

Volumetric Flowrate

@wikipedia

Volume of fluid passing through a certain area A per unit time:

$$(1) \quad q_A = \frac{dV_A}{dt}$$

SI unit	Metric unit	Oilfield units
m^3/s	$\text{cmd} = \text{m}^3/\text{d}$	bpd

In Petroleum Industry this term depends on context and may mean pipeline flowrate or wellbore flowrate which can be measured at separator (and called Surface flowrate) or downhole (and called Sandface flowrate).

Volumetric flowrate q_A is related to mass flowrate \dot{m}_A and fluid density ρ as:

$$(2) \quad \dot{m}_A = \rho \cdot q_A$$

See Also

[Natural Science / Physics / Mechanics / Continuum mechanics / Fluid Mechanics](#)

[\[Mass Flowrate \]](#)

[Petroleum Industry / Upstream / Subsurface E&P Disciplines / Well Testing \(WT\) / Flowrate Testing](#)

[\[Well & Reservoir Surveillance \]](#)

[\[Sandface flowrates \] \[Oil sandface flowrate \] \[Gas sandface flowrate \] \[Water sandface flowrate \]](#)

[\[Surface flowrates \] \[Oil surface flowrate \] \[Gas surface flowrate \] \[Water surface flowrate \]](#)