$$\frac{\partial \rho}{\partial t} + \frac{\partial \rho u_i}{\partial x_i} = 0 \tag{۱}$$

$$\frac{\partial \rho u_i}{\partial t} + \frac{\partial \rho u_i u_j}{\partial x_j} = -\frac{\partial p_2}{\partial x_i} + \frac{1}{Re}\frac{\partial \tau_{ij}}{\partial x_j} - \frac{\rho \delta_{i2}}{Fr^2} \tag{۲}$$

$$\rho\frac{\partial T}{\partial t} + \rho u_j \frac{\partial T}{\partial x_j} = \frac{1}{RePr}\frac{\partial}{\partial x_j}(\kappa\frac{\partial T}{\partial x_j}) + \frac{\gamma - 1}{\gamma}\frac{dp_0}{dt} \tag{۳}$$

$$p_0 = \rho T \tag{۴}$$

$$\frac{\partial p_0}{\partial x_i} = 0 \tag{۵}$$

$$\tau_{ij} = \mu(\frac{\partial u_i}{\partial x_j} + \frac{\partial u_j}{\partial x_i} - \frac{2}{3}\delta_{ij}\frac{\partial u_k}{\partial x_k}) \tag{۶}$$