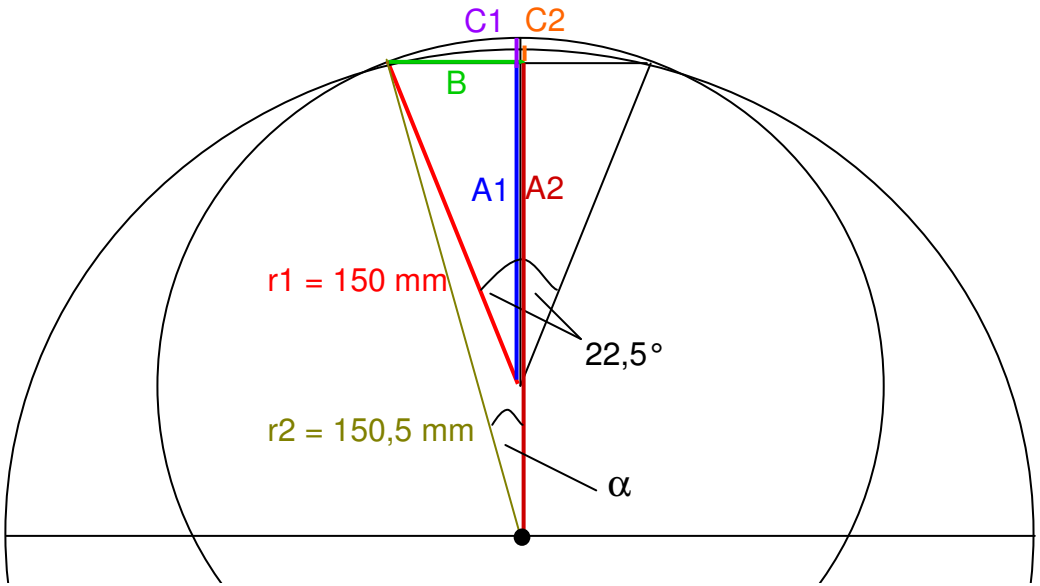
Rohrdurchmesser = 301 mm

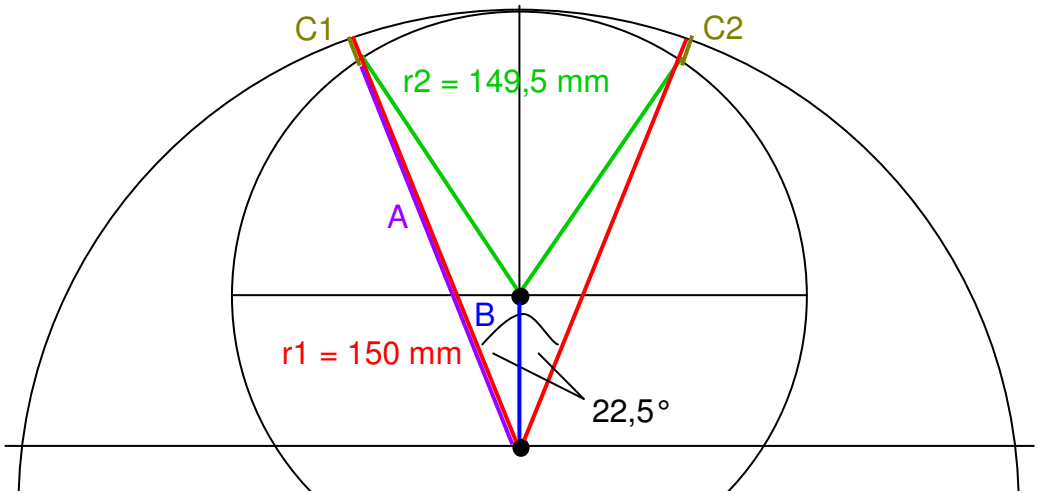


cos(22,5°) = A1/150 mm => **A1** = cos(22,5°) * 150 mm = **138,5819 mm**
sin(22,5°) = B/150mm => **B** = sin(22,5°) * 150 mm = **57,4025 mm**
C1 = 150 mm – 138,5819 mm = **11,4181 mm**

sin(α) = B/150,5 mm = 57,4025 mm / 150,5 mm = 0,3814 => **α = 22,4212 °**
cos(22,4212°) = A2/150,5 mm => **A2** = cos(22,4212°) * 150,5 mm = **139,1229 mm**
C2 = 150,5 mm – 139,1229 mm = **11,3771 mm**

C1-C2 =11,4181 mm -11,3771 mm = **0,0410 mm**

Rohrdurchmesser = 299 mm



B = r1 – r2 = 150 mm – 149,5 mm = **0,5 mm**
$(r2)^2 = A^2 + B^2 - 2*A*B*\cos(22{,}5°)$ => $A^2 + B^2 - (r2)^2 - 2*A*B*\cos(22{,}5°) - (r2)^2 = 0$ => in Mitternachtsformel eingesetzt:

$$A_{1/2} = \frac{0{,}9239 \pm \sqrt{0{,}8536 - (4 \cdot (-22350))}}{2} = \frac{0{,}9239 \pm 298{,}9998}{2}$$

=> **A** = **149,9619 mm** *(nur 1 Lösung sinnvoll)*

C1 = **C2** = r1 – A = 150 mm – 149,9619 mm = **0,0381 mm**