

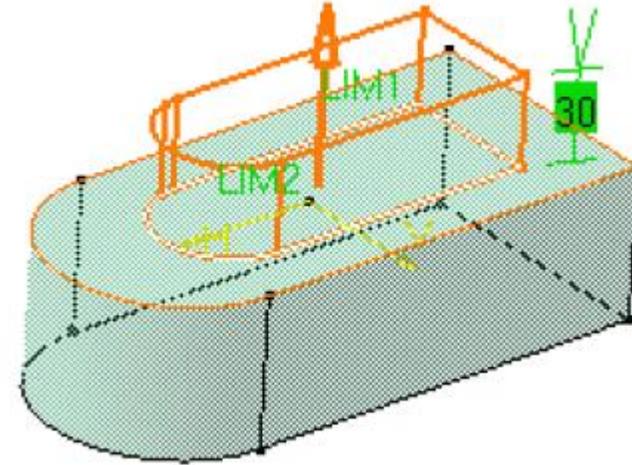
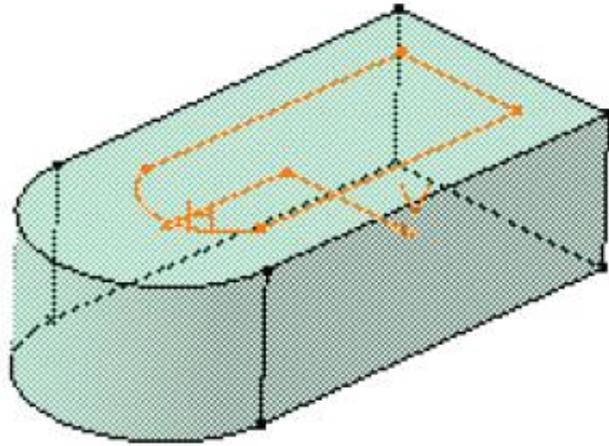
# المحاضرة السابعة

## التصميم و التصنيع بمساعدة الحاسب

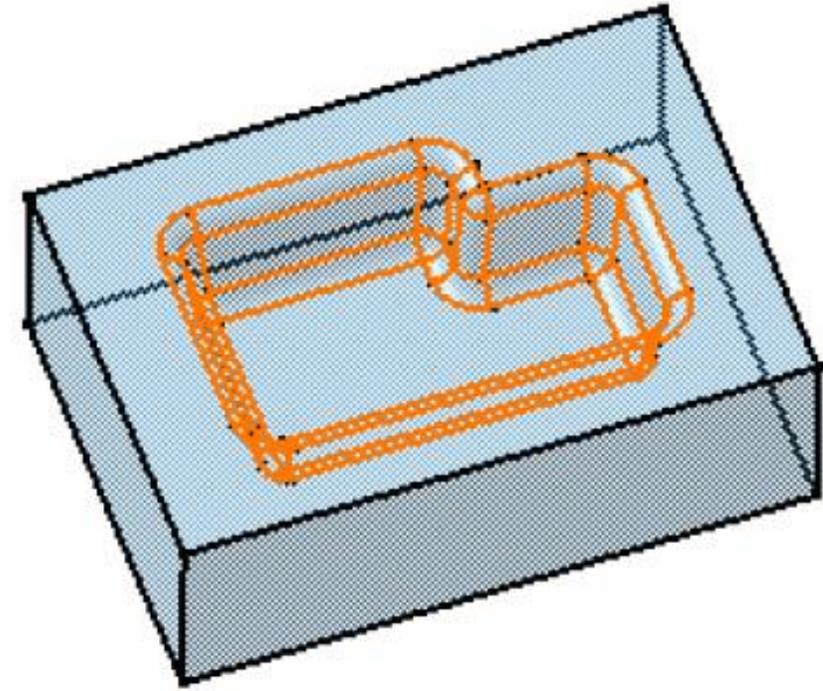
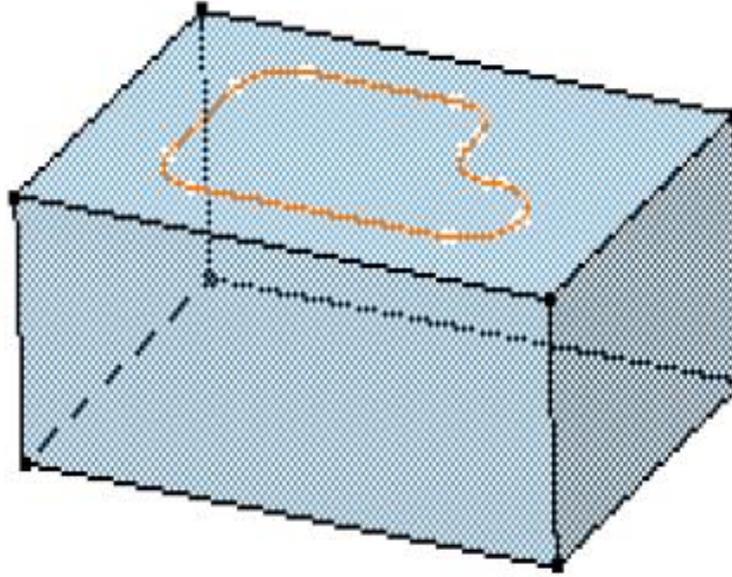
الدكتور المهندس  
تمام سلّوم



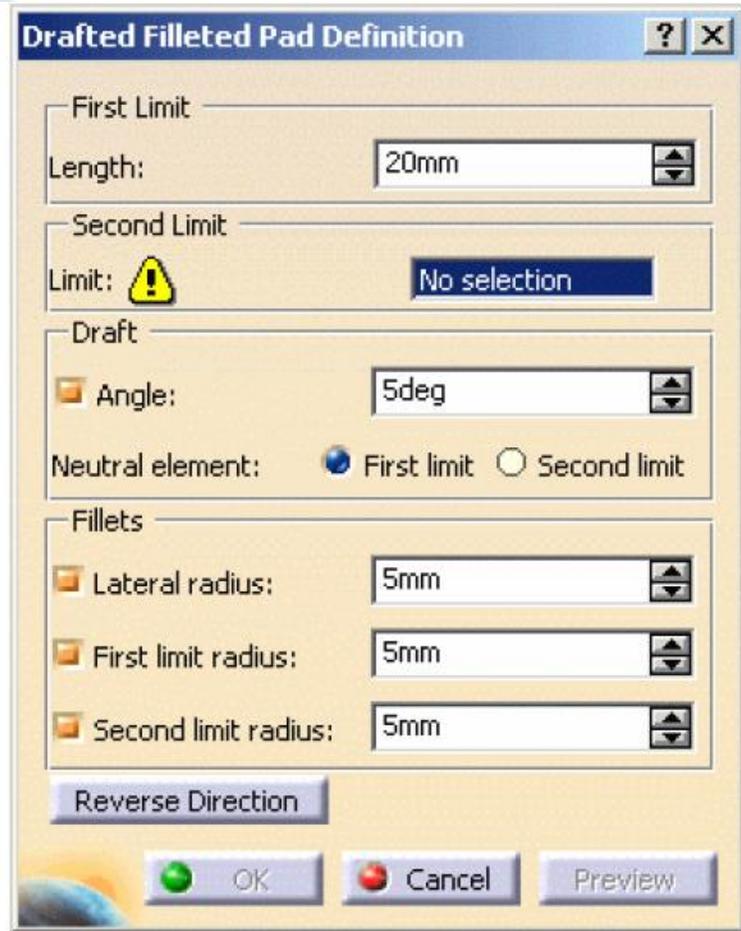
# Pad تعلیمة اعطاء السماكة

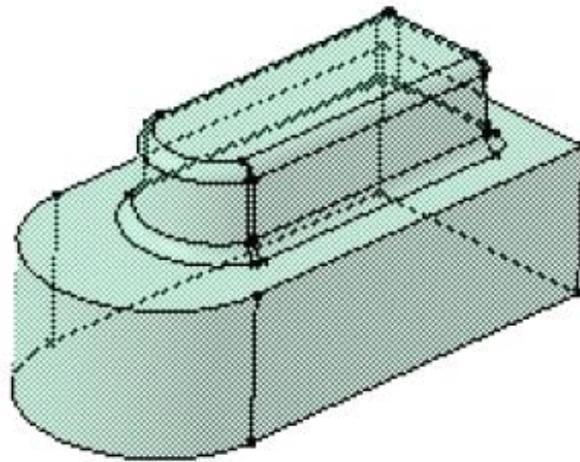
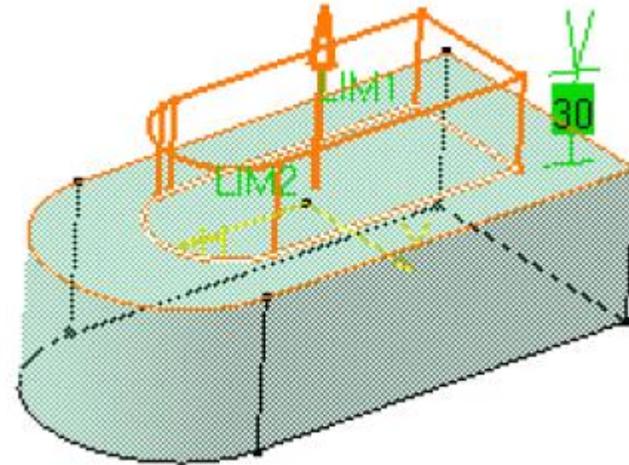
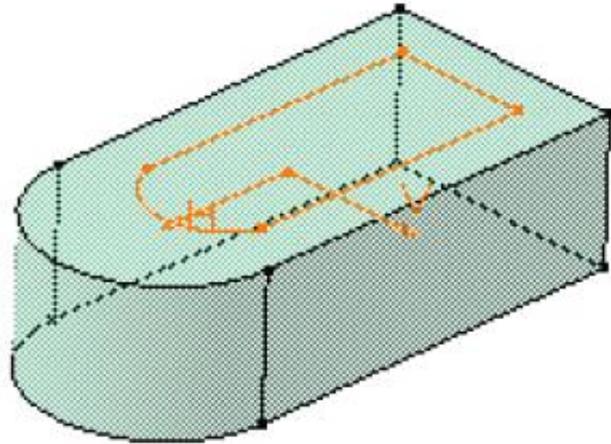


# Pocket تعليمية تفريغ أو التجويف



# Creating Drafted Filleted Pads





# Creating Drafted Filleted Pockets

**Drafted Filleted Pocket Definition** [?] [X]

First Limit

Depth:

Second Limit

Limit: 

Draft

Angle:

Neutral element:  First limit  Second limit

Fillets

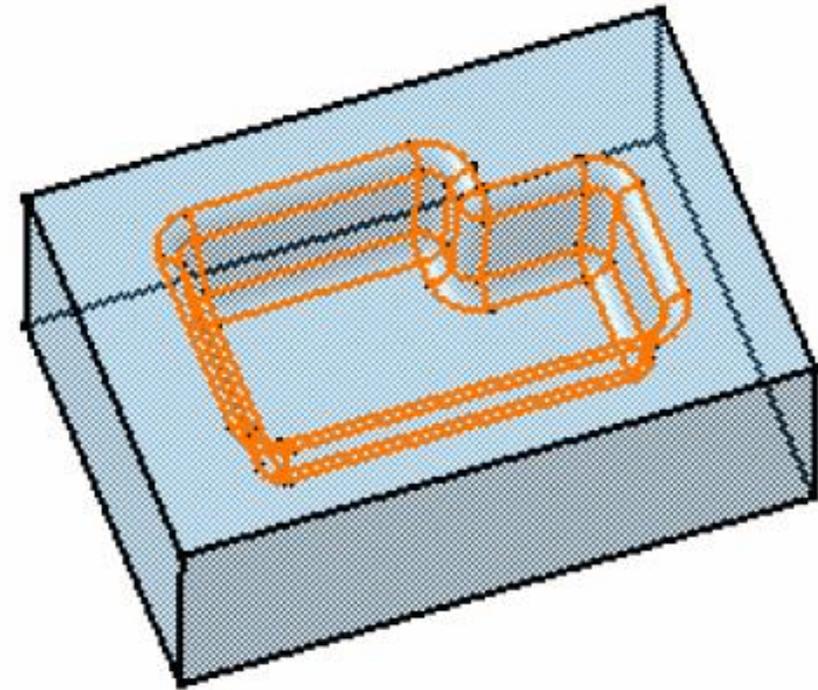
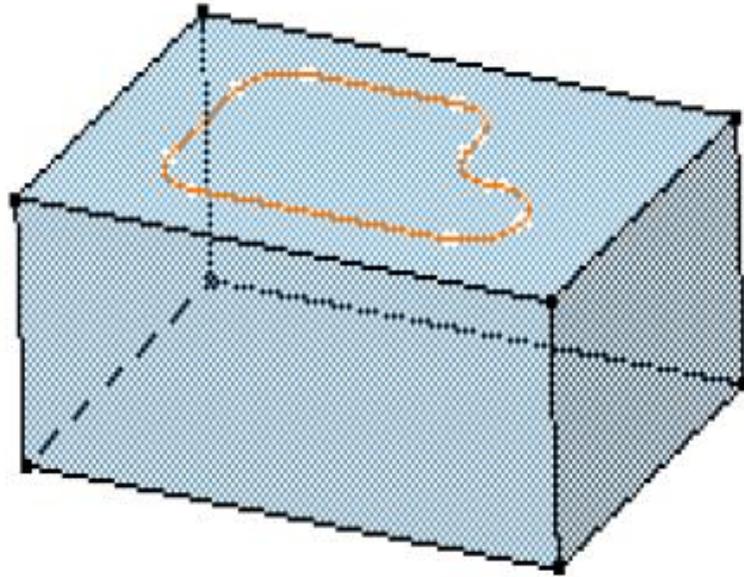
Lateral radius:

First limit radius:

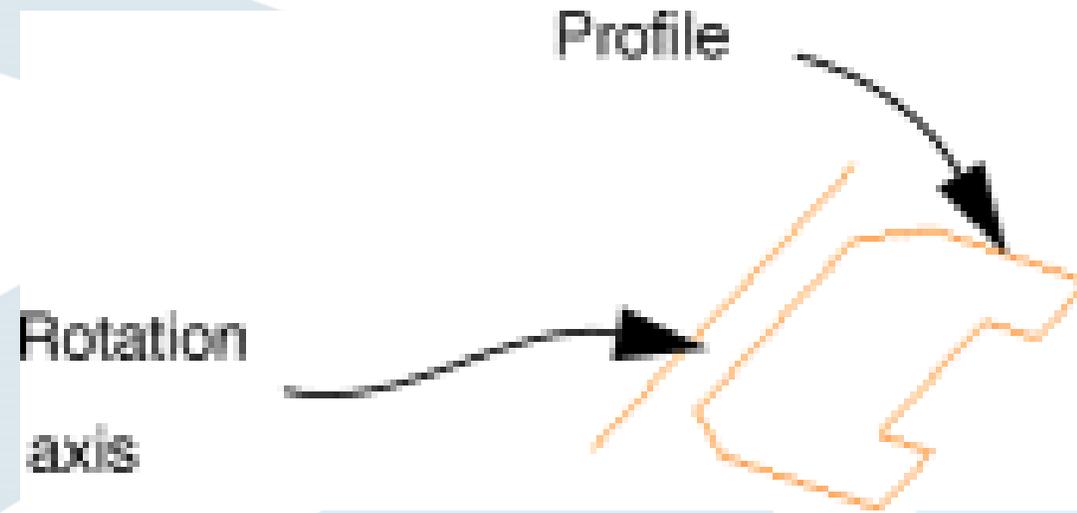
Second limit radius:

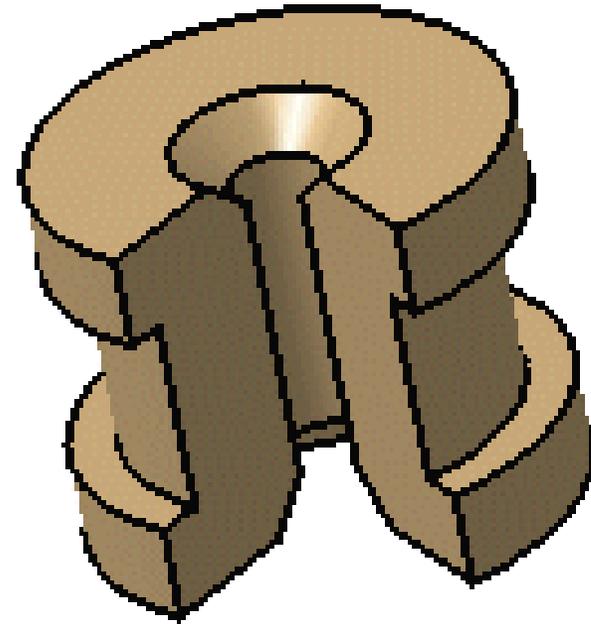
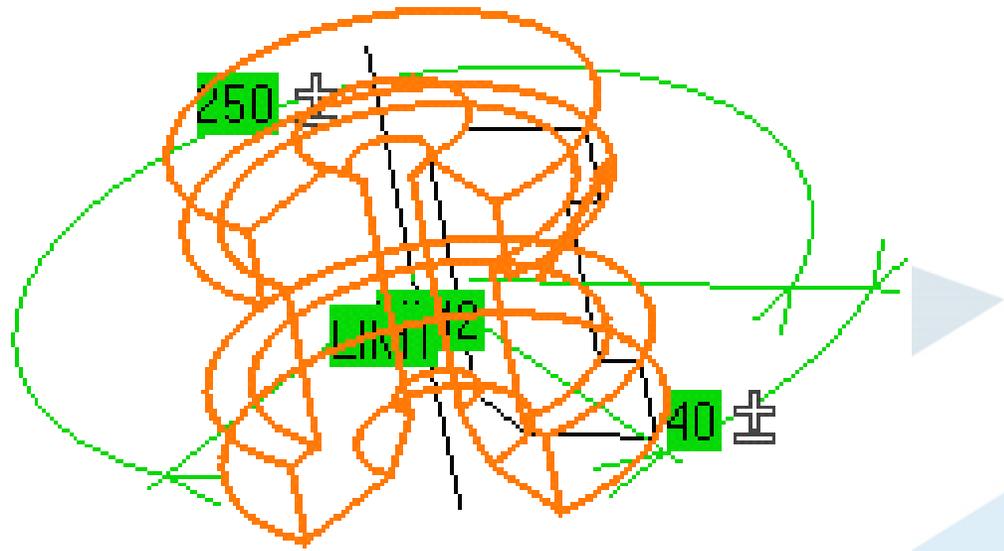
OK  Cancel



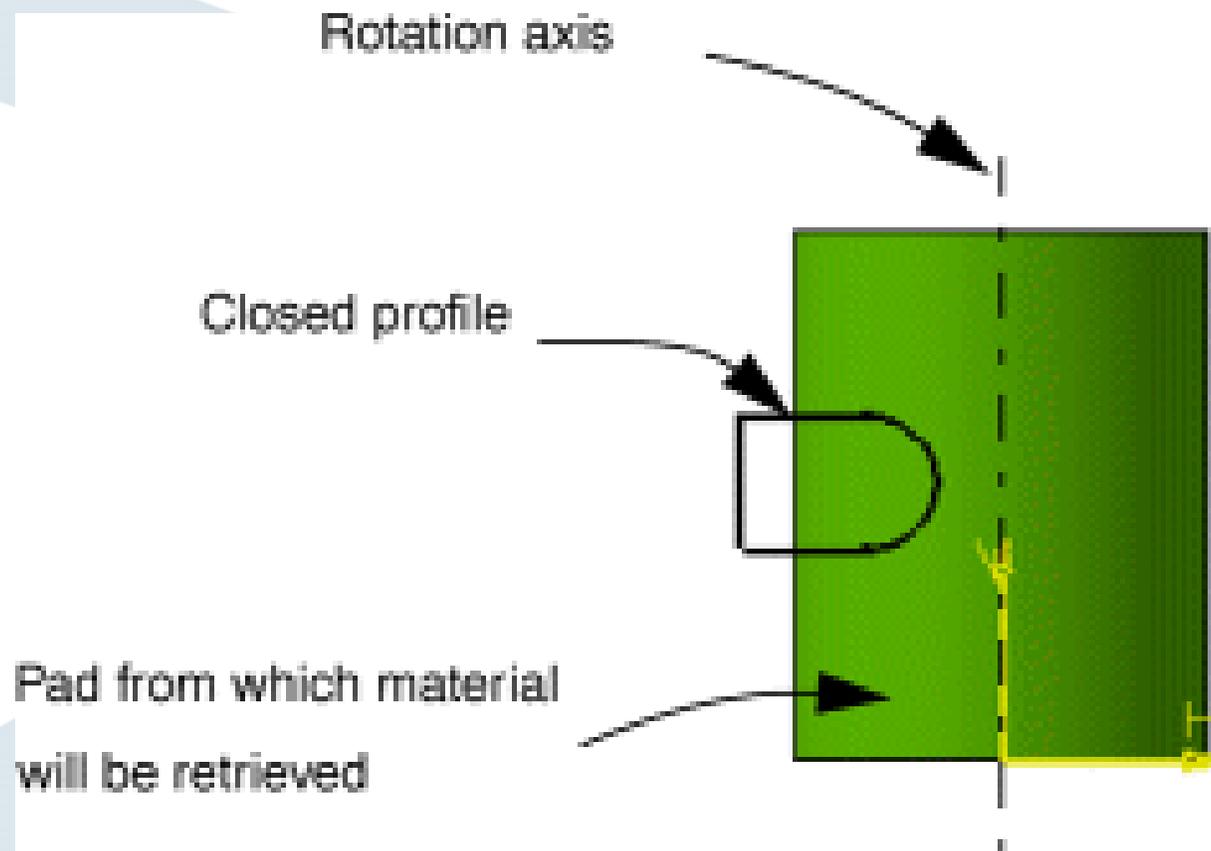


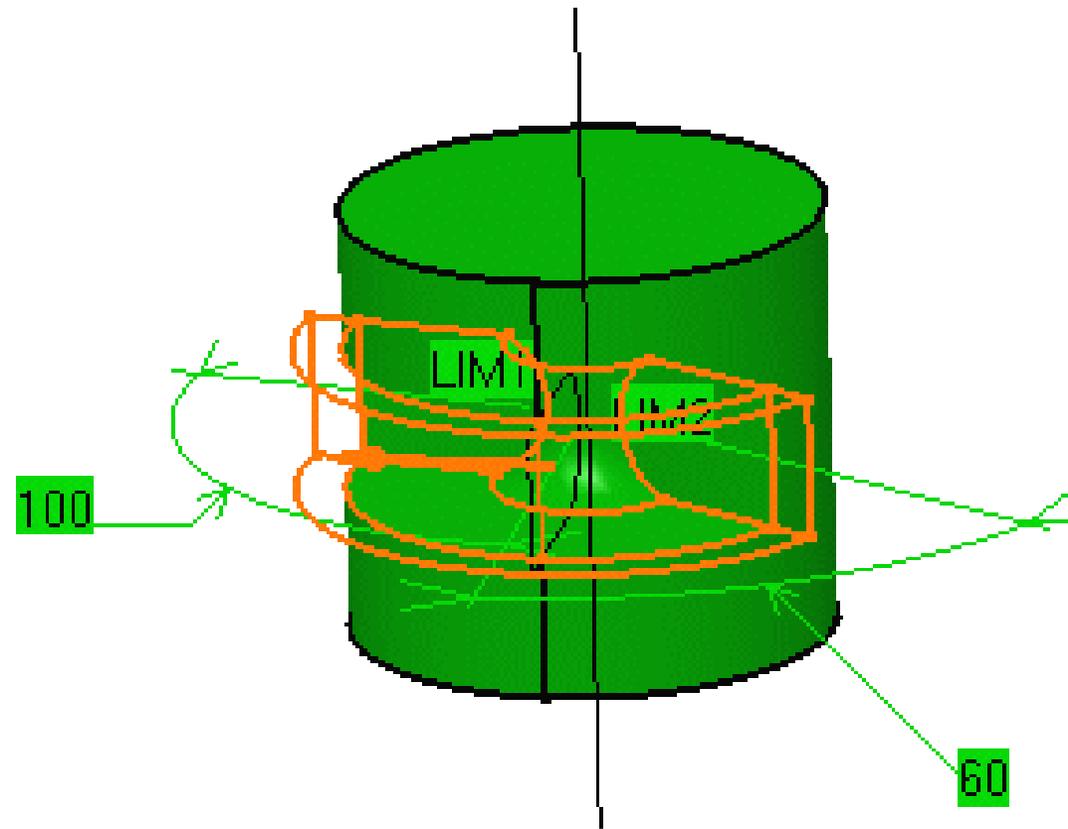
# Shaft



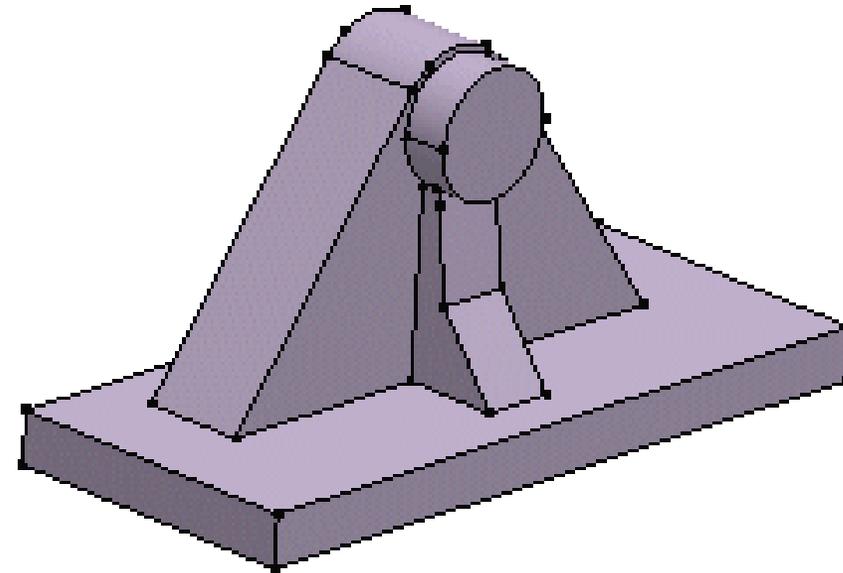
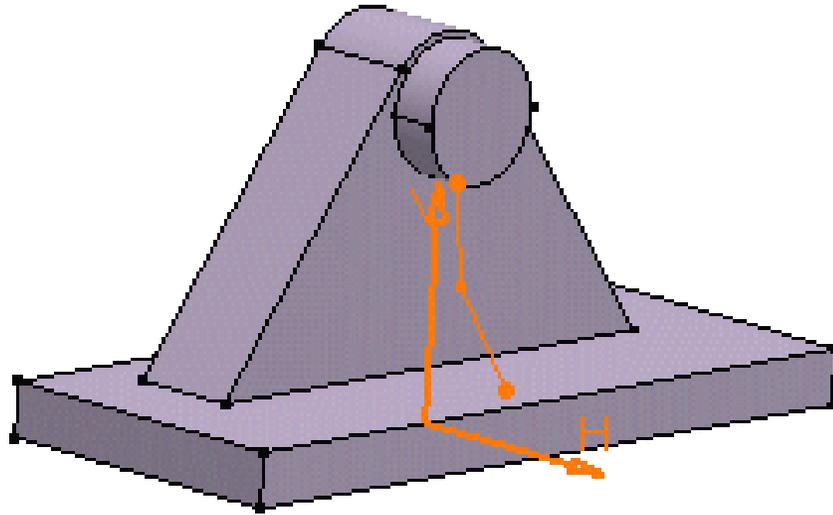


# Groove

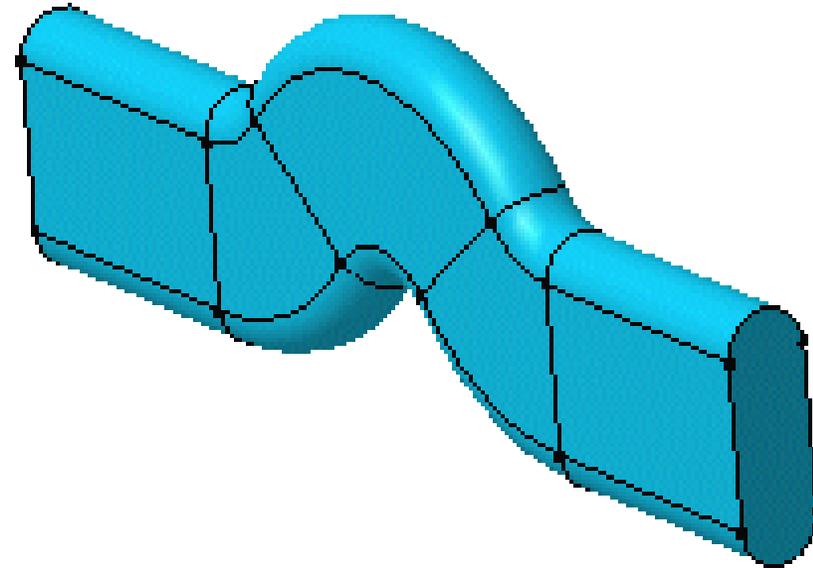
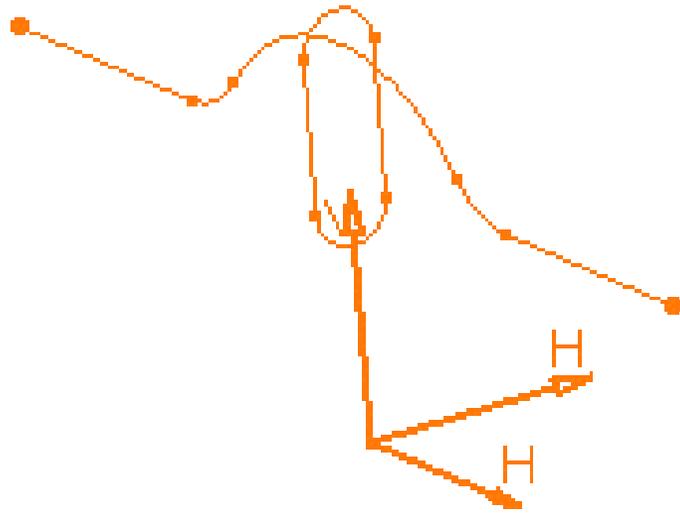




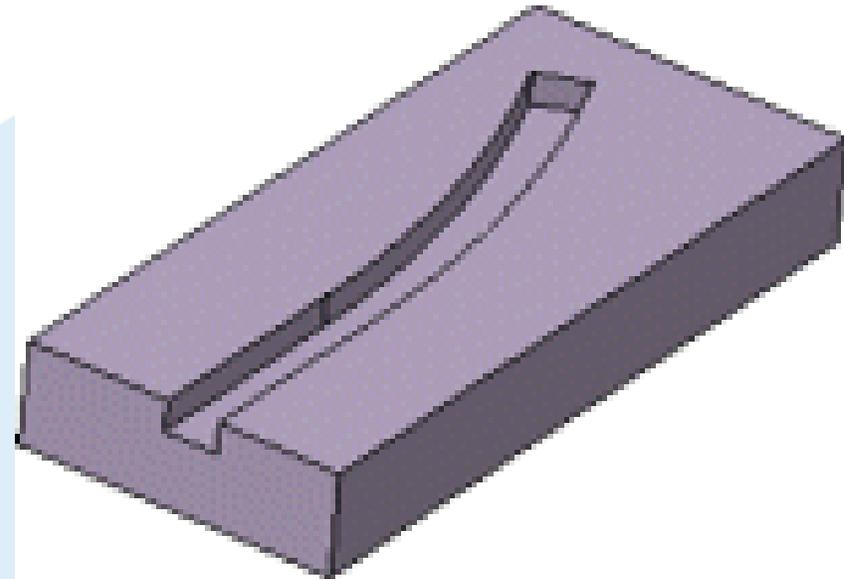
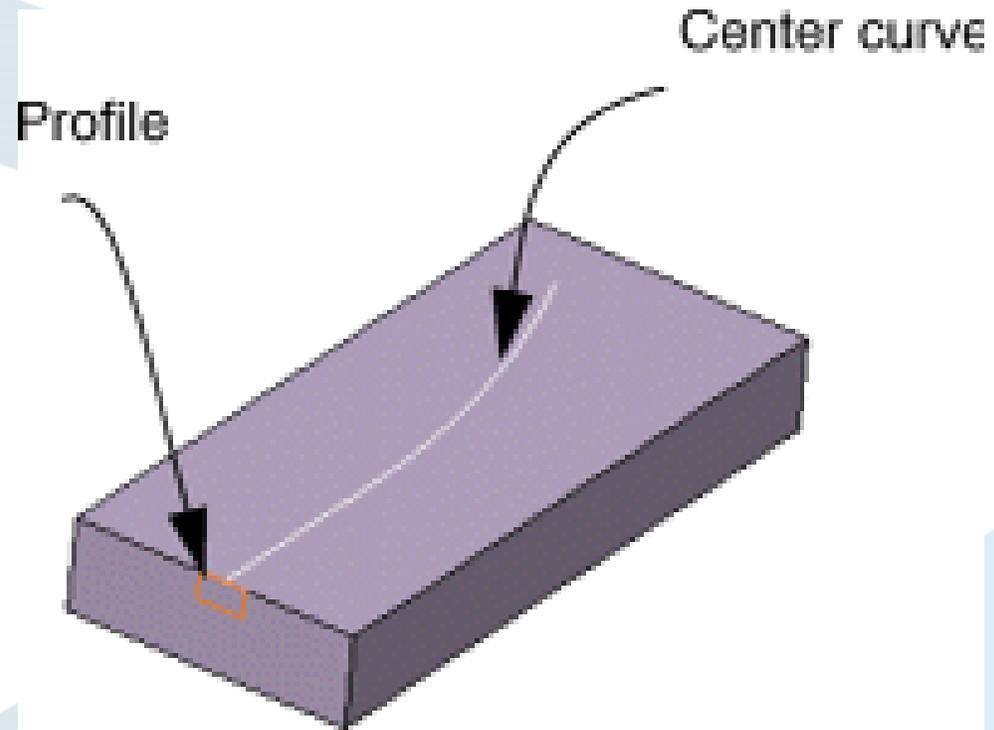
# Stiffener



# Rib



# Slot



## Creating Hole Features

## رسم وتصميم الثقوب

لرسم وتصميم الثقوب يجب استخدام التعليمات التالية :

Menu: Insert > Sketch-Based Features > Hole

Toolbar: Sketch-Based Features > Hole



# أنواع الثقوب

Simple hole

Tapered hole

Counterbored hole

Countersunk hole

Counterdrilled hole

Threads



### Hole Definition

Extension | Type | Thread Definition

Blind

Diameter : 10mm

Depth : 10mm

Limit : No selection

Offset : 0mm

Positioning Sketch

Direction

Reverse

Normal to surface

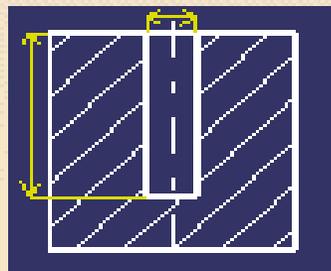
No selection

Bottom

Flat

Angle : 120deg

OK Cancel Preview

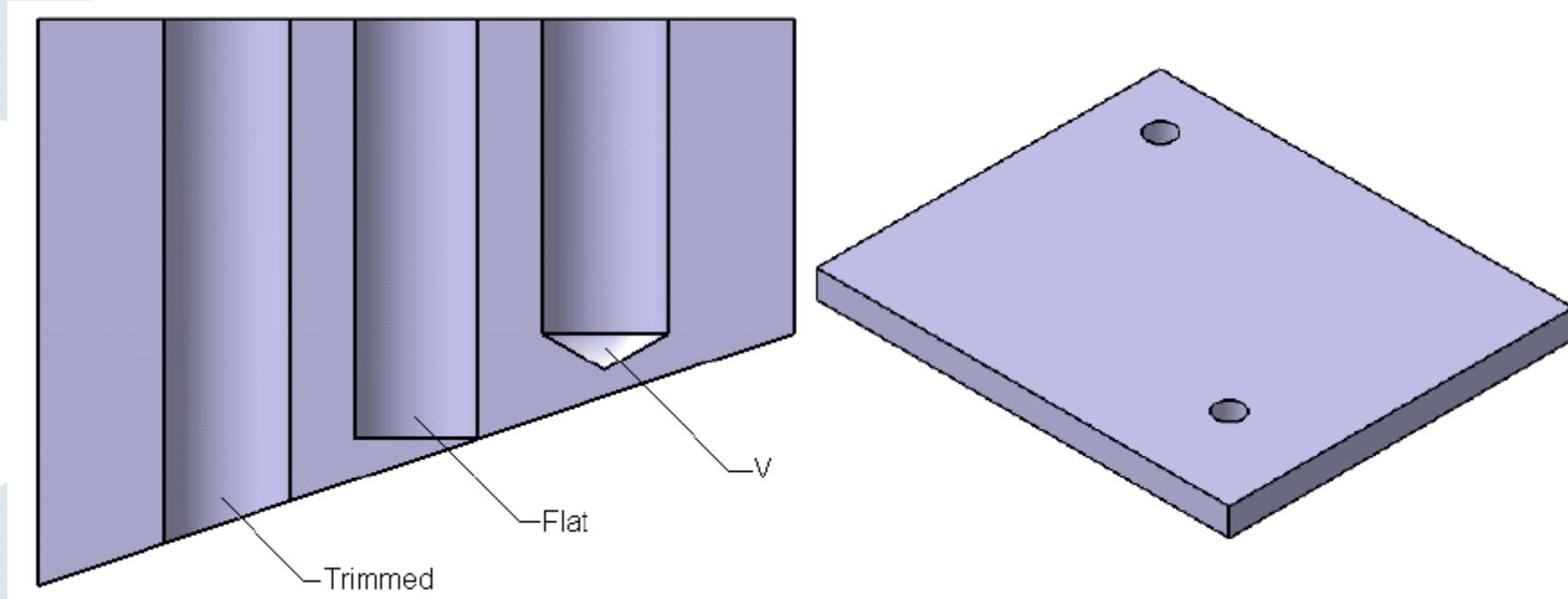


## Creating a Simple Hole

Invoke the Type tab; the Simple option is selected in its drop-down list.

Therefore, a simple hole will be created using the current option. Now, invoke the Extension tab





# Creating a Threaded Simple Hole

To create the threaded hole, invoke the Thread Definition tab from the Hole Definition dialog box. By default, the Threaded radio button is cleared. Select the Threaded radio button to invoke the options available in the Thread Definition tab, as shown in Figure



### Hole Definition

Extension | Type | Thread Definition

Threaded

Thread Definition

Type: No Standard

Thread Diameter: 11mm

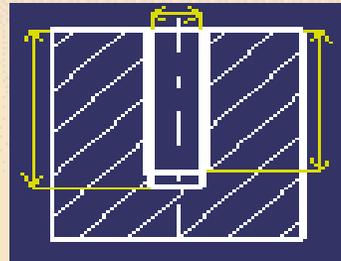
Hole Diameter: 10mm

Thread Depth: 10mm

Hole Depth: 10mm

Pitch: 1mm

Right-Threaded  Left-Threaded



Standards

Add

Remove

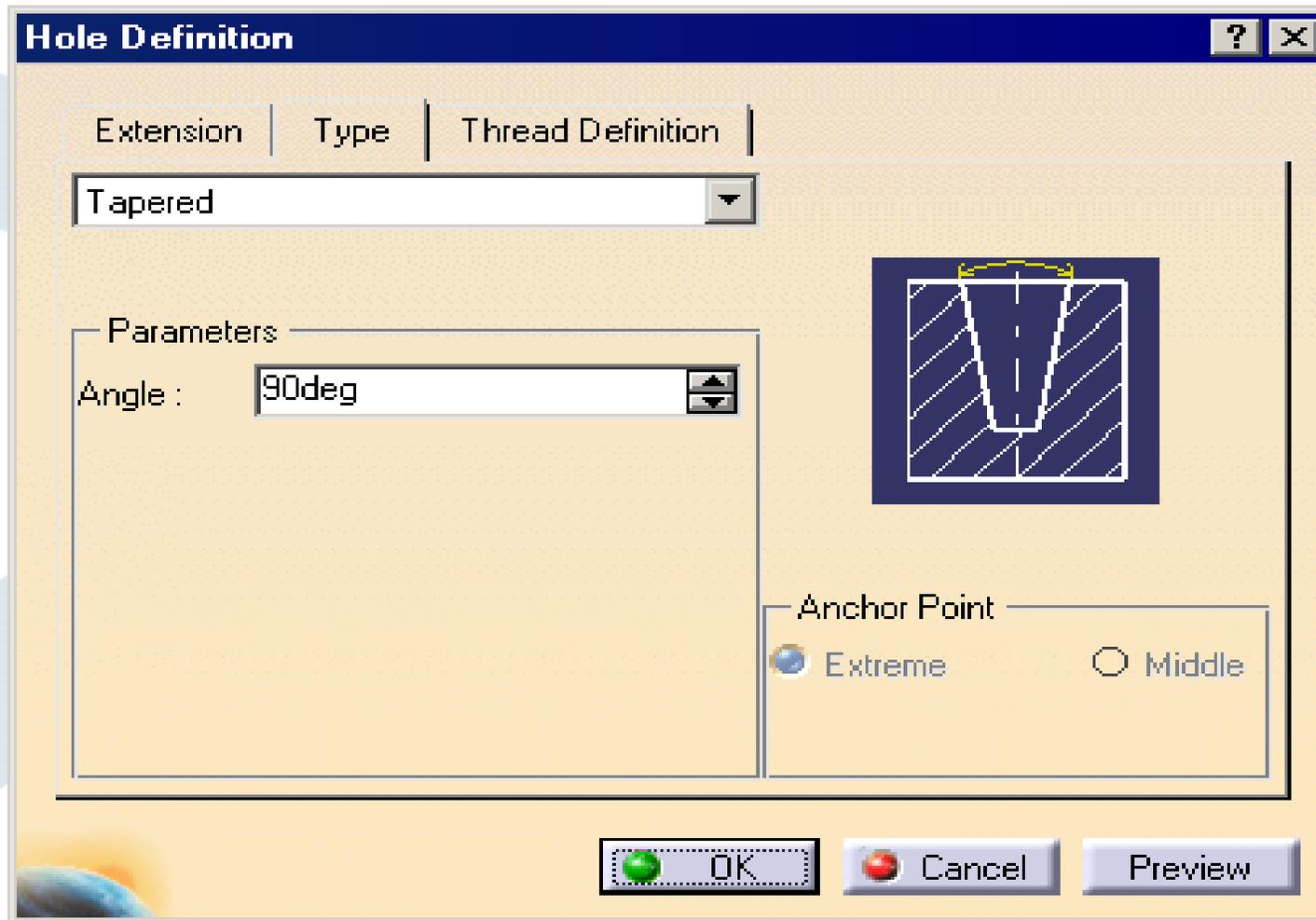
OK Cancel Preview



## Creating a Tapered Hole

To create a tapered hole, invoke the Type tab of the Hole Definition dialog box and select the Tapered option from the drop-down list. Specify the taper angle in the Angle spinner available in the Parameters area,

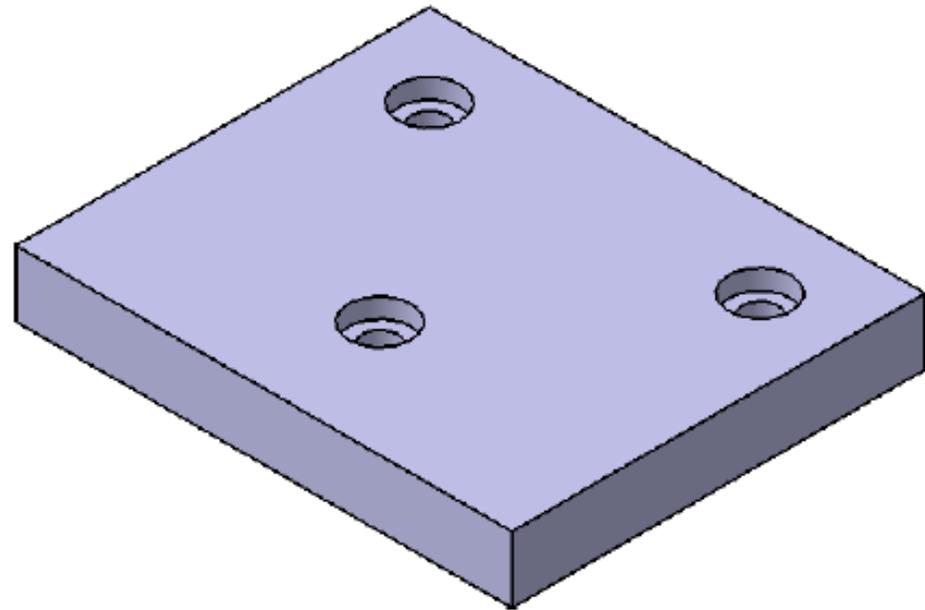
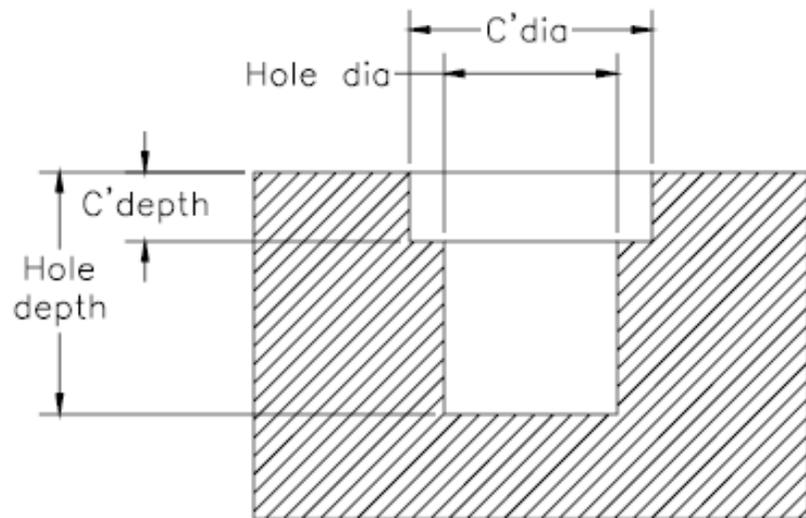




# Creating a Counterbored Hole

To create a counterbored hole, select the Counterbored option from the drop-down list available in the Type tab of the Hole Definition dialog box. A preview of the counterbored hole is displayed in the geometry area. You can set the value of the counter diameter by using the Diameter spinner available in the Parameters area.





### Hole Definition

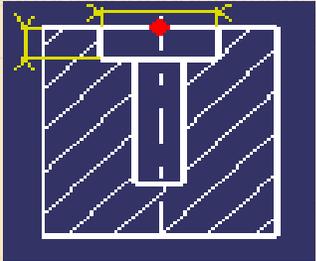
Extension | Type | Thread Definition

Counterbored

Parameters

Diameter : 19mm

Depth : 6mm



Anchor Point

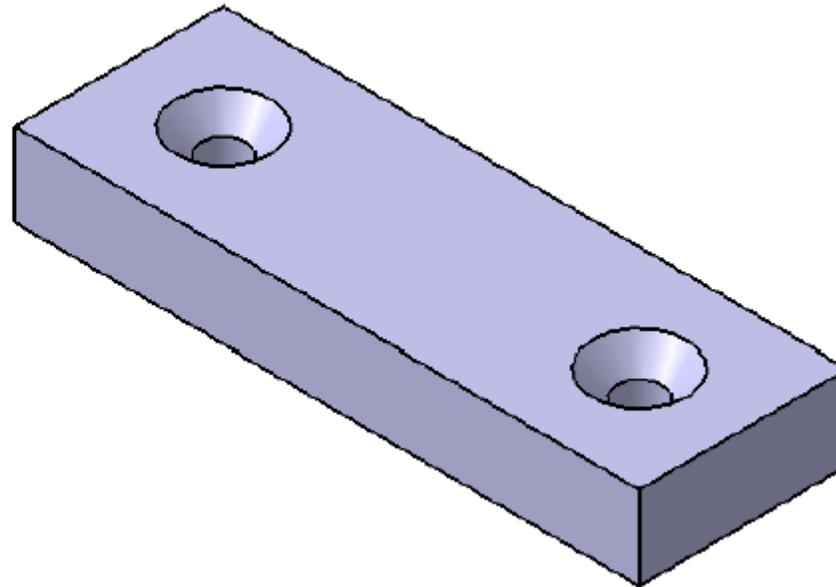
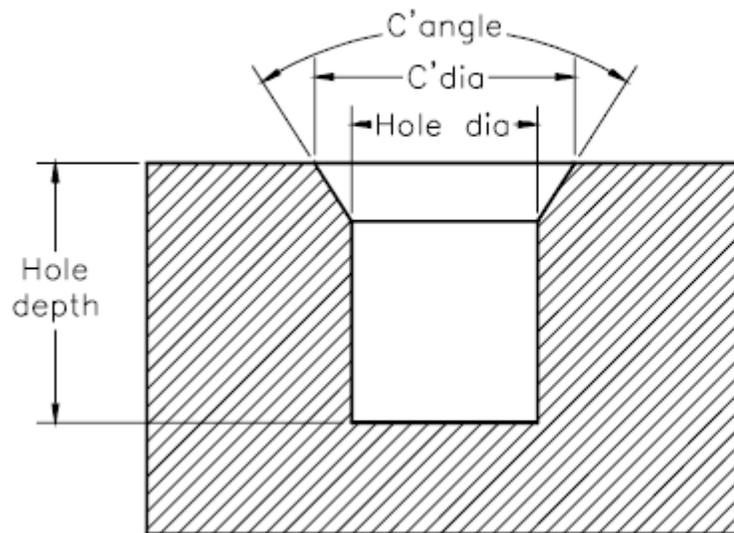
Extreme  Middle

OK Cancel Preview



# Creating a Countersunk Hole

To create a countersunk hole, select the Countersunk option from the drop-down list available in the Type tab



### Hole Definition

Extension | Type | Thread Definition

Countersunk

Parameters

Mode: Depth & Angle

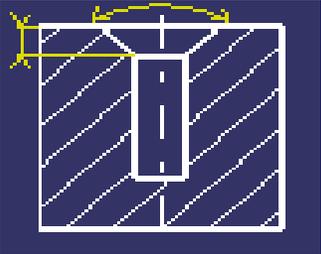
Depth: 6mm

Angle: 90deg

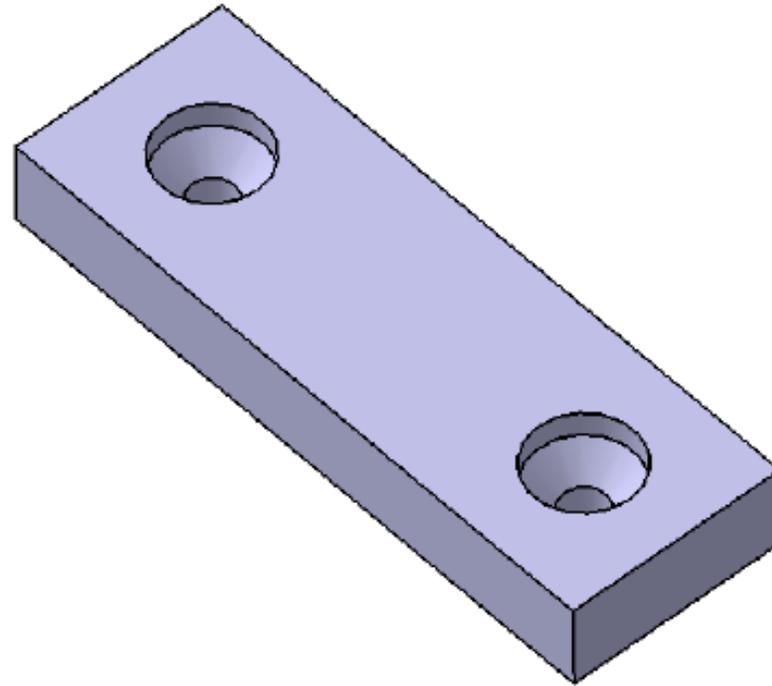
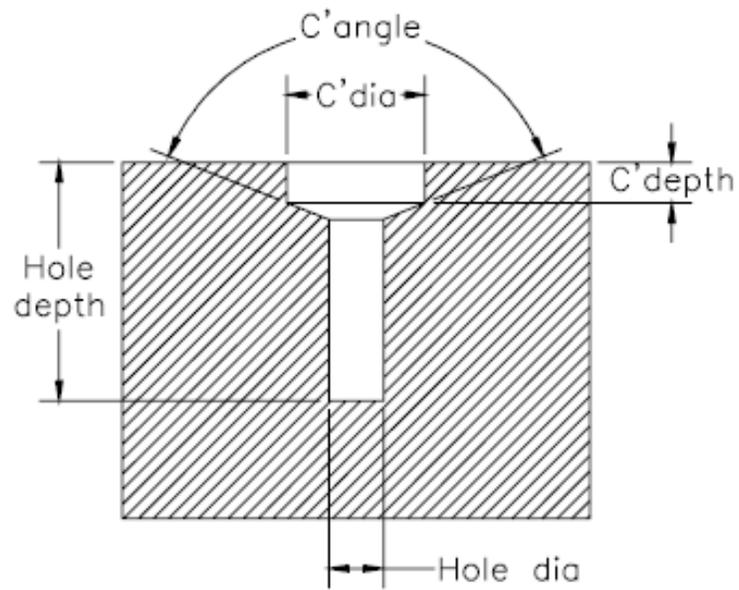
Anchor Point

Extreme  Middle

OK Cancel Preview



# Creating the Counterdrilled



### Hole Definition

Extension | Type | Thread Definition

Counterdrilled

Parameters

Diameter : 19mm

Depth : 6mm

Angle : 90deg

Anchor Point

Extreme  Middle

OK Cancel Preview

