

$$G_u := 55000 \text{ } \textit{kgf}$$

$$G_i := 227 \text{ } \textit{kgf}$$

$$G_g := 180 \text{ } \textit{kgf}$$

$$S_1 := s_1 \cdot \langle A_1 - d_t \rangle = 2875 \text{ } \textit{mm}^2$$

$$\sigma := \frac{G_u + G_g + G_i}{2 \cdot S_1} = 9.636 \frac{\textit{kgf}}{\textit{mm}^2}$$