# Volume Flow Unit Converter (m³/h, L/min, gpm, cfm, MLD)

Convert a volume flow between m³/s, m³/h, m³/min, m³/day, ML/day, litres per second and per minute, US and imperial gallons per minute, cfm and cubic feet per hour.

**Method:** NIST SP 811 (2008); Appendix B conversion factors

## Input parameters

Unit system: SI

| Parameter | Value | Unit |
|---|---|---|
| Volume flow (choose its unit) | 100.00 | m³/h |

## Calculated results

| Parameter | Value | Unit |
|---|---|---|
| cubic metre per second | 0.027778 | m³/s |
| cubic metre per hour | 100.00 | m³/h |
| cubic metre per minute | 1.6667 | m³/min |
| cubic metre per day | 2,400.0 | m³/d |
| megalitre per day (MLD) | 2.4000 | ML/d |
| litre per second | 27.778 | L/s |
| litre per minute (LPM) | 1,666.7 | L/min |
| US gallon per minute | 440.29 | US gal/min |
| imperial gallon per minute | 366.62 | imp gal/min |
| cubic foot per minute (cfm) | 58.858 | ft³/min |
| cubic foot per hour | 3,531.5 | ft³/h |

### Notes for this case

- A volume flow of a gas depends on its pressure and temperature; convert gas flows to normal conditions with the gas flow normal/actual calculator.

## Formula and method

$$1\ \text{US gal} = 231\ \text{in}^3 = 3.785\,411\,784\ \text{L}, \quad 1\ \text{imp gal} = 4.546\,09\ \text{L}$$

$$1\ \text{ft}^3/\text{min} = 1.699\,011\ \text{m}^3/\text{h}$$

### Variables

| | | |
|---|---|---|
| $Q$ | Volume flow (choose its unit) | m³/s |

### Method and standards

Exact definitions of the gallon and the foot (NIST SP 811).

### Assumptions and limits

- Volume flows of gases depend on pressure and temperature; this converts units only.

### References

- NIST SP 811 (2008)
- Appendix B conversion factors

## Report details

| | |
|---|---|
| Report reference | FCC-C6ZC-ZQMB (the same inputs always give the same reference) |
| Generated | 17 November 2026, 19:47 UTC |
| Calculator | Volume Flow Unit Converter (m³/h, L/min, gpm, cfm, MLD) |
| Method last reviewed | 12 November 2026 |
| Software release | FireCAD Calc, release of 17 November 2026 |
| Release checks | 3 reference cases of this calculator, computed independently, are checked on every release |

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

### This calculator online

https://calc.firecad.com/general/unit-conversions/flow-unit-converter

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.