

Generating Spiral 3D Ductwork

Reference Number: **KB-02840**

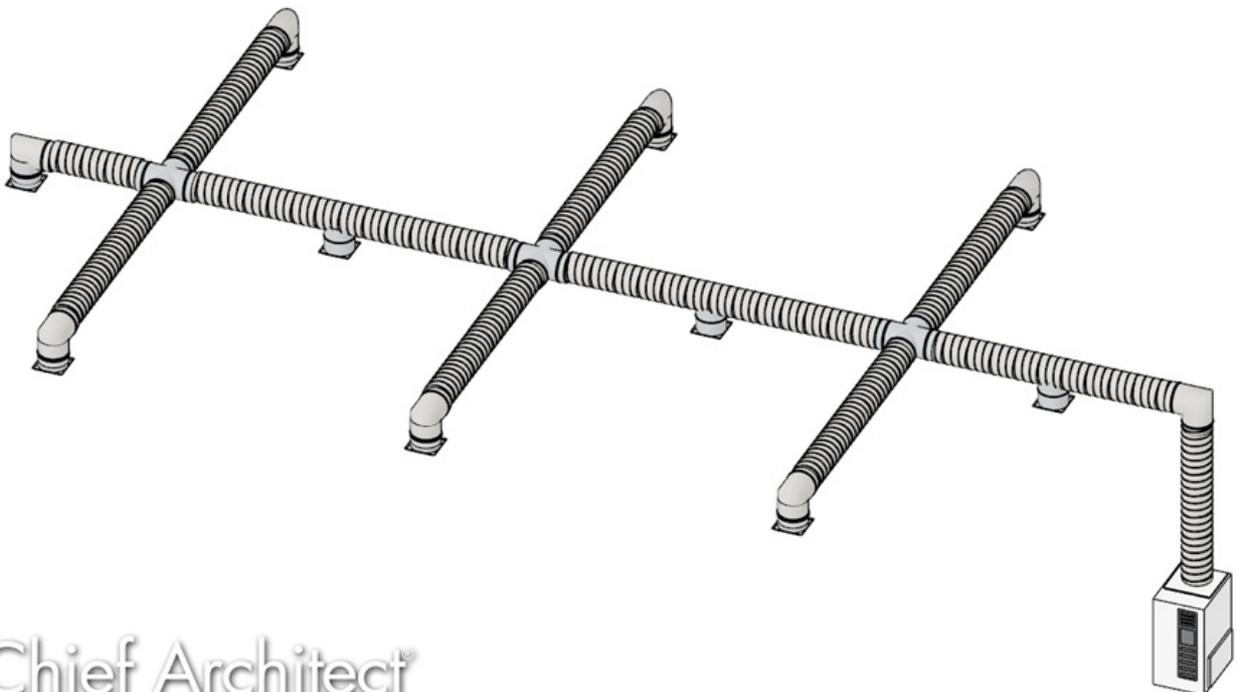
Last Modified: **June 18, 2024**

The information in this article applies to:



QUESTION

I want to add spiral HVAC ductwork and vents to my plan. How can I do this?



ANSWER

With the [HVAC No.2 Spiral Ducting \(https://3dlibrary.chiefarchitect.com/index.php?r=site/detail/922\)](https://3dlibrary.chiefarchitect.com/index.php?r=site/detail/922) bonus catalog, spiral HVAC ductwork can be easily drawn into any plan as CAD lines or polylines, then converted to a special molding profile.

An active software subscription or active [Support and Software Assurance \(SSA\) \(https://www.chiefarchitect.com/products/ssa/\)](https://www.chiefarchitect.com/products/ssa/) is required to access additional catalogs, such as the bonus catalog above. If you don't have access to the catalog above, please [contact our Sales team \(https://www.chiefarchitect.com/company/contact.html\)](https://www.chiefarchitect.com/company/contact.html) to discuss your options.

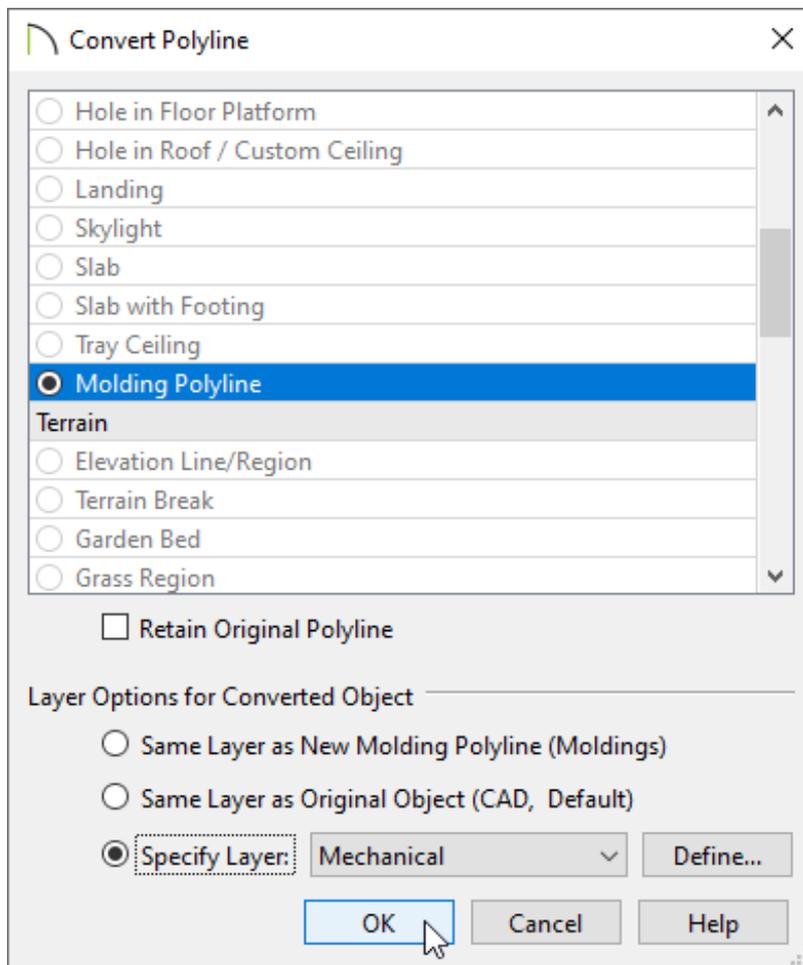
For more information on accessing additional catalogs, please see the "Obtaining and Updating Library Content" resource in the [Related Articles](#) section.

To draw spiral HVAC ductwork

1. From the menu, select **CAD> Lines> Draw Line**  and draw a line or polyline where you want your ducts to be.

Note: Molding polylines generated from CAD lines will generate out to one side of the drawn polyline. For this reason it's advised to draw your CAD Lines in the same directions. In this tutorial, all CAD Lines are drawn left-to-right/top-to-bottom.

2. Select the line or polyline, then click the **Convert Polyline**  edit button.
3. In the **Convert Polyline** dialog that appears, select the **Molding Polyline** option, choose your desired layer option, then click **OK**.

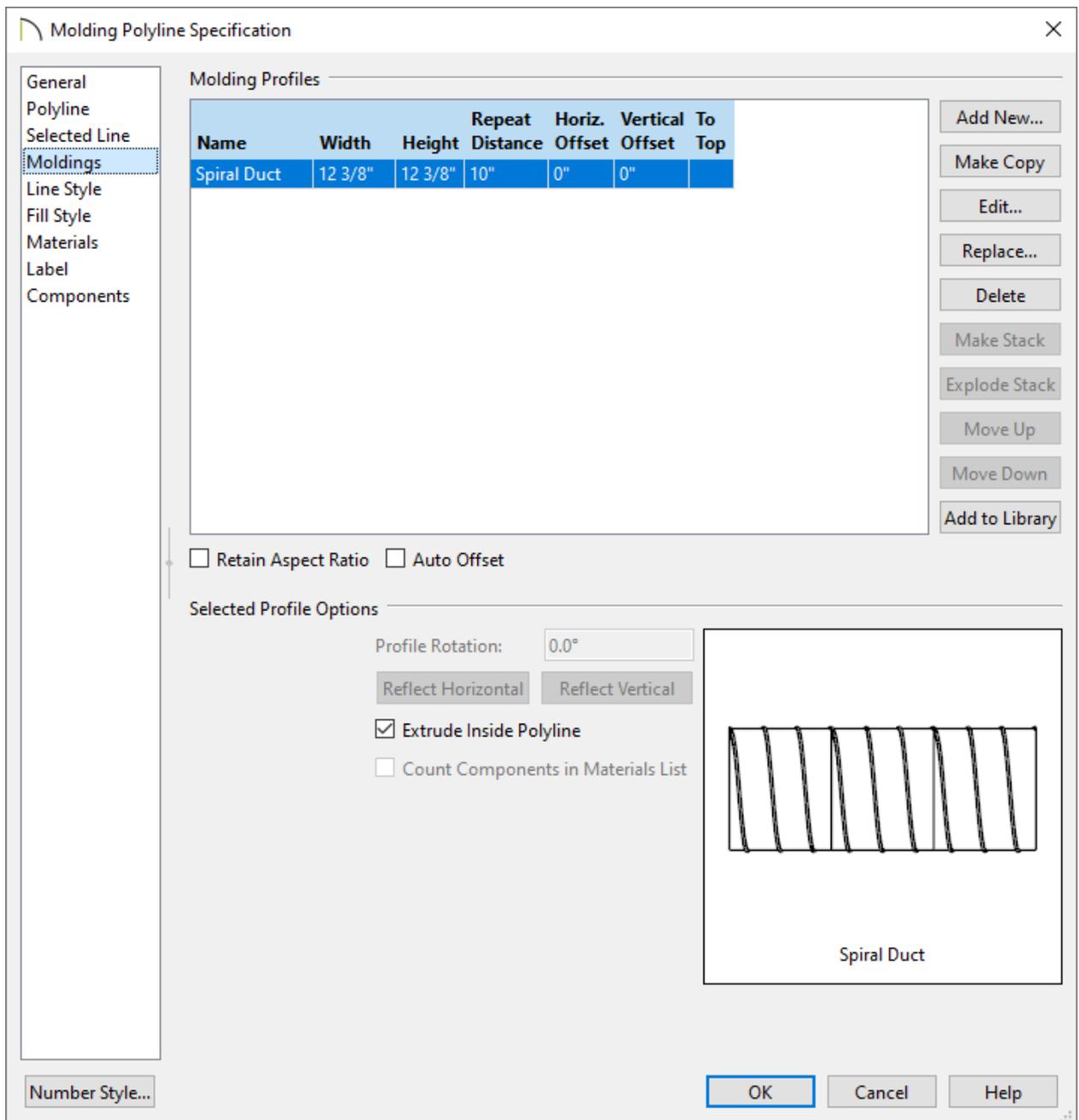


4. In the **Molding Polyline Specification** dialog that appears:

- On the **GENERAL** panel, set the **Height**, or elevation, of the duct. Remember that the molding generates up, so the height will be the measurement from the top of the unfinished floor to the bottom of the duct.

In this example, a value of 117" is specified.

- Select the **MOLDINGS** panel and click the **Replace** button. Browse to **Chief Architect Bonus Catalogs> HVAC No.2 Spiral Ducting**, select the **Spiral Duct** option, then click **OK**.



○ Specify the molding profile's **Width** and **Height** as necessary, then click **OK**.

5. Repeat this as necessary for any additional ducts needed. It is not necessary at this time to butt or link the moldings together at intersections, as special connectors will be used to cover these areas.

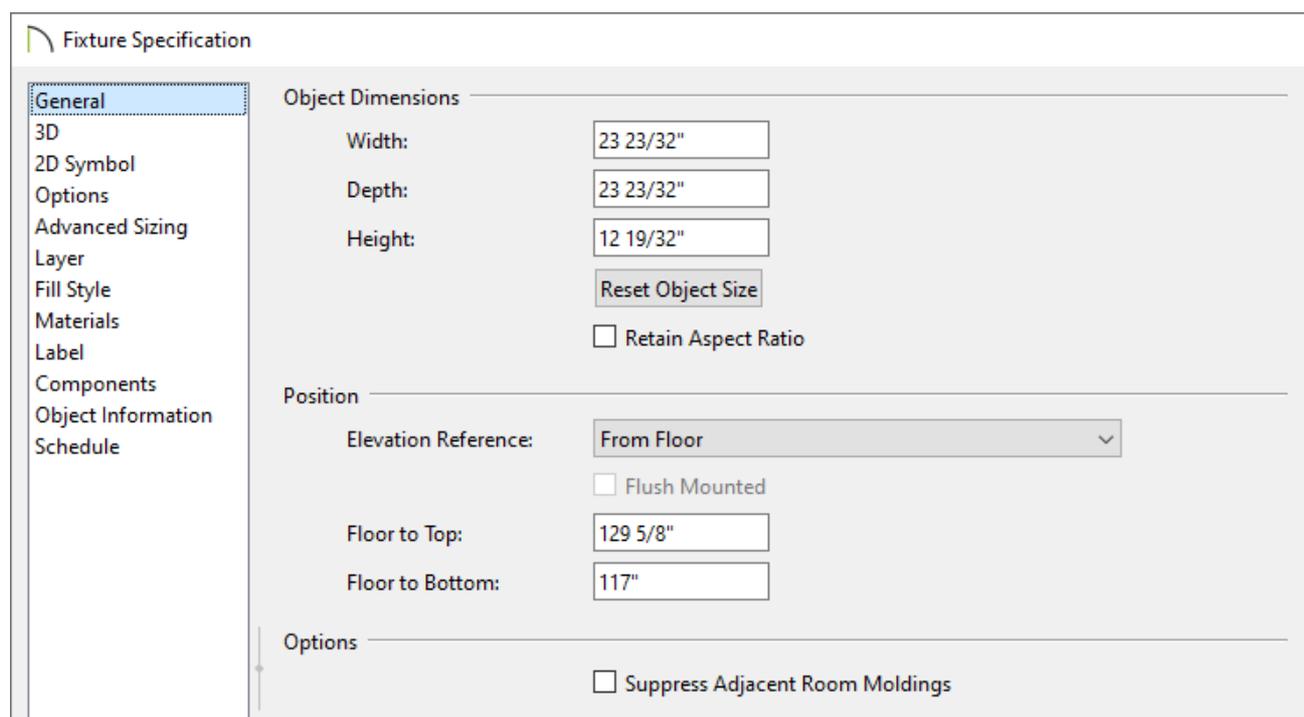
To place duct fittings

Duct transitions, reducers, and vents are available as 3D Symbols that can be placed to create a more accurate representation of how your ducting will be built.

1. From a plan view, open the **Library Browser** , browse into **Chief Architect Bonus Catalogs> HVAC No.2 Spiral Ducting**, and select the symbol you wish to place.

In this example, we will be using the Cross fitting found within the 90 Degree Transitions subfolder.

2. Click to place the fitting. If necessary, you can temporarily disable snap settings by holding the **Ctrl/Command** key on your keyboard while placing the fitting.
3. Using the **Select Objects**  tool, click on the fitting to select it, then click the **Open Object**  edit button.
4. On the **GENERAL** panel of the **Fixture Specification** dialog that displays:



The screenshot shows the 'Fixture Specification' dialog box with the 'General' panel selected. The 'Object Dimensions' section includes input fields for Width (23 23/32"), Depth (23 23/32"), and Height (12 19/32"), along with a 'Reset Object Size' button and an unchecked 'Retain Aspect Ratio' checkbox. The 'Position' section features a dropdown for 'Elevation Reference' set to 'From Floor', an unchecked 'Flush Mounted' checkbox, and input fields for 'Floor to Top' (129 5/8") and 'Floor to Bottom' (117"). The 'Options' section at the bottom has an unchecked 'Suppress Adjacent Room Moldings' checkbox.

- Set the **Width**, **Depth**, and **Height**, as needed.

For these types of symbols, if the size of the duct was modified, it's best to check the **Retain Aspect Ratio** check mark before making any modifications.

- Set the Elevation Reference to **From Floor**, then specify the Floor to Bottom value to match the height of the molding polyline.

In this example, a value of 117" is specified.

- Click **OK** to confirm the changes and close the dialog.

5. Repeat this process to place as many fittings as necessary.

Related Articles

 [Creating a Plumbing, HVAC, or Appliance Schedule \(/support/article/KB-00929/creating-a-plumbing-hvac-or-appliance-schedule.html\)](/support/article/KB-00929/creating-a-plumbing-hvac-or-appliance-schedule.html)

 [Creating an Isometric Cutaway View of a Floor System \(/support/article/KB-02726/creating-an-isometric-cutaway-view-of-a-floor-system.html\)](/support/article/KB-02726/creating-an-isometric-cutaway-view-of-a-floor-system.html)

 [Creating Gas, HVAC, and Plumbing Lines in a Plan View \(/support/article/KB-00934/creating-gas-hvac-and-plumbing-lines-in-a-plan-view.html\)](/support/article/KB-00934/creating-gas-hvac-and-plumbing-lines-in-a-plan-view.html)

 [Customizing Toolbars \(/support/article/KB-00811/customizing-toolbars.html\)](/support/article/KB-00811/customizing-toolbars.html)

 [Obtaining and Updating Library Content \(/support/article/KB-00090/obtaining-and-updating-library-content.html\)](/support/article/KB-00090/obtaining-and-updating-library-content.html)



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