Round washers
for high-strength structural steel bolting

DIN 6916

Scheiben, rund, für HV-Schrauben in Stahlkonstruktionen

Supersedes March 1979 edition.

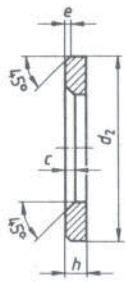
In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

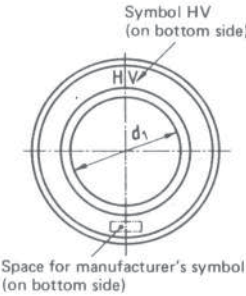
Dimensions in mm

1 Scope and field of application

The washers specified in this standard are intended for use in GV and SL structural steel bolting in accordance with DIN 18800 Part 1, together with DIN 6914 bolts and DIN 6915 hexagon nuts.

2 Dimensions





Nominal size[1]	For thread size	Hole diameter, d_1 min. = nominal size	Hole diameter, d_1 max.	External diameter, d_2 max. = nominal size	External diameter, d_2 min.	Thickness, h Nominal size	Thickness, h max.	Thickness, h min.	c min. = nominal size	c max.	e ≈	Mass (7,85 kg/dm³), in kg per 1000 units
13	M 12	13	13,27	24	23,48	3	3,3	2,7	1,6	1,9	0,5	7,03
17	M 16	17	17,27	30	29,48	4	4,3	3,7	1,6	1,9	1	14,6
21	M 20	21	21,33	37	36,38	4	4,3	3,7	2	2,5	1	19,6
23	M 22	23	23,33	39	38,38	4	4,3	3,7	2	2,5	1	24,3
25	M 24	25	25,33	44	43,38	4	4,3	3,7	2	2,5	1	30,6
28	M 27	28	28,52	50	49	5	5,6	4,4	2,5	3	1	50,2
31	M 30	31	31,62	56	54,8	5	5,6	4,4	2,5	3	1	63,2
37	M 36	37	37,62	66	64,8	6	6,6	5,4	3	3,5	1,5	115

1) Nominal size is equal to $d_{1\,min}$.

Continued on page 2

3 Technical delivery conditions

Mechanical properties	Material	Steel[1]) quenched and tempered to a hardness from 295 to 350 HV 10.
	As specified in	DIN 17 200
Limit deviations and geometrical tolerances	Product grade	A
	As specified in	DIN 522
Surface finish		Bright. DIN 267 Part 10 shall apply with regard to hot dip galvanizing.
Acceptance inspection		DIN 522 shall apply with regard to acceptance inspection.
1) At the manufacturer's discretion (e.g. C 45).		

4 Designation

Designation of a nominal size 21 washer:

Washer DIN 6916 – 21

5 Marking

Washers shall be marked on their bottom side both with the manufacturer's symbol and symbol HV.

Standards referred to

DIN 267 Part 10	Fasteners; technical delivery conditions; hot-dip galvanized components
DIN 522	Washers; technical delivery conditions
DIN 6914	High-strength hexagon head bolts with large widths across flats for structural steel bolting
DIN 6915	High-strength hexagon nuts with large widths across flats for structural steel bolting
DIN 17 200	Steels for quenching and tempering; technical delivery conditions
DIN 18 800 Part 1	Steel structures; design and construction

Previous editions

DIN 6916: 08.62, 12.70, 03.79.

Amendments

The following amendments have been made to the March 1979 edition:

a) Limits of size are now specified.

b) Use of materials as specified in DIN 17 200 that are comparable with C 45 has been permitted.

c) Washers are now to be quenched and tempered, as opposed to hardened (as specified before).

d) Washers are now to be hot dip galvanized as specified in DIN 267 Part 10.

e) A specification regarding marking with the manufacturer's symbol has been included.

f) The standard has been editorially revised.

International Patent Classification

E 04 B 1/38

F 16 B 43/00