

Irrigation techniques — Quick coupling pipes for movable irrigation supply — Technical characteristics and testing

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National foreword

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 19 and a back cover.

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Irrigation techniques – Quick coupling pipes for movable irrigation supply – Technical characteristics and testing

Techniques d'irrigation – Tubes à raccords rapides
pour aménagements mobiles en irrigation – Caractéristiques
techniques et essai

Bewässerungsverfahren –
Schnellkupplungsrohre für ortsbewegliche
Bewässerungseinrichtungen – Technische
Eigenschaften und Prüfung

This European Standard was approved by CEN on 28 April 2000.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 334, Irrigation techniques, the Secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2000 and conflicting national standards shall be withdrawn at the latest by November 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Within its programme of work the CEN/TC 334, Irrigation Techniques, charged CEN/TC 334/WG 6, Water supply –Buried and surface pipes, to elaborate the following standard:

EN 12734 Irrigation techniques – Quick coupling pipes for movable irrigation supply – Technical characteristics and testing.

1 Scope

This standard specifies the conditions of suitability for application of quick coupling pipes for movable irrigation supply made of steel, aluminium, PE or rigid PVC used in irrigation systems.

Standards for PE or PVC are not applicable for quick coupling pipes.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the last edition of the publication referred to applies.

EN 10240,	<i>Internal and/or external protective coatings for steel tubes – Specification for hot dip galvanized coatings applied in automatic plants</i>
EN 45001,	<i>General criteria for the operation of testing laboratories</i>
ISO 4065,	<i>Thermoplastic pipes – Universal wall thickness table</i>
ISO 11678,	<i>Agricultural irrigation equipment – Aluminium irrigation tubes</i>

3 Terms and Definitions

For the purposes of the present standard, the following term and definition apply.

3.1 Quick coupling pipe

Portable pipe with coupling parts which give a safe connection with the pipe of the same kind in a few seconds mostly without a tool.

NOTE: The loosening is possible in the same easy way.

4 Technical characteristics

4.1 Material

Methods for the production of tubes depending upon the materials are indicated in Table 1.

Table 1: Material and production methods

Material	Method of production
Steel	welded
Aluminium alloy	welded or extruded
PE	extruded
PVC	extruded

4.2 Corrosional resistance and protection against corrosion

4.2.1 General

Quick coupling pipes have to be corrosional resistant against the application.

4.2.2 Pipes and couplings made of steel

All parts of quick coupling pipes made of steel shall conform to EN 10240.

4.2.3 Pipes and couplings made of aluminium alloy

Pipes and couplings made of aluminium alloy shall meet the requirements for tubes given in ISO 11678.

4.2.4 Pipes made of PE or PVC

No specific requirements (pipes made of such material are resistant against the chemical influence of soil and water).

4.3 Length

4.3.1 General

It is to distinguish between nominal length (l_N) and overall length (l_O).

4.3.2 Nominal length

The nominal length of a quick coupling pipe shall be declared by the manufacturer. It is measured after coupling of two identical pipes as the distance between two similar points on both pipes. The measurement should be carried out under nominal pressure at $(20 \pm 5) ^\circ\text{C}$. Deviation of (0 to 0,4) % from the declared value is allowable (see Figure 1).

4.3.3 Overall length

The overall length of a quick coupling pipe is the total length of a pipe incl. coupling parts (see Figure 1).

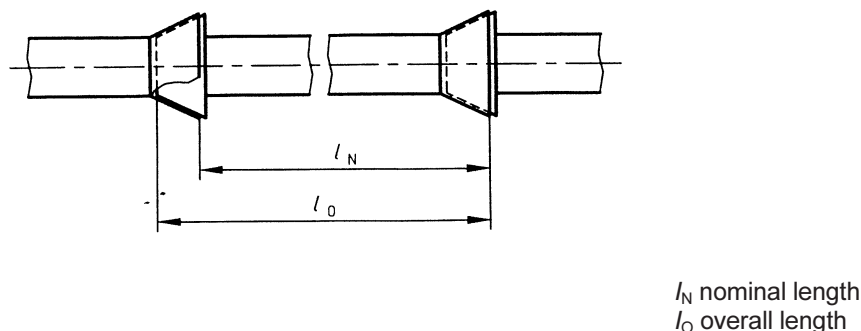


Figure 1: Nominal length and overall length of quick coupling pipes

4.4 Average outside diameter and wall thickness of tubes (measured in mm)

4.4.1 Pipes made of steel

Table 2: Minimum wall thickness of pipes made of steel tube depending on outside diameter

Average outside diameter ¹⁾ in mm measured at PN 10 = 1,0 MPa	50	60	70	80	89	100	108	120	133	150	159	200	216	250	300
Min. wall thickness without zinc in mm	0,7	0,7	0,7	0,7	0,8	0,8	0,9	0,9	1,0	1,0	1,2	1,2	1,5	1,8	1,8
¹⁾ Tolerances of diameter are not necessary because the producer himself completes the tubes with coupling parts.															