



## **3D Blocks for AutoCAD\***

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# **Victaulic 3D Blocks for AutoCAD**

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# Victaulic 3D Blocks for AutoCAD

## What is Victaulic 3D Blocks for AutoCAD?

Designed specifically for AutoCAD users, Victaulic 3D Blocks for AutoCAD is a dimensionally accurate, three (3) dimensional block library of the Victaulic product line created to assist with piping system layout drawings.

Drawn at full scale, blocks representing the complete size range of a given component are grouped together and stored on a single master sheet drawing. These master sheets can be used with AutoCAD **DesignCenter** in order to place individual components into piping drawings. Each block contains a common insertion point and connection nodes for ease of location and placement. Coupling blocks have two (2) nodes that represent the gap takeout that occurs when a coupling connects two (2) grooved piping components (fittings, valves and/or pipe). By using the nodes within the blocks in conjunction with the AutoCAD OSNAP commands, users can create accurate pipe cut lengths for reporting on bill of materials. See Node Visibility on page 7 for more information.

Once inserted into a drawing, the Victaulic piping components can be easily manipulated by using basic AutoCAD editing commands. In AutoCAD 2007 and later versions, the user is able to create custom Tool Palettes with the included block files. Refer to the AutoCAD help menu for more information about Tool Palettes.

In AutoCAD 2012 and up, pipe can be placed using Victaulic 3D Piping Software for AutoCAD. See the Victaulic website for more information (link shown below).

[www.victaulic.com/en/downloads/cad-files-software/victaulic-3d-piping-software-for-autocad/](http://www.victaulic.com/en/downloads/cad-files-software/victaulic-3d-piping-software-for-autocad/)

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# Victaulic 3D Blocks for AutoCAD

## Naming Convention

Each component block is named according to a convention that represents its generic description, nominal imperial and metric size and its product style, series or part number (see Fig. 1 below).

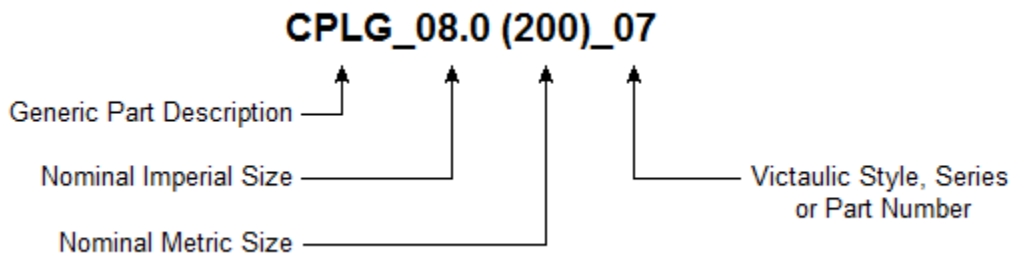


Fig. 1

### Note:

OD sized components are designated with an "X" directly following the imperial size in the block name.

Example: **CAP\_03.0X (76.1)\_60.dwg** - This would be a 3" OD (76.1mm) No. 60 Cap

In addition, elbows include a degree designation before the imperial size.

Example: **ELBOW\_90\_06.0 (150)\_10.dwg** - This is a 6" (150mm) 90 Degree No. 10 Elbow

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# Victaulic 3D Blocks for AutoCAD

## Downloading


Victaulic 3D Blocks for AutoCAD is available for download at the following web address . . .

[www.victaulic.com/en/downloads/cad-files-software/vic-blocks-3d/](http://www.victaulic.com/en/downloads/cad-files-software/vic-blocks-3d/)

The full set of 3D blocks can be downloaded by clicking [Download Complete Package](#) near the top of the selection list.

- or -

1. Locate the piping module(s) required.

**Note:** Clicking the  will expand the list of available piping components for that module.

2. Select [Download](#) next to the required module
3. Choose a computer location to save the downloadable ZIP file to

## Installation

1. Extract the block DWG files from the downloaded ZIP file to a computer system drive location  
**Example:** C:\Victaulic\VB3D\IPS\ where IPS is the module that was downloaded.
2. Launch AutoCAD
3. Start DesignCenter (type **DC** or press **Ctrl + 2** on the keyboard to open the dialog box)
4. In the Folder List area of the DesignCenter dialog box, navigate to the required piping component  
**Example:** Coupling\_Style\_07\_Zero-Flex\_Rigid\_[3D].dwg
5. Click on **Blocks** and the dialog box will be populated with the available components  
(See Fig. 2 on page 6)

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# Victaulic 2D Blocks for AutoCAD

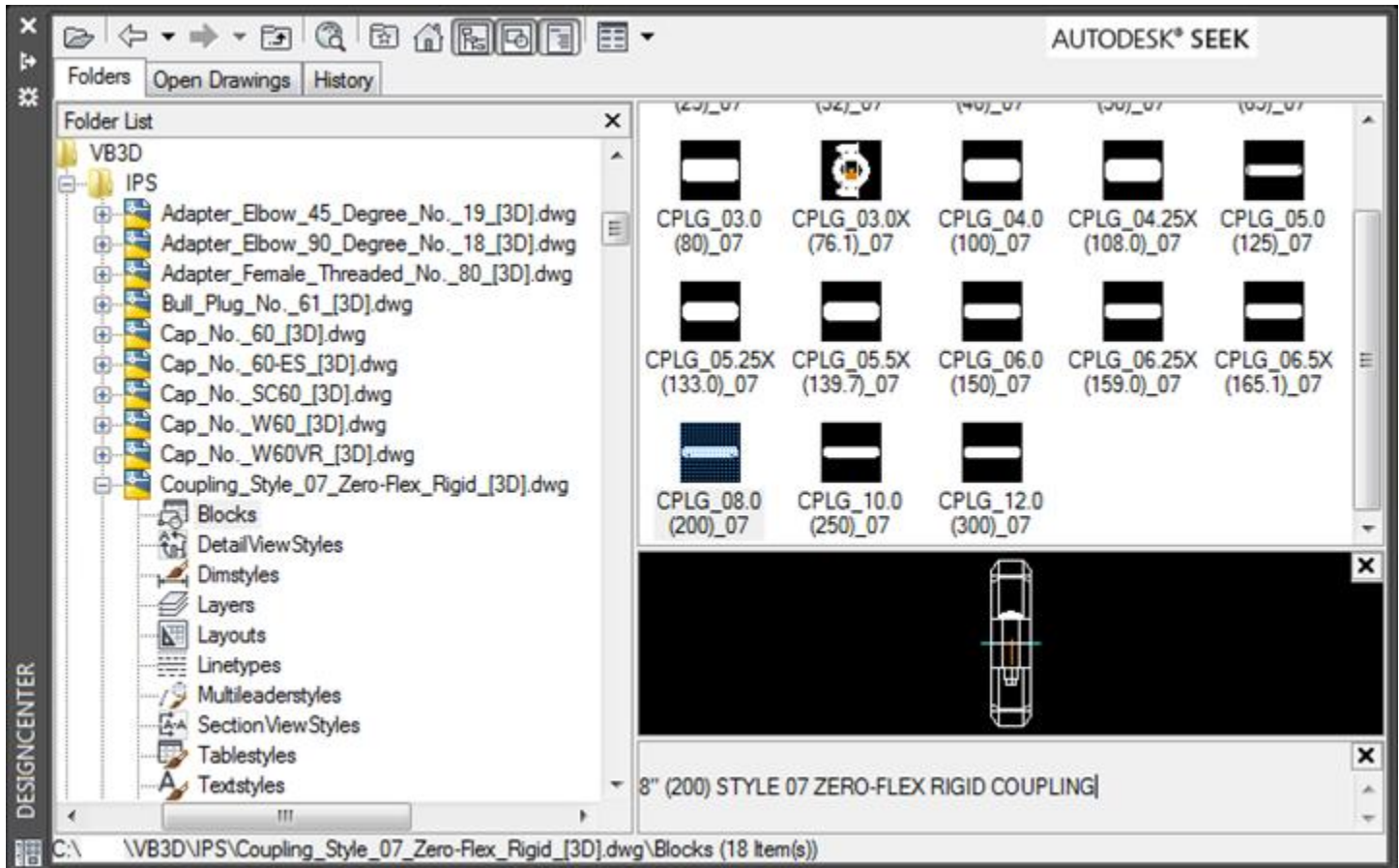


Fig. 2

See AutoCAD help for more information on DesignCenter

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# Victaulic 3D Blocks for AutoCAD

## Helpful Information

### Node Visibility

Every 3D block contains an AutoCAD node (POINT) at each connection location that can aid in placing piping components. In order to see these nodes more easily, set the **PDMODE** variable to **3** and set **PDSIZE** to **0**. These nodes will be displayed as a cyan colored "X" (see Fig. 3 below).

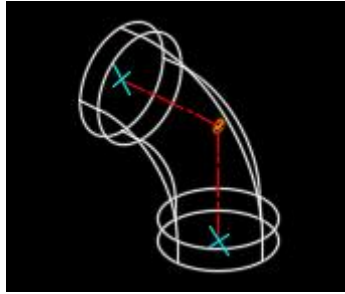


Fig. 3

By turning on the AutoCAD Node Object Snap (OSNAP), the user can effortlessly place connecting piping components. See AutoCAD help for more information on using Object Snaps.

Most Victaulic coupling blocks contain two (2) nodes that represent the gap takeout required for accurate pipe cut lengths. These nodes are very close together and can be difficult to differentiate on larger couplings (see Fig. 4 below).

Care should be taken when attaching to and/or from couplings for proper results.

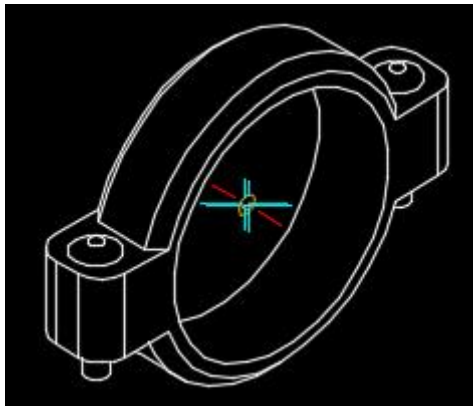


Fig. 4

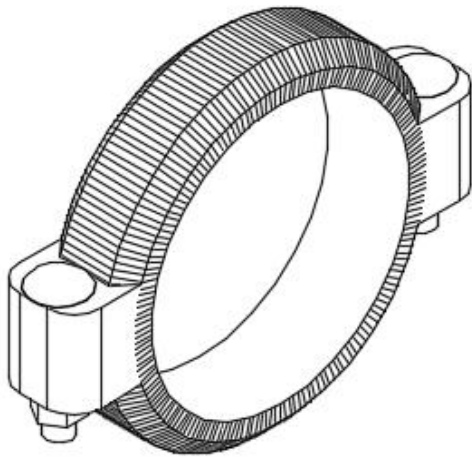


# Victaulic 3D Blocks for AutoCAD

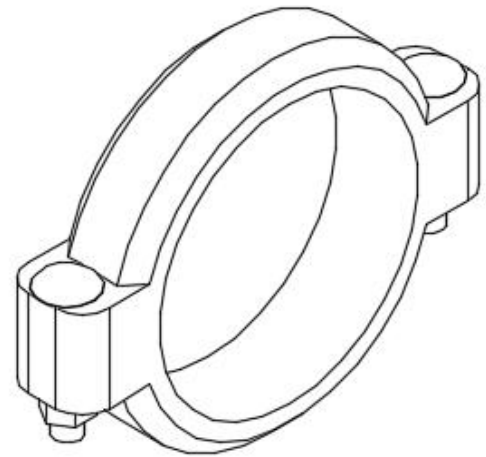
## Helpful Information

### CPLG-FILL Layer in Rigid Couplings

Rigid couplings include the **CPLG-FILL** layer. This layer provides the user a graphical way to discern between rigid and flexible couplings on piping layout drawings (see Fig. 5 below).



CPLG-FILL Layer On



CPLG-FILL Layer Off

Fig. 5





# Victaulic 3D Blocks for AutoCAD

## Helpful Information

### Block Attributes

All 3D Blocks have component information imbedded within an orange stylized “V” inside a circle (see Fig. 6 below). This attribute is on layer **VIC\_INFO** and its data can be accessed by using the AutoCAD Enhanced Attribute Editor (DDEDIT).

See AutoCAD help for more information on the Enhanced Attribute Editor.

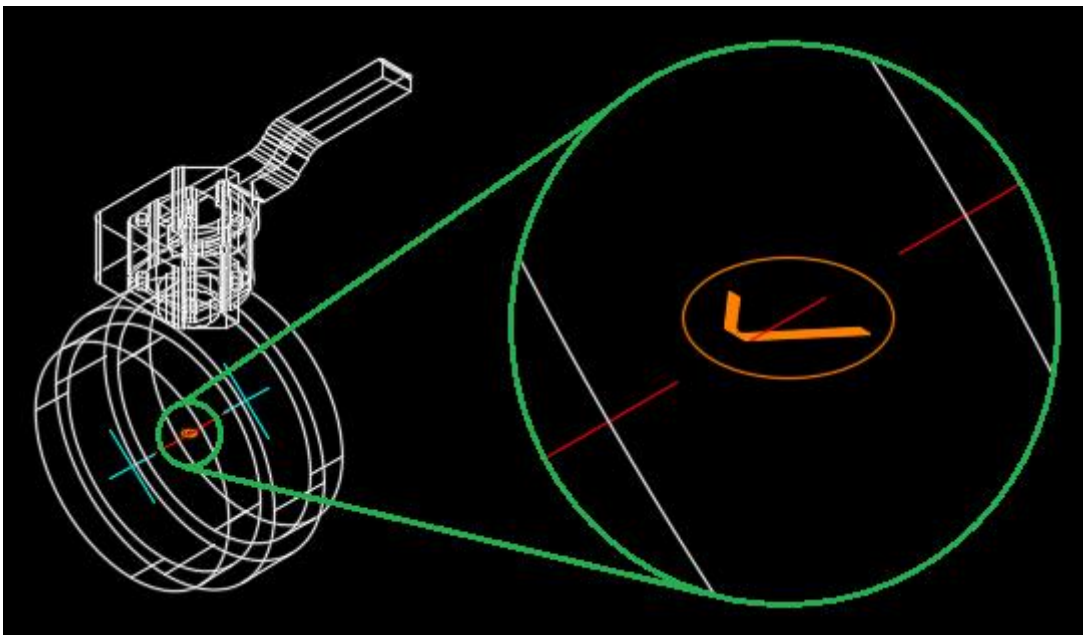


Fig. 6

Block data includes nominal imperial and metric sizes, component description, Victaulic sort code, weight and Victaulic part number. Also included are three (3) user definable attribute fields (see Fig. 7 on page 10).



# Victaulic 3D Blocks for AutoCAD

## Helpful Information

### Block Attributes

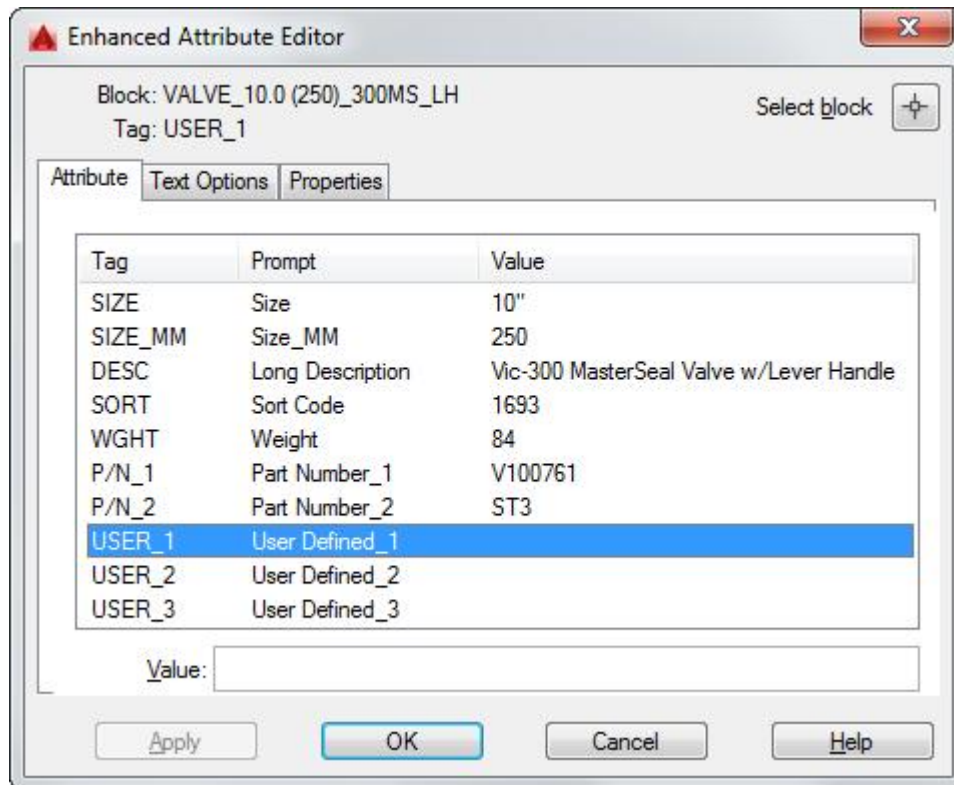


Fig. 7

This attribute data can be used for reporting purposes (bill of materials).



# Victaulic 3D Blocks for AutoCAD

## Helpful Information

### Mechanical-T and Cross Placement

The Victaulic Mechanical-T and Cross are designed to be placed one (1) half at a time. This allows the creation of multiple configurations without excessive file size.

The block insertion point is the centerline of the pipe run (see Fig. 8 below). To place a Mechanical-T or Cross, simply use DesignCenter to select the desired block by its pipe run and outlet size, place the block in the piping layout and then attach the required corresponding block using the node/insertion point of the first block to complete the component (see Fig. 9 below).

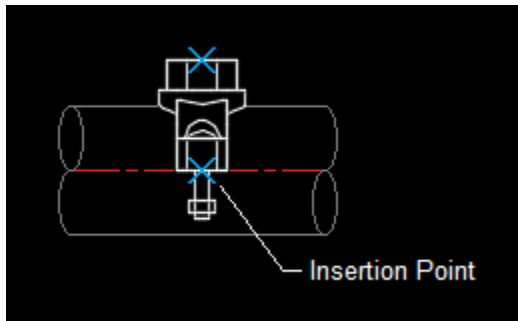


Fig. 8

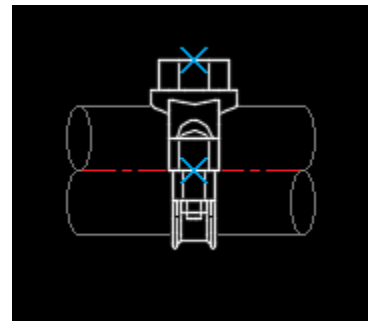


Fig. 9

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