

Chapter 9

CHANNEL BLOCK SOLID

A. Create Rectangle.

Step 1. Change to the Front View. Use green Front View  or **ALT-6 F**. Hold down ALT and press 6. Key-in F.

Step 2. MAIN MENU.

Step 3. Create.

Step 4. Rectangle.

Step 5. 1 Point.

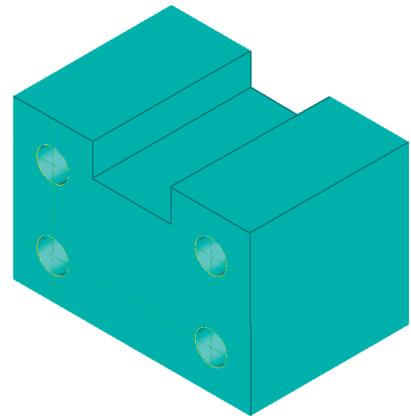
Step 6. Set: Width **3** and Height **2**.

Step 7. For the Placement Point, click the bottom left gray rectangle and click OK.

Step 8. Origin.

Step 9. Use **ALT-F1** or  to fit drawing on the screen.

Step 10. MAIN MENU.



B. Delete Top Line.

Step 1. The top line is no longer needed. Use **F5** to delete. Press **F5** and click the top line of the rectangle, **Fig. 1**. Press ESC to exit delete.

Delete Line



Fig. 1

Step 2. Use **F3** or  to repaint the screen.

C. Draw Lines.

Step 1. MAIN MENU.

Step 2. Create.

Step 3. Line.

Step 4. Endpoints.

Step 5. Draw the lines in **Fig. 2**. Use the grid to determine the location of the lines.

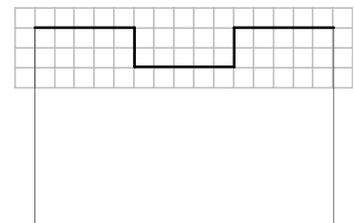


Fig. 2

Fit on Screen ALT-F1	Delete F5	Repaint F3	Zoom In F1	Unzoom Page Down
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D. Save Your File.

- Step 1. MAIN MENU.
- Step 2. File.
- Step 3. Save.
- Step 4. Key-in **chanblk** file name and press ENTER.

E. Extrude Block Solid.

- Step 1. Change to the Isometric View. Use the green  or ALT-6 I and  to fit drawing.
- Step 2. MAIN MENU.
- Step 3. Solids.
- Step 4. Extrude.
- Step 5. Chain.
- Step 6. Click a line of the geometry, **Fig. 3**.
- Step 7. Done.

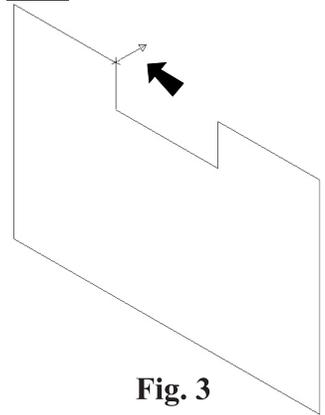


Fig. 3

- Step 8. The direction arrow on the chain should **point to the back**, **Fig. 3**. If the arrow points in the wrong direction, click Reverse It.
- Step 9. Done.
- Step 10. Set: Distance = **2** and click OK, **Fig. 4** and **Fig. 5**.

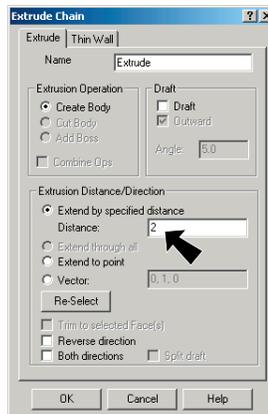


Fig. 4

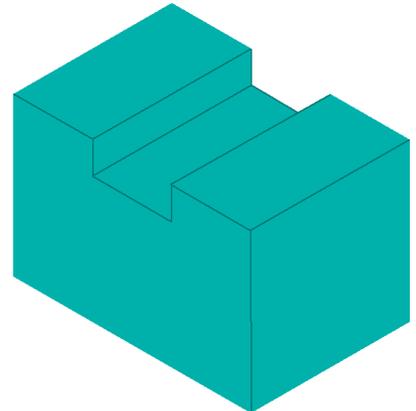


Fig. 5

- Step 11. Turn on the shading, use ALT-S.

F. Create Center Lines For Holes.

- Step 1. Change to the Front View. Use the green Front View  or ALT-6 F. Hold down ALT and press 6. Key-in F.
- Step 2. Draw the next lines, the center lines in a different color. Change the color to **green**. Click the color swatch in the Secondary Menu (bottom of the menu). Click green, number 10 and click OK.

Fit on Screen ALT-F1	Delete F5	Repaint F3	Zoom In F1	Unzoom Page Down
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Step 3. Change the line style to Center Lines. Click Attributes in the Secondary Menu. Set Line Style to **Center** and click OK.

Step 4. Turn off the shading, use **ALT-S**.

Step 5. MAIN MENU.

Step 6. Create.

Step 7. Line.

Step 8. Parallel.

Step 9. Side/Distance.

Step 10. Draw parallel vertical lines in from both sides, **Fig. 6**. Click the side of the rectangle to select line. Click inside of the rectangle to indicate offset direction. Key-in **.5** for distance and press ENTER. Repeat on the other side of rectangle. That is, click the side of the rectangle and indicate offset direction by clicking slightly inside the rectangle then press ENTER to use **.5**.

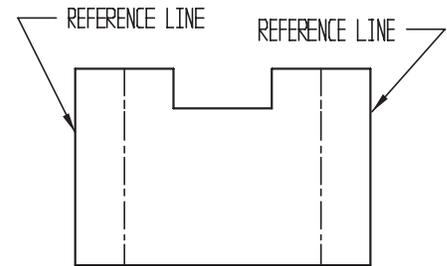


Fig. 6

Step 11. Continue to draw parallel lines up from the bottom and down from both top lines. Always select a new line. To indicate side, click inside the rectangle and press ENTER to use **.5**, **Fig. 7**.

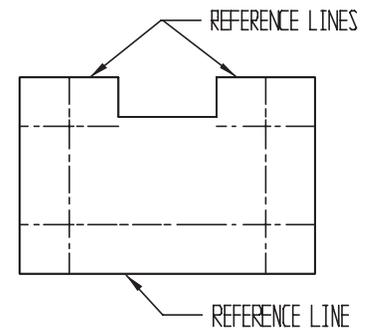


Fig. 7

G. Create Circles.

Step 1. Draw the next circle in a different color. Change the color to **yellow**. Click the color swatch in the Secondary Menu (bottom of the menu). Click yellow, number 14 and click OK.

Step 2. Change the line style back to solid. Click Attributes in the Secondary Menu. Set Line Style to **Solid** and click OK.

Step 3. MAIN MENU.

Step 4. Create.

Step 5. Arc.

Step 6. Circle Point and Diameter.

Step 7. Key-in **.4** for diameter and press ENTER.

Step 8. Intersection.

Step 9. Click Line 1 and Line 2 at a circle. Press I key and click another circles center lines, Line 1 and 2. **Remember to use the I key** before you click the center lines, **Fig. 8**.

Step 10. Save your drawing. Use **Alt-A** and press ENTER.

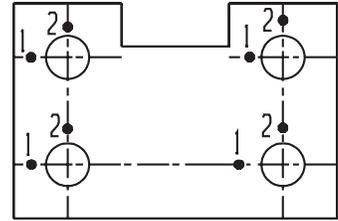


Fig. 8

H. Cut Out Holes.

Step 1. Change to the Isometric View. Use the green  or **ALT-6 I**.

Step 2. MAIN MENU.

Step 3. Solids.

Step 4. Extrude.

Step 5. Single.

Step 6. Click all four circles.

Step 7. Done.

Step 8. The direction arrow on the chain should **point to the back**, **Fig. 9**. If the arrow points in the wrong direction, click Reverse It.

Step 9. Done.

Step 10. Set: **Cut Body**.
Distance = **2** and click OK,
Fig. 10 and **Fig. 11**.

Step 11. Turn on the shading, use **ALT-S**.

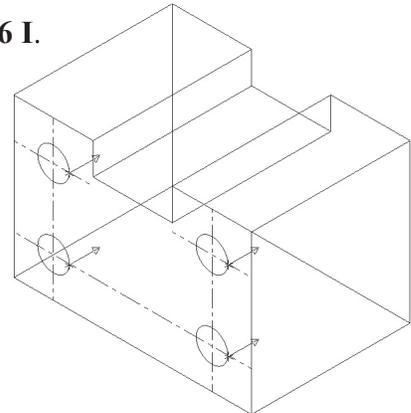


Fig. 9

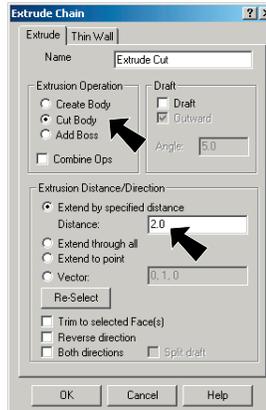


Fig. 10

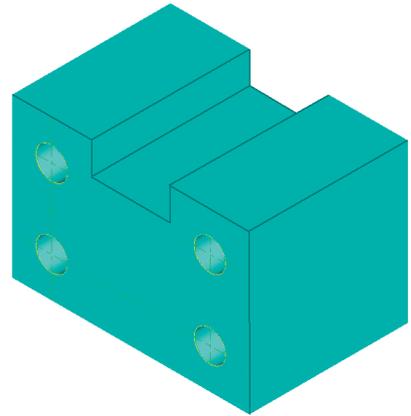


Fig. 11

I. Set Construction Plane To Graphic View.

Step 1. Change to the Isometric View. Use the green  or **ALT-6 I**. Hold down ALT and press 6. Key-in I.

Step 2. Click Cplane in the Secondary Menu.

Step 3. Next Menu.

Step 4. =Gview.

J. Add Your Name And Period To Drawing.

Step 1. Use **Page Down** to reduce the drawing. Use: **Create, Drafting, Note** commands to add your names and period to the drawing.

Step 2. Save your drawing. Use **Alt-A** and press ENTER.