In[28]:=
```
Graphics3D[{(*Drawing the cylinder with metallic appearance*)
  {Directive[GrayLevel[0.5], Specularity[White, 10]], Opacity[0.5],
   Cylinder[{{0, 0, 0}, {0, 0, 1}}, 1]}, (*Annotating the boundary conditions*)
  {Text["ϕ(a, ϕ, z) = V0", {1.2, 0, 0.5}]}, {Text["ϕ(ρ, ϕ, 0) = 0", {0, 1.2, 0}]},
  {Text["ϕ(ρ, ϕ, h) = 0", {0, -1.2, 1}]}, (*Annotating the dimensions*)
  {Text["a", {0.5, 0.5, 0}]}, {Text["h", {0, 0, 0.5}]},
  (*Indicating conducting walls on the side*){Text["Conducting Walls", {1.2, 0, 0.2}]}},
 (*Setting the viewpoint for a better view*)ViewPoint → {1, -3, 0.5}]
```

Out[28]=