

See how quickly AutoCAD Mechanical can improve your productivity with a tip from Andrew de Leon, AutoCAD Mechanical Product Designer.

## Save Time and Effort with AutoCAD Mechanical Power Dimensions

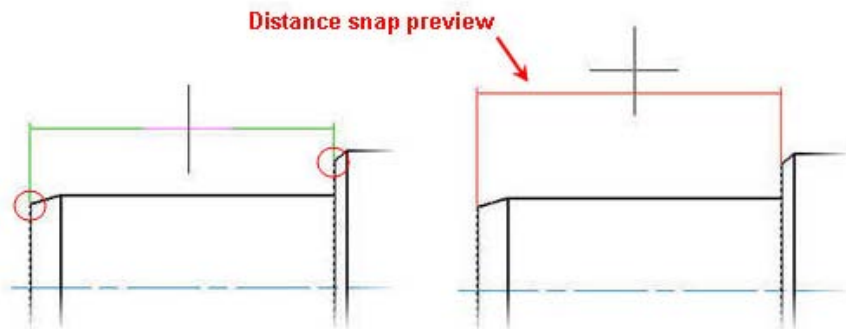
AutoCAD® Mechanical makes AutoCAD® dimensions easier to use with abbreviated dialog boxes that conveniently control and expand only the variables relevant for manufacturing.

With automatic dimensioning, you can create multiple dimensions with minimal input, resulting in instant groups of ordinate, parallel, or symmetric items that are appropriately spaced. Smart dimensioning tools force overlapping dimensions to automatically space themselves appropriately while integrating tolerance and fit list information into the drawing. Inspection dimensions enable you to specify testing criteria. Read on to learn more about how you can use Power Dimension to quickly change, edit, or delete dimensions and spend your time innovating rather than managing workflow issues. It's much more enjoyable.

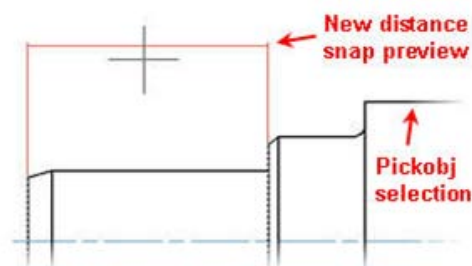
### Using Distance Snap

Back when I was drafting on basic AutoCAD, a long time ago, I had a bad habit. I'd spend hours making my drawings look good. Yeah, you know what I mean; it all starts when trying to place dimension lines at just the right distance from the geometry, then it snow balls into aligning dimensions and rearranging dimensions and before you know it you've just spent another hour. Thankfully, we upgraded to AutoCAD Mechanical and I found power dimension and its distance snap... the rest they say is history.

So here's how it works. After you've specified the first and second extension lines, power dimension will ask you to specify the dimension line location; just like AutoCAD does. But instead of trying to find another dimension to align it with, keep dragging your cursor. The preview will 'snap' to a location and change from green to red. This is power dimension's distance snap and while it is snapped in position and red, the dimension line is 12mm or 1/2" from the geometry. If it looks good, click your mouse to specify its location.



Now here's the trick: let's say you're dimensioning a shaft or something with a number of steps and you want the dimension line placement and therefore the distance snap to be based on other geometry. Well, on the command line (in addition to the preview) you should see an option called Pickobj. If selected, Pickobj allows you to select other geometry to base the distance snap on. It's too easy...



# AutoCAD Mechanical Tips & Tricks

By the way, the distance snap value can be changed. To do so, launch Options, select the AM:Standards tab and double-click the Dimensioning standard element. This launches the Dimensioning dialog box and down in the bottom left corner you will see the Use Distance Snap setting, and to the right a little, its value.

## Adding Chain Dimensions

So, how about adding chain dimensions? Now that you have the first dimension placed at just the right distance from the geometry, creating chained dimensions is pretty straight forward. All you need to do is select the Chain option provided by power dimension (either from the command line or the right-click menu) and specify points on the geometry.



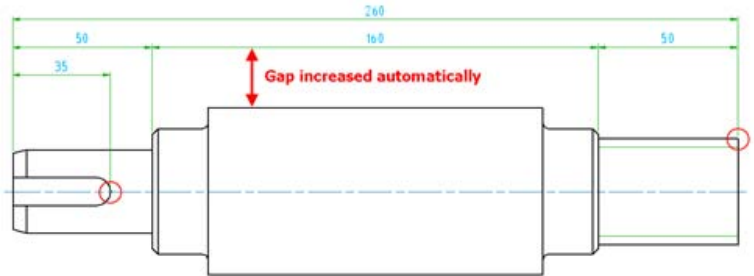
For each point you select, a chain dimension is created aligned with the previous (or base) dimension. The best part about this is you don't need to launch a separate command; it's just an option of the power dimension command.

## Adding Baseline Dimension

So what about baseline dimensions? Well, adding baseline dimensions is just as easy as adding chained dimensions except power dimension will rearrange the dimension stack for you if needed.

Depending on which dimension you select as your base dimension, existing dimensions are rearranged automatically while retaining their creation method. This is really handy if you've finished dimensioning and have everything just the way you like it and then realize you missed one.

To add baseline dimensions, select the Baseline option provided by power dimension, select the base dimension and specify points on the geometry.



For each point you select, a baseline dimension is created either above or below the base dimension while maintaining the correct distance snap and dimension gap. As you can see in the image above, by selecting the very first dimension we created (50) as the base dimension, the existing chain dimensions are moved further from the geometry allowing the smaller 35 dimension to be added below (at the correct distance snap) while the 260 dimension is added above; just like you'd do it manually...

And just like chain dimensions, you don't need to launch a separate command; it's just another option of the power dimension command. So basically, once you are in the power dimension command you can toggle between single, chain and baseline dimensions as required and let it do the hard work of arranging the dimensions for you

## Wrap-up

Using these Power Dimension tips are just a few of the many ways AutoCAD Mechanical can help you improve your productivity on a daily basis. AutoCAD Mechanical is purpose-built for manufacturing so it offers significant productivity gains over basic AutoCAD software. It simplifies mechanical design work by providing innovative design and drafting tools that offer immediate efficiency gains and ease of use for the AutoCAD user.