UDC 621.884.091.6 October 1993

Flat countersunk head rivets
with nominal diameters from 3 to 5 mm

DIN 675

Flachsenkniete (Riemenniete); Nenndurchmesser 3 bis 5 mm

Supersedes July 1977 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 flat countersunk head rivets with nominal diameters from 3 to 5 mm.

2 Dimensions

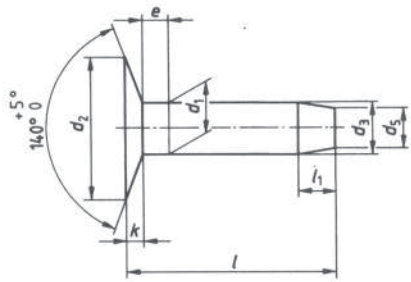

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Table 1

d_1	Nominal size	3	4	5
	Limit deviations	± 0,1	± 0,1	± 0,15
d_2	Nominal size	8,3	11,0	13,8
	Tolerances	h14	h15	
d_3	min.	2,87	3,87	4,82
d_5	± 0,2	2,2	3,0	4,0
e	max.	1,5	2,0	2,5
k	≈	1,0	1,3	1,6
l_1	± 0,2	2,0	3,0	3,5
Nominal size	l Limit deviations	Approximate mass (7,85 kg/dm³), per 1000 units, in kg[1])		
8	$^{+0,3}_{0}$	0,659		
10	$^{+0,36}_{0}$	0,786	1,44	2,42
12	$^{+0,43}_{0}$	0,913	1,67	2,77
16	$^{+0,43}_{0}$	1,16	2,11	3,46
20	$^{+0,52}_{0}$	1,42	2,56	4,16
25	$^{+0,52}_{0}$		3,12	5,03
30	$^{+0,52}_{0}$			5,90

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

The values of mass specified are for guidance only.

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[1]) Conversion factors for values of mass:

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

3 Technical delivery conditions

Table 2

	Steel	Nonferrous metal	
Material[1]	St = QSt 32-3 or QSt 36-3, at the manufacturer's discretion.	Cu = SF-Cu	Al = Al 99,5
Minimum tensile strength, R_m, in N/mm²	290	200	100
As specified in	DIN 1654 Part 2	DIN 17 677 Part 1	DIN 1790 Part 1
Dimensional and geometrical tolerances	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] Use of other materials shall be the subject of agreement.

4 Designation

Designation of a steel (St) flat countersunk head rivet with a nominal diameter, d_1, of 4 mm and a length, l, of 12 mm:

Rivet DIN 675 – 4 x 20 – St

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

Standards referred to

DIN 101	Rivets; technical delivery conditions
DIN 1654 Part 2	Cold heading and cold extruding steel; technical delivery conditions for killed unalloyed steel not intended for heat treatment
DIN 1790 Part 1	Wrought aluminium and aluminium alloy wire; properties
DIN 4000 Part 9	Tabular layout of article characteristics for bolts, pins, rivets, split pins and keys
DIN 17 677 Part 1	Wrought copper and copper alloy wire; properties
ISO 4042 : 1989	Threaded components; electroplated coatings

Previous editions

DIN 675: 10.26, 03.44, 07.49, 07.77.

Amendments

The following amendments have been made to the July 1977 edition.

a) Details of the cone point have been amended.

b) Since they are obsolete, the nominal diameter of 3,5 mm and nominal lengths of 6, 14, 18, 22 and 28 mm are no longer specified.

c) Clauses 2 to 7 have been replaced by clause 3 'Technical delivery conditions'.

d) The specifications for materials have been amended.

e) The value specified for the minimum tensile strength, R_m, has been amended.

f) It is now permitted to use symbol Cu as a subsitute for SF-Cu.

g) The standard has been editorially revised.

Explanatory notes

The reason for changing details of the rivet cone point as had been specified in the July 1977 edition was that the dimensions specified there did not meet with the acceptance of users since the rivets were not capable of effectively piercing the belt material. The rivet manufacturers thus went back to the dimensions specified in the July 1949 edition of the present standard.

International Patent Classification

F 16 B 019/04
F 16 B 019/06