



National Standards Authority of Ireland

STANDARD

I.S. EN 74 : 1989

ICS 91.220

**COUPLERS, LOOSE SPIGOTS AND
BASE-PLATES FOR USE IN WORKING
SCAFFOLDS AND FALSEWORK MADE OF
STEEL TUBES -
REQUIREMENTS AND TEST PROCEDURES**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Fax: (01) 807 3838

*This Irish Standard was
published under the authority
of the National Standards
Authority of Ireland
and comes into effect on:*

October 17, 1989

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 1989

Price Code G

Údarás um Chaighdeáin Náisiúnta na hÉireann

DECLARATION

OF

SPECIFICATION

ENTITLED

COUPLERS, LOOSE SPIGOTS AND BASE-PLATES FOR USE IN WORKING
SCAFFOLDS AND FALSEWORK MADE OF STEEL TUBES – REQUIREMENTS AND
TEST PROCEDURES

AS

THE IRISH STANDARD SPECIFICATION FOR

COUPLERS, LOOSE SPIGOTS AND BASE-PLATES FOR USE IN WORKING
SCAFFOLDS AND FALSEWORK MADE OF STEEL TUBES – REQUIREMENTS AND
TEST PROCEDURES

EOLAS - The Irish Science and Technology Agency in exercise of the power conferred by section 20 (3) of the Industrial Research and Standards Act, 1961 (No. 20 of 1961) and the Science and Technology Act, 1987 (No. 30 of 1987), and with the consent of the Minister for Industry and Commerce, hereby declares as follows:

1. This instrument may be cited as the Standard Specification (Couplers, Loose Spigots and Base-Plates for Use in Working Scaffolds and Falsework Made of Steel Tubes – Requirements and Test Procedures) Declaration, 1989.

2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Couplers, Loose Spigots and Base-Plates for Use in Working Scaffolds and Falsework Made of Steel Tubes – Requirements and Test Procedures. The schedule comprises the text of EN 74.

(2) The said standard specification may be cited as Irish Standard/EN 74 : 1989 or as I.S./EN 74 : 1989.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 74

June 1988

UDC 69.057.62:69.057.692/693:62-462-034.14:620.17

Key words: Steel tubes, scaffolding, fasteners, pipe fittings, centring pins, supports, equipment specifications, inspection methods, sampling, mechanical tests.

English version

Couplers, loose spigots and base-plates for use in working
scaffolds and falsework made of steel tubes; Requirements
and test procedures

Raccords, goudons d'assemblage et semelles
pour échafaudages de service et d'étalement en
tubes d'acier; Spécifications et méthodes d'essai

Kupplungen, Zentrierbolzen und Fussplatten
für Stahlrohr-Arbeitsgerüste
und -Tragegerüste; Anforderungen, Prüfungen

This European Standard was accepted by CEN on 27 January 1988. CEN members are bound to comply with the requirements of the CEN/CENELEC Rules which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Central Secretariat or to any CEN member.

This European Standard exists in the 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 CEN Central Secretariat has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Brief history

Since July 1970 CEN/TC 53 "*Components of tubular steel scaffolds*" has dealt with European standardization within the field of scaffolding in order to abolish trade barriers due to differing safety requirements on building sites. After preliminary vote on the European Standard EN 39 "*Steel tubes for working scaffolds; requirements, tests*" the European Standard pr EN 74 "*Couplers and accessories for working scaffolds made of steel tubes; requirements and test procedures*" was prepared and in autumn 1975 CEN submitted the first draft of this standard to its CEN Members for preliminary vote. At the same time this standard was also adopted as ISO 4054 by ISO/TC 5 "*Metal pipes and fittings*" and in November 1977 it was submitted to the ISO Members for vote. As the ISO Standard was adopted the first edition of ISO 4054 "*Couplers, loose spigots and base-plates for use in working scaffolds made of steel tubes; requirements and test procedure*" was published in April 1980.

During its 19th meeting in Copenhagen in spring 1984 CEN/TC 53 (meanwhile renamed "*Scaffolds, falsework and mobile access towers*") discussed once again the question concerning couplers for working scaffolds as well as for falsework and charged CEN/TC 53/WG 3 with the revision of the first draft pr EN 74. In this connection the higher requirements which are necessary for falsework should also be taken into consideration.

During its 21st plenary meeting in autumn 1986 in Zurich CEN/TC 53 accepted EN 74 as amended by its working group WG 3 and requested the DIN secretariat to send EN 74 out as a European standard by CEN for final voting.

According to the Common CEN/CENELEC Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Switzerland, United Kingdom.

Contents

	Page
Brief history	2
1 Object and field of application	5
2 References	5
3 Definitions	5
3.1 Coupler	5
3.2 Right angle coupler (RA)	5
3.3 Swivel coupler (SW)	5
3.4 Parallel coupler (PA)	5
3.5 Sleeve coupler (SF or SS)	5
3.6 Loose spigot (LS)	5
3.7 Base-plate (BP)	5
4 Symbols	6
4.1 Measured values	6
4.2 Statistical values	6
5 Materials and design	7
5.1 Materials	7
5.2 Design	7
5.3 Data required from the manufacturer for assessment purposes	8
6 Requirements	8
6.1 Design requirements	8
6.2 Required characteristics for couplers under load (see clause 9)	8
6.3 Requirements in the case of design alteration	8
7 Sampling for prototype tests	8
8 Assessment methods	8
8.1 Assessment without statistical analysis	8
8.2 Assessment with statistical analysis	9
9 Load tests for prototype couplers	11
9.1 General	11
9.2 Testing of behaviour under load of right angle couplers	12
9.3 Testing of behaviour under load of swivel couplers	14
9.4 Determination of the ultimate load for right angle and swivel couplers	16
9.5 Testing of the torsional rigidity of right angle couplers	16
9.6 Tensile tests on friction type sleeve couplers	17
9.7 Bending load capacity testing of class B sleeve couplers	17
9.8 Tensile testing of sleeve couplers with shear pins	18

Brief history

Since July 1970 CEN/TC 53 "*Components of tubular steel scaffoldings*" has dealt with European standardization within the field of scaffolding in order to abolish trade barriers due to differing safety requirements on building sites. After preliminary vote on the European Standard EN 39 "*Steel tubes for working scaffolds; requirements, tests*" the European Standard pr EN 74 "*Couplers and accessories for working scaffolds made of steel tubes; requirements and test procedures*" was prepared and in autumn 1975 CEN submitted the first draft of this standard to its CEN Members for preliminary vote. At the same time this standard was also adopted as ISO 4054 by ISO/TC 5 "*Metal pipes and fittings*" and in November 1977 it was submitted to the ISO Members for vote. As the ISO Standard was adopted the first edition of ISO 4054 "*Couplers, loose spigots and base-plates for use in working scaffolds made of steel tubes; requirements and test procedure*" was published in April 1980.

During its 19th meeting in Copenhagen in spring 1984 CEN/TC 53 (meanwhile renamed "*Scaffolds, falsework and mobile access towers*") discussed once again the question concerning couplers for working scaffolds as well as for falsework and charged CEN/TC 53/WG 3 with the revision of the first draft pr EN 74. In this connection the higher requirements which are necessary for falsework should also be taken into consideration.

During its 21st plenary meeting in autumn 1986 in Zurich CEN/TC 53 accepted EN 74 as amended by its working group WG 3 and requested the DIN secretariat to send EN 74 out as a European standard by CEN for final voting.

According to the Common CEN/CENELEC Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Switzerland, United Kingdom.

Contents

	Page
Brief history	2
1 Object and field of application	5
2 References	5
3 Definitions	5
3.1 Coupler	5
3.2 Right angle coupler (RA)	5
3.3 Swivel coupler (SW)	5
3.4 Parallel coupler (PA)	5
3.5 Sleeve coupler (SF or SS)	5
3.6 Loose spigot (LS)	5
3.7 Base-plate (BP)	5
4 Symbols	6
4.1 Measured values	6
4.2 Statistical values	6
5 Materials and design	7
5.1 Materials	7
5.2 Design	7
5.3 Data required from the manufacturer for assessment purposes	8
6 Requirements	8
6.1 Design requirements	8
6.2 Required characteristics for couplers under load (see clause 9)	8
6.3 Requirements in the case of design alteration	8
7 Sampling for prototype tests	8
8 Assessment methods	8
8.1 Assessment without statistical analysis	8
8.2 Assessment with statistical analysis	9
9 Load tests for prototype couplers	11
9.1 General	11
9.2 Testing of behaviour under load of right angle couplers	12
9.3 Testing of behaviour under load of swivel couplers	14
9.4 Determination of the ultimate load for right angle and swivel couplers	16
9.5 Testing of the torsional rigidity of right angle couplers	16
9.6 Tensile tests on friction type sleeve couplers	17
9.7 Bending load capacity testing of class B sleeve couplers	17
9.8 Tensile testing of sleeve couplers with shear pins	18

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-