

Mass Flux

@wikipedia

Amount of **fluid mass** passing through a unit **area** per unit time:

$$j_m = \frac{\delta m}{\delta A \delta t}$$

where

δm	the amount of mass passed through the area δA during the time δt
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SI unit	Metric unit	Oilfield units
kg/ (s · m ²)	kg/ (s · m ²)	lb / (s · ft ²)

Mass Flux vector is proportional to fluid density ρ and fluid velocity $\mathbf{u}$:

(1) $\mathbf{j}_m = \rho \mathbf{u}$

See also

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

[[Mass Flowrate](#)] [[Volumetric Flowrate](#)] [[Mass Flux Vector](#)]