10-P-11 | Check Valve | Eaton | Link Existing Model

Selected model properties: Save Model

Model Data

Model Code	CV1-10-P-11
Model Family	CV1-10
Part Number	
Description	Check Valve
Manufacturer	Eaton
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	12
Pressure Loss @ Rated Flow (psi)	
Rated Pressure (psi)	3000
Type	Poppet
Cavity/Footprint/Interface	C-10-2
Cracking Pressure (psi)	
Installation Torque (Steel)	50-55 lb.ft./68-70 Nm
Installation Torque (Aluminum)	35-40 lb.ft./47-54 Nm
Catalog Number	V-VLOV-MC001-D-4 E4

Accessories

Accessory [1]	{ CV1S10-3N }
Quantity	1
Model Data	
Model Code	CV1S10-3N
Model Family	CV1S
Part Number	
Description	Seal Kit
Manufacturer	Parker
Cost	
List Price	

Documents

Data Sheet	CV1-10.pdf
------------	------------

CAD Files

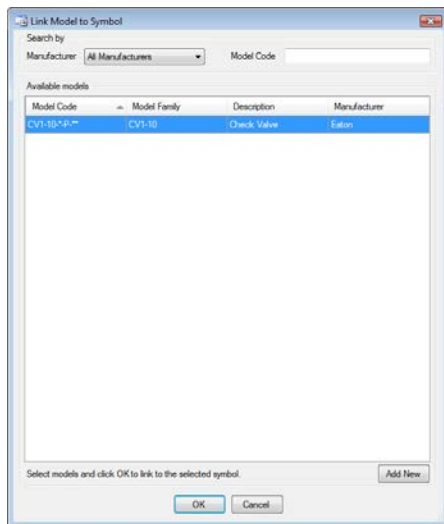
Valve Models	CV1-10.ipt
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Model Properties section

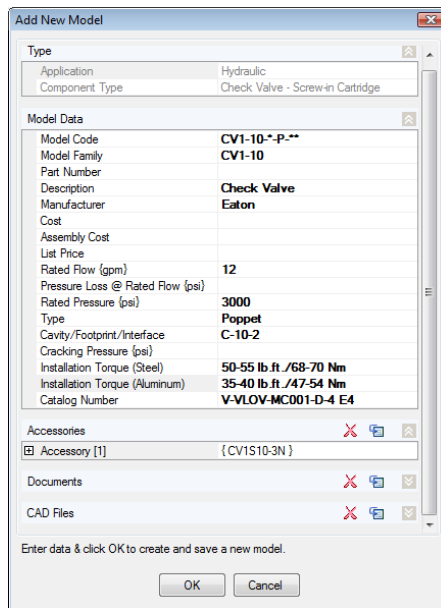
Link Models to Symbol

You can 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.



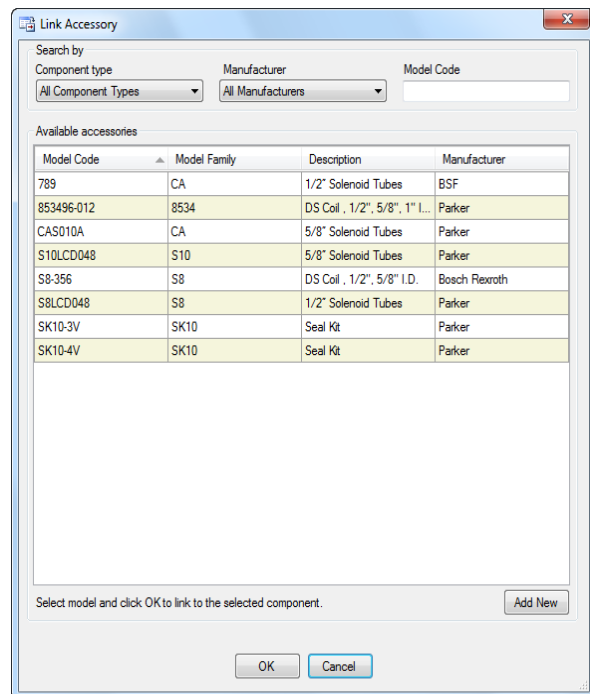
Link Model to Symbol



Add New Model dialog box

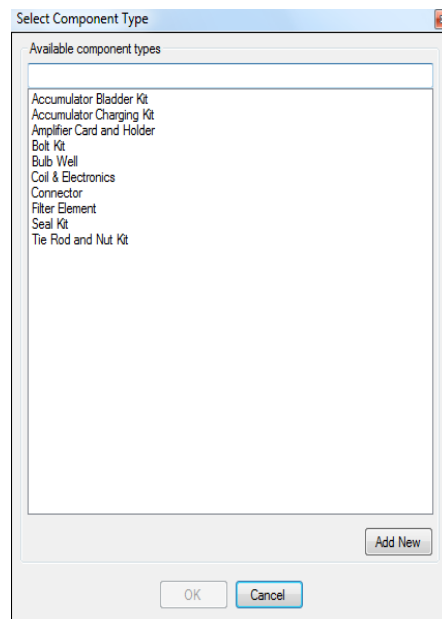
Accessories

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



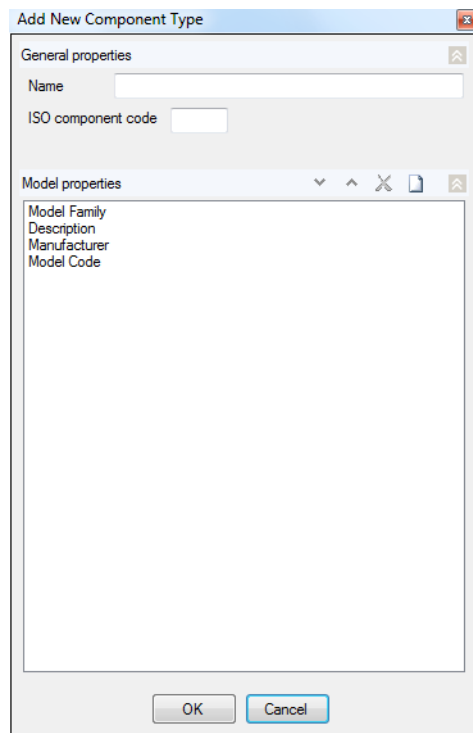
Link Accessories

Select available component type and link to the model.



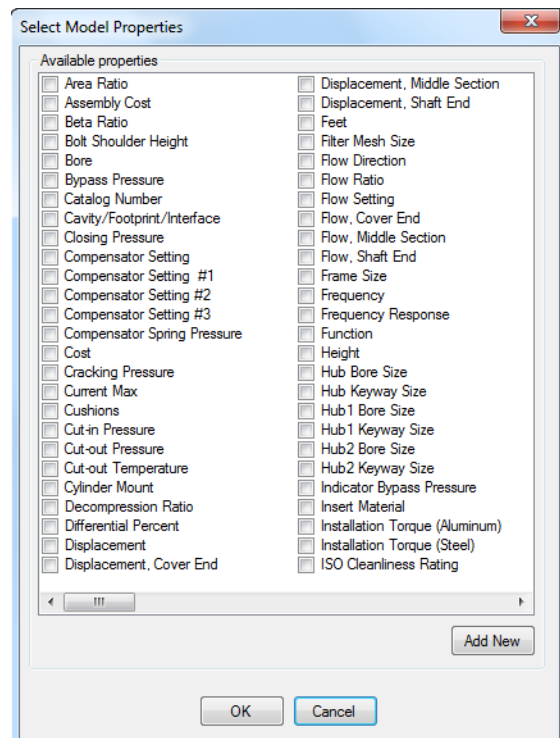
Select Component Type

Create a new accessory, link it to the selected model, and save in the library.



Add New Component Type

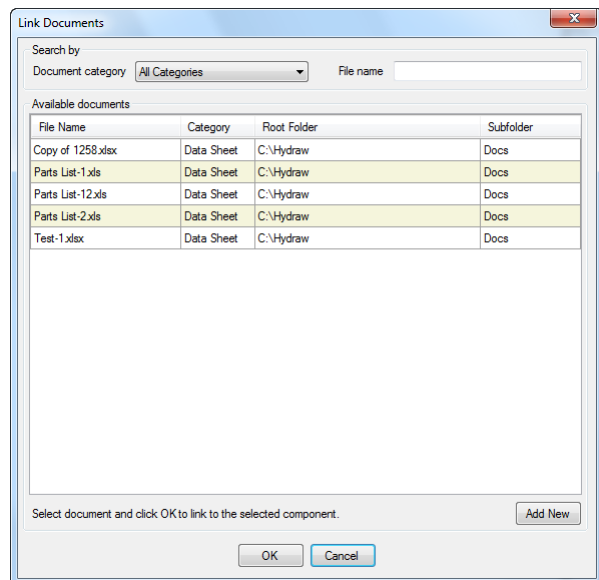
Select required model properties to add to your accessories.



Select Model Properties

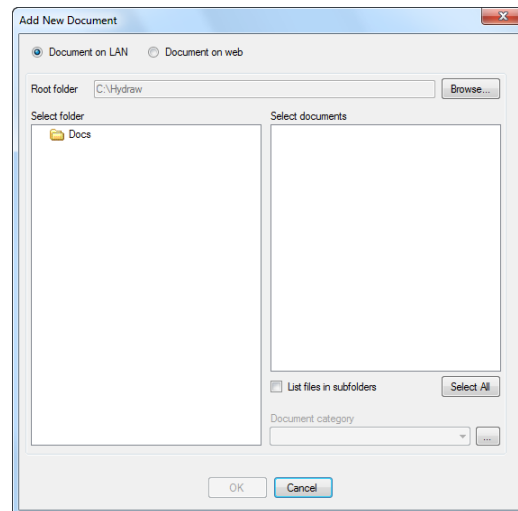
Documents

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



Link Documents

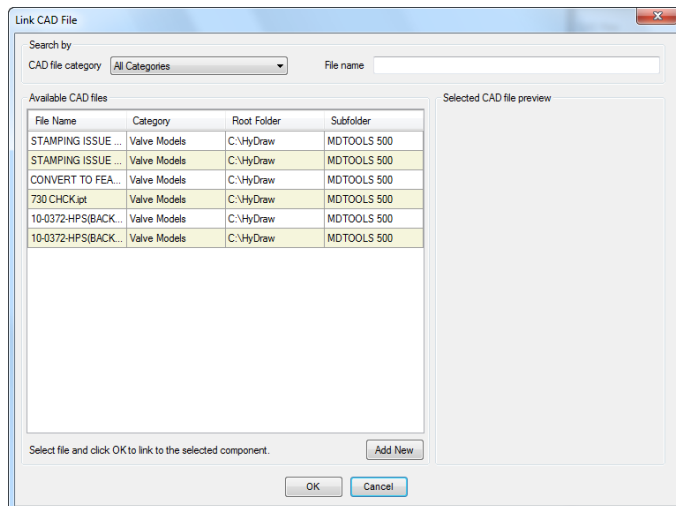
You can also add a new document and link it to the selected model.



Add New Document

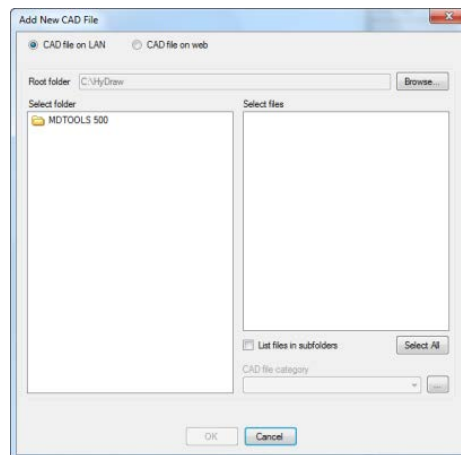
CAD Files

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

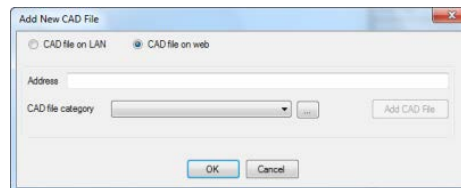


Link CAD File

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



Add New CAD File



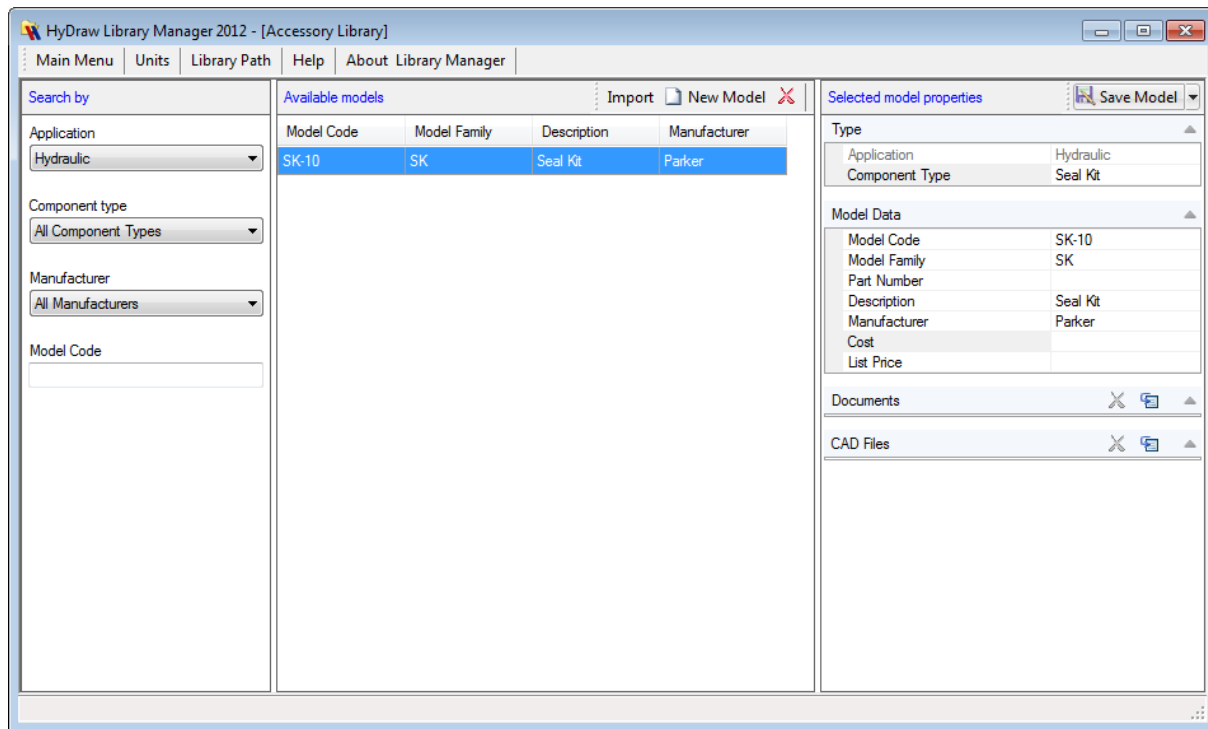
Add New CAD File

5. Managing Accessory Library

Accessory Library Manager deals with all accessories available in the library.

Accessory Library has three sections (column wise).

- Search Model
- Available Models
- Model Properties



HyDraw Library Manager – (Accessory Library)

Search Model section

The Search Model section enables you to search for a particular accessory model of a particular component type.

You can also search accessory models of a particular component type for a particular manufacturer.

Application
Hydraulic

Component type
All Component Types

Manufacturer
All Manufacturers

Model Code

Search Model section

Available Models section

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

You can 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.

Refer Chapter Model Data → Import for detailed usage.


Available models				Import	New Model	
Model Code	Model Family	Description	Manufacturer			
789	CA	1/2" Solenoid Tu...	BSF			
853496-012	8534	DS Coil , 1/2", 5/...	Parker			
CAS010A	CA	5/8" Solenoid Tu...	Parker			
S10LCD048	S10	5/8" Solenoid Tu...	Parker			
S8-356	S8	DS Coil , 1/2", 5/...	Bosch Rexroth			
S8LCD048	S8	1/2" Solenoid Tu...	Parker			
SK10-3V	SK10	Seal Kit	Parker			
SK10-4V	SK10	Seal Kit	Parker			

Available models

Model Properties section



The Model Properties section displays the model properties of the selected model accessory.

- You can link documents and CAD files to the selected model.
- Click **Save Model** on the caption bar to save the model properties.
- Click **Save as New Model** on caption bar to save as a new model.



Selected model properties  Save Model ▼

Type	
Application	Hydraulic
Component Type	Coil & Electronics

Model Data	
Model Code	S10LCD048
Model Family	S10
Part Number	
Description	5/8" Solenoid Tubes
Manufacturer	Parker
Cost	
List Price	
Voltage	48
Frequency	
Catalog Number	

Documents  

Data Sheet	S10.pdf
------------	---------

CAD Files  

Valve Models	S10.dwg
--------------	---------

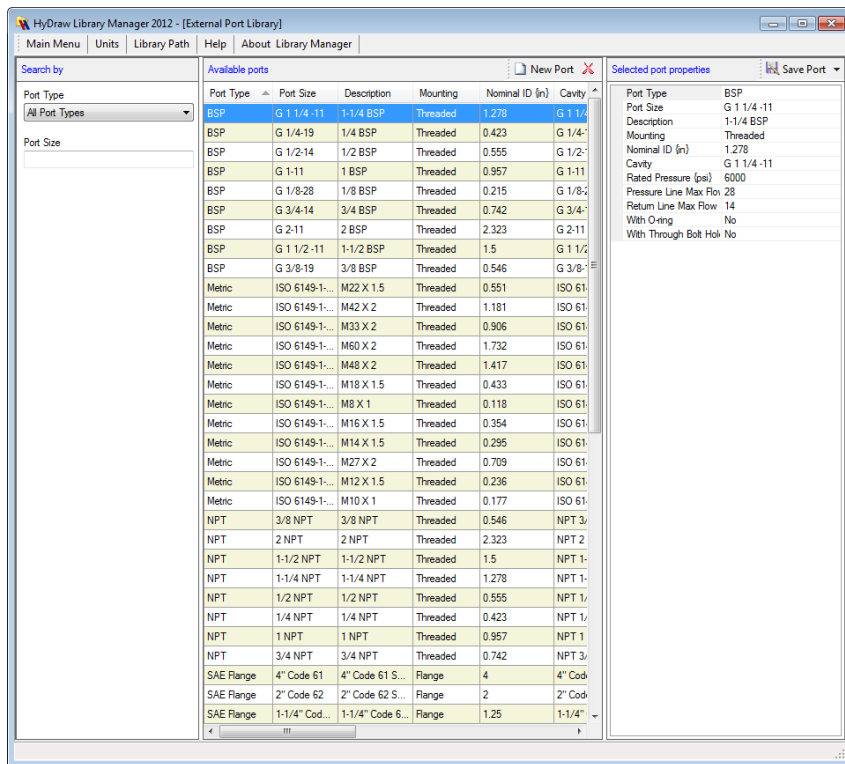
Model Properties section

6. Managing External Port Library

External Port Library Manager deals with the external ports available in the library.

External Port Library Manager has three sections (column wise):

- Search Port
- Available Ports
- Port Properties



HyDraw Library Manager – (External Port Library)

Search Port section

The Search Port section enables to search for a particular external port type and port size.

Search by

Port Type
All Port Types ▼


Port Size

Search Port section

Port Properties section

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

- You can link documents and CAD files to the selected port.
- Click **Save Port** on the caption bar to save port properties.
- Click **Save as New Port** on the caption bar to save as a new port.

Selected port properties  Save Port ▼

Port Type	BSP
Port Size	G 1 1/4 -11
Description	1-1/4 BSP
Mounting	Threaded
Nominal ID {in}	1.278
Cavity	G 1 1/4 -11
Rated Pressure {psi}	6000
Pressure Line Max Flow	28
Return Line Max Flow	14
With O-ring	No
With Through Bolt Hole	No

Port properties section

Available Ports section

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

You can create a new port or delete a port by selecting the icons on the caption bar.

Available ports						New Port	
Port Type	Port Size	Description	Mounting	Nominal ID (in)	Cavity		
BSP	G 1 1/4-11	1-1/4 BSP	Threaded	1.278	G 1 1/4		
BSP	G 1/4-19	1/4 BSP	Threaded	0.423	G 1/4		
BSP	G 1/2-14	1/2 BSP	Threaded	0.555	G 1/2		
BSP	G 1-11	1 BSP	Threaded	0.957	G 1-11		
BSP	G 1/8-28	1/8 BSP	Threaded	0.215	G 1/8		
BSP	G 3/4-14	3/4 BSP	Threaded	0.742	G 3/4		
BSP	G 2-11	2 BSP	Threaded	2.323	G 2-11		
BSP	G 1 1/2 -11	1-1/2 BSP	Threaded	1.5	G 1 1/2		
BSP	G 3/8-19	3/8 BSP	Threaded	0.546	G 3/8		
Metric	ISO 6149-1...	M22 X 1.5	Threaded	0.551	ISO 61		
Metric	ISO 6149-1...	M42 X 2	Threaded	1.181	ISO 61		
Metric	ISO 6149-1...	M33 X 2	Threaded	0.906	ISO 61		
Metric	ISO 6149-1...	M60 X 2	Threaded	1.732	ISO 61		
Metric	ISO 6149-1...	M48 X 2	Threaded	1.417	ISO 61		
Metric	ISO 6149-1...	M18 X 1.5	Threaded	0.433	ISO 61		
Metric	ISO 6149-1...	M8 X 1	Threaded	0.118	ISO 61		
Metric	ISO 6149-1...	M16 X 1.5	Threaded	0.354	ISO 61		
Metric	ISO 6149-1...	M14 X 1.5	Threaded	0.295	ISO 61		
Metric	ISO 6149-1...	M27 X 2	Threaded	0.709	ISO 61		
Metric	ISO 6149-1...	M12 X 1.5	Threaded	0.236	ISO 61		
Metric	ISO 6149-1...	M10 X 1	Threaded	0.177	ISO 61		
NPT	3/8 NPT	3/8 NPT	Threaded	0.546	NPT 3/8		
NPT	2 NPT	2 NPT	Threaded	2.323	NPT 2		
NPT	1-1/2 NPT	1-1/2 NPT	Threaded	1.5	NPT 1-1/2		
NPT	1-1/4 NPT	1-1/4 NPT	Threaded	1.278	NPT 1-1/4		
NPT	1/2 NPT	1/2 NPT	Threaded	0.555	NPT 1/2		
NPT	1/4 NPT	1/4 NPT	Threaded	0.423	NPT 1/4		
NPT	1 NPT	1 NPT	Threaded	0.957	NPT 1		
NPT	3/4 NPT	3/4 NPT	Threaded	0.742	NPT 3/4		
SAE Flange	4" Code 61	4" Code 61 S...	Flange	4	4" Code		
SAE Flange	2" Code 62	2" Code 62 S...	Flange	2	2" Code		
SAE Flange	1-1/4" Cod...	1-1/4" Code 6...	Flange	1.25	1-1/4"		

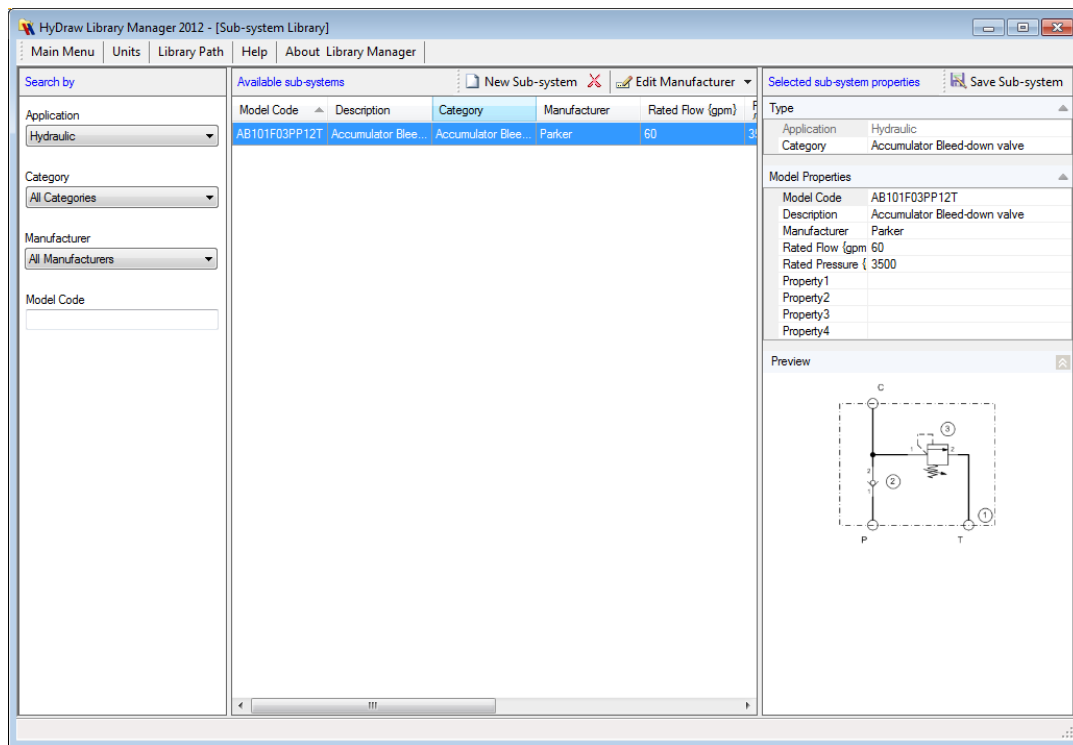
Available Ports

7. Managing Sub-system Library

Sub-system Library Manager deals with sub-systems available in the library.

Sub-system Library Manager has three sections (column wise):

- Search Sub-system
- Available Sub-system
- Sub-system Properties



HyDraw Library Manager – (Sub-system Library)

Search Sub-system section

The Search Sub-system section enables you to search for a particular sub-system of a category for a manufacturer.



Search by

Application
Hydraulic

Category
All Categories

Manufacturer
All Manufacturers

Model Code

Search Sub-systems section

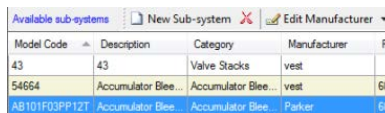
Available Sub-systems section

The Available Sub-systems section displays all the Sub-systems available for the selected category and manufacturer

- You can create a new sub-system or delete a sub-system by selecting the icons on the caption bar.
- Click **Edit Manufacturer** on the caption bar to edit the manufacturer list.
- Click **Edit Category** on the caption bar to edit the category list.

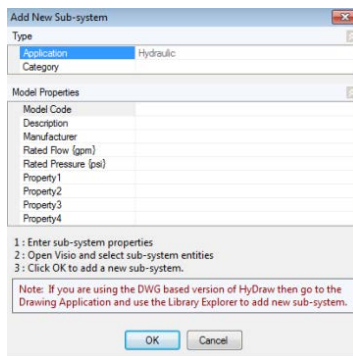
Note

- If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add new sub-system.



Model Code	Description	Category	Manufacturer	Rate
43		Valve Stacks	vest	
54664	Accumulator Blee...	Accumulator Blee...	vest	60
AB101F03PP12T	Accumulator Blee...	Accumulator Blee...	Parker	60

Available Sub-systems



Add New Sub-system

Type

Application Hydraulic

Category

Model Properties

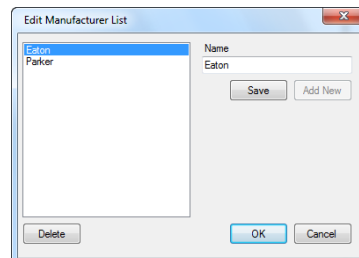
Model Code	
Description	
Manufacturer	
Rated Flow (gpm)	
Rated Pressure (psi)	
Property1	
Property2	
Property3	
Property4	

1: Enter sub-system properties
2: Open Visio and select sub-system entities
3: Click OK to add a new sub-system.

Note: If you are using the DWG based version of HyDraw then go to the Drawing Application and use the Library Explorer to add new sub-system.

OK Cancel

New Sub-systems



Edit Manufacturer List

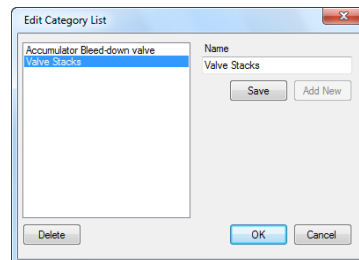
Eaton
Parker

Name
Eaton

Save Add New

Delete OK Cancel

Edit Manufacturer List



Edit Category List

Accumulator Bleed-down valve
Valve Stacks

Name
Valve Stacks

Save Add New

Delete OK Cancel

Edit Category List

Sub-system Properties section

The Sub-system properties section displays the properties of the selected sub-system.

The image of the sub-system is displayed in the Preview pane.

Click **Save Sub-system** to save the sub-system.

Selected sub-system properties		Save Sub-system
Type		
Application	Hydraulic	
Category	Accumulator Bleed-down valve	
Model Properties		
Model Code	AB101F03PP12T	
Description	Accumulator Bleed-down valve	
Manufacturer	Parker	
Rated Flow (gpm)	60	
Rated Pressure	3500	
Property1		
Property2		
Property3		
Property4		
Preview		

Selected sub-system properties section

8. Managing Pipe & Tube Library

Pipe & Tube Library enables you to view all the available pipes and tubes and their properties. You can delete and create new pipes and tubes, using the icons on the caption bar.

Pipe & Tube Library has three sections (column wise):

- Search by
- Available pipes/tubes
- Selected pipe/tube properties

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	6 Threaded	5.107	6.625	0.719	2450
Seamless Steel Schedule 160	1 Welded	0.815	1.315	0.25	5127
Seamless Steel Schedule 160	1/2 Welded	0.466	0.84	0.187	5129
Seamless Steel Schedule 160	6 Welded	5.187	6.625	0.719	2977
Seamless Steel Schedule 160	5 Threaded	4.313	5.563	0.625	2453
Seamless Steel Schedule 160	5 Welded	4.313	5.563	0.625	3074
Seamless Steel Schedule 160	4 Welded	3.438	4.5	0.531	3219
Seamless Steel Schedule 160	1 1/4 Threaded	1.16	1.66	0.25	2450
Seamless Steel Schedule 160	2 1/2 Welded	2.125	2.875	0.375	3517
Seamless Steel Schedule 160	4 Threaded	3.438	4.5	0.531	2447
Seamless Steel Schedule 160	3 Welded	2.624	3.5	0.438	3395
Seamless Steel Schedule 160	3 Threaded	2.624	3.5	0.438	2401
Seamless Steel Schedule 160	2 1/2 Threaded	2.125	2.875	0.375	2305
Seamless Steel Schedule 160	1/2 Welded	1.338	1.9	0.281	3941
Seamless Steel Schedule 160	2 Welded	1.687	2.375	0.344	3921
Seamless Steel Schedule 160	1 Threaded	0.815	1.315	0.25	3187
Seamless Steel Schedule 160	2 Threaded	1.687	2.375	0.344	2875
Seamless Steel Schedule 160	1 1/4 Welded	1.16	1.66	0.25	3972
Seamless Steel Schedule 160	1/2 Threaded	1.338	1.9	0.281	2642
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 40	6 Welded	6.065	6.625	0.28	1047
Seamless Steel Schedule 40	1/8 Threaded	0.269	0.405	0.068	726
Seamless Steel Schedule 40	1/4 Threaded	0.364	0.54	0.088	711
Seamless Steel Schedule 40	3/8 Threaded	0.493	0.675	0.091	687
Seamless Steel Schedule 40	1/4 Welded	0.364	0.54	0.088	3459
Seamless Steel Schedule 40	1/8 Welded	0.269	0.405	0.068	3173
Seamless Steel Schedule 40	3/8 Welded	0.493	0.675	0.091	2852
Seamless Steel Schedule 40	1/2 Threaded	1.61	1.9	0.145	688
Seamless Steel Schedule 40	3/4 Welded	0.824	1.05	0.113	2390
Seamless Steel Schedule 40	3/4 Threaded	0.824	1.05	0.113	631

HyDraw Library Manager – (Pipe & Tube Library)

Search by section

The Search by section enables you to filter the selection on the Type i.e. Pipe/Tube and Material.

Search by

Type
Pipe

Material
All Materials

Search by Type & Material

Available Pipes & Tubes Section

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

- You can create a new pipe/tube.
- Delete an existing pipe/tube.

Available pipes

Material	Nominal Size	Inner Diameter (in)	Outer Diameter (in)	Wall Thickness (in)	Pressure (psi)
Seamless Steel Schedule 160	2 Welded	1.687	2.375	0.344	3921
Seamless Steel Schedule 160	1 Threaded	0.815	1.315	0.25	3187
Seamless Steel Schedule 160	2 Threaded	1.687	2.375	0.344	2875
Seamless Steel Schedule 160	1 1/4 Welded	1.16	1.66	0.25	3972
Seamless Steel Schedule 160	1/2 Threaded	1.338	1.9	0.281	2642

Available Pipes

Available tubes

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	0.704	1	0.148	6250
304 SS	2	1.87	2	0.068	1250
304 SS	2	1.834	2	0.083	1600
304 SS	2	1.81	2	0.095	1850

Available Tubes

Selected Pipe/Tube Properties section

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

- Click **Save Pipe/Tube** to update the existing Pipe/Tube data.
- Click **Save as New Pipe/Tube** to create a new Pipe/Tube data.

Selected pipe properties

Save Pipe

Material	Seamless Steel Schedule 160
Nominal Size	1 Threaded
Outer Diameter (in)	1.315
Wall Thickness (in)	0.25
Pressure (psi)	3187

Selected pipe properties section

Manage Lists

Manage Lists Add/Create/Edit/Delete items from the following lists

The interface displays a vertical list of categories on the left, each with a corresponding button. On the right, a blue box contains a numbered list of these categories, starting from 9. The categories are: Symbols, Documents, CAD Files, Connection Types, Component Types, Model Data, Cavity/Footprint/Interface, Manufacturer, Catalog Number, Cushions, Cylinder Mount, Frequency, Nominal Size, Pilot Valve Interface, Pump Mount, Rod End, Type, and Voltage.

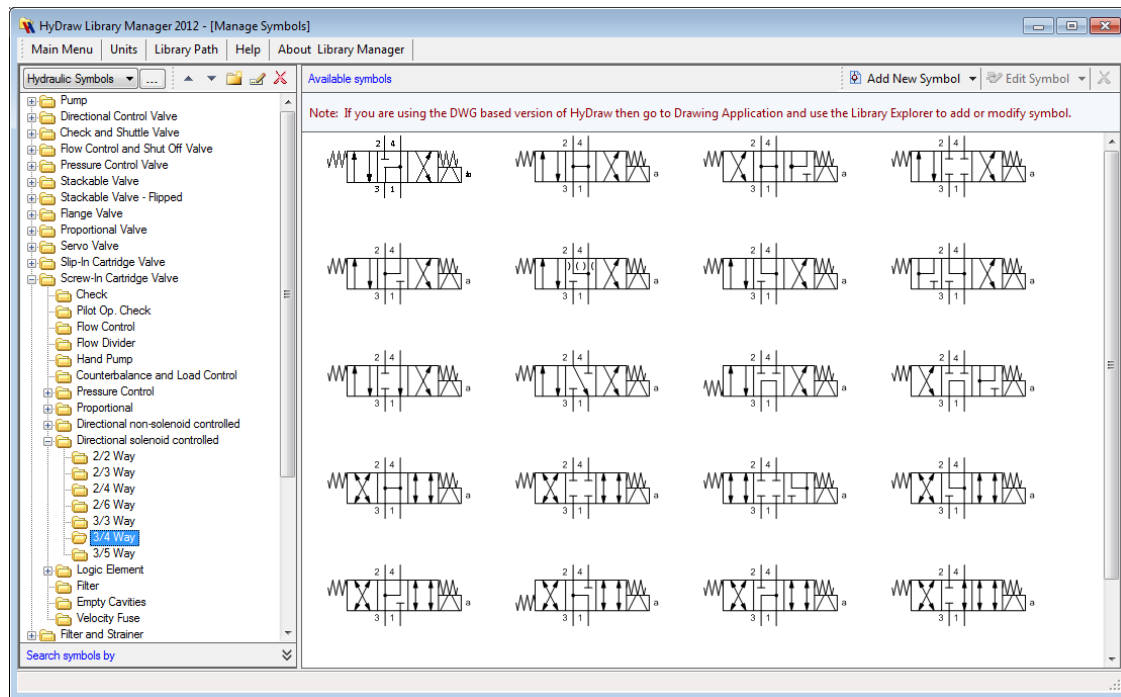
Number	Category
9	Managing Symbols
10	Managing Documents
11	Managing CAD Files
12	Managing Connection Types
13	Managing Component Types
14	Managing Model Data

9. Managing Symbols

Symbols Manager enables you to manipulate symbols in the library.

Symbol Manager is broadly divided into two sections (column wise).

- Library section
- Drawing section



HyDraw Library Manager – (Manage Symbols)

Library section

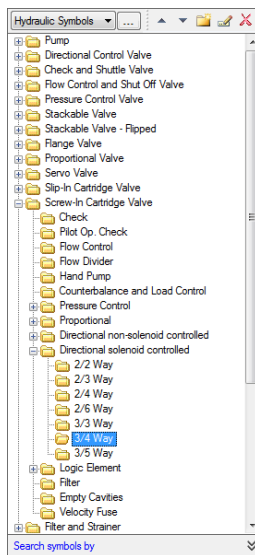
The Library section displays a logically structured tree-view library.

- Click the required folder to display the symbols in the Drawing section.
- Create a new folder, rename an existing folder, or delete a folder.
- Move a folder up or down to customize your tree view.

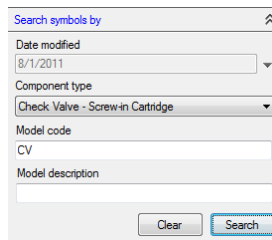
When you delete a folder, it deletes all its sub folders along with the symbols.

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

- Expand the **Search Symbols by** section to search for symbols in the Library Manager based on the modified date, component type, model code, and description.




Library tree view



Search symbols by

Add New Folder

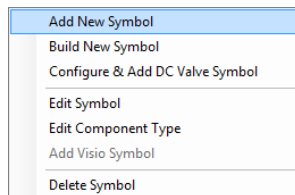
1. Right click the required folder in the library folder section and select **Add New** from the context menu.

Or
Click  button on the caption bar.

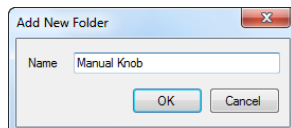
The Add New Folder dialog box displays.

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

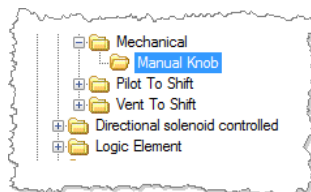
The new folder is created.



Library context menu



Add New Folder dialog box



Desired folder created under selected category

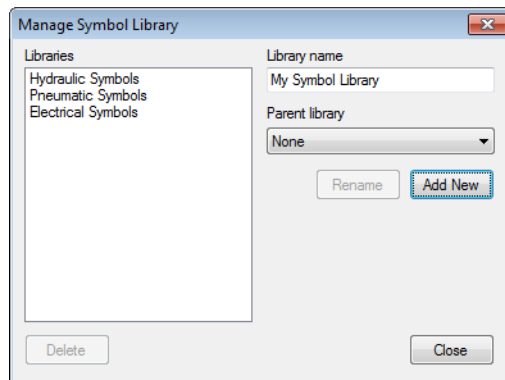
Create New Custom Symbol Library

You can 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 to create the library.



Manage Symbol Library

Note

The user created libraries can be


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

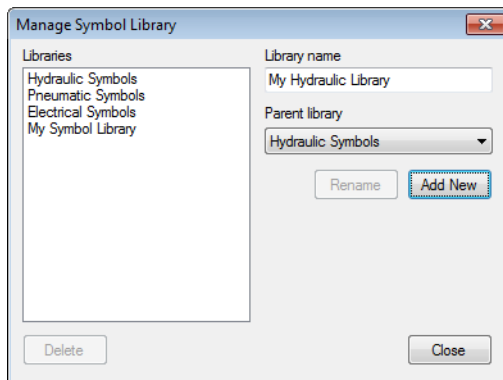
Caution!

The deleted libraries cannot be recovered.

Create New Child Symbol Library

You can create a new child Symbol Library from any of the three parent libraries: Hydraulic Symbols, Pneumatic Symbols, and Electric Symbols.

1. Click .
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 to create the library.



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

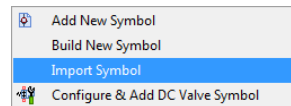
1. Right click the required folder in the library folder section and select **Add New** from the context menu.
Or

Click  button on the caption bar.

The Add New Folder dialog box displays.



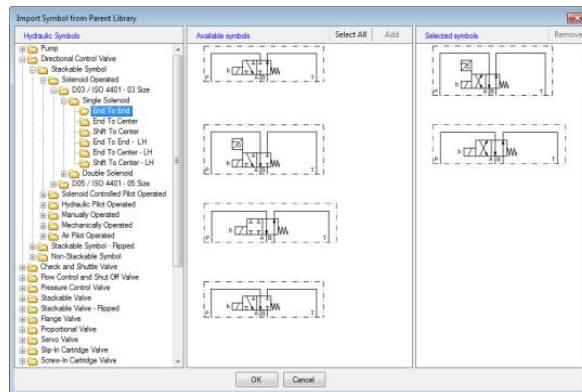
Add New Folder dialog box



Symbols Menu

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

The Import Symbol from Parent Library dialog box displays.



Import Symbols from Parent Library

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

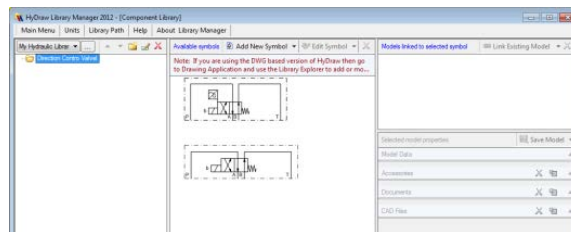
Or
Click the **symbol** to select or
press **Ctrl + symbol** to select more symbols.

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.



Component Library

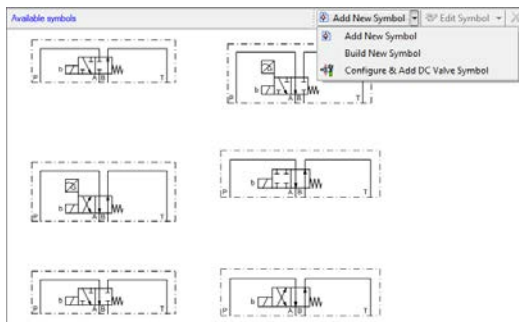
Drawing section

Note:

If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add or modify symbols.

All available symbols of the selected library folder are displayed in the Drawing section.

Access commands and icons on the caption bar and the context menu.



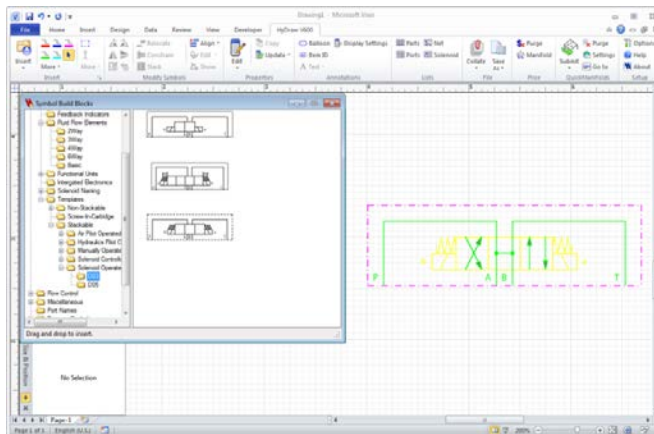
Drawing section: Add New Symbol

Build New Symbol

(Illustrations are applicable only for the Visio based version of HyDraw)

Build New Symbol and Add to Library

1. Select the required folder and select **Build New Symbol** from the Add New Symbol drop-down menu.
2. HyDraw loads the Visio version with the **Symbol Build Block** window containing shapes required to create a symbol.
3. Drag and drop a main pattern shape and other shapes into the drawing sheet and begin creating the symbol.



Drag and drop symbol from the basic building block shapes

4. Use combination of commands, such as Pan, Zoom and keyboard arrows, then position the shapes accurately to create the symbol.

5. Select all the shapes in a window.

Selected shapes are highlighted in the pink color.

6. Click the **Shape** drop-down menu of Visio:
Select **Add to Group** from the Grouping option.

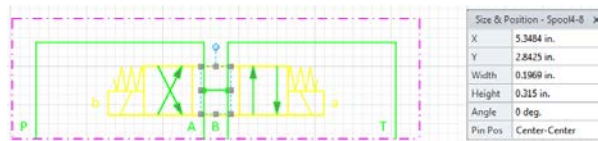
This option, groups all the shapes into one entity or symbol.

The required symbol is created.

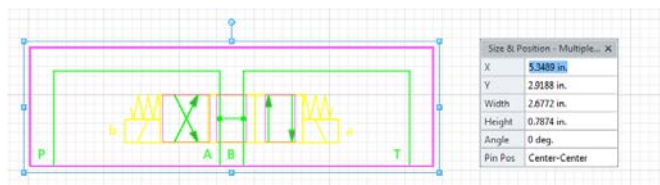
The symbol in the example already contains six connection points

P, A, B, L, TA, and TB.

If the symbol created by you does not contain any connection point, then they need to be added.



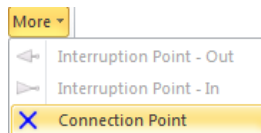
Positioning the shapes accurately



Grouping the selected shapes, which are highlighted in pink

Insert Connection Points

1. Select a symbol.
2. Select HyDraw V600
 - > Insert
 - > More
 - > **Connection Point**

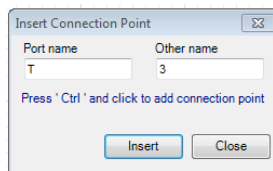


Connection Point

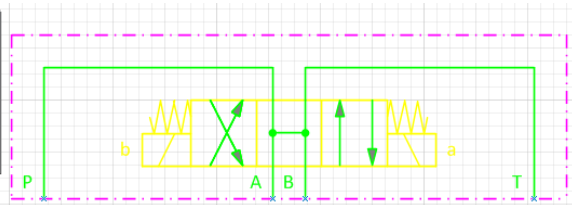
The Insert Connection Point dialog box displays.

3. Enter the name of the connection point to be inserted.
4. Holding 'Ctrl' key down, insert connection point by clicking at the correct location on the symbol.

Follow the same procedure and insert the remaining connection points on the symbol.



Inserting connection points



Add Symbol to Library

1. After creating the symbol, return to the HyDraw Library Manager.
2. Select the folder in the library section, where you want to add the symbol.
3. Select **Add New Symbol** from the Add New Symbol drop-down menu.

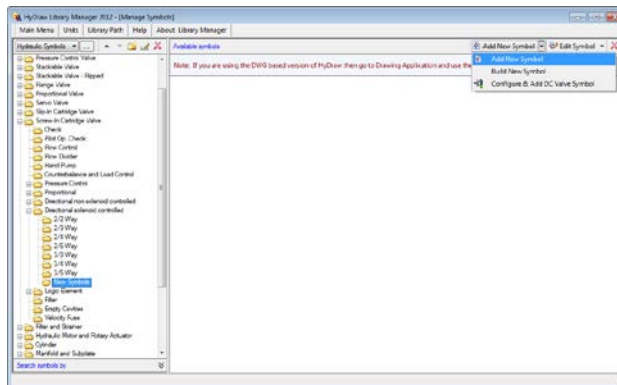
The Add New Symbol dialog box displays.

4. Select the appropriate application name.
5. Select the appropriate component type.
6. If the symbol created is stackable, then select the **Is Stackable Symbol** check box, else leave it unchecked.
7. Click the **Symbol** button and select the created symbol in the Visio drawing.
8. Click **OK** to add the new symbol to the library.

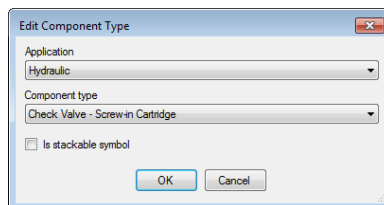
The symbol is added to the library.

Note

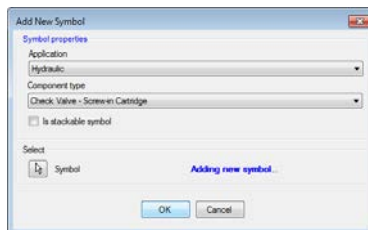
- If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add or modify symbols.



Add New Symbol



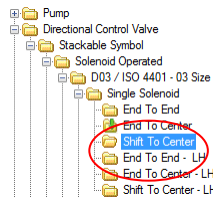
Selecting Application and Component type



Adding Selected Symbol

Move Component/Symbol Folders

- The component folders can be moved by simply dragging and dropping into the required folder.
- The new folder location is shown with a green arrow.

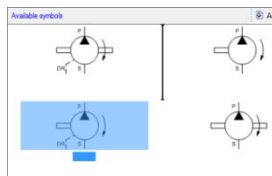


Move Component / Symbol Folders

Relocate Symbol

- Symbols can be easily moved by simply dragging and dropping to the required location.

The Selected symbol is placed after the cursor position in the window.

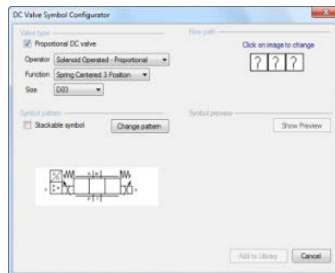


Relocate Symbol

Configure and Add DC Valve Symbol (Functionality available only in the Visio based version of HyDraw)

Configure Directional Control Valve with DC Valve Symbol Configuration and add to the library.

- Click **Configuration** and **Add DC Valve** symbol on the caption bar to display the DC Valve Symbol Configuration dialog box.
- Click **Add to Library** to add the DC valve from the Preview pane to the library.



DC Valve Symbol Configurator dialog box

Build New Symbol

- Click **Build New Symbol** on the caption bar of the Drawing section.

A Visio drawing page displays.

Note

- If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add or modify symbols.

Edit Symbol*

- Select the symbol in the drawing to edit it.

The Visio drawing page opens.

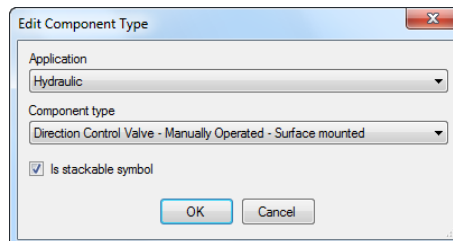
- Edit the symbol as required including Port names, and save it in the library.

Edit Component Type

- Click **Edit Component Type** on the caption bar.

The Edit Component Type dialog box displays.

- Select the required application and the component type.



Edit Component Type dialog box

Add Visio Symbol*

- Create new symbol in the Visio based version of HyDraw.
- Click **Add Visio symbol** to add the Visio symbol file.

Delete symbol*

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

The symbol is deleted from the library.

Note

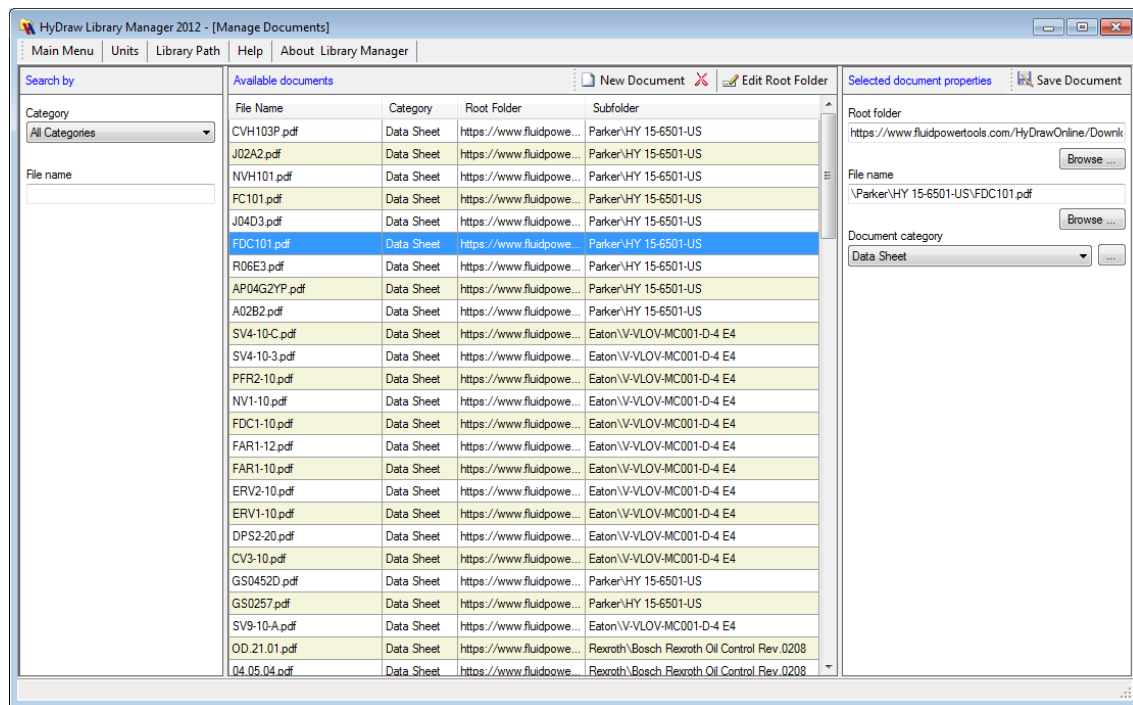
- * If you are using the DWG based version of HyDraw then go to Drawing Application and use the Library Explorer to add/modify/delete symbols

10. Managing Documents

Documents Manager enables you to manipulate documents in the library.

Documents Manager has three sections(column wise):

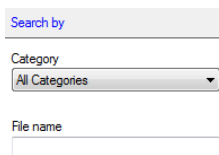
- Document Search
- Available Documents
- Document Properties



HyDraw Library Manager – (Manage Documents)

Document Search section

The Document Search section enables you to search for a particular document belonging to a category.



Search by

Category
All Categories

File name

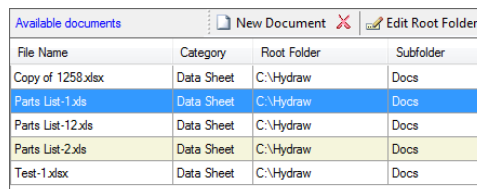
Search document section

Available Documents section

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

You can create a new document or a delete a document by selecting the icons on the caption bar.

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



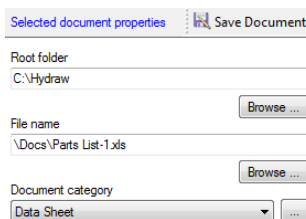
Available documents				New Document	Edit Root Folder
File Name	Category	Root Folder	Subfolder		
Copy of 1258.xlsx	Data Sheet	C:\Hydraw	Docs		
Parts List-1.xls	Data Sheet	C:\Hydraw	Docs		
Parts List-12.xls	Data Sheet	C:\Hydraw	Docs		
Parts List-2.xls	Data Sheet	C:\Hydraw	Docs		
Test-1.xlsx	Data Sheet	C:\Hydraw	Docs		

Available documents

Document Properties section

The 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

File name
\\Docs\Parts List-1.xls

Document category
Data Sheet

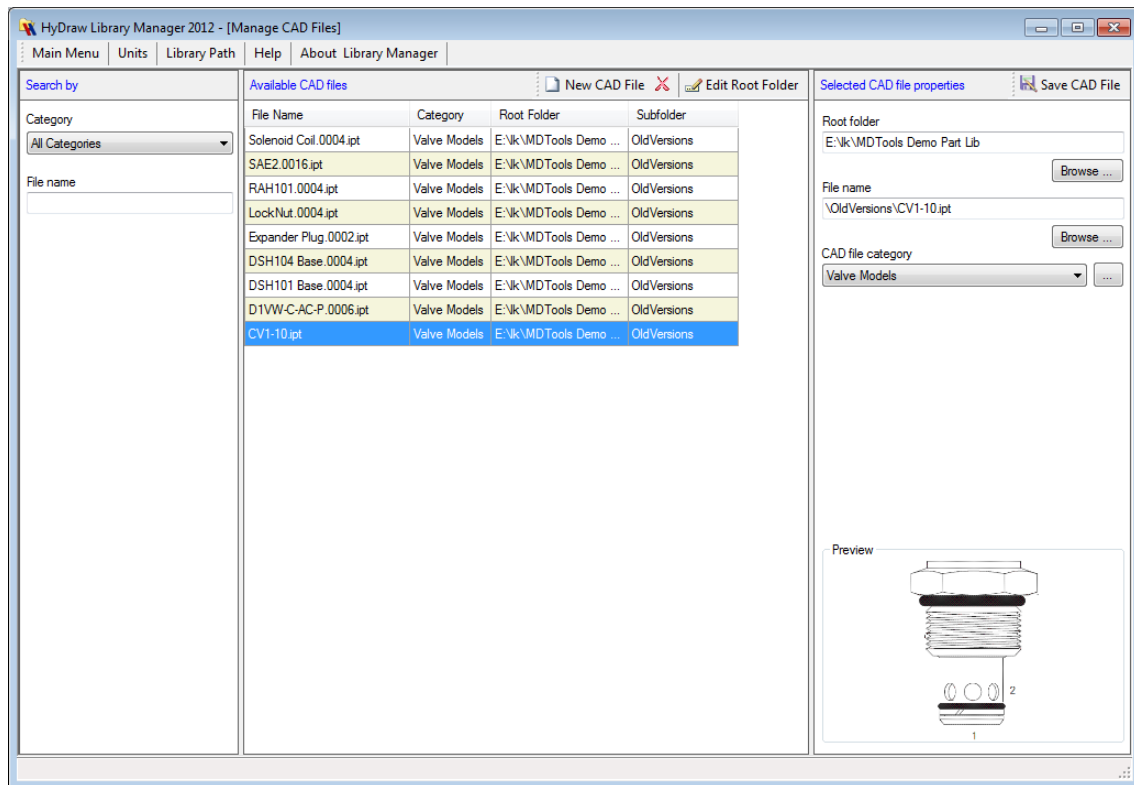
Selected document properties

11. Managing CAD Files

CAD Files Manager enables you to manipulate CAD files in the library.

CAD Files Manager has three sections (column wise):

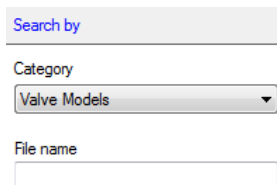
- CAD Files Search
- Available CAD Files
- CAD File Properties



HyDraw Library Manager – (Manage CAD files)

CAD Files Search section

The CAD Files Search section enables you to search for a particular CAD file belonging to a category.



Search by

Category

Valve Models

File name

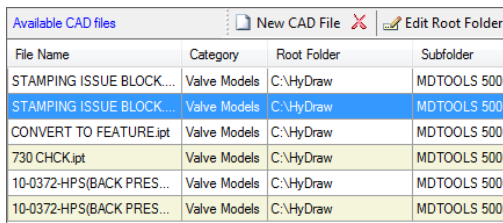
CAD Files Search section

Available CAD Files section

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

You can create a new CAD file or delete a CAD file by selecting the icons on the caption bar.

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



Available CAD files

New CAD File ✕ Edit Root Folder

File Name	Category	Root Folder	Subfolder
STAMPING ISSUE BLOCK...	Valve Models	C:\HyDraw	MDTOOLS 500
STAMPING ISSUE BLOCK...	Valve Models	C:\HyDraw	MDTOOLS 500
CONVERT TO FEATURE.ipt	Valve Models	C:\HyDraw	MDTOOLS 500
730 CHCK.ipt	Valve Models	C:\HyDraw	MDTOOLS 500
10-0372-HPS(BACK PRES...	Valve Models	C:\HyDraw	MDTOOLS 500
10-0372-HPS(BACK PRES...	Valve Models	C:\HyDraw	MDTOOLS 500

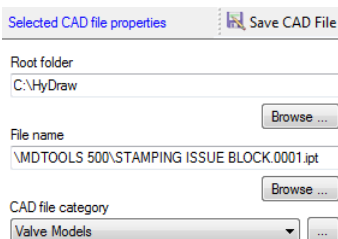
Available CAD files

CAD File Properties section

The 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 CAD File** to save the changes made to the file.



Selected CAD file properties

Save CAD File

Root folder

C:\HyDraw

Browse ...

File name

MDTOOLS 500\STAMPING ISSUE BLOCK.0001.ipt

Browse ...

CAD file category

Valve Models

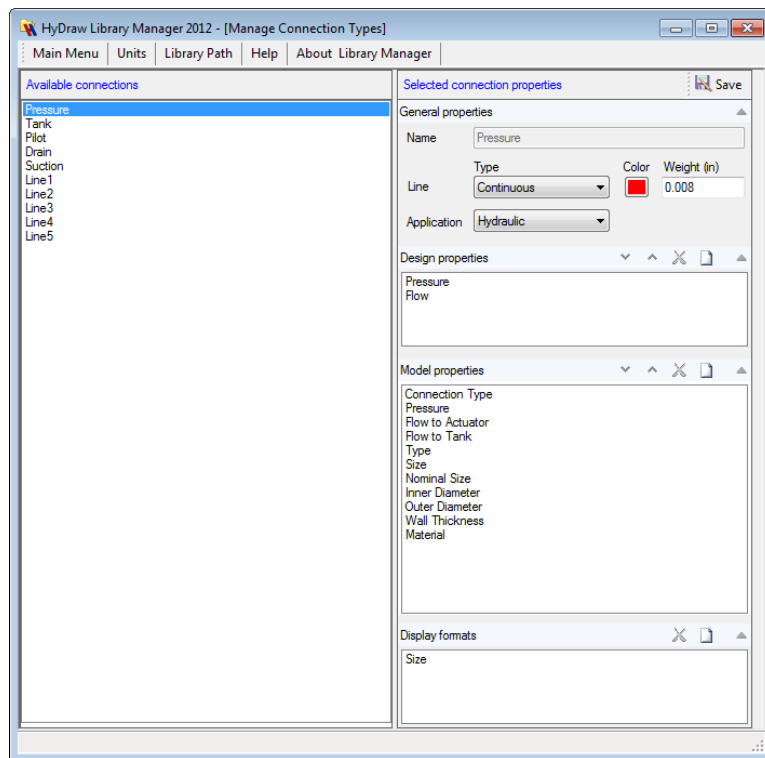
CAD file properties section

12. Managing Connection Types

Connection Types Manager enables you to view available connections. You can customize their color and line weight. You can also delete and create new design and model properties.

Connection Types Manager has two sections (column wise):

- Available Connections
- Connections Properties

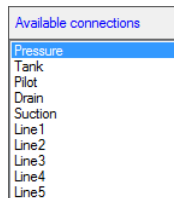


HyDraw Library Manager (Manage Connection Types)

Available Connections section

The Available connections section displays all available connections.

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



Available connections section

Connection Properties

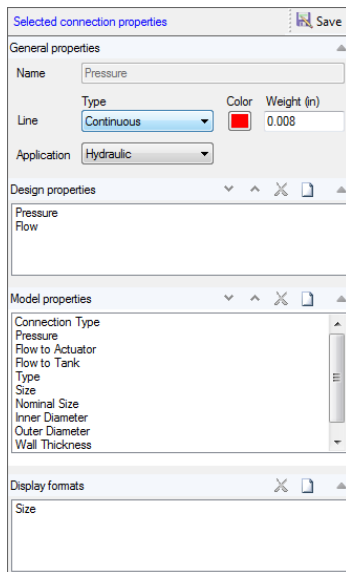
The Connections properties section displays

1. General properties
2. Design properties
3. Model properties
4. Display formats

General Properties

You can customize the application, type of line, its color, and its weight.



Click **Save** to save the changes.

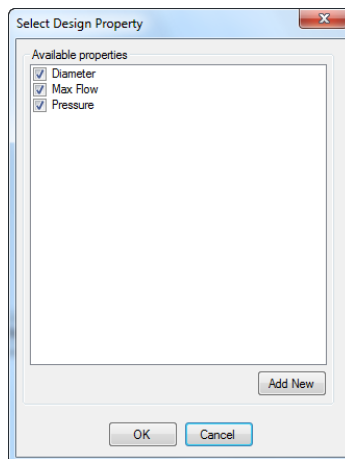


Available Connection Properties

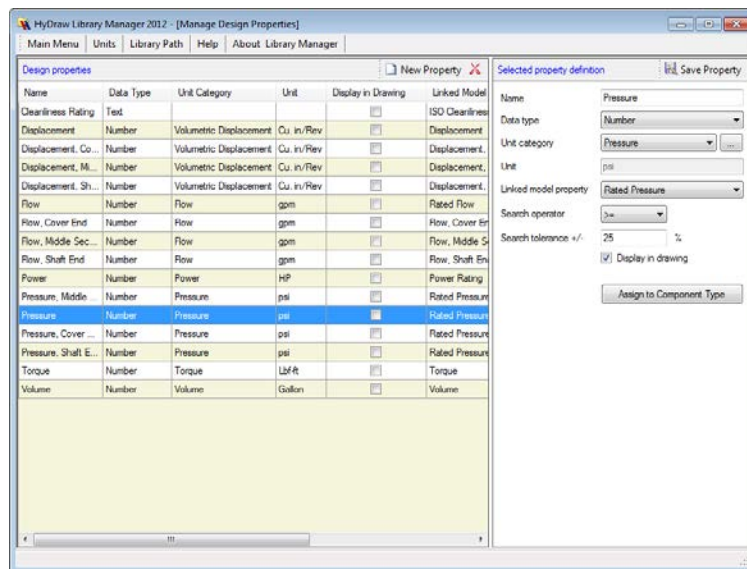
Design Properties

The *Design Properties* section displays the available design properties. You can also add new design properties.

- Click  on the Design properties caption bar to display the Select Design Property dialog box.
- Select any available property checkbox to display it in the Design Property section.
- Click **Add New** to display the Define Connection Design Properties dialog box.
- Click **New Property** on the caption bar to add a 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.





Select Design Property



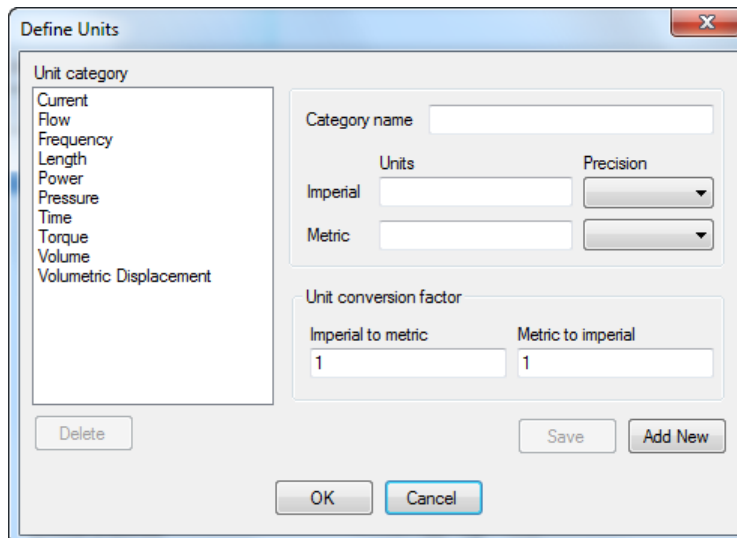
Define Component Properties

Note

- You cannot delete essential model 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.

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

- You can also add a new category and assign both Imperial and Metric units, up to four decimal precision. Define Unit conversion factor from Imperial to Metric and vice versa, so that the exact and corresponding numerical unit conversion takes place when you change the unit system from Imperial to Metric and vice versa.

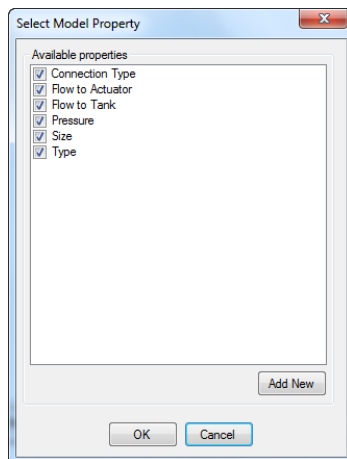
The image shows a 'Define Units' dialog box with a light blue title bar and a red close button. On the left, a list of unit categories is shown: Current, Flow, Frequency, Length, Power, Pressure, Time, Torque, Volume, and Volumetric Displacement. A 'Delete' button is at the bottom of this list. To the right of the list, there is a 'Category name' text box. Below that, there are two rows of input fields: 'Imperial' and 'Metric' units, each with a text box and a 'Precision' dropdown menu. Further down, a 'Unit conversion factor' section contains two text boxes: 'Imperial to metric' and 'Metric to imperial', both containing the number '1'. At the bottom of the dialog are four buttons: 'Delete', 'Save', 'Add New', and 'OK/Cancel'.

Define Units dialog box


Model Properties

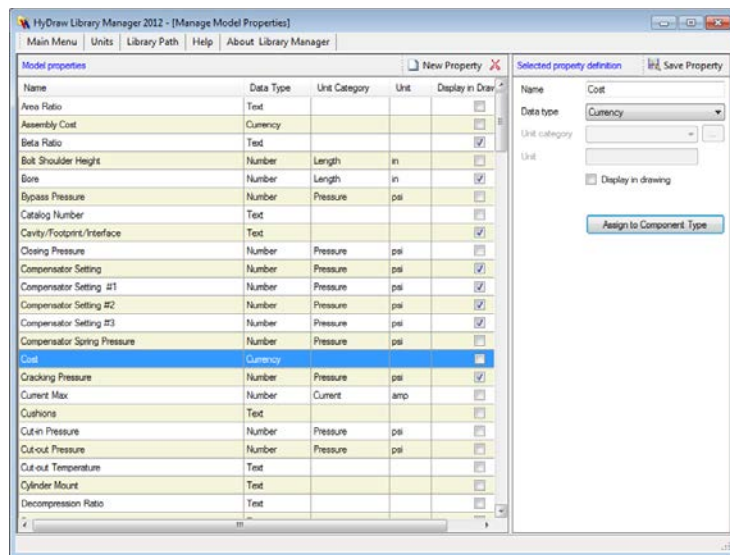
The model properties section displays the available model properties. You can also add new model properties.

- Click  on the **Model properties** caption bar
The *Select Model Property* dialog box displays





Select Model Property

- Select any property checkbox to display it in the Model Property section.
- Click **Add New** to display the Define Connection Model Properties dialog box.
- Click **New Property** to add new property
- Select **Display in drawing** to display the model properties in the drawing.
- Click  in the selected property definition section to display the Define Units dialog box.



Manage Component Model Properties

Note

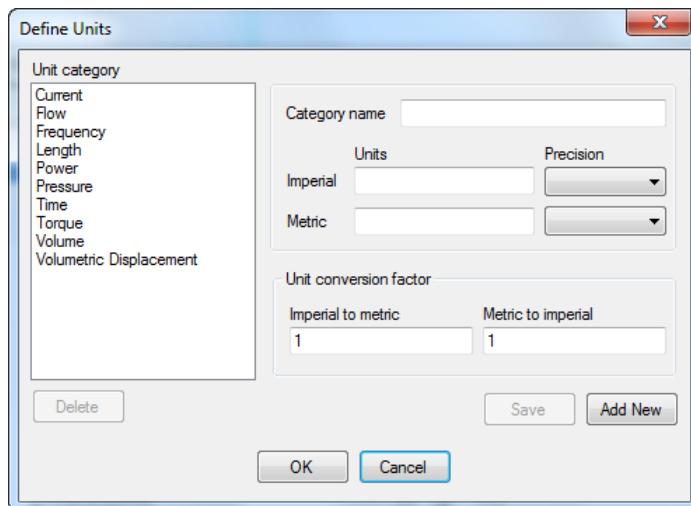
- You cannot delete essential model properties; hence  remains inactive on selection of essential model properties.
-  remains inactive if Text, Currency, or Yes/No is selected in the Data type box.

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

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

You can also add a new category and assign both Imperial and Metric units up to four decimal precision.

Define Unit conversion factor, from Imperial to Metric and vice versa, so that the exact and corresponding numerical unit conversion takes place when you change the unit system from Imperial to Metric and vice versa.



The 'Define Units' dialog box is shown. It has a title bar with a close button. On the left is a list box titled 'Unit category' containing: Current, Flow, Frequency, Length, Power, Pressure, Time, Torque, Volume, and Volumetric Displacement. Below this list is a 'Delete' button. To the right of the list is a section for 'Category name' with an empty text field. Below that are two rows: 'Imperial' and 'Metric', each with a text field and a 'Precision' dropdown menu. Further down is a 'Unit conversion factor' section with two text fields: 'Imperial to metric' (containing '1') and 'Metric to imperial' (containing '1'). At the bottom are 'OK' and 'Cancel' buttons. On the far right, outside the dialog box, are 'Save' and 'Add New' buttons.

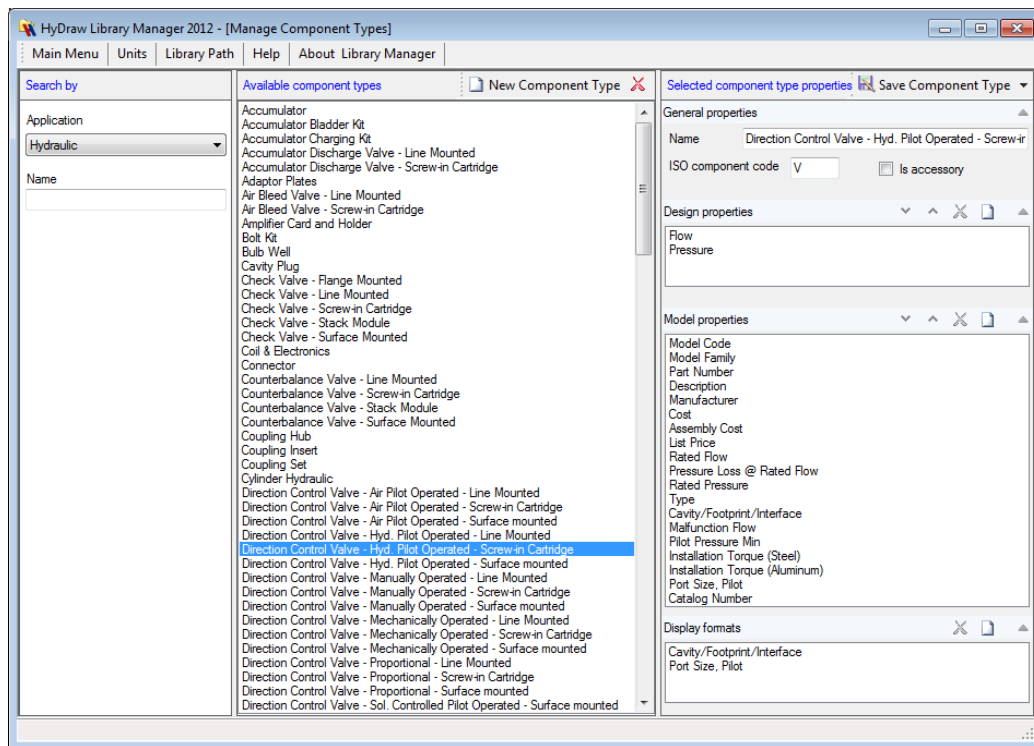
Define Units dialog box

13. Managing Component Types

Component Types Manager enables you to view all available component types and their properties. You can delete and create new component type using the icons on the caption bar.

Component Types Manager has three sections:

- Search Component
- Available Component types
- Component type Properties



HyDraw Library Manager – (Manage Component Types)

Search Component Type

The Search Component type section enables you to search for a particular component or all component types.

Search by

Application

Hydraulic

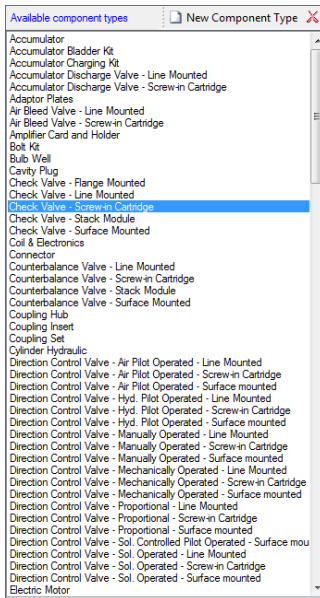
Name

Search Component type 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 icons on the caption bar.



Available CAD files

Component Type Properties

The Component type properties section displays

- General properties
- Design properties
- Model properties

- Save the properties of the component type after making changes. Or

Save as a new component type.

The Save commands are available on the caption bar.

Selected component type properties Save Component Type

General properties

Name Check Valve - Screw-in Cartridge

ISO component code V Is accessory

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
Rated Pressure
Type
Cavity/Footprint/Interface
Cracking Pressure
Installation Torque (Steel)
Installation Torque (Aluminum)
Catalog Number

Display formats

Cavity/Footprint/Interface
Cracking Pressure

Available component type properties section


General Properties

This section displays the name of the component type and the ISO code.

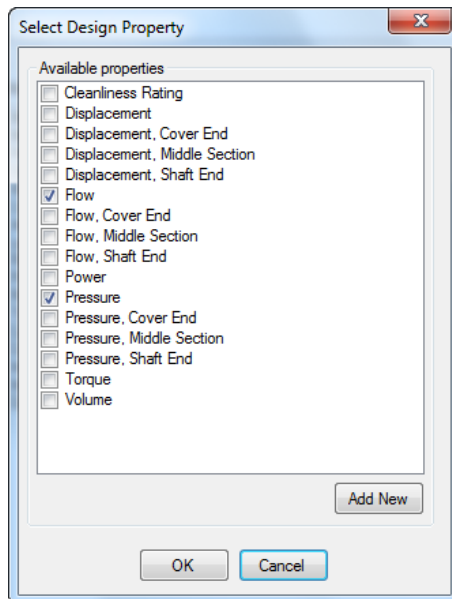
Select the checkbox, if the component type is an accessory.

Design Properties


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

- Click  on the Design properties caption bar to display the Select Design Property dialog box.
- Select any property checkbox to display them in the Design Property section.


Click **Add New** to display the Define Component Properties dialog box.




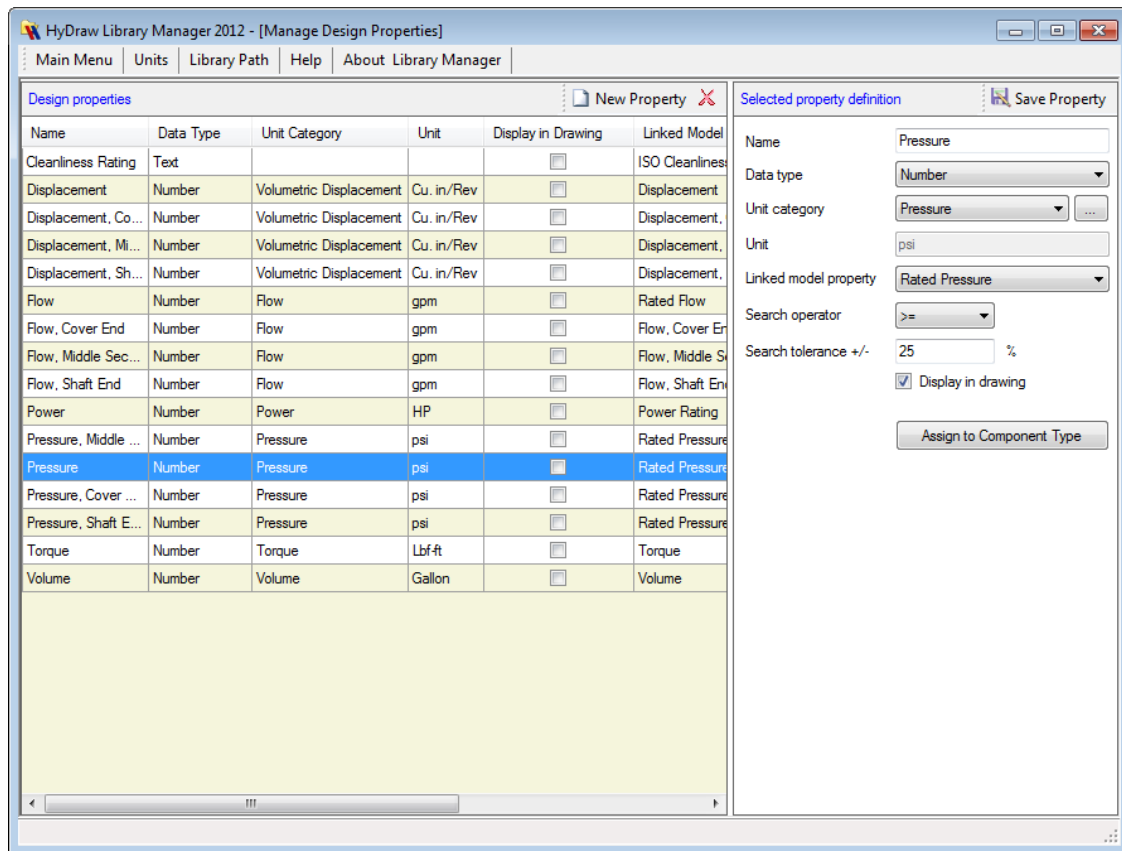
Select Design Property dialog box

- Click **New Property** 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 **Assign to Component Type** to assign the selected property to one or more component types.
- Click **Save Property** to save the new property and update the existing property.

Note

- You cannot delete essential model properties; hence  remains inactive on selection of essential model properties.

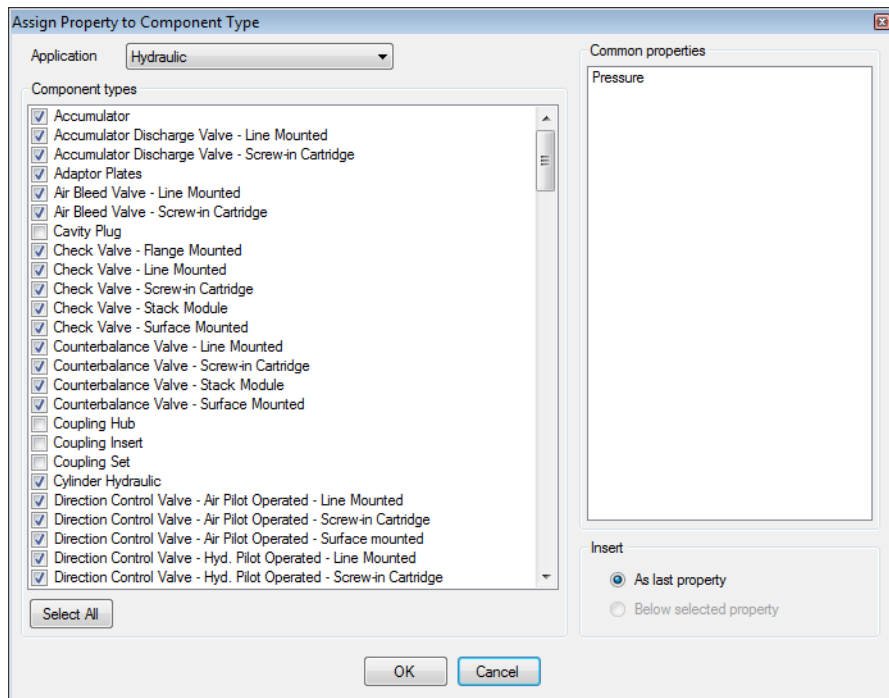
 remains inactive if Text, Currency, or Yes/No is selected in the Data type box.



Define Component Properties

The Assign Property to Component Type dialog box displays.



- Select **Application**.
- 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.
- Select Insert, **As last property/Below selected property**.
- Click **OK** to apply and exit.

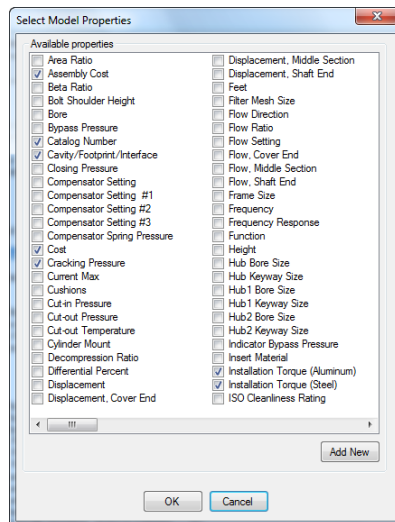


Assign Property to Component Type

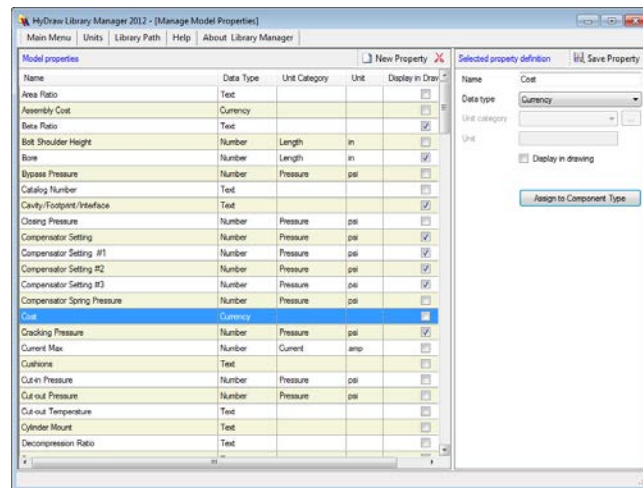
Model Properties section

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 Property** to add new property.
5. Select the **Display in drawing** checkbox to display the model property in the drawing.
6. Click  in the selected property definition section to display the Define Units dialog box.
7. Click **Assign to Component Type** to assign the selected property to one or more component types.
8. Click **Save Property** to save the new property and update the existing property.





Select Model Properties dialog box



Manage Component Model Properties

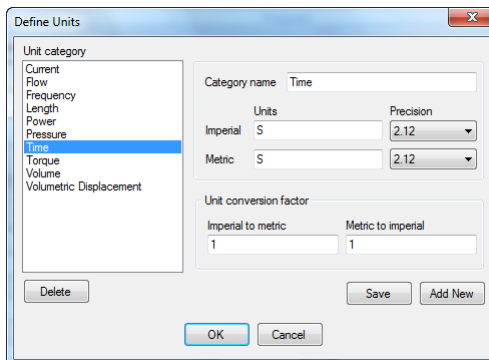
Note

- You cannot delete essential model 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.

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

You can also add a new category and assign both Imperial and Metric units up to four decimal precision.

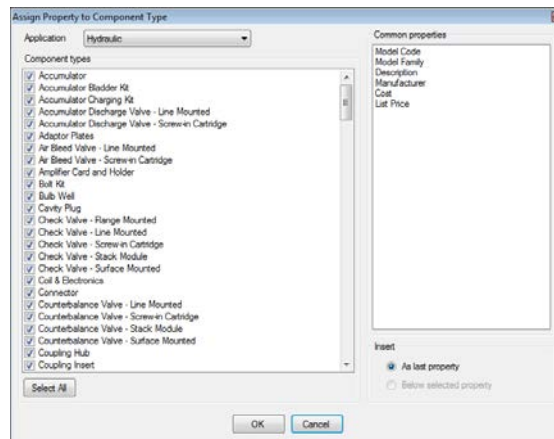
Define Unit conversion factor, from Imperial to Metric and vice versa, so that the exact and corresponding numerical unit conversion takes place when you change the unit system from Imperial to Metric and vice versa.



Define Units dialog box

The Assign Property to Component Type dialog box displays.

- Select **Application**.
- 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.
- Select Insert, **As last property/Below selected property**.
- Click **OK** to apply and exit.



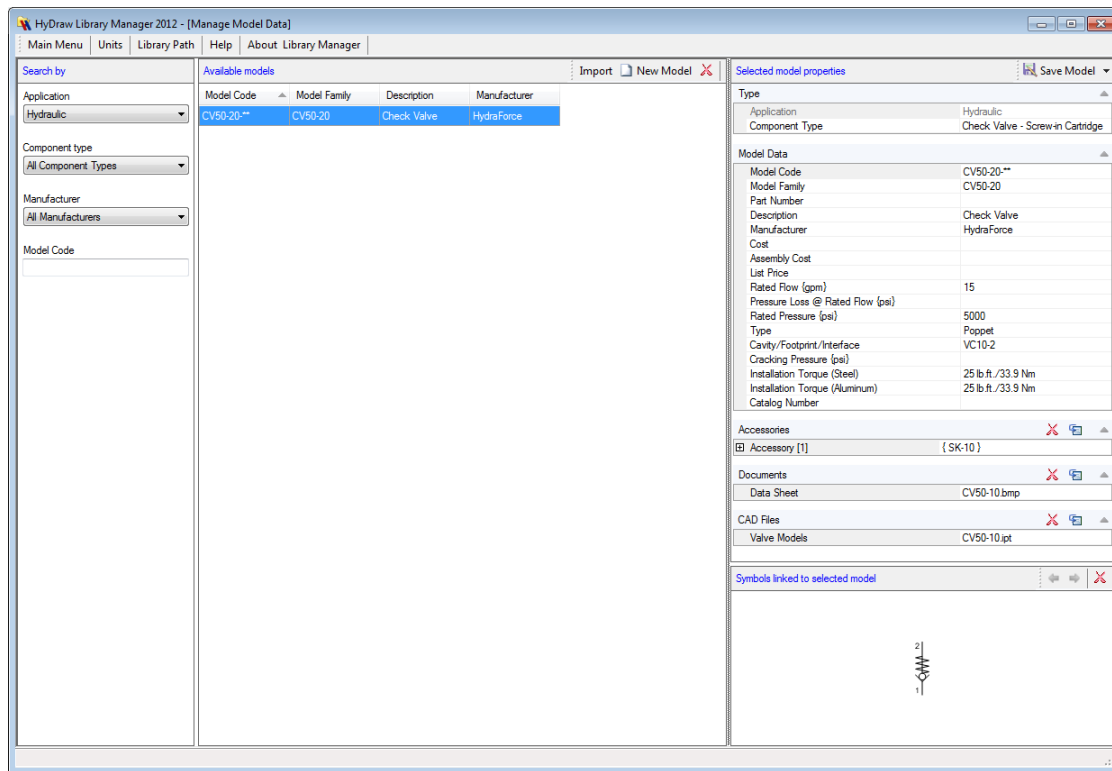
Assign Property to Component Type

14. Managing Model Data

Model Data Manager enables you to view all available component types and their properties. You can delete and create new component type using icons on caption bar.

Model Data Manager has three sections (column wise):

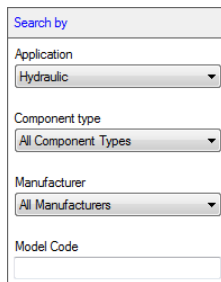
- Models Search
- Available Models
- Model Properties



HyDraw Library Manager – Manage Model Data

Models Search section

The Models search section enables you to search for model or all models of a particular component type, manufacturer, or models of any component type of any manufacturer.



Search by

Application
Hydraulic

Component type
All Component Types

Manufacturer
All Manufacturers

Model Code

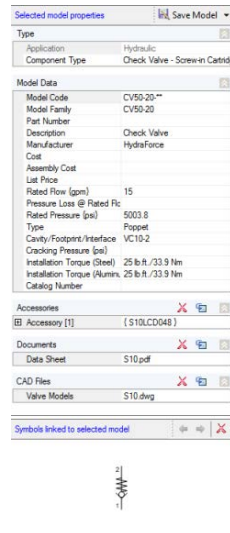
Search Models section

Available Models section

The Available Models section displays Application, Component Type, Model Data, Accessories, Documents, CAD Files, and Symbols linked to selected model.

The Model data displays four mandatory properties: model code, model family, manufacturer, description, and other non-mandatory properties of all available models.

You can also create a new model or delete a model by selecting the icons on the caption bar.



Selected model properties Save Model

Type

Application Hydraulic
Component Type Check Valve - Screened Catted

Model Data

Model Code	CV50-20"
Model Family	CV50-20
Part Number	
Description	Check Valve
Manufacturer	HydraForce
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	15
Pressure Loss @ Rated Fl	
Rated Pressure (psi)	5003.8
Type	Poppet
Cavity/Footprint/Interface	VC19-2
Cracking Pressure (psi)	
Installation Torque (Steel)	25 lb.ft./33.9 Nm
Installation Torque (Alumin)	25 lb.ft./33.9 Nm
Catalog Number	

Accessories

Accessory [1] (S10LCO048)

Documents

Data Sheet S10.pdf

CAD Files

Valve Models S10.dwg

Symbols linked to selected model

Symbol

Available models section

Import

The Import command imports model data in Microsoft Excel into the HyDraw library.

You can import data from their ERP system into the HyDraw library using this feature.

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

Note

- Export model data from the ERP system into Microsoft Excel manually.
You should be able to export data into Microsoft Excel easily using the ERP software.
- Manually link models to the following items after importing the data into the library.
 - Symbol
 - CAD file
 - Documents
 - Accessories
- If you want to add more data, in addition to the properties available in the ERP, then add the data into the Microsoft Excel sheet before importing into the library.

1. Click **Import**.

The Import Model Data from Excel dialog box displays.

2. Click **Browse ...**

The Select Excel File dialog box displays.

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

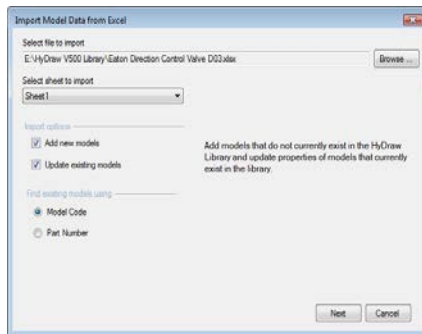
The program populates the Select sheet to import the drop-down list with the sheet names.

4. Select the sheet you want to import.

5. Select the **Import** options.

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

6. Click **Next** to continue.



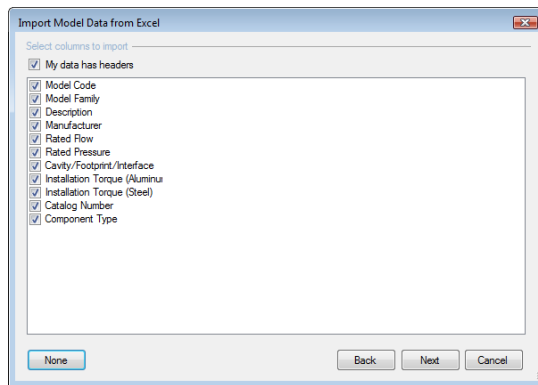
Import Model Data from Excel

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

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

The column names in the list change to column headers.

2. Click **Next** to continue.



Import Model Data from Excel – Select Columns to import


Note

- Use the Select All option to select all the items in the list. This button is a toggle button and when you click on the button, the text will change to 'Clear All/Select All'. The last used columns are selected by default, the next time you run the command.

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

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.

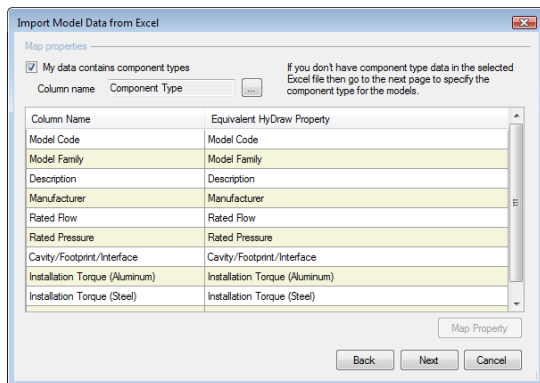
3. Select the **My data contains component types** option.
4. Click  to select the column containing the component types.

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

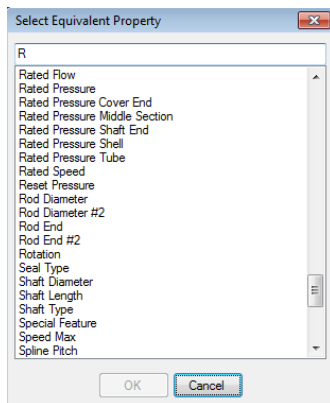
Map Property

- Select the column name and click **Map Property**.
The **Select Equivalent Property** dialog box displays.
- Select the property and click **OK**.
- Repeat the above steps and assign equivalent property for all the columns.
- Click **Next** to continue.

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



Import Model Data from Excel – Map Properties



Select Equivalent Property

Note

- 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.
- If Part Number is selected to find the existing model, then Part Number also becomes a mandatory field.
- If component types are not entered in the Excel sheet, then you can specify the component type from the last page of this wizard.

Assigning Component Type

- Select the models.

You can select multiple models from the list.

- Click **Assign Component Type**.

The Select Component Type dialog box displays.

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



Importing Model Data

- Select the models to import.

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

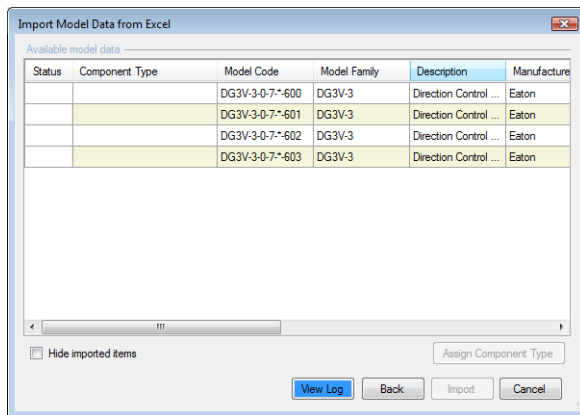
- Repeat the above steps to import all the models.

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

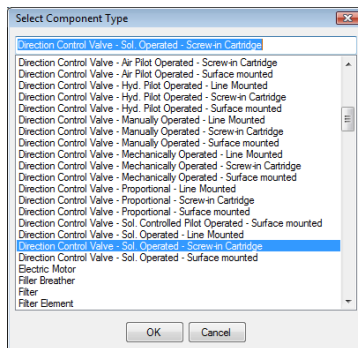
The successfully imported data is indicated by  and non-imported data is indicated by  in the Status column.

Note

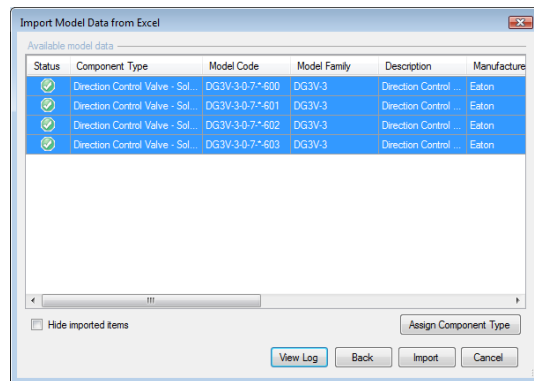
The Application option, such as Hydraulic, Pneumatic, and Electrical, selected in the Manage Model Data page will be assigned to all the models.



Import Model Data from Excel – Available Model Data



Select Component Type



Import Model Data from Excel :Imported Model Data

Model Properties section

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

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

- Enter new properties and click **Save Model** to save the model properties.
- Click **Save as New Model** to save as a new model.

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

Selected model properties	
Type	
Application	Hydraulic
Component Type	Direction Control Valve - Sol.
Model Data	
Model Code	DG3V-3-0-7-600
Model Family	DG3V-3
Part Number	
Description	Direction Control Valve
Manufacturer	Eaton
Cost	
Assembly Cost	
List Price	
Rated Flow (gpm)	10
Pressure Loss @ Rated f	
Rated Pressure (psi)	5000
Type	
Cavity/Footprint/Interface	D03
Malfunction Flow (gpm)	
Voltage	
Frequency	
Installation Torque (Steel)	3.33-4.17 lb ft./4.5-6.0 Nm
Installation Torque (Alumi)	3.33-4.17 lb ft./4.5-6.0 Nm
Catalog Number	682/05.94
Accessories	
There is no symbol linked to the model.	

Model properties

Manage Master Property Lists

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

15 Managing Cavity /Footprint

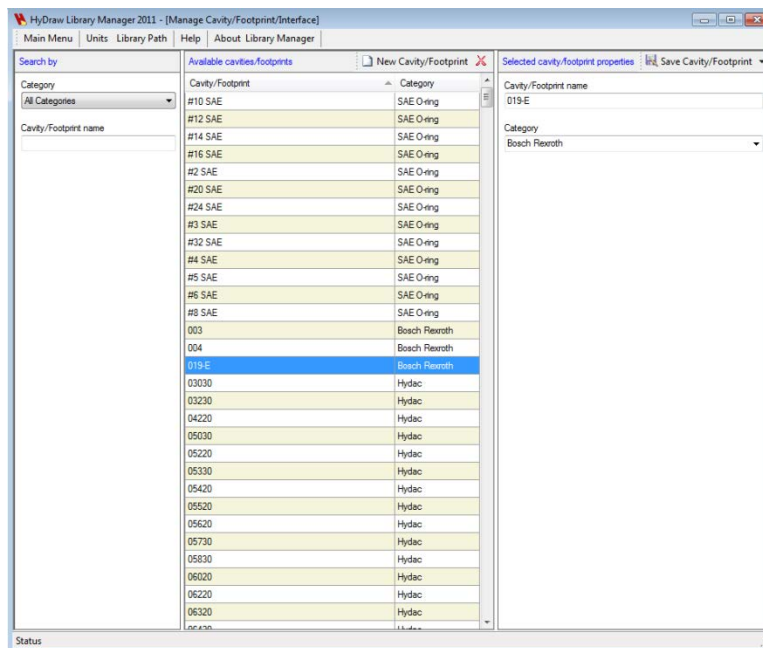
16 Managing Manufacturer

15. Managing Cavity/Footprint

Cavity/Footprint Manager enables you to search a specific cavity/footprint or cavities/footprints of all categories.

Cavity/Footprint Manager has three sections:

- Cavity/Footprint Search
- Available Cavities/Footprints
- Cavity/Footprint Properties



Cavity/Footprint search section

The Cavity/Footprint search section enables you to search for a cavity/footprint in a category or cavities/footprints in all categories.



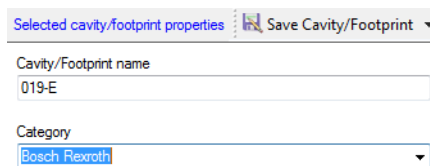
The screenshot shows a search interface with a header 'Search by' in blue. Below it is a 'Category' dropdown menu currently set to 'All Categories'. Underneath is a text input field labeled 'Cavity/Footprint name'.

Cavity/Footprint search section

Cavity/Footprint Properties section

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

- Select a new category and click **Save Cavity/Footprint** to save the category.
- Click **Save as New Cavity** to save as a cavity.



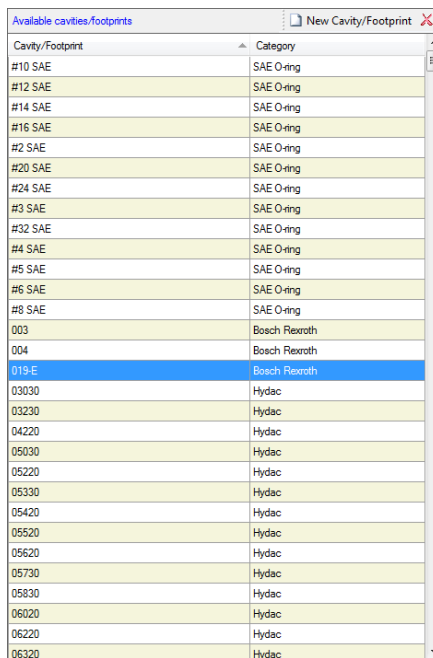
The screenshot shows the properties section with a header 'Selected cavity/footprint properties' and a 'Save Cavity/Footprint' button with a dropdown arrow. Below are two fields: 'Cavity/Footprint name' containing '019-E' and 'Category' with a dropdown menu showing 'Bosch Rexroth'.

Cavity/Footprint Properties section

Available Cavities/Footprints section

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

You can also create a new cavity or delete a cavity by selecting the icons on the caption bar.



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
05420	Hydac
05520	Hydac
05620	Hydac
05730	Hydac
05830	Hydac
06020	Hydac
06220	Hydac
06320	Hydac

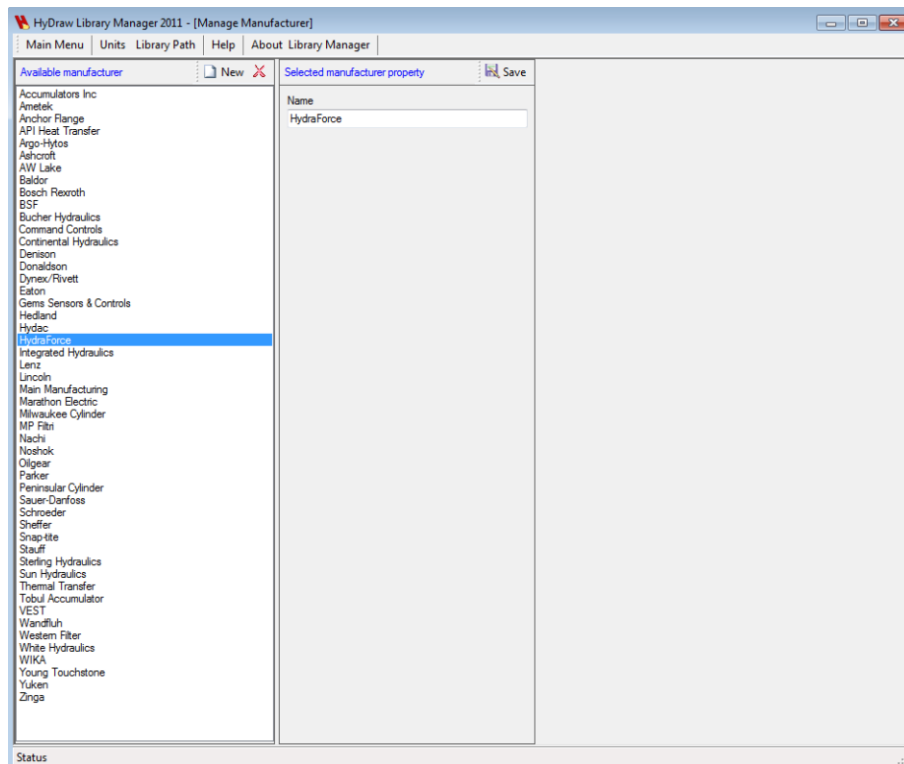
Available cavities/footprints section

16. Managing Manufacturer

Manufacturer Manager enables you to view all available manufacturers. You can also delete and create a new manufacturer.

Manufacturer Manager has two sections:

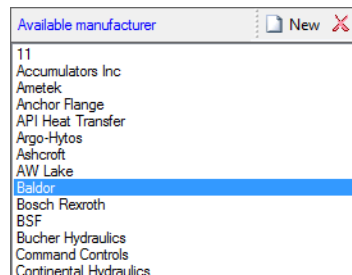
- Available Manufacturers
- Manufacturer Property section



Available Manufacturer section

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 icons on the caption bar.



Available manufacturer

Cavity/Footprint Properties section

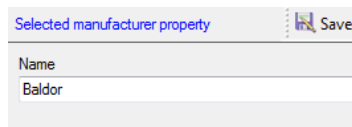
The Cavity/Footprint properties section displays the name and category of the selected cavity.

- Select a new category and click **Save Cavity/Footprint** to save the category.
- Click **Save as New Cavity** to save as a cavity.

Selected Manufacturer Property section

The Selected manufacturer property section enables you to edit the name of the manufacturer by typing the name in the text box.

- Click **Save** to save the edited name.



Selected manufacturer property

Note

- You can manage the Master Properties lists 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.

Manage Properties

Manage Properties enables you to add, edit, and delete the associated model, design properties and display formats of component models, connection models, external port models, and sub-systems.

Manage Properties Add/Edit/Delete properties

Component

Model Properties

Design Properties

Display Formats

External Port

Model Properties

Design Properties

Display Formats

Connection

Model Properties

Design Properties

Display Formats

Sub-system

Properties

17 Component Model Properties

18 Component Design Properties

19 Component Display Formats

20 External Port Model Properties

21 External Port Design Properties

22 External Port Display Formats

23 Connection Model Properties

24 Connection Design Properties

25 Connection Display Formats

26 Sub-system Properties

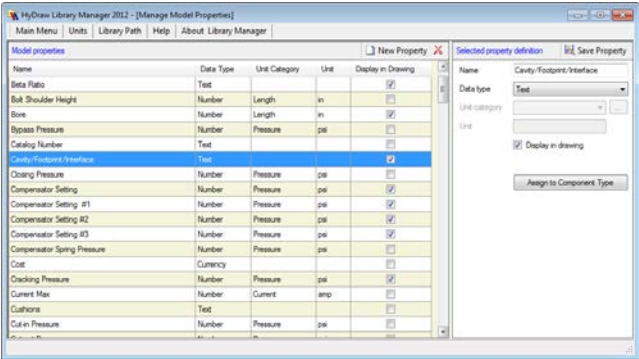
27 Migrate Library

17. Managing Component Model Properties

Component Model Properties Manager manages the properties of the component model.

Component Model Properties Manager is broadly divided into two sections

- Available Component Model Properties section
- Component Model Property Edit section

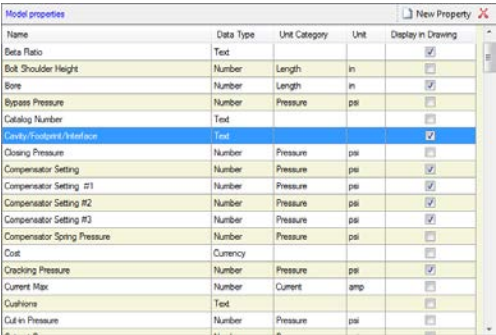


HyDraw Library Manager – (Manage Component Model Properties)

Available Component Model Properties section

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

You can also create a new model property or delete one by selecting the icons on the caption bar.



Model properties section

Component Model Property Edit section

The Component Model Property Edit section enables you to 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 **Assign to Component Type** to assign the selected property to one or more component types.
- Click **Save Property** to save the changes.

The screenshot shows a form titled "Selected property definition" with a "Save Property" button. The form contains the following fields:

- Name: Cavity/Footprint/Interface
- Data type: Text (dropdown menu)
- Unit category: (dropdown menu)
- Unit: (text field)
- ☒ Display in drawing
- Assign to Component Type (button)

Selected property definition section

Note

-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

The Assign Property to Component Type dialog box displays.

- Select **Application**.
- 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.
- Select Insert, **As last property/Below selected property**.
- Click **OK** to apply and exit.

The screenshot shows the "Assign Property to Component Type" dialog box. It has the following sections:

- Application: Hydraulic (dropdown menu)
- Component types: A list of component types with checkboxes. Most are checked, including Accumulator, Accumulator Discharge Valve, Adaptor Plates, Air Bleed Valve, Check Valve, Counterbalance Valve, Coupling Hub, Coupling Insert, Coupling Set, Cylinder Hydraulic, Direction Control Valve, and various Valve types.
- Select All (button)
- Common properties: A list showing "Pressure".
- Insert: Radio buttons for "As last property" (selected) and "Below selected property".
- OK and Cancel (buttons)

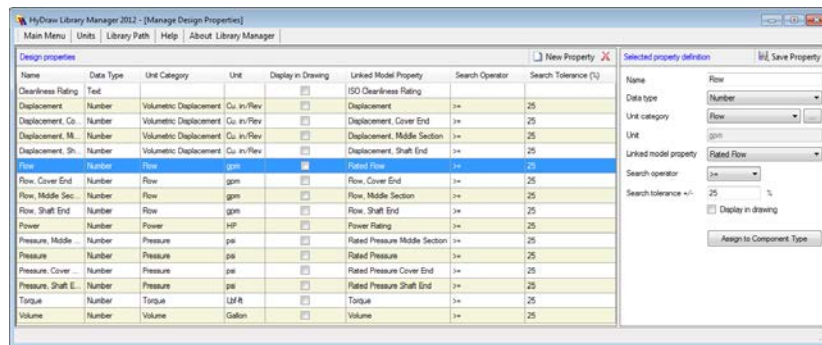
Assign Property to Component Type

18. Managing Component Design Properties

Component Design Properties Manager manages the design properties of the component model.

Component Design Properties Manager has two sections

- Available Component Design Properties
- Component Design Property Edit



Manage Component Design Properties

Available Component Design Properties

The Available Component 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 icons on the caption bar.

The screenshot shows the 'Design properties' section of the HyDraw Library Manager 2012. It displays a table of design properties with columns for Name, Data Type, Unit Category, Unit, Display in Drawing, Linked Model Property, and Search Operator. The 'Flow' property is highlighted in blue.

Name	Data Type	Unit Category	Unit	Display in Drawing	Linked Model Property	Search Operator
Cleanliness Rating	Text			<input type="checkbox"/>	ISO Cleanliness Rating	
Displacement	Number	Volumetric Displacement	Cu. in/Rev	<input type="checkbox"/>	Displacement	>=
Displacement, Co...	Number	Volumetric Displacement	Cu. in/Rev	<input type="checkbox"/>	Displacement, Cover End	>=
Displacement, Mi...	Number	Volumetric Displacement	Cu. in/Rev	<input type="checkbox"/>	Displacement, Middle Section	>=
Displacement, Sh...	Number	Volumetric Displacement	Cu. in/Rev	<input type="checkbox"/>	Displacement, Shaft End	>=
Flow	Number	Flow	gpm	<input checked="" type="checkbox"/>	Rated Flow	>=
Flow, Cover End	Number	Flow	gpm	<input type="checkbox"/>	Flow, Cover End	>=
Flow, Middle Sec...	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 checked="" type="checkbox"/>	Power Rating	>=
Pressure, Middle ...	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Middle Section	>=
Pressure	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure	>=
Pressure, Cover ...	Number	Pressure	psi	<input type="checkbox"/>	Rated Pressure Cover End	>=
Pressure, Shaft E...	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	>=



Design Properties section

Component Design Property Edit

The Component Design Property Edit section enables you to edit the name of the model property, data type, unit category, and unit.

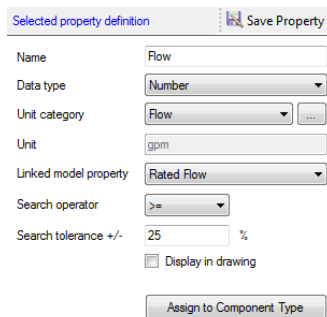
- Select **Display in drawing** to display the property in the drawing.
- Click **Assign to Component Type** to assign the selected property to one or more component types.
- Click **Save Property** to save the changes.

Note

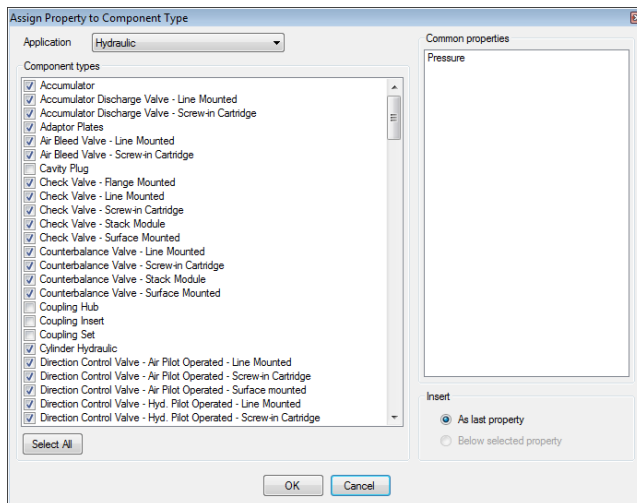
- You cannot delete essential design properties; hence  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

The Assign Property to Component Type dialog box displays.

- Select **Application**.
- 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.
- Select Insert, **As last property**/Below selected property.
- Click **OK** to apply and exit.



Selected property definition section



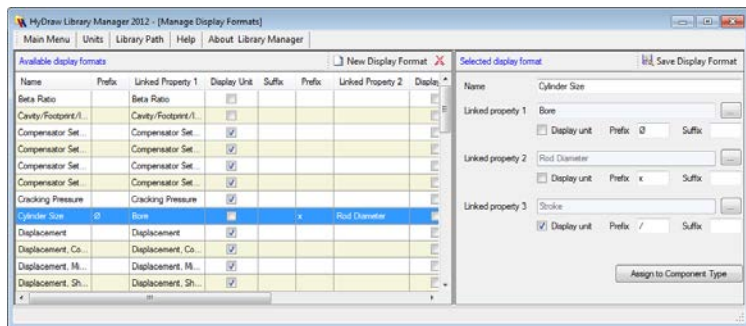
Assign Property to Component Type

19. Component - Manage Display Formats

The Component Manage Display Formats enables you to define Display Formats for components to display properties with suffix and/or prefix.
Display compound properties using the display format.

Manage Display Formats has two sections

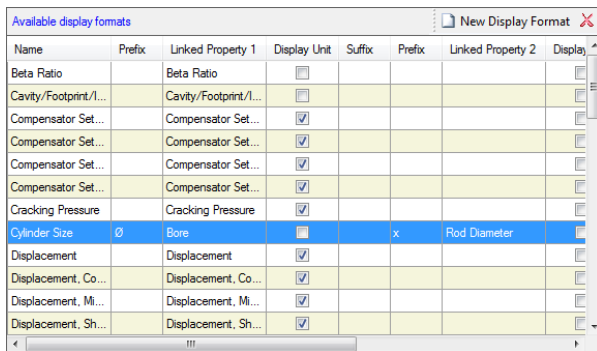
- Available display formats
- Selected display format



Component - Manage 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.
- You can also create a New Display Format or delete one, by selecting the icons on the caption bar.



Available Display Formats

Selected Display Formats

The selected Display Formats section displays Name, Linked Property1, Linked Property 2 and Linked Property 3 and their Display Unit, Prefix & Suffix.

Define Display Property

- Enter Name of the display format.

For the Linked Property 1

- Click .
The Select Property dialog box displays.
- Select **Model Property/Design Property**.

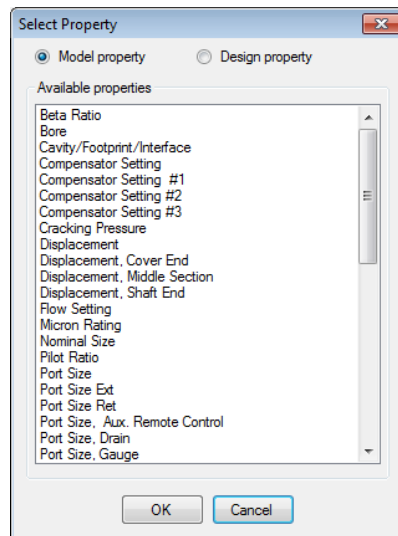
Note

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

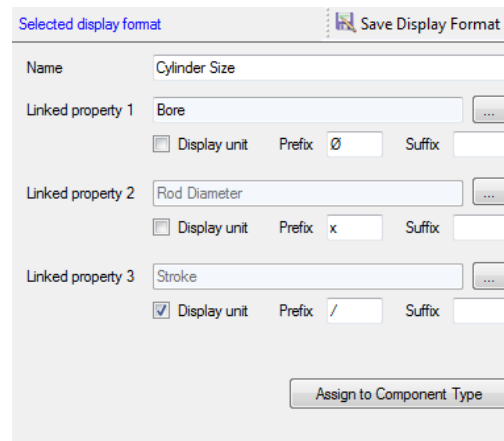
- Select a property from the available properties.
- Click **OK** to apply and exit.
- Select **Display Unit**, if available.
- Enter **Prefix**.
- Enter **Suffix**.

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

- Click **Assign to Component Type**.



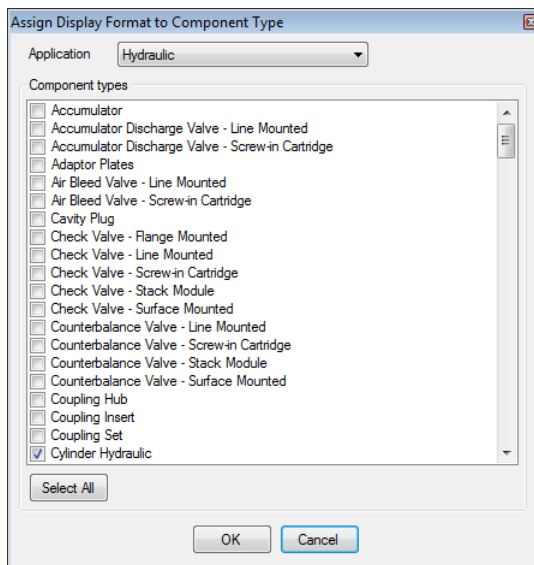
Select Property



Selected display format

The Assign Display Format to Component Type dialog box displays.

- Select **Application**.
- Select one or more listed component types
- Click **Select All** to select all component types.
- Click **OK** to apply and exit.
- Click **Save Display Format**.



Assign Display Format to Component Type

20. Managing External Port Model Properties

External Port Model Properties Manager manages the properties of the external port models.

External Port Model Properties Manager has two sections

- Available External Port Model Properties
- External Port Model Property Edit

The screenshot shows the 'HyDraw Library Manager 2012 - [Manage Model Properties]' window. The main area contains a table of model properties. The 'Port Size' property is selected, highlighted in blue. The right-hand panel shows the 'Selected property definition' for 'Port Size', with fields for Name, Data type (Text), Unit category, Unit, and a checked 'Display in drawing' checkbox.

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: Port Size

Data type: Text

Unit category: [dropdown]

Unit: [text box]

☒ Display in drawing

External Port - Manage Model Properties

Available External Port Model Properties section

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

You can create a new model property or delete one, by selecting the icons on the caption bar.

Model properties					New Property		
Name	Data Type	Unit Category	Unit	Display in Drawing			
Port Type	Text			<input checked="" type="checkbox"/>			
Description	Text			<input checked="" type="checkbox"/>			
Port Size	Text			<input checked="" type="checkbox"/>			
Cavity Name	Text			<input checked="" type="checkbox"/>			
Rated Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>			
Pressure Line Max Flow	Number	Unitless		<input checked="" type="checkbox"/>			
Return Line Max Flow	Number	Flow	gpm	<input checked="" type="checkbox"/>			

Available External Port: Model properties section


External Port Model Property Edit section

The External Port Model Property Edit section enables you to 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 Property** to save the changes.

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

Note

-  remains inactive, if Text,Currency, or Yes/No is selected in the Unit category box.

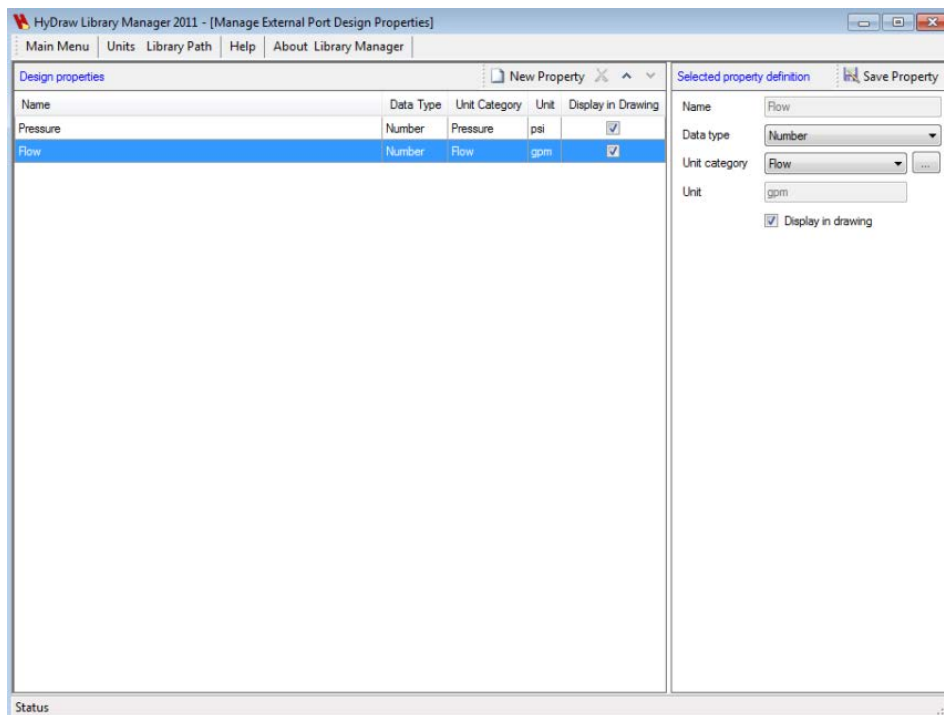
Selected property definition section

21. Managing External Port Design Properties

External Port Design Properties Manager manages the design properties of the external port.

External Port Design Properties Manager has two sections:

- Available External Port Design Properties
- External Port Design Property Edit



External Port - Manage Design Properties

Available External Port Design Properties

The *Available External Port 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 icons on the caption bar.

Design properties				
New Property ✕ ^ v				
Name	Data Type	Unit Category	Unit	Display in Drawing
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>
Flow	Number	Flow	gpm	<input checked="" type="checkbox"/>



External Port Design:Design properties section

External Port Design Property Edit

The *External Port Design Property Edit* section enables you to 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 Property** to save the changes.

Note

- You cannot delete essential design properties; hence  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 Property
Name	<input type="text" value="Flow"/>	
Data type	<input type="text" value="Number"/>	
Unit category	<input type="text" value="Flow"/> ...	
Unit	<input type="text" value="gpm"/>	
		<input checked="" type="checkbox"/> Display in drawing

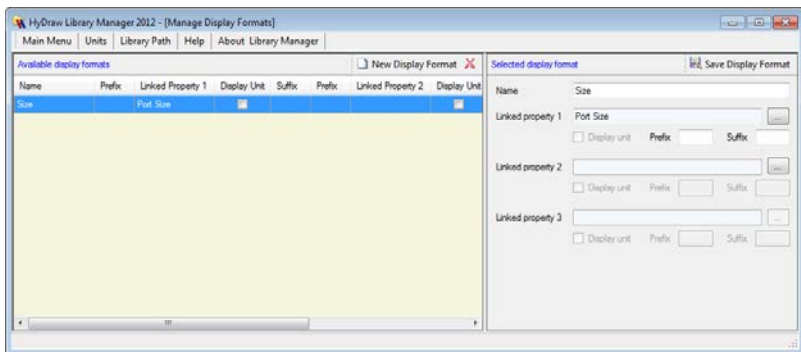
External Port Design:Selected property definition

22. External Port - Manage Display Formats

The External Port –Manage Display Formats enables you to define Display Formats to external ports display properties with suffix and/or prefix. Display compound properties using the display format.

Manage Display Formats has two sections

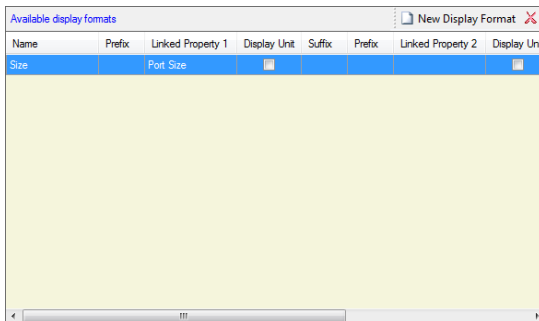
- Available display formats
- Selected display format



External Port - Manage Display Formats

Available Display Formats

- The Available display formats section displays all formats and properties that are marked with the display in the drawing.
- You can also create a New Display Format or delete one, by selecting the icons on the caption bar.



Available Display Formats


Selected Display Formats

The selected Display Formats section displays Name, Linked Property1, Linked Property 2 and Linked Property 3 and their Display Unit, Prefix & Suffix.

Define Display Property

- Enter Name of the display format.

For the Linked Property 1

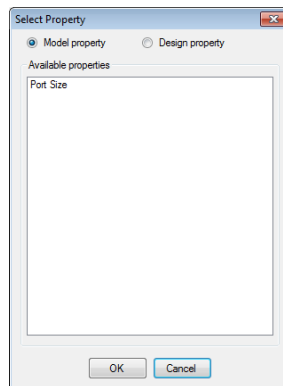
- Click .
The Select Property dialog box displays.
- Select **Model property/Design property**.

Note

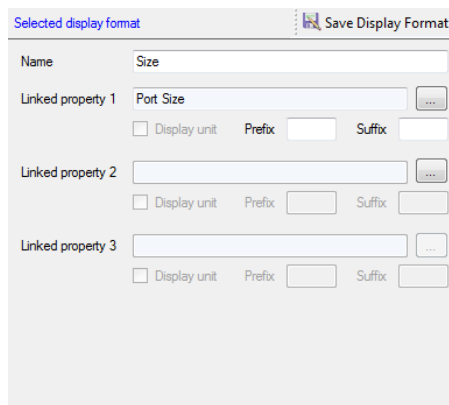
- The properties that are marked for *Display in drawing* are only visible.
- Select a property from the available properties.
- Click **OK** to apply and exit.
- Select **Display Unit**, if available.
- Enter **Prefix**.
- Enter **Suffix**.

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

- Click **Save Display Format**.



Select Property



Selected display format

23. Managing Connection Model Properties

Connection Model Properties Manager manages the properties of the connection model.

Connection Model Properties Manager has two sections:

- Available Connection Model Properties
- Connection Model Property Edit

Name	Data Type	Unit	Category	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 checked="" type="checkbox"/>
Size	Text			<input checked="" type="checkbox"/>
Type	Text			<input checked="" 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"/>

Selected property definition

Name:

Data type:

Unit category:

Unit:

☒ Display in drawing

Connection - Manage Model Properties

Available Connection Model Property

The Available Connection Model Property section displays all available connection models properties, their data type, category, and unit.

You can create a new model property or delete one, by selecting the icons on the caption bar.

Model properties					New Property	X
Name	Data Type	Unit Category	Unit	Display in Drawing		
Connection Type	Text			<input checked="" type="checkbox"/>		
Flow to Actuator	Number	Flow	gpm	<input checked="" type="checkbox"/>		
Flow to Tank	Number	Flow	gpm	<input checked="" type="checkbox"/>		
Size	Text			<input checked="" type="checkbox"/>		
Type	Text			<input checked="" type="checkbox"/>		
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>		

Available Connection Model Property section

Connection Model Property Edit



The Connection Model Property Edit section enables you to 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** to save the changes.

Selected property definition		Save Property
Name	<input type="text" value="Flow to Tank"/>	
Data type	<input type="text" value="Number"/>	
Unit category	<input type="text" value="Flow"/> ...	
Unit	<input type="text" value="gpm"/>	
<input checked="" type="checkbox"/> Display in drawing		

Connection Model Property Edit section

Note

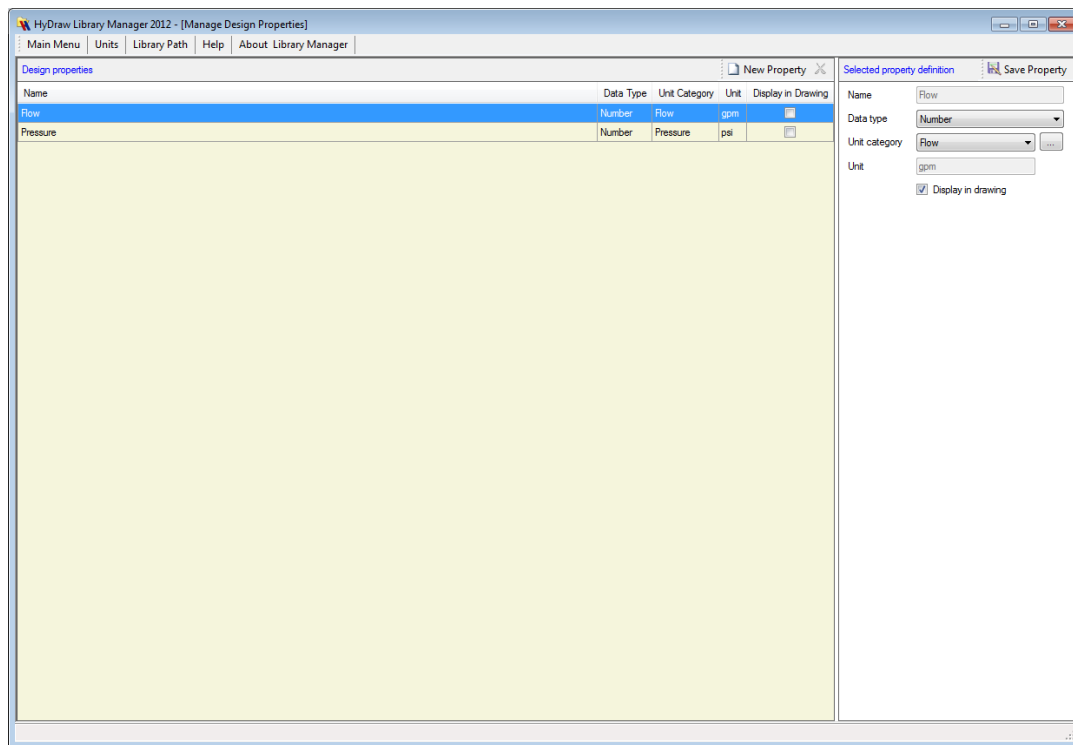
- You cannot delete essential design properties; hence  remains inactive on selection of such essential properties.
-  remains inactive, if Text,Currency, or Yes/No is selected in the Unit category box.

24. Managing Connection Design Properties

Connection Design Properties Manager manages the design properties of the connections.

Connection Design Properties Manager has two sections:

- Available Connection Design Properties
- Connection Design Property Edit

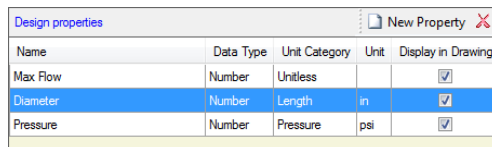


Connection- Manage Design Properties

Available Connection Design Properties section

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

You can create a new connection design property or delete one, by selecting the icons on the caption bar.



The image shows a software window titled "Design properties" with a "New Property" button and a delete icon. It contains a table with the following data:

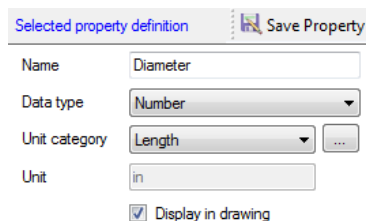
Name	Data Type	Unit Category	Unit	Display in Drawing
Max Flow	Number	Unitless		<input checked="" type="checkbox"/>
Diameter	Number	Length	in	<input checked="" type="checkbox"/>
Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>

Available Connection Design Property section

Connection Design Property Edit section

The Connection Design Property Edit section enables you to 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 Property** to save the changes.



The image shows a software window titled "Selected property definition" with a "Save Property" button. It contains the following fields:

Name: Diameter

Data type: Number (dropdown menu)



Unit category: Length (dropdown menu) [...]

Unit: in

☒ Display in drawing

Connection Design Property Edit section

Note

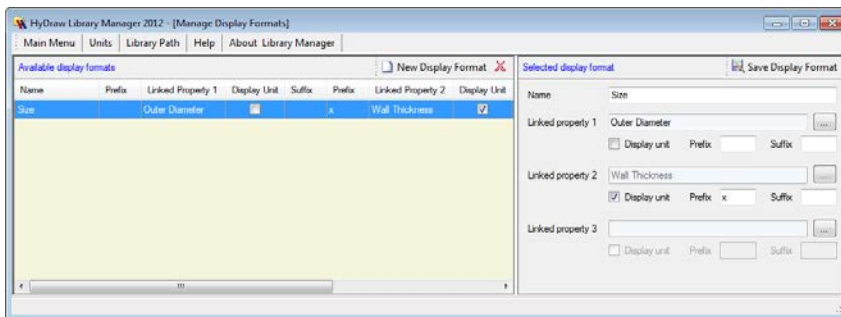
- You cannot delete essential design properties; hence  remains inactive on selection of such essential properties.
-  remains inactive, if Text, Currency, or Yes/No is selected in the Unit category box.

25. Connection - Manage Display Formats

The Connection – Manage Display Formats enables you to define 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

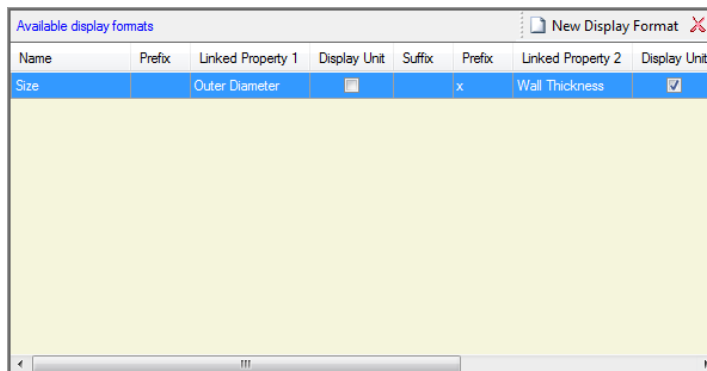
- Available display formats
- Selected display format



External Port - Manage Display Formats

Available Display Formats

- The Available display formats section displays all formats and properties that are marked with the display in the drawing.
- You can also create a New Display Format or delete one, by selecting the icons on the caption bar.



Available Display Formats


Selected Display Formats

The selected Display Formats section displays Name, Linked Property1, Linked Property 2, and Linked Property 3 and their Display Unit, Prefix and Suffix.

Define Display Property

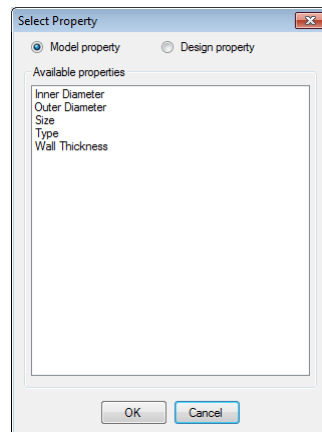
- Enter Name of the display format.

For the Linked Property 1

- Click . *The Select Property dialog box displays.*
- Select **Model property/Design property**.

Note

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



Select Property

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

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

- Click **Save Display Format**.

Assign Display Format to Connection Types

1. Click Connection Types.

The Manage Connection Types dialog box displays.

2. Select any one of the available connections.

3. In the Display Formats section, click the **Add** button.

The Select Display Format dialog box displays.

4. Select the format and click **OK**.

5. Click **Save**.

Selected display format

Manage Connection Types dialog box

26. Managing Sub-system Properties

Sub-system Properties Manager manages the properties of the sub-systems.

Sub-system Properties Manager has two sections

- Available Sub-system Properties
- Sub-system Property Edit

Name	Data Type	Unit Category	Unit	Hydraulic	Pneumatic	Electrical
Model Code	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Description	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Manufacturer	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rated Flow	Number	Flow	gpm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rated Pressure	Number	Pressure	psi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Property1	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Property2	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Property3	Text			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property4	Text			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Property5	Text			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Selected property definition [Save Property](#)

Name: Property1

Data type: Text

Unit category: [Dropdown]

Unit: [Text Box]

Used with:

- ☒ Hydraulic sub-systems
- ☒ Pneumatic sub-systems
- ☒ Electrical sub-systems

Sub-system - Manage Properties

27. Migrating Library

Migrate your existing HyDraw Library to the new HyDraw Library format.

1. Run the HyDraw Library Manager 2012
 - > All Programs
 - > VEST
 - > **HyDraw Library Manager 2012**
2. In the HyDraw Library Manager 2012, click **Library Path**.

The Set Library Path dialog box displays.

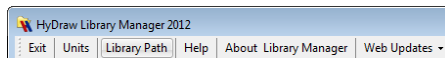
3. Click **Browse...** and select the previous version of the HyDraw Library Path for the Data, Symbol, and Sub-systems Library.
4. Click **OK**.

The Migrate Data Library Path dialog box displays.

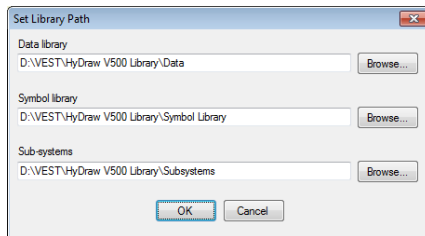
5. In the HyDraw Library Backup Path, click **Browse...** and select the Backup path.
6. Click **Migrate** to migrate the library.

On successful migration, the Migration Data Library - Success message box displays.

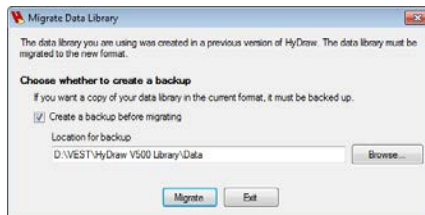
7. Click **OK** to exit.



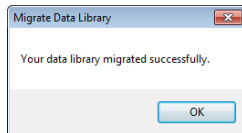
HyDraw Library Manager 2012 - Library Path



Set Library Path



Migrate Data Library



Migrate Data Library – Success Message

Appendix

28. HyDraw Library Manager Reference

Command	Detail
About Library Manager	View the version number of HyDraw Library Manager.
Accessory Library Manager	Manage all the accessories available in the library.
CAD Files Manager	Manipulate the CAD files in the library.
Cavity/Footprint Manager	Search a specific cavity/footprint or cavities/footprints of all categories.
Component Design Properties Manager	Manage the design properties of the component model
Component Library Manager	Display component models and their properties, linked accessories, documents, and CAD Files.
Component Model Properties Manager	Manage the properties of the component model.
Component Types Manager	View all available component types and their properties. Also, delete and create new component type using icons on caption bar.
Connection Design Properties Manager	Manage the design properties of the connections.
Connection Model Properties Manager	Manage the properties of the connection model.
Connection Types Manager	View available connections. Customize their color and line weight. Also, delete and create new designs and model properties.
Documents Manager	Manipulate the documents in the library.

Exit	Exit from Library Manager.
ExternalPort Design Properties Manager	Manage the design properties of the external port.
ExternalPort Library Manager	Manage the external ports available in the library.
External Port Model Properties Manager	Manage the properties of the external port models.
Library Path	Configure the HyDraw data paths, navigate to the folder where you want to store the HyDraw component data.
Manage Properties	Add, edit, and delete the associated model and design properties of component model, connection model, external port model, and sub-systems.
Manufacturer Manager	View all available manufacturers. Also, delete and create new manufacturer.
Model Data Manager	View all available component types and their properties. Delete and create new component type using icons on caption bar.
Sub-system Library Manager	Manage the sub-systems library.
Sub-system Properties Manager	Manage the properties of the sub-systems.
Symbol Manager	Manipulate the symbols in the library.
Units	Select the current unit system you want to work with. Find the respective Unit category conversion factor and set it up to four decimal precision.

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