

Units of Measurement

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EPANET can use either US or metric units of measurement for all of its quantities, depending on the choice of flow units

(see [Setting Analysis Options](#) or [Setting Project Defaults](#)):

- [US Customary units](#) apply when flow is expressed in cubic feet, gallons, or acre-feet
- [SI Metric units](#) apply when flow is expressed in liters or cubic meters

US Customary Units

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| Parameter | Units |
|------------------------|--|
| Concentration | mg/L or ug/L |
| Demand | (same as Flow) |
| Diameter (Pipes) | inches |
| Diameter (Tanks) | feet |
| Efficiency | percent |
| Elevation | feet |
| Emitter Coeff. | flow units / $\sqrt{\text{psi}}$ |
| Energy | kilowatt - hours |
| Flow | CFS (cubic feet / sec)(gallons / min) MGD (million gal / day) IMGD (Imperial MGD) AFD (acre-feet / day) |
| Friction Factor | unitless |
| Hydraulic Head | feet |
| Length | feet |
| Minor Loss Coeff. | unitless |
| Power | horsepower |
| Pressure | pounds per square inch |
| Reaction Coeff. (Bulk) | 1/day (1st-order) |
| Reaction Coeff. (Wall) | mass/L/day (0-order) 1/day (1st-order) |
| Roughness Coeff. | millifeet (Darcy-Weisbach) |
| Source Mass Injection | mass/minute |
| Velocity | feet/second |
| Volume | cubic feet |
| Water Age | hours |

NOTE: US Customary units apply when flow units are expressed in gallons, cubic feet, or acre-feet. [SI Metric units](#) apply when flow units are expressed in liters or cubic meters.

SI Metric Units

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| Parameter | Units |
|------------------|----------------|
| Concentration | mg/L or ug/L |
| Demand | (same as Flow) |
| Diameter (Pipes) | millimeters |
| Diameter (Tanks) | meters |
| Efficiency | percent |

| | |
|------------------------|---|
| Elevation | meters |
| Emitter Coeff. | flow units / $\sqrt{\text{meter}}$ |
| Energy | kilowatt-hours |
| Flow | LPS (liters/sec)(liters/min) MLD (megaliters/day) CMH (cubic meters/hr) CMD (cubic meters/day) |
| Friction Factor | unitless |
| Hydraulic Head | meters |
| Length | meters |
| Minor Loss Coeff. | unitless |
| Power | kilowatts |
| Pressure | meters |
| Reaction Coeff. (Bulk) | 1/days (1st-order) |
| Reaction Coeff. (Wall) | mass/L/day (0-order) 1/day (1st-order) |
| Roughness Coeff. | millimeters (Darcy-Weisbach) |
| Source Mass Injection | mass/minute |
| Velocity | meters/sec |
| Volume | cubic meters |
| Water Age | hours |

NOTE: SI Metric units apply when flow units are expressed in liters or cubic meters. [US Customary units](#) apply when flow units are expressed in gallons, cubic feet, or acre-feet.