

ISO TOLERANCES

The tolerances shown below are normally applied to metric sizes of drawn, turned and ground finish bright steel bars.

TOLERANCES IN MILLIMETRES

The total tolerance is taken as plus zero, minus the following;

Nominal Sizes in mm	h 11	h 10	h 9	h 8	h 7
> 1 to 3	0.060	0.040	0.025	0.014	0.010
> 3 to 6	0.075	0.048	0.030	0.018	0.012
> 6 to 10	0.090	0.058	0.036	0.022	0.015
> 10 to 18	0.110	0.070	0.043	0.027	0.018
> 18 to 30	0.130	0.084	0.052	0.033	0.021
> 30 to 50	0.160	0.100	0.062	0.039	0.025
> 50 to 80	0.190	0.120	0.074	0.046	0.030
> 80 to 120	0.220	0.140	0.087	0.054	0.035
> 120 to 180	0.250	0.160	0.100	0.063	0.040

TOLERANCES IN INCHES

The total tolerance is taken as plus zero, minus the following;

Nominal Sizes in inches	h 11	h 10	h 9	h 8	h 7
> $\frac{3}{64}$ to $\frac{1}{8}$	0.00240	0.00157	0.00098	0.00055	0.00039
> $\frac{1}{8}$ to $\frac{15}{64}$	0.00295	0.00189	0.00118	0.00071	0.00047
> $\frac{15}{64}$ to $\frac{25}{64}$	0.00354	0.00228	0.00142	0.00087	0.00059
> $\frac{25}{64}$ to $\frac{45}{64}$	0.00433	0.00275	0.00169	0.00106	0.00071
> $\frac{45}{64}$ to $1\frac{3}{16}$	0.00511	0.00331	0.00205	0.00130	0.00082
> $1\frac{3}{16}$ to 2	0.00629	0.00393	0.00224	0.00153	0.00098
> 2 to $3\frac{1}{8}$	0.00748	0.00474	0.00291	0.00181	0.00118
> $3\frac{1}{8}$ to $4\frac{3}{4}$	0.00866	0.00551	0.00342	0.00213	0.00137
> 4 to $7\frac{3}{32}$	0.00984	0.00629	0.00393	0.00248	0.00157

TENSILE RANGE DESIGNATIONS

FOR QUENCHED & TEMPERED
HIGH TENSILE STEELS

Mechanical property designation	Tensile strength MPa	
R	> 700	≤ 850
S	> 770	≤ 930
T	> 850	≤ 1 000
U	> 930	≤ 1 080
V	> 1 000	≤ 1 150
W	> 1 080	≤ 1 230
X	> 1 150	≤ 1 300
Y	> 1 230	≤ 1 380
Z	> 1 550	