

NAME

Fluids-ID

Quiz 11. The force D , that is exerted on a spherical particle moving slowly through a liquid is assumed to be a function of the particle diameter d and velocity V and the fluid viscosity μ . Determine a suitable set of dimensionless parameters.

$$D = f(\mu, d, V)$$

where,

$$D \doteq MLT^{-2}; \mu \doteq ML^{-1}T^{-1}; d \doteq L; V \doteq LT^{-1}$$