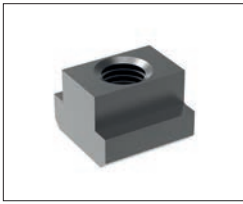


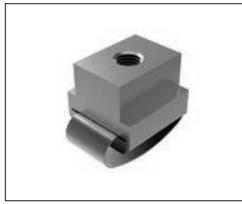


Nuts

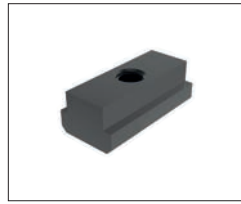
Available in heat treated steel, unless stated otherwise.



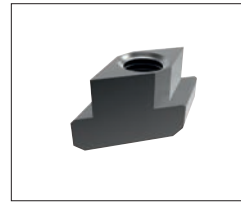
24000 T-Nut, Strength Class 10 DIN 508.



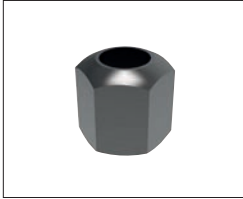
24010 T-Nut with Anti-Slip Device.



24100 Extended T-Nut. Strength Class 10.



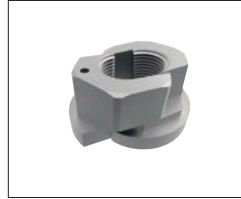
24120 Rhombus T-Nuts



24300 Fixture Nuts. Strength Class 10 - DIN 6330B



24400 Collar Nuts, DIN 6331



24502 Fast Nut - With Collar Rapid Assembly Nut



24520 - Steel Slip-On Lock Nuts - Rapid Assembly Nut.



24600 Extension Nuts Strength Class 10.



24620 Swivel Nuts, Conical Seat

Washers

Available in a range of steel types - see product for details.



25000 - Hardened Steel - Plain Washers, DIN 6340.



25100 - Case Hardened Steel - Spherical Seat Washers, Type C - DIN 6319C.



25400 - Case Hardened Steel - Dished Washers, Type D - DIN 6319D.



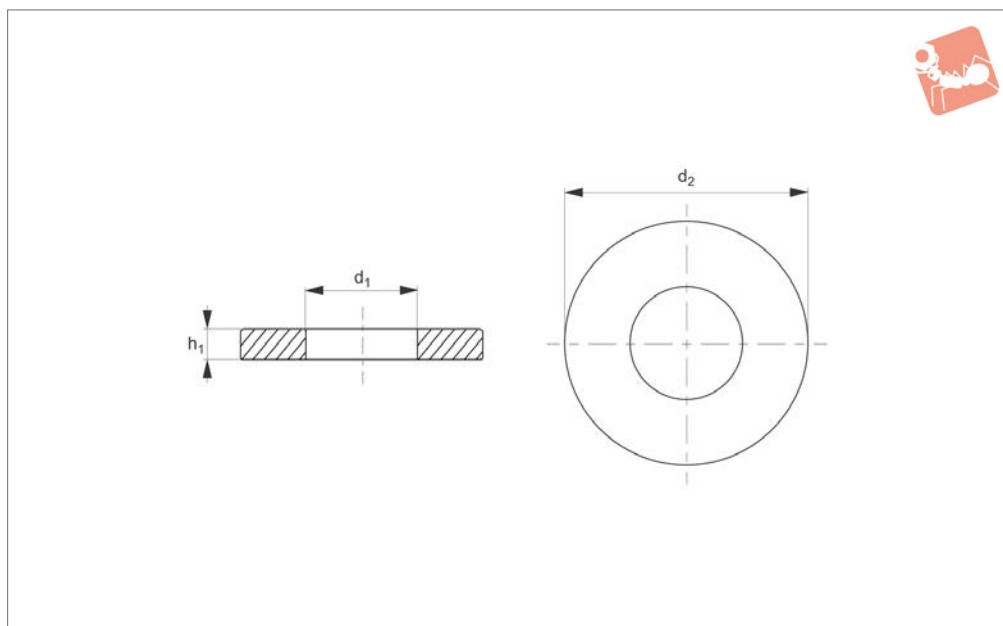
25700 - Tempered Steel - Dished Washers, Type G - DIN 6319G.



25900 - Stainless Steel Compact Spherical Washer, Conical Seat, similar to DIN6319



25000



Material

Tempered steel (350+80 HV30), (1200-1400N/mm² tensile strength).

Technical Notes

Produced to DIN 6340.

Order No.	For thread	For thread inch	d_1	d_2	h_1	Weight g
25000.W0106	M 6	1/4"	6.4	17	3	5
25000.W0108	M 8	5/16"	8.4	23	4	10
25000.W0110	M10	3/8"	10.5	28	4	16
25000.W0112	M12	1/2"	13.0	35	5	35
25000.W0114	M14	-	15.0	40	5	40
25000.W0116	M16	5/8"	17.0	45	6	60
25000.W0118	M18	-	19.0	45	6	60
25000.W0120	M20	3/4"	21.0	50	6	73
25000.W0122	M22	7/8"	23.0	50	8	92
25000.W0124	M24	7/8"	25.0	60	8	170
25000.W0127	M27	1-1/16"	28.0	68	10	210
25000.W0130	M30	1-1/8", 1-3/16"	31.0	68	10	230
25000.W0136	M36	1-1/4", 1-3/8"	38.0	80	10	350
25000.W0142	M42	1-1/2"	44.0	100	15	670
25000.W0148	M48	1-3/4"	50.0	108	17	920

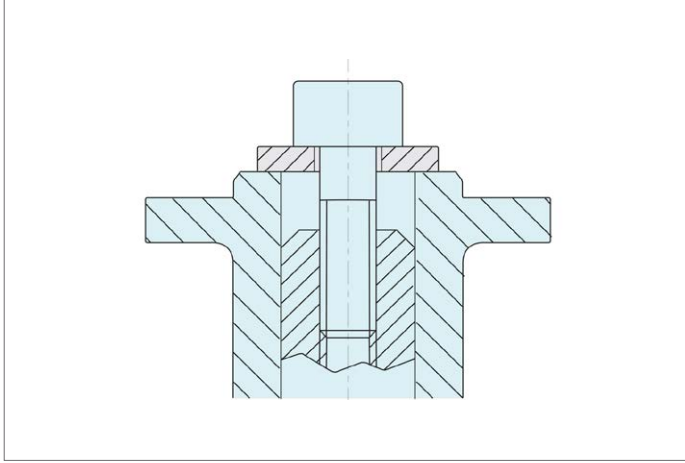


Plain Washers

steel



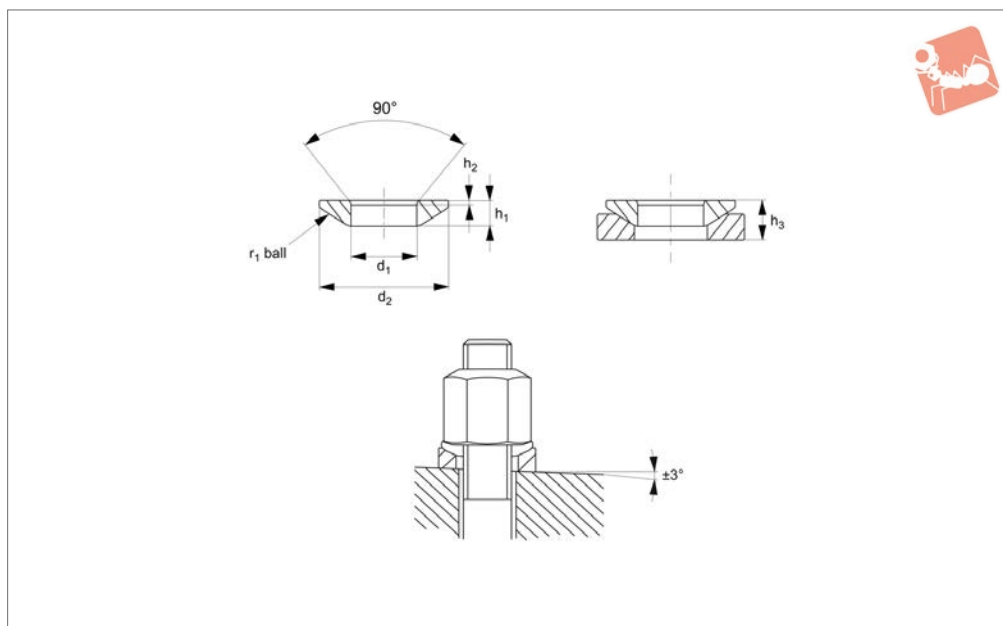
Washers



WASHERS



25100



Material

Steel, case-hardened.

Technical Notes

Produced to DIN 6319C.

Used with dished washers no. 25400 (type

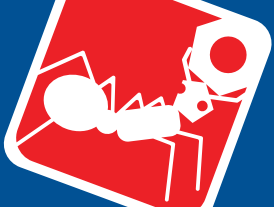
D) and no. 25700 (type G). Dimensions marked * not available in DIN standard.

Tips

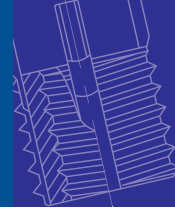
When clamping over holes or slots which do not provide full surface contact to the

washer, only use no. 25100 in combination with washer no. 25700 (type G). Do not use in combination with no. 25400 (type D) in such situations.

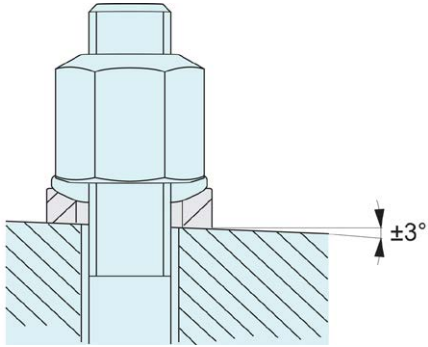
Order No.	For thread	For thread inch	d ₁ tol. H13	d ₂	h ₁	h ₂	r ₁	Load capacity for static load kN max.	With 25400 h ₃	With 25700 h ₃	Weight g
25100.W0106	M 6	1/4"	6,4	12	2,3	0,7	9,0	9	4,2	5,4	1
25100.W0108	M 8	5/16"	8,4	17	3,2	0,6	12,0	17	5,6	7,1	3
25100.W0110	M10	3/8"	10,5	21	4,0	0,8	15,0	26	6,5	7,3	5
25100.W0112	M12	1/2"	13,0	24	4,6	1,1	17,0	38	8,0	9,0	8
25100.W0114	M14		15,0	28	5,0	1,4	22,0	53	8,5	9,5	12
25100.W0116	M16	5/8"	17,0	30	5,3	1,3	22,0	73	9,6	10,4	13
25100.W0120	M20	3/4"	21,0	36	6,3	2,0	27,0	117	11,7	12,2	23
25100.W0122	M22	7/8"	23,0*	40	7,6	2,5	29,5	146	13,5		34
25100.W0124	M24	7/8"	25,0	44	8,2	2,4	32,0	168	15,2	15,7	45
25100.W0127	M27	11/16"	28,0*	50	10,2	3,3	36,0	221	17,0		74
25100.W0130	M30	1-1/8", 1-3/16"	31,0	56	11,2	3,6	41,0	269	19,2	19,7	101
25100.W0133	M33		34,0*	62	13,0	4,4	45,0	326	21,8		150
25100.W0136	M36	1-1/4", 1-3/8"	37,0	68	14,0	4,6	50,0	394	23,5		190
25100.W0139	M39		40,0*	75	16,0	5,6	54,0	460	26,8		218
25100.W0142	M42	1-1/2"	43,0	78	17,0	6,5	58,0	542	29,0		310
25100.W0148	M48	1-3/4"	50,0	92	21,0	8,0	67,0	714	35,5		540
25100.W0152	M52		54,0*	96	22,0	9,3	72,0	832	38,3		620
25100.W0156	M56	2"	58,0*	103	23,0	9,8	79,0	960	39,3		760
25100.W0160	M60		62,0*	112	25,0	11,0	86,0	1122	43,6		990
25100.W0164	M64	2-1/4"	66,0*	120	27,0	12,0	93,0	1269	46,6		1220



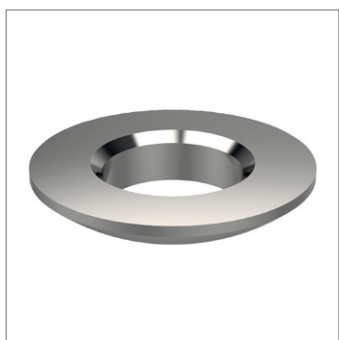
Washers - Spherical Seat type C



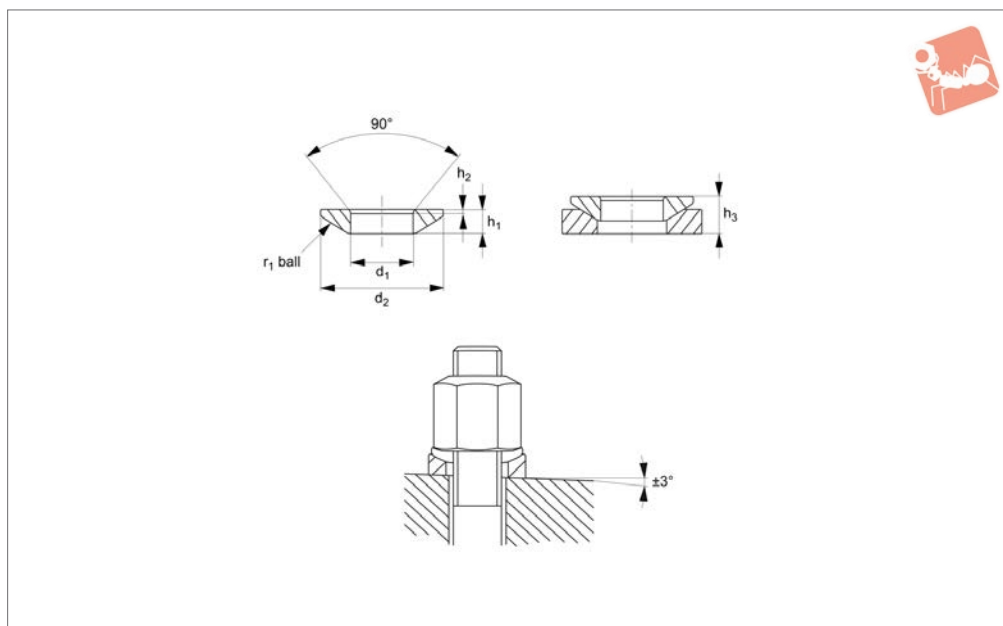
Washers



WASHERS



25205



Material

Stainless steel (AISI 316, 1.4401).

Technical Notes

Similar to DIN 6319C.

Used with dished washers no. 25505 (type

D), and no. 25805 (type G).

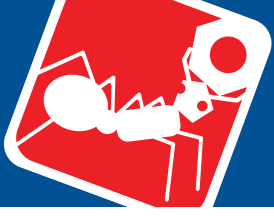
Tips

When clamping over holes or slots which do not provide full surface contact to the washer, only use no. 25205 in combination

with washer no. 25805 (type G) - do not use in combination with no. 25505 (type D) in such circumstances.

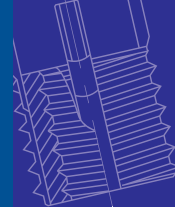
*Torques for screws A2-70 are approximate values.

Order No.	For thread	For thread inch	d_1 tol. H13	d_2	h_1	h_2	r_1	Static load kN max.	Torque for screwed connectors Nm max.	With 25505 h_3	With 25805 h_3	Weight g
25205.W0306	M 6	1/4"	6,4	12	2,3	0,7	9	6	6	4,0	5,2	1
25205.W0308	M 8	5/16"	8,4	17	3,2	0,6	12	12	16	5,3	6,8	3
25205.W0310	M10	3/8"	10,5	21	4,0	0,8	15	16	32	6,3	7,1	5
25205.W0312	M12	1/2"	13,0	24	4,6	1,1	17	24	56	7,9	8,9	8
25205.W0316	M16	5/8"	17,0	30	5,3	1,3	22	45	135	9,3	10,1	13
25205.W0320	M20	3/4"	21,0	36	6,3	2,0	27	71	280	11,6	12,1	23
25205.W0324	M24	7/8"	25,0	44	8,2	2,4	32	105	455	14,9	15,4	46
25205.W0330	M30	1-1/8", 1-3/16"	31,0	56	11,2	3,6	41	191	1050	18,8	18,8	104
25205.W0336	M36	1-1/4", 1-3/8"	37,0	68	14,0	4,6	50			23,4		193
25205.W0342	M42	1-1/2"	43,0	78	17,0	6,5	58			28,3		313
25205.W0348	M48	1-3/4"	50,0	92	21,0	8,0	67			35,0		545

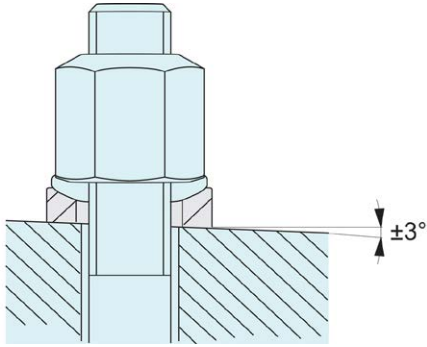


Washers - Spherical Seat

stainless steel 316



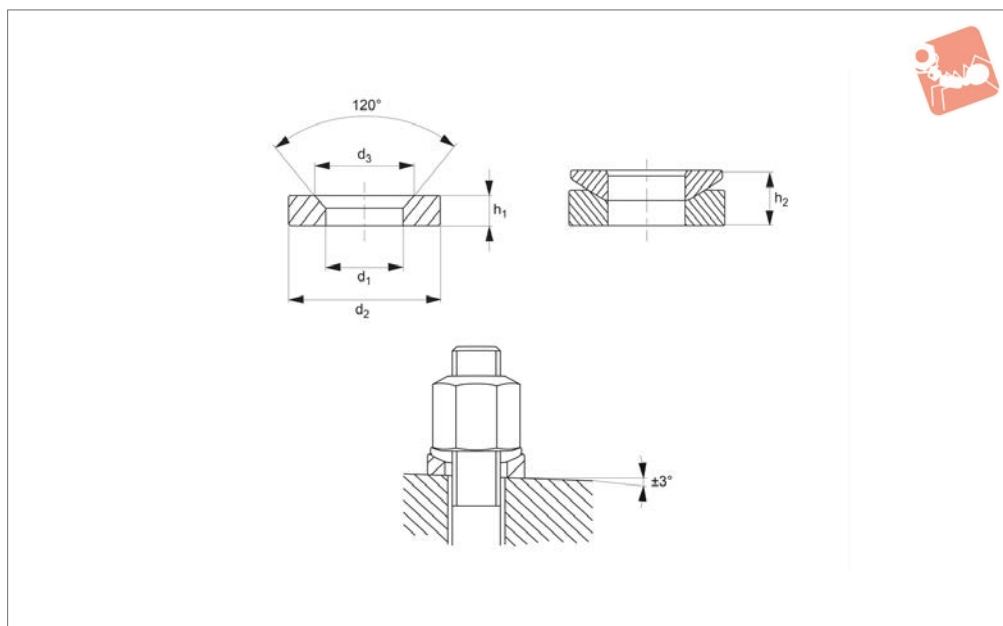
Washers



WASHERS



25400



Material

Steel, case-hardened.

Technical Notes

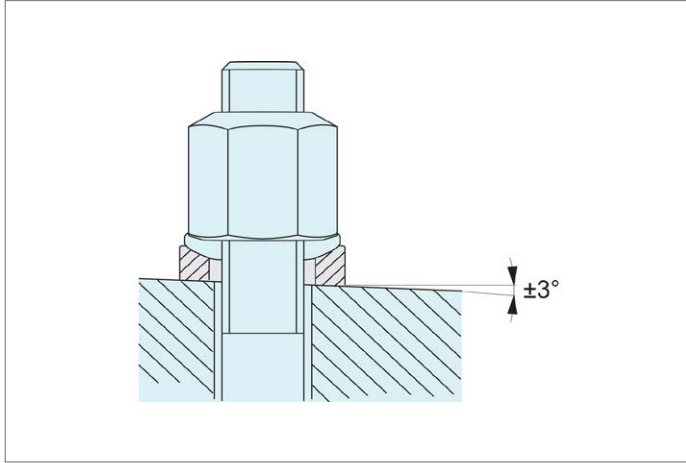
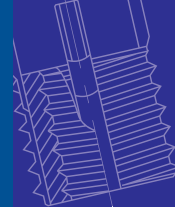
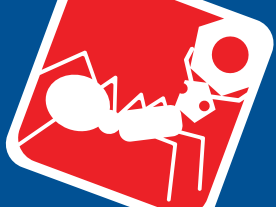
Produced to DIN 6319D.

Tips

Do not use no. 25400 (type D) for clamping over holes or slots which do not provide full surface contact to the washer. In such

cases use no. 25700 (type G). Dimensions marked * not available in DIN standard.

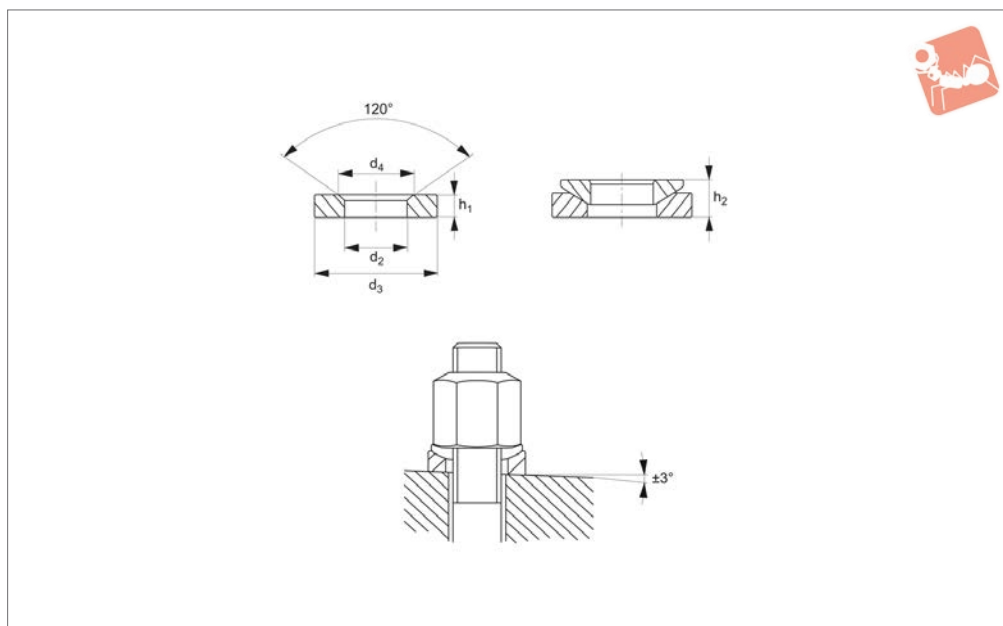
Order No.	For thread	For thread inch	d ₁ tol. H13	d ₂	d ₃	h ₁	Load capacity for static load kN max.	With 25100 h ₃	Weight g
25400.W0106	M 6	1/4"	7.1	12	11.0	2.8	9	4.2	1
25400.W0108	M 8	5/16"	9.6	17	14.5	3.5	17	5.6	2
25400.W0110	M10	3/8"	12.0	21	18.5	4.2	26	6.5	7
25400.W0112	M12	1/2"	14.2	24	20.0	5.0	38	8.0	10
25400.W0114	M14	-	16.5	28	24.8	5.6	53	-	15
25400.W0116	M16	5/8"	19.0	30	26.0	6.2	73	9.6	18
25400.W0120	M20	3/4"	23.2	36	31.0	7.5	117	11.7	30
25400.W0122	M22	-	26,0*	40	34.0	8.5	146	-	44
25400.W0124	M24	7/8"	28.0	44	37.0	9.5	168	15.2	61
25400.W0127	M27	-	31,5*	50	43.0	10.5	221	-	90
25400.W0130	M30	1-1/8", 1-3/16"	35.0	56	49.0	12.0	269	19.2	124
25400.W0133	M33	-	38,5*	62	55.0	14.0	326	-	180
25400.W0136	M36	1-1/4", 1-3/8"	42.0	68	60.0	15.0	394	23.5	230
25400.W0139	M39	-	45,0*	75	67.0	17.0	460	-	339
25400.W0142	M42	1-1/2"	49.0	78	70.0	18.0	542	29.0	360
25400.W0148	M48	1-3/4"	56.0	92	82.0	22.0	714	35.5	640
25400.W0152	M52	-	60,0*	96	85.0	24.0	832	-	740
25400.W0156	M56	-	65,0*	103	93.0	25.0	960	-	900
25400.W0160	M60	-	70,0*	112	102.0	28.0	1122	-	1165
25400.W0164	M64	-	75,0*	120	110.0	30.0	1269	-	1430



WASHERS



25505



Material

Stainless steel (AISI 316, 1.4401).

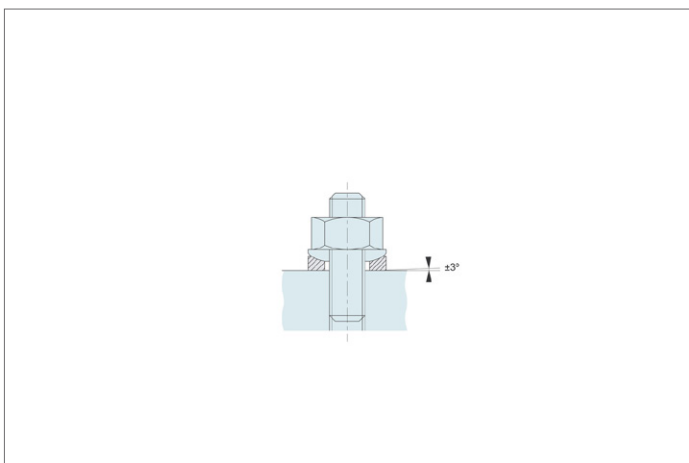
Use with spherical seat washer no. 25205 0,12.
(type C). Torque values are approximate.

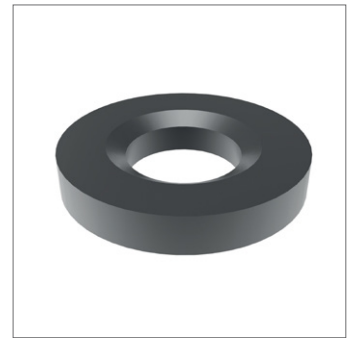
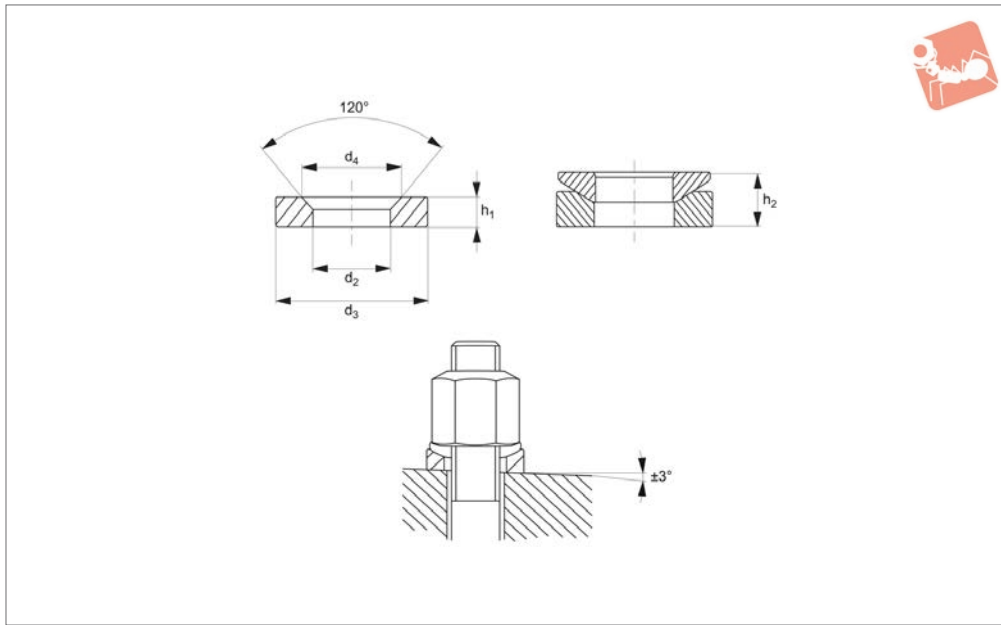
Technical Notes

Similar to DIN 6319D.

Please consider the actual preloads in your application and a coefficient of friction of

Order No.	For metric thread d_1	For thread d_1 inch	d_2 tol. H13	d_3	d_4	h_1	Torque Nm max.	Load capacity for static load kN max.	With 25205 h_2	Weight g
25505.W0406	M 6	1/4"	7,1	12	11,0	2,8	6	6	4,0	1
25505.W0408	M 8	5/16"	9,6	17	14,5	3,5	16	12	5,3	4
25505.W0410	M10	3/8"	12,0	21	18,5	4,2	32	16	6,3	7
25505.W0412	M12	1/2"	14,2	24	20,0	5,0	56	24	7,9	11
25505.W0416	M16	5/8"	19,0	30	26,0	6,2	135	45	9,3	19
25505.W0420	M20	3/4"	23,2	36	31,0	7,5	280	71	11,6	32
25505.W0424	M24	7/8"	28,0	44	37,0	9,5	455	105	14,9	63
25505.W0430	M30	1-1/8", 1-3/16"	35,0	56	49,0	12,0	1050	191	18,8	127
25505.W0436	M36	1-1/4", 1-3/8"	42,0	68	60,0	15,0			23,4	234
25505.W0442	M42	1-1/2"	49,0	78	70,0	18,0			28,3	362
25505.W0448	M48	1-3/4"	56,0	92	82,0	22,0			35,0	642





25700

WASHERS

Material

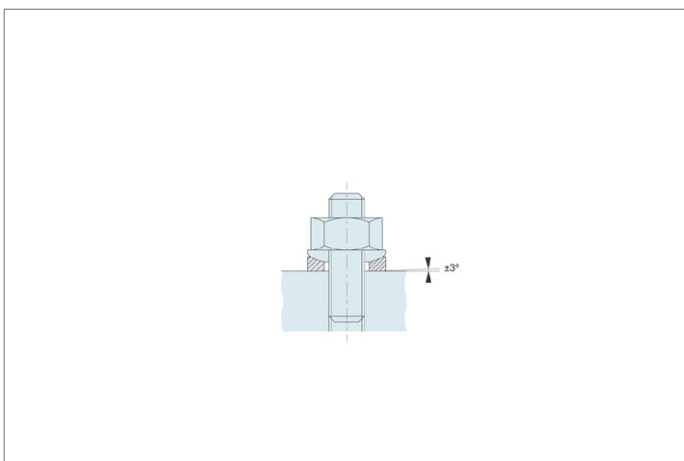
Steel, punched, trued and tempered.

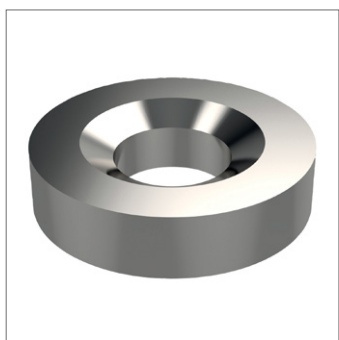
Their large diameter makes them suitable to bridge the slots of clamps.

Technical Notes

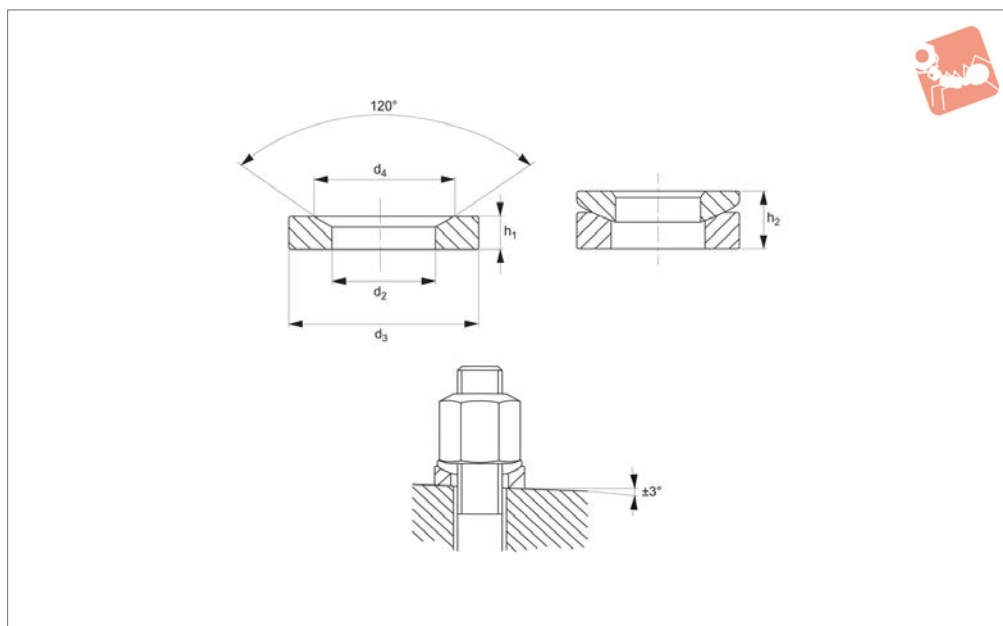
Produced to DIN 6319G.

Order No.	For metric thread d_1	For thread d_1 inch	d_2 tol. H13	d_3	d_4	h_1	Load capacity for static load kN max.	With 25100 h_2	Weight g
25700.W0106	M 6	1/4"	7.1	17	11.0	4	9	5.4	6
25700.W0108	M 8	5/16"	9.6	24	14.5	5	17	7.1	13
25700.W0110	M10	3/8"	12.0	30	18.5	5	26	7.3	19
25700.W0112	M12	1/2"	14.2	36	20.0	6	38	9.0	32
25700.W0114	M14	-	16.5	40	24.8	6	53	9.5	48
25700.W0116	M16	5/8"	19.0	44	26.0	7	73	10.4	56
25700.W0120	M20	3/4"	23.2	50	31.0	8	117	12.2	94
25700.W0124	M24	7/8"	28.0	60	37.0	10	168	15.7	169
25700.W0130	M30	1-1/8", 1-3/16"	35.0	68	49.0	12	269	19.7	230
25700.W0136	M36	1-1/4", 1-3/18"	42.0	80	60.0	12	394	-	350
25700.W0142	M42	1-1/2"	49.0	100	70.0	15	-	-	640
25700.W0148	M48	1-3/4"	56.0	108	82.0	17	-	-	830





25805



Material

Stainless steel (AISI 316, 1.4401).

Their large diameter makes them suitable to bridge wide slots.

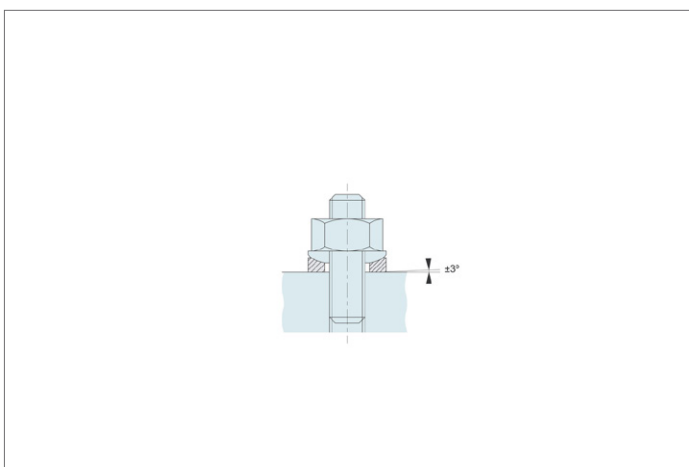
be considered, coefficient of friction μ_{total} 0,12.

Technical Notes

Produced to DIN 6319G.

*Torque values of screwed connector A2-70 are approximate. Actual preloads should

Order No.	For metric thread d_1	For thread d_1 inch	d_2 tol. H13	d_3	d_4	h_1	Torque Nm max.	Load capacity for static load kN max.	With 25205 h_2	Weight g
25805.W0106	M 6	1/4"	7,1	17	11,0	4	6	6	5,2	6
25805.W0108	M 8	5/16"	9,6	24	14,5	5	16	12	6,8	15
25805.W0110	M10	3/8"	12,0	30	18,5	5	32	16	7,1	22
25805.W0112	M12	1/2"	14,2	36	20,0	6	56	24	8,9	40
25805.W0116	M16	5/8"	19,0	44	26,0	7	135	45	10,1	66
25805.W0120	M20	3/4"	23,2	50	31,0	8	280	71	12,1	95
25805.W0124	M24	7/8"	28,0	60	37,0	10	455	105	15,4	171
25805.W0130	M30	1-1/8", 1-3/16"	35,0	68	49,0	12	1050	191	18,8	236



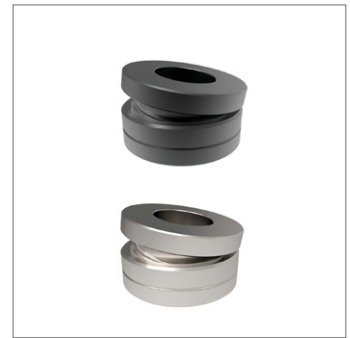
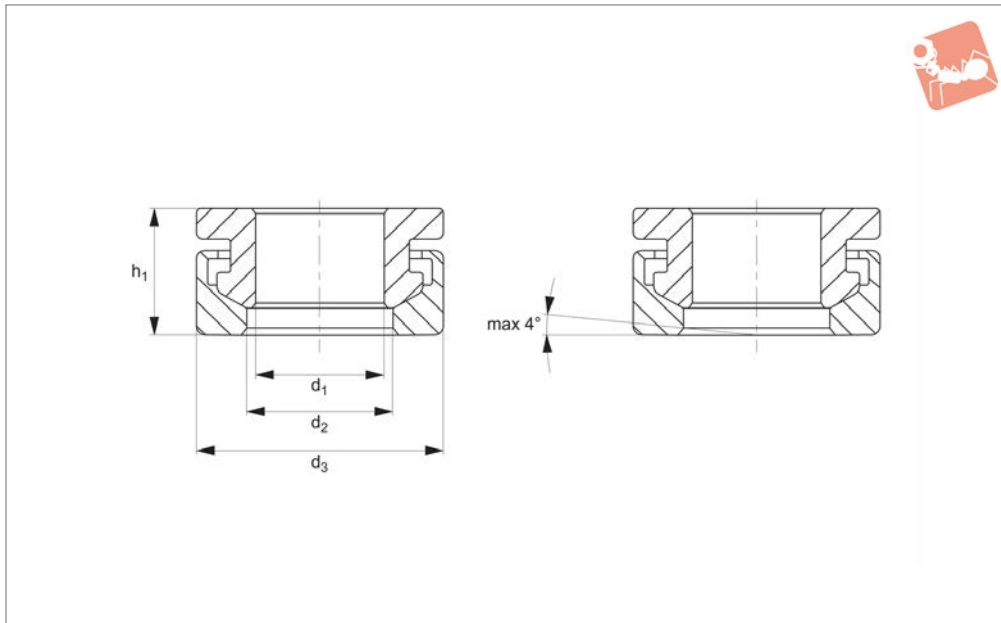


Compact Spherical Washer

conical seat



Washers



25900

WASHERS

Material

Seat washer: steel, heat treated or stainless steel (AISI 303, 1.4305)

Spherical washer: steel, case-hardened or stainless steel (AISI 303, 1.4305)

Technical Notes

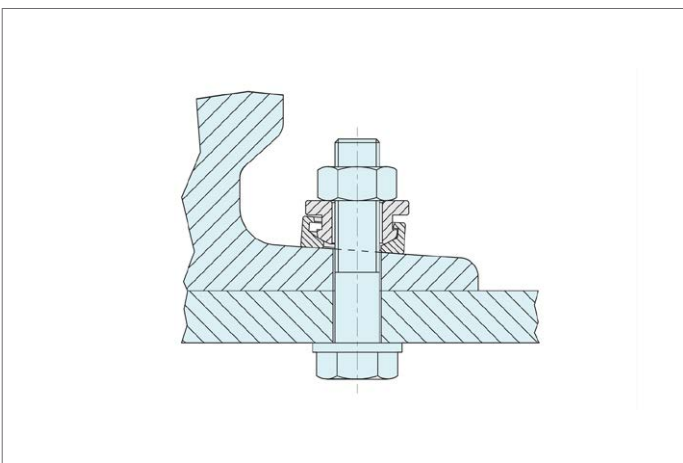
Similar to DIN 6319.

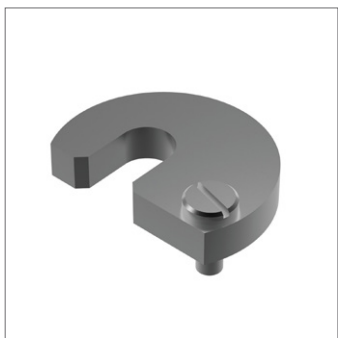
A permanently fastened spherical washer and conical seat offering increased safety, quick assembly and security against loss.

Max. swivel range $\pm 4^\circ$.

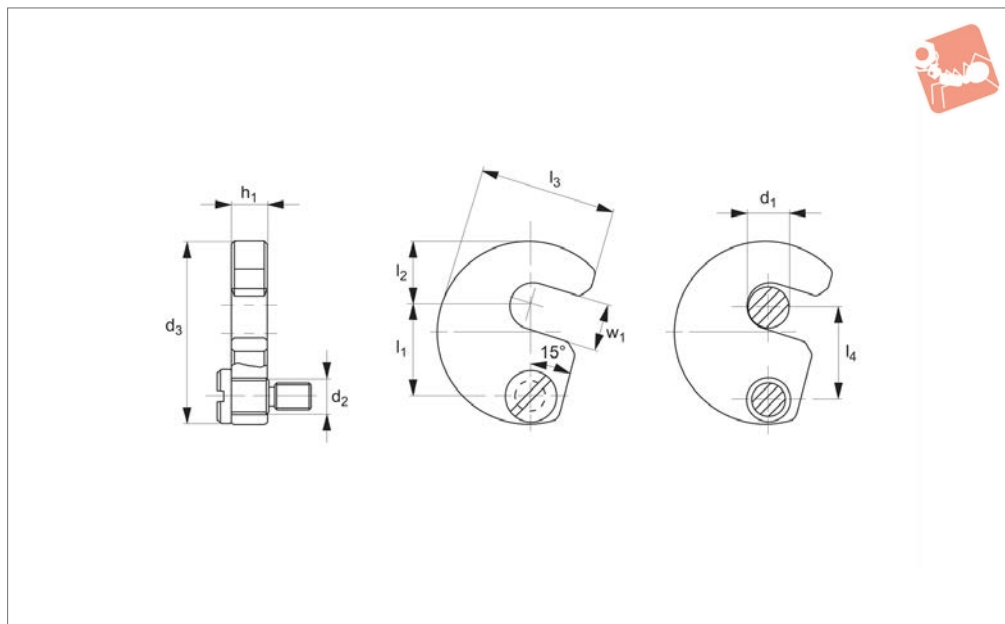
***Load capacity relates to steel version only.**

Order No.	Material	For thread	d ₁ tol. H13	d ₂	d ₃	h ₁	Load kN max.	Weight g
25900.W0506	Steel	M 6	6.4	7.4	13	7.0	9	4
25900.W0508	Steel	M 8	8.4	9.7	17	8.5	17	9
25900.W0510	Steel	M10	10.5	12.0	21	10.4	26	17
25900.W0512	Steel	M12	13.0	14.8	25	13.1	38	34
25900.W0516	Steel	M16	17.0	19.7	32	17.0	73	61
25900.W0520	Steel	M20	21.0	24.6	40	20.3	117	113
25900.W0556	Stainless Steel	M 6	6.4	7.4	13	7.0	9	4
25900.W0558	Stainless Steel	M 8	8.4	9.7	17	8.5	17	9
25900.W0560	Stainless Steel	M10	10.5	12.0	21	10.4	26	17
25900.W0562	Stainless Steel	M12	13.0	14.8	25	13.1	38	34
25900.W0566	Stainless Steel	M16	17.0	19.7	32	17.0	73	61
25900.W0570	Stainless Steel	M20	21.0	24.6	40	20.3	117	113





36620



Material

Heat-treated steel (DIN 6371), blackened and tempered.

Shoulder bolt: steel, strength class 5.8,

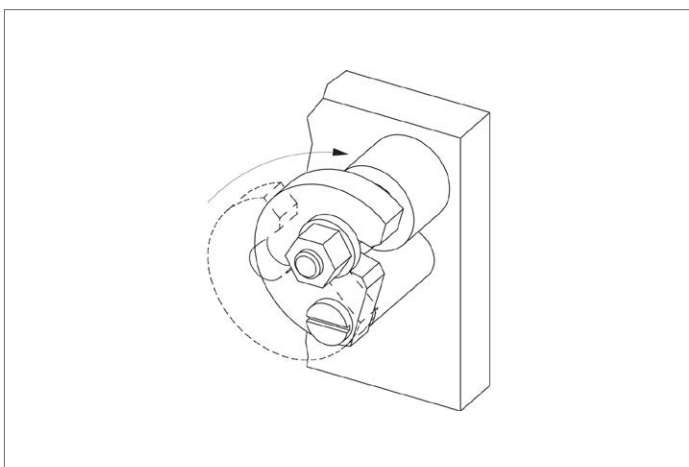
blackened.

Technical Notes

Shoulder bolt no. 36700 (DIN 923)

provided.

Order No.	Size	d ₁	d ₂	d ₃	h ₁ -0.2	l ₁	l ₂	l ₃	l ₄	w ₁	Matching screw DIN 923	Weight g
36620.W0006	6	6	9	38	9.8	19.6	11	29.0	19	7.5	M 6x10	66
36620.W0008	8	8	9	43	9.8	21.6	14	32.5	21	9.5	M 6x10	81
36620.W0010	10	10	9	48	9.8	23.6	17	36.5	23	11.5	M 6x10	99
36620.W0012	12	12	11	61	11.8	29.6	22	45.0	29	13.5	M 8x12	194
36620.W0016	16	16	11	68	11.8	33.6	25	50.0	33	17.5	M 8x12	229
36620.W0020	20	20	11	74	11.8	36.6	28	55.0	36	21.5	M 8x12	265
36620.W0024	24	24	11	82	15.8	40.6	32	62.0	40	25.5	M 8x16	430
36620.W0030	30	30	11	97	15.8	49.0	39	73.0	48	32.0	M 8x16	584



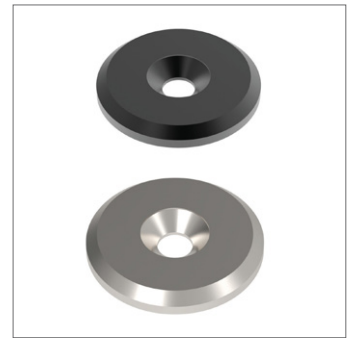
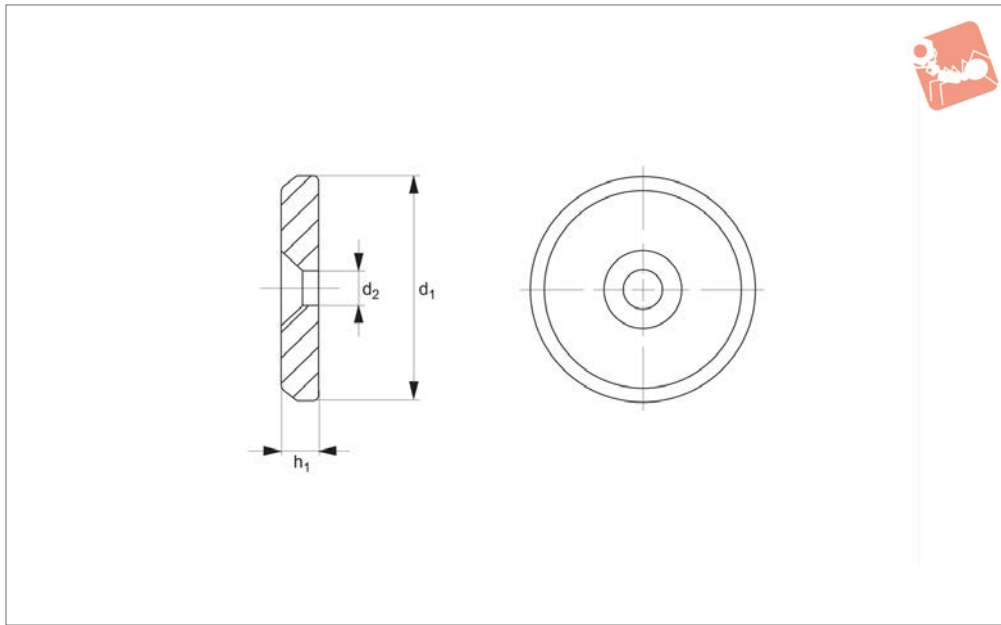


Countersunk Washers

steel and stainless steel



Washers



36720

WASHERS

Material

Free cutting steel type:

Free cutting steel, unhardened, blackened.

Stainless steel type:

Stainless steel (AISI 303, 1.4305).

Technical Notes

They can be pinned with a cylindrical pin to

prevent them turning or becoming loose.

Secure with screws.

Order No.	Material	d ₁	d ₂	h ₁	Matching screws DIN 963 and DIN 7991	Weight g
36720.W0016	Steel	16	4.5	3.0	M 4	3.6
36720.W0020	Steel	20	4.5	3.0	M 4	6.1
36720.W0022	Steel	22	5.5	3.5	M 5	8.1
36720.W0025	Steel	25	5.5	3.5	M 5	11
36720.W0028	Steel	28	5.5	3.5	M 5	14
36720.W0032	Steel	32	6.6	4.0	M 6	22
36720.W0036	Steel	36	6.6	4.0	M 6	28
36720.W0040	Steel	40	6.6	5.0	M 6	44
36720.W0045	Steel	45	6.6	6.0	M 6	66
36720.W0052	Steel	52	6.6	6.0	M 6	91
36720.W0516	Stainless	16	4.5	3.0	M 4	3.6
36720.W0520	Stainless	20	4.5	3.0	M 4	6.1
36720.W0522	Stainless	22	5.5	3.5	M 5	8.1
36720.W0525	Stainless	25	5.5	3.5	M 5	11
36720.W0528	Stainless	28	5.5	3.5	M 5	14
36720.W0532	Stainless	32	6.6	4.0	M 6	22
36720.W0536	Stainless	36	6.6	4.0	M 6	28
36720.W0540	Stainless	40	6.6	5.0	M 6	44
36720.W0545	Stainless	45	6.6	6.0	M 6	66
36720.W0552	Stainless	52	6.6	6.0	M 6	91