

Whitworth, BSF and AF spanner sizes

Selected W tool markings: 3/16 W to 1 W. W and BS are nominal bolt-size marking conventions; AF means the width across two opposite flats of the hexagon. Measure the fastener and check the tool maker's marking.

W tool marking	Paired BS marking	Hexagon AF (in)	Hexagon AF (mm)
3/16 W	1/4 BS	0.445	11.30
1/4 W	5/16 BS	0.525	13.34
5/16 W	3/8 BS	0.600	15.24
3/8 W	7/16 BS	0.710	18.03
7/16 W	1/2 BS	0.820	20.83
1/2 W	9/16 BS	0.920	23.37
9/16 W	5/8 BS	1.010	25.65
5/8 W	(11/16 BS)*	1.100	27.94
11/16 W	3/4 BS	1.200	30.48
3/4 W	7/8 BS	1.300	33.02
7/8 W	1 BS	1.480	37.59
1 W	1 1/8 BS	1.670	42.42

Read the stamp, then the dimension. 1/4 W pairs with 5/16 BS and corresponds to 0.525 in (13.34 mm) hexagon AF. A 1/4 AF tool means 0.250 in across flats: a different size. BS/BSF-style markings reflect the smaller-head convention; later reduced-head BSW fasteners also occur. Thread diameter alone does not select the tool.

* Parenthesised pairing: Samstag lists (11/16) BS opposite 5/8 W; Konnect does not list this pairing. Confirm that marking with the tool maker. The 1.100 in hexagon dimension is independently listed by Melform.

Dimensions are nominal hexagon AF, not measured jaw openings. Tool clearance, tolerances, wear and head condition affect fit. Metric values are conversions, not metric-spanner substitutions. 1 in = 25.4 mm exactly; displayed mm round half up to 0.01 mm. Display precision is not a tolerance.

Scope: selected reference, not a complete head-standard schedule. BA, pipe fittings, special heads and 1/8 W are excluded. Sources disagree at 1/8 W (0.338 / 0.340 in). No nearest-fitting substitutes are recommended.

Sources checked 17 October 2026: Melform Engineers Tools, TW range (labelled BS 2558 Grade B); Konnect Conversion Charts p.3; Samstag Whitworth table; NIST inch definition. Historical marking explanation: JRC Engineering. Full standards and tool tolerances not inspected. Source links: [online guide](#).