

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 3663 (1991): Dimensions of tables and chairs for office purposes [CED 35: Furniture]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



भारतीय मानक  
कार्यालय प्रयोजनों के लिये मेजों और कुर्सियों के आयाम  
(दूसरा पुनरीक्षण)

2010

*Indian Standard*  
DIMENSIONS OF TABLES AND CHAIRS FOR  
OFFICE PURPOSES  
(*Second Revision*)

First Reprint FEBRUARY 2010  
(Including Amendment No. 1)

UDC 684.43/.44 : 651.2 : 006.78

© BIS 1991

**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

January 1991

Price Group 2

**AMENDMENT NO. 1 AUGUST 1992**  
**TO**  
**IS 3663 : 1991 DIMENSIONS OF TABLES AND CHAIRS**  
**FOR OFFICE PURPOSES**

*( Second Revision )*

*( Page 1, clause 3.1.1.2 )* — Substitute the following for the existing clause:

*3.1.1.2 Effective Seat Depth*

The effective depth  $B$  of the seat is the horizontal distance measured on the centre line of seat width  $C$  from the front edge, to the vertical projection of the point  $X$  of the chair back, on this centre line.'

*( Page 1, clause. 3.2.1.3 )* — Delete.

*( Page 3, Fig. 1 )* — The distance  $B$  shall be measured from front edge of the seat to the vertical projection of the point  $X$ , measured on the centre line of seat width  $C$ .

( CED 35 )

## FOREWORD

This Indian Standard ( Second Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Furniture Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1966 and subsequently revised in 1981. This second revision has been taken up to revise height of chair and table based on latest anthropometric data available regarding height of Indian males and females. In this revision backrest of an office chair is also incorporated which shall provide adequate support for the office worker in lumber region. In addition to the above leg room and footrest details have also been incorporated.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values ( *revised* )'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***DIMENSIONS OF TABLES AND CHAIRS FOR  
OFFICE PURPOSES***( Second Revision )***1 SCOPE**

**1.1** This standard specifies essential dimensions of office type tables and chairs.

**2 REFERENCES**

2.1 The Indian Standard specification IS 4414 : 1990 'Wooden table top' is necessary adjunct to this standard.

**3 TERMINOLOGY**

**3.0** For the purpose of this standard, the following definitions shall apply.

**3.1 Office Chair** ( see Fig. 1 and 2 )3.1.1 *Seat*3.1.1.1 *Seat height*

Seat height *A* of the chair means the distance between the highest point on the line joining the middle point of the front and back of seat of chair and the floor surface. In the case of cushioned seats or seats with springs the height shall be measured after applying a uniform load of 600 N on the entire surface of the seat.

3.1.1.2 *Seat depth*

The depth *B* of the chair means the dimensions measured from front to back across the chair in the middle of the seat.

3.1.1.3 *Seat width*

The width **C** of the chair means the dimension measured from side to side on a line parallel to the front of the chair, and at the middle of seat.

3.1.2 *Armrest*3.1.2.1 *Height G*

The height *G* is the vertical distance measured from point *Z* to the substantially fiat part of the armrest.

3.1.2.2 *Inside dimension G<sub>1</sub>*

The inside dimension *G<sub>1</sub>* is the horizontal distance between armrests measured at the height of the substantially fiat part of the armrest.

3.1.2.3 *Length G<sub>3</sub>*

The length *G<sub>3</sub>* is the horizontal distance between

the front and back of the substantially flat part of the armrest.

3.1.2.4 *Width G<sub>4</sub>*

The width *G<sub>4</sub>* is the horizontal distance between the edges of the substantially flat part of the armrest.

## 3.2 Office Chair ( see Fig. 1 and 2 )

Adjustable revolving type.

3.2.1 *Seat*3.2.1.1 *Seat height A*

The height *A* of a chair seat is the height of the highest point of the front edge of the seat measured from the floor on the centre line of seat width *C*.

3.2.1.2 *Effective seat depth B*

The effective depth *B* of the seat is the horizontal distance measured on the centre line of seat width *C* from the front edge to the vertical projection of the point *X* of the chair back on this centre line. If the back is adjustable, *B* is measured with the back adjusted to its mid height.

3.2.1.3 *Seat pad depth B<sub>i</sub>*

The depth *B<sub>i</sub>* of the seat pad is the horizontal distance measured on the centre line of seat width *C* between the vertical projections of the front and back seat edges.

3.2.1.4 *Seat width C*

The width *C* of the seat is the horizontal distance between the upper edges of the chair sides, measured perpendicularly to the centre line of width of the seat, at a point 125 mm forward from the vertical projection of the point *X* of the chair back on this line, and with the chair back placed in its most forward position.

3.2.2 *Backrest*3.2.2.1 *Reference point X*

Point *X* is the centre of the area on the backpad that provides essential lumbar support.

3.2.2.2 *Height V*

Height *V* is the height of the area on the backpad that provides essential lumbar support.

**3.2.2.3 Backrest height *W***

The backrest height *W* is the vertical height from *X* to *Z*, measured with the seat ( if upholstered ) compressed. If the backrest is adjustable, it is placed in its most forward position. If the back-pad is pivoted about a horizontal axis, it is put in a vertical position.

**3.2.2.4 Reference point *Z***

Point *Z* is the intersection of the axis of rotation of the seat and the upper surface of the seat compressed.

**3.2.3 Same as 3.1.2.**

**3.3 Office Table**

**3.3.1 Length *O***

The length *O*, of office table is the horizontal dimension of the longer side of the top of the work surface.

**3.3.2 Width *P***

The width *P* is the horizontal dimension of the shorter side of the top of the work surface.

**3.3.3 Height *H***

The height *H* is the vertical dimension from the floor to the top of the work surface measured on the front edge of the surface at the mid-point of the length.

**3.3.4 Leg Room**

The free space for the legs and feet under the work surface.

**3.3.4.1 Height *R***

The height *R* is the vertical dimension from the floor to the underside of the top of the desk, table or worktop.

**3.3.4.2 Length *T***

The length *T* is the horizontal dimension across the kneehole.

**3.3.4.3 Width *S***

The width *S* is the horizontal dimension of the leg room at the underside of the top of the desk, table or worktop.

**3.3.4.4 Width *S*<sub>1</sub>**

The width *S*<sub>1</sub> is the horizontal dimension of the leg room measured at a reference point *Y* 100 mm above the floor.

**3.4 Footrest**

**3.4.1** The working position may need to include a footrest in which case the footrest shall comply with the following.

**3.4.1.1** It shall be free standing.

**3.4.1.2** It shall ensure sufficient space for the feet and allow changes in position. The top surface shall be flat.

**3.4.1.3** Its dimensions shall be as specified in 4.4.

**4 DIMENSIONS**

**4.1 Office Chairs**

The dimension of the office chairs shall be as specified in Table 1.

**4.1.1 Slope of the Backrest**

The angle between the vertical plane of the backrest and the horizontal plane of the seat shall be 95 to 105°.

**4.2** The dimensions of office chairs, adjustable type shall be as specified in Table 1.

**4.3 Office Table ( see Fig. 3 and 4 )**

**4.3.1 Dimensions of the Table Tops**

Dimensions of table tops shall be in accordance with IS 4414 : 1990.

**4.3.2 Height of the Table**

Height of the table shall be as specified in Table 2.

**4.3.2.1 Leg room**

In all cases the required leg room as specified in Table 2 shall be provided, and the space defined by the dimensions *R*, *S*, *S*<sub>1</sub> and *T* ( see Fig. 4 ) shall be left free, except for a footrest (if provided ).

**4.4 Footrests ( see Fig. 3 and 4 )**

The dimensions of footrests shall be:

Length *Q*<sub>1</sub> : 450 mm, *Min*

Width *Q*<sub>2</sub> : 350 mm, *Min*

Height *Q*<sub>3</sub> :

Fixed: front edge *l*<sub>1</sub>, 40 ± 5 mm  
 rear edge *l*<sub>2</sub>, 100 mm, *Min*

Adjustable: front edge *l*<sub>1</sub>, 35 mm, *Min*  
 slope 10° to 20°



**Table 1 Dimensions of Office Chairs**  
( See Fig. 1 and 2 )  
( Clauses 4.1 and 4.2)

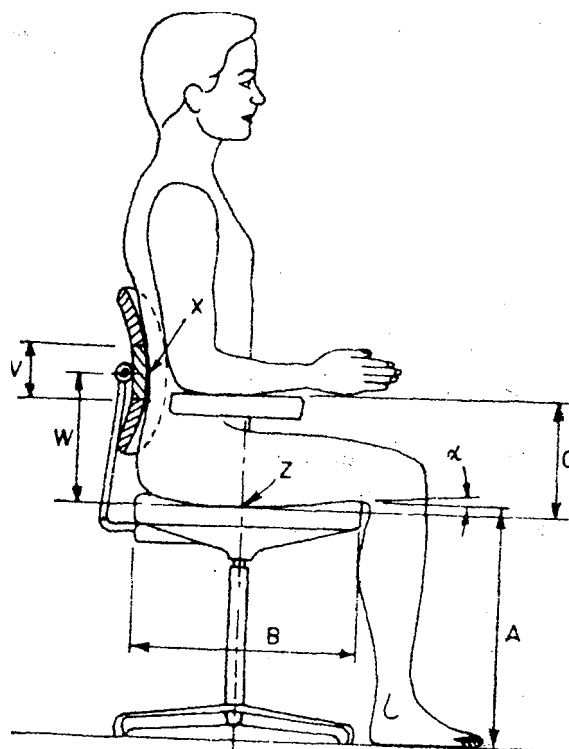
Seat	mm
<b>A Seat height:</b>	
— Chair with fixed height seat	435 ± 5
— Chair with adjustable height seat	390 to 480
<b>B Effective seat depth:</b>	
— Chair with fixed back	390 Min, 430 Max
— Chair with adjustable back	390 Min, 450 Max
<b>C Seat width</b>	450 Min
<b>Slope of the seat in relation of horizontal from front to back</b>	0° — 6° backward
<b>ARMRESTS ( if provided )</b>	
<b>G Height of armrests above point Z of the seat</b>	200 ± 5
<b>Gi Inside distance between armrests</b>	440 Min
<b>Gt Set back of armrests in relation to the front of the seat</b>	100 Min
<b>G<sub>a</sub> Length of the armrests</b>	200 Min
<b>G<sub>t</sub> Width of the armrests</b>	50 Min
<b>BACKREST</b>	
mm	
<b>W Centre of the backrest above Z</b>	
— Chair with fixed backrest	250 ± 10
— Chair with adjustable backrest	200 to 250
<b>V Vertical height of area of essential lumbar support ( having X at its centre )</b>	200 Min
<b>F Width of area of essential lumbar support</b>	360 Min, 420 Max
<b>V Horizontal curvature of lumbar support, radius</b>	400 Min, 450 Max
<b>Tilting 104° 120° ( see Note 2 )</b>	

**NOTES**

1 The range of adjustment provided shall include at least the specified minimum range and may be larger.

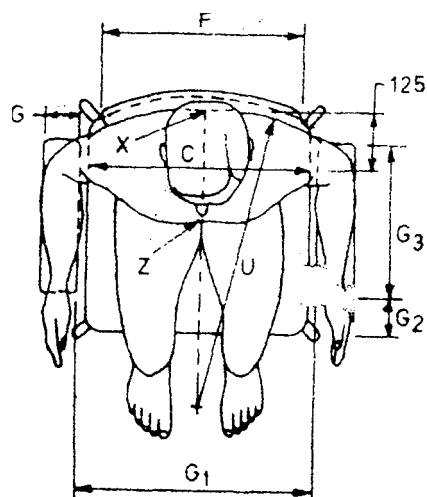
2 Care shall be taken that in case of backrest the top edge does not end at the middle of the wing bone of the back. It should be raised either up to the shoulder level or it should be below the lower part of the wing bore in normal upright casual sitting posture while upper arm hanging vertically and elbow flexion is 90°.

3 For high backrest angle range — 20° for lower backrest range restricted from 95° to 105°.



All dimensions in millimetres.

**FIG. 1 OFFICE CHAIR ADJUSTABLE REVOLVING TYPE**



AH dimensions in millimetres.

**FIG. 2 OFFICE CHAIR ( PLAN VIEW )**

Table 2 Dimensions of Tables ( See Fig. 3 and 4 )  
( Clauses 4.3.2 and 4.3.2.1 )

Tables	General Purpose mm
H Height of top surface: Fixed height top	710 ± 10
Hi Height at which typewriter or accounting machine is accommodated	635 ± 5
R Clearance below desk top: Fixed height top	640, Min
Adjustable height top	610, Min
T Clearance across the kneehole	580, Min
S Leg room, front to back ( upperside )	450, Min
Si Leg room, front to back ( lowerside )	600, Min

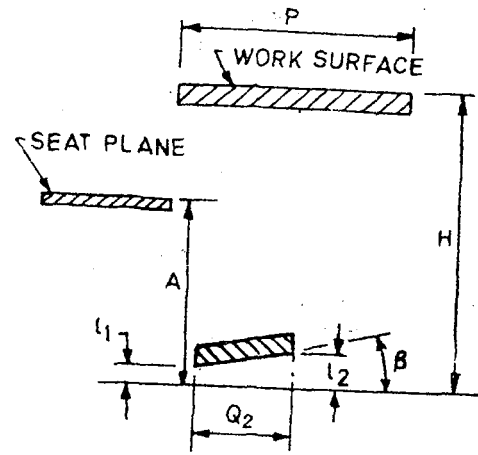


FIG. 3 TABLE

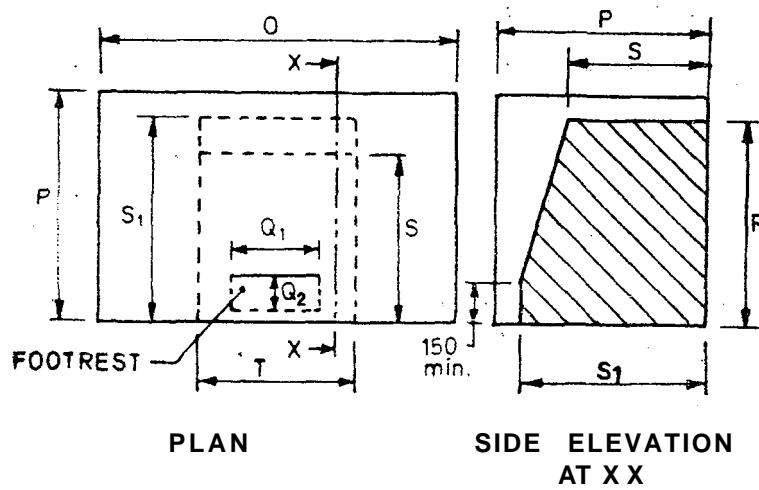


FIG. 4 LEG ROOM

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: CED 35 (4676).

### Amendments Issued Since Publication

Amendment No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones- 2323 0131, 2323 3375, 2323 9402 Website: www.bis.org.in

### Regional Offices:

	Telephones
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14, C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

**Branches:** AHMEDABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATQRE. DEHRADUN, FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. NAGPUR. PARWANOO. PATNA. PUNE. RAJKOT. THIRUVANANJHAPURAM. VISAKHAPATNAM.