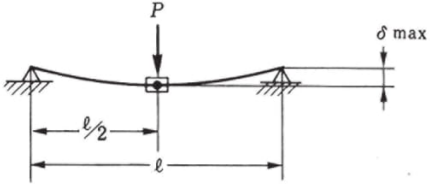
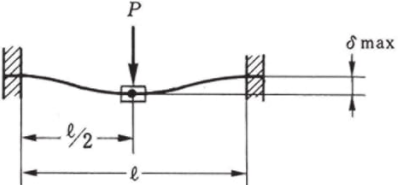
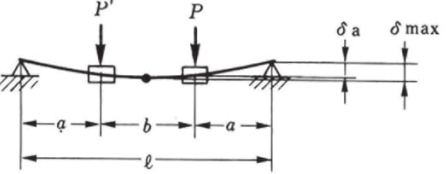
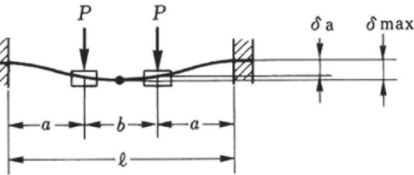
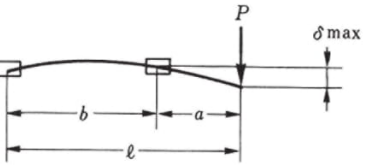


■軸のたわみ量計算式

仕様状態	軸のたわみ量 (mm)
	$\delta_{\max} = \frac{P \cdot l^3}{48 \cdot E \cdot I} = 2.2021 \times 10^{-5} \frac{P \cdot l^3}{d^4}$
	$\delta_{\max} = \frac{P \cdot l^3}{192 \cdot E \cdot I} = 5.053 \times 10^{-6} \frac{P \cdot l^3}{d^4}$
	$\delta_a = \frac{P \cdot a^2}{6 \cdot E \cdot I} (2a + 3b) = 1.617 \times 10^{-4} \frac{P \cdot a^2 \cdot (2a + 3b)}{d^4}$ $\delta_{\max} = \frac{P \cdot a}{24 \cdot E \cdot I} (3l^2 - 4a^2) = 4.042 \times 10^{-5} \frac{P \cdot a \cdot (3l^2 - 4a^2)}{d^4}$
	$\delta_a = \frac{P \cdot a^3}{6 \cdot E \cdot I} \left(2 - \frac{3a}{l}\right) = 1.617 \times 10^{-4} \frac{P \cdot a^3}{d^4} \left(2 - \frac{3a}{l}\right)$ $\delta_{\max} = \frac{P \cdot a^2}{24 \cdot E \cdot I} (2a + 3b) = 4.042 \times 10^{-5} \frac{P \cdot a^2 \cdot (2a + 3b)}{d^4}$
	$\delta_{\max} = \frac{Pa^2 l}{3EI} = 3.234 \times 10^{-4} \frac{Pa^2 l}{d^4}$

d : 軸径(mm) E : 縦弾性係数 2.1×10^4 (kgf/mm²) P : 作用荷重(kgf)

断面二次モーメント I (中実軸) = $\frac{\pi d^4}{64}$, I (パイプ軸) = $\frac{\pi (d^4 - d_o^4)}{64}$ (mm⁴) d_o : パイプ内径(mm)