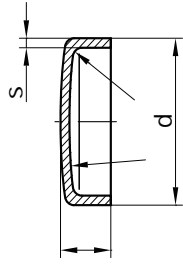
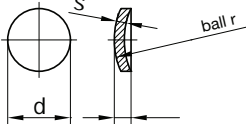


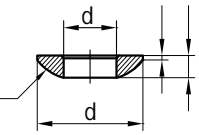


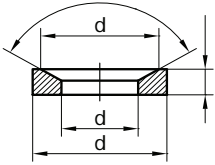
Dimensions for washers and rings

Special forms

DIN (ISO)	Dimensions	8	10	12	14	16	18	20	22
443 (7094)  <p>d = nominal size</p>	h	3	3	4	5	5	6	6	7
	r ₁	20	25	30	35	40	45	50	55
	r ₂	1	1	1	1	1	1	1	1.6
	s	0.75	0.75	1	1	1	1	1	1.6
	Dimensions	25	28	30	32	34	36	38	40
	h	8	9	9	10	10	11	12	12
	r ₁	60	70	75	80	85	90	95	100
	r ₂	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	s	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	Dimensions	42	45	48	50	52	56	60	63
	h	13	14	15	15	16	17	18	19
	r ₁	105	110	120	125	130	140	150	160
r ₂	1.6	1.6	1.6	1.6	2.5	2.5	2.5	2.5	
s	1.6	1.6	1.6	1.6	2	2	2	2	

DIN	Dimensions	3	4	5	6	8	10	12	14
470  <p>d = nominal size</p>	h	1.2	1.34	1.35	1.67	1.94	2.67	2.77	2.94
	r	3	4	6	7	9	12	16	19
	s	0.8	0.8	0.8	1	1	1.6	1.6	1.6
	Dimensions	16	18	20	22	25	28	30	32
	h	3.11	3.28	3.45	4.09	4.38	4.53	4.77	4.95
	r	22	25	28	30	34	40	42	45
	s	1.6	1.6	1.6	2	2	2	2	2
	Dimensions	34	36	38	40	42	45	48	50
	h	5.11	5.36	5.6	5.7	5.8	6.15	6.38	6.62
	r	48	50	52	56	60	63	68	70
	s	2	2	2	2	2	2	2	2
	Dimensions	52	56	60	63	80	100	125	
h	6.66	7.06	7.47	7.7	10.41	12.23	14.2		
r	75	80	85	90	112	140	180		
s	2	2	2	2	3	3	3		

DIN	Dimensions	6.4	8.4	10.5	13	17	21
6319 C  <p>d₁ = nominal size</p>	d ₃	12	17	21	24	30	36
	h ₁	0.7	0.6	0.8	1.1	1.3	2
	h ₂	2.3	3.2	4	4.6	5.3	6.3
	r ₁ ^p	9	12	15	17	22	27
	Dimensions	25	31	37	43	50	
	d ₃	44	56	68	78	92	
	h ₁	2.4	3.6	4.6	6.5	8	
	h ₂	8.2	11.2	14	17	21	
	r ₁ ^p	32	41	50	58	67	

DIN	Dimensions	7.1	9.6	12	14.2	19	23.2
6319 D  <p>d₂ = nominal size</p>	d ₄	12	17	21	24	30	36
	d ₅	11	14.5	18.5	20	26	31
	h ₃	2.8	3.5	4.2	5	6.2	7.5
	Dimensions	28	35	42	49	56	
	d ₄	44	56	68	78	92	
	d ₅	37	49	60	70	82	
	h ₃	9.5	12	15	18	22	