BS EN 74-1:2022

BSI Standards Publication

Couplers, spigot pins and baseplates for use in falsework and scaffolds

Part 1: Couplers for tubes. Requirements and test procedures

bsi.

National foreword

This British Standard is the UK implementation of EN 74-1:2022. It supersedes BS EN 74-1:2005, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/514, Access and support equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Raccords, goujons d'assemblage et semelles pour étaiements et échafaudages - Partie 1 : Raccords de tubes - Exigences et modes opératoires d'essai

Kupplungen, Zentrierbolzen und Fußplatten für Arbeitsgerüste und Traggerüste - Teil 1: Rohrkupplungen - Anforderungen und Prüfverfahren

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European foreword

This document (EN 74-1:2022) has been prepared by Technical Committee CEN/TC 53 “Temporary works equipment”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 74-1:2005.

Compared to EN 74-1:2005, the following changes have been made:

1) reference tubes with the specified yield strengths are not procurable, therefore, these requirements are changed;

2) new test conditions are specified;

3) the requirements for the bending moment of sleeve couplers are changed;

4) in addition, editorial changes are made.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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Introduction

This is the first of three parts of a standard for couplers.

This first part, EN 74-1, covers common types of friction couplers.

The second part, EN 74-2, deals with other less common types of couplers.

The third part, EN 74-3, deals with plain base plates and loose spigot pins.

This document defines a set of steel and aluminium reference tubes for the required tests.

This document is not intended to prevent the development of other types of couplers. For example, couplers can be manufactured in aluminium alloys or other materials or be designed for use with steel or aluminium tubes other than the normally used 48,3 mm nominal outside diameter. Whilst such couplers cannot comply with this document, it is recommended that the principles of this document are considered in their design and assessment.

The couplers in this document are intended for use in scaffolds and falsework for connecting 48,3 mm outside diameter steel and aluminium tubes which fulfil in other respects (e.g. material grade, thickness and tolerances) the requirements given in EN 12811-1, EN 12811-2 and EN 12810-1.

1 Scope

This document specifies, for right angle couplers, swivel couplers, sleeve couplers and parallel couplers working by friction:

— materials;

— design requirements;

— strength classes with different structural parameters including values for resistance and stiffness;

— test procedures;

— assessment;

and gives:

— recommendations for ongoing production control.

These couplers are intended for use in temporary works equipment for example in scaffolds erected in accordance with EN 12811-1 and falsework erected in accordance with EN 12812.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12811-1, *Temporary works equipment - Part 1: Scaffolds - Performance requirements and general design*

EN 12811-2:2004, *Temporary works equipment - Part 2: Information on materials*

EN 12811-3:2002, *Temporary works equipment - Part 3: Load testing*

EN 12812, *Falsework - Performance requirements and general design*

EN ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel - Part 1: Bolts, screws and studs with specified property classes - Coarse thread and fine pitch thread (ISO 898-1)*

EN ISO 898-2, *Mechanical properties of fasteners made of carbon steel and alloy steel - Part 2: Nuts with specified property classes - Coarse thread and fine pitch thread (ISO 898-2)*

EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*

3 Terms, definitions and symbols

For the purposes of this document, the terms and definitions given in EN 12811-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp