



# Victaulic Tools for AutoCAD®

User Manual

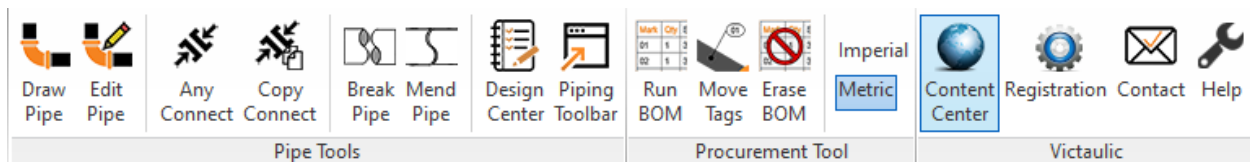
AutoCAD 2016, 2017, 2018, 2019, 2020

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## Introduction to Victaulic Tools for AutoCAD®

Victaulic has created a set of tools for AutoCAD® that increase drawing productivity and expand MEP modeling capabilities allowing your projects to be Faster From the Start.



The tools can be found on the Victaulic website [www.victaulicsoftware.com](http://www.victaulicsoftware.com)

### 1- Licensing

After downloading your copy of Victaulic Tools for AutoCAD, you will be asked to register your Victaulic Tools. Licenses can be managed from [www.VictaulicSoftware.com/Store](http://www.VictaulicSoftware.com/Store).

After registration, use the email address and password from the store to register your software. Multiple installations can be licensed using the same email address and password combination.

Registration

**Victaulic**  
FASTER FROM THE START™

Registration


Email Address:

Password:

Log In

Please log in to activate your software.  
Manage your account at [www.victaulicsoftware.com/Account](http://www.victaulicsoftware.com/Account).  
[Register with a code](#)

Update Software

 Your software is up to date.

Current Version:	Latest Version:
21.5.7548	21.1.7544

New Features:

- First Build for AutoCAD 2021

**FIRELOCK**  
INSTALLATION-READY  
FITTINGS  
LEARN MORE >

**REFUSE-TO-FUSE**  
SYSTEM FOR HDPE PIPE  
LEARN MORE >

## 2-Draw Pipe



To place pipe in a drawing, simply select the "Draw Pipe" button.

The New Victaulic Pipe Data dialog box (shown below) will be displayed

A screenshot of the "New Victaulic Pipe Data" dialog box. The dialog has a title bar with a close button (X). Below the title bar is a dark header with the Victaulic logo and the slogan "FASTER FROM THE START™". The main area is divided into two sections: "Module" and "Details". The "Module" section has five radio buttons: "IPS" (selected), "AWWA", "Copper Tubing", "Stainless Steel", and "HDPE". The "Details" section contains several fields: "Size" (a dropdown menu set to "20mm" and radio buttons for "Imperial" and "Metric", with "Metric" selected), "Length" (a text input field with a "..." button), "Description" (a dropdown menu set to "Pipe SMLS ASTM A-53 Black Steel Schedule 20"), "Service" (a dropdown menu set to "CHWS=Chilled Water Supply"), "Weight" (a text input field), "End Condition" (a dropdown menu set to "VG X VG"), "Piece Marking" (a text input field), "Piece Marking 2" (a text input field), "Sort Code" (a text input field set to "2697" with "(Read-Only)" next to it), and four "User" fields (User 1, User 2, User 3, User 4) arranged in two rows of two. On the right side of the dialog are "OK" and "Cancel" buttons.

A choice of pipe modules is available including IPS, AWWA, Copper Tubing, Stainless Steel and HDPE. The options under the Size, Description, Service, End Condition and Sort Code fields will change depending on which Module is selected.

All pipe is drawn 3-D with a centerline, an information attribute located at the middle point of the centerline and two placement nodes located one on each end of the centerline. The cylinder that represents the pipe is drawn on the user's current layer. This makes it easy to control the color for different size and/or service pipe runs. Centerlines are drawn on layer "CL" which is red and uses the "CENTER" line type. Information attributes are on layer "Info" and are white whereas the placement nodes are on layer "Nodes" and are cyan by default. The AutoCAD Layer Properties Manager can be used to modify all of the preset color and line type values.

Note: The nodes are provided to make it easier to join pipe with Vic/Blocks-3D components. By turning on the AutoCAD "Node" Object Snap, pipe can be connected to the nodes contained in each Vic/Blocks-3D coupling and flange.

To assist with the placement of pipe, items in the Details area of the New Victaulic Pipe Data dialog box will default to match the information of the last piece of pipe placed in the drawing. The information will reflect the data of the last pipe selected if the "Edit Pipe" or "Properties" utilities are used prior to placing a new piece of pipe.

Take note of the Length: Here is where you can enter your desired pipe length.



Select the ellipsis button to the right to determine your length by picking two points in your model.

### 3-Edit Pipe



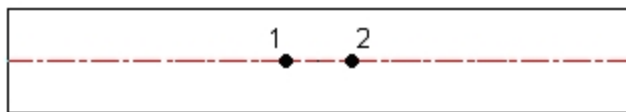
The size, length, description and service information can be revised through a dialog box interface by clicking the "Edit Pipe" button and selecting any pipe created with the Victaulic Utilities routine

### 4-Break Pipe



Break  
Pipe

When the "Break Pipe" utility is used, the "Nearest" AutoCAD Object Snap is turned on and the user is prompted for a start and end point for the break. The pipe centerline is the intended target for these points (1 and 2 below). This utility has no effect on the actual cut length shown in the bill of material and the broken pipe is treated as one item.



Before



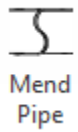
After



Hidden View

Note: It is important to keep in mind that, as shown above, the actual pipe break is offset from the points selected.

## 5-Mend Pipe

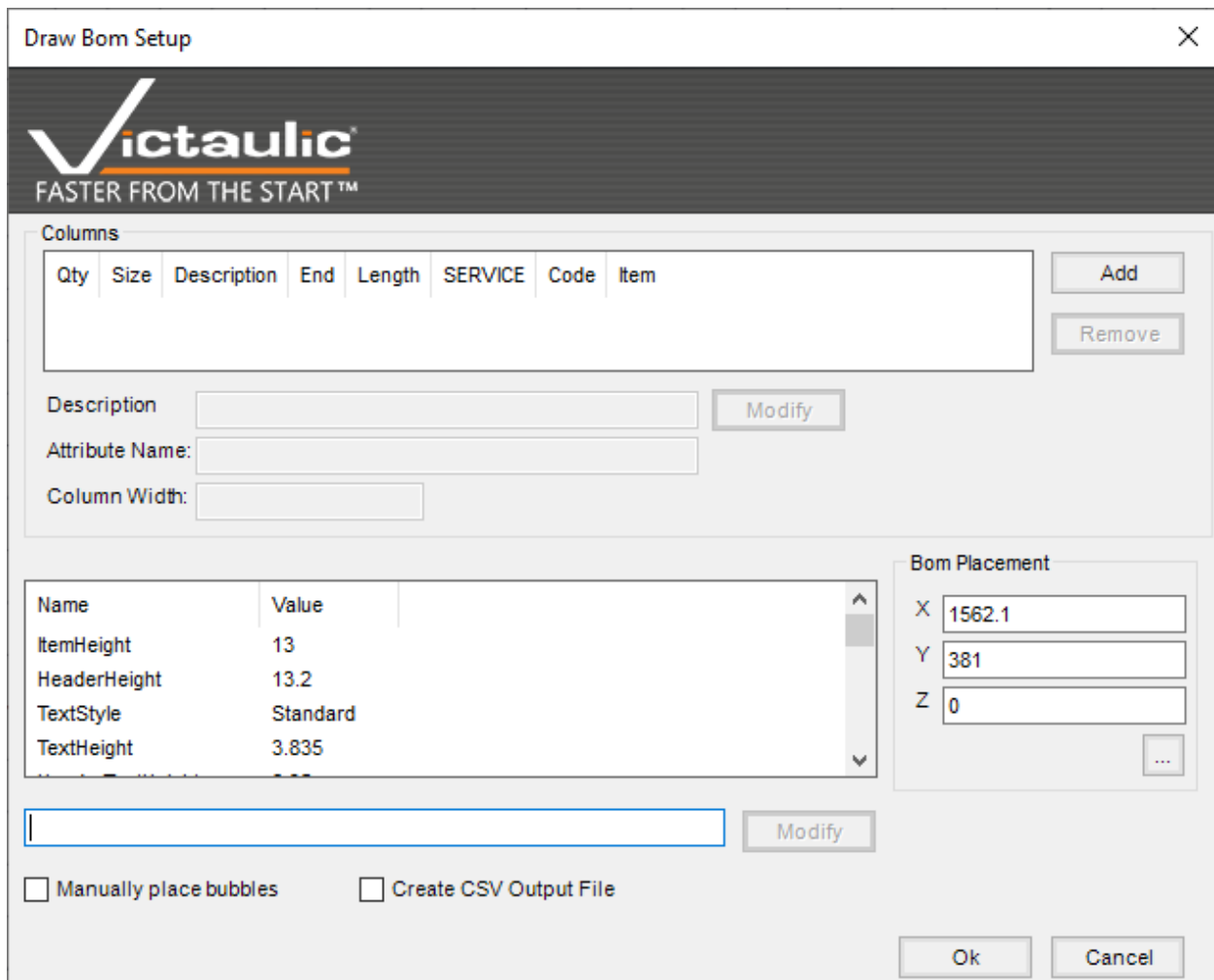


The "Mend Pipe" utility is used to return a pipe broken with the "Break Pipe" command to its original state. When this command is used on a pipe with multiple breaks, all breaks on the selected pipe will be mended.

## 6-Run BOM



The "Run BOM" button launches a totally customizable bill of material utility that allows the user to create a list of all piping components in the current drawing. The bill of material can be placed on the drawing (model- or paper space) or exported, via an .csv (comma delimited file), to a Microsoft Access database, or a Microsoft Excel spreadsheet. This utility will also automatically place material tags on the drawing that correspond to the bill of material. Alternately, there is a switch that allows for the manual placement of tags as the bill of material is generated.



Draw Bom Setup

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Columns

Qty	Size	Description	End	Length	SERVICE	Code	Item
-----	------	-------------	-----	--------	---------	------	------

Add  
Remove

Description:  Modify

Attribute Name:

Column Width:

Name	Value
ItemHeight	13
HeaderHeight	13.2
TextStyle	Standard
TextHeight	3.835

Bom Placement

X:

Y:

Z:

Modify

Manually place bubbles  Create CSV Output File

Ok Cancel

Note: All Vic/Blocks-3D components also contain an information attribute that allows the "Run BOM" routine to include all Victaulic couplings, flanges, fittings, valves and specialty items in the bill of material. See Attribute Data Fields for a complete listing of available fields that can be incorporated into the bill of material.

Attribute Data Fields:

SIZE = Nominal Pipe Diameter

DESC = Component Description

WGHT = Component Weight

P/N\_1 = Component Part Number 1

P/N\_2 = Component Part Number 2

SORT = Component Sort Code

USER\_1 = User Data 1

USER\_2 = User Data 2

USER\_3 = User Data 3

SIZE\_MM = Nominal Pipe Diameter (Metric)

ITEM = Component Bill of Material Item Number \*

QUANTITY = Component Item Quantity \*

Note: Field names marked with an asterisk (\*) are controlled by the Vic 3D Piping Software. Item numbers are assigned and quantities are totaled by the "[Run BOM](#)" utility.

## 7-Erase BOM



Erase  
BOM

The "Erase BOM" button automatically removes the bill of material and all tags from the drawing if the piping must be revised.

## 8-Move Tags



Move  
Tags

The "Move Tags" routine allows for the relocation of any material tag that is in conflict with another drawing element.

## 9-Design Center



Design  
Center

Opens AutoCAD Design Center, defaulted to the preloaded Victaulic CAD library. Here you can find a basic set of Vicblocks for AWWA, Copper, HDPE, IPS and Stainless Steel. Full libraries can be downloaded: <https://www.victaulic.com/resource-software/>

## 10- Content Center



Content  
Center

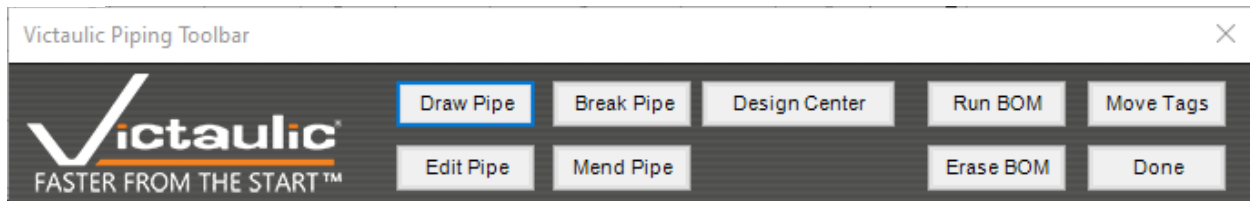
Opens Victaulic Resource Software page. Here you can download the full Victaulic AutoCAD 3D DWG libraries: <https://www.victaulic.com/resource-software/>

## 11- Piping Toolbar



Piping  
Toolbar

Opens the “Victaulic Utilities” tool palette. This tool palette gives you the basic Victaulic Tools for AutoCAD commands. “Done” will close this tool palette.



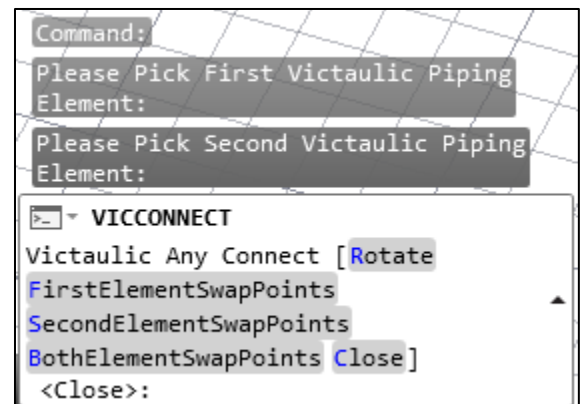
## 12- Any Connect



Any  
Connect

The Any Connect button moves and connects components based on the user’s selection. Click the first element (consider this your anchor point or target element); then click on the second element and the second element will move and align on the nodes facing each other. After placement you have the options:

- Rotate: Keystroke “R” will rotate the second element with increments of 90°.
- FirstElementSwapPoints: Keystroke “F” second element will connect to other node points of target object.
- SecondElementSwapPoints: Keystroke “S” second element will swap node points connected to first element.
- BothElementSwapPoints: Keystroke “B” will swap node points simultaneously of first and second element.
- Close: Keystroke “C”, Escape button or Enter will close this command.





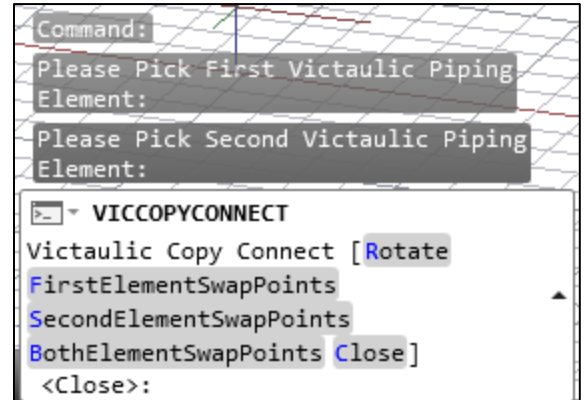
## 13- Copy Connect



The Copy Connect button copies and connects components based on the user's selection. Click the first element (consider this your anchor point or target element); then click on the second element, the second element will be copied and aligned on the nodes facing each other. After placement you have the options:

Rotate: Keystroke "R" will rotate the second element with increments of 90°.

- FirstElementSwapPoints: Keystroke "F" second element will connect to other node points of target object.
- SecondElementSwapPoints: Keystroke "S" second element will swap node points connected to first element.
- BothElementSwapPoints: Keystroke "B" will swap node points simultaneously of first and second element.
- Close: Keystroke "C", Escape button or Enter will close this command.



## 14- Imperial - Metric



Toggle button to switch your unit settings between Imperial and Metric. This will influence your Run BOM settings and Draw Pipe size selection.

# 15- Registration



Multiple installations can be licensed using the same email address and password combination. Use the email address and password from our store to register your software. The registration window shows your current version of VTFA and the latest version number. When a newer version is available you can download this version directly via this window.