$$\rho := \frac{d_1}{2} + \frac{d}{2} = 186 \ \textbf{mm}$$

$$b_X := \rho \cdot \left(1 + \frac{\sqrt{2}}{2}\right) = 317.522 \ \textbf{mm}$$

$$b_Y := \rho \cdot \frac{\sqrt{2}}{2} = 131.522 \ \textbf{mm}$$

$$M_q := Q \cdot b_X - Q \cdot b_Y = \left(5.115 \cdot 10^6\right) \ \textbf{kgf} \cdot \textbf{mm}$$

$$A := \pi \cdot \frac{d^2}{4} = \left(2.138 \cdot 10^4\right) \ \textbf{mm}^2$$

$$\chi := \frac{1}{4} \cdot \left(\frac{d}{2 \ \rho}\right)^2 + \frac{1}{8} \left(\frac{d}{2 \ \rho}\right)^4 + \frac{5}{6+4} \cdot \left(\frac{d}{2 \ \rho}\right)^6 = 0.058$$

$$\sigma_K := \frac{Q}{A} - \frac{M_q}{A \cdot \rho} + \frac{M_q}{\chi \cdot A \cdot \rho} \cdot \frac{d}{2 \cdot \rho - d} = 17.727 \ \frac{\textbf{kgf}}{\textbf{mm}^2}$$

$$\sigma_W := \frac{Q}{A} - \frac{M_q}{A \cdot \rho} - \frac{M_q}{\chi \cdot A \cdot \rho} \cdot \frac{d}{2 \cdot \rho + d} = -6.833 \ \frac{\textbf{kgf}}{\textbf{mm}^2}$$