

Poiseuille flow

[@wikipedia](#)

The driving equation for steady-state single-phase fluid between infinite parallel planes:

(1)
$$u = \frac{k}{\mu} \nabla p$$

where

u	flow velocity
∇p	pressure gradient along the flow
μ	fluid viscosity
$k = A^2/(8 \pi)$	pipe cross-sectional permeability
A	cross-sectional pipe area

See also

[Physics](#) / [Mechanics](#) / [Continuum mechanics](#) / [Fluid Mechanics](#) / [Fluid Dynamics](#) / [Fluid flow](#) / [Steady-State Fluid Flow](#)

[[Plane Poiseuille flow](#)]