

Computer Aided Design – Module 2

Lesson 1 – Drawing Clip



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Commands used: Line, 3 Point Arc, Add Relations, Smart dimension, Offset Entities, Extrude Boss/Base (Mid Plane End Condition), Fillet & Edit Material

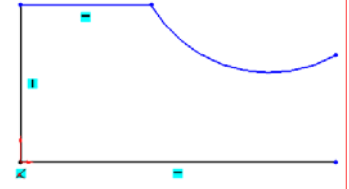
Approach:

Create Sketch

Create the **sketch** shown on the **Front Plane**.
Use **3 Point Arc** to generate the curve

Automatic Relations

Ensure all **Automatic Relations** are included.

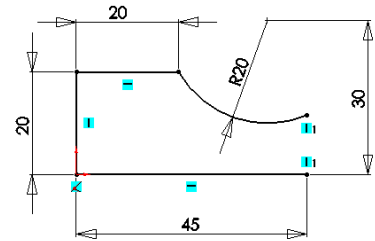


Added Relations

Add a **Vertical Relation** between the arc endpoint and the end of the horizontal line.

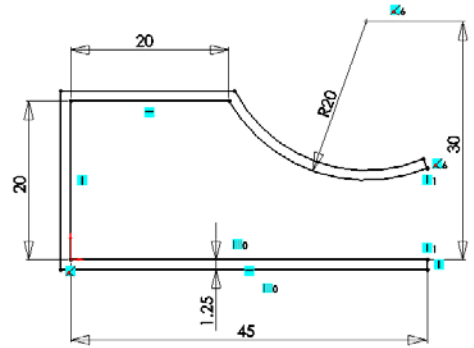
Smart Dimension

Fully Define the sketch using only the given dimensions



Offset Entities

Using **Offset Entities** create a 1.25mm offset to the outside. Close the ends using the **Line** command.

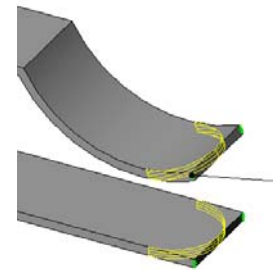


Extruded Boss/Base

Extrude the sketch using **Extruded Boss/Base** and a **Mid-Plane End Condition**.

Fillet

Using **Fillet**, add a 6.5mm fillet to the selected edges.

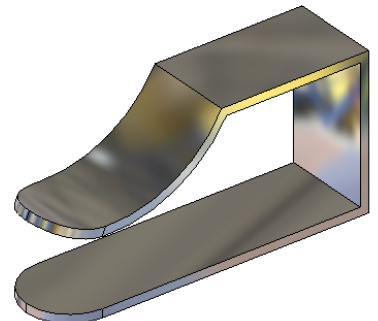


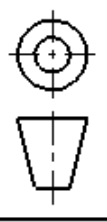
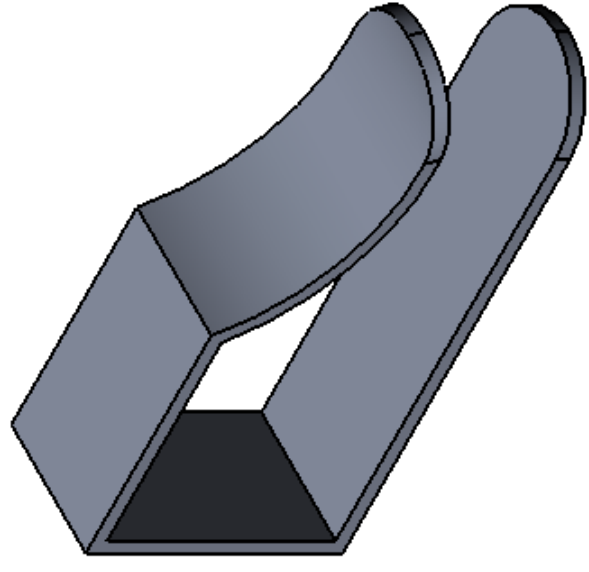
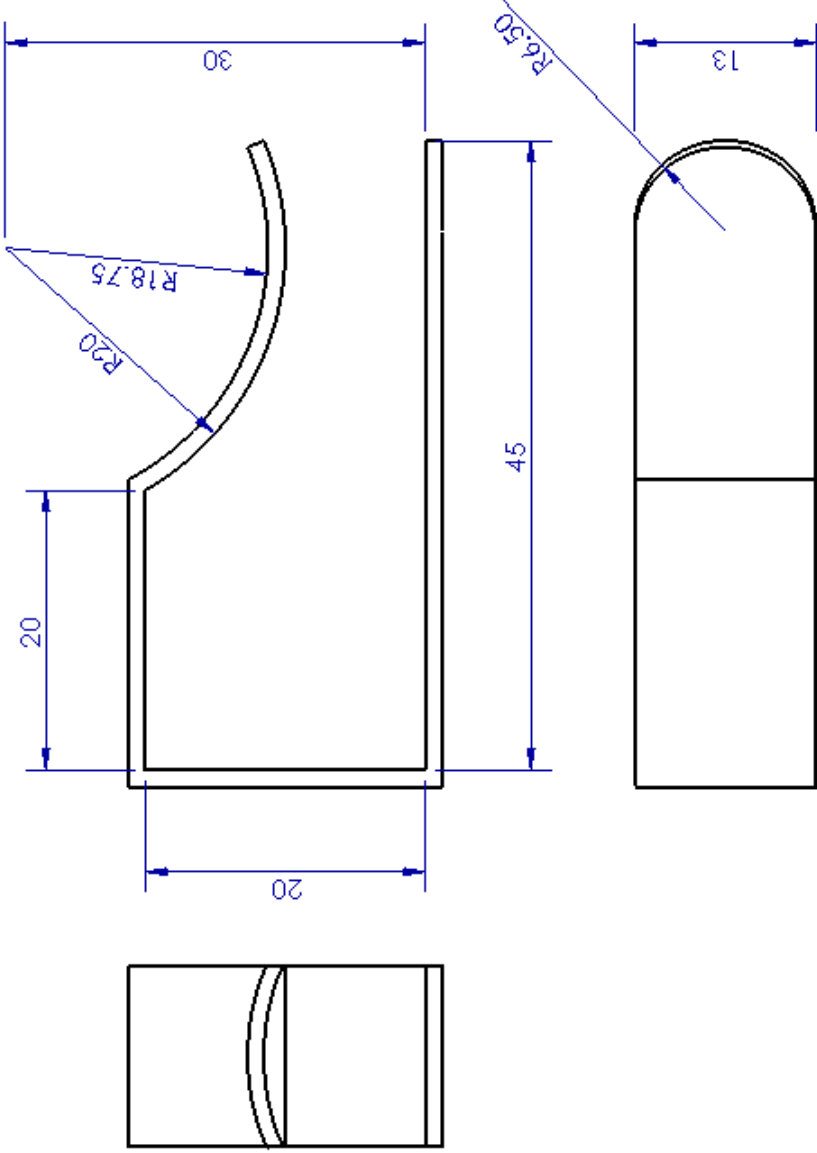
Edit Material

Apply a **Chrome Stainless Steel** finish using **Edit Material**. (Use **RealView** in **Advanced Graphics**)

Discussion Points

Inclusion of **Automatic Relations**.
Added Relations as opposed to dimensioning
Influence of appropriate **End Conditions**
Explain the emboldened terms





DESIGN & COMMUNICATION GRAPHICS

TITLE: Drawing Clip

SCALED: 1:1

DRAWN BY: T4

DATE: 11/10/2007

UNIT: DIMENSIONS SPECIFIED IN MILLIMETERS

SHEET NO: 1