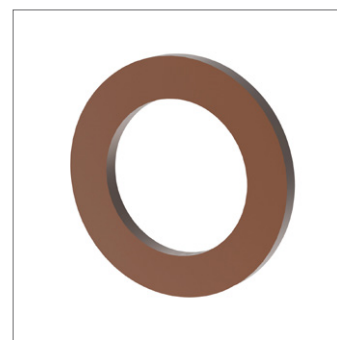
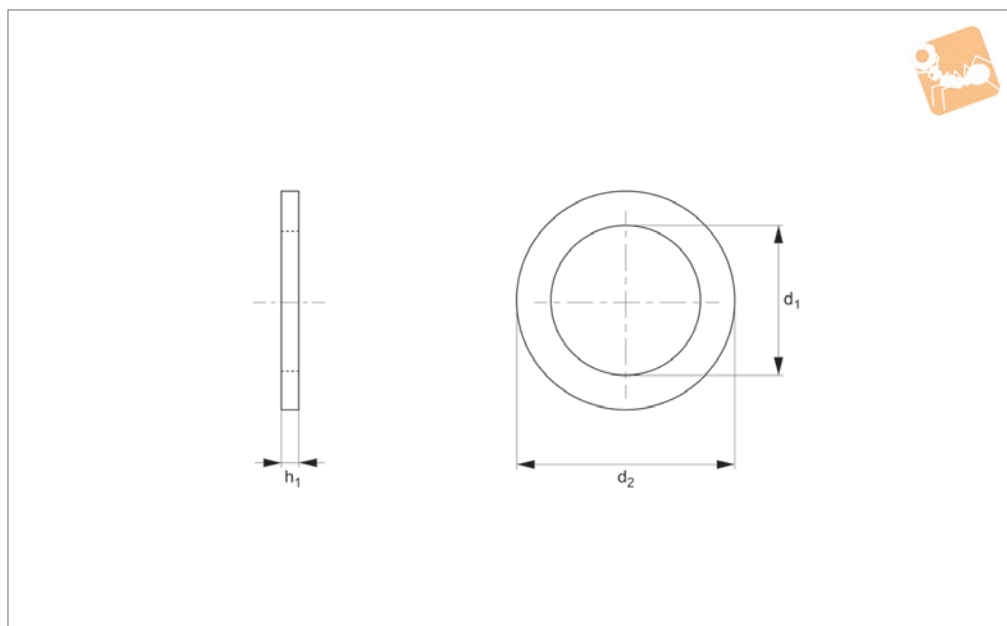




Sealing Rings copper

Flat Washers



P0334.CU

FLAT WASHERS

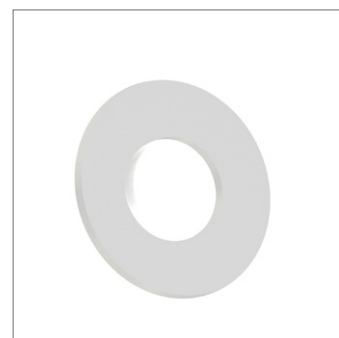
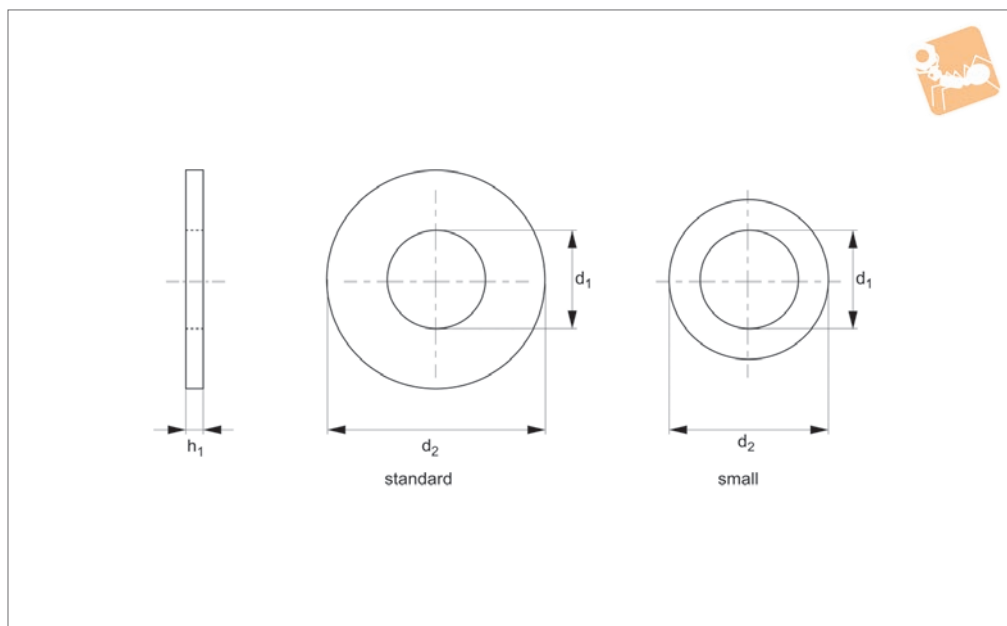
Material
Copper.

Technical Notes
To DIN 7603 A. Used as sealing ring for pipe connections and blanking plugs.

Order No.	d ₁	d ₂	h ₁	Suitable for DIN 908 thread	Suitable for pipe thread
P0334.05-10-010	5	10	1.0	-	-
P0334.06-10-010	6	10	1.0	-	-
P0334.07-10-010	7	10	1.0	-	-
P0334.08-12-010	8	12	1.0	M 8 x 1,0	-
P0334.09-14-010	9	14	1.0	-	-
P0334.10-14-010	10	14	1.0	M10 x 1,0	G1/8"
P0334.10-15-010	10	15	1.0	M10 x 1,0	-
P0334.10-16-010	10	16	1.0	M10 x 1,0	-
P0334.12-16-010	12	16	1.0	M12 x 1,5	-
P0334.14-18-010	14	18	1.0	M14 x 1,5	G1/4"
P0334.14-20-010	14	20	1.0	-	-
P0334.15-20-010	15	20	1.0	-	-
P0334.06-10-015	6	10	1.5	-	-
P0334.08-14-015	8	14	1.5	M 8 x 1,0	-
P0334.09-14-015	9	14	1.5	M10 x 1,0	-
P0334.10-14-015	10	14	1.5	M10 x 1,0	G1/8"
P0334.10-16-015	10	16	1.5	M10 x 1,0	-
P0334.10-20-015	10	20	1.5	-	-
P0334.11-17-015	11	17	1.5	-	-
P0334.12-16-015	12	16	1.5	M12 x 1,5	-
P0334.12-17-015	12	17	1.5	-	-
P0334.12-18-015	12	18	1.5	-	-
P0334.12-20-015	12	20	1.5	-	-
P0334.13-18-015	13	18	1.5	-	-
P0334.14-18-015	14	18	1.5	M14 x 1,5	G1/4"
P0334.14-20-015	14	20	1.5	-	-
P0334.14-22-015	14	22	1.5	-	-
P0334.15-20-015	15	20	1.5	-	-
P0334.16-20-015	16	20	1.5	M16 x 1,5	-
P0334.16-22-015	16	22	1.5	-	-
P0334.17-21-015	17	21	1.5	-	G3/8"
P0334.17-22-015	17	22	1.5	-	-
P0334.18-24-015	18	24	1.5	M18 x 1,5	-
P0334.20-24-015	20	24	1.5	M20 x 1,5	-
P0334.20-26-015	20	26	1.5	-	-



Order No.	d ₁	d ₂	h ₁	Suitable for DIN 908 thread	Suitable for pipe thread
P0334.21-26-015	21	26	1.5	-	G1/2"
P0334.21-28-015	21	28	1.5	-	-
P0334.22-27-015	22	27	1.5	M22 x 1,5	-
P0334.22-29-015	22	29	1.5	-	-
P0334.10-19-020	10	19	2.0	-	-
P0334.13-18-020	13	18	2.0	-	-
P0334.14-18-020	14	18	2.0	M14 x 1,5	G1/4"
P0334.14-20-020	14	20	2.0	-	-
P0334.15-20-020	15	20	2.0	-	-
P0334.16-20-020	16	20	2.0	M16 x 1,5	-
P0334.16-21-020	16	21	2.0	-	-
P0334.16-22-020	16	22	2.0	-	-
P0334.17-24-020	17	24	2.0	-	-
P0334.18-24-020	18	24	2.0	M18 x 1,5	-
P0334.19-26-020	19	26	2.0	-	-
P0334.20-24-020	20	24	2.0	M20 x 1,5	-
P0334.21-26-020	21	26	2.0	-	G1/2"
P0334.21-28-020	21	28	2.0	-	-
P0334.22-26-020	22	26	2.0	M22 x 1,5	-
P0334.22-29-020	22	29	2.0	-	-
P0334.24-30-020	24	30	2.0	M24 x 1,5	-
P0334.24-32-020	24	32	2.0	-	-
P0334.26-32-020	26	32	2.0	M26 x 1,5	G3/4"
P0334.26-33-020	26	33	2.0	-	-
P0334.26-34-020	26	34	2.0	-	-
P0334.28-34-020	28	34	2.0	-	-
P0334.30-36-020	30	36	2.0	M30 x 1,5	G7/8"
P0334.30-38-020	30	38	2.0	-	-
P0334.32-38-020	32	38	2.0	-	-
P0334.32-40-020	32	40	2.0	-	-
P0334.33-39-020	33	39	2.0	-	G1"
P0334.35-45-020	35	45	2.0	-	-
P0334.36-42-020	36	42	2.0	M36 x 2,0	G1-1/8"
P0334.38-44-020	38	44	2.0	M38 x 2,0	-
P0334.40-47-020	40	47	2.0	-	-
P0334.42-49-020	42	49	2.0	M42 x 2	G1-1/4"
P0334.45-52-020	45	52	2.0	-	-
P0334.48-55-020	48	55	2.0	M48 x 2	G1-1/2"
P0334.50-57-020	50	57	2.0	-	-



P0339

FLAT WASHERS

Material
Polyamide.

diameter).
Type 2 - to DIN 125, without chamfer.

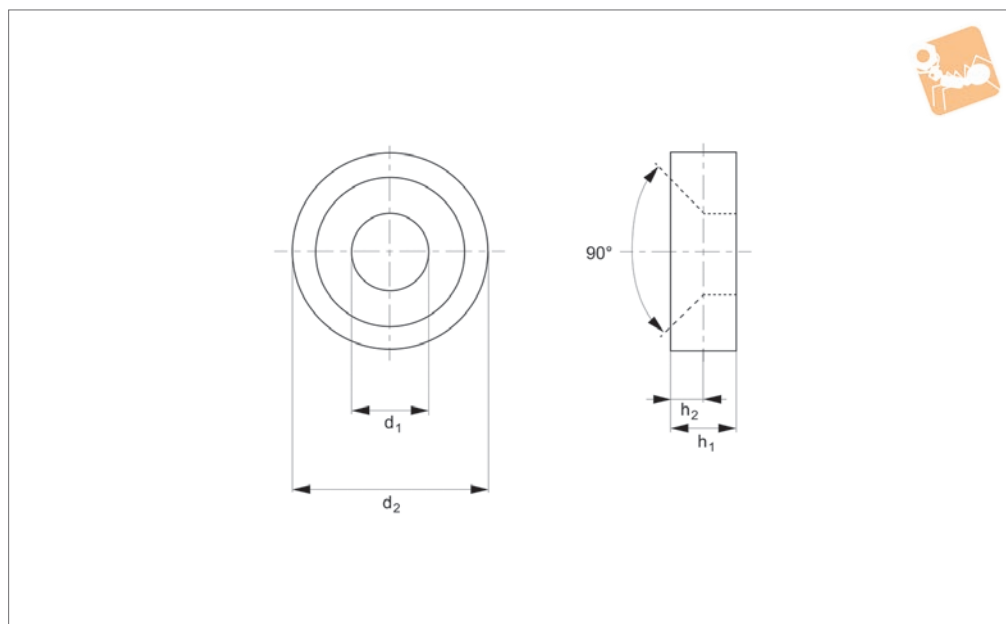
Technical Notes

Type 1 - to DIN 9021, ISO 7093 (3x thread

Order No.	For thread	Type	d ₁	d ₂	h ₁ min.
P0339.030-009	M 3	Standard	3.2	9	0.8
P0339.040-012	M 4	Standard	4.3	12	0.8
P0339.050-015	M 5	Standard	5.3	15	1.0
P0339.060-018	M 6	Standard	6.4	18	1.5
P0339.080-024	M 8	Standard	8.4	24	2.0
P0339.100-030	M10	Standard	10.5	30	2.5
P0339.120-037	M12	Standard	13.0	37	3.0
P0339.160-050	M16	Standard	17.0	50	3.0
P0339.180-056	M18	Standard	20.0	56	4.0
P0339.200-060	M20	Standard	22.0	60	4.0
P0339.240-072	M24	Standard	26.0	72	5.0
P0339.300-092	M30	Standard	33.0	92	6.0
P0339.360-110	M36	Standard	39.0	110	8.0
P0339.020-005	M 2	Small	2.2	5	0.3
P0339.025-006	M2,5	Small	2.7	6	0.5
P0339.030-007	M 3	Small	3.2	7	0.5
P0339.040-009	M 4	Small	4.3	9	0.8
P0339.050-010	M 5	Small	5.3	10	1.0
P0339.060-012	M 6	Small	6.4	12	1.6
P0339.080-016	M 8	Small	8.4	16	1.6
P0339.100-020	M10	Small	10.5	20	2.0
P0339.120-024	M12	Small	13.0	24	2.5
P0339.140-028	M14	Small	15.0	28	2.5
P0339.160-030	M16	Small	17.0	30	3.0
P0339.180-034	M18	Small	19.0	34	3.0
P0339.200-037	M20	Small	21.0	37	3.0
P0339.240-044	M24	Small	25.0	44	4.0
P0339.270-050	M27	Small	28.0	50	4.0
P0339.300-086	M30	Small	31.0	56	4.0



P0341.A2



Material

Stainless steel (AISI 303, 1.4305).

Technical Notes

Machined washers made from stainless steel to fit countersunk screws.

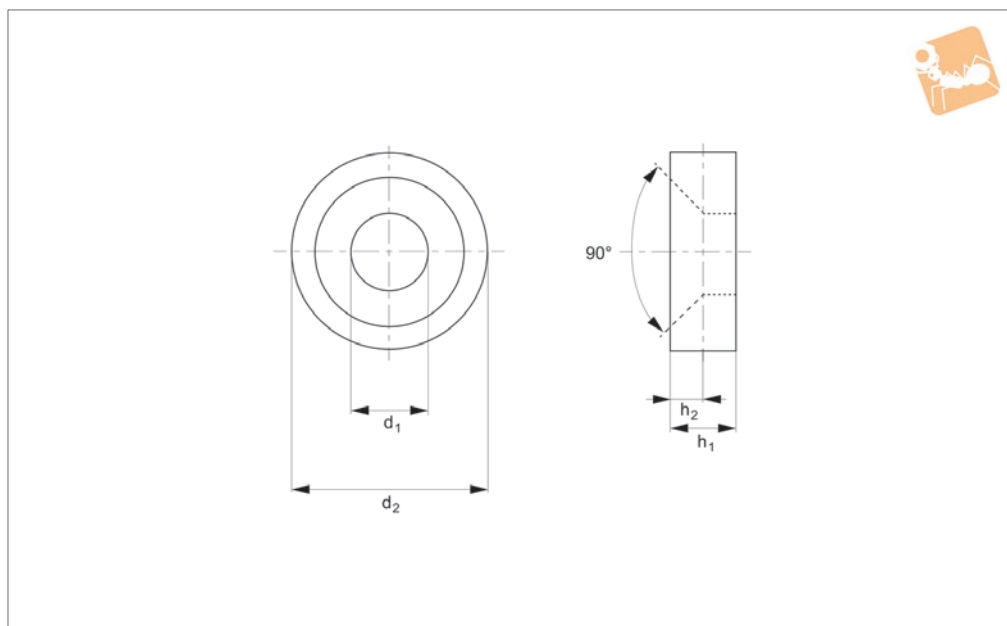
Order No.	For thread	d_1 $+0.3 \mid +0.1$	d_2 $+0 \mid -0.2$	h_1 ± 0.1	h_2 ± 0.1
P0341.025-025-A2	M 2,5	2.8	8	2.5	1.8
P0341.025-030-A2	M 2,5	2.8	8	3.0	1.8
P0341.025-040-A2	M 2,5	2.8	8	4.0	1.8
P0341.030-025-A2	M 3	3.5	10	2.5	2.0
P0341.030-030-A2	M 3	3.5	10	3.0	2.0
P0341.030-040-A2	M 3	3.5	10	4.0	2.0
P0341.030-050-A2	M 3	3.5	10	5.0	2.0
P0341.040-025-A2	M 4	4.5	14	2.5	2.7
P0341.040-030-A2	M 4	4.5	14	3.0	2.7
P0341.040-040-A2	M 4	4.5	14	4.0	2.7
P0341.040-050-A2	M 4	4.5	14	5.0	2.7
P0341.050-030-A2	M 5	5.5	16	3.0	3.5
P0341.050-040-A2	M 5	5.5	16	4.0	3.5
P0341.050-050-A2	M 5	5.5	16	5.0	3.5
P0341.050-060-A2	M 5	5.5	16	6.0	3.5
P0341.050-080-A2	M 5	5.5	16	8.0	3.5
P0341.060-035-A2	M 6	6.6	20	3.5	4.0
P0341.060-040-A2	M 6	6.6	20	4.0	4.0
P0341.060-050-A2	M 6	6.6	20	5.0	4.0
P0341.060-060-A2	M 6	6.6	20	6.0	4.0
P0341.060-080-A2	M 6	6.6	20	8.0	4.0
P0341.080-035-A2	M 8	8.4	20	3.5	5.2
P0341.080-040-A2	M 8	8.4	20	4.0	5.2
P0341.080-050-A2	M 8	8.4	20	5.0	5.2
P0341.080-060-A2	M 8	8.4	20	6.0	5.2
P0341.080-080-A2	M 8	8.4	20	8.0	5.2



Solid Countersunk Washers

303 stainless, blackened

Flat Washers



P0341.B2

FLAT WASHERS

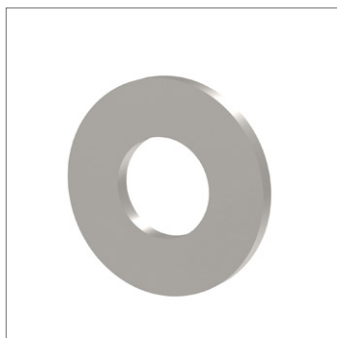
Material

Stainless steel (AISI 303 series, 1.4305), black oxide finish.

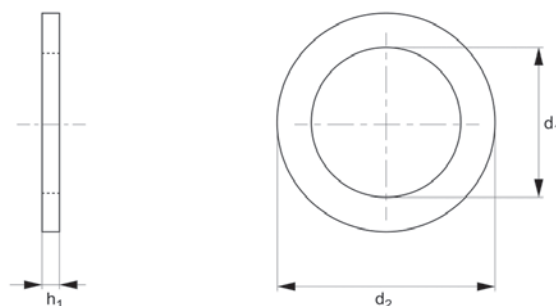
Technical Notes

Machined washers made from stainless steel to fit countersunk screws.

Order No.	For thread	d_1 $+0.3 \mid +0.1$	d_2 $+0 \mid -0.2$	h_1 ± 0.1	h_2 ± 0.1
P0341.025-025-B2	M 2,5	2.8	8	2.5	1.8
P0341.025-030-B2	M 2,5	2.8	8	3.0	1.8
P0341.025-040-B2	M 2,5	2.8	8	4.0	1.8
P0341.030-025-B2	M 3	3.5	10	2.5	2.0
P0341.030-030-B2	M 3	3.5	10	3.0	2.0
P0341.030-040-B2	M 3	3.5	10	4.0	2.0
P0341.030-050-B2	M 3	3.5	10	5.0	2.0
P0341.040-025-B2	M 4	4.5	14	2.5	2.7
P0341.040-030-B2	M 4	4.5	14	3.0	2.7
P0341.040-040-B2	M 4	4.5	14	4.0	2.7
P0341.040-050-B2	M 4	4.5	14	5.0	2.7
P0341.050-030-B2	M 5	5.5	16	3.0	3.5
P0341.050-040-B2	M 5	5.5	16	4.0	3.5
P0341.050-050-B2	M 5	5.5	16	5.0	3.5
P0341.050-060-B2	M 5	5.5	16	6.0	3.5
P0341.050-080-B2	M 5	5.5	16	8.0	3.5
P0341.060-035-B2	M 6	6.6	20	3.5	4.0
P0341.060-040-B2	M 6	6.6	20	4.0	4.0
P0341.060-050-B2	M 6	6.6	20	5.0	4.0
P0341.060-060-B2	M 6	6.6	20	6.0	4.0
P0341.060-080-B2	M 6	6.6	20	8.0	4.0
P0341.080-035-B2	M 8	8.4	20	3.5	5.2
P0341.080-040-B2	M 8	8.4	20	4.0	5.2
P0341.080-050-B2	M 8	8.4	20	5.0	5.2
P0341.080-060-B2	M 8	8.4	20	6.0	5.2
P0341.080-080-B2	M 8	8.4	20	8.0	5.2



P0342.A2

**Material**

Stainless steel (A2, AISI 304).

Technical Notes

To DIN 988.

Order No.	d_1 tol. ± 0.12	d_2 tol. ± 0.12	h_1 -0.05
P0342.03-06-01	3.0	6.0	0.1
P0342.03-06-02	3.0	6.0	0.2
P0342.03-06-03	3.0	6.0	0.3
P0342.03-06-04	3.0	6.0	0.4
P0342.03-06-05	3.0	6.0	0.5
P0342.04-08-01	4.0	8.0	0.1
P0342.04-08-02	4.0	8.0	0.2
P0342.04-08-03	4.0	8.0	0.3
P0342.04-08-05	4.0	8.0	0.5
P0342.04-08-10	4.0	8.0	1.0
P0342.05-10-02	5.0	10.0	0.2
P0342.05-10-03	5.0	10.0	0.3
P0342.05-10-05	5.0	10.0	0.5
P0342.05-10-10	5.0	10.0	1.0
P0342.05-10-01	5.0	10.0	0.1
P0342.06-12-01	6.0	12.0	0.1
P0342.06-12-03	6.0	12.0	0.3
P0342.06-12-02	6.0	12.0	0.2
P0342.06-12-05	6.0	12.0	0.5
P0342.06-12-10	6.0	12.0	1.0
P0342.08-14-01	8.0	14.0	0.1
P0342.08-14-02	8.0	14.0	0.2
P0342.08-14-03	8.0	14.0	0.3
P0342.08-14-05	8.0	14.0	0.5
P0342.08-14-10	8.0	14.0	1.0
P0342.10-16-02	10.0	16.0	0.2
P0342.10-16-05	10.0	16.0	0.5
P0342.10-16-10	10.0	16.0	1.0
P0342.10-16-01	10.0	16.0	0.1
P0342.10-16-03	10.0	16.0	0.3
P0342.12-18-01	12.0	18.0	0.1
P0342.12-18-02	12.0	18.0	0.2
P0342.12-18-03	12.0	18.0	0.3
P0342.12-18-05	12.0	18.0	0.5



Shim Washers

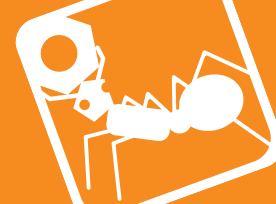
304 stainless

Flat Washers

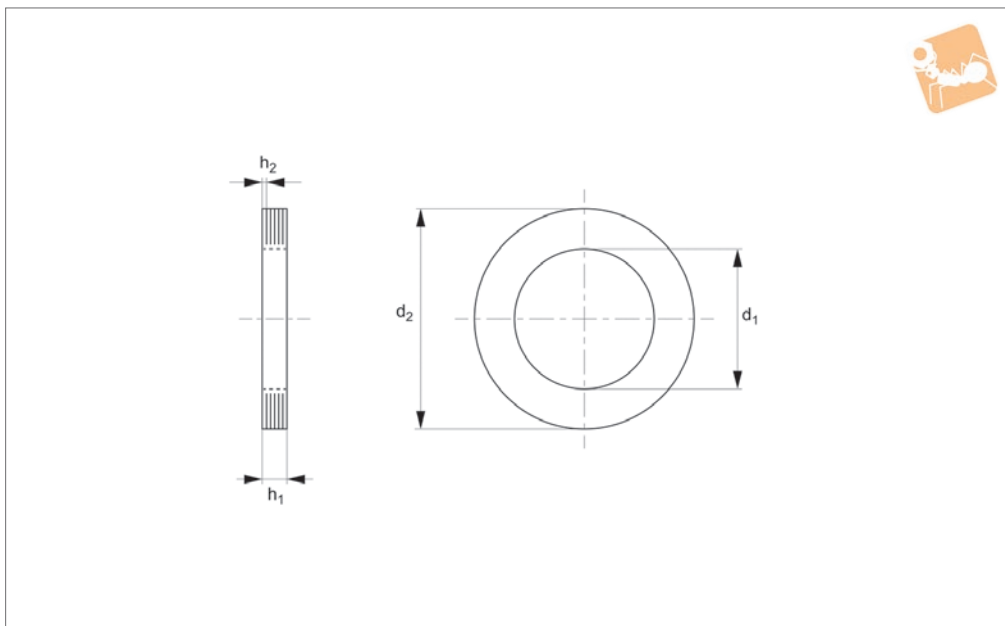


Order No.	d_1 tol. D12	d_2 tol. d12	h_1 -0.05
P0342.12-18-10	12.0	18.0	1.0
P0342.14-20-01	14.0	20.0	0.1
P0342.14-20-02	14.0	20.0	0.2
P0342.14-20-03	14.0	20.0	0.3
P0342.14-20-05	14.0	20.0	0.5
P0342.14-20-10	14.0	20.0	1.0
P0342.15-21-01	15.0	21.0	0.1
P0342.15-21-02	15.0	21.0	0.2
P0342.15-21-03	15.0	21.0	0.3
P0342.15-21-05	15.0	21.0	0.5
P0342.15-21-10	15.0	21.0	1.0
P0342.15-21-20	15.0	21.0	2.0
P0342.15-22-05	15.0	22.0	0.5
P0342.15-22-10	15.0	22.0	1.0
P0342.16-22-01	16.0	22.0	0.1
P0342.16-22-02	16.0	22.0	0.2
P0342.16-22-03	16.0	22.0	0.3
P0342.16-22-05	16.0	22.0	0.5
P0342.16-22-10	16.0	22.0	1.0
P0342.17-24-03	17.0	24.0	0.3
P0342.17-24-05	17.0	24.0	0.5
P0342.17-24-10	17.0	24.0	1.0
P0342.17-24-15	17.0	24.0	1.5
P0342.18-25-02	18.0	25.0	0.2
P0342.18-25-03	18.0	25.0	0.3
P0342.18-25-10	18.0	25.0	1.0
P0342.20-28-01	20.0	28.0	0.1
P0342.20-28-02	20.0	28.0	0.2
P0342.20-28-03	20.0	28.0	0.3
P0342.20-28-05	20.0	28.0	0.5
P0342.20-28-10	20.0	28.0	1.0
P0342.22-30-01	22.0	30.0	0.1
P0342.22-30-05	22.0	30.0	0.5
P0342.25-35-01	25.0	35.0	0.1
P0342.25-35-02	25.0	35.0	0.2
P0342.25-35-03	25.0	35.0	0.3
P0342.25-35-05	25.0	35.0	0.5
P0342.25-35-10	25.0	35.0	1.0
P0342.25-35-15	25.0	35.0	1.5
P0342.28-40-01	28.0	40.0	0.1
P0342.28-40-05	28.0	40.0	0.5
P0342.30-42-01	30.0	42.0	0.1
P0342.30-42-05	30.0	42.0	0.5
P0342.30-42-10	30.0	42.0	1.0
P0342.35-45-03	35.0	45.0	0.3
P0342.35-45-05	35.0	45.0	0.5
P0342.35-45-10	35.0	45.0	1.0
P0342.40-50-01	40.0	50.0	0.1
P0342.40-50-05	40.0	50.0	0.5
P0342.40-50-10	40.0	50.0	1.0
P0342.50-62-02	50.0	62.0	0.2

FLAT WASHERS



P0344.BR



Material

Brass, with 0,05mm laminations.

Technical Notes

The inner race spacers fits onto shafts and

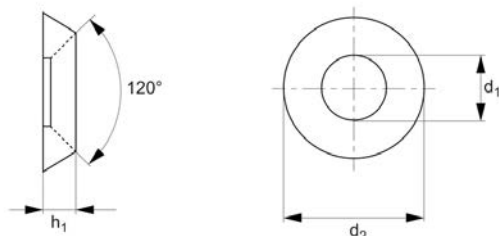
preloads inner race of ball bearing.

The outer race fits into the housing and preloads outer race of ball bearing.

Tips

The laminations can be peeled off as required.

Order No.	For shaft	d_1 ± 0.1	d_2 $+0.0 -0.1$	h_1 ± 0.1	h_2
P0344.030-I	3	3.2	5.9	0.8	0.05
P0344.050-I	5	5.2	9.5	0.8	0.05
P0344.060-I	6	6.2	12.7	0.8	0.05
P0344.100-I	10	10.2	15.9	0.8	0.05
P0344.100-O	10	7.9	10.0	0.8	0.05
P0344.130-O	13	9.5	13.0	0.8	0.05



P0346

FLAT WASHERS

Material

Stainless steel (A2 AISI 303 or A4 AISI 316).

Order No.	For	d ₁	d ₂	h ₁	Material
P0346.030-A2	M 3	3	9	2.0	A2 s/s
P0346.040-A2	M 4	4	11	2.5	A2 s/s
P0346.050-A2	M 5	5	14	3.0	A2 s/s
P0346.060-A2	M 6	6	16	3.5	A2 s/s
P0346.080-A2	M 8	8	22	4.5	A2 s/s
P0346.100-A2	M10	10	28	5.5	A2 s/s
P0346.030-A4	M 3	3	9	2.0	A4 s/s
P0346.040-A4	M 4	4	11	2.5	A4 s/s
P0346.050-A4	M 5	5	14	3.0	A4 s/s
P0346.060-A4	M 6	6	16	3.5	A4 s/s
P0346.080-A4	M 8	8	22	4.5	A4 s/s
P0346.100-A4	M10	10	28	5.5	A4 s/s