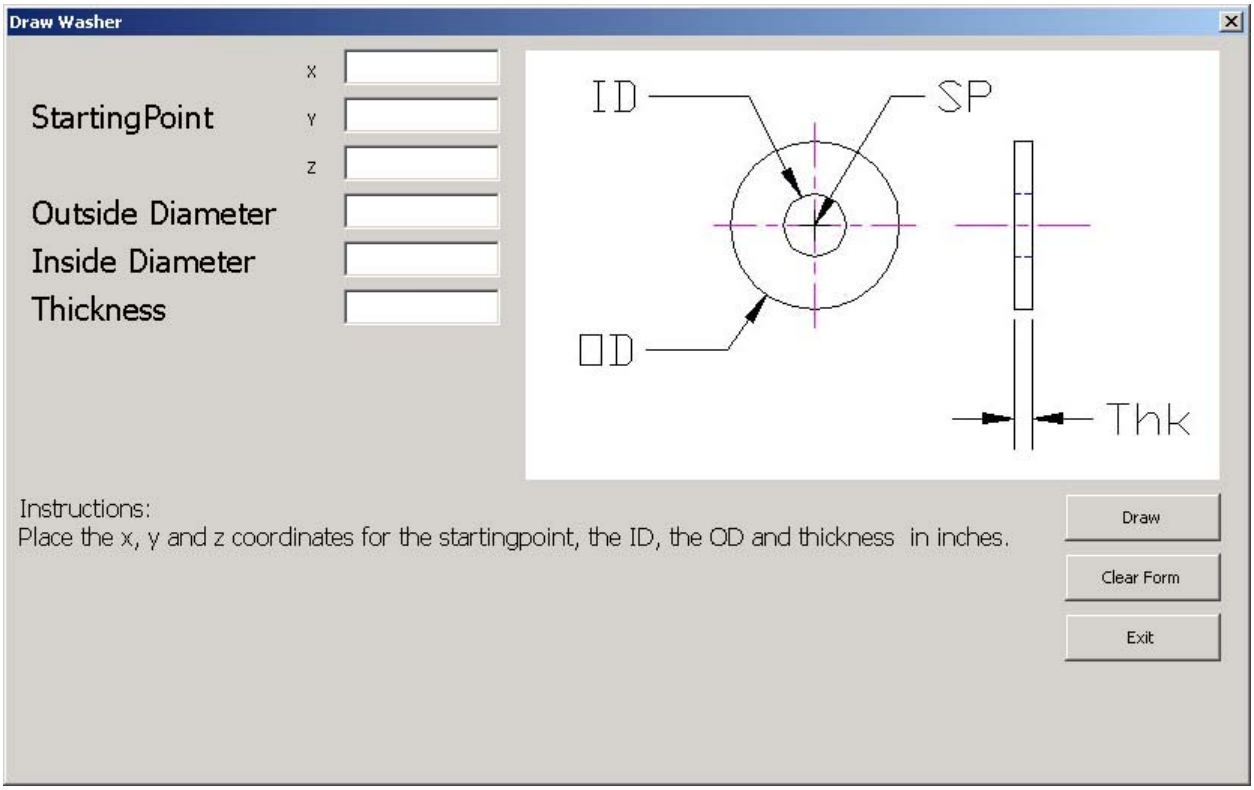
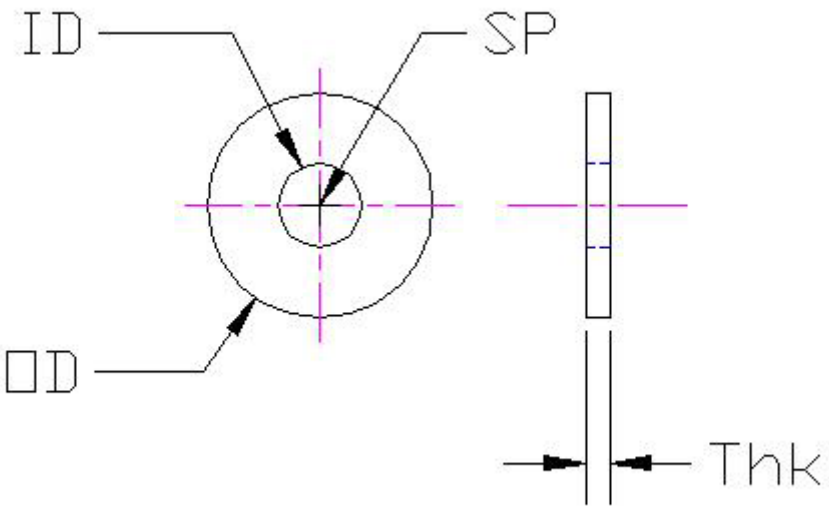
The Washer

The Form





```
Option Explicit
'Public Function LineTypeExists(LinTyp As String) As Boolean
'Dim LinType As AcadLineType
   'Dim hlt As Boolean
   'Dim clt As Boolean
   'If LinType.Name = "hidden" Then hlt = True
   'If LinType.Name = "center" Then clt = True
'End Function

Sub washer()

'define the layers and linetypes
   Dim LinType As AcadLineType
   Dim objLayer As AcadLayer
   Dim objNewlayer As AcadLayer
   Dim objLinetype As AcadLineType

'define the starting and centerpoint arrays, width, height and radius

   Dim objLine As AcadLine
   Dim ObjCircle As AcadCircle
   Dim P1(0 To 2) As Double
   Dim P2(0 To 2) As Double
   Dim P3(0 To 2) As Double
   Dim P4(0 To 2) As Double
   Dim P5(0 To 2) As Double
   Dim P6(0 To 2) As Double
   Dim P7(0 To 2) As Double
   Dim P8(0 To 2) As Double
   Dim P9(0 To 2) As Double
   Dim P10(0 To 2) As Double
   Dim P11(0 To 2) As Double
   Dim P12(0 To 2) As Double
   Dim P13(0 To 2) As Double
   Dim P14(0 To 2) As Double
   Dim P15(0 To 2) As Double
   Dim OD As Double
   Dim ID As Double
   Dim Thk As Double

   Dim X1 As Double
   Dim X2 As Double
   Dim X3 As Double
   Dim X4 As Double
   Dim X5 As Double
   Dim X6 As Double
   Dim X7 As Double


   Dim Y1 As Double
   Dim Y2 As Double
   Dim Y3 As Double
   Dim Y4 As Double
   Dim Y5 As Double
   Dim Y6 As Double
   Dim Y7 As Double

   Dim Z1 As Double

'let the point positions 0 1 and 2 accept data from the textboxes

   OD = txtOD
   ID = txtID
   Thk = txtThk

   X2 = txtStartingpointX
   X1 = X2 - OD / 2 - 0.125
   X3 = X2 + OD / 2 + 0.125
   X4 = X3 + 1
   X5 = X4 + 0.125
   X6 = X5 + Thk
   X7 = X6 + 0.125

   Y4 = txtStartingpointY
   Y1 = Y4 - OD / 2 - 0.125
   Y2 = Y1 + 0.125
   Y3 = Y4 - ID / 2
   Y5 = Y3 + ID
   Y6 = Y2 + OD
   Y7 = Y6 + 0.125

   Z1 = txtStartingpointZ

' Point assignment

   P1(0) = X1
   P1(1) = Y4
   P1(2) = Z1
   P2(0) = X2
   P2(1) = Y4
   P2(2) = Z1
   P3(0) = X3
   P3(1) = Y4
   P3(2) = Z1
   P4(0) = X2
   P4(1) = Y1
   P4(2) = Z1
   P5(0) = X2
   P5(1) = Y7
   P5(2) = Z1
   P6(0) = X5
   P6(1) = Y2
   P6(2) = Z1
   P7(0) = X6
   P7(1) = Y2
   P7(2) = Z1
   P8(0) = X5
   P8(1) = Y3
   P8(2) = Z1
   P9(0) = X6
   P9(1) = Y3
   P9(2) = Z1
   P10(0) = X4
   P10(1) = Y4
   P10(2) = Z1
   P11(0) = X7
   P11(1) = Y4
   P11(2) = Z1
   P12(0) = X5
   P12(1) = Y5
   P12(2) = Z1
   P13(0) = X6
   P13(1) = Y5
   P13(2) = Z1
   P14(0) = X5
   P14(1) = Y6
   P14(2) = Z1
   P15(0) = X6
   P15(1) = Y6
   P15(2) = Z1

'If Not clt = True Then
      ThisDrawing.Linetypes.Load "Center", "acad.lin"
'End If
'If Not hlt = True Then
      ThisDrawing.Linetypes.Load "Hidden", "acad.lin"
'End If

'Set Up Centerline and Hidden Layers
   Set objLayer = ThisDrawing.Layers.Add("Centerlines")
      objLayer.Color = acBlue
      objLayer.Linetype = "Center"
   Set objLayer = ThisDrawing.Layers.Add("Hiddenlines")
      objLayer.Color = acGreen
      objLayer.Linetype = "Hidden"
```

```
'Draw continuous lines

    ThisDrawing.ActiveLayer = ThisDrawing.Layers("0")
        Set ObjCircle = ThisDrawing.ModelSpace.AddCircle(P2, ID /
2)
        Set ObjCircle = ThisDrawing.ModelSpace.AddCircle(P2, OD
/ 2)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P6, P7)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P14, P15)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P6, P14)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P7, P15)

'Draw centerlines

    ThisDrawing.ActiveLayer = ThisDrawing.Layers("Centerlines")
        Set objLine = ThisDrawing.ModelSpace.AddLine(P1, P3)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P4, P5)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P10, P11)

'Draw hidden lines

    ThisDrawing.ActiveLayer =
ThisDrawing.Layers("Hiddenlines")
        Set objLine = ThisDrawing.ModelSpace.AddLine(P8, P9)
        Set objLine = ThisDrawing.ModelSpace.AddLine(P12, P13)

End Sub

Private Sub cmdClearform_Click()
'clear the form
    txtStartingpointX = "0.00"
    txtStartingpointY = "0.00"
    txtStartingpointZ = "0.00"
    txtOD = "0.00"
    txtID = "0.00"
    txtThk = "0.00"

End Sub

Private Sub cmdDraw_Click()
'draw the part
    washer
End Sub

Private Sub cmdExit_Click()
'unload and end program
    Unload Me
    End
End Sub
```