

IS 14138 (Part 2) : 1994

भारतीय मानक

शवास-रक्षी युक्तियां : चेहरे के आवरण के लिए उपकरण
की चूड़ियाँ

भाग 2 मध्य चूड़ी संयोजन

Indian Standard

**RESPIRATORY PROTECTIVE DEVICES :
THREADS FOR FACEPIECES**

PART 2 CENTRE THREAD CONNECTION

UDC 614'894 ; 621'882'082 : 621'643'414

© BIS 1994

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

May 1994

Price Group 3

FOREWORD

This standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Industrial Safety Sectional Committee had been approved by the Chemical Division Council.

Centre thread connections are very often used in the facepieces of breathing apparatus and respiratory protective devices and therefore are matter of utmost importance so far as the reliability of the equipment is concerned. Realizing the need for its standardization, the Industrial Safety Sectional Committee CHD 008 decided to formulate this standard. While formulating this Indian standard considerable assistance has also been taken from EN 148 (Part 2) : 1987. **Respiratory protective devices; Threads for facepieces, Part 2 Centre thread connection** published by European Committee for Standardization and this standard is now harmonized with EN 148 (Part 2) : 1987.

The composition of the Committee responsible for formulation of this standard is given in Annex A.

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 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***RESPIRATORY PROTECTIVE DEVICES :
THREADS FOR FACEPIECES****PART 2 CENTRE THREAD CONNECTION****1 SCOPE**

This Indian Standard applies to centre threads for respiratory protective devices, excluding diving equipment and to positive pressure demand breathing apparatus.

2 REFERENCES

The following Indian Standard is a necessary adjunct to this standard.

IS 8347 : 1977 Glossary of terms relating to respiratory protective device (Reaffirmed in February 1991)

3 TERMINOLOGY

3.1 For the purpose of this standard the definitions given in IS 8347 : 1977 shall apply.

3.2 In addition to 3.1 the following definitions shall apply.

3.2.1 Crest

The prominent part of the thread, whether the thread be external or internal.

3.2.2 External Thread

The thread on the outside of a member.

3.2.3 Height of Thread

The radial distance between crest and root of the thread.

3.2.4 Internal Thread

The thread on outside of a member.

3.2.5 Major Diameter

The major diameter of a parallel thread is the

diameter of the imaginary co-axial cylinder, which just touches the root of an internal thread or crest of an external thread.

3.2.6 Minor Diameter

The major diameter of a parallel thread is the diameter of the imaginary co-axial cylinder, which just touches the root of an external thread or crest of an internal thread.

3.2.7 Nominal Size

The nominal size of a dimension or part is the size by which it is referred to as a matter of convenience.

3.2.8 Root of Thread

The bottom of the root between the two flanking surfaces of the thread, whether the thread, be external or internal.

4 REQUIREMENTS**4.1 Centre Thread Connector (A) for CO₂ — Absorbing Cartridges**

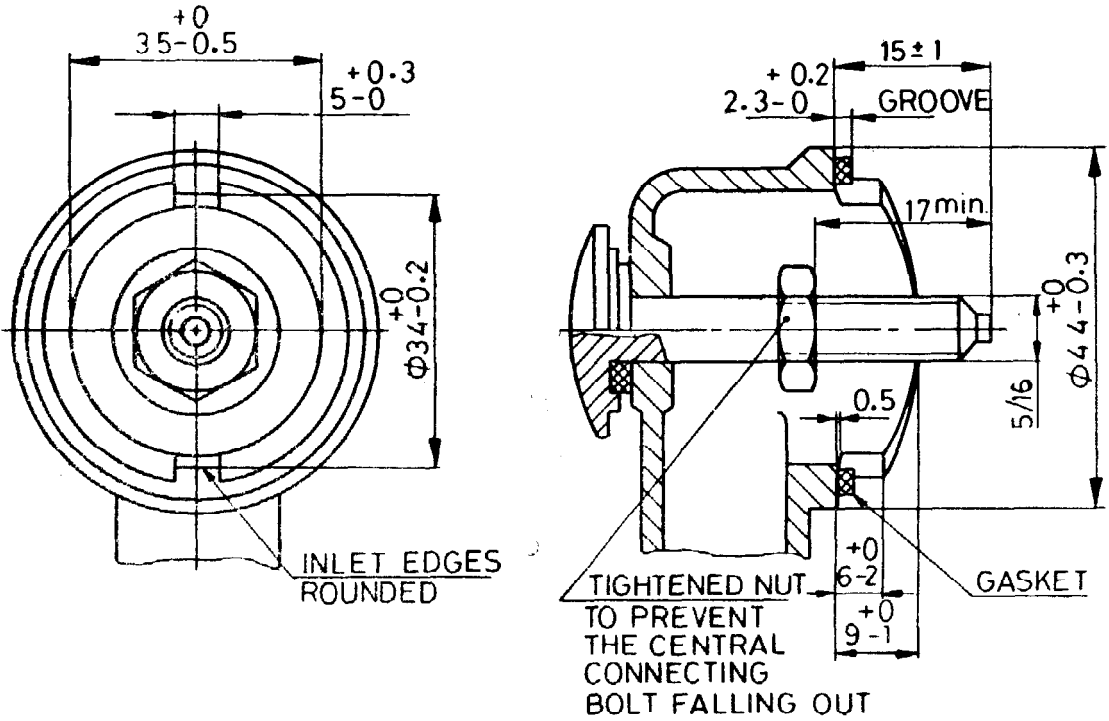
The dimensional requirements and other details of coupling elbow and gasket are given in Fig. 1 and Fig. 2. However the position of slots is optional.

4.2 Centre Thread Connector (B) for Equipment Connector

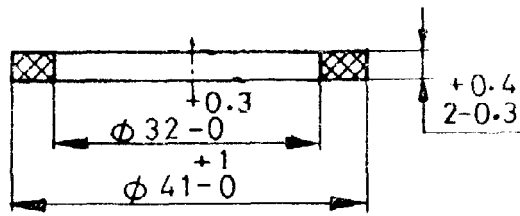
The dimensional requirements and other details of coupling elbow and gasket are given in Fig. 3 and Fig. 4.

4.3 Thread Bridge AB (For Connector A and B)

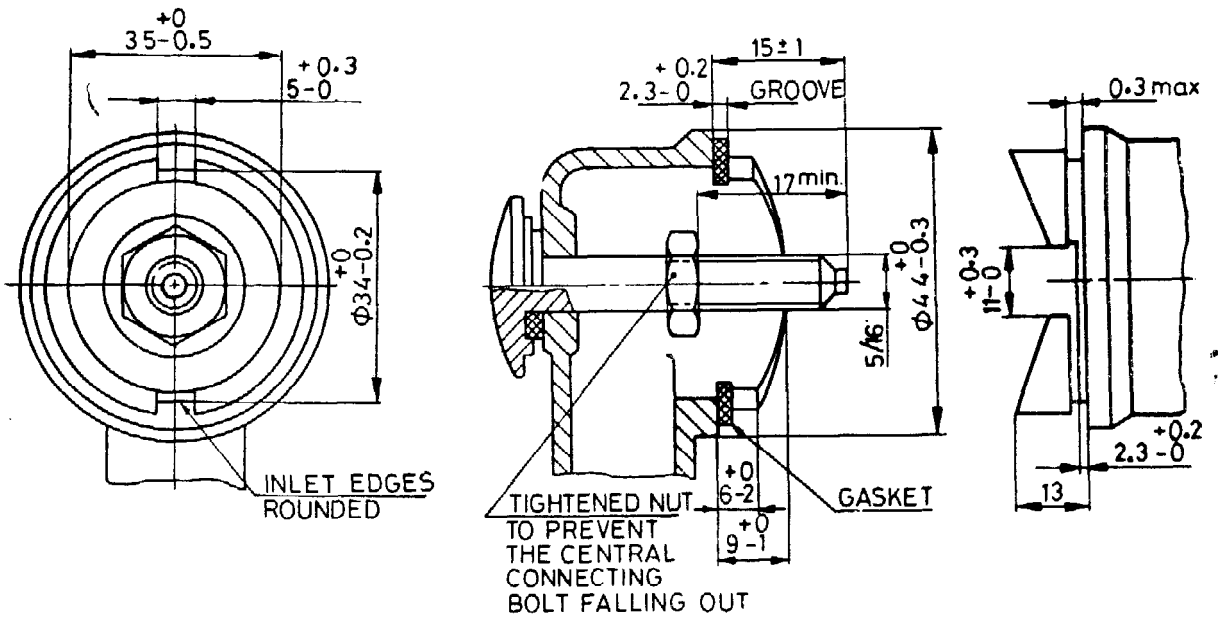
The dimensional requirements and other details of thread bridge connector for connectors A and B are given in Fig. 5 and Table 1.



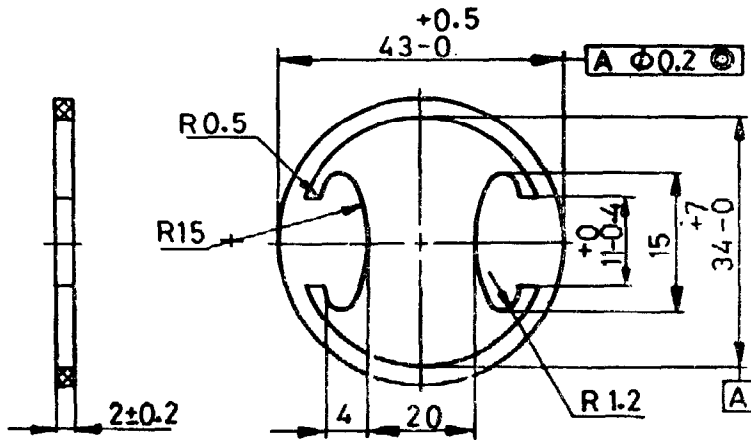
All dimensions in millimetres.
FIG. 1 COUPLING ELBOW



All dimensions in millimetres.
FIG. 2 GASKET

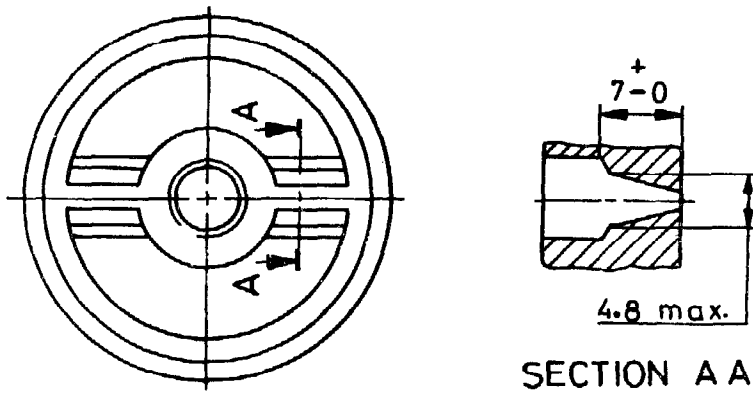


All dimensions in millimetres.
FIG. 3 COUPLING ELBOW BA

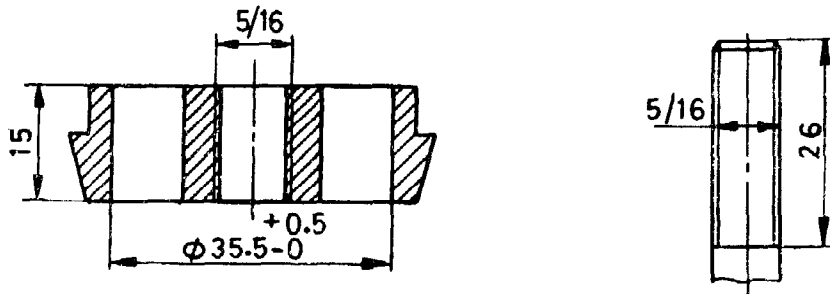


All dimensions in millimetres.

FIG. 4 GASKET



SECTION A A



All dimensions in millimetres.

FIG. 5 THREAD BRIDGE AB (FOR CONNECTOR A AND B)

Table 1 Dimensions for Thread 5/16

(Clause 4.3)

All Dimensions in millimetres.

Thread	Thread limits												Pitch	Number of threads per 24.5	Thread height
	External thread						Internal thread								
	Major diameter		Pitch diameter		Minor diameter		Major diameter		Pitch diameter		Minor diameter				
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min			
5/16	7.937	7.805	7.033	6.962	6.129	5.979	7.937	—	7.139	7.033	6.588	6.129	1.411	18	0.904

ANNEX A (Foreword)

COMMITTEE COMPOSITION

Industrial Safety Sectional Committee, CHD 008

<i>Chairman</i>	<i>Representing</i>
SHRI K. C. GUPTA	National Safety Council, Bombay
<i>Members</i>	
SHRI PREM BAWEJA	Hindustan Aeronautics Limited, Bangalore
SHRI B. VIJAY KUMAR (<i>Alternate</i>)	Employees State Insurance Corporation, Calcutta
SHRI BHAGWATI PRASAD	Ministry of Defence (DGQA), New Delhi
SHRI SATISH CHANDER (<i>Alternate</i>)	Directorate General of Technical Development, New Delhi
DR A. K. BORAL	Defence Institute Fire Research, New Delhi
SHRI R. SRINIVASAN (<i>Alternate</i>)	Directorate General of Mines Safety, Dhanbad
DR D. R. CHAWLA	Institute of Fire Engineers (India), New Delhi
SHRI M. K. BANERJEE (<i>Alternate</i>)	Central Boiler Board, New Delhi
SHRI P. K. CHATTERJEE	Mining, Geological and Metallurgical Institute of India, Calcutta
SHRI H. S. KAPRAWAN (<i>Alternate</i>)	Safety Appliances Manufacturers Association, Calcutta
DIRECTOR (MINES SAFETY)	Standing Committee on Safety for Steel Industries, Ranchi
SHRI A. K. RUDRA (<i>Alternate</i>)	Directorate General Factory Advice Services and Labour Institute, Bombay
SHRI H. S. GAHLAUT	Factory Inspectorate, Government of Maharashtra, Bombay
SHRI B. R. MEHTA (<i>Alternate</i>)	Chief Controller of Explosives, Nagpur
SHRI V. K. GOEL	Central Mining Research Station, Dhanbad
SHRI M. L. AHUJA (<i>Alternate</i>)	Standing Fire Advisory Council, New Delhi
SHRI S. P. GOENKA	Indian Pesticide Association, New Delhi
SHRI N. DUTTA (<i>Alternate</i>)	Directorate General Civil Aviation (National Airport Authority), New Delhi
SHRI M. KANT	Bhabha Atomic Research Centre, Bombay
SHRI KIRIT MARU (<i>Alternate</i>)	Ministry of Petroleum and Natural Gas (Oil Industries Safety Directorate), New Delhi
DR J. MAHAPATRA	National Safety Council, (Bombay)
SHRI M. K. MALHOTRA	Indian Cotton Mills Federation, Bombay
SHRI H. N. MIRASHI	Indian Chemical Manufacturers Association, Calcutta
DR H. MUKHERJEE	Central Leather Research Institute, Madras
SHRI C. M. SHARMA (<i>Alternate</i>)	Confederation of Indian Industries, New Delhi
SHRI R. N. MUKHERJEE	Indian Space Research Organization, Government of India (Deptt. of Space), Andhra Pradesh
SHRI A. BANERJEE (<i>Alternate</i>)	National Institute of Occupational Health, Ahmedabad
SHRI S. K. MUKHERJI	Director General, BIS (<i>Ex-officio Member</i>)
SHRI A. K. GHOSH (<i>Alternate</i>)	
SHRI P. S. PRUTHI	
SHRI SURESH KAPOOR (<i>Alternate</i>)	
SHRI P. RAJENDRAN	
SHRI H. S. RAWAT (<i>Alternate</i>)	
SHRI A. RAMAMURTHY	
SHRI K. RAVICHANDRA	
SHRI M. SRIVASTAVA (<i>Alternate</i>)	
SHRI A. J. REGO	
SHRI R. P. BHANUSHALI (<i>Alternate</i>)	
SHRI M. R. SAMPATH	
SHRI O. N. DAGA (<i>Alternate</i>)	
SHRI SURENDRA KUMAR	
SHRI R. PARTHASARTHY (<i>Alternate</i>)	
REPRESENTATIVE	
REPRESENTATIVE	
REPRESENTATIVE	
REPRESENTATIVE	
DR R. K. SINGH, Director (Chem)	

Member Secretary

SHRI P. MUKHOPADHYAY
Joint Director (Chem), BIS

Personal Protective Equipment, Subcommittee, CHD 008 : 01

<i>Convener</i>	<i>Representing</i>
SHRI R. N. MUKHERJEE	Central Mining Research Station, Dhanbad
<i>Members</i>	
SHRI VIVEK BHARGAVA	Industrial Medical Engineer, New Delhi
SHRI VIKAS BHARGAVA (<i>Alternate</i>)	Ministry of Defence (DGQA), New Delhi
SHRI S. CHATTOPADHYAY	
SHRI K. K. DUTTA (<i>Alternate</i>)	

(Continued on page 6)

(Continued from page 5)

Members

SHRI S. K. DANGWAL
SHRI M. H. FULEKAR (Alternate)
SHRI A. N. INDURKAR
SHRI PRATAP NAIR (Alternate)
SHRI S. K. MUKHERJEE
SHRI B. R. MEHTA (Alternate)
SHRI C. PERREIRA
SHRI DON RISHBERT (Alternate)
SHRI A. RAMAMURTHY
SHRI B. SADHUKHAN
SHRI A. GHATAK (Alternate)
SHRI S. SANYAL
SHRI J. N. SHARMA
REPRESENTATIVE

Representing

Central Labour Institute, Bombay
Mines Safety Appliances, Calcutta
Institute of Fire Engineers, New Delhi
Joseph Leslie & Co, Bombay
Bhabha Atomic Research Centre, Bombay
Ministry of Petroleum & Natural Gas (Oil Industries Safety
Directorate), New Delhi
Coal India Ltd, Calcutta
Indian Petrochemicals Limited, Baroda
Directorate General of Mines Safety, Dhanbad

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 the 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 Handbook' and 'Standards Monthly Additions'.

This Indian Standard has been developed from Doc No. : CHD 008 (0443)

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices:

Telephones

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002

{ 331 01 31
{ 331 13 75

Eastern : 1/14 C.I.T. Scheme VII M, V.I.P. Road, Maniktola
CALCUTTA 700054

{ 37 84 99, 37 85 61
{ 37 86 26, 37 86 62

Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036

{ 53 38 43, 53 16 40
{ 53 23 84

Southern : C.I.T. Campus, IV Cross Road, MADRAS 600113

{ 235 02 16, 235 04 42
{ 235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
BOMBAY 430093

{ 632 92 95, 632 78 58
{ 632 78 91, 632 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE.
FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR.
LUCKNOW. PATNA. THIRUVANANTHAPURAM.