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International Standard



5019/6

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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**Refractory bricks — Dimensions —  
Part 6 : Basic bricks for oxygen steel-making converters**

*Briques réfractaires — Dimensions — Partie 6 : Briques basiques pour convertisseurs à oxygène*

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**Descriptors** : steel converters, refractory materials, bricks, dimensions, designation.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5019/6 was prepared by Technical Committee ISO/TC 33, *Refractories*.

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# Refractory bricks — Dimensions — Part 6: Basic bricks for oxygen steel-making converters

## 0 Introduction

This document provides for twelve thicknesses of lining, rising from a minimum of 250 mm to a maximum of 800 mm in steps of 50 mm.

For each lining thickness there is a rectangular brick (i.e. a brick with zero taper) and bricks with either four rates of taper (for the five smallest thicknesses) or five (for the seven largest thicknesses). All the bricks have a constant median dimension of 150 mm.

The course height is uniformly 100 mm.

## 1 Scope and field of application

1.1 This part of ISO 5019 specifies the dimensions of basic refractory bricks for use in oxygen steel-making converters.

1.2 For information, the calculated volume of each size of brick is shown in the table, and also the internal diameter of lining for which each size is suitable, if used alone. These diameters have been calculated with no allowance for joint thickness.

## 2 Dimensions

The dimensions of basic bricks for use in oxygen steel-making converters shall be as shown in the table.

The letters designating the dimensions in the table are shown in the figure. The letters do not necessarily apply to tables and figures in other International Standards.

## 3 Bricks designations

Each brick size has a conventional designation, as shown in the first column of the table. Each designation consists of two

groups of digits separated by a solidus (slash). The first group, of two digits, before the solidus, shows the brick length (or lining thickness) in centimetres; the second group, after the solidus, shows the difference between the cold and hot face dimensions in millimetres (i.e. the rate of taper). In the case of a rectangular brick the second group is a single zero.

## 4 Tolerances

Tolerances on the dimensions specified in the table shall be the subject of agreement between the purchaser and the supplier.

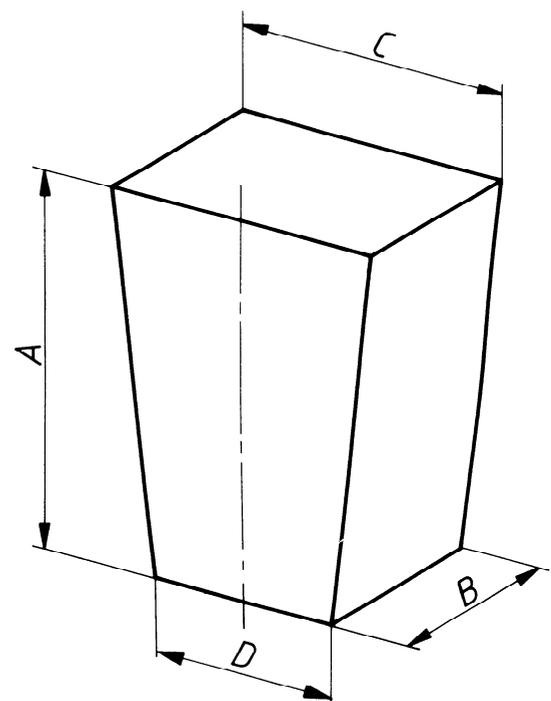


Figure — Brick for oxygen steel-making converters

Table — Dimensions of basic bricks for oxygen steel-making converters

Designation	Dimensions mm			Internal diameter m	Volume dm <sup>3</sup>
	A	B	C/D		
25/60	250	100	180/120	1,000	3,75
25/30			165/135	2,250	
25/16			158/142	4,438	
25/8			154/146	9,125	
25/0			150/150	—	
30/70	300	100	185/115	0,986	4,50
30/40			170/130	1,950	
30/20			160/140	4,200	
30/8			154/146	10,950	
30/0			150/150	—	
35/80	350	100	190/110	0,963	5,25
35/40			170/130	2,275	
35/20			160/140	4,900	
35/8			154/146	12,775	
35/0			150/150	—	
40/80	400	100	190/110	1,100	6,00
40/40			170/130	2,600	
40/20			160/140	5,600	
40/8			154/146	14,600	
40/0			150/150	—	
45/90	450	100	195/105	1,050	6,75
45/40			170/130	2,925	
45/20			160/140	6,300	
45/8			154/146	16,425	
45/0			150/150	—	
50/100	500	100	200/100	1,000	7,50
50/60			180/120	2,000	
50/36			168/132	3,667	
50/20			160/140	7,000	
50/8			154/146	18,250	
50/0	150/150	—			

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Table — Dimensions of basic bricks for oxygen steel-making converters (concluded)

Designation	Dimensions mm			Internal diameter m	Volume dm <sup>3</sup>
	A	B	C/D		
55/110	550	100	205/95	0,950	8,25
55/60			180/120	2,200	
55/36			168/132	4,033	
55/20			160/140	7,700	
55/8			154/146	20,075	
55/0			150/150	—	
60/120			600	100	
60/60	180/120	2,400			
60/36	168/132	4,400			
60/20	160/140	8,400			
60/8	154/146	21,900			
60/0	150/150	—			
65/120	650	100			210/90
65/60			180/120	2,600	
65/36			168/132	4,767	
65/20			160/140	9,100	
65/8			154/146	23,725	
65/0			150/150	—	
70/120			700	100	210/90
70/60	180/120	2,800			
70/36	168/132	5,133			
70/20	160/140	9,800			
70/8	154/146	25,550			
70/0	150/150	—			
75/120	750	100			210/90
75/60			180/120	3,000	
75/36			168/132	5,500	
75/20			160/140	10,500	
75/8			154/146	27,375	
75/0			150/150	—	
80/120			800	100	210/90
80/60	180/120	3,200			
80/36	168/132	5,867			
80/20	160/140	11,200			
80/8	154/146	29,200			
80/0	150/150	—			

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