Chapter 11
Complex Surfaces

Revolved Surface 11.1

Creates a revolved surface about a selected axis.

1. **Choose**   Draw, Surfaces, Revolved Surface...

   or

2. **Type**   Revsurf at the command prompt.

   Command: **revsurf**

   Current wire frame density: SURFTAB1=6
   SURFTAB2=6

   Select object to revolve: **pick**

   Select object that defines the axis of revolution: **pick**

   Specify start angle <0>: **enter**

   Specify included angle (+=ccw, -=cw) <360> **enter**
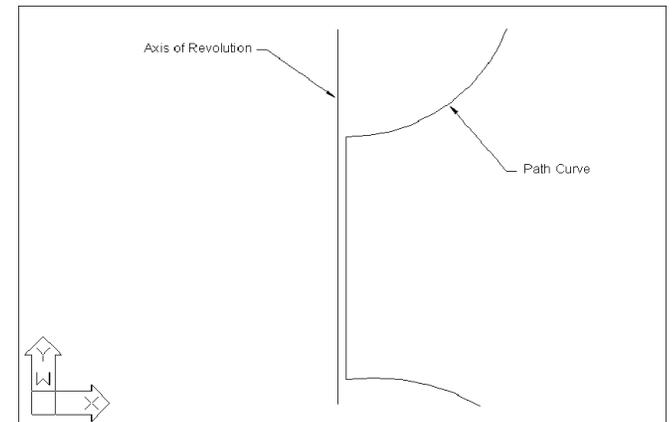
Suftab1 and Surftab2 11.2

Sets the number of tabulations for both directions to be generated for RULESURF and TABSURF. Also sets the mesh density in ROTATE3D the M direction for REVSURF and EDGESURF commands.

1. **Type**   Surftab1 at the command prompt.

    Command: **surftab1**

    Enter new value for SURFTAB1 <6>: **30**

2. **Type**   Surftab2 at the command prompt.

    Command: **surftab2**

    Enter new value for SURFTAB2 <6>: **30**
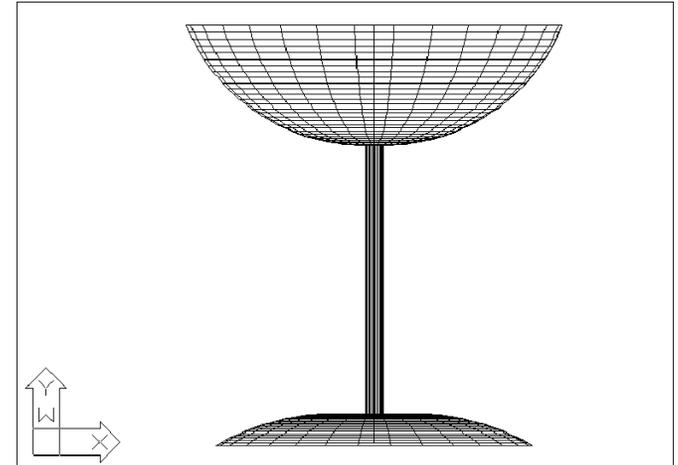
Tabulated Surfaces 11.3

Creates a tabulated surface from a path curve and a direction vector.

1. **Choose**   Draw, Surfaces, Tabulated Surfaces

    or

2. **Type**   TABSURF at the command prompt.

    Command: **tabsurf**

    Select object for path curve:

    Select object for direction vector:

Direction Vector

Path for Curve
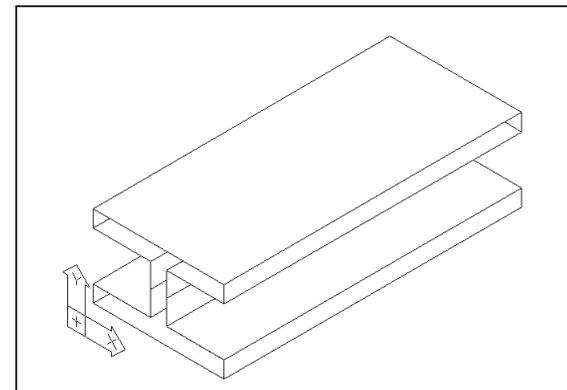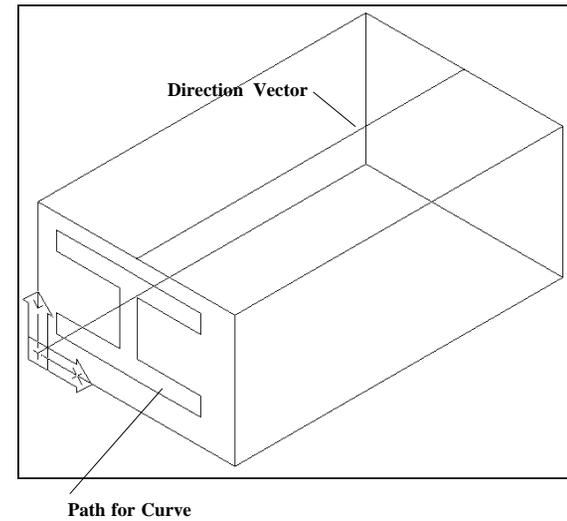
Ruled Surface 11.4

Creates a ruled surface between two curves.

1. **Choose** Draw, Surfaces, Ruled Surface

    or

2. **Type** RULESURF at the command prompt.

    Command: **rulesurf**

    Current wire frame density: SURFTAB1=6

    Select first defining curve: **P1**

    Select second defining curve: **P2**
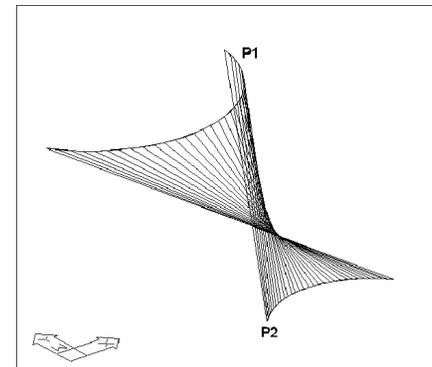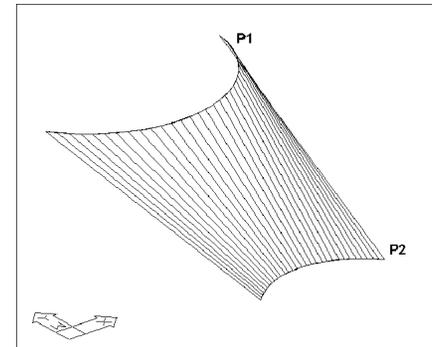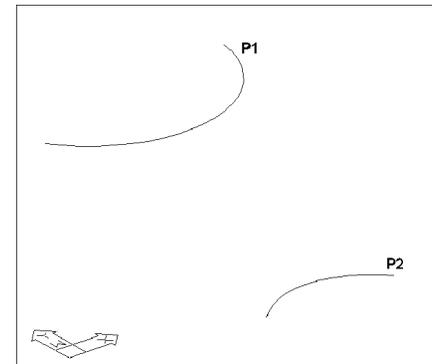
More Ruled Surface Examples 11.4
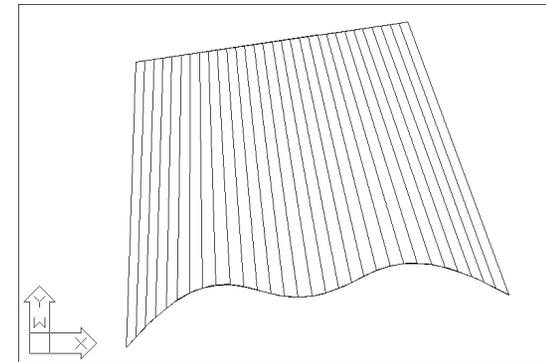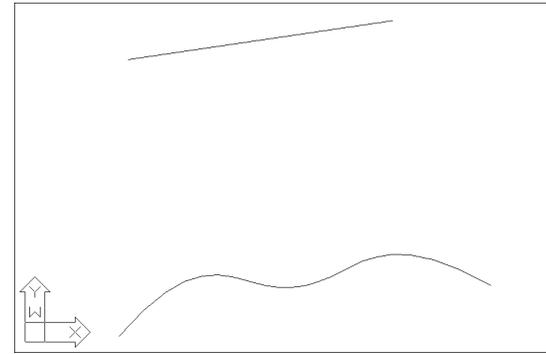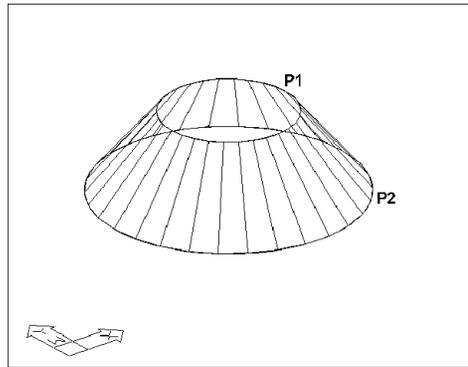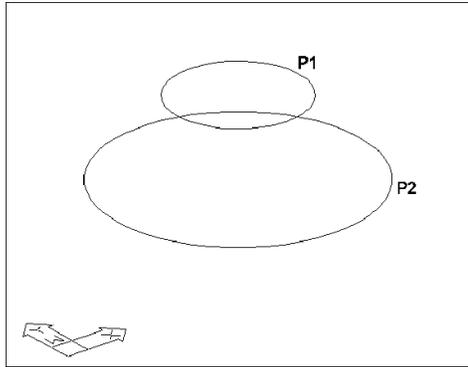
Edge Surface 11.5

Creates a three-dimensional polygon mesh

1. **Choose** Draw, Surfaces, Edge Surface

     or

2. **Type** EDGESURF at the command prompt.

    Command: **edgesurf**

    Current wire frame density: SURFTAB1=6
    SURFTAB2=6

    Select object 1 for surface edge: **P1**

    Select object 2 for surface edge: **P2**

    Select object 3 for surface edge: **P3**

    Select object 4 for surface edge: **P4**