Chapter 15
Modifying Solid Objects

Extruding Faces 15.1

1. **Choose** Modify, Solids Editing, Extrude face

    NOTE: Must be a solid to extrude the face.

2. **Choose** a face to extrude. If you choose more than one face, hold the SHIFT key to deselect unwanted faces.

3. **Press** ENTER.

4. Specify height of extrusion or [Path]: **.25**

5. Specify angle of taper for extrusion <0>: **45**

Select Face
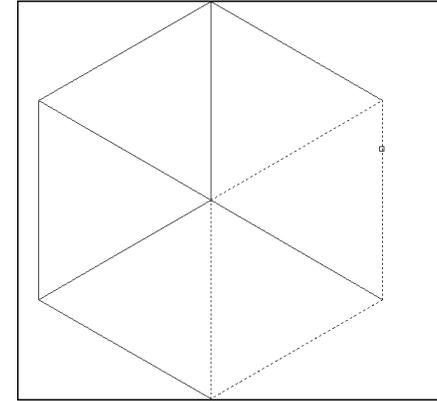
Extruded Face
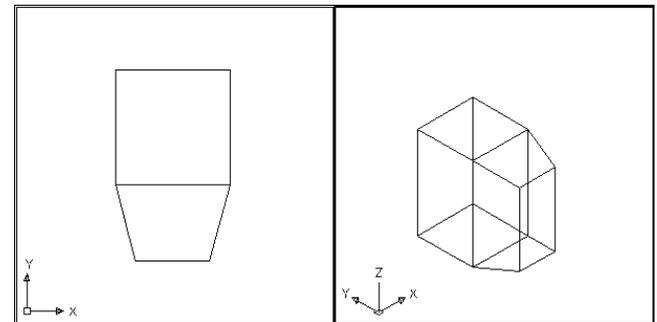
Tapered Faces 15.2

1. **Choose**   Modify, Solids Editing, Taper face

2. **Choose**   a face(s) to taper. If you choose more than one face, hold the SHIFT key to deselect unwanted faces.

3. **Press**   ENTER.

4. **Specify**   the base point: **pick the back left corner**

5. **Specify**   another point along the axis of tapering: pick point

6. **Specify**   the taper angle: **45**

Solid validation started.

Solid validation completed.

Before Taper
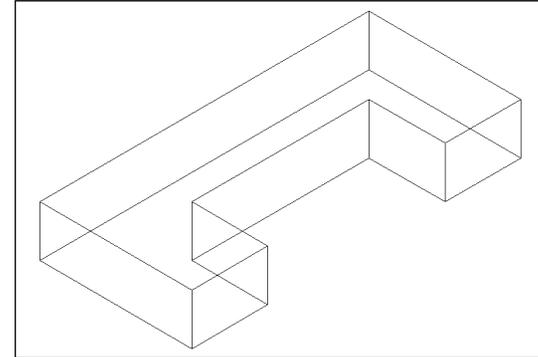
After Taper
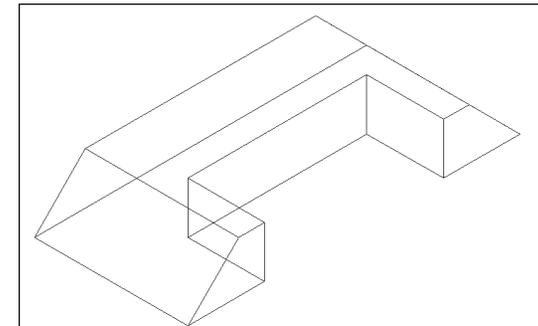
Delete Faces 15.3

1. **Choose** Modify, Solids Editing, Delete face

2. **Choose** a face to delete. If you choose more than one face, hold the SHIFT key to deselect unwanted faces.

3. **Press** ENTER.

4. **Choose** the face to delete.
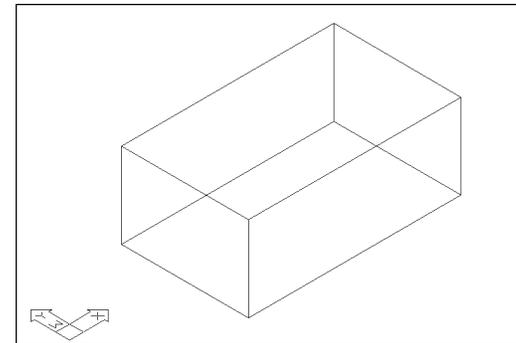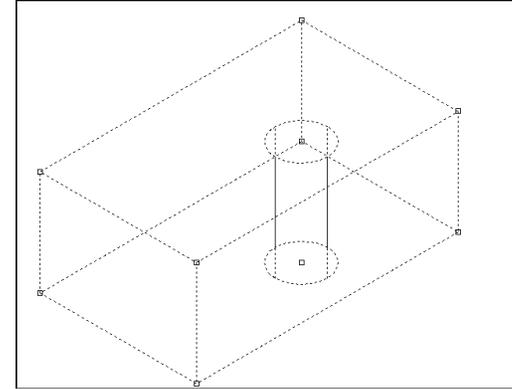
Copy Faces 15.4

1. **Choose**   Modify, Solids Editing, Copy face

2. **Choose**   a face to copy . If you choose more than one face, hold the SHIFT key to deselect unwanted faces.

3. **Press**   ENTER.

4. **Pick**   the solid face to copy.

5. **Pick**   a new location.
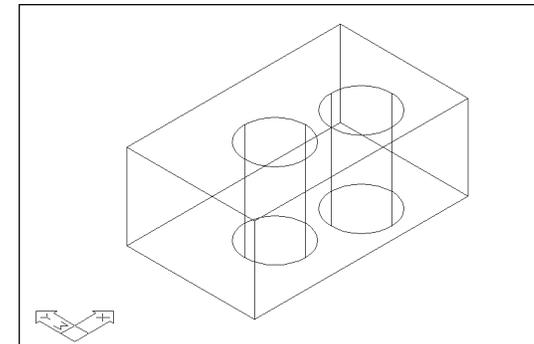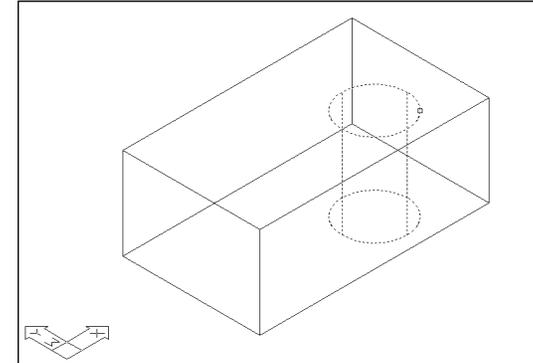
Color Face 15.5

1. **Choose** Modify, Solids Editing, Color face

2. **Choose** a face to change the color of. If you choose more than one face, hold the SHIFT key to deselect unwanted faces.

3. **Press** ENTER.

4. **Choose** a color to change the face to.
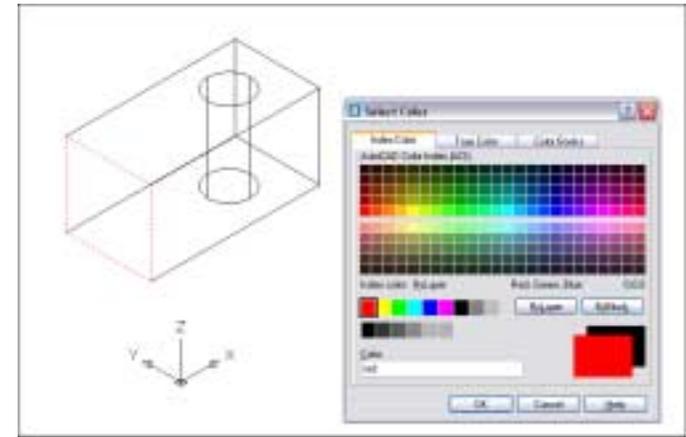
Imprint 15.6

1. Extrude objects (i.e. walls) to create a solid object.

2. Change the UCS and draw an object on a face of one of the walls.

3. **Choose**   Modify, Solids Editing, Imprint.

2. **Select**   a 3D solid: **pick solid**

3. **Select**   an object to imprint: **pick circle**

4. **Delete**   the source object <N>: **y**
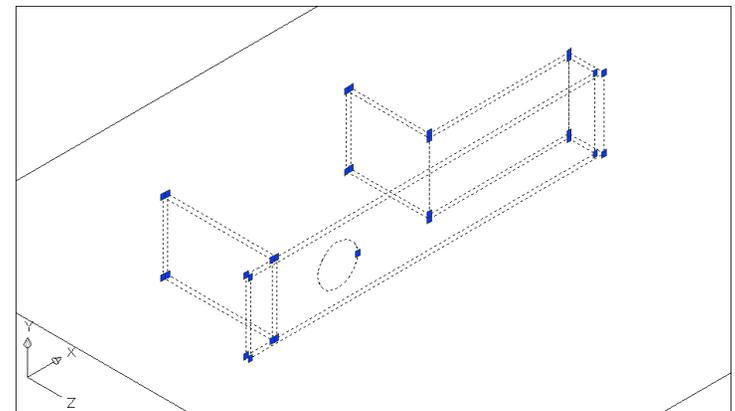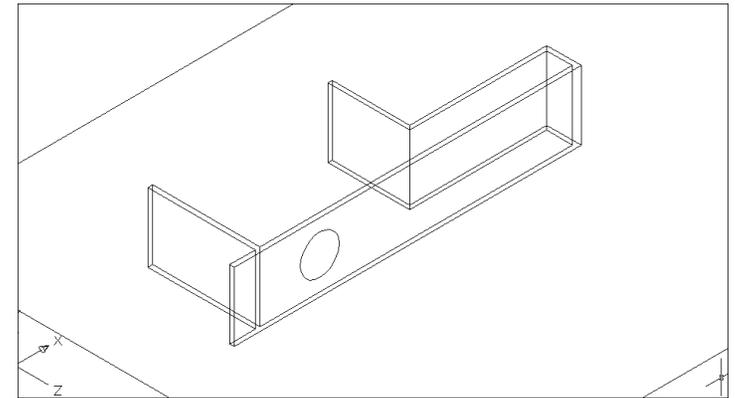
Extrude Imprint to Create Openings 15.7

1. **Choose**   Modify, Solids Editing, Extrude Faces.
2. **Select**   the circle that was imprinted.
3. **Deselect**   any unwanted faces.
4. **Type**   -8 as the height of extrusion (or desired height)
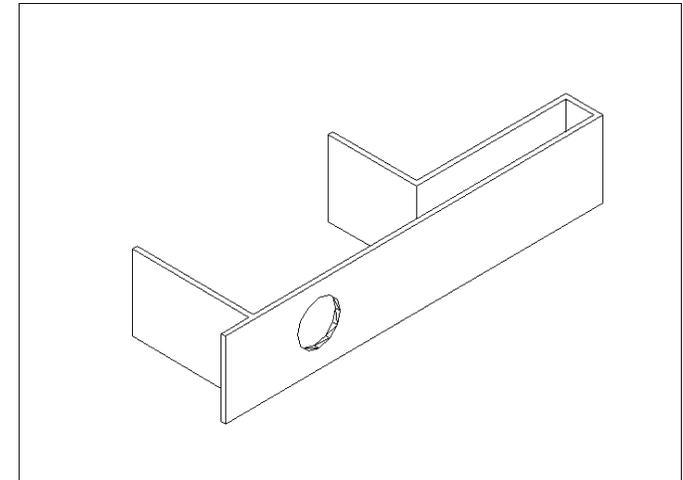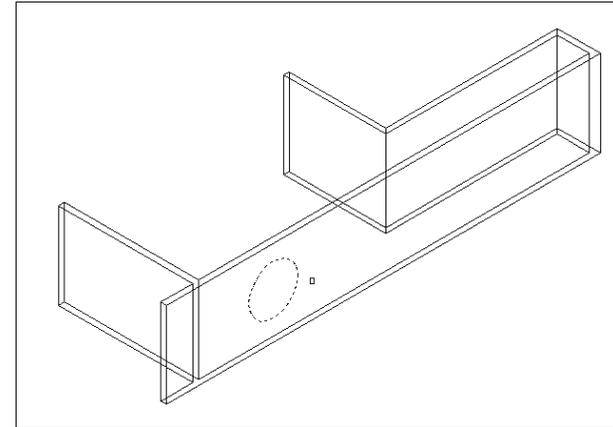
Clean 15.8

1. **Choose**   Modify, Solids Editing, Clean.

2. **Select**   a 3D solid: **pick imprinted circle.**

Before Clean
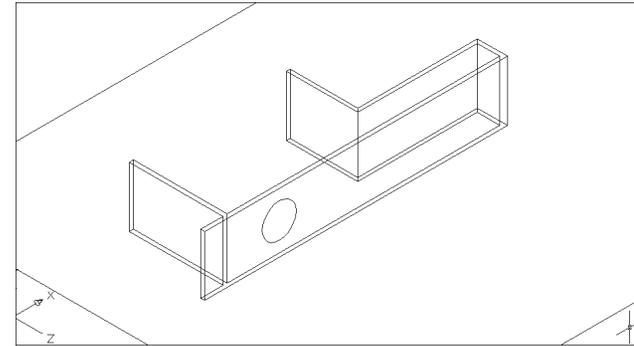
After Clean
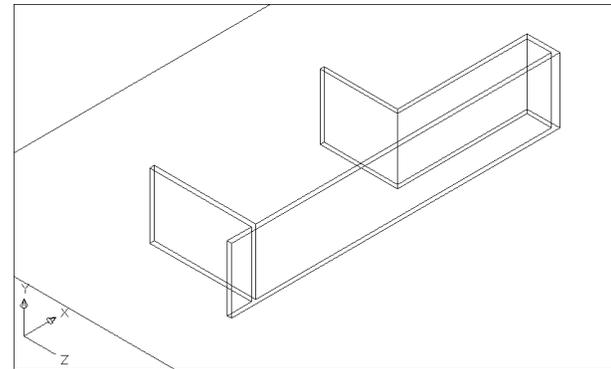
Shell 15.9

You can create a shell or a hollow thin wall with a specified thickness from your 3D solid object. AutoCAD creates new faces by offsetting existing ones inside or outside their original positions. AutoCAD treats continuously tangent faces as single faces when offsetting.

1. **Choose**   Modify, Solids Editing, Shell.

    Select a 3D solid: **pick**

    Remove faces or [Undo/Add/ALL]: **enter**

    Enter the shell offset distance: **.5**