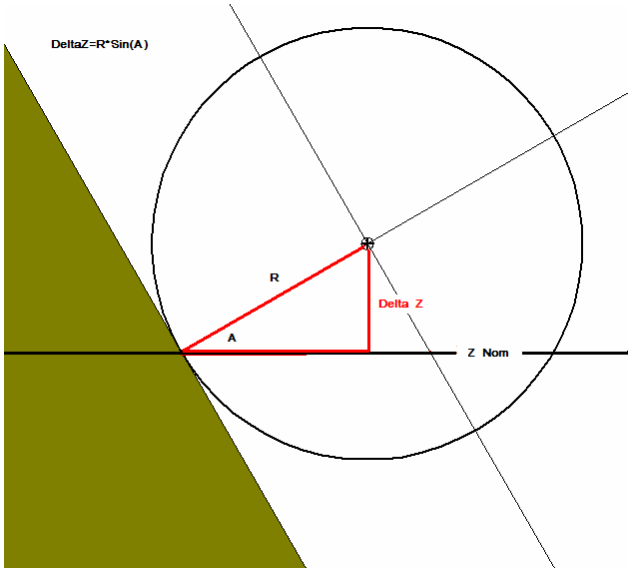
This is a short description of the formula to be applied to correct the scan height executed on conical surfaces:

Zn - nominal section height
R - Radius of the probe tip
Alpha - half-angle of the cone

1. In order to keep the touch point on the given Z:

Zscan=Zn+DeltaZ , where

DeltaZ=R*Sinus(Alpha)



2. In order to compensate correctly the radius

Zscan=Zn+DeltaZ , where
DeltaZ=((R/Cosinus(Alpha))-R)/Tangens(Alpha)