Creating Hole Callouts

This Tech Tip looks at how to create a callout in Solid Edge that shows all of the details of a specific hole type.

Solid Edge hole properties allow you to define many different types of holes, such as plain, threaded, countersunk, counterbored and tapered.

| Hole Options | | × |
|--|---|-------------------|
| 0 0 0 | Standard: ISO Metric Saved setting: Sub type: Standard Thread Image: Comparison of the setting: Size: M10 x 1 Save Fit: Image: Comparison of the setting: Image: Comparison of the setting: | s: V Delete |
| Hole extents: Hole depth: 50.80 mm v ±1 V bottom angle: 0.00 ° v | | ✓ h7 |

Detailing the holes on a 2D drawing can be hard to layout, but there are settings already predefined to handle each of these scenarios.

On the General Tab of the callout command, there are plenty of options to build the hole command the way you may want it displayed. Each one has a code associated with it, for example the first Feature reference is Hole Size, which uses the %HS code.



While this is relatively easy to set up each time, it may be worth pointing out that there is already a predefined set of definitions set out in the dialog box. In the Callout properties dialog box, there is a tab called Feature callout which has all of the settings for each type of hole. If the settings are not quite how you wish, you can reconfigure it to your preferred display.

| Callout Properties | |
|---|----|
| General Text and Leader Smart Depth Feature Callout Border | |
| Hole | |
| Simple: <mark>%DI %HS %ZH</mark> | |
| Counterbore: <u>%DI %HS</u> %ZH%RTC'BORE %DI | |
| Countersink: <u>%DI %HS %ZH</u> %RTC'SINK <u>%DI </u> | |
| Counterdill: <u>%DI %HS %ZH</u> %RTC'SINK <u>%DI </u> | |
| Simple (threaded): <u>%TS</u> %ZT | |
| Counterbore (threaded): <u>%DI %HS %ZH</u> %RTC'BORE <u>%DI</u> | |
| Countersink (threaded): <u>%DI %HS %ZH</u> %RTC'SINK %DI % | |
| Counterdrill (threaded): <u>%DI %HS</u> %ZH%RTC'SINK %DI | |
| Slot | |
| Simple: <u>%HS</u> X <u>%SH</u> %ZH | |
| Counterbore: <u>%HS</u> X <u>%SH</u> <u>%ZH</u> | |
| | - |
| any existing callout and click theSmart depth: Be | nd |

On the General Tab clear any existing callout and click the Feature Callout button that will place a setting of %HC in the callout.

| | _ | | |
|----|-------------|--------------------|---|
| Sn | nart depth: | Bend: | |
| 0 | :C)I :C)I | Ĩ4 7¥ 14 £ # ∡ | |
| f | ~ | Feature callout: 🧹 | |
| | | | 4 |

Callout Properties

| General | Text and Leader | | Smart Depth |
|---------------|-----------------|------------|-------------|
| Saved se | ettings: | | |
| Callout text: | | <u>%HC</u> | |
| | | 6 | |
| | | | |

Using this option can be used to label any hole without having to change the settings:



Further to this, you can use the hole command to create a chamfer on the lead in to the hole:

| Chamfers | | |
|----------|---------------|--------------------------------|
| | Start Chamfer | |
| Offset: | 0.60 mm ~ | |
| Angle: | 45.00 ° ~ | |
| | | OK Save as Default Cancel Help |

To get the required property callout for Hole Start Chamfer; you need to use '%HS, Cham %O1x%G1' in the feature Property callout text.

| Callout Properties | | | | | | |
|--------------------|----------|----------------|---------------------------|-----------|---------------|--------|
| General | Text an | d Leader | Smart Depth | Feature C | allout Border | |
| Saved s | ettings: | | | ~ | Save | Delete |
| Callou | it text: | <u>%HC</u> Cha | m <u>%01</u> x <u>%G1</u> | | | |
| | | | | | | |
| | | | | | | |

Which gives the following display:



Adding this to the Feature Callout settings will only work if you always add a chamfer to your hole, so create a saved setting for the chamfer addition!