

IRISH STANDARD SPECIFICATION

METAL ENTRANCE GATES

I.S. 179 : 1973

Price 55p

INSTITUTE FOR INDUSTRIAL RESEARCH AND STANDARDS

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DECLARATION

OF

SPECIFICATION

ENTITLED

METAL ENTRANCE GATES

AS

THE IRISH STANDARD SPECIFICATION FOR

METAL ENTRANCE GATES

The Institute for Industrial Research and Standards in exercise of the power conferred by section 20 of the Industrial Research and Standards Act, 1961 (No. 20 of 1961), and with the consent of the Minister for Industry and Commerce, hereby declares as follows:

1. This instrument may be cited as the Standard Specification (Metal Entrance Gates) Declaration, 1973.

2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Metal Entrance Gates.

(2) The said standard specification may be cited as Irish Standard 179:1973, or as I.S. 179:1973.

SCHEDULE

Metal Entrance Gates

SCOPE

1. This specification relates to single and double metal front entrance gates, of either tubular frame or mild steel flat frame constructions. Certain functional requirements are specified but not the detailed design.

SIZES OF GATES

2. (a) *Height.* The top of the gate framework shall be not less than 900 mm above the ground when hung with the bottom of the gate frame not more than 75 mm above the ground. Extra clearance may be required for rising drives.

(b) *Widths.* The widths, between the posts or piers, shall be one of the following:

Single gates 950 mm, 1000 mm, 1050 mm

Double gates 2400 mm, 2600 mm, 2900 mm

The leaves shall be of equal width unless otherwise required by the purchaser.

(c) *Clearance.* The widths of the gates shall be the distance between the posts. The construction of the gate shall be such as to provide an effective clear opening that does not reduce the width by more than 100 mm for single gates or 150 mm for double gates.

MATERIAL

3. Gates shall be constructed of one of the following:

(i) Mild steel of square or flat section complying with the quality requirements of British Standard 4360:1968, 'Weldable structural steels', published by the British Standards Institution, 2, Park Street, London W1A 2BS. Alternatively if required by the purchaser wrought iron of square or flat section complying with the quality requirements of any of the grades specified in British Standard 51:1939, 'Wrought iron for general engineering purposes (Grades A, B, C and D)', may be used.

(ii) Mild steel tube complying with the quality requirements of B.S. 1775:1964, 'Steel tubes for mechanical, structural and general engineering purposes', not less than Grade 13, or structural hollow sections complying with the quality requirements of B.S. 4: Part 2: 1969, 'Hot-rolled hollow sections' and B.S. 4360:1968.

CONSTRUCTION

4. Gates shall have a continuous framework. The frames shall be square and true. The design of infilling shall be such as will minimise the danger of children becoming entrapped between the bars.

Gates of solid sections shall be welded all around at all junctions of frames and infilling in accordance with the requirements of B.S. 1856:1964, 'General requirements for the metal-arc welding of mild steel'.

Gates of hollow sections shall be welded all around at all junctions in accordance with the requirements of B.S. 938:1962, 'General requirements for the metal-arc welding of structural steel tubes to B.S. 1775'.

Scrollwork shall be fully welded along the top side at all junctions in accordance with the requirements of B.S. 1856:1964.

Gates shall have no rough, sharp or jagged edges. Welding slag shall be removed.

DIMENSIONS OF COMPONENTS

5. (a) *Framework*. The dimensions of the components shall be not less than the values given below:

Table 1a Solid Sections

Type of gate	Hanging stile		Remainder of framework	
	Size	Min. weight	Size	Min. weight
	mm	kg/m run	mm	kg/m run
Single, and Double less than 2.75 m in width	22 × 22	3.80	20 × 12	1.88
			or 16 × 16	2.01
Double 2.75 m and over	25 × 25	4.91	25 × 12	2.36
			or 18 × 18	2.54

Table 1b Tubing and Hollow Sections

Type of gate	Profile	Size	Minimum thickness
Single	round square	mm 21.3 o.d. 19.1 × 19.1	mm 2 2
Double	round square	26.9 o.d. 25.4 × 25.4	2.3 2

(b) *Infilling*.

(i) *Straight or shaped bars*: 12 mm square or 12 mm in diameter.

(ii) *Ornamental scrollwork*: 12 mm \times 5 mm and a minimum weight of 0.47 kg/m run.

(iii) *Tubing or hollow section*: circular hollow section with an outside diameter of 13.5 mm or square hollow section 12.7 mm \times 12.7 mm. Wall thickness in either case not less than 1.8 mm.

(iv) *Panel infilling* such as mesh or sheet may be used by agreement between the purchaser and the supplier.

HANGING AND LATCHING FITTINGS

6. (a) *Hanging Fittings*. Hanging fittings shall be welded all around or bolted to the gate frame.

The clearance between the pins and the eyes shall be such as to provide a reasonable fit. The material forming any eye for the hinge shall have a minimum cross-section of 18 mm \times 5 mm formed into an eye, or 22 mm \times 10 mm holed to fit the pin. Hinge pins shall be not less than 12 mm in diameter.

(b) *Fastenings*. The fastening shall be such that, when closed, the gates are held securely in position. Latch bars, if flat, shall be not less than 25 mm \times 6 mm. Where requested provision shall be included for securing the latch with a padlock.

(c) *Slam Plates and Drop Bolts*. Double gates shall be provided with a slam plate of a minimum thickness of 6 mm. One leaf shall be provided with a drop bolt of a minimum diameter of 12 mm with an adequate ground socket.

PROTECTIVE TREATMENT

7. Gates shall be given one of the protective treatments set out below unless some other treatment is agreed between purchaser and supplier. For treatments (i) and (ii) all rust, loose scale, and weld spatter shall be removed and the surface degreased.

(i) One works coat of red oxide primer complying with the requirements of British Standard 2524:1966 'Red oxide-linseed oil priming paint',

(ii) One works coat of a primer containing an effective proportion of inhibitive pigment excluding lead or chromate pigments,

(iii) A sprayed metal coating complying with British Standard 2569: Part 1: 1964 'Protection of iron and steel by aluminium and zinc against atmospheric corrosion',

(iv) Galvanizing complying with the requirements of British Standard 729:1971 'Hot dip galvanized coatings on iron and steel articles'.

MARKING

8. Gates shall have the following information legibly marked on them or on a securely attached label:

- (i) Manufacturer's name or mark,
- (ii) the inscription "I.S. 179:1973".

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