

# norm

# NEN-EN-ISO 13918

Lassen - Bouten en keramische ringen  
voor boogboutlassen (ISO 13918:1998)

Welding - Studs and ceramic ferrules for arc stud welding  
(ISO 13918:1998)

februari 1999

ICS 25.160.20



Vervangt NEN-EN-ISO 13918:1995 Ontw.

Als Nederlandse norm is aanvaard:

- EN ISO 13918:1998
- ISO 13918:1998

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<u>Vermelde norm</u>	<u>Nederlandse norm</u>	<u>Titel</u>
EN 573-3	NEN-EN 573-3	Aluminium en aluminiumlegeringen - Chemische samenstelling en vorm van geknede producten - Deel 3: Chemische samenstelling
EN 10025	NEN-EN 10025	Warmgewalste producten van ongelegeerd constructiestaal - Technische leveringsvoorwaarden (bevat wijzigingsblad A1:1993)
EN 10088-1	NEN-EN 10088-1	Corrosievaste staalsoorten - Deel 1: Lijst van corrosievaste staalsoorten
EN 20898-1	NEN-ISO 898-1	Mechanische eigenschappen van bevestigingsartikelen - Deel 1: Bouten, schroeven en tapeinden
EN ISO 6947	NEN-EN-ISO 6947	Fundamentele lasposities - Definities van hellings- en rotatiehoeken
prEN ISO 14555:1998	-	-
ISO 426-1	NEN-ISO 426-1	Kneedkoper-zinklegeringen - Chemische samenstelling en vormen van kneedproducten - Deel 1: Ongelode en speciale koper-zinklegeringen
ISO 724	NEN 81	Metrische schroefdraad (ISO) - Grove spoed - Nominale maten
ISO 724	NEN-ISO 724	ISO-metrische schroefdraad voor algemene toepassing - Nominale maten
ISO 1638	-	-
EN ISO 3506-3	NEN-EN-ISO 3506-3	Mechanische eigenschappen van bevestigingsartikelen van corrosievast staal - Deel 3: Stelschroeven en soortgelijke, niet op trek belaste, bevestigingsartikelen
ISO 4042	-	-
ISO 4759-1	NEN 2283	Sleutelwijdten - Inwendig voor machineonderdelen, appendages, e.d.
ISO 4759-1	NEN-ISO 4759-1	Toleranties voor bevestigingsartikelen - Deel 1: Bouten, schroeven en moeren met schroefdraadmiddellijnen van 1,6 mm t.m. 150 mm en productklasse A, B en C

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Descriptors: welding, arc welding, studs, bushings, ceramics, dimensions

English version

**Welding - Studs and ceramic ferrules for arc stud welding (ISO 13918:1998)**

Soudage - Goujons et bagues en céramique pour le soudage à l'arc des goujons (ISO 13918:1998)

Schweißen - Bolzen und Keramikringe zum Lichtbogenbolzenschweißen (ISO 13918:1998)

This European Standard was approved by CEN on 14 May 1998.

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**Welding — Studs and ceramic ferrules  
for arc stud welding**

*Soudage — Goujons et bagues en céramique pour le soudage à l'arc  
des goujons*

Preview



## Foreword

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International Standard ISO 13918 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 44, *Welding and allied processes*, Subcommittee SC 10, *Unification of requirements in the field of metal welding*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this standard, the words "...this European Standard..." to mean "...this International Standard...".

Annex ZZ gives a list of corresponding international and European Standards for which equivalents are not given in the text.

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## Foreword

The text of prEN ISO 13918:1998 has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS, in collaboration with Technical Committee ISO/TC 44 "Welding and allied processes".

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

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 April 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

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.

Preview

## 1 Scope

This standard includes the most important dimensions of studs and ceramic ferrules for arc stud welding. The range of types of studs specified in this standard accounts for customary applications. Further types may be specified as required for special application. This standard can be used in all fields of the metal-working industry.

Table 1 shows types of studs and the symbols for studs and ceramic ferrules, which are used in this standard.

Table 1: Type of studs and symbols for studs and ceramic ferrules

Type of studs		Symbols for studs	Symbols for ceramic ferrules	
drawn arc	drawn arc stud	threaded stud (pitch)	PD	PF
	welding with ceramic ferrule or shielding gas	threaded stud with reduced shaft	RD	RF
		unthreaded stud	UD	UF
		shear connector	SD	UF
	short-cycle drawn arc stud welding	threaded stud with flange	FD	–
tip ignition		threaded stud (pitch)	PT	–
		unthreaded stud	UT	–
		stud with internal thread	IT	–

## 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.

EN 573-3

Aluminium and aluminium alloys – Chemical compositions and forms of wrought products – Part 3: Chemical composition

EN 10025

Hot rolled products of non-alloy structural steels – Technical delivery conditions

EN 10088-1

Stainless steels – Part 1: List of stainless steels

EN 20898-1

Mechanical properties of fasteners – Part 1: Bolts, screws and studs (ISO 898-1:1988)

EN ISO 6947

Welds – Working positions – Definitions of angles of slope and rotation (ISO 6947:1993)

prEN ISO 14555

Welding – Arc stud welding of metallic materials (ISO/FDIS 14555:1998)



ISO 426-1

Wrought copper-zinc alloys – Chemical composition and forms of wrought products – Part 1: Non-lead and special copper-zinc alloys

ISO 724

ISO general-purpose metric screw threads – Basic dimensions

ISO 1638

Wrought copper and copper alloy wire – Technical conditions of delivery

EN ISO 3506-3

Mechanical properties of corrosion-resistant stainless-steel fasteners - Part 3: Set screws and similar fasteners not under tensile stress (ISO 3506-3:1997)

ISO 4042

Threaded components – Electroplated coatings

ISO 4759-1

Tolerances for fasteners - Part 1: Bolts, screws and nuts with thread diameters between 1,6 (inclusive) and 150 mm (inclusive) and product grades A, B and C

### 3 Definitions

For the purposes of this standard, the definitions listed in prEN ISO 14555 apply.

### 4 Dimensions and mass for studs

#### 4.1 General

Dimensions are given in millimetres. Details left unspecified are at the manufacturer's discretion. Nominal dimensions are listed in the following tables.

The dimensions of stud collars shown in figures 1, 2, 3 and 5 may be generally achieved in welding position PA according to EN ISO 6947.

#### 4.2 Threaded stud (PD)

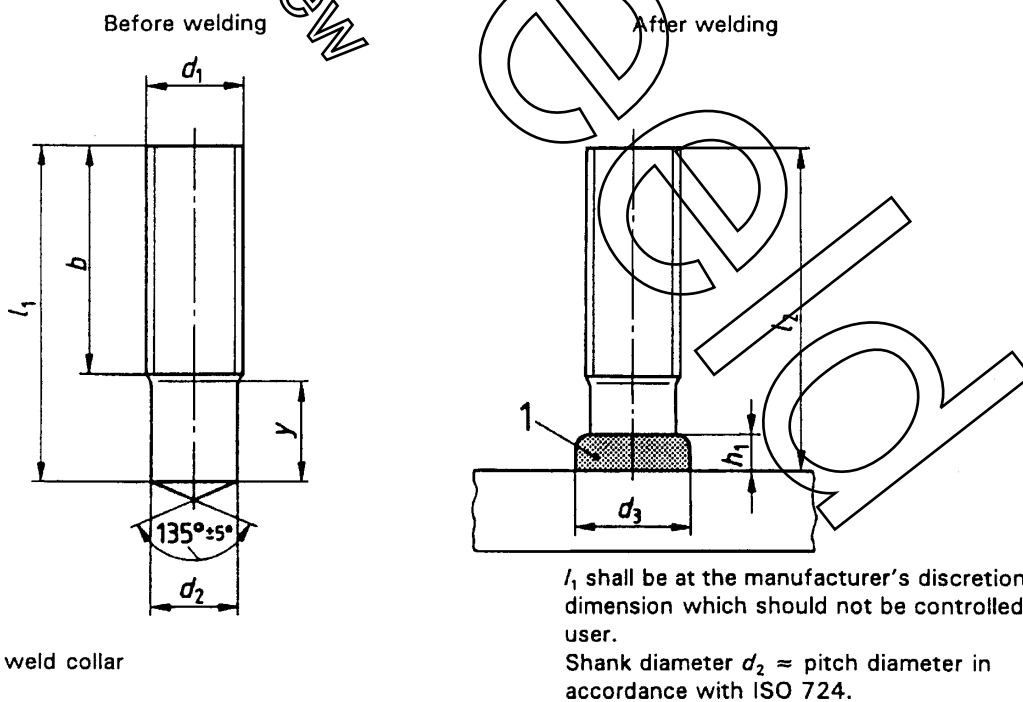


Figure 1: Threaded stud (PD)

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