

DIN 76-1



ICS 21.040.10

Supersedes
DIN 76-1:2004-06

**Thread run-outs and thread undercuts –
Part 1: For ISO metric threads in accordance with DIN 13-1,
English translation of DIN 76-1:2016-08**

Gewindeausläufe und Gewindefreistriche –
Teil 1: Für Metrisches ISO-Gewinde nach DIN 13-1,
Englische Übersetzung von DIN 76-1:2016-08

Filets incomplets et dégagement par gorge –
Partie 1: Pour filetage métrique ISO selon DIN 13-1,
Traduction anglaise de DIN 76-1:2016-08

Document comprises 11 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.

Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Dimensions and designation	4
3.1 External thread	4
3.1.1 Thread run-out	4
3.1.2 Distance from last full form thread to bearing face (for components threaded nearly up to the head)	4
3.1.3 Thread undercut	5
3.2 Internal thread (blind tapped hole)	7
3.2.1 Blind tapped hole with thread run-out	7
3.2.2 Blind tapped hole with thread undercut	8
Bibliography	11

Foreword

This standard has been prepared by Working Committee NA 067-00-01 AA "Reference management and quality management" of *DIN-Normenausschuss Mechanische Verbindungselemente* (DIN Standards Committee Fasteners).

It largely conforms to the specifications of International Standard ISO 3508:1976 for thread run-outs on parts with external threads. It differs from International Standard ISO 4755:1983 for thread undercuts in the following manner.

ISO 4755:1983 specifies a thread undercut with $g_{2\max} = 3 P$. Consensus in Germany holds that $3 P$ is not sufficient to produce threads that reach into the thread undercut using conventional tools. This standard therefore specifies a thread undercut with $g_{2\max} = 3,5 P$ for normal design, as previously. The short design with $g_{2\max} = 2,5 P$ is intended for use in exceptional cases of technical limitation and requires the use of special tools.

Contrary to DIN 76-1, International Standards ISO 3508:1976 and ISO 4755:1983 do not contain specifications for thread run-outs or thread undercuts for internal threads.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. DIN [and/or DKE] shall not be held responsible for identifying some or all such patent rights.

Amendments

This standard differs from DIN 76-1:2004-06 as follows:

- a) the standard has been editorially revised;
- b) normative references have been updated;
- c) the warning reference in 3.1.3 has been amended to include associated standards with relevant mechanical properties;
- d) the symbol for the nominal diameter of internal threads in Figure 4 and Table 2 has been altered.

Previous editions

DIN 76-1: 1924-09, 1943-04, 1953-11, 1965-09, 1967-06, 1975-09, 1983-12, 2004-06

DIN 2352: 1924-11

DIN LON 369-1 = DIN 30140-1: 1936-12

1 Scope

This standard specifies dimensions for thread run-outs and thread undercuts for bolts, screws and similar components with external or internal ISO metric (coarse or fine pitch) thread as in DIN 13-1 and DIN ISO 261, together with their standard designations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

DIN 13-1, *General purpose ISO metric screw threads — Part 1: Nominal sizes for coarse pitch threads; nominal diameter from 1 mm to 68 mm*

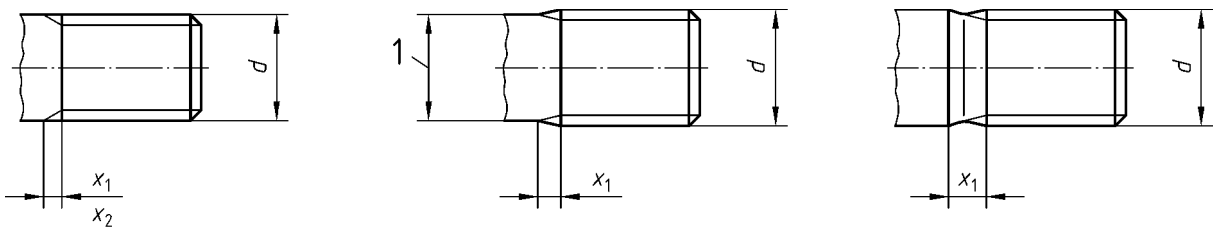
DIN ISO 261, *ISO general purpose metric screw threads — General plan*

3 Dimensions and designation

3.1 External thread

3.1.1 Thread run-out

Examples of different types are given in Figure 1 and dimensions according to Table 1.



Key

- 1 Shank diameter \approx pitch diameter

Figure 1 — Thread run-out dimensions (notation)

3.1.2 Distance from last full form thread to bearing face (for components threaded nearly up to the head)

For dimensions see Figure 2 and Table 1.