

$$u_x = -\frac{Py}{6EI} \left[ (6L - 3x)x + (2 + \nu) \left[ y^2 - \frac{D^2}{4} \right] \right],$$

$$u_y = -\frac{P}{6EI} \left[ 3\nu y^2(L - x) + (4 + 5\nu) \frac{D^2 x}{4} + (3L - x)x^2 \right].$$

$$\sigma_{xx} = \frac{P(L - x)y}{I},$$

$$\tau_{xy} = -\frac{P}{2I} \left[ \frac{D^2}{4} - y^2 \right].$$

