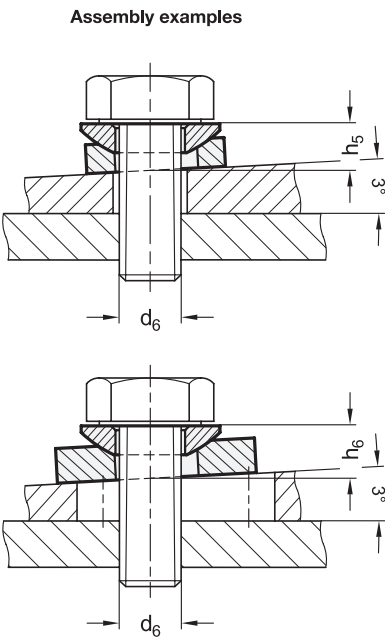
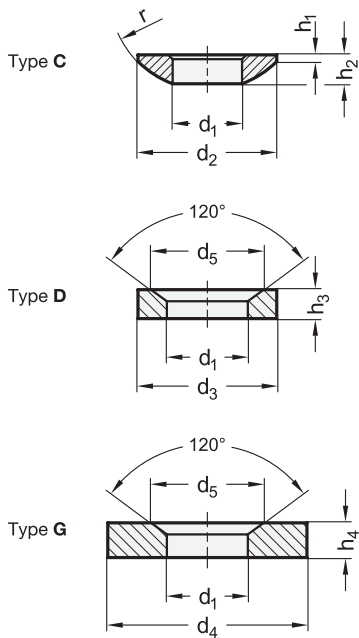


- 2 Type**
- C** Spherical seat washer
 - D** Dished washer with $d_3 = d_2$
 - G** Dished washer with $d_4 > d_2$ (enlarged outside diameter)

- Specification**
- Steel**
- Case-hardened for type C / D
 - All round depth 0.2 to 0.4 mm
 - Hardness (550 +100) HV 10
 - Chemically blackened finish
 - Tempered for type G
 - Hardness (350 +80) HV 30
 - Chemically blackened finish

RoHS

- On request**
- Not hardened spherical washers
 - Not hardened dished washers

Spherical washers DIN 6319 are used for clamping on non-parallel surfaces. Type G dished washers with enlarged outer diameter are mainly used on elongated holes.

When utilizing DIN 6330 type B fixture nuts with spherical end, use either the type D or type G spherical dished washers. The type C spherical seat washer is not required.

see also...	Page
GN 350.3 Spherical Leveling Washers (High Load Capacity)	QVX
DIN 6330 Fixture Nuts (with Spherical Seating)	QVX

Technical Information	
ISO Fundamental Tolerances	QVX

1

d ₁ H13			d ₂	d ₃	d ₄	d ₅	d ₆ For screw	h ₁	h ₂	h ₃	h ₄	h ₅ ≈	h ₆ ≈	r	Max. transferable static bolt force
Type C	Type D	Type G													
6.4 0.252	7.1 0.280	7.1 0.280	12 0.47	12 0.47	17 0.67	11 0.43	M 6	0.7 0.03	2.3 0.09	2.8 0.11	4 0.16	4.2 0.17	5.4 0.21	9 0.35	9 kN 2023 lbf
8.4 0.331	9.6 0.378	9.6 0.378	17 0.67	17 0.67	24 0.94	14.5 0.57	M 8	0.6 0.02	3.2 0.13	3.5 0.14	5 0.20	5.6 0.22	7.1 0.28	12 0.47	17 kN 3822 lbf
10.5 0.413	12 0.472	12 0.472	21 0.83	21 0.83	30 1.18	18.5 0.73	M 10	0.8 0.03	4 0.16	4.2 0.17	5 0.20	6.5 0.26	7.3 0.29	15 0.59	26 kN 5845 lbf
13 0.512	14.2 0.559	14.2 0.559	24 0.94	24 0.94	36 1.42	20 0.79	M 12	1.1 0.04	4.6 0.18	5 0.20	6 0.24	8 0.31	9 0.35	17 0.67	38 kN 8543 lbf
15 0.591	16.5 0.650	16.5 0.650	28 1.10	28 1.10	40 1.57	24.8 0.98	M 14	1.2 0.05	5 0.20	5.6 0.22	6 0.24	8.5 0.33	9.5 0.37	22 0.87	53 kN 11915 lbf
17 0.669	19 0.748	19 0.748	30 1.18	30 1.18	44 1.73	26 1.02	M 16	1.3 0.05	5.3 0.21	6.2 0.24	7 0.28	9.6 0.38	10.4 0.41	22 0.87	73 kN 16411 lbf
21 0.827	23.2 0.913	23.2 0.913	36 1.42	36 1.42	50 1.97	31 1.22	M 20	2 0.08	6.3 0.25	7.5 0.30	8 0.31	11.7 0.46	12.2 0.48	27 1.06	117 kN 26303 lbf
25 0.984	28 1.102	28 1.102	44 1.73	44 1.73	60 2.36	37 1.46	M 24	2.4 0.09	8.2 0.32	9.5 0.37	10 0.39	15.2 0.60	15.7 0.62	32 1.26	168 kN 37768 lbf
31 1.220	35 1.378	35 1.378	56 2.20	56 2.20	68 2.68	49 1.93	M 30	3.6 0.14	11.2 0.44	12 0.47	12 0.47	19.2 0.76	19.7 0.78	41 1.61	269 kN 60474 lbf
37 1.457	42 1.654	-	68 2.68	68 2.68	-	60 2.36	M 36	4.6 0.18	14 0.55	15 0.59	-	23.5 0.93	-	50 1.97	394 kN 88575 lbf
43 1.693	49 1.929	-	78 3.07	78 3.07	-	70 2.76	M 42	6.5 0.26	17 0.67	18 0.71	-	29 1.14	-	58 2.28	542 kN 121846 lbf
50 1.969	56 2.205	-	92 3.62	92 3.62	-	82 3.23	M 48	8 0.31	21 0.83	22 0.87	-	35.5 1.40	-	67 2.64	714 kN 160514 lbf