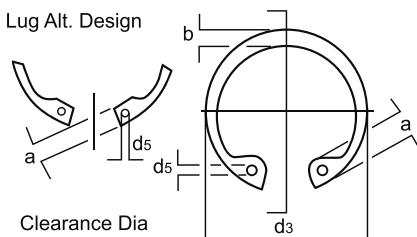


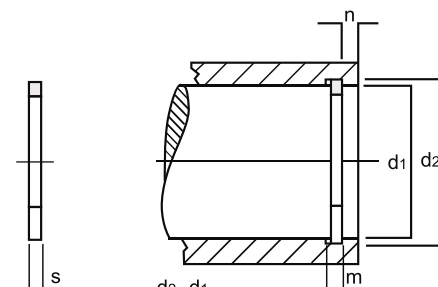
Standard Internal Circlips DIN 472

Lug Alt. Design



Clearance Dia
when fitted
= $d_2 - 2a$

FREE STATE



$$n = \frac{d_2 - d_1}{2} \times 3$$

Unit : mm

	CIRCLIP DIMENSION							GROOVE DIMENSION				
Nominal Bore Size d1	Free Diameter d3	Free Diameter Tolerance	Thickness S mm	Tolerance	Large Section b≈	Lug a (Max.)	Hole Dia d5 (Min.)	Diameter d2	Tolerance	Width m (Min.)		
8	8.70	+0.36 -0.10	0.80	-0.05	1.1	2.4	1.00	8.40	+0.09	0.9		
9	9.80		1.00	-0.06	1.3	2.5	1.00	9.40	+0.110	0.9		
9.5	10.30				1.3	3.0	1.20	9.90		1.10		
10	10.80				1.4	3.2	1.20	10.40		1.10		
10.5	11.30				1.5	3.2	1.20	10.90		1.10		
11	11.80				1.5	3.3	1.20	11.40	1.10			
12	13.00				1.7	3.4	1.50	12.50	1.10			
13	14.10				1.8	3.6	1.50	13.60	1.10			
14	15.10				1.8	3.7	1.70	14.60	1.10			
15	16.20				2.0	3.7	1.70	15.70	1.10			
16	17.30	+0.42 -0.10			1.20	-0.06	2.0	3.8	1.70	16.80	+0.13	1.10
17	18.30		2.1	3.9			1.70	17.80	1.10			
18	19.50		2.2	4.1			2.00	19.00	1.10			
19	20.50		2.2	4.1			2.00	20.00	1.10			
20	21.50		2.3	4.1			2.00	21.00	1.10			
21	22.50	+0.42 -0.13	1.50	-0.07			2.4	4.2	2.00	22.00	+0.210	1.10
22	23.50						2.5	4.2	2.00	23.00		1.10
23	24.60						2.5	4.2	2.00	24.10		1.30
24	25.90	+0.42 -0.21	1.75	-0.07			2.6	4.3	2.00	25.20	+0.250	1.30
25	26.90						2.7	4.5	2.00	26.20		1.30
26	27.90	+0.50 -0.25	1.50	-0.07	2.8	4.7	2.00	27.20	+0.300	1.30		
27	29.10				2.9	4.7	2.00	28.40		1.30		
28	30.10				2.9	4.8	2.00	29.40		1.30		
29	31.10				3.0	4.8	2.00	30.40		1.30		
30	32.10				3.0	4.8	2.00	31.40		1.30		
31	33.40	+0.90 -0.39	2.00	-0.07	3.1	5.2	2.50	32.70	+0.300	1.30		
32	34.40				3.2	5.4	2.50	33.70		1.30		
33	35.50				3.3	5.4	2.50	34.70		1.30		
34	36.50				3.3	5.4	2.50	35.70		1.60		
35	37.80				3.4	5.4	2.50	37.00		1.60		
36	38.80	+1.10 -0.46	2.00	-0.07	3.5	5.4	2.50	38.00	+0.300	1.60		
37	39.80				3.6	5.5	2.50	39.00		1.60		
38	40.80				3.7	5.5	2.50	40.00		1.60		
39	42.00				3.8	5.6	2.50	41.00		1.60		
40	43.50				3.9	5.8	2.50	42.50		1.85		
41	44.50	+0.90 -0.39	1.75	-0.07	4.0	5.9	2.50	43.50	+0.300	1.85		
42	45.50				4.1	5.9	2.50	44.50		1.85		
43	46.50				4.2	5.9	2.50	45.50		1.85		
44	47.50				4.2	6.0	2.50	46.50		1.85		
45	48.50				4.3	6.2	2.50	47.50		1.85		
46	49.50	+1.10 -0.46	2.00	-0.07	4.4	6.3	2.50	48.50	+0.300	1.85		
47	50.50				4.4	6.4	2.50	49.50		1.85		
48	51.50				4.5	6.4	2.50	50.50		1.85		
50	54.20				4.6	6.5	2.50	53.00		2.15		
51	55.20				4.7	6.5	2.50	54.00		2.15		
52	56.20	+1.10 -0.46	2.00	-0.07	4.7	6.7	2.50	55.00	+0.300	2.15		
53	57.20				4.9	6.7	2.50	56.00		2.15		
54	58.20				5.0	6.7	2.50	57.00		2.15		
55	59.20				5.0	6.8	2.50	58.00		2.15		
56	60.20				5.1	6.8	2.50	59.00		2.15		
57	61.20	+1.10 -0.46	2.00	-0.07	5.1	6.8	2.50	60.00	+0.300	2.15		
58	62.20				5.2	6.9	2.50	61.00		2.15		
60	64.20				5.4	7.3	2.50	63.00		2.15		
62	66.20				5.5	7.3	2.50	65.00		2.15		
63	67.20				5.6	7.3	2.50	66.00		2.15		

Material: Carbon Spring Steel Finish: Zinc Phosphating. Hardness: d_1 - 8 to 47mm : 47/54 HRC
 $d_1 \geq 48$ mm : 44/51 HRC

Standard Internal Circlips DIN 472

Unit : mm

	CIRCLIP DIMENSION							GROOVE DIMENSION				
Nominal Bore Size d1	Free Diameter d3	Free Diameter Tolerance	Thickness S mm	Tolerance	Large Section b≈	Lug a (Max.)	Hole Dia d5 (Min.)	Diameter d2	Tolerance	Width m (Min.)		
65	69.20	+1.10 -0.46	2.50	-0.07	5.8	7.6	3.00	68.00	+0.300	2.65		
67	71.50				6.0	7.7	3.00	70.00		2.65		
68	72.50				6.1	7.8	3.00	71.00		2.65		
70	74.50				6.2	7.8	3.00	73.00		2.65		
72	76.50				6.4	7.8	3.00	75.00	+0.350	2.65		
75	79.50				6.6	7.8	3.00	78.00		2.65		
77	82.50				6.8	8.5	3.00	80.00		2.65		
78	82.50				6.8	8.5	3.00	81.00		2.65		
80	85.50		7.0	8.5	3.00	83.50	+0.350	2.65				
81	86.50		7.0	8.5	3.00	84.50		2.65				
82	87.50		7.0	8.5	3.00	85.50		2.65				
85	90.50		7.2	8.6	3.50	88.50		3.15				
87	93.50	+1.13 -0.54	3.00	-0.08	7.4	8.6	3.50	90.50	+0.540	3.15		
88	93.50				7.4	8.6	3.50	91.50		3.15		
90	95.50				7.6	8.6	3.50	93.50		3.15		
92	97.50				7.8	8.7	3.50	95.50		3.15		
95	100.50					8.1	8.8	3.50	98.50	+0.540	3.15	
97	103.50					8.3	9.0	3.50	100.50		3.15	
98	103.50					8.3	9.0	3.50	101.50		+0.630	3.15
100	105.50					8.4	9.2	3.50	103.50			3.15
102	108.00	8.5				9.5	3.50	106.00	4.15			
105	112.00	8.7				9.5	3.50	109.00	4.15			
107	115.00	8.9				9.5	3.50	111.00	4.15			
108	115.00							8.9	9.5	3.50	112.00	+0.630
110	117.00		9.0	10.4	3.50			114.00	4.15			
112	119.00		9.1	10.5	3.50			116.00	4.15			
115	122.00		9.3	10.5	3.50			119.00	4.15			
117	125.00		9.6	10.7	3.50			121.00	+0.720	4.15		
118	125.00		9.6	10.7	3.50			122.00		4.15		
120	127.00		9.7	11.0	3.50			124.00		4.15		
122	129.00		9.8	11.0	4.00			126.00		4.15		
125	132.00	+1.50 -0.63	4.00	-0.10	10.0	11.0	4.00	129.00	+0.630	4.15		
127	135.00				10.0	11.0	4.00	131.00		4.15		
128	135.00				10.2	11.0	4.00	132.00		+0.630	4.15	
130	137.00				10.2	11.0	4.00	134.00			4.15	
132	139.00				10.3	11.0	4.00	136.00	4.15			
135	142.00				10.5	11.2	4.00	139.00	4.15			
137	145.00				10.6	11.2	4.00	141.00	+0.630	4.15		
138	145.00				10.6	11.2	4.00	142.00		4.15		
140	147.00	10.7	11.2	4.00	144.00	4.15						
142	149.00	10.8	11.3	4.00	146.00	4.15						
145	152.00				10.9	11.4	4.00	149.00	+0.630	4.15		
148	155.00				11.1	11.8	4.00	152.00		4.15		
150	158.00				11.2	12.0	4.00	155.00		4.15		
152	161.00				11.3	12.0	4.00	157.00		4.15		
155	164.00				11.4	12.0	4.00	160.00	+0.630	4.15		
158	167.00				11.5	12.3	4.00	163.00		4.15		
160	169.00				11.6	13.0	4.00	165.00		4.15		
162	171.50				11.7	13.0	4.00	167.00		4.15		
165	174.50				11.8	13.0	4.00	170.00	+0.630	4.15		
168	177.50				12.1	13.5	4.00	173.00		4.15		
170	179.50				12.2	13.5	4.00	175.00		4.15		
172	181.50				12.5	13.5	4.00	177.00		4.15		
175	184.50				12.7	13.5	4.00	180.00	+0.720	4.15		
178	187.50				12.9	14.2	4.00	183.00		4.15		
180	189.50				13.2	14.2	4.00	185.00		4.15		
182	191.50				13.5	14.2	4.00	187.00		4.15		
185	194.50	+1.70 -0.72			13.7	14.2	4.00	190.00	+0.720	4.15		
188	197.50				13.8	14.2	4.00	193.00		4.15		
190	199.50				13.8	14.2	4.00	195.00		4.15		
192	201.50				13.8	14.2	4.00	197.00		4.15		
195	204.50				13.8	14.2	4.00	200.00	+0.720	4.15		
198	207.50				14.0	14.2	4.00	203.00		4.15		
200	209.50				14.0	14.2	4.00	205.00		4.15		

Material: Carbon Spring Steel **Finish:** Zinc Phosphating. **Hardness:** d₁- 8 to 47mm : 47/54 HRC
d₁ ≥ 48mm : 44/51 HRC