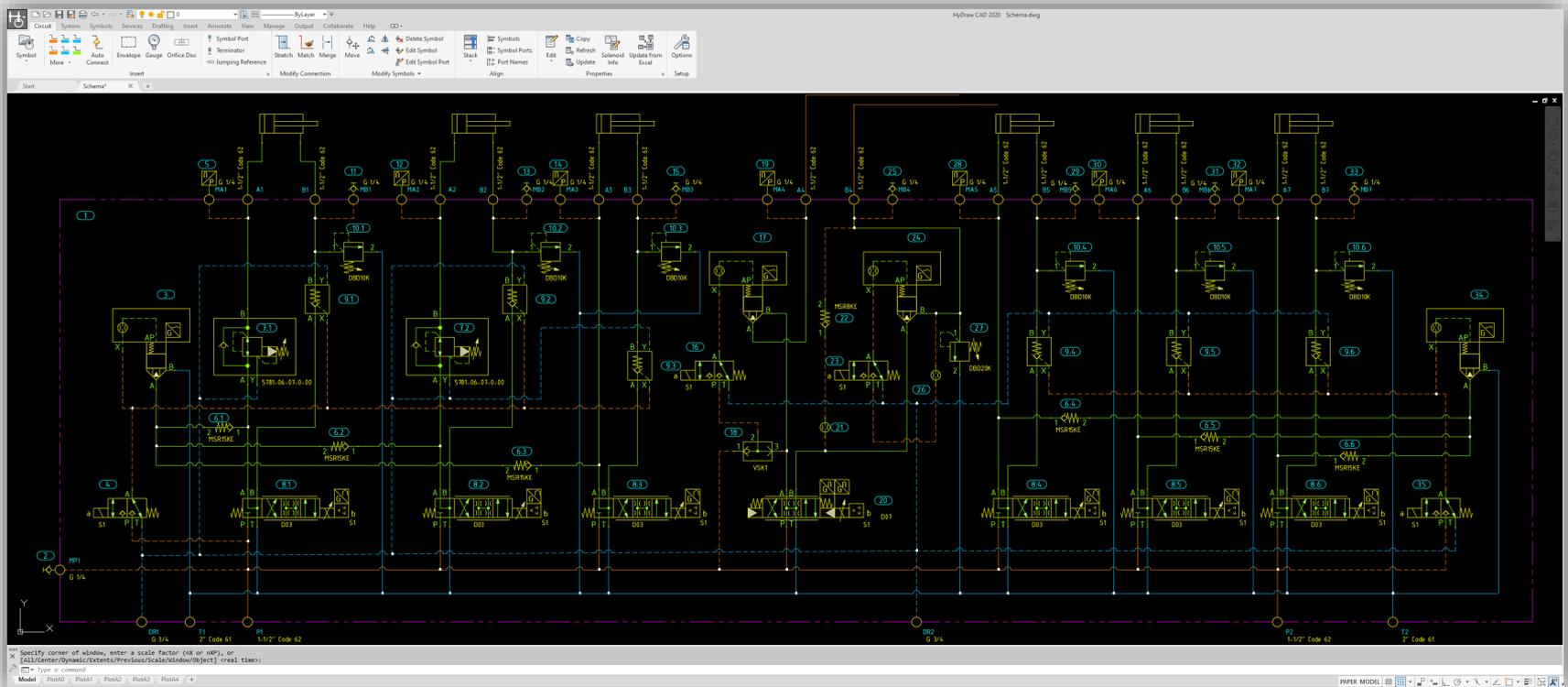


# HyDraw® CAD 2021

## What's New



# HyDraw® CAD 2021 What's New

## HyDraw Options User Interface

- Categorization
- Improved Organization

## Connector List

- Pipe & Tube Connector List
- Hose Connector List
- Insert or Export

## Smart Connection Display Formats

- Masking of Connection Display Formats

## Connection Line Enhancements

- Specify Gap between Connection Lines
  - Auto fix Kinks in Connection Lines
- Move Symbol: Smart Rerouting of Lines
- Rotate Symbol: Smart Rerouting of Lines
- Flip Symbol: Smart Rerouting of Lines

## Rotation and Flip of Display Properties

- Smart Rotation of Display Properties
- Smart Flip of Display Properties

## Rotation/Flip of Properties linked to Subsystem

- Smart Rotation of Subsystem Properties
- Smart Flip of Subsystem Properties

## Smart Flip of Pump and Orifice Disc Symbol

- Smart Flip of Pump Symbol
- Smart Flip of Orifice Disc Symbol

## Library Explorer Model Search Enhancements

- Model Search and Linked Symbols

## Add/Edit/Build Symbols Enhancements

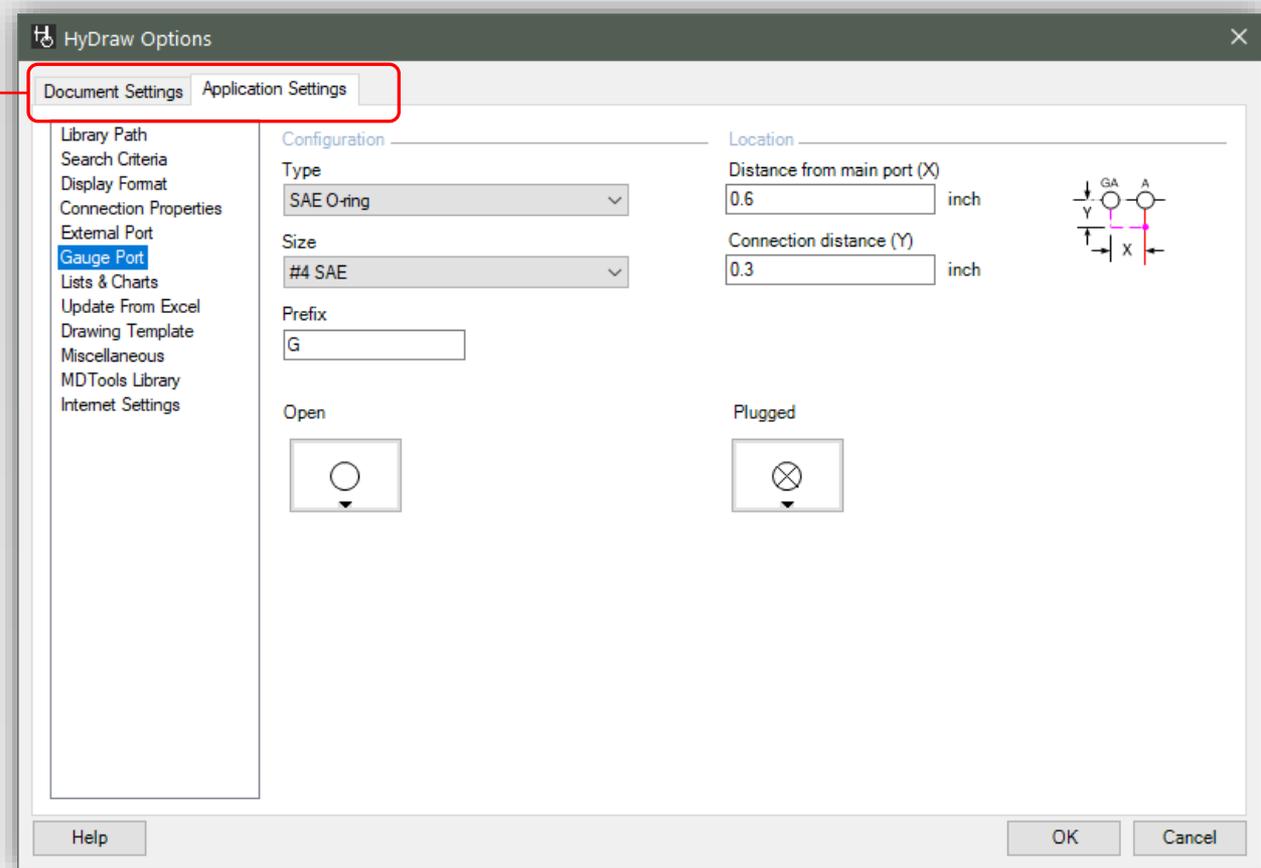
- Single Library Edit button
- Manage Folder Structure
- Access via Buttons and Right-click option
- Model Data Search
- Advanced Symbol Editor
- Build New Symbols
- Build New Symbol in preferred Units
- Edit Symbol in Schematic

# HyDraw Options User Interface

Categorization and Organization Improved

# Options: Categorization

Application and Document Settings separated

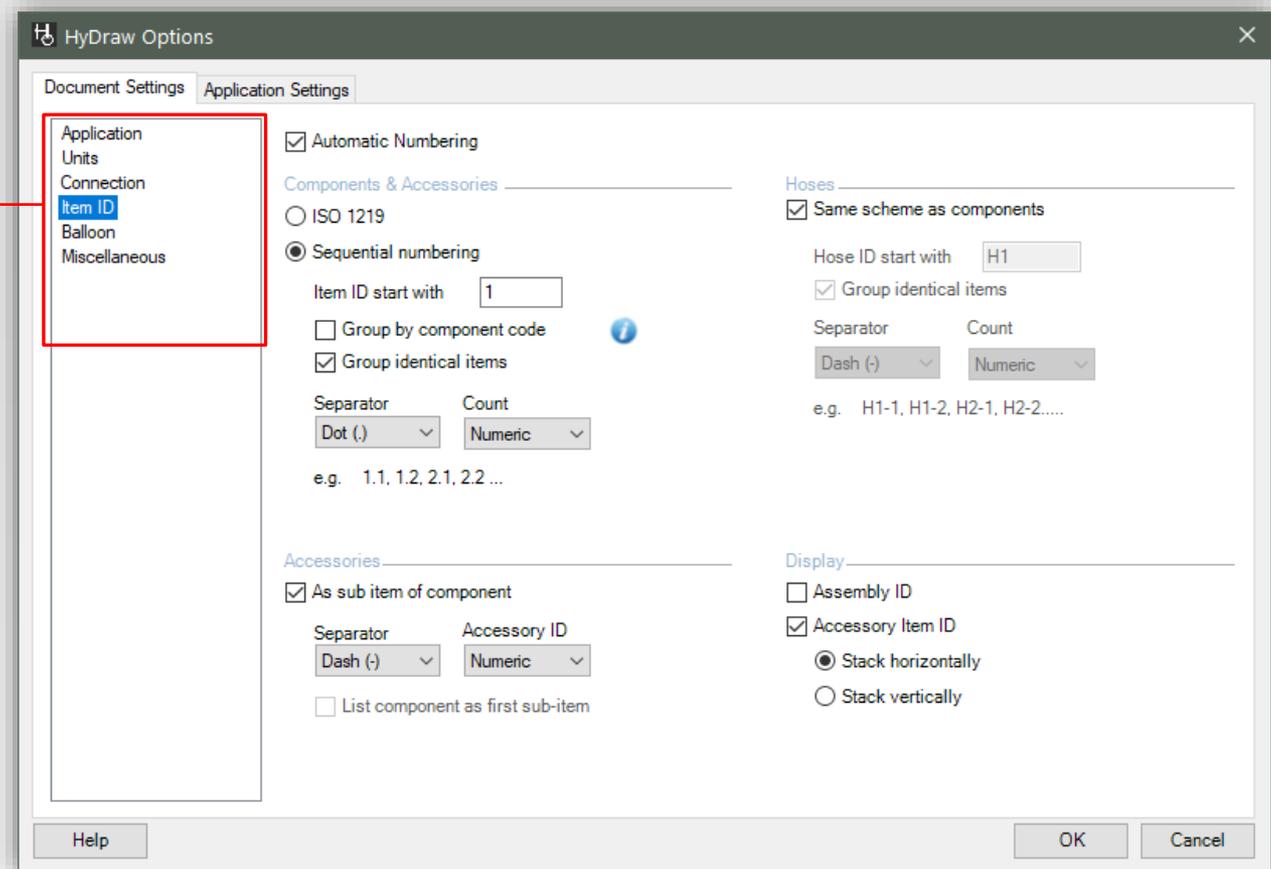


New tabs:  
Application Settings  
Document Settings

# Options: Improved Organization

## HyDraw Settings organized by function

Each sub-section displayed per functionality



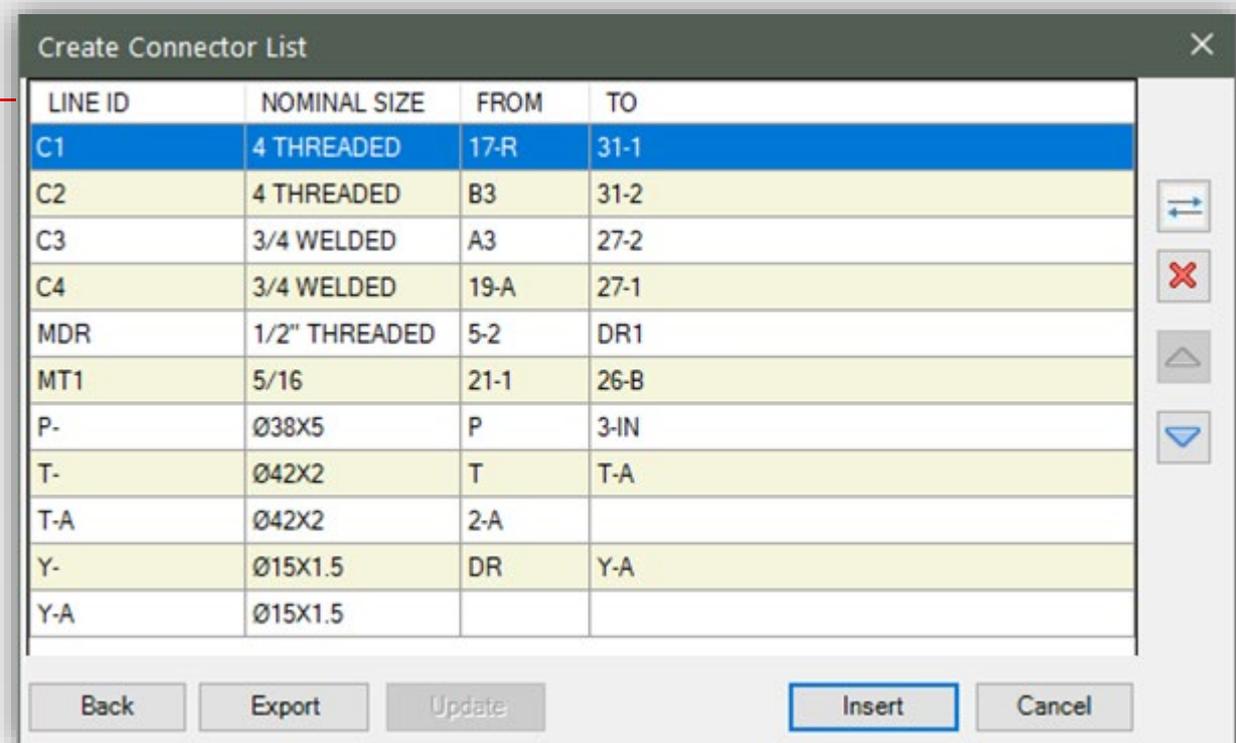
# Connector Lists

New Command Connector List and Export Option

# Pipe & Tube Connector List

Create a Connector List for pipe and tube

Pipe & Tube Connector list format can be defined in HyDraw Options with required properties



LINE ID	NOMINAL SIZE	FROM	TO
C1	4 THREADED	17-R	31-1
C2	4 THREADED	B3	31-2
C3	3/4 WELDED	A3	27-2
C4	3/4 WELDED	19-A	27-1
MDR	1/2" THREADED	5-2	DR1
MT1	5/16	21-1	26-B
P-	Ø38X5	P	3-IN
T-	Ø42X2	T	T-A
T-A	Ø42X2	2-A	
Y-	Ø15X1.5	DR	Y-A
Y-A	Ø15X1.5		

# Hose Connector List

## Create a Connector List for Hose

Hose Connector list format can be defined in HyDraw Options

LINE ID	CUT LENGTH(MM)	FROM	TO
X1-	4	18-B	19-X
X2-	3.5	19-A	A3
XR	6	15-DR	DR1

NEW

# Insert or Export the Connector List

Connector list can be inserted into drawing or exported to Excel

Insert any Connector list into drawing OR Export to Excel

The screenshot shows a dialog box titled "Create Connector List" with a close button (X) in the top right corner. The dialog contains a table with the following data:

LINE ID	NOMINAL SIZE	FROM	TO
C1	4 THREADED	17-R	31-1
C2	4 THREADED	B3	31-2
C3	3/4 WELDED	A3	27-2
C4	3/4 WELDED	19-A	27-1
MDR	1/2" THREADED	5-2	DR1
MT1	5/16	21-1	26-B
P-	Ø38X5	P	3-IN
T-	Ø42X2	T	T-A
T-A	Ø42X2	2-A	
Y-	Ø15X1.5	DR	Y-A
Y-A	Ø15X1.5		

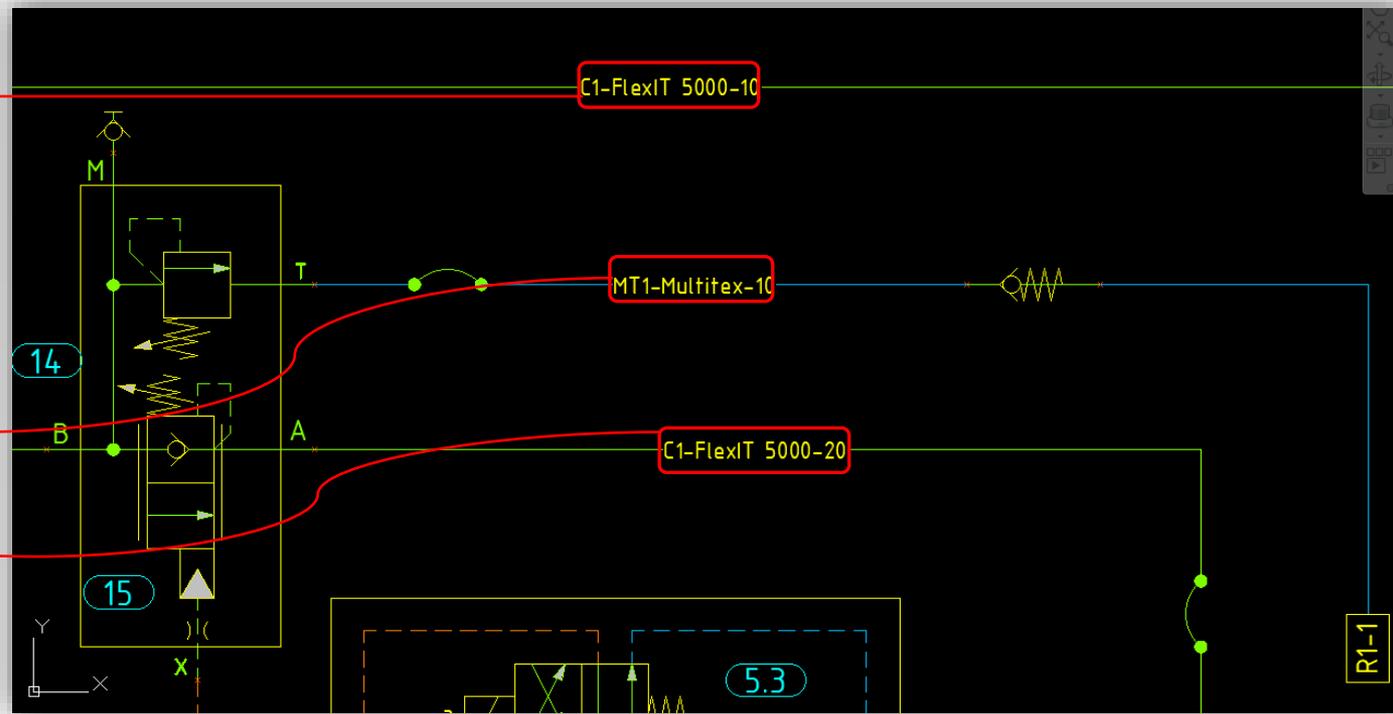
At the bottom of the dialog, there are five buttons: "Back", "Export", "Update", "Insert", and "Cancel". The "Export" and "Insert" buttons are highlighted with red boxes. A red callout box on the left contains the text "Insert any Connector list into drawing OR Export to Excel" and has lines pointing to the "Export" and "Insert" buttons. On the right side of the table, there are several control icons: a double-headed arrow, a red X, an up arrow, and a down arrow.

# Smart Connection Display Formats

NEW

# Masking of Connection Display Formats

Smartly placed display format linked to a connection line



Display formats smartly masks the respective connection line

# Connection Line Enhancements

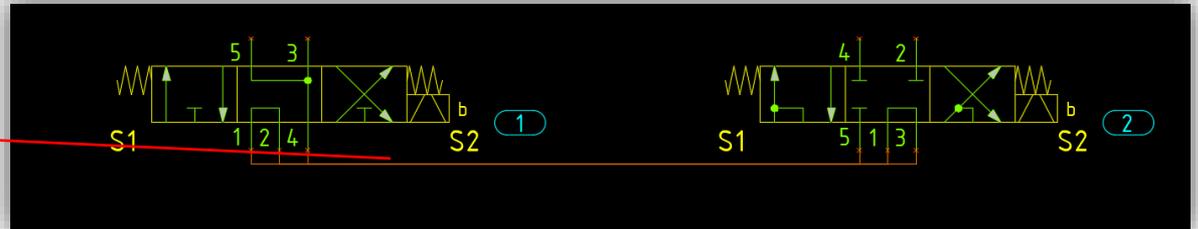
- ✓ Set gap between connection lines
- ✓ Automatically fix kinks in connection lines
- ✓ Smart Rerouting of connection lines when moving, rotating, flipping symbols

NEW

# Specify Gap between Connection Lines

Set gap between connection lines when routing  
HyDraw > Options

No gap between lines



HyDraw CAD 2021

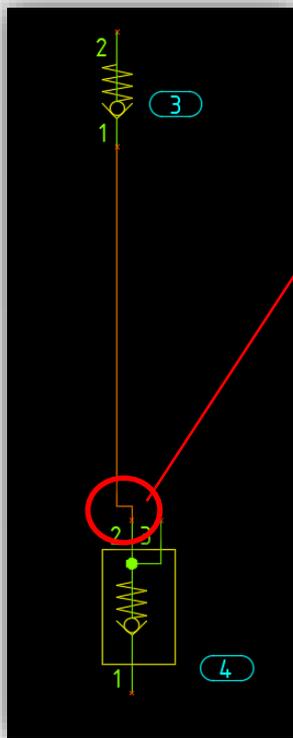
4mm/0.157inch gap is maintained between consecutive connection lines



# Auto fix Kinks in Connection lines

Automatically fix kinks by repositioning symbols

HyDraw CAD 2021



Kink in connection line

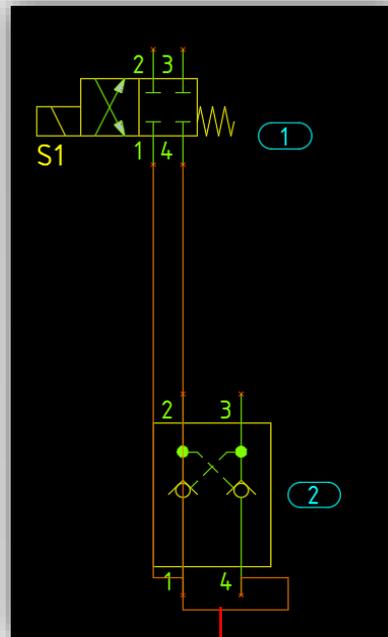
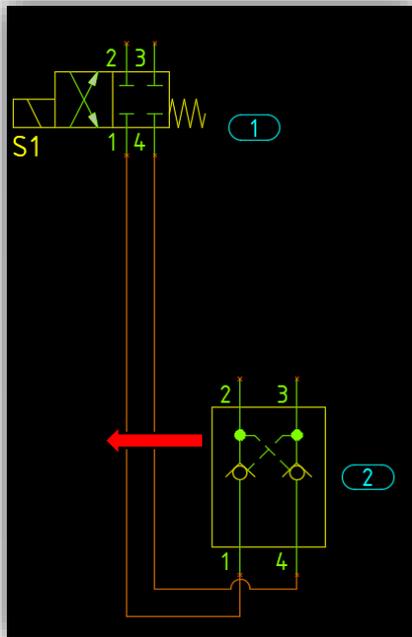
Kink less than  
2mm/0.0787inch are  
automatically removed by  
shifting the symbol such that  
the symbol ports are on the  
same vertical grid line



# Move Symbol: Smart Rerouting of lines

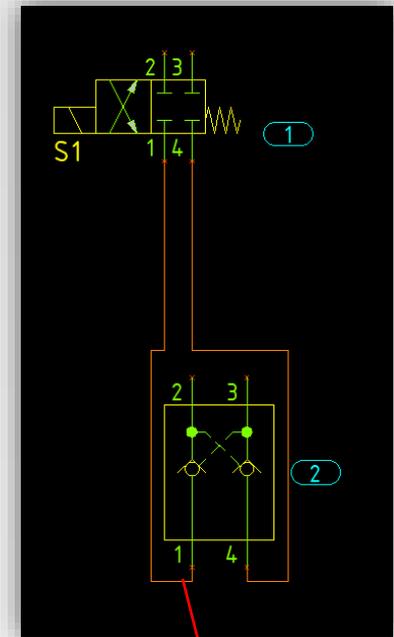
Move symbols without overlapping connection lines

Original Placement



Overlapping of symbol and lines when symbol 2 is moved left

HyDraw CAD 2021

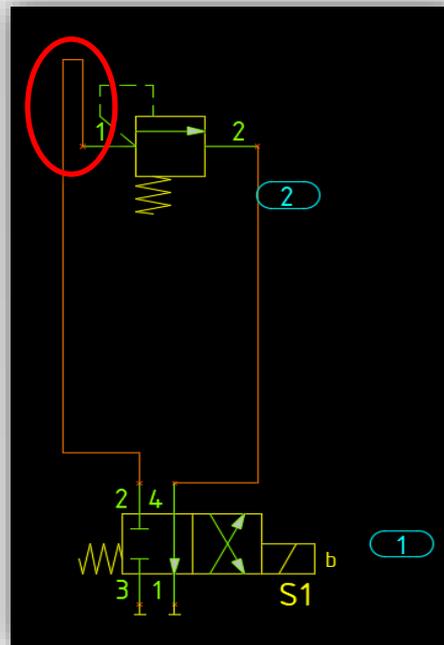
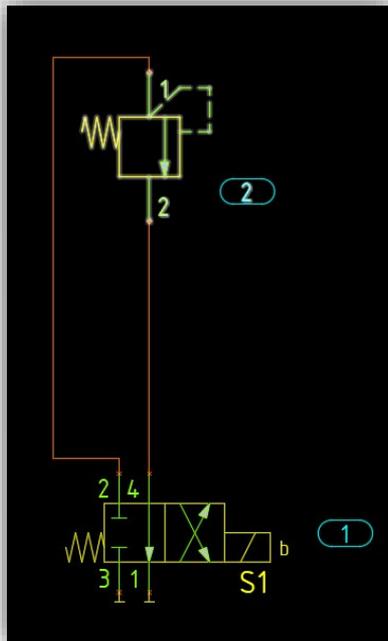


No overlapping of lines with the moving symbol

# Rotate Symbol: Smart Rerouting of lines

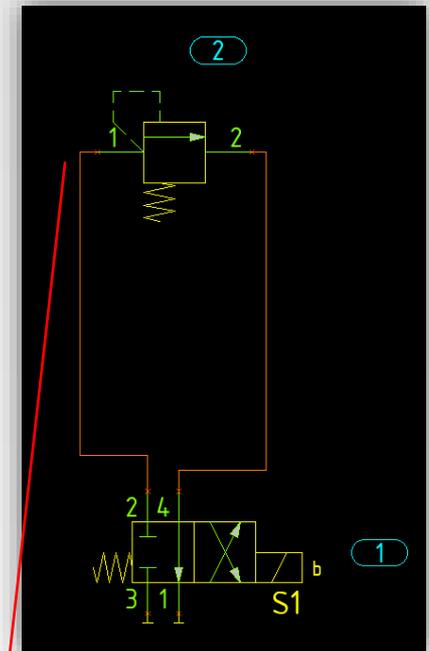
Symbols rotated without unwanted bends or overlapping of connection lines

Original Placement



Unwanted bend in lines after rotating symbol 2 counter clock-wise by 90 deg

HyDraw CAD 2021

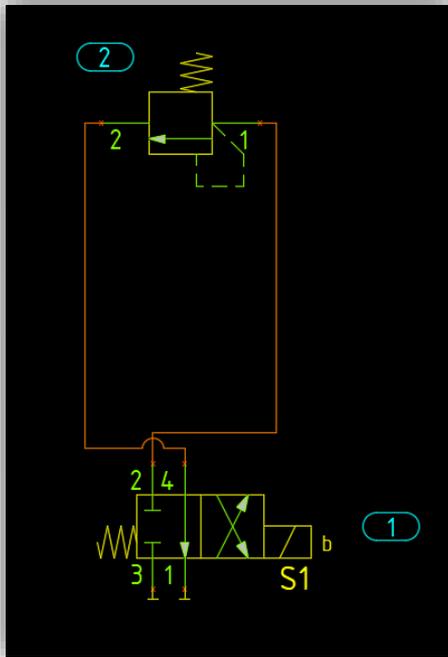


No unwanted bend in line

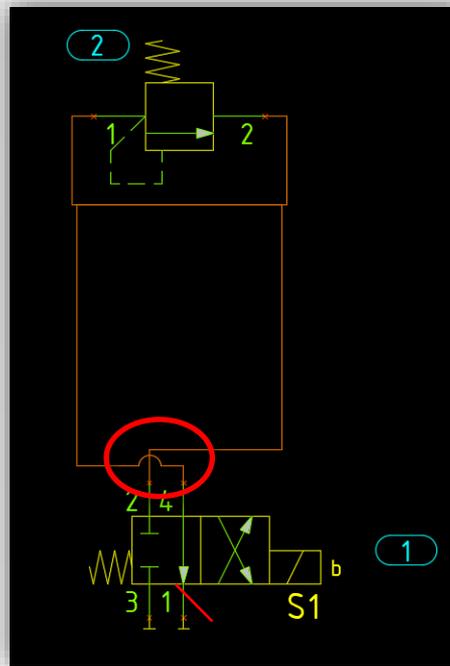
# Flip Symbol: Smart Rerouting of lines

Symbols flipped without overlapping of connection lines

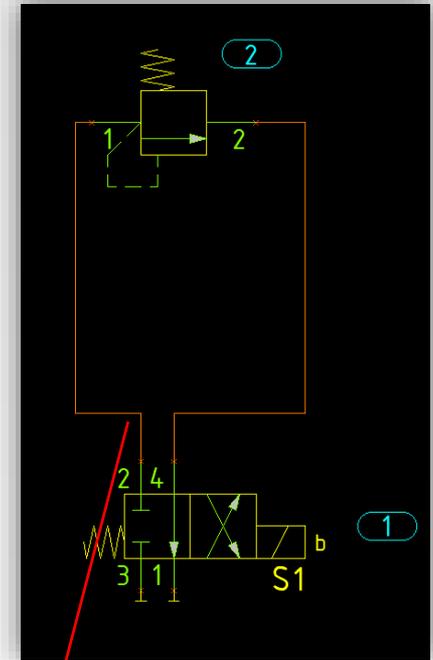
Original Placement



Overlapping of connection lines after flipping symbol 2 horizontally



HyDraw CAD 2021



Lines gets rerouted without overlapping

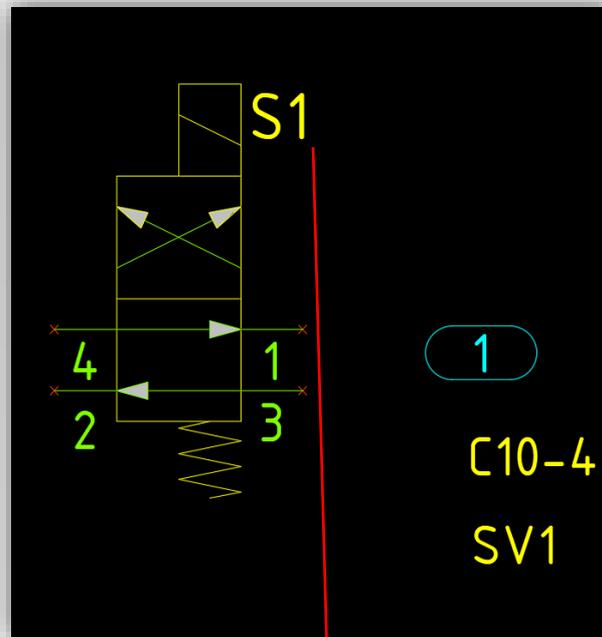
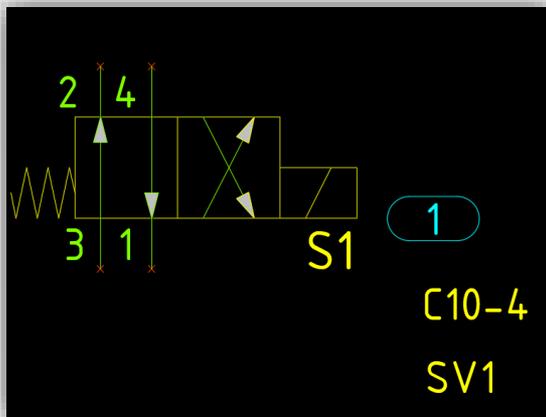
# Rotation and Flip of Display Properties

Smart rotation/flip of display properties  
when symbols are rotated/flipped

# Smart Rotation of Display Properties

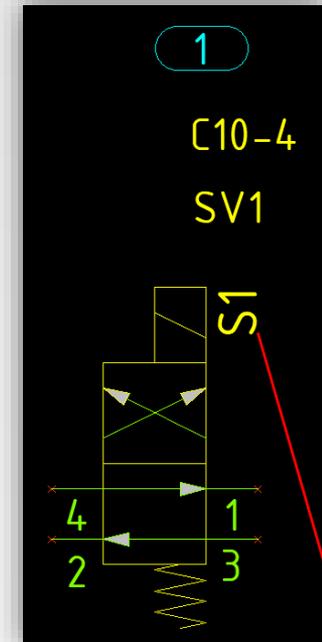
Display properties smartly rotated when a symbol is rotated

Original Placement



Display Property is not relocated after the symbol is rotated to the left

HyDraw CAD 2021

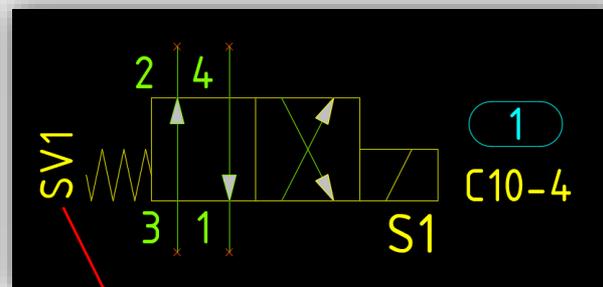
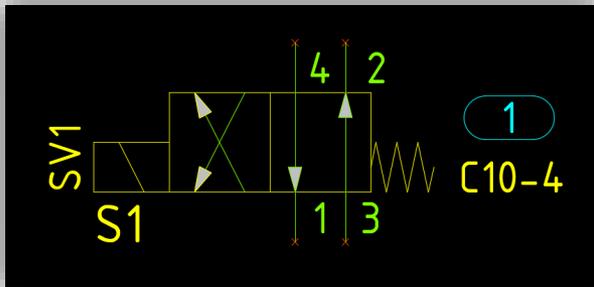


Display Property smartly relocated

# Smart Flip of Display Properties

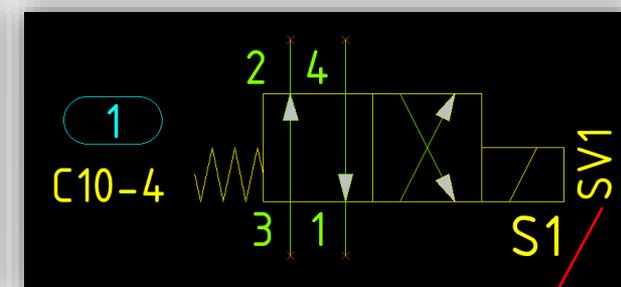
Display properties smartly flipped when a symbol is flipped

Original Placement



Display Property is not relocated/flipped after the symbol is flipped horizontally

HyDraw CAD 2021



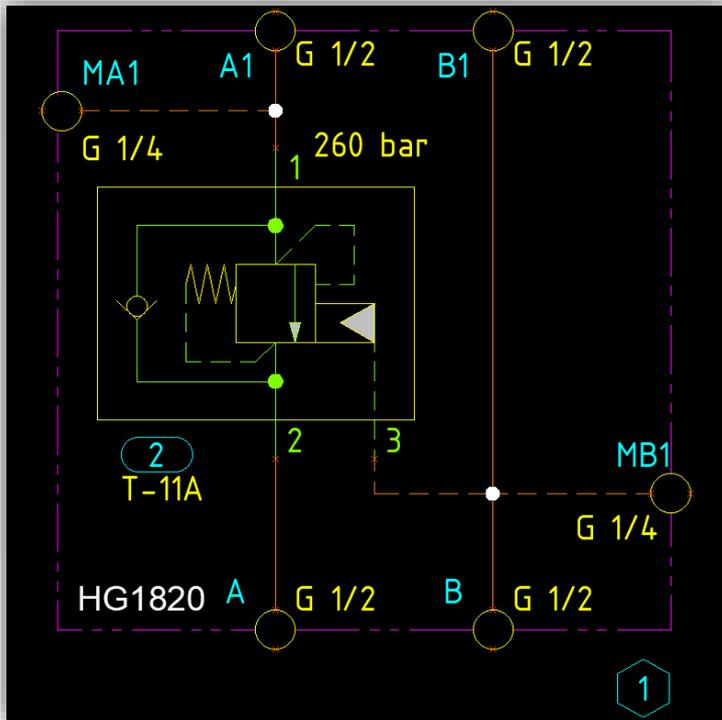
Display Property relocated/flipped

# Rotation/Flip of Properties linked to Subsystem

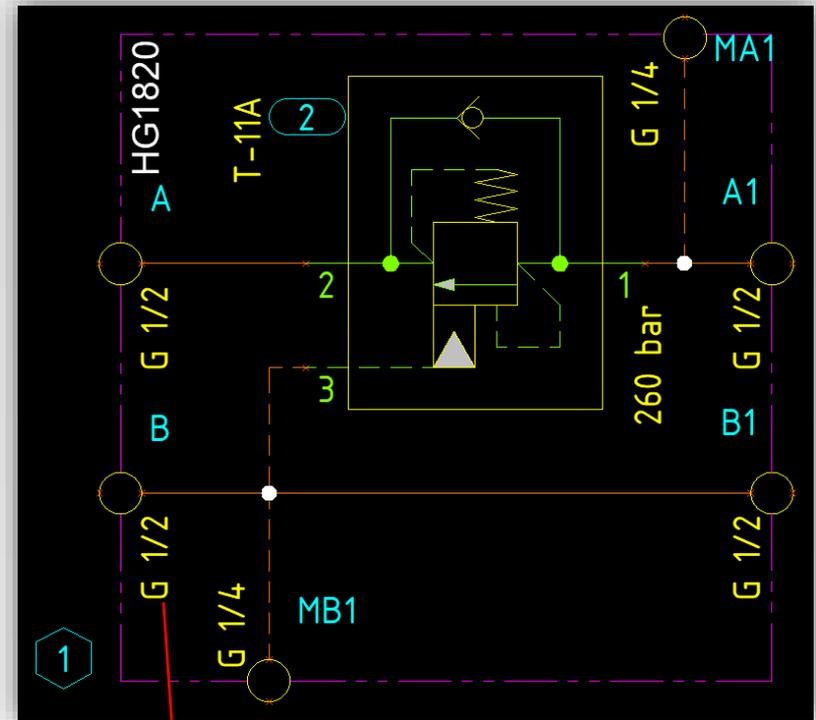
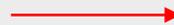
Smart rotation/flip of display properties  
when a subsystem is rotated/flipped

NEW

# Smart Rotation of Subsystem Properties

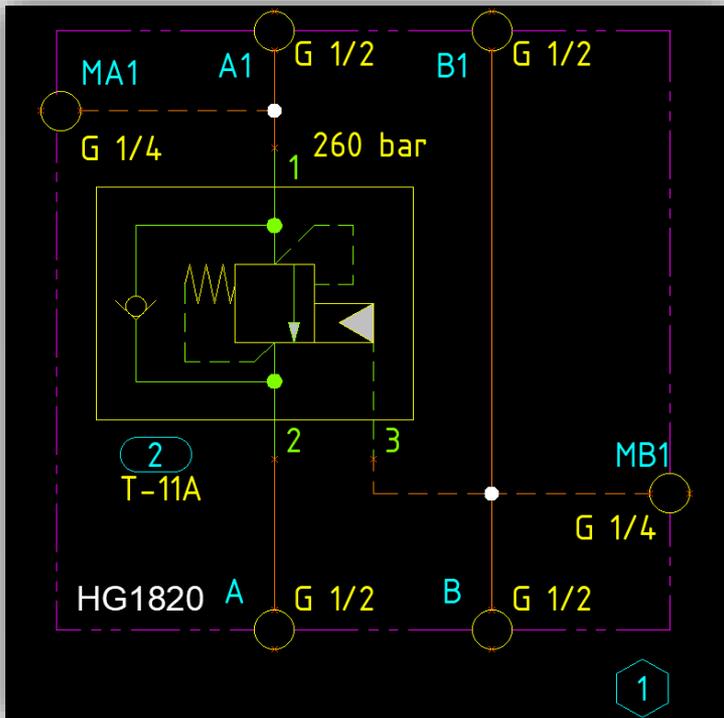


Rotate Right

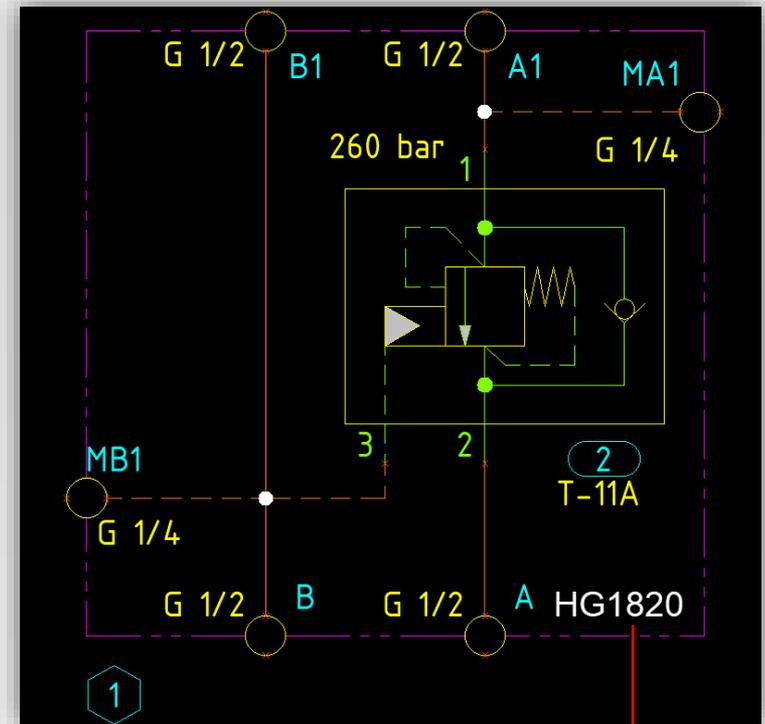


Properties smartly rotated

# Smart Flip of Subsystem Properties



Flip Horizontal

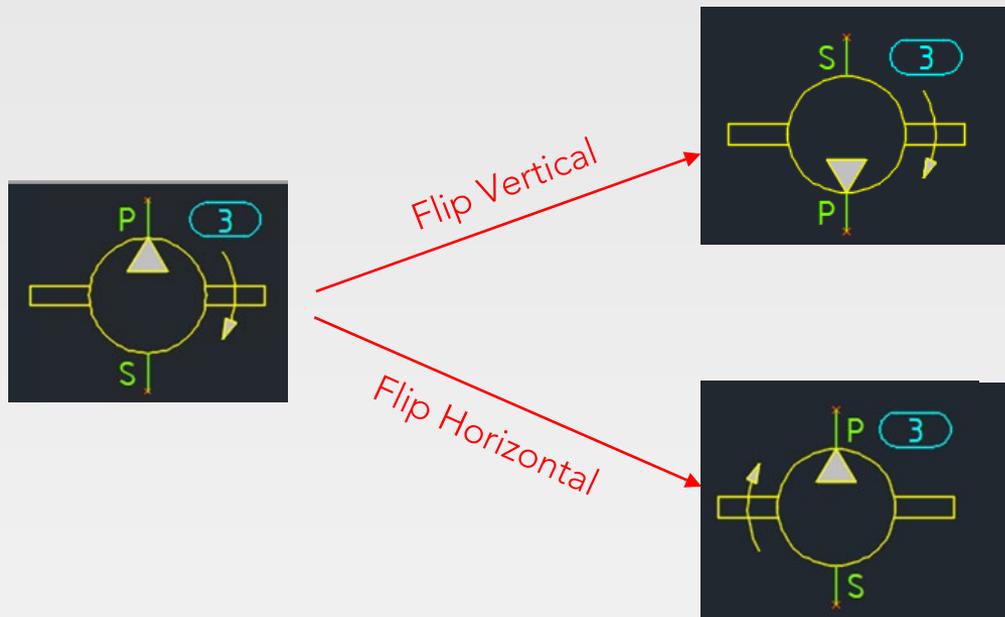


Properties smartly flipped

# Smart Flip of Pump and Orifice Disc Symbol

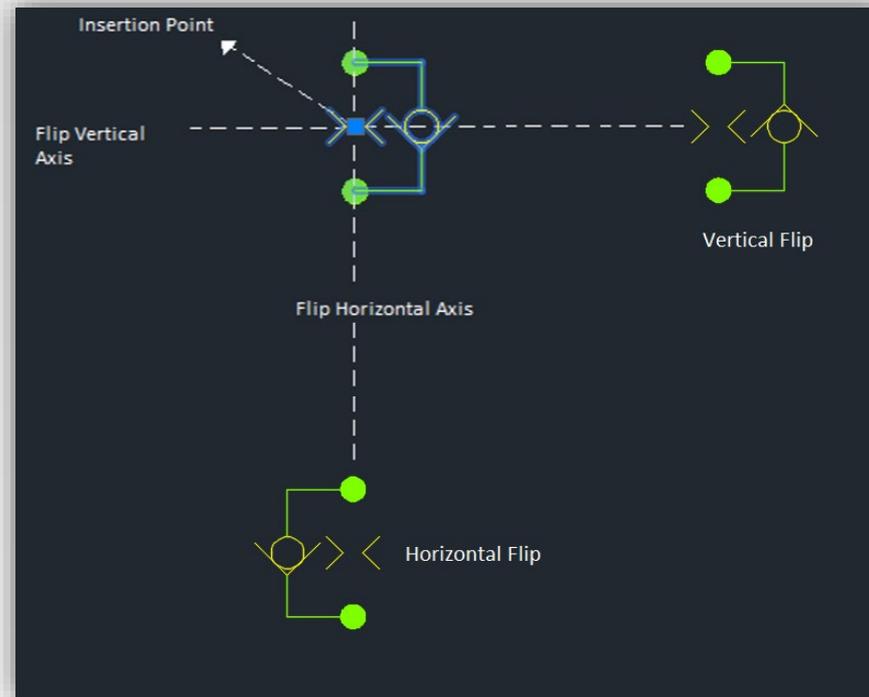
# Smart Flip of Pump Symbol

Pump Shaft rotation direction maintained even after flip



# Smart Flip of Orifice Disc Symbol

Flip axis passes through symbol insertion point

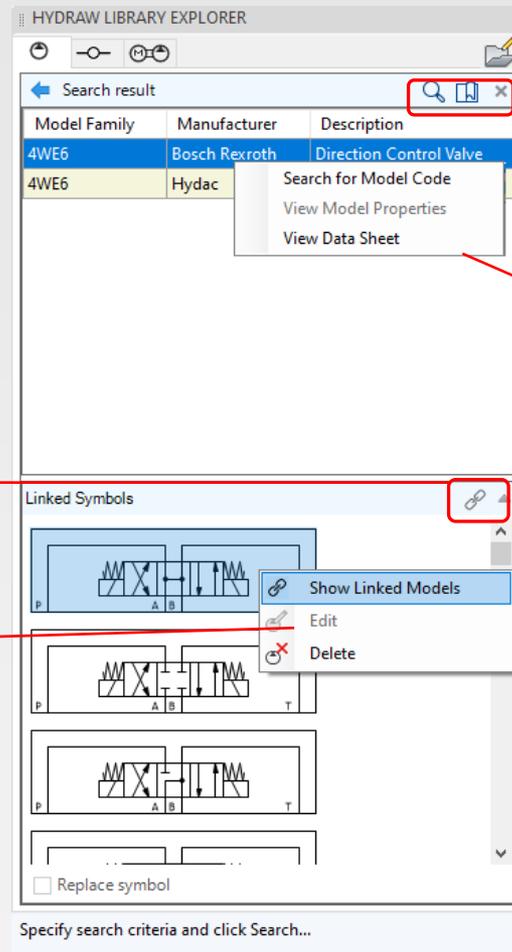


Orifice disc gets flipped along axis passing through insertion point

# Library Explorer Model Search Enhancements

# Model Search and Linked Symbols

Related commands accessible via buttons/Right-click options



Model Search functions, such as Search for Model Code, View Model Properties, View Data Sheet available as buttons and right-click options

Edit symbol by Model Search and Show Linked Models functions available as buttons and right-click options

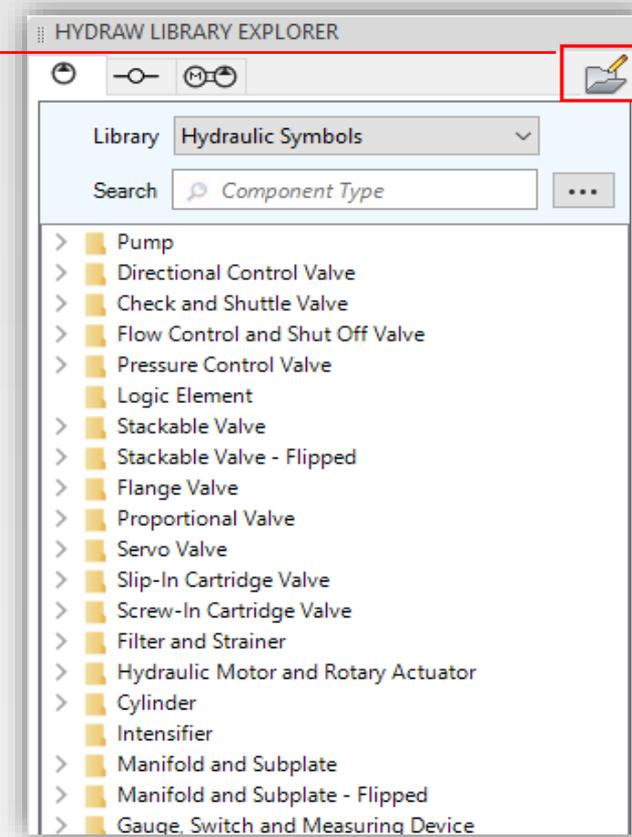
# Add/Edit/Build Symbol Enhancements

New Advanced Symbol Editor Interface

# Single Library Edit button

Manage Symbols, External Ports, Sub-System libraries

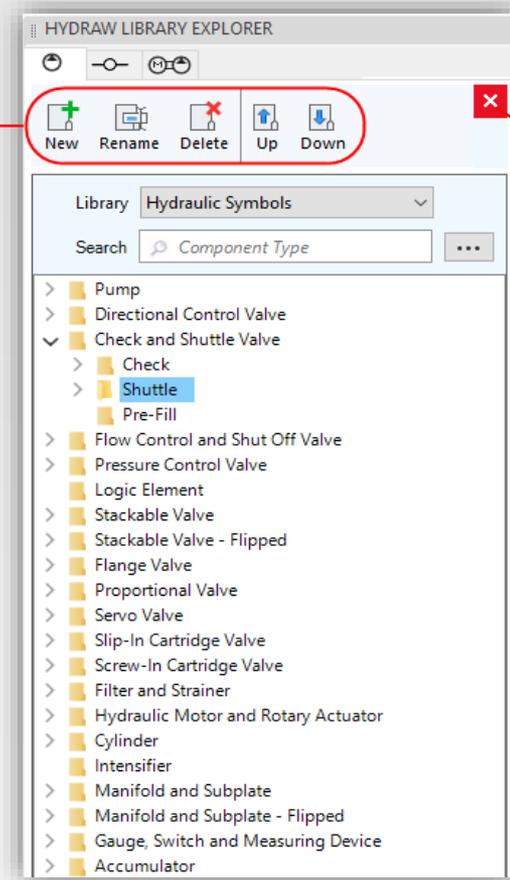
New Library Editor button introduced in HyDraw Library Explorer to Add/Edit/Delete



# Manage Folder Structure

Easily manage folder structure in Library Explorer

Buttons for managing folder structure



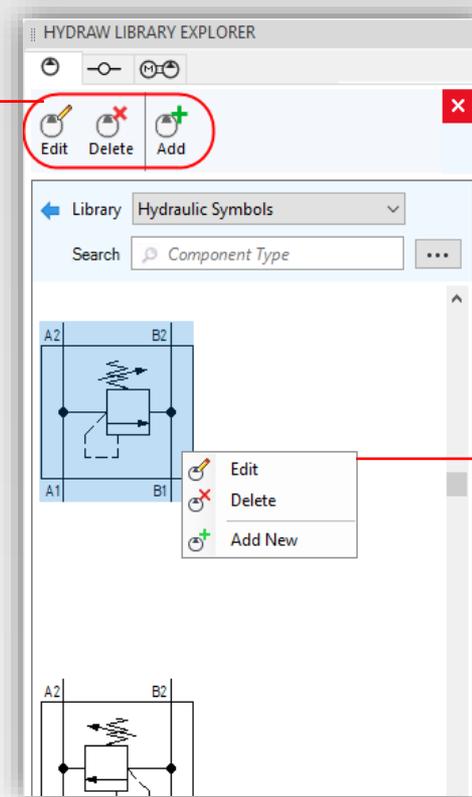
Close Library Editor

NEW

# Access via Buttons and Right-click option

## Quickly Add/Edit/Delete\* Library symbols

Buttons for managing Library symbols



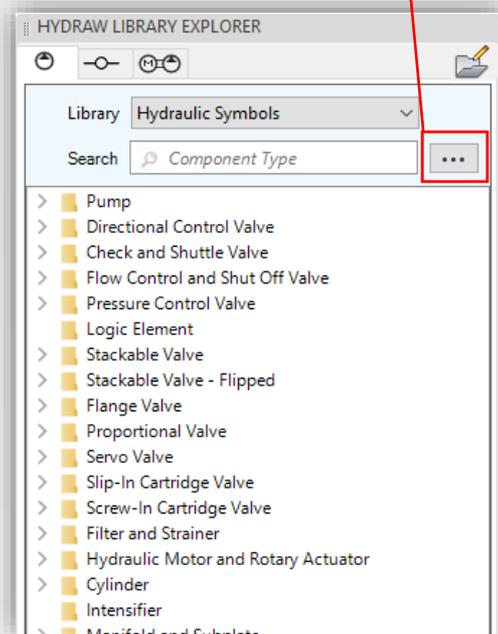
Right-click option to Add/Edit/Delete Library symbols

Note: \*All library edit functions also applicable to External Ports & Sub-System Libraries

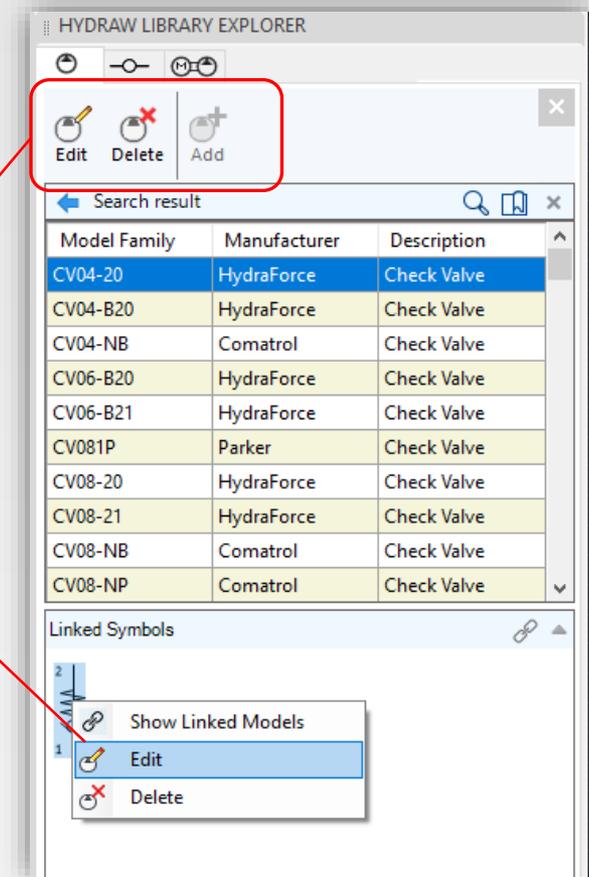
# Model Data Search

Quickly edit Library symbol using Model Data search

Explore Advanced Model Data search in Library

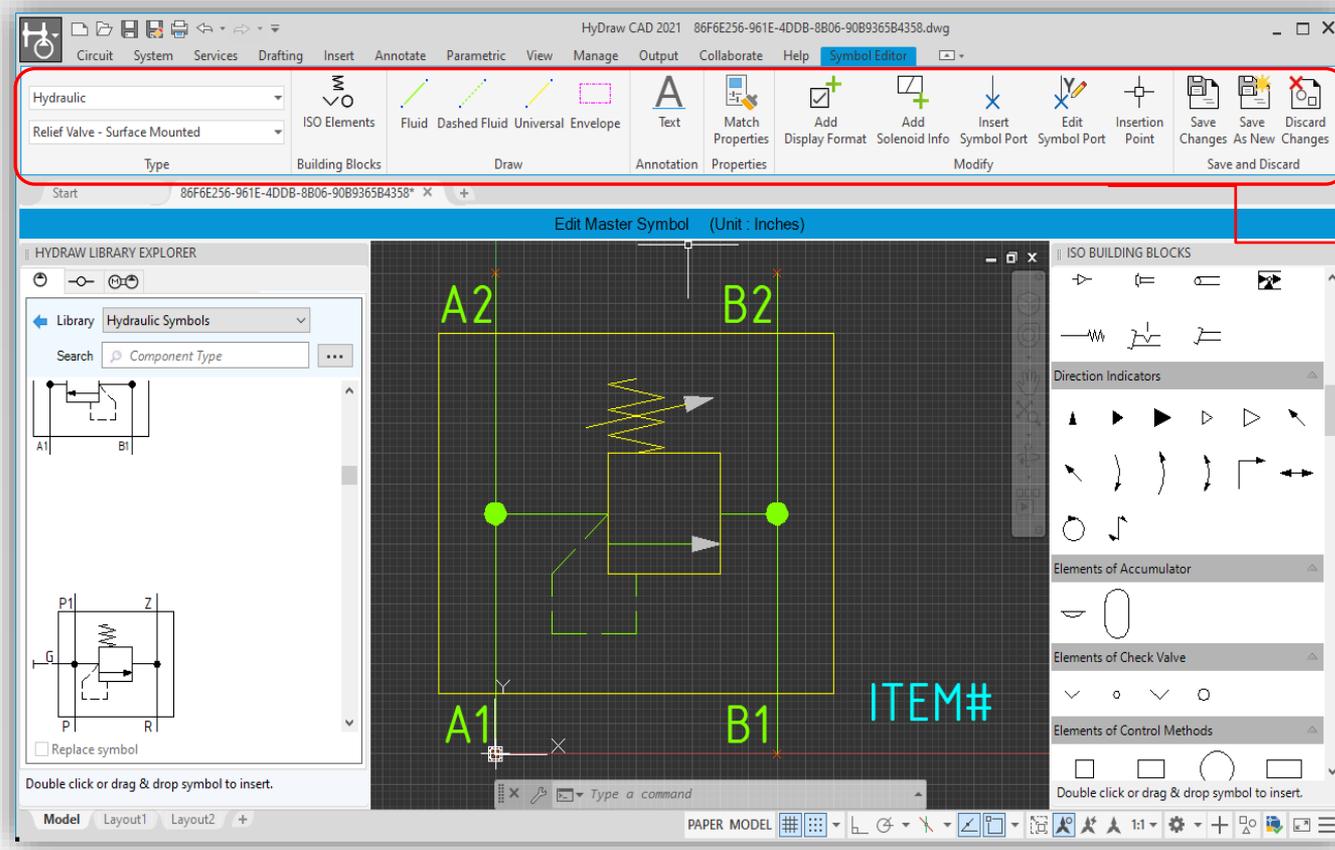


Edit Library symbol using Model Data search



# Advanced Symbol Editor\*

## Single Symbol Editor Interface

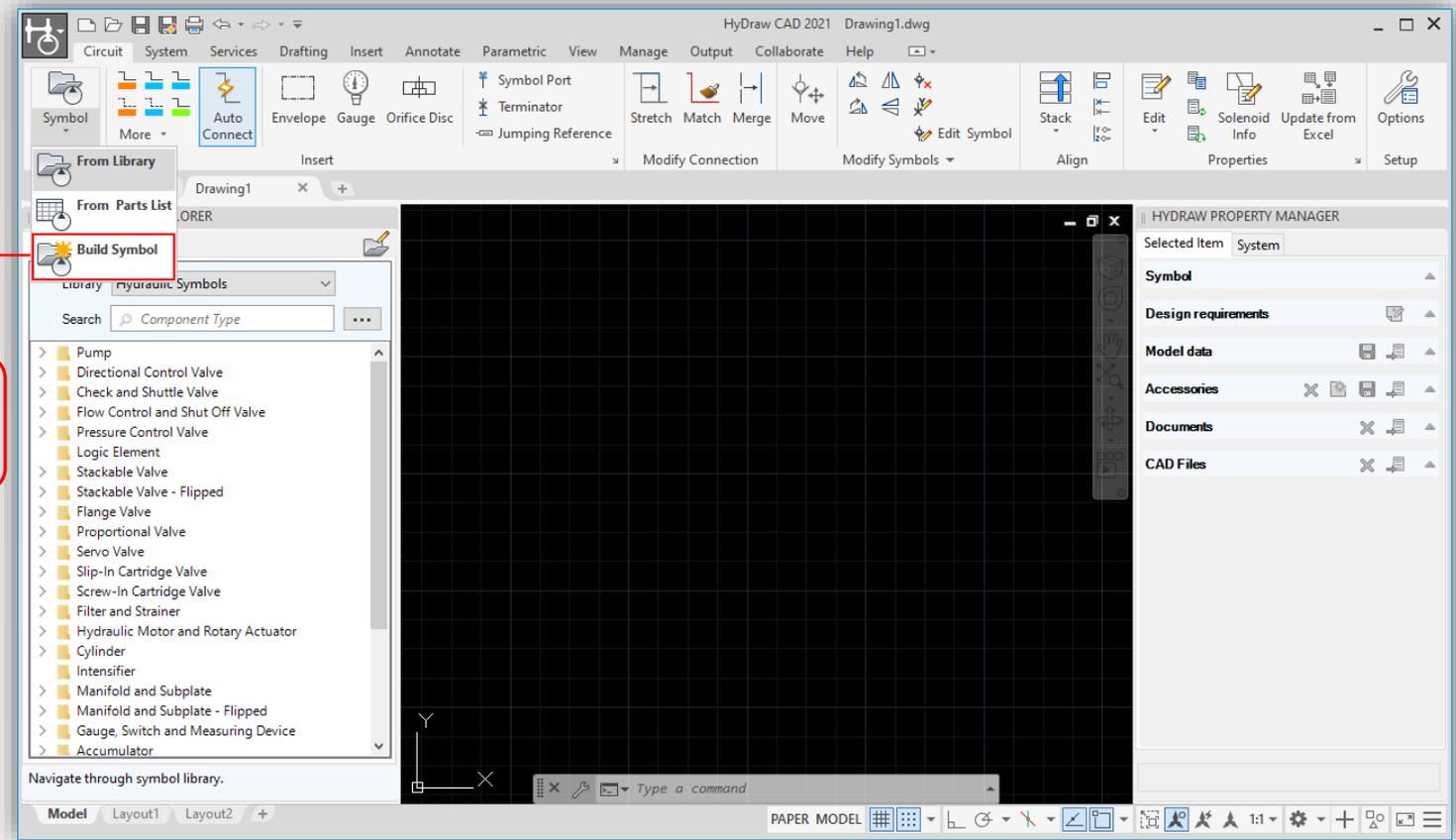


All symbol editing related functions are consolidated

Note: \*Advanced Symbol Editor also applicable to External Ports and Sub-Systems Libraries

# Build New Symbols

Quickly build a new symbol in the drawing

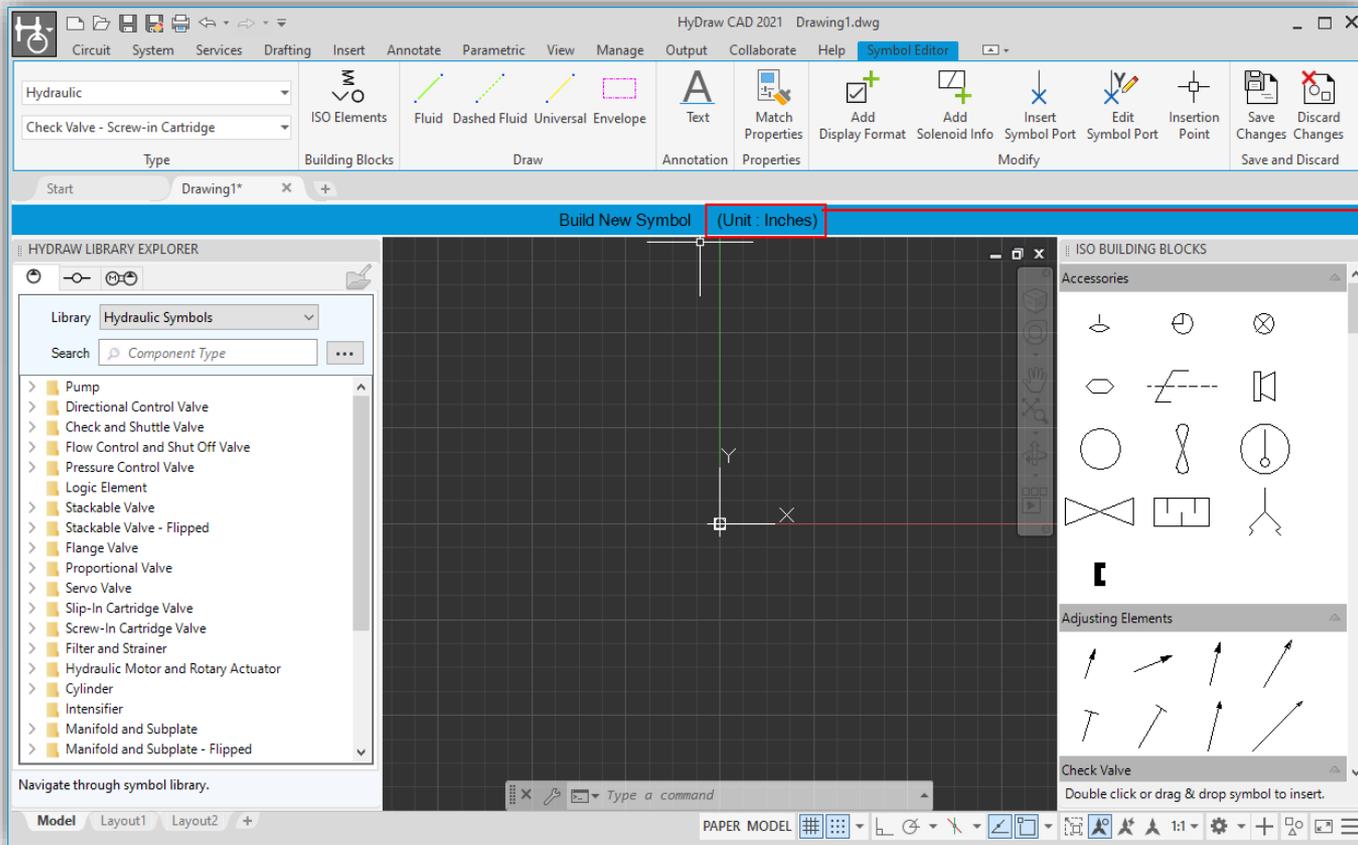


New Build Symbol button added in the Advanced Symbol Editor

NEW

# Build New Symbol in preferred Units

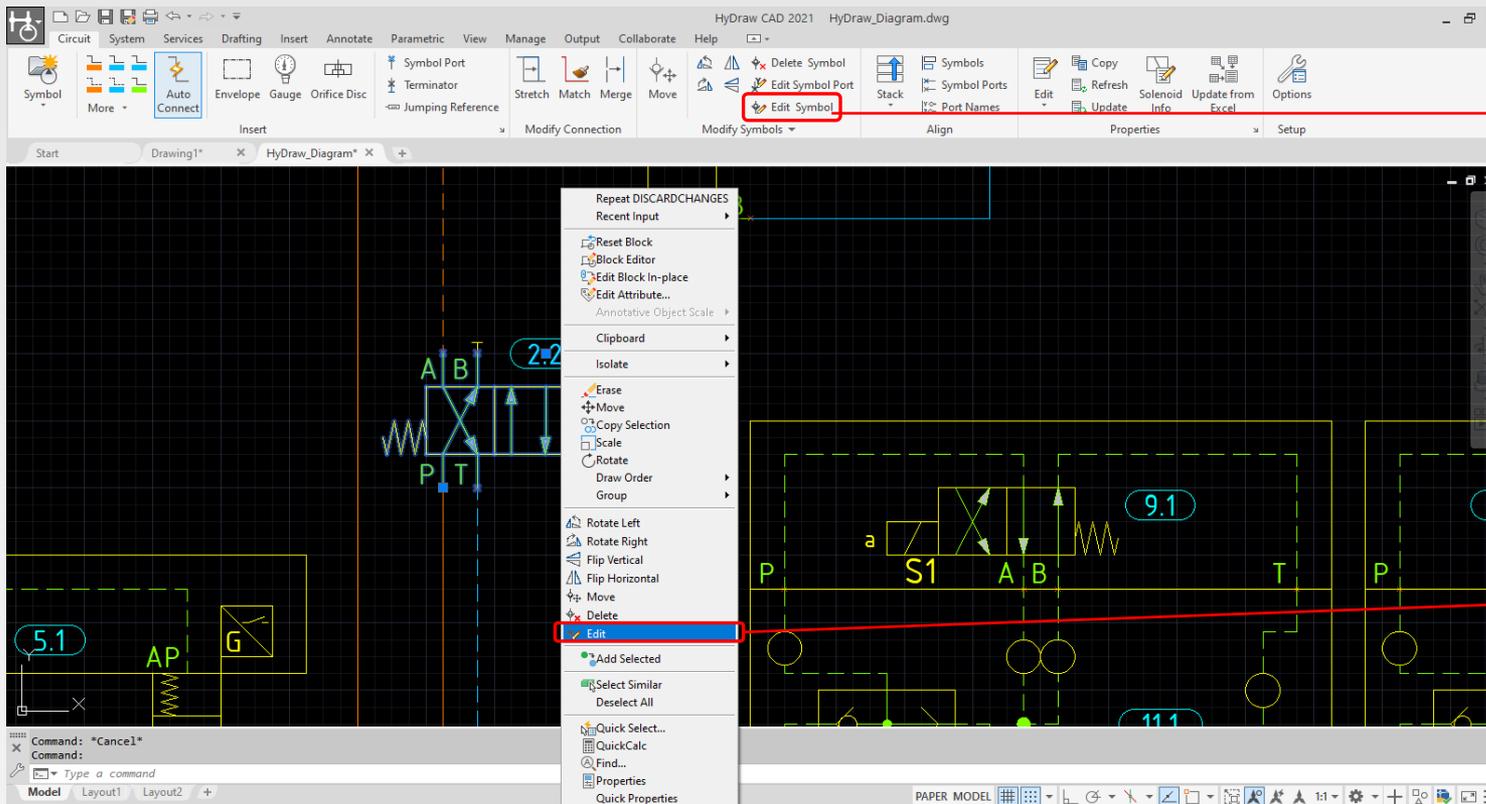
Ability to build new symbol in preferred units, Inch/Metric



Build new symbols in Inch or Metric based on units set in HyDraw > Options

# Edit Symbol in Schematic

## Edit Symbol in schematic with Advanced Symbol Editor



Edit Symbol using  
Ribbon menu

Edit Symbol using  
Right-click option

Do more...

# HyDraw<sup>®</sup> CAD 2021

circuit design software

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Europe: +39 328 695 7001 [carlo.molon@VESTusa.com](mailto:carlo.molon@VESTusa.com)

