

$$b_x:=\left(NV+\frac{d_1}{2}\right)\sin\left(\psi\right)+\left(NV+\frac{d_1}{2}\right)\frac{\sqrt{2}}{2}=231.691\text{ }\textcolor{blue}{mm}$$

$$b_y:=\left(NV+\frac{d_1}{2}\right)\cos\left(\psi\right)-\left(NV+\frac{d_1}{2}\right)\frac{\sqrt{2}}{2}=30.318\text{ }\textcolor{blue}{mm}$$

$$M_q:=Q\cdot b_x+Q\cdot b_y=\left(7.205\cdot10^6\right)\text{ }\textcolor{blue}{kgf}\cdot\textcolor{blue}{mm}$$

$$A:=\frac{\left(a+b\right)\cdot NU}{2}=\left(2.063\cdot10^4\right)\text{ }\textcolor{blue}{mm}^2$$

$$\rho:=NV+\frac{d_1}{2}=191.724\text{ }\textcolor{blue}{mm}$$

$$\chi:=-\frac{1}{A}\int\limits_{-UV}^{NV}\frac{\eta}{\rho+\eta}\left(b+\frac{a-b}{NU}\left(UV+\eta\right)\right)\mathrm{d}\eta=0.129$$

$$\sigma_N:=\frac{1}{A}\frac{Q}{\frac{\sqrt{2}}{2}}\sin\left(\psi+\frac{\pi}{4}\right)-\frac{M_q}{A\cdot\rho}-\frac{M_q}{\chi\cdot A\cdot\rho}\cdot\frac{-NV}{\rho-NV}=12.016\frac{\textcolor{blue}{kgf}}{\textcolor{blue}{mm}^2}$$

$$\sigma_U:=\frac{1}{A}\frac{Q}{\frac{\sqrt{2}}{2}}\sin\left(\psi+\frac{\pi}{4}\right)-\frac{M_q}{A\cdot\rho}-\frac{M_q}{\chi\cdot A\cdot\rho}\cdot\frac{UV}{\rho+UV}=-5.459\frac{\textcolor{blue}{kgf}}{\textcolor{blue}{mm}}$$