
Specification for
Dimensions and tolerances
of hot rolled round steel rods
for wire drawing

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Foreword

This British Standard has been prepared under the authority of the Iron and Steel Industry Standards Committee and rationalizes the sizes of hot rolled round steel rods which are intended for wire drawing and which were previously produced in imperial standard wire gauges, fractional inch sizes and metric sizes.

Usually rods differ in their manufacture from bars by virtue of having been rolled in multi-strand mills, i.e. with more than one piece passing from the finished rolls simultaneously. However, both multi-strand and single strand rod mills are in use.

A feature of multi-strand mills is that there is an effect of one strand on the other which causes a slight variation in size when the mill is rolling one strand as against two, three or four strands. This effect only occurs over that part of the coil which is rolled when less than the full amount of strands is being rolled by the mill, and the tolerances specified in this standard take this factor into account.

It is being considered in industry whether British Standard requirements should be published for round hot rolled steel rods for other applications, with tighter tolerances.

British Standard Specification for
**Dimensions and tolerances of hot rolled
 round steel rods for wire drawing**

1. Scope

This British Standard specifies requirements for dimensions and tolerances of hot rolled round steel rods produced in coil form on single or multi-strand rolling mills and intended for wire drawing.

2. Definitions

For the purpose of this British Standard the following definitions apply:

- (1) *Rod.* Hot rolled round sections in nominal dimensions up to and including 13.0 mm.
- (2) *Coil.* A single length of rod wound in concentric rings.
- (3) *Parcel.* Any quantity of finished rod of the same nominal diameter presented for examination and test at any one time.
- (4) *Ovality.* The difference between maximum and minimum diameters measured at any one cross section.

3. Method of manufacture

Rods shall be hot rolled on single or multi-strand mills and subsequently coiled.

4. Information to be supplied by the purchaser

The following information shall be stated on the enquiry or order:

- (1) The number of this British Standard, e.g. BS 4956.
- (2) Dimensional requirements including the diameter of the rod.

5. Standard nominal rod diameters and tolerances

5.1 The standard nominal rod diameters are given in Table 1.

5.2 The tolerances on diameter shall be in accordance with Columns 2 and 4 of Table 1, when measured at any point in the coil.

5.3 Up to 5 % by weight of any coil or parcel may be in accordance with the tolerances on diameter given in Columns 3 and 5 of Table 1.

Table 1. Standard nominal rod diameters and tolerances

Standard nominal rod diameter	Tolerance on diameter		Maximum ovality	
	Column 2	Column 3	Column 4	Column 5
mm	mm	mm	mm	mm
5.5				
6.0	± 0.30	± 0.35	0.60	0.70
6.5				
7.0				
7.5				
8.0				
8.5				
9.0				
9.5				
10.0	± 0.25	± 0.30	0.50	0.60
10.5				
11.0				
11.5				
12.0				
12.5				
13.0				