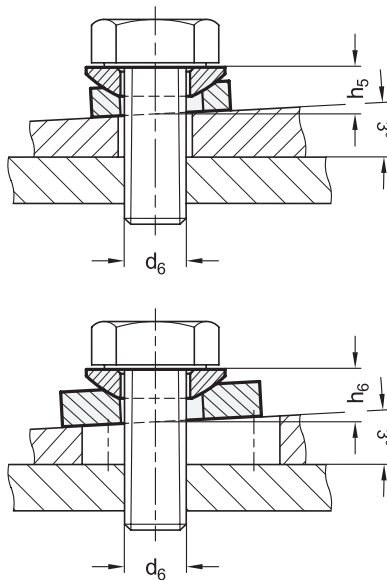


Assembly examples



2 Type

- C** Spherical seat washer
- D** Dished washer with $d_3 = d_2$
- G** Dished washer with $d_4 > d_2$ (enlarged outer diameter)

1

d_1 H13		d_2	d_3	d_4	d_5	d_6 Screw	h_1	h_2	h_3	h_4	$h_5 \approx$	$h_6 \approx$	r	Max. transferable static bolt force in kN
Type C	Type D / G													
6,4	7,1	12	12	17	11	M 6	0,7	2,3	2,8	4	4,2	5,4	9	9
8,4	9,6	17	17	24	14,5	M 8	0,6	3,2	3,5	5	5,6	7,1	12	17
10,5	12	21	21	30	18,5	M 10	0,8	4	4,2	5	6,5	7,3	15	26
13	14,2	24	24	36	20	M 12	1,1	4,6	5	6	8	9	17	38
15	16,5	28	28	40	24,8	M 14	1,2	5	5,6	6	8,5	9,5	22	53
17	19	30	30	44	26	M 16	1,3	5,3	6,2	7	9,6	10,4	22	73
21	23,2	36	36	50	31	M 20	2	6,3	7,5	8	11,7	12,2	27	117
25	28	44	44	60	37	M 24	2,4	8,2	9,5	10	15,2	15,7	32	168
31	35	56	56	68	49	M 30	3,6	11,2	12	12	19,2	19,7	41	269
37	42	68	68	-	60	M 36	4,6	14	15	-	23,5	-	50	394
43	49	78	78	-	70	M 42	6,5	17	18	-	29	-	58	542
50	56	92	92	-	82	M 48	8	21	22	-	35,5	-	67	714

Specification

- Type **C / D**
Case-hardening steel
Case-hardened
All round depth 0.2 to 0.4 mm
Hardness (550 + 100) HV 10
- Type **G**
Heat-treated steel, tempered
Hardness (350 + 80) HV 30
- ISO Fundamental Tolerances → Page 2151
- RoHS

On request

- Not hardened spherical washers
- Not hardened dished washers

Information

Spherical washers and dished washers DIN 6319 are used for clamping on non-parallel surfaces.

The dished washers type G with enlarged outside diameter are mainly used on elongated holes.

When utilizing hexagon nuts with spherical seating DIN 6330 type B the spherical washer is redundant.

see also...

- Spherical Leveling Washers GN 350.3 (High Loads) → Page 1097
- Hexagon Nuts DIN 6330 (with Spherical Seating) → Page 1082

How to order	1	d_2
	2	Type