

Key Steel

Key Steel square and flat bar

Key Steel stockholders and suppliers, delivering throughout the UK.

A bright drawn steel in square and rectangular bar, key steel is an unalloyed medium carbon steel with reasonable tensile strength. It is supplied bright drawn in flat and square sections conforming to the specification requirements of BS46 and BS4235. Imperial sizes of key steel bar are bright drawn to plus tolerances conforming to BS46 "keys and keyways". Metric sizes of key steel bar are bright drawn to minus tolerances conforming to BS4235 "parallel and taper keys".

Alternative carbon steel grades we supply

[EN3](#) | [EN8](#) | [EN9](#) | [EN32](#) | [EN43](#) | [070M20](#) | [080M40](#) | [070M55](#) | [080A15](#) | [S275](#) | [S355](#) |

Form of Supply

As key steel suppliers West Yorkshire Steel offer rectangular and square bar in 1 metre and 3 metre lengths. Key Steel is a bright drawn carbon steel available in standard metric and imperial sizes (listed at bottom of this page).



■ Square & Flat Bar

Contact our experienced sales team who will assist you with your enquiry.

Applications

Key Steel is widely used for many general engineering applications. Typical key steel applications include taper, gibhead, plain and parallel keys.

Analysis

Carbon	0.35-0.45%	Silicon	0.05-0.35%
Manganese	0.60-1.00%	Sulphur	0.06% max
Phosphorous	0.06% max		

Heat Treatment

As a bright drawn steel bar it is uncommon to harden key steel. In its supply condition key steel has an approximate tensile strength of 500 to 700N/mm².

If heat treatment is a requirement, key steel can be heat treated by conventional methods and flame or induction hardening. Please consult your heat treatment provider for full guidance on heat treatment of key steel.

Key Steel Tolerances

Imperial Squares (")

Up to and including 7/8"	-0/+0.002"
Over 7/8" Up to and inc. 1 1/4"	-0/+0.003"
Over 1 1/4"	-0/+0.004"

Imperial Flats (")

Up to and inc. 3/4" x 1/2"	Width -0/+0.002" Thickness -0/+0.003"
7/8" x 5/8"	Width -0/+0.002" Thickness -0/+0.004"
Over 7/8" x 5/8" up to and inc. 1 1/4" x 7/8"	Width -0/+0.003" Thickness -0/+0.004"
Over 1 1/4" x 7/8" up to and inc. 1 3/4" x 1 1/4"	Width -0/+0.004" Thickness -0/+0.006"
2" x 1 1/4"	Width -0/+0.005" Thickness -0/+0.006"

Metric Squares (mm)

Up to and inc. 6mm	+0mm/-0.030mm
Over 6mm and up to and inc. 12mm	+0mm/-0.036mm
over 16mm	+0mm/-0.043mm

Metric Flats (mm)

8mm x 7mm up to and inc. 10mm x 8mm	Width +0/-0.036mm Thickness +0/-0.090mm
Over 10mm x 8mm up to and inc. 16mm x 10mm	Width +0/-0.043mm Thickness +0/-0.090mm
18mm x 11mm	Width +0/-0.043mm Thickness +0/-0.110mm
Over 18mm x 11mm up to and inc. 28mm x 16mm	Width +0/-0.052mm Thickness +0/-0.110mm
32mm x 18mm	Width +0/-0.062mm Thickness +0/-0.110mm
Over 32mm x 18mm up to and inc. 50mm x 28mm	Width +0/-0.062mm Thickness +0/-0.130mm

Key Steel Size Range

Imperial Sizes		Metric Sizes	
3/16" sq	5/8" sq	4mm sq	16mm x 28mm
3/16" x 1/4"	5/8" x 3/4"	5mm sq	18mm x 32mm
1/4" x 5/16"	5/8" x 7/8"	6mm sq	20mm sq
1/4" sq	5/8" x 1"	6mm x 10mm	20mm x 25mm
1/4" x 3/8"	3/4" sq	7mm x 8mm	20mm x 36mm
1/4" x 1/2"	3/4" x 7/8"	8mm sq	22mm sq
1/4" x 5/8"	3/4" x 1"	16mm x 20mm	22mm x 40mm
5/16" sq	3/4" x 1 1/4"	8mm x 12mm	24mm sq
5/16" x 3/8"	7/8" sq	9mm x 14mm	25mm sq
5/16" x 7/16"	7/8" x 1"	10mm sq	25mm x 40mm
5/16" x 1/2"	7/8" x 1 1/2"	10mm x 12mm	25mm x 45mm
3/8" sq	1" sq	10mm x 16mm	28mm sq
3/8" x 7/16"	1" x 1 1/4"	11mm x 18mm	28mm x 50mm
3/8" x 1/2"	1" x 1 1/2"	12mm sq	30mm sq
3/8" x 5/8"	1" x 1 5/8"	12mm x 20mm	32mm x 56mm
9/16" sq	1 1/8" sq	14mm sq	32mm sq
7/16" sq	1 1/4" sq	14mm x 22mm	36mm sq
7/16" x 5/8"	1 1/4" x 1 3/4"	14mm x 25mm	38mm sq
1/2" sq	1 1/4" x 2"	15mm sq	40mm sq
1/2" x 5/8"	1 1/2" sq 1	6mm sq	45mm sq
1/2" x 3/4"	1 1/2" x 2"	8mm x 10mm	50mm sq
1/2" x 1"	1 3/4" sq		
3/8" x 3/4"	1 3/4" x 2"		
2" sq			

Certification

Key Steel is available with a cast and analysis certificate or certificate of conformity, please request when placing any orders.

Quality Assured Supply

Key Steel steel is supplied in accordance with our ISO 9001:2015 registration.



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