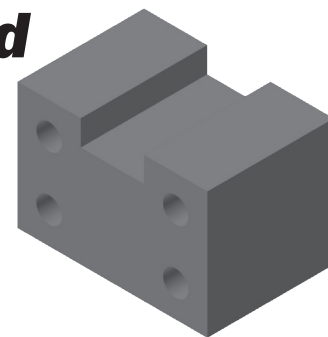


Channel Block Solid



A. Create Target Block.

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

Step 2. Change to the Isometric View. **Right click** in the graphics window and click  **Isometric (WCS)** (Alt-7).

Step 3. Confirm **CPLANE:TOP** in Status bar at bottom of the graphics window, **Fig 1**.

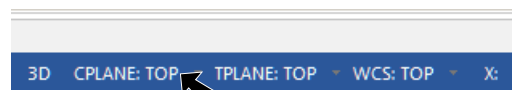
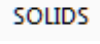


Fig. 1

Step 4. On the Solids tab  click **Block** .

Step 5. In Block dialog box set

Select **Solids**  **Fig. 2**

Length  **3**

Width  **2**

Height  **2**

Click the down arrow of AutoCursor on the Selection Bar and select **Origin**, **Fig 3**.

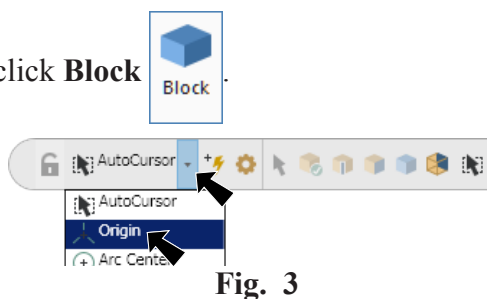


Fig. 3

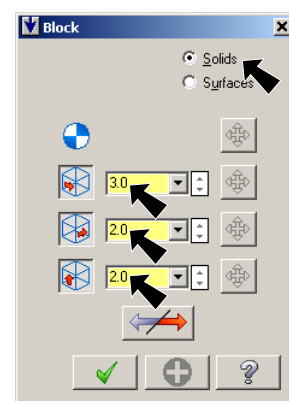


Fig. 2

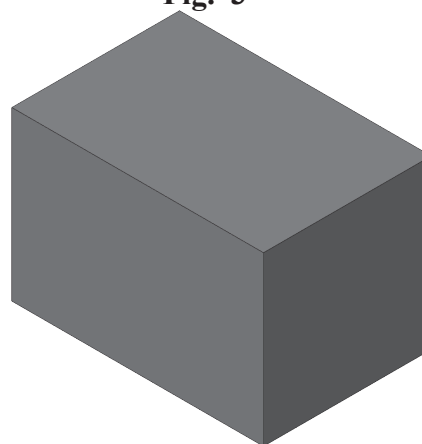


Fig. 4

B. Create Tool Block.

Step 1. In Block dialog box set:

Select **Solids**  **Fig. 5**

Length  **1**

Width  **2**

Height  **.6**

Click AutoCursor **Fast Point**

 on the Selection Bar, **Fig 6**.
Key-in **1, 0, 1.6**  and press ENTER



Fig. 6

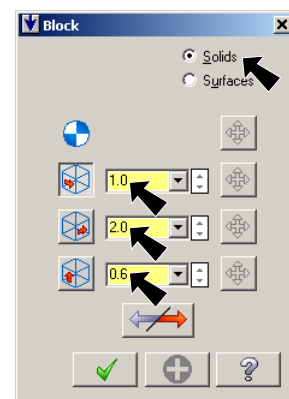


Fig. 5

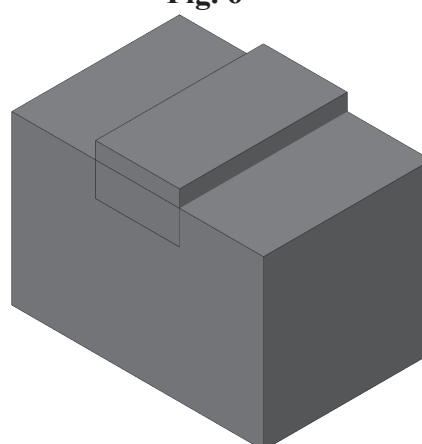


Fig. 7

Step 2. Click **OK**  in Block dialog box.

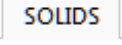
Step 3. **Right click** the graphics window and click **Fit**  (Alt-F1).

C. Save As “CHANNEL BLOCK”

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

Step 2. Key-in CHANNEL BLOCK for the filename and press ENTER.

D. Boolean Remove.

Step 1. On the Solids tab  click **Boolean** .

Step 2. In the Solid Selection dialog box:
Click **big block for Target**, Fig. 9
Click **small block for Tool** and press ENTER
Click OK .

Step 3. In the Rectangle function panel:
under Type, Fig. 10
select **Remove**
Click OK .

Step 4. Save  (Ctrl-S).

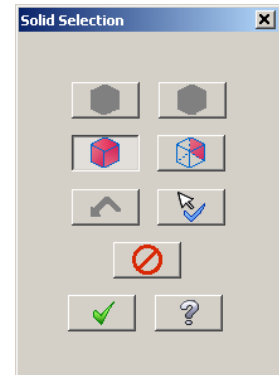


Fig. 8

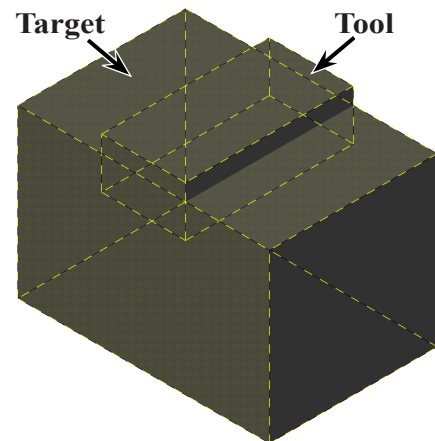


Fig. 9

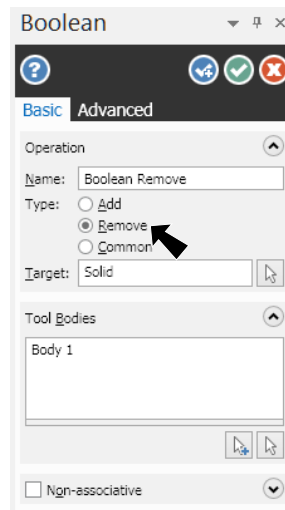


Fig. 10

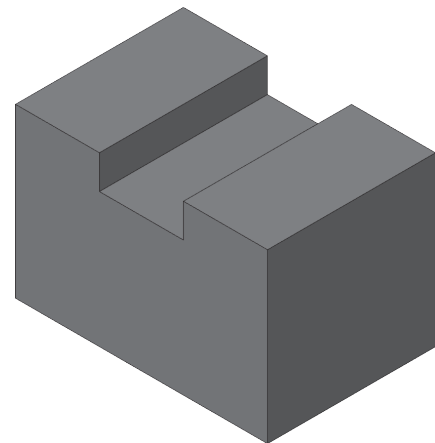
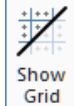
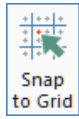


Fig. 11

E. Set Grid and Snap .5.

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

Grid



Step 2. Click the **Dialog Box Launcher**  (Alt-G), **Fig. 12**.

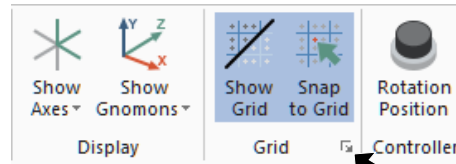


Fig. 12

Step 3. In the Grid Settings dialog box:
under Spacing, **Fig. 13**
X and Y Spacing .5
Click OK .

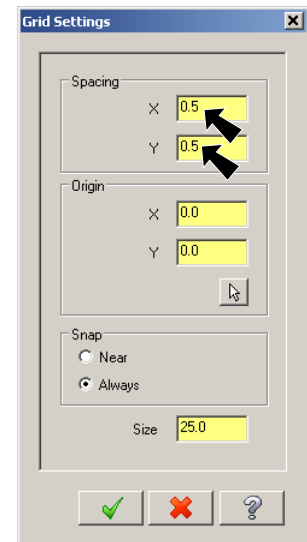


Fig. 13

F. Change to CPlane and Follow Rule.

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

Tip: A new **follow rule** has been added in 2017. The follow rule is selected by default and persists from session to session. By default, if you change the Gview the CPlane follows. This can be controlled in the Planes Manager. Follow rules can be changed in the Planes Manager  on the View tab  and **Follow Rules** .

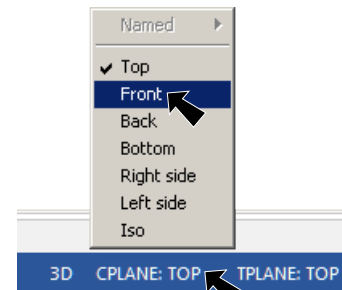


Fig. 14

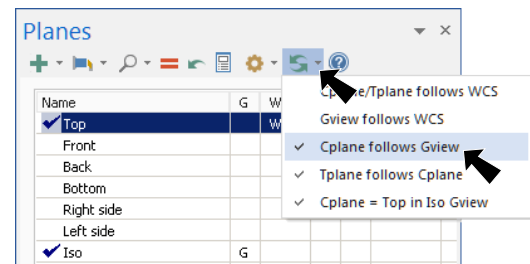


Fig. 15

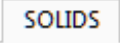
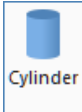
G. Create 4 Cylinders.

Step 1. Click **Z Depth** in Status bar at bottom of the graphics window and key-in **-2**, Fig 16.



Fig. 16

Step 2. Turn off shading, use **Alt-S**.

Step 3. On the Solids tab  click **Cylinder** .

Step 4. In Cylinder dialog box set:

Expand , Fig. 17

Select **Solids** 

Radius  .2

Height  2.5

Click **Radius**  and **Height**  to lock fields. The fields turn red when locked.

Select **Axis Z** 

Click **4 grid points**, Fig. 18 and Fig. 19

Click OK .

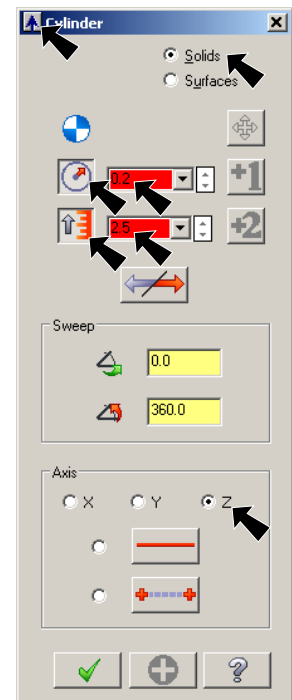


Fig. 17

Step 5. Turn on shading, use **Alt-S**.

Step 6. Save  (**Ctrl-S**).

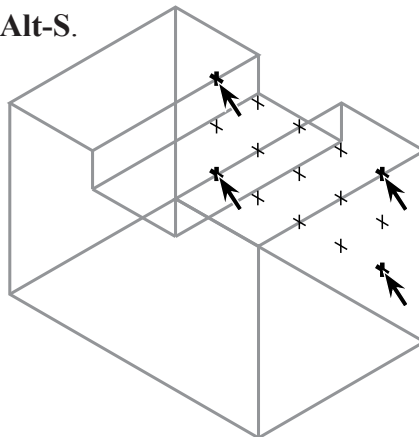


Fig. 18

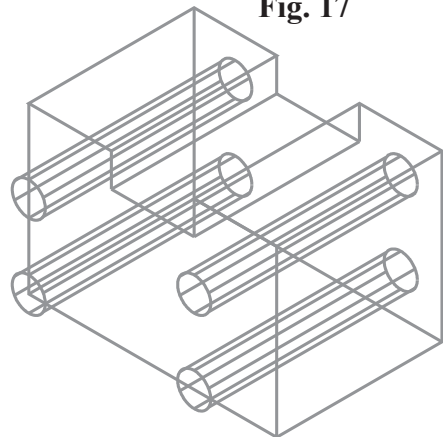


Fig. 19

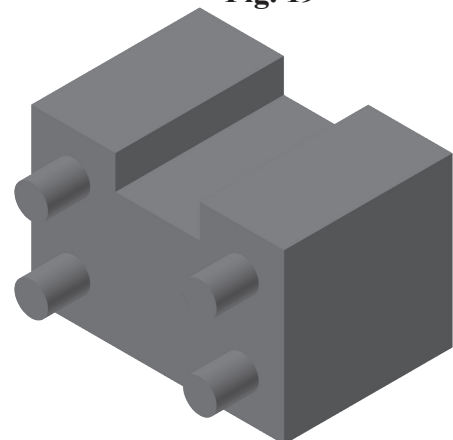
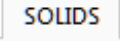
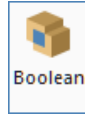


Fig. 20

H. Boolean Remove Cylinders.

Step 1. On the Solids tab  click **Boolean**



Step 2. In the Solid Selection dialog box:

Click the **block** for **Target**, **Target**

Fig. 22

Click the **four cylinders** for **Tool**

Click OK .

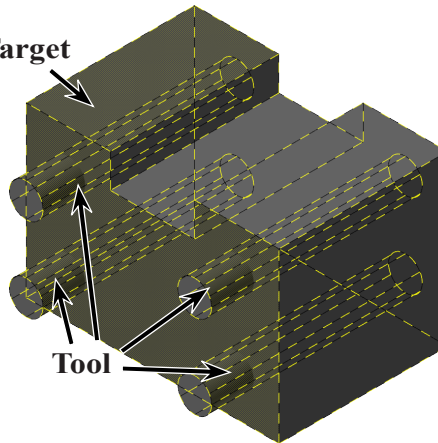


Fig. 22

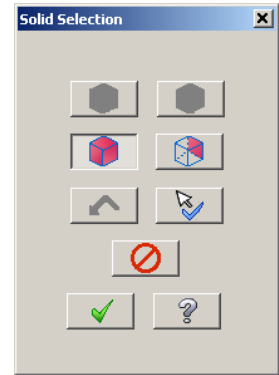


Fig. 21

Step 3. In the Rectangle function panel:
under Type, **Fig. 23**

select **Remove**

Click OK .

Step 4. Save  (Ctrl-S).

I. 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 25**.

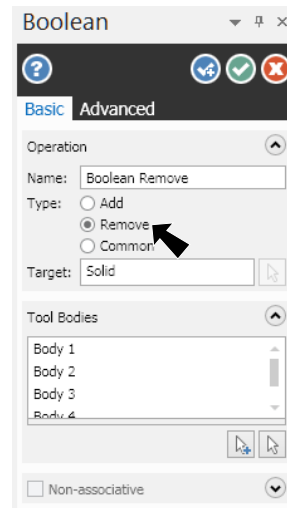


Fig. 23

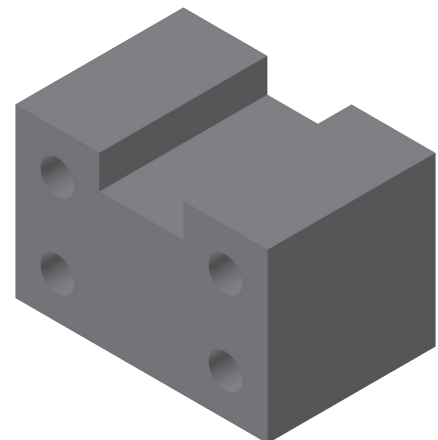
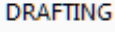
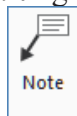


Fig. 24

J. Add Your Name and Period To Drawing.

Step 1. On the Drafting tab 

click **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).

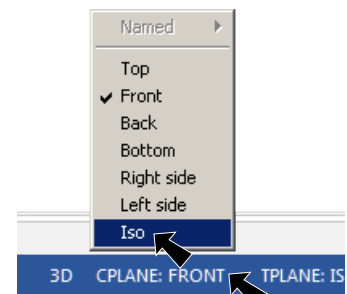


Fig. 25