



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 39:2001

ICS 77.140.75  
91.220

**LOOSE STEEL TUBES FOR TUBE AND  
COUPLER SCAFFOLDS - TECHNICAL  
DELIVERY CONDITIONS**

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*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland  
and comes into effect on.  
October 26, 2001*

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EUROPEAN STANDARD

EN 39

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2001

ICS 77.140.75; 91.220

Supersedes HD 1039:1990

English version

## Loose steel tubes for tube and coupler scaffolds - Technical delivery conditions

Tubes libres en acier pour échafaudages à tubes et raccords - Conditions techniques de livraison

Systemunabhängige Stahlrohre für die Verwendung in Trag- und Arbeitsgerüsten - Technische Lieferbedingungen

This European Standard was approved by CEN on 18 January 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 29 "Steel tubes and fittings for steel tubes", the secretariat of which is held by UNI, in conjunction with CEN/TC 53 "Temporary works equipment"

This European Standard replaces HD 1039:1990.

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of an identical text or by endorsement, at the latest by October 2001, and conflicting national standards shall be withdrawn at the latest by October 2001.

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.

This European Standard is derived with modifications from Harmonisation Document HD 1039 "Steel tubes for falsework and working scaffolds -Requirements, tests".

This European Standard cancels and replaces HD 1039:1990 "Steel tubes for falsework and working scaffolds - Requirements, tests".

The significant technical changes are:-

- tubes will now be supplied galvanized unless an option for them to be supplied without a coating (bare) or painted is specified.
- all tubes are now required to be suitable for galvanising.
- requirements for the coating, previously contained in Annexes A and B are now covered (in accordance with CEN rules) by reference to European or International Standards and are not included in the text of this standard.
- tubes may only be manufactured using killed steel.
- the maximum tensile strength of the tubes has been increased to 520 MPa<sup>1)</sup>.
- a maximum manganese content has been introduced and the sulphur and phosphorus contents reduced.
- the mass tolerance for single tubes has been changed from - 8% to - 7,5%. The maximum single tube mass tolerance and the mass tolerance for batches of tubes have been deleted from the standard (outside diameter tolerances have not been changed).
- length types, standard or approximate or exact, and tolerances on those length types are now specified.
- a flattening test requirement has been introduced for welded tubes.
- requirements for the type and content of inspection documents have been introduced for use when inspection documentation is specified.
- specific inspection is now permitted as an option with testing frequencies specified.
- the depth of marking of at least 0,2 mm is now a recommendation with an option to specify it as a requirement. The order of marking has changed slightly in order to preserve the separation of standard number and thickness type.

Annex A is informative.

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1) 1 MPa = 1 N/mm<sup>2</sup>

## 1 Scope

This European Standard specifies the requirements for non-alloy steel tubes for use with EN 74 couplers in the construction of falsework and working scaffolds. It includes detailed requirements for marking to aid long term identification, for protective coating by reference to European and International Standards, and for inspection and testing.

NOTE 1: Tubes to this European Standard, which have a specified outside diameter of 48,3 mm and specified thickness of 3,2 mm or 4,0 mm, may also be used in conjunction with other sizes and grades of steel tubes for applications such as prefabricated scaffolds.

NOTE 2: The use of these tubes should be in accordance with appropriate International and national requirements, for example prEN12811 and prEN12812.

## 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 latest edition of the publication referred to applies (including amendments).

|                          |   |
|--------------------------|---|
| EN 10002-1               | Metallic materials - Tensile testing - Part 1: Method of test (at ambient temperature).   |
| EN 10020                 | Definition and classification of grades of steel.   |
| EN 10021                 | General technical delivery requirements for steel and iron products.  |
| EN 10027-1               | Designation systems for steel - Part 1: Steel names principal symbols.  |
| EN 10027-2               | Designation systems for steel - Part 2: Steel numbers.  |
| EN 10204                 | Metallic products - Types of inspection documents (including amendment A1 :1995).   |
| EN 10233                 | Metallic materials - Tube - Flattening test.  |
| EN 10240                 | Internal and/or external protective coatings for steel tubes - Specification for hot dip galvanized coatings applied in automatic plants.   |
| EN ISO 377               | Steel and steel products - Location and preparation of samples and test pieces for mechanical testing.  |
| EN ISO 1461              | Hot dip galvanized coatings on fabricated iron and steel articles - Specification and test methods.   |
| EN ISO 2409              | Paints and varnishes - Cross-cut test.  |
| EN ISO 2566-1            | Steel - Conversion of elongation values - Part 1: Carbon and low alloy steels.  |
| prEN 10168 <sup>2)</sup> | Iron and steel products - inspection documents contents – List of information and description.  |
| prEN 10266 <sup>2)</sup> | Steel tubes, fittings and structural hollow sections - Definitions and symbols for use in product standards.  |
| ISO 4628-3               | Paints and varnishes - Evaluation of degradation of paint coatings - Designation of intensity, quantity and size of common types of defect – Part 3: Designation of degrees of rusting. |
| ISO 7253:1996            | Paints and varnishes - Determination of resistance to neutral salt spray.   |
| CR 10260                 | Designation system for steel - Additional symbols.  |

<sup>2)</sup> In preparation, until this document is published as a European standard, the corresponding national standard(s) should be agreed at the time of enquiry and order

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