

DIN 3859-1

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Supersedes
DIN 3859-1:1998-02

**Compression couplings –
Part 1: Technical delivery conditions,
English translation of DIN 3859-1:2005-09**

Rohrverschraubungen –
Teil 1: Technische Lieferbedingungen,
Englische Übersetzung von DIN 3859-1:2005-09

Raccords vissés –
Partie 1: Conditions techniques de livraison,
Traduction anglaise de DIN 3859-1:2005-09

Document comprises 13 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

Foreword

This document has been prepared by Working Committee NARD-7 *Rohrverschraubungen* of the *Normenausschuss Rohrleitungen und Dampfkesselanlagen* (NARD) (Piping and Boiler Plant Standards Committee).

This standard supplements the dimensional standards for compression couplings and fittings for pipes and hoses, taking into account the current state of technology, with a particular focus on material selection, testing, acceptance and function-appropriate installation.

DIN 3859 *Compression couplings* consists of the following parts:

- *Part 1: Technical delivery conditions*
- *Part 2: Assembly instructions for non-soldering compression couplings with cutting rings according to DIN 2353 and DIN EN ISO 8434-1*
- *Part 3: Test procedure*

Amendments

This standard differs from DIN 3859-1:1998-02 as follows:

- a) the previous Table 1 has been deleted;
- b) The grades 9 SMn 28 (1.0715), 9 SMnPb 28 K (1.0718) and CuZn35Ni2 in the previous Table 2 have been changed into the European designations 11SMn30 (1.0715), 11SMnPb30+C (1.0718+C) CuZn35Ni3Mn2AlPb;
- c) the specification “crack tested” in the previous Table 2 has been deleted;
- d) the types 11SMn30+C (1.0715+C), C4C (1.0303), C10C (1.0214), 11SMnPb30+C (1.0718+C) and 20MnB4 (1.5525) have been included;
- e) acceptance sampling inspection according to AQL has been deleted;
- f) the standard has been editorially revised, with particular attention to cited documents.

Previous editions

DIN 3859: 1970-11, 1984-03

DIN 3859-1: 1998-02

1 Scope

This standard specifies technical delivery conditions for compression fittings and couplings complying with DIN 3850 and DIN EN ISO 8434-1 and the corresponding connection sides of the hose fittings complying with DIN 20066, DIN ISO 12151-2 and DIN ISO 12151-3.

This standard also applies to complete connections and their individual parts — e.g. connecting pipes, sealing elements, union nuts, union screws and banjo bolts.

This standard may be applied to other standard and non-standard fittings and couplings if reference is made to this standard.

2 Normative references

The following referenced documents are indispensable for the application 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.

DIN 13-5, *General purpose ISO metric screw threads — Part 5: Nominal sizes for 1 mm and 1,25 mm fine pitch threads; nominal diameter from 7,5 mm to 200 mm*

DIN 13-6, *General purpose ISO metric screw threads — Part 6: Nominal sizes for 1,5 mm fine pitch threads; nominal diameters from 12 mm to 300 mm*

DIN 13-7, *General purpose ISO metric screw threads — Part 7: Nominal sizes for 2 mm fine pitch threads; nominal diameters from 17 mm to 300 mm*

DIN 158-1, *Metric taper external and mating parallel internal screw threads — Part 1: Nominal sizes, limit deviations, limits of size and verification*

DIN 475-1, *Widths across flats for bolts, screws, valves and fittings*

DIN 3850, *Compression fittings — Summary*

DIN 3852-1, *Stud ends, ports, for fittings, valves — Part 1: Plug screw with metric fine pitch thread; General outlay of types*

DIN 3852-2, *Stud ends, ports, for fittings, valves — Plug screw with Whitworth pipe thread — General outlay of types*

DIN 3852-11, *Screwed stud ends; tapped holes; for compression fittings, valves, screw plugs, screwed stud ends type E — Design dimensions*

DIN 3858, *Whitworth pipe threads for pipe unions — Parallel internal thread and taper external thread — Dimensions*

DIN 3859-2, *Compression couplings — Part 2: Assembly instruction for non-soldering compression couplings with cutting rings according to DIN 2353 and DIN EN ISO 8434-1*

DIN 3859-3, *Non-soldering compression couplings with cutting rings according to DIN 2353 — Part 3: Test procedure*

DIN 20066, *Hydraulic fluid power — Hose assemblies — Dimensions, requirements*

DIN EN 10087, *Free-cutting steels — Technical delivery conditions for semi-finished products, hot-rolled bars and rods*

DIN EN 10277-3, *Bright steel products — Technical delivery conditions — Part 3: Free-cutting steels*

DIN EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

DIN EN ISO 3892, *Conversion coatings on metallic materials — Determination of coating mass per unit area — Gravimetric methods*

DIN EN ISO 4042, *Fasteners — Electroplated coatings*

DIN EN ISO 8434-1, *Metallic tube connections for fluid power and general use — Part 1: 24 degree cone connectors*

DIN EN ISO 9974-1, *Connections for general use and fluid power — Ports and studs ends with ISO 261 threads with elastomeric or metal-to-metal sealing — Part 1: Threaded ports*

DIN EN ISO 9974-2, *Connections for general use and fluid power — Ports and studs ends with ISO 261 threads with elastomeric or metal-to-metal sealing — Part 2: Stud ends with elastomeric sealing (type E)*

DIN EN ISO 9974-3, *Connections for general use and fluid power — Ports and studs ends with ISO 261 threads with elastomeric or metal-to-metal sealing — Part 3: Stud ends with metal-to-metal sealing (type B)*

DIN ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*

DIN ISO 2768-1, *General tolerances — Tolerances for linear and angular dimensions without individual tolerance indications*

DIN ISO 2768-2, *General tolerances — Part 2: General tolerances; geometrical tolerances for features without individual tolerances indications*

DIN ISO 6149-1, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 1: Ports with truncated housing for O-ring seal*

DIN ISO 6149-2, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends*

DIN ISO 6149-3, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 3: Dimensions, design, test methods and requirements for light-duty (L series) stud ends*

DIN ISO 12151-2, *Connections for hydraulic fluid power and general use — Hose fittings — Part 2: Hose fittings with ISO 8434-1 and ISO 8434-4 24 degree cone connector ends with O-rings*

DIN ISO 12151-3, *Connections for hydraulic fluid power and general use — Hose fittings — Part 3: Hose fittings with ISO 6162-1 or ISO 6162-2 flange ends*