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IS 8008-8 (2003): Injection Moulded/Machined High Density Polyethylene (HDPE) Fittings for Potable Water Supplies, Part 8: Specific Requirements for Reducing Tees [CED 50: Plastic Piping System]



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भारतीय मानक

पेयजल पूर्ति के लिए अन्तःक्षेपण संचकित
एच डी पी ई फिटिंगें — विशिष्टि

भाग 8 रिड्यूसिंग टी की विशिष्ट अपेक्षाएँ
(पहला पुनरीक्षण)

Indian Standard

INJECTION MOULDED/MACHINED HIGH DENSITY
POLYETHYLENE (HDPE) FITTINGS FOR POTABLE
WATER SUPPLIES — SPECIFICATION

PART 8 SPECIFIC REQUIREMENTS FOR REDUCING TEES

(First Revision)

ICS 83.140.30; 91.140.60

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

FOREWORD

This Indian Standard (Part 8) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastic Piping System Sectional Committee had been approved by the Civil Engineering Division Council.

This standard covers general requirements for injection moulded/machined HDPE fittings which are used for connection by welding process to HDPE pipes covered by IS 4984 : 1995 'High density polyethylene pipe for water supply (*fourth revision*)'.

This standard was first published in 1976. Keeping in view the developments in this field and considering revision of IS 4984 this standard has been revised.

The requirements of injection moulded/machined HDPE fittings are covered in nine parts. The other parts in this series are:

- (Part 1) : 2003 General requirements for fittings
- (Part 2) : 2003 Specific requirements for 90° bends
- (Part 3) : 2003 Specific requirements for 90° tees
- (Part 4) : 2003 Specific requirements for reducers
- (Part 5) : 2003 Specific requirements for ferrule reducers
- (Part 6) : 2003 Specific requirements for pipe ends
- (Part 7) : 2003 Specific requirements for sandwich flanges
- (Part 9) : 2003 Specific requirements for end caps

All revised parts have been aligned with IS 4984 with respect to grade of material, dimensional requirements, testing procedures and sampling methodology.

Provisions has been made for rewelding, in case any weld gets rejected. Weld length had been kept constant with a uniform tolerance.

Drawings have been revised from short neck pipe ends to long neck pipe ends. The range of diameter of fittings, weld length and clarity of the dimensions in the drawings had been incorporated in each part of the standard, wherever applicable.

This standard covers general requirements for materials, manufacture, dimension and tolerances of reducing tees. Specific requirement of different types of fittings are covered in separate parts of this standard.

Fittings from 20 mm to 315 mm are manufactured by the injection moulding methods and machined, wherever so required and fittings of 355 mm and above shall be manufactured by machining process from thick walled extruded pipes or compression moulded slabs.

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

INJECTION MOULDED/MACHINED HIGH DENSITY POLYETHYLENE (HDPE) FITTINGS FOR POTABLE WATER SUPPLIES — SPECIFICATION

PART 8 SPECIFIC REQUIREMENTS FOR REDUCING TEES

(First Revision)

1 SCOPE

This standard (Part 8) covers the requirements for material, manufacture, dimensions, tolerances and marking of all types of injection moulded and machined HDPE reducing tees for potable water supplies.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below :

IS No.	Title
8008 (Part 1) : 2003	Injection moulded/machined high density polyethylene (HDPE) fittings for potable water supplies — Specification: Part 1 General requirements for fittings
4984 : 1995	High density polyethylene pipe for water supply (<i>fourth revision</i>)

3 REQUIREMENTS

3.1 General

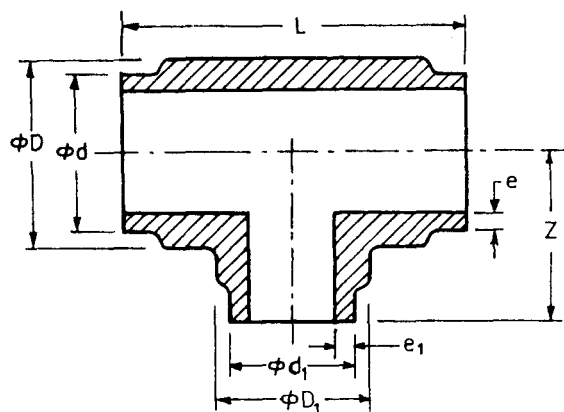
The general requirements for material, grade, sizes, performance requirements, methods of test, sampling and inspection shall conform to IS 8008 (Part 1).

3.2 Manufacture

3.2.1 A typical illustration of reducing tee is shown in Fig. 1.

3.2.2 Laying Length

The overall laying length and tolerances thereon shall comply with those given in Table 1 read with Fig. 1.



e, e_1 — Wall thickness corresponding to IS 4984.

FIG. 1 REDUCING TEE

3.2.3 The outside diameters and wall thickness of fitting at ends shall comply with requirements given in 8 of IS 8008 (Part 1).

4 MARKING

4.1 Each reducing tee shall be clearly marked at a prominent place, with the following information:

- a) Identification of source of manufacture, and
- b) The size of the fittings, grade of material and appropriate class (working pressure) to which the pressure rating of the fitting corresponds.

4.2 BIS Certification Marking

Each reducing tee may also be marked with the Standard Mark.

4.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which a licence for the use of the Standard Mark may be granted to the manufacturers or the producers may be obtained from the Bureau of Indian Standards.

Table 1 Dimensions of Reducing Tee*(Clause 3.2.2)*

All dimensions in millimetres.

Sl No.	Nominal Diameter at Equal Ends	Diameter for Manufacturing Reference at Equal Ends	Nominal Diameter at Reduced End	Diameter for Manufacturing Reference at Reduced End	Laying Length at Equal End	Laying Length at Reduced End	Welding Length
(1)	<i>d</i>	<i>D</i>	<i>d₁</i>	<i>D₁</i>	<i>L</i>	<i>Z</i>	<i>K</i>
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	90	98	63	70.5	200	95	15
ii)	110	122	63	70.5	236	105	15
iii)	110	122	90	98	240	120	15
iv)	140	150	75	85	290	130	15
v)	140	150	90	98	293	130	15

NOTE — Tolerance on various dimensions are given below:

<i>Dimension</i>	<i>Tolerances</i>
Laying length at equal end, <i>L</i>	± 2 mm
Laying length at reduced end, <i>Z</i>	± 1 mm
Welding length, <i>K</i>	± 3 mm

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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 110 002
Telephones : 2323 0131, 2323 33 75, 2323 9402

Telegrams : Manaksanstha
(Common to all offices)

Regional Offices :

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110 002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700 054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160 022	{ 60 3843 60 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600 113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
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