

$$v(\phi) = v_0 \begin{cases} 1 + \alpha \left[\left(\frac{\phi}{\Delta\phi} - 1 \right)^2 - 1 \right] & \text{if } 0 \leq \phi \leq \Delta\phi \\ 1 - \alpha \left[\left(\frac{\phi}{\Delta\phi} + 1 \right)^2 - 1 \right] & \text{if } -\Delta\phi \leq \phi \leq 0 \end{cases}$$