Drawing and alignment

Creation Time : 10 minutes
Level : beginner

Module: Type Edit
The shapes you will create:

Dashed lines through the shapes indicate that the shapes are aligned.

**Purpose:**

Use:
- Geometrical shapes tools
- Alignment tools
- Duplication tools

**Settings:**

- Size of working area:
  - Width: 20 mm
  - Height: 10 mm
  - Zero point: bottom left
- Shapes are centered on the material.

Roll up your sleeves...
Set the size of the working area

Click **Change Material** in the **Settings** Ribbon group.

The **On plate** dialog box appears.

Type values in boxes and set the origin at the center of the working area then click **Finish** button.
1) **Create an ellipse**

Click **Geometrical shapes** in the **Mode** Ribbon group.

Create an ellipse smaller than the working area. Click on the working area where you want to position the first point then move the mouse. Release left mouse button when you get the wanted ellipse shape.

You get:
2) Create 4 stars

Click Star.

The Star dialog box displays.

We will now create a 5-vertex star. Enter “5” in the box then validate clicking . Click once on the graphics area where you want to place the star center. Move the mouse and click once again to set the vertex length. Move the mouse toward the star center and click to define the vertices' shape.

You get:
Click the **TypeEdit** tab and click **Duplication tools** in the **Operation** Ribbon group.

Run the **Simple duplication** tool clicking ![Simple duplication tool](image).

Move the mouse. A new mouse pointer appears. Click anywhere in the working area then move the mouse. The bounding box of the copy appears. Move the mouse to the wanted location for the copy then click where you want the copy to be created. A copy of the star is created automatically as if you had performed a basic copy/paste operation. Repeat the operation 3 times in order to create 4 identical stars.

Click **Selection tool** in the Quick Access Toolbar.

You get:

Click the ellipse then while pressing and holding down **Ctrl** key click a star, any of them.

**Note:** The first selected shape is the reference shape for alignment operations. If you select a star then the ellipse, the ellipse will be moved and aligned with the star.
Click **Alignment tools** in the **Operation** Ribbon group.

We will now align horizontally the star you clicked with the left side of the ellipse. Run the following tools one after the other with successive single clicks on icons:

- **Align left** and **Horizontal aligning**

You get:

Click outside the selection, anywhere in the graphics area.

We will now align horizontally another star with the right side of the ellipse. Click the ellipse then while pressing and holding down **Ctrl** key click the star. Run the following tools one after the other with successive single clicks on icons:

- **Align right** and **Horizontal aligning**
You get:

Click outside the selection, anywhere in the graphics area.

We will now align vertically another star with the bottom side of the ellipse. Click the ellipse then while pressing and holding down Ctrl key click the star. Run the following tools one after the other with successive single clicks on icons:

- **Align bottom** and **Vertical aligning**

You get:

Click outside the selection, anywhere in the graphics area.

We will now align vertically another star with the top side of the ellipse. Click the ellipse then while pressing and holding down Ctrl key click the last star. Run the following tools one after the other with successive single clicks on icons:

- **Align top** and **Vertical aligning**

Click outside the selection, anywhere in the graphics area.
You get:

3) **Create a rectangle**

Click the **TypeEdit** tab then click **Geometrical shapes** in the **Mode** Ribbon group.

Run the **Rectangle** tool by clicking .

Click once where you want to place the first summit, then while pressing and holding down left mouse button, drag the mouse until you get the wanted rectangle shape.

You get:
We will now center the rectangle to the ellipse.

Click **Selection tool** in the Quick Access Toolbar.

Click **Alignment tools** in the **Operation** Ribbon group.

Click the ellipse then while holding down **Ctrl** key pressed click the rectangle then run **Vertical aligning** and **Horizontal aligning** tools with successive single clicks on and .

We will now modify the dimensions of the rectangle to match the ellipse dimensions.

Click the ellipse then while pressing and holding down **Ctrl** key, click the rectangle then click **Same size**.

You get:
4) **Center the design in the middle of the material**

Select all the shapes with a rectangle box selection or using Ctrl+L keyboard shortcut.

Center them vertically and horizontally on the material clicking **Vertical centering** and **Horizontal centering**.

Finally you get: