exp(: 
$$V$$
:),  $V = -\frac{1}{p} \left( \frac{\text{F1}^2}{24\rho_b} p_x - \frac{\text{F1}}{12\rho_b} y^2 + \frac{y^4}{6\text{F1} \rho_b^2} \right)$