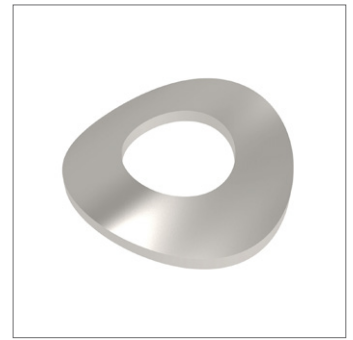
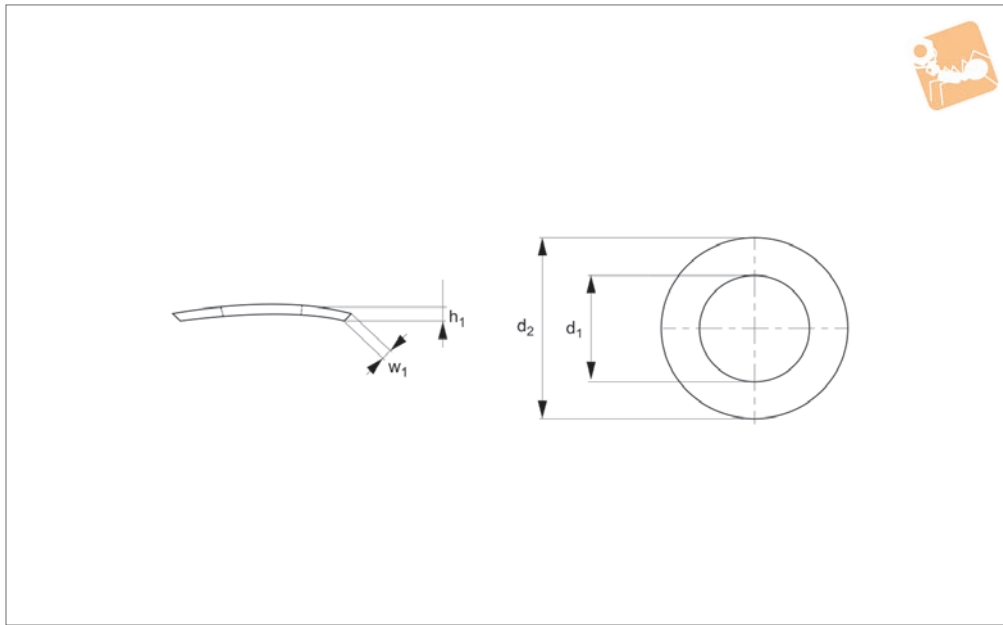




Curved Spring Washers

A2 stainless



P0360.A2

FLAT WASHERS

Material

Stainless steel (A2, AISI 303).

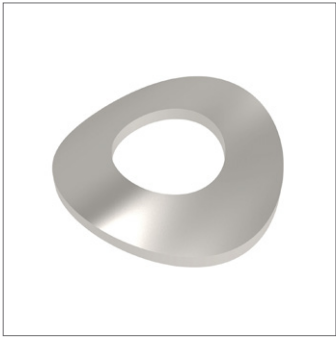
loads.

Use with fasteners >5.8 class.

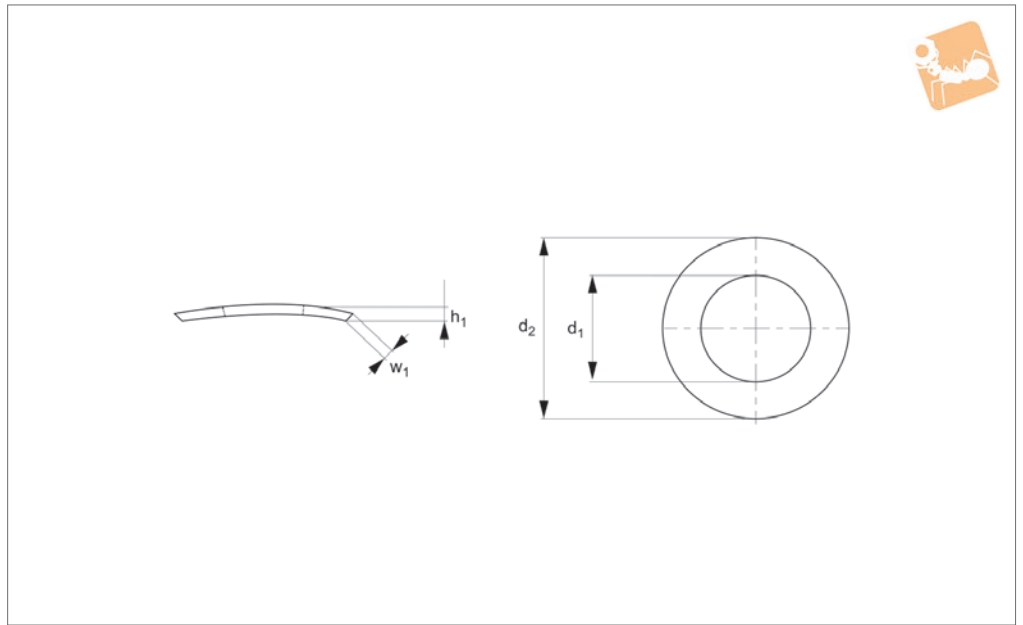
Technical Notes

To DIN 137 A. Not for use under dynamic

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ min.	Material
P0360.012-A2	M1,2	1.3	3.0	0.2	0.7	A2 s/s
P0360.014-A2	M1,4	1.5	3.0	0.25	0.7	A2 s/s
P0360.017-A2	M1,7	1.8	4.0	0.25	0.9	A2 s/s
P0360.020-A2	M 2	2.2	4.5	0.3	1.0	A2 s/s
P0360.025-A2	M2,5	2.8	5.5	0.3	1.1	A2 s/s
P0360.026-A2	M2,6	2.8	5.5	0.3	1.1	A2 s/s
P0360.030-A2	M 3	3.2	6	0.4	1.3	A2 s/s
P0360.035-A2	M3,5	3.7	7	0.4	1.3	A2 s/s
P0360.040-A2	M 4	4.3	8	0.5	1.6	A2 s/s
P0360.050-A2	M 5	5.3	10	0.5	1.8	A2 s/s
P0360.060-A2	M 6	6.4	11	0.5	2.2	A2 s/s
P0360.070-A2	M 7	7.4	12	0.5	2.4	A2 s/s
P0360.080-A2	M 8	8.4	15	0.5	3.4	A2 s/s
P0360.100-A2	M10	10.5	18	0.8	4.0	A2 s/s



P0360.ZP



Material

Spring steel, zinc-plated.

loads.

Use with fasteners >5.8 class.

Technical Notes

To DIN 137 A. Not for use under dynamic

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ min.	Material
P0360.020-ZP	M 2	2.2	4.5	0.3	1.0	Steel ZP
P0360.025-ZP	M2,5	2.8	5.5	0.3	1.1	Steel ZP
P0360.030-ZP	M 3	3.2	6	0.4	1.3	Steel ZP
P0360.035-ZP	M3,5	3.7	7	0.4	1.3	Steel ZP
P0360.040-ZP	M 4	4.3	8	0.5	1.6	Steel ZP
P0360.050-ZP	M 5	5.3	10	0.5	1.8	Steel ZP
P0360.060-ZP	M 6	6.4	11	0.5	2.2	Steel ZP
P0360.070-ZP	M 7	7.4	12	0.5	2.4	Steel ZP
P0360.080-ZP	M 8	8.4	15	0.5	3.4	Steel ZP
P0360.100-ZP	M10	10.5	18	0.8	4.0	Steel ZP

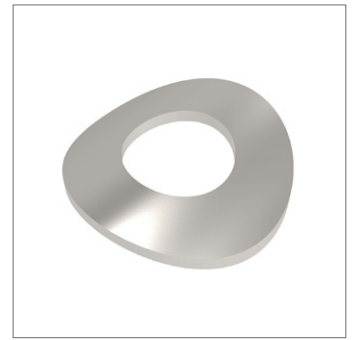
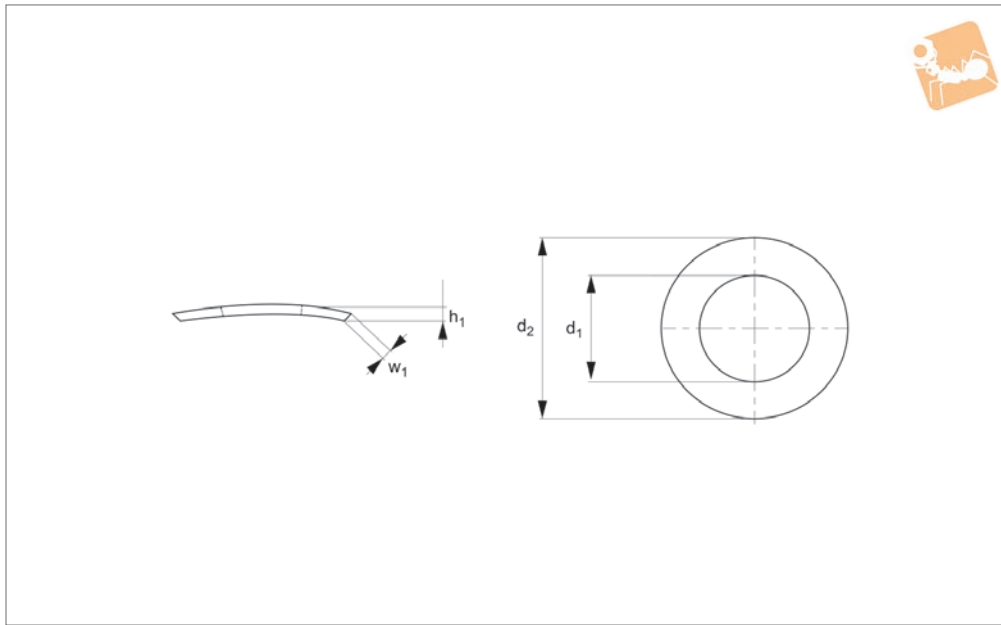


Curved Spring Washers

Steel, self-coloured



Flat Washers



P0360.SC

FLAT WASHERS

Material

Spring steel, self-colour.

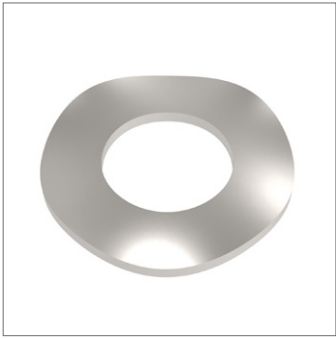
loads.

Use with fasteners >5.8 class.

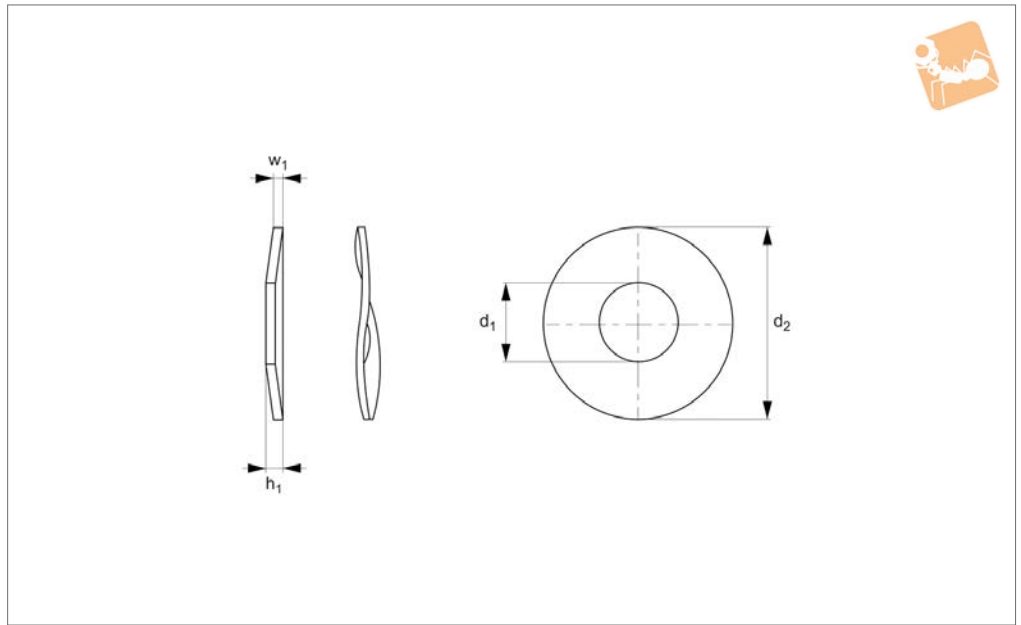
Technical Notes

To DIN 137 A. Not for use under dynamic

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ min.	Material
P0360.020-SC	M 2	2.2	4.5	0.3	1.0	Steel SC
P0360.025-SC	M2,5	2.8	5.5	0.3	1.1	Steel SC
P0360.030-SC	M 3	3.2	6	0.4	1.3	Steel SC
P0360.035-SC	M3,5	3.7	7	0.4	1.3	Steel SC
P0360.040-SC	M 4	4.3	8	0.5	1.6	Steel SC
P0360.050-SC	M 5	5.3	10	0.5	1.8	Steel SC
P0360.060-SC	M 6	6.4	11	0.5	2.2	Steel SC
P0360.070-SC	M 7	7.4	12	0.5	2.4	Steel SC
P0360.080-SC	M 8	8.4	15	0.5	3.4	Steel SC
P0360.100-SC	M10	10.5	18	0.8	4.0	Steel SC



P0361.A2



Material

Stainless steel (A2, AISI 303).

Technical Notes

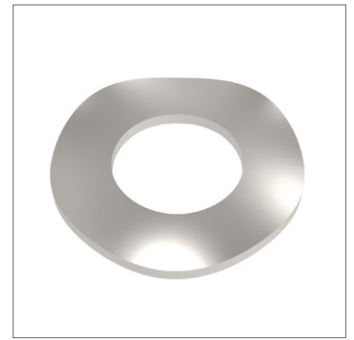
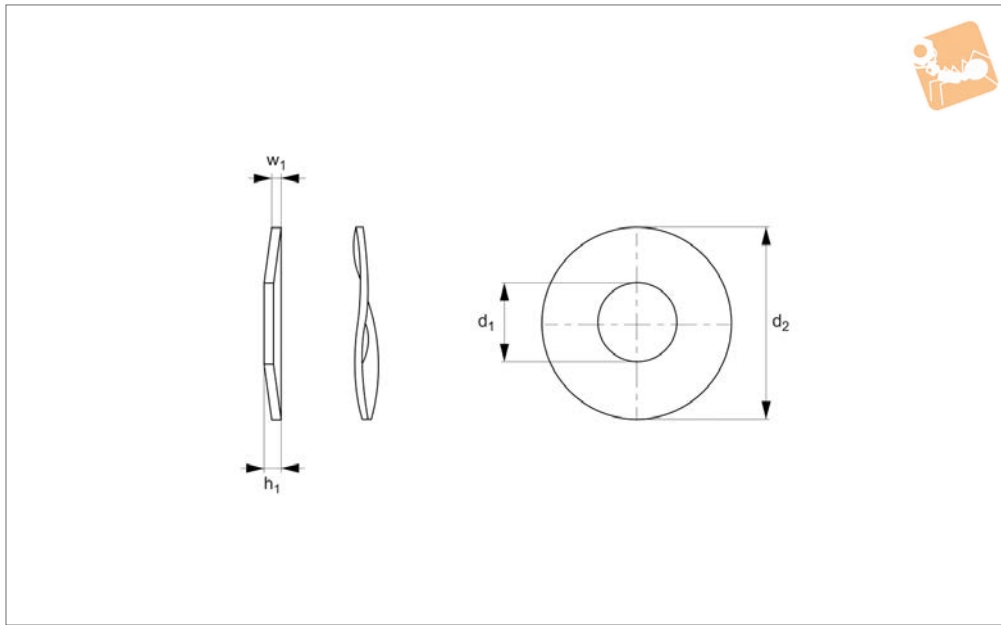
To DIN 137 B.

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ max.	Material
P0361.030-A2	M 3	3.2	8	0.5	1.6	A2 s/s
P0361.035-A2	M3,5	3.7	8	0.5	1.8	A2 s/s
P0361.040-A2	M 4	4.3	9	0.5	2.0	A2 s/s
P0361.050-A2	M 5	5.3	11	0.5	2.2	A2 s/s
P0361.060-A2	M 6	6.4	12	0.5	2.6	A2 s/s
P0361.070-A2	M 7	7.4	14	0.8	3.0	A2 s/s
P0361.080-A2	M 8	8.4	15	0.8	3.0	A2 s/s
P0361.100-A2	M10	10.5	21	1.0	4.2	A2 s/s
P0361.120-A2	M12	13	24	1.2	5.0	A2 s/s
P0361.140-A2	M14	15	28	1.6	6.0	A2 s/s
P0361.160-A2	M16	17	30	1.6	6.4	A2 s/s
P0361.180-A2	M18	19	34	1.6	6.6	A2 s/s
P0361.200-A2	M20	21	36	1.6	7.4	A2 s/s
P0361.220-A2	M22	23	40	1.8	7.8	A2 s/s
P0361.240-A2	M24	25	44	1.8	8.2	A2 s/s



Wave Spring Washers

A4 stainless



P0361.A4

FLAT WASHERS

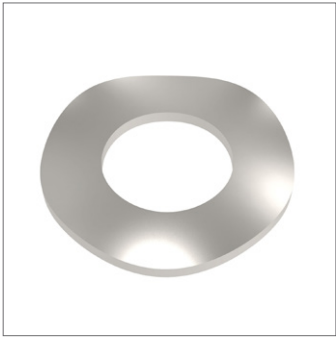
Material

Stainless steel (A4, AISI 316).

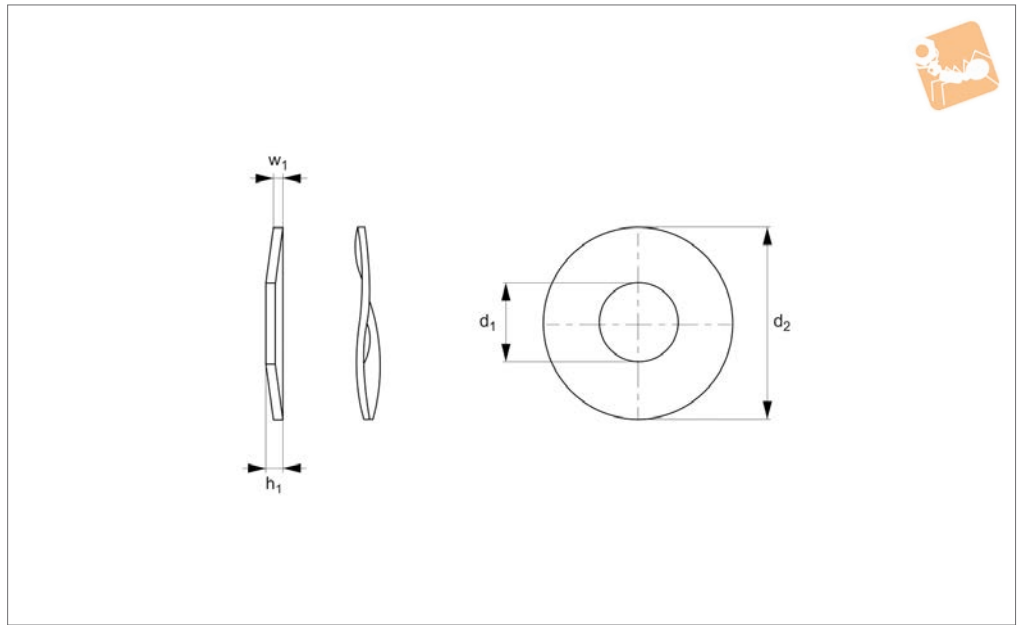
Technical Notes

To DIN 137 B.

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ max.	Material
P0361.030-A4	M 3	3.2	8	0.5	1.6	A4 s/s
P0361.035-A4	M3,5	3.7	8	0.5	1.8	A4 s/s
P0361.040-A4	M 4	4.3	9	0.5	2.0	A4 s/s
P0361.050-A4	M 5	5.3	11	0.5	2.2	A4 s/s
P0361.060-A4	M 6	6.4	12	0.5	2.6	A4 s/s
P0361.070-A4	M 7	7.4	14	0.8	3.0	A4 s/s
P0361.080-A4	M 8	8.4	15	0.8	3.0	A4 s/s
P0361.100-A4	M10	10.5	21	1.0	4.2	A4 s/s
P0361.120-A4	M12	13	24	1.2	5.0	A4 s/s
P0361.140-A4	M14	15	28	1.6	6.0	A4 s/s
P0361.160-A4	M16	17	30	1.6	6.4	A4 s/s
P0361.180-A4	M18	19	34	1.6	6.6	A4 s/s
P0361.200-A4	M20	21	36	1.6	7.4	A4 s/s
P0361.220-A4	M22	23	40	1.8	7.8	A4 s/s
P0361.240-A4	M24	25	44	1.8	8.2	A4 s/s



P0361.ZP



Material

Steel, zinc-plated.

Technical Notes

To DIN 137 B.

Order No.	For thread	d ₁	d ₂	w ₁	h ₁ max.	Material
P0361.030-ZP	M 3	3.2	8	0.5	1.6	Steel SC
P0361.040-ZP	M 4	4.3	9	0.5	2.0	Steel SC
P0361.050-ZP	M 5	5.3	11	0.5	2.2	Steel SC
P0361.060-ZP	M 6	6.4	12	0.5	2.6	Steel SC
P0361.070-ZP	M 7	7.4	14	0.8	3.0	Steel SC
P0361.080-ZP	M 8	8.4	15	0.8	3.0	Steel SC
P0361.100-ZP	M10	10.5	21	1.0	4.2	Steel SC
P0361.120-ZP	M12	13	24	1.2	5.0	Steel SC
P0361.140-ZP	M14	15	28	1.6	6.0	Steel SC
P0361.160-ZP	M16	17	30	1.6	6.4	Steel SC

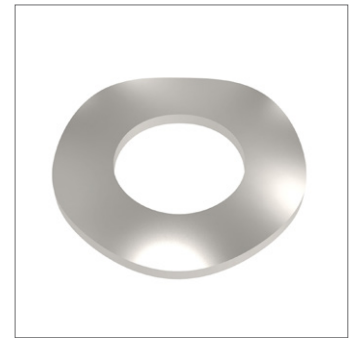
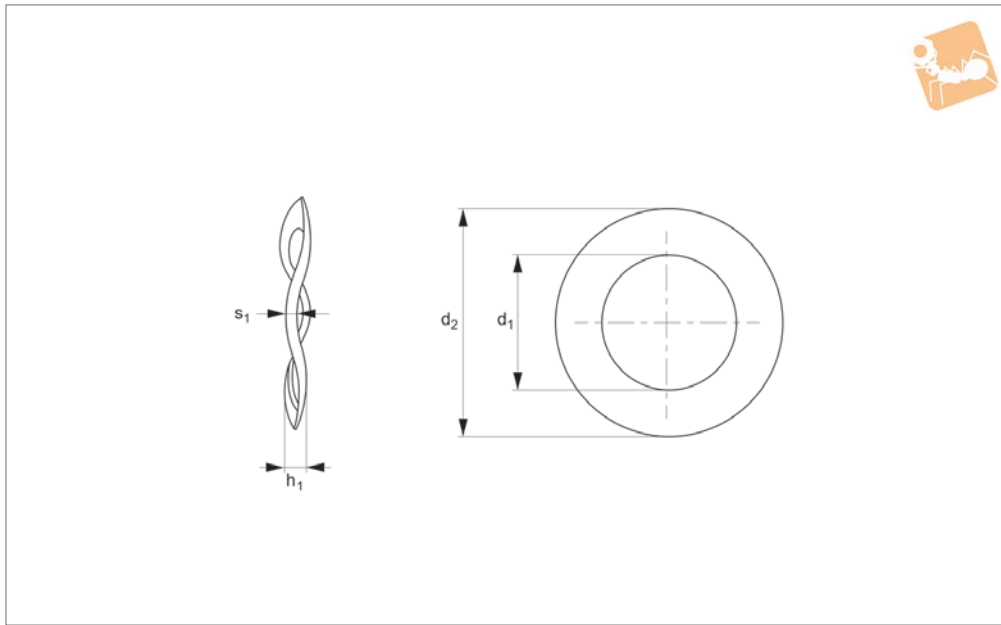


Crinkle Washers

A2 stainless



Flat Washers



P0368.A2

FLAT WASHERS

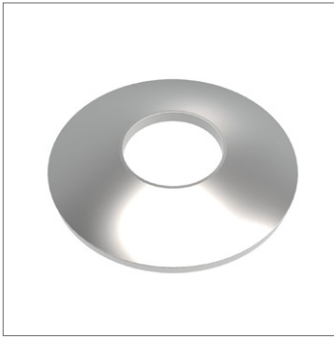
Material

Stainless steel (A2, AISI 303).

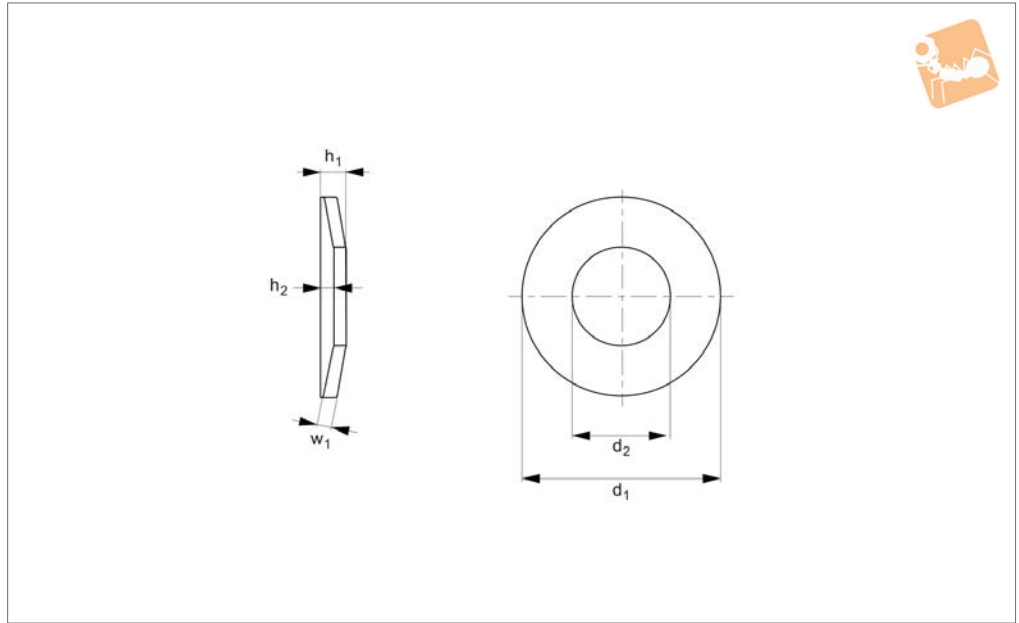
Technical Notes

To BS 4463.

Order No.	For thread	d_1	d_2	h_1	s_1	Material
P0368.016-A2	M1,6	1.7	3.7	0.51	0.16	A2 s/s
P0368.020-A2	M 2	2.2	4.6	0.53	0.16	A2 s/s
P0368.025-A2	M2,5	2.7	5.8	0.53	0.16	A2 s/s
P0368.030-A2	M 3	3.2	6.4	0.61	0.16	A2 s/s
P0368.035-A2	M3,5	3.7	6.9	0.79	0.20	A2 s/s
P0368.040-A2	M 4	4.3	8.1	0.84	0.28	A2 s/s
P0368.050-A2	M 5	5.3	9.2	0.89	0.30	A2 s/s
P0368.060-A2	M 6	6.4	11.5	1.14	0.40	A2 s/s
P0368.080-A2	M 8	8.4	15	1.4	0.40	A2 s/s
P0368.100-A2	M 10	10.5	19.6	1.7	0.55	A2 s/s
P0368.120-A2	M 12	13	22	1.9	0.55	A2 s/s
P0368.160-A2	M 16	17	27.8	2.41	0.70	A2 s/s
P0368.200-A2	M 20	21	34.7	2.66	0.70	A2 s/s



P0369.A2



Material
Stainless steel (DIN 1.4310).

Force F = spring force (N) at deflection of $0.75 \times h_2$ (ie 75% of stroke).
 h_2 is total stroke available.

Technical Notes
To DIN 2093. For general applications.

Order No.	d_1	d_2	w_1	h_1	h_2	F N
P0369.08-32-03-A2	8	3.2	0.3	0.55	0.25	96
P0369.08-32-04-A2	8	3.2	0.4	0.60	0.20	171
P0369.08-32-05-A2	8	3.2	0.5	0.70	0.20	329
P0369.08-42-02-A2	8	4.2	0.2	0.45	0.25	36
P0369.08-42-03-A2	8	4.2	0.3	0.55	0.25	109
P0369.08-42-04-A2	8	4.2	0.4	0.60	0.20	192
P0369.10-42-04-A2	10	4.2	0.4	0.70	0.30	174
P0369.10-42-05-A2	10	4.2	0.5	0.75	0.25	270
P0369.10-42-06-A2	10	4.2	0.6	0.85	0.25	462
P0369.10-52-04-A2	10	5.2	0.4	0.70	0.30	192
P0369.10-52-05-A2	10	5.2	0.5	0.75	0.25	299
P0369.12-42-04-A2	12	4.2	0.4	0.80	0.40	164
P0369.12-42-05-A2	12	4.2	0.5	0.90	0.40	305
P0369.12-42-06-A2	12	4.2	0.6	1.00	0.40	512
P0369.12-52-05-A2	12	5.2	0.5	0.90	0.40	321
P0369.12-52-06-A2	12	5.2	0.6	0.95	0.35	465
P0369.12-62-05-A2	12	6.2	0.5	0.85	0.35	300
P0369.12-62-06-A2	12	6.2	0.6	0.95	0.35	508
P0369.15-52-04-A2	15	5.2	0.4	0.95	0.55	162
P0369.15-52-05-A2	15	5.2	0.5	1.00	0.50	265
P0369.15-52-06-A2	15	5.2	0.6	1.05	0.45	374
P0369.15-52-07-A2	15	5.2	0.7	1.25	0.55	733
P0369.15-62-05-A2	15	6.2	0.5	1.00	0.50	266
P0369.15-62-06-A2	15	6.2	0.6	1.05	0.45	389
P0369.15-62-07-A2	15	6.2	0.7	1.10	0.40	532
P0369.15-82-07-A2	15	8.2	0.7	1.10	0.40	613
P0369.15-82-08-A2	15	8.2	0.8	1.20	0.40	903
P0369.16-82-04-A2	16	8.2	0.4	0.90	0.50	142
P0369.16-82-06-A2	16	8.2	0.6	1.05	0.45	377
P0369.18-62-04-A2	18	6.2	0.4	1.00	0.60	128
P0369.18-62-05-A2	18	6.2	0.5	1.10	0.60	225
P0369.18-62-06-A2	18	6.2	0.6	1.20	0.60	368
P0369.18-62-07-A2	18	6.2	0.7	1.40	0.70	683
P0369.18-62-08-A2	18	6.2	0.8	1.50	0.70	986



Disc Springs A2 stainless

Flat Washers



Order No.	d ₁	d ₂	w ₁	h ₁	h ₂	F N
P0369.18-82-07-A2	18	8.2	0.7	1.25	0.55	549
P0369.18-82-08-A2	18	8.2	0.8	1.30	0.50	720
P0369.18-82-10-A2	18	8.2	1.0	1.50	0.50	1377
P0369.18-92-07-A2	18	9.2	0.7	1.20	0.50	521
P0369.18-92-10-A2	18	9.2	1.0	1.40	0.40	1154
P0369.20-82-05-A2	20	8.2	0.5	1.15	0.65	212
P0369.20-82-06-A2	20	8.2	0.6	1.30	0.70	379
P0369.20-82-07-A2	20	8.2	0.7	1.35	0.65	523
P0369.20-82-08-A2	20	8.2	0.8	1.40	0.60	691
P0369.20-82-10-A2	20	8.2	1.0	1.60	0.60	967

FLAT WASHERS