UDC 621.884.6 May 1993

One-piece tubular rivets
drawn from strip

DIN 7339

Hohlniete, einteilig, aus Band gezogen

Supersedes August 1969 edition.

In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

Dimensions in mm

1 Scope and field of application

This standard specifies dimensions of, and technical delivery conditions for, steel and nonferrous metal one-piece tubular rivets drawn from strip.

2 Dimensions

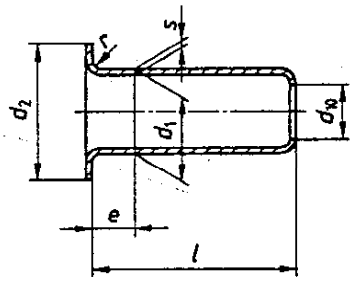

Table 1: Dimensions and mass

d_1	Nominal size	1,5	2	2,5		3		4		5		6
	Limit deviations	± 0,03		± 0,05		± 0,07						± 0,1
d_2	Nominal size	3	3,5	4	4,5	5	6	6,5	8	8	10	10
	Limit deviations	± 0,3						± 0,375				
d_{10}	$^{0}_{-0,4}$	1,096	1,53	2,01	1,90	2,49	2,27	3,38	3,05	4,38	3,83	5,02
e	max.	0,75	1	1,25		1,5		2		2,5		3
s	± 10 %[1]	0,17	0,2	0,2	0,25	0,2	0,3	0,25	0,4	0,25	0,5	0,4
r	max.	0,2		0,25		0,3		0,4		0,5		0,6
Nominal size	l Limit deviations	Approximate mass (7,85 kg/dm³), per 1000 units, in kg[2]										
2	± 0,12	0,017										
2,5		0,020	0,032									
3		0,023	0,037	0,047	0,061	0,060	0,100	0,107	0,198	0,142	0,342	0,300
3,5	± 0,15	0,026	0,042	0,053	0,068	0,067	0,111	0,120	0,217	0,158	0,372	0,330
4		0,029	0,047	0,059	0,076	0,075	0,122	0,133	0,236	0,174	0,402	0,360
5			0,057	0,071	0,091	0,090	0,144	0,158	0,274	0,206	0,462	0,420
6			0,067	0,083	0,106	0,105	0,166	0,183	0,312	0,238	0,522	0,480
7	± 0,18				0,121	0,120	0,188	0,208	0,350	0,270	0,582	0,540
8					0,136	0,135	0,210	0,233	0,388	0,302	0,642	0,600

For [1] and [2], see page 2.

(continued)

Continued on pages 2 and 3

Table 1: Dimensions and mass (concluded)

d_1 Nominal size	1,5	2	2,5	3	4	5	6
Limit deviations	± 0,03		± 0,05	± 0,07			± 0,1

Nominal size	l Limit deviations	Approximate mass (7,85 kg/dm³), per 1000 units, in kg[2]									
9	± 0,18					0,232	0,258	0,426	0,334	0,702	0,660
10						0,254	0,283	0,464	0,366	0,762	0,720
12	± 0,20					0,298		0,540		0,882	0,840
15								0,654		1,06	1,02
18											
20	± 0,25										

Rivets are normally manufactured in the sizes for which values of mass have been specified.

The values of mass specified are for guidance only.

[1] The eccentricity is accounted for in the limit deviations given for the wall thickness (± 10 %). The wall thickness is slightly reduced towards the shank end as the result of the drawing process.

[2] Conversion factors for values of mass:

Material	St	Cu	CuZn	Al
Conversion factor	1	1,134	1,070	0,344

3 Technical delivery conditions

Table 2: Technical delivery conditions

Material[1]	Steel	Nonferrous metal
	St = USt 3 or St 4, at the manufacturer's discretion.	CuZn = CuZn37 F30 CU = SF-Cu F22 Al Al99 W8
As specified in	DIN 1624.	DIN 17 670 Part 1 DIN 1745 Part 1 DIN 1788
Dimensional and geometrical tolerances[2]	As specified in DIN 101.	
Surface finish	Standard finish: bright. Where a protective coating is required (e.g. an electroplated coating complying with ISO 4042), this shall be agreed when ordering. The tolerances and limit deviations specified in table 1 shall also apply for the coated rivet.	
Testing of mechanical properties	As specified in DIN 101.	
Acceptance inspection	As specified in DIN 101.	

[1] Other materials shall be the subject of agreement.

[2] DIN 101 shall apply with regard to the dimensional and geometrical tolerances unless otherwise specified in clause 2 of this standard.

4 Designation

Designation of a steel (St) tubular rivet with a nominal diameter, d_1, of 4 mm, a wall thickness, s, of 0,25 mm and a length, l, of 10 mm:

Tubular rivet DIN 7339 – 4 x 0,25 x 10 – St

The DIN 4000-9-3 tabular layout of article characteristics shall apply to rivets as covered in this standard.

5 Examples of application

Table 3 specifies guideline values for the length of projection, z, as a function of the shank diameter, d_1, required for riveting.

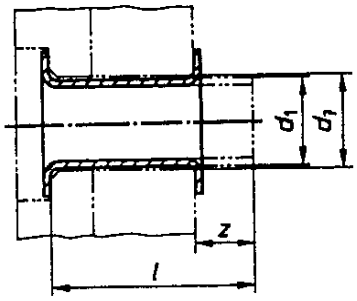

Table 3: Hole diameters and guideline values for length of projection

Shank diameter, d_1	1,5	2	2,5		3		4		5		6
Clearance hole, d_7 (H 12)	1,55	2,1	2,6		3,1		4,2		5,2		6,3
Countersink diameter, s	0,17	0,2	0,2	0,25	0,2	0,3	0,25	0,4	0,25	0,5	0,4
Approximate length of projection, z	1,2	1,5	1,7	1,7	1,7	2	2	2,2	2,2	2,5	2,5

Since z is for guidance only, trial riveting is recommended, especially if automated procedures are used.

Standards referred to

DIN 101	Rivets; technical delivery conditions
DIN 1624	Steel flat products; cold reduced mild unalloyed steel strip in widths not exceeding 650 mm; technical delivery conditions
DIN 1745 Part 1	Wrought aluminium and aluminium alloy plate, sheet and strip greater than 0,35 mm in thickness; properties
DIN 1788	Wrought aluminium and aluminium alloy plate, sheet and strip from 0,021 to 0,350 mm in thickness; properties
DIN 4000 Part 9	Tabular layout of article characteristics for bolts, pins, rivets, split pins and keys
DIN 17 670 Part 1	Wrought copper and copper alloy plate, sheet and strip; properties
ISO 4042: 1989	Threaded components; electroplated coatings

Previous editions

DIN 7339: 06.53, 08.69.

Amendments

The following amendments have been made to the August 1969 edition.

a) Details of the rivet end have been amended.
b) Technical delivery conditions have been specified.
c) The specifications for materials have been amended.
d) Dimensions d_{10} and e have been specified for the first time.
e) The specifications for clearance holes given in clause 5 have been amended and harmonized with those given in DIN 101.
f) The standard has been editorially revised.

International Patent Classification

F 16 B 019/08