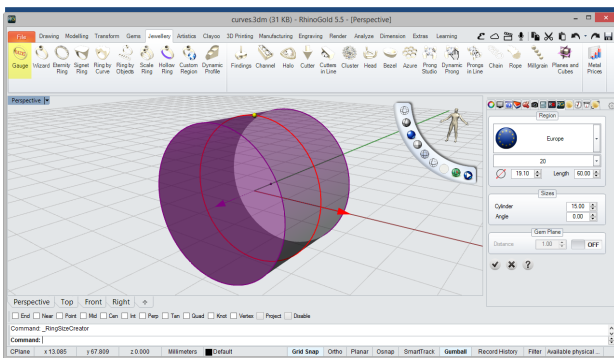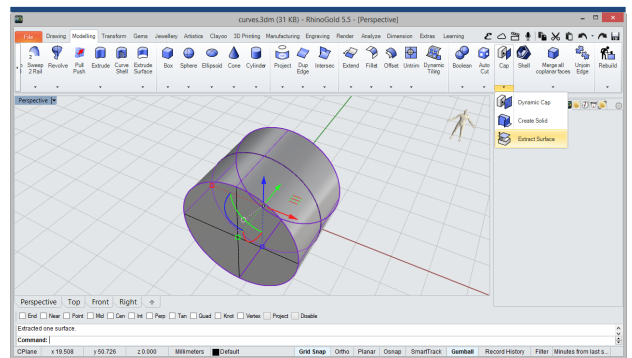# RhinoGold®

Ornamental Ring

In this tutorial we'll try some of the more useful commands in RhinoGold. Tools such as Smart Curve, Smash, Dynamic Flow Surface, Extract surface, Gem Studio and Bezel.
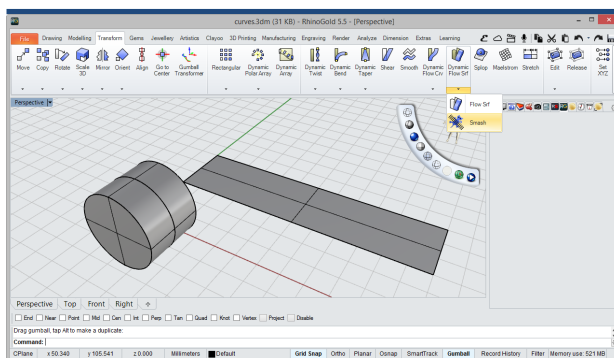

1 Gauge

First, define a ring size of 20 mm with Gauge tool of European type, we'll activate the cylinder option with a value of 15 mm.
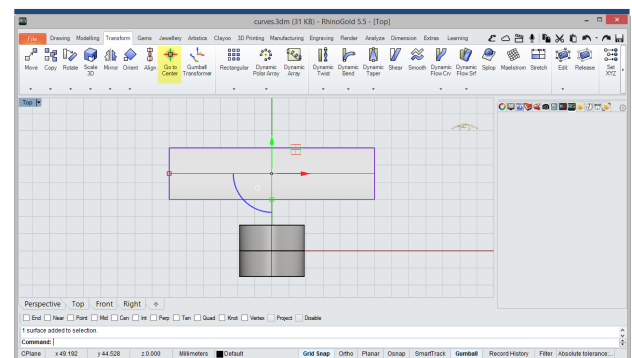

2 Extract Surface

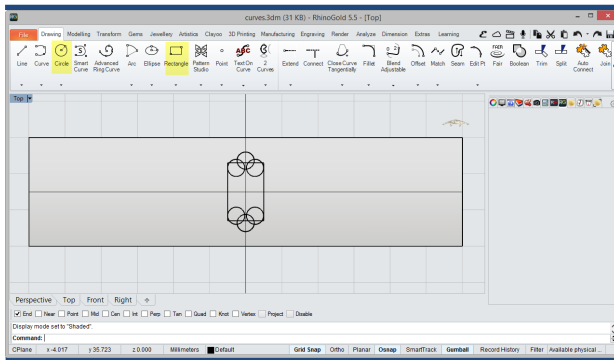Then, we'll apply the Extract Surface tool to the cylinder.

3 Smash

Now, with the Smash tool, in the submenu Dynamic Flow Surface, in the Transform tab, we'll project the cylinder surface on the plane.
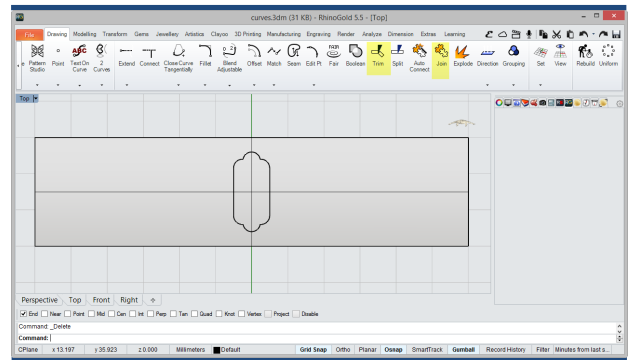
4 Go to Center

In this step, we'll center the surface with the Go to Center tool.
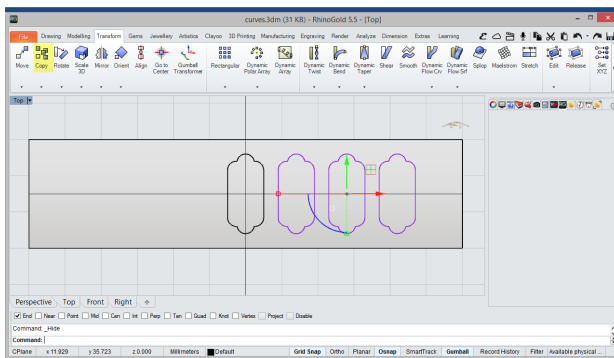
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5 Circle / Rectangle

Next, we'll define a rectangle and a circles positioned just as the picture shows, with Circle and Rectangle tools.
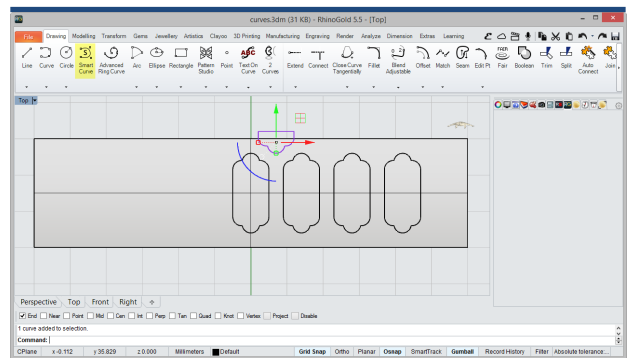

6 Trim / Join

Now, we'll cut the intersected curves with the Trim tool and unite the remaining curves with the Join tool.
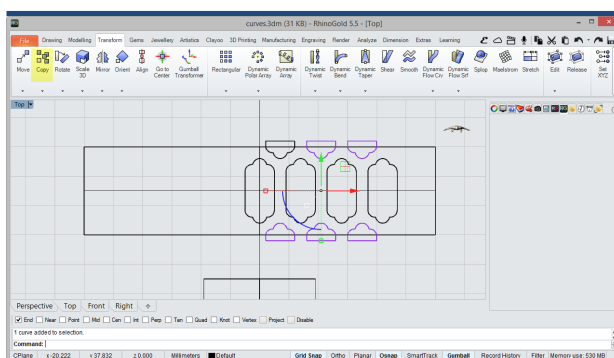

7 Copy

In this step, we'll create a copies of the curve traced in the previous step, with the Copy tool.
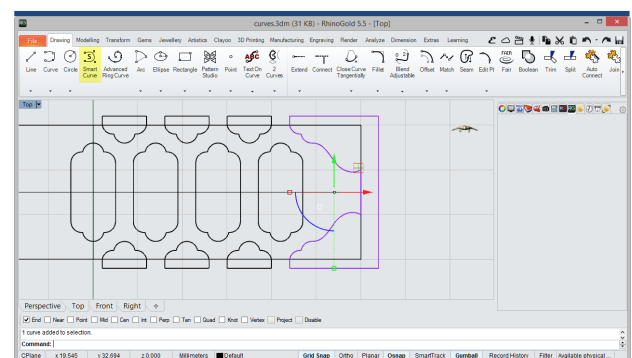

8 Smart Curve

Then, we'll select the Smart Curve tool and trace a similar curve to that shown in the image.
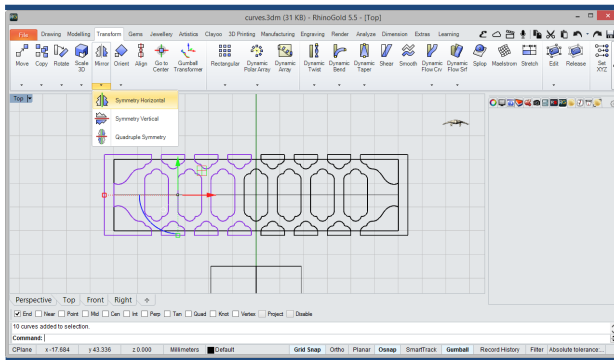

9 Copy

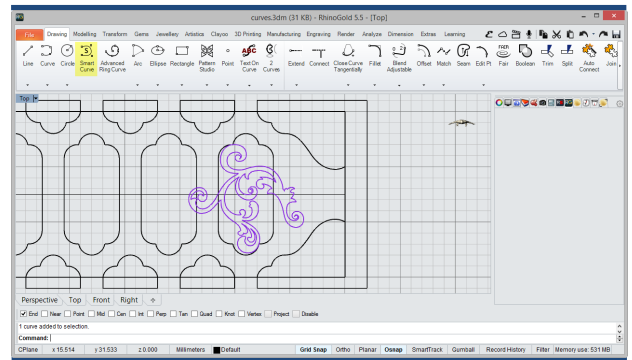Repeat the operation with the Copy tool and generate a copies of the latest traced curves.
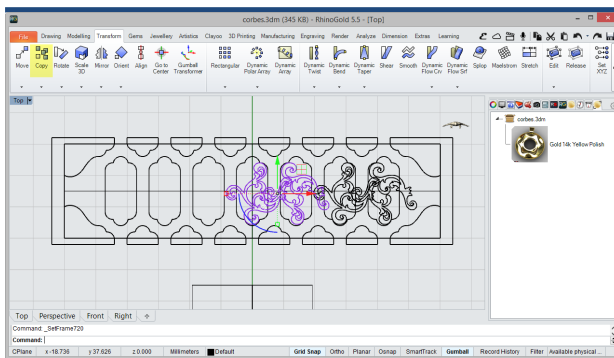

10 Smart Curve

Then, we'll select the Smart Curve tool and trace a similar curve to that shown in the image.

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11 Symmetry Horizontal

In this step, we'll apply a Symmetry of the curves with the Symmetry Horizontal tool.

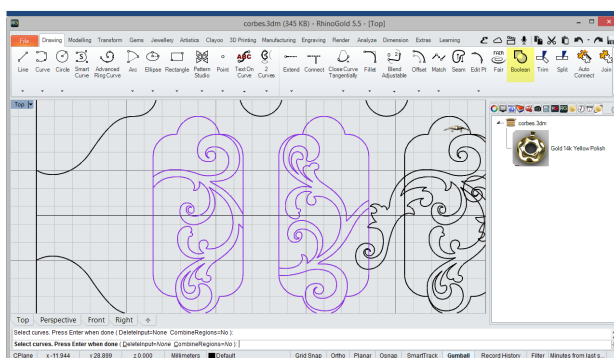**12 Smart Curve**

Then, we'll trace another curve with Smart Curve tool, similar to that shown in the picture.


13 Copy / Rotate

Then, we'll generate a copies with the Copy tool and we'll alternate the copies with a rotation of the traced curve.
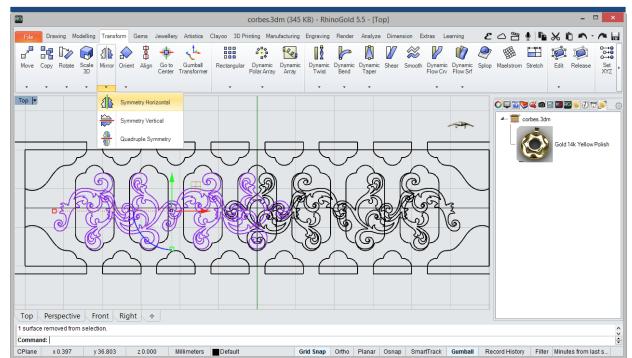
14 Symmetry Horizontal

Now, we'll apply a Symmetry horizontal to the curves.

15 Curve Boolean

In this step, we'll apply a Boolean between the curves to define them within the margins, we'll disable the Combine Regions option in the command line.
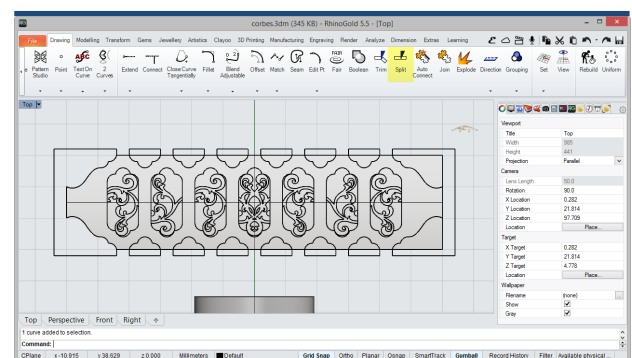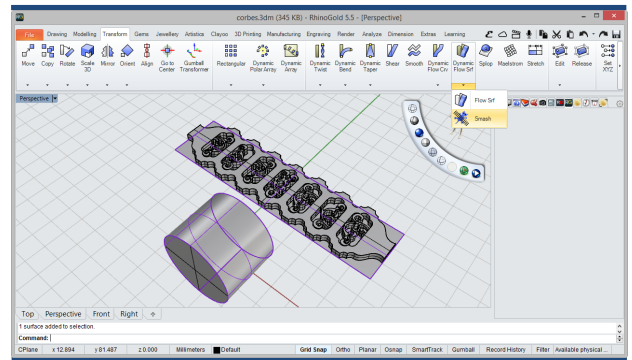

16 Split

Then, we'll apply the Split tool between the curves and the surface to subtract the unwanted parts of the surface.
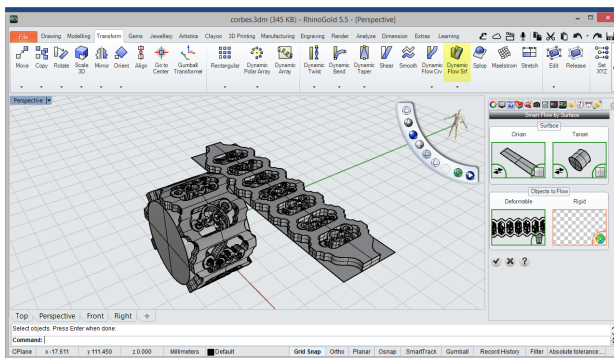
TDM Solutions;
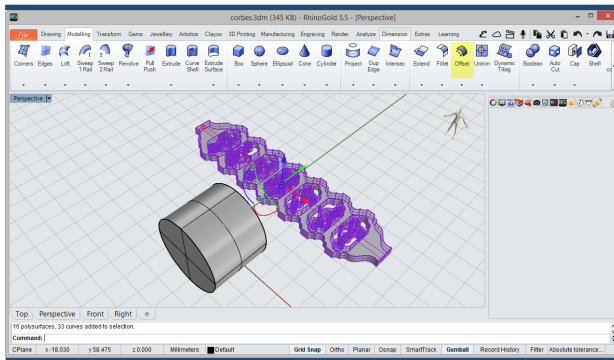
17 Offset

In this step, we'll apply the Offset tool on the surface, defining an offset of 2mm.
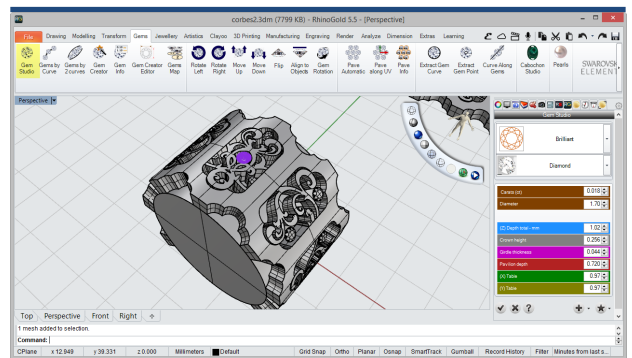

18 Smash

Then, we'll repeat the operation with the Smash tool and will project the cylinder surface to the Plane.

19 Dynamic Flow Surface

Then, we'll select the Dynamic Flow tool Surface and apply between the smashed Surface, the cylinder and the offset surface, obtaining the same result as the image.
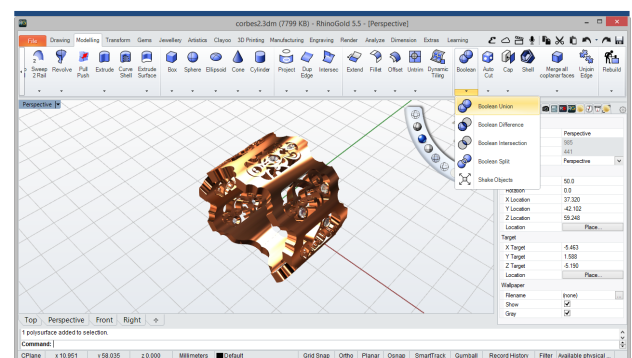

20 Gem Studio

Now, we'll define a gems of 1.70mm inside of the ornaments, with the Gem Studio tool.
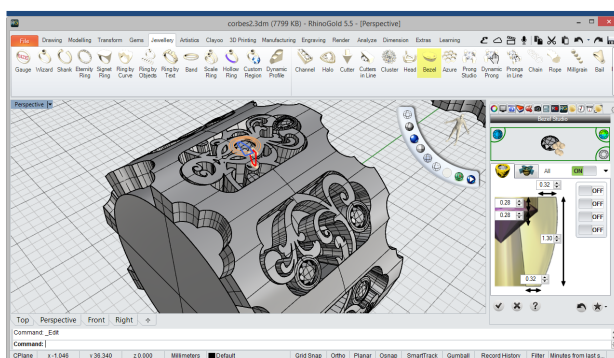
21 Bezel

In this step, we'll define the bezels to the Gems with Bezel Tool.

22 Boolean Union

Finally, we'll apply a Boolean union between all solids to unify the ring.

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