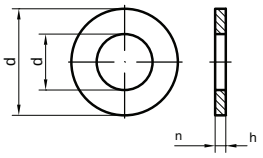
Dimensions for washers and rings

Plain washers (round)

Pk = product (tolerance) class
A = medium
C = coarse



Tolerances for washers acc. to ISO 4759-3 (DIN 522)
General overview of "plain washers for general uses" ➔ ISO 887

Nominal size = for screws		ISO 7089, 7090 (DIN 125-1 Pk A)			ISO 7091 (DIN 126 Pk C)			Art. 1/88100 (C) –			ISO 7092 (DIN 433 Pk A)			ISO 7094 (DIN 440 R Pk C)			DIN 6340 (Pk A) –		
M	Ww	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h
1		1.1	3	0.3							1.1	2.5	0.3						
1.2		1.3	3.5	0.3							1.3	3	0.3						
1.4		1.5	4	0.3							1.5	3	0.3						
1.6		1.7	4	0.3							1.7	3.5	0.3						
*1.7		1.8	4.5	0.3															
1.8		2.0	4.5	0.3							2.0	4	0.3						
2		2.2	5	0.3							2.2	4.5	0.3						
2.2		2.4	6	0.5							2.4	4.5	0.3						
2.5		2.7	6	0.5							2.7	5	0.5						
*2.6		2.8	7	0.5															
3		3.2	7	0.5				3.2	8	0.5	3.2	6	0.5						
3.5		3.7	8	0.5							3.7	7	0.5						
4	*1/8“	4.3	9	0.8				4.3	10	0.8	4.3	8	0.5						
5	*3/16“	5.3	10	1	5.5	10	1	5.3	12	1	5.3	9	1	5.5	18	2			
6		6.4	12	1.6	6.6	12	1.6	6.5	13	1.25	6.4	11	1.6	6.6	22	2	6.4	17	3
7	*1/4“	7.4	14	1.6	7.6	14	1.6	8	16	1.25	7.4	12	1.6	7.6	24	2			
8	*5/16“	8.4	16	1.6	9	16	1.6	10	20	1.5	8.4	15	1.6	9	28	3	8.4	23	4
10	*3/8“	10.5	20	2	11	20	2	11.5	23	1.5	10.5	18	1.6	11	34	3	10.5	28	4
12	*7/16“	13	24	2.5	13.5	24	2.5	13	26	1.75	13	20	2	13.5	44	4	13	35	5
	*1/2“	13.5	24	2.5	13.5	24	2.5	14.5	29	1.75				13.5	44	4			
14		15	28	2.5	15.5	28	2.5	14.5	29	1.75	15	24	2.5	15.5	50	4			
	*9/16“							16	32	2									
16	*5/8“	17	30	3	17.5	30	3	17.5	35	2	17	28	2.5	17.5	56	5	17	45	6
18		19	34	3	20	34	3	19.5	39	2.5	19	30	3	20	60	5			
20	*3/4“	21	37	3	22	37	3	21	42	2.5	21	34	3	22	72	6	21	50	6
	*13/16“							23	46	3									
22	*7/8“	23	39	3	24	39	3	24.5	49	3	23	37	3	24	80	6			
24		25	44	4	26	44	4	27.5	55	3.5	25	39	4	26	85	6	25	60	8
	*1“	27	50	4	26	44	4	27.5	55	3.5				26	85	6			
27		28	50	4	30	50	4	29	58	3.5	28	44	4	30	98	6			
30	*1 1/8“	31	56	4	33	56	4	31	62	3.5	31	50	4	33	105	6	31	68	10
33	*1 1/4“	34	60	5	36	60	5	34	68	4	34	56	5	36	115	8			
	*1 3/8“							36	72	5									
36	*1 3/8“	37	66	5	39	66	5	40	80	5	37	60	5	39	125	8			
39	*1 1/2“	42	72	6	42	72	6	40	80	5				42	140	10			
42		45	78	8	45	78	8	43	85	5				*45	150	8			
45	*1 3/4“	48	85	8	48	85	8	46	90	5				*48	160	8			
48		52	92	8	52	92	8	50	97	6				*52	170	10			
52	*2“	56	98	8	56	98	8	54	105	7				*56	180	10			
56		62	105	10	62	105	10	58	110	8									
	*2 1/4“	60	110	9	62	105	10												
60		66	110	10.0	66	110	10												
64	*2 1/2“	70	115	10	70	115	10												
68		74	120	10	74	120	10												
72	*2 3/4“	78	125	10	78	125	10												
76	*3“	82	135	10	82	135	10												
80		86	140	12	86	140	12												
90	*3 1/2“	96	160	12	96	160	12												

In the ISO standards, the nominal sizes for screw diameters and the dimensions (d_1/d_2/n) for some washers were minimally adjusted.

The functional compliance/exchangeability DIN:ISO washers are given.

In this catalogue, the new dimensions are specified in dimension & price tables. Conversion to new **dimensions** is done according to the production conversion and sale of stock items.

Suitable combinations of plain washers for screws/nuts acc. to property and product classes (excerpt from ISO 887). For more exact information, see "Application area" of the corresponding washers product standard

Washers	Hardness class/product class		100 HV/C	200 HV/A	300 HV/A
Screws/nuts	**Property class**	**Product grade**	**Combination matching?**		
steel	≤ 6.8/6	A, B	yes	yes	yes
	≤ 6.8/6	C	yes	no	no
	8.8/8	A, B	no	yes	yes
	10.9/10	A, B	no	no	yes
	12.9/12	A, B	no	no	no
A1 - A5	-50, -70, -80	A, B	–	yes	–

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