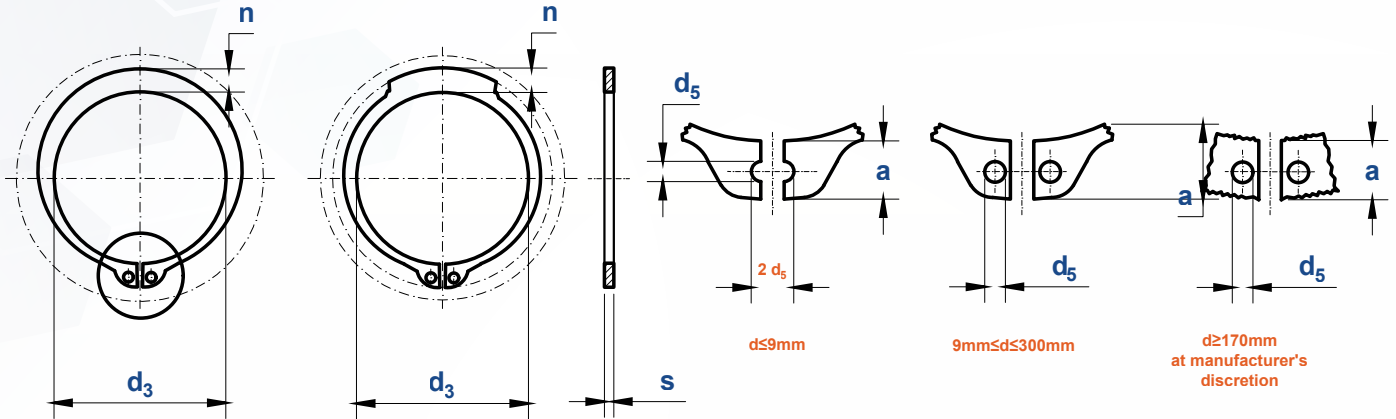




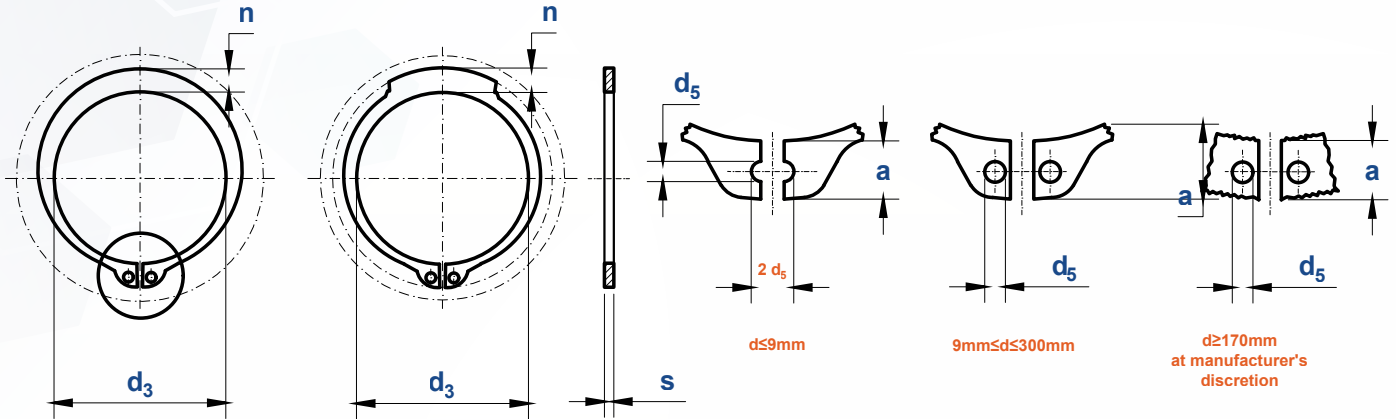
Size		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
s	max	0.4	0.4	0.6	0.7	0.8	0.8	1	1	1	1	1	1	1	1	1
	min	0.35	0.35	0.55	0.65	0.75	0.75	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
d ₃	Nominal Size	2.7	3.7	4.7	5.6	6.5	7.4	8.4	9.3	10.2	11	11.9	12.9	13.8	14.7	15.7
	max	2.74	3.74	4.74	5.64	6.56	7.46	8.46	9.4	10.3	11.1	12	13	13.9	14.8	15.8
	min	2.55	3.55	4.55	5.45	6.32	7.22	8.22	8.94	9.84	10.64	11.54	12.54	13.44	14.34	15.34
a	min	1.9	2.2	2.5	2.7	3.1	3.2	3.3	3.3	3.3	3.3	3.4	3.5	3.6	3.7	3.8
n	≈	0.8	0.9	1.1	1.3	1.4	1.5	1.7	1.8	1.8	1.8	2	2.1	2.2	2.2	2.3
d ₅	min	1	1	1	1.2	1.2	1.2	1.2	1.5	1.5	1.7	1.7	1.7	1.7	1.7	1.7
per 1000 units ≈ kg		0.017	0.022	0.066	0.084	0.121	0.158	0.3	0.34	0.41	0.5	0.53	0.64	0.67	0.7	0.82

Size		18	19	20	21	22	24	25	26	28	29	30	32	34	35	36
s	max	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.75
	min	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.44	1.44	1.44	1.44	1.44	1.44	1.69
d ₃	Nominal Size	16.5	17.5	18.5	19.5	20.5	22.2	23.2	24.2	25.9	26.9	27.9	29.6	31.5	32.2	33.2
	max	16.6	17.6	18.63	19.63	20.63	22.41	23.41	24.41	26.11	27.11	28.11	29.81	31.75	32.45	33.45
	min	16.14	17.14	18.08	19.08	20.08	21.78	22.78	23.78	25.48	26.48	27.48	29.18	31	31.7	32.7
a	min	3.9	3.9	4	4.1	4.2	4.4	4.4	4.5	4.7	4.8	5	5.2	5.4	5.6	5.6
n	≈	2.4	2.5	2.6	2.7	2.8	3	3	3.1	3.2	3.4	3.5	3.6	3.8	3.9	4
d ₅	min	2	2	2	2	2	2	2	2	2	2	2	2.5	2.5	2.5	2.5
per 1000 units ≈ kg		1.11	1.22	1.3	1.42	1.5	1.77	1.9	1.96	2.92	3.2	3.31	3.54	3.8	4	5

Size		38	40	42	45	48	50	52	55	56	58	60	62	63	65	68
s	max	1.75	1.75	1.75	1.75	1.75	2	2	2	2	2	2	2	2	2.5	2.5
	min	1.69	1.69	1.69	1.69	1.69	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	2.43	2.43
d ₃	Nominal Size	35.2	36.5	38.5	41.5	44.5	45.8	47.8	50.8	51.8	53.8	55.8	57.8	58.8	60.8	63.5
	max	35.45	36.89	38.89	41.89	44.89	46.19	48.19	51.26	52.26	54.26	56.26	58.26	59.26	61.26	63.96
	min	34.7	35.6	37.6	40.6	43.6	44.9	46.9	49.7	50.7	52.7	54.7	56.7	57.7	59.7	62.4
a	min	5.8	6	6.5	6.7	6.9	6.9	7	7.2	7.3	7.3	7.4	7.5	7.6	7.8	8
n	≈	4.2	4.4	4.5	4.7	5	5.1	5.2	5.4	5.5	5.6	5.8	6	6.2	6.3	6.5
d ₅	min	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3	3
per 1000 units ≈ kg		5.62	6.03	6.5	7.5	7.9	10.2	11.1	11.4	11.8	12.6	12.9	14.3	15.9	18.2	21.8

①, Material: C67, C75, or Ck75 spring steel in accordance with DIN 17222 (at the manufacturer's discretion)

②, Nominal diameter of circlip ≤48mm, Hardness: 470HV~580HV (47HRC~54HRC); Nominal diameter of circlip: 48mm~200mm, Hardness: 435HV~530HV (44HRC~51HRC); Nominal diameter of circlip: 200mm~300mm, Hardness: 390HV~470HV (40HRC~47HRC)



Size		70	72	75	78	80	82	85	88	90	95	100	105	110	115	120
s	max	2.5	2.5	2.5	2.5	2.5	2.5	3	3	3	3	3	4	4	4	4
	min	2.43	2.43	2.43	2.43	2.43	2.43	2.92	2.92	2.92	2.92	2.92	3.9	3.9	3.9	3.9
d ₃	Nominal Size	65.5	67.5	70.5	73.5	74.5	76.5	79.5	82.5	84.5	89.5	94.5	98	103	108	113
	max	65.96	67.96	70.96	73.96	74.96	76.96	79.96	83.04	85.04	90.04	95.04	98.54	103.54	108.54	113.54
	min	64.4	66.4	69.4	72.4	73.4	75.4	78.4	81.2	83.2	88.2	93.2	96.7	101.7	106.7	111.7
a	min	8.1	8.2	8.4	8.6	8.6	8.7	8.7	8.8	8.8	9.4	9.6	9.9	10.1	10.6	11
n	≈	6.6	6.8	7	7.3	7.4	7.6	7.8	8	8.2	8.6	9	9.3	9.6	9.8	10.2
d ₅	min	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
per 1000 units ≈ kg		22	22.5	24.6	26.2	27.3	31.2	36.4	41.2	44.5	49	53.7	80	82	84	86

Size		125	130	135	140	145	150	155	160	165	170	175	180	185	190	195
s	max	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	min	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
d ₃	Nominal Size	118	123	128	133	138	142	146	151	155.5	160.5	165.5	170.5	175.5	180.5	185.5
	max	118.54	123.63	128.63	133.63	138.63	142.63	146.63	151.63	156.13	161.13	166.13	171.13	176.13	181.22	186.22
	min	116.7	121.5	126.5	131.5	136.5	140.5	144.5	149.5	154	159	164	168.9	174	178.8	183.8
a	min	11.4	11.6	11.8	12	12.2	13	13	13.3	13.5	13.5	13.5	14.2	14.2	14.2	14.2
n	≈	10.4	10.7	11	11.2	11.5	11.8	12	12.2	12.5	12.9	12.9	13.5	13.5	14	14
d ₅	min	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
per 1000 units ≈ kg		90	100	104	110	115	120	135	150	160	170	180	190	200	210	220

Size		200	210	220	230	240	250	260	270	280	290	300
s	max	4	5	5	5	5	5	5	5	5	5	5
	min	3.9	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88	4.88
d ₃	Nominal Size	190.5	198	208	218	228	238	245	255	265	275	285
	max	191.22	198.72	208.72	218.72	228.72	238.72	245.72	255.81	265.81	275.81	285.81
	min	188.8	196.3	206.3	216.3	226.3	236.3	243.3	253	263	273	283
a	min	14.2	14.2	14.2	14.2	14.2	14.2	16.2	16.2	16.2	16.2	16.2
n	≈	14	14	14	14	14	14	16	16	16	16	16
d ₅	min	4	4	4	4	4	4	5	5	5	5	5
per 1000 units ≈ kg		230	248	265	290	310	335	355	375	398	418	440

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②, Nominal diameter of circlip ≤48mm, Hardness: 470HV~580HV (47HRC~54HRC); Nominal diameter of circlip: 48mm~200mm, Hardness: 435HV~530HV (44HRC~51HRC); Nominal diameter of circlip: 200mm~300mm, Hardness: 390HV~470HV (40HRC~47HRC)