1.6. Static Permissible Moment

The static permissible moment (M_0) of the Cross-Roller Ring is obtained from the following equation.

$$M_0 = C_0 \cdot \frac{dp}{2} \times 10^{-3}$$

where

M_0 : Static permissible moment (kN-m)
C_0 : Basic static load rating (kN)
dp : Roller pitch circle diameter (mm)

[Example of calculating a static permissible moment]

Model No. RB25025

C =69.3 kN
C_0 =150 kN
dp =277.5 mm

The static permissible moment is calculated as follows.

$$M_0 = C_0 \cdot \frac{dp}{2} \times 10^{-3} = 150 \cdot \frac{277.5}{2} \times 10^{-3} = 20.8 \text{ kN-m}$$