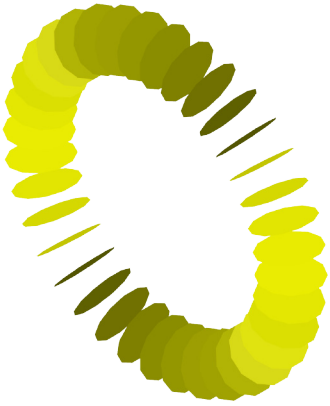
Torus



A. Create 12 Sided Polygon.

Step 1. If necessary start a new Mastercam file, click **New** on the Quick Access Toolbar QAT (**Ctrl-N**).

Step 2. On the Wireframe tab WIREFRAME click **Polygon** on **Rectangle** drop down.

Step 3. In the Polygon dialog box set:

Number of Sides 12 **Fig. 1**

Radius **1** and press ENTER

Press **O key** on keyboard to select AutoCursor **Origin** override, **Fig 2**

Click OK.

Step 4. **Right click** the graphics window and click **Fit** (**Alt-F1**).

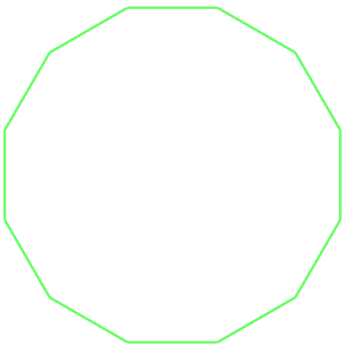


Fig. 2

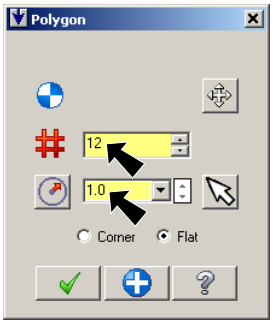


Fig. 1

B. Change Surface Color.

Step 1. Create the next surfaces **yellow**. **Right click** in the graphics window and on the Mini Toolbar click **Surface Color** drop down arrow, then click **yellow**, **Fig. 3**.

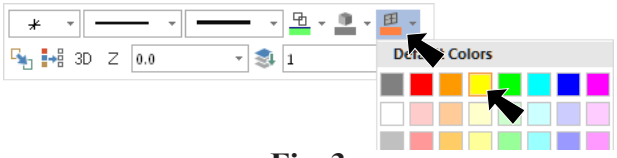


Fig. 3

http://www.cudacountry.net email:cudacountry@hotmail.com

C. Create Flat Boundary Surface.

Step 1. On the Surfaces tab SURFACES click **Flat boundary** Flat Boundary.

Step 2. Click the Chain (**C**) in the Chaining dialog box, **Fig. 4**.

Step 3. Click a line of polygon to define flat boundary, **Fig. 5**.

Step 5. Click OK in the Chain dialog box when done chaining.

Step 6. In Flat Boundary Surface function panel click OK , **Fig. 6**.

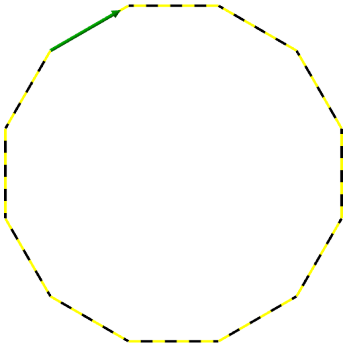


Fig. 5

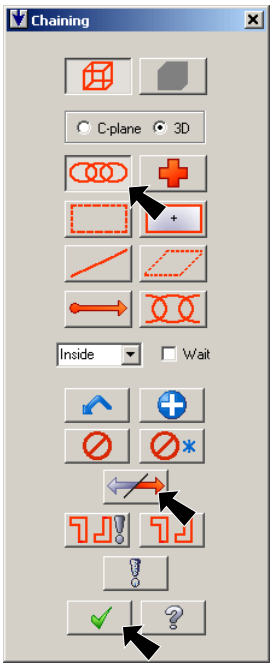


Fig. 4

D. Save As "TORUS"

Step 1. Click **Save As** (**Ctrl-Shift-S**) on the Quick Access Toolbar QAT.

Step 2. Key-in **TORUS** for the filename and press ENTER.

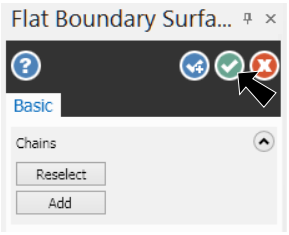


Fig. 6

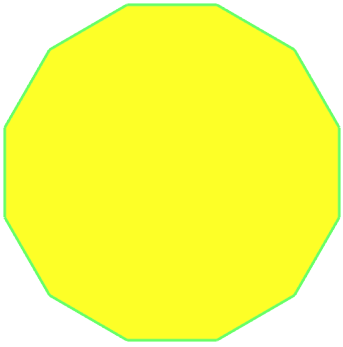


Fig. 7

E. Turn On Grid and Snap.

Step 1. On the View tab VIEW click **Show Grid** Show Grid and **Snap to Grid** Snap to Grid.

F. Rotate Surface.

Step 1. Change to the Isometric View. **Right click** in the graphics window and click Isometric (WCS) (**Alt-7**).

Step 2. Click **CPLANE** in Status bar at bottom of the graphics window and click **Front** from the menu, **Fig 8**.

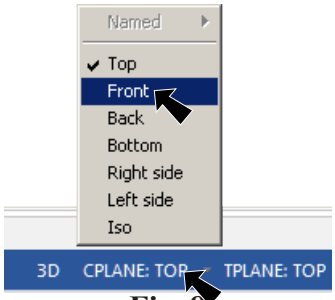


Fig. 8

Step 3. On the Transform tab TRANSFORM click **Rotate** Rotate.

Step 4 Click the **surface** and click **End Selection** End Selection (**ENTER**) **Fig. 9**.

Step 5. In the Rotate dialog box:

Select **Copy** **Fig. 10**

Number of Steps **36**

Rotation Angle **10**

Click **Define Center Point**

Click **Position 1** to the left of the surface for point to rotate about.

Use page down key to zoom out, **Fig. 9**.

Click OK.

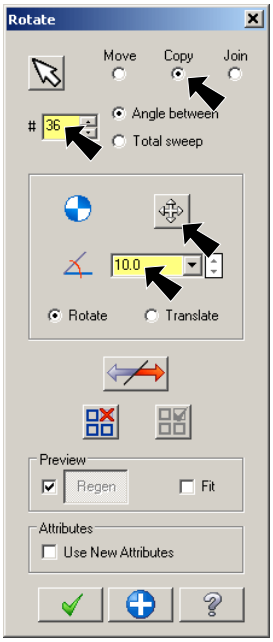


Fig. 10

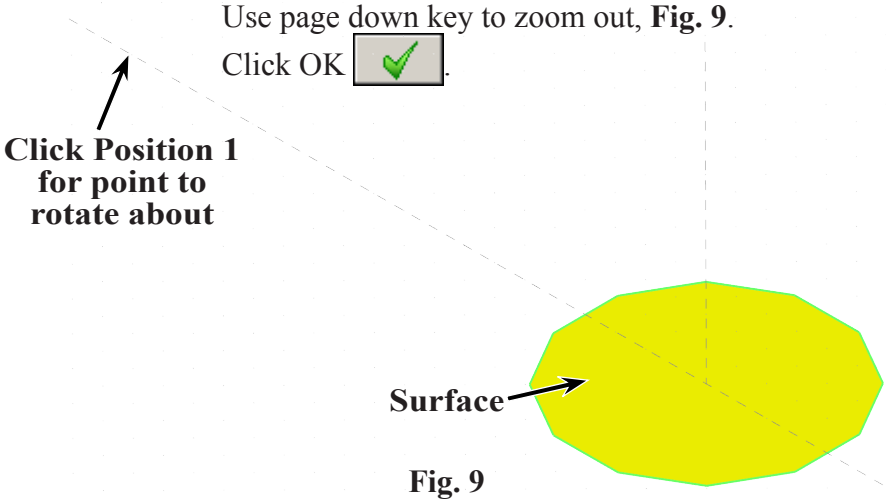


Fig. 9

Step 6. **Right click** the graphics window and click **Fit** (**Alt-F1**).

Step 7. **Right click** the graphics window and click **Clear Colors**.

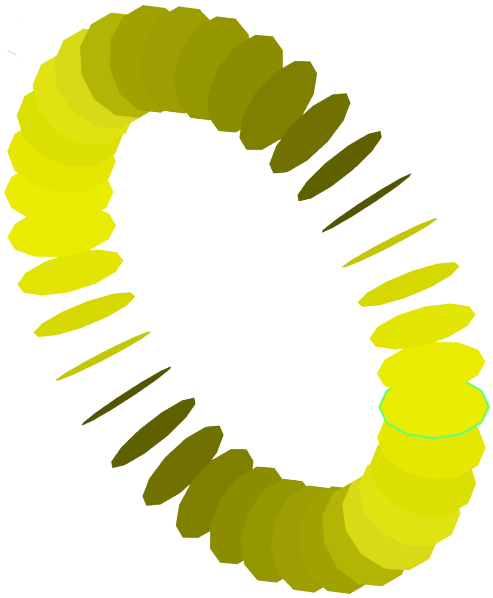


Fig. 11

G. Blank and Unblank.

Step 1. On the Home tab HOME click **Blank** Blank.

Step 2. **Shift click** a line of polygon to chain select polygon and click **End Selection** End Selection **(ENTER)**, **Fig 12**.

Tip: To show blanked entities, use **Unblank** Unblank on **Blank** Blank drop down.

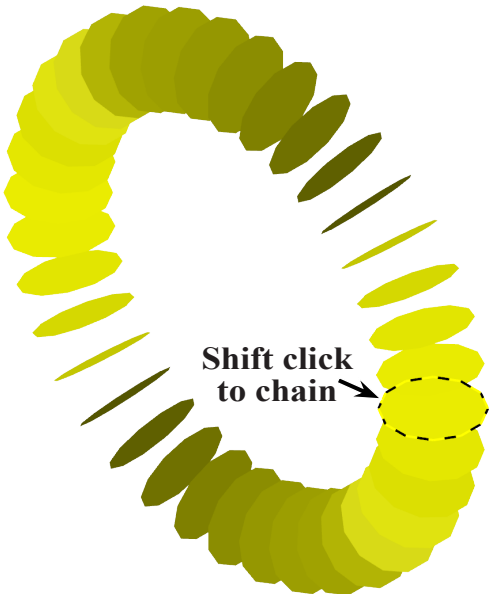


Fig. 12

H. Set CPlane To Isometric View.

Step 1. Click **CPLANE** in Status bar at bottom of the graphics window and click **Iso** from the menu, **Fig 14**.

I. Add Your Name and Period To Drawing.

Step 1. On the Drafting tab DRAFTING click **Note** Note.

Step 2. Lock the Caps, key-in: DRAWN BY: FIRST AND LAST NAME AND FIRST AND LAST NAME AND PERIOD 1 (or whatever your period is) and click OK.

Step 3. Center text at bottom of drawing and click.

Step 4. Save (Ctrl-S).

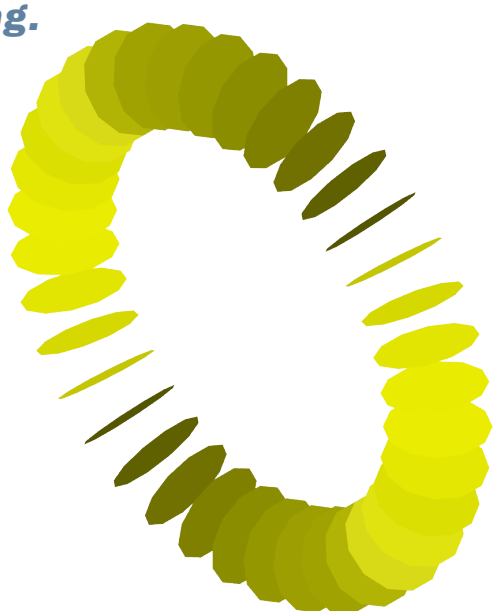


Fig. 13

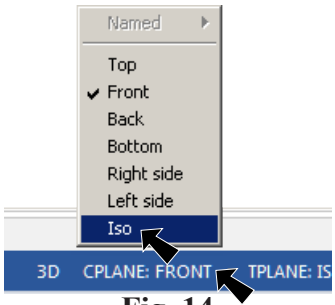


Fig. 14