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U.S. CUSTOMARY-SI CONVERSION FACTORS

In accordance with the October, 1970 action of the ASCE Board of Direction, which stated that all publications of the Society should list all measurements in both U.S. Customary and SI (International System) units, the following list contains conversion factors to enable readers to compute the SI unit values of measurements. A complete guide to the SI system and its use has been published by the American Society for Testing and Materials. Copies of this publication (ASTM E-380) can be purchased from ASCE at a price of \$3.00 each; orders must be prepaid.

All authors of *Journal* papers are being asked to prepare their papers in this dual-unit format. To provide preliminary assistance to authors, the following list of conversion factors and guides are recommended by the ASCE Committee on Metrication.

To convert	To	Multiply by
inches (in.)	millimeters (mm)	25.4
feet (ft)	meters (m)	0.305
yards (yd)	meters (m)	0.914
miles (miles)	kilometers (km)	1.61
square inches (sq in.)	square millimeters (mm ²)	645
square feet (sq ft)	square meters (m ²)	0.093
square yards (sq yd)	square meters (m ²)	0.836
square miles (sq miles)	square kilometers (km ²)	2.59
acres (acre)	hectares (ha)	0.405
cubic inches (cu in.)	cubic millimeters (mm ³)	16.4×10^3
cubic feet (cu ft)	cubic meters (m ³)	0.028
cubic yards (cu yd)	cubic meters (m ³)	0.765
pounds mass (lbm)	kilograms (kg)	0.454
tons (ton) mass	kilograms (kg)	907
pounds force (lbf)	newtons (N)	4.45
kilograms force (kgf)	newtons (N)	9.81
pounds force per square foot (psf)	pascals (Pa)	47.9
pounds force per square inch (psi)	kilopascals (kPa)	6.89
U.S. gallons (gal)	liters (L)	3.79
acre-feet (acre-ft)	cubic meters (m ³)	1.23×10^3