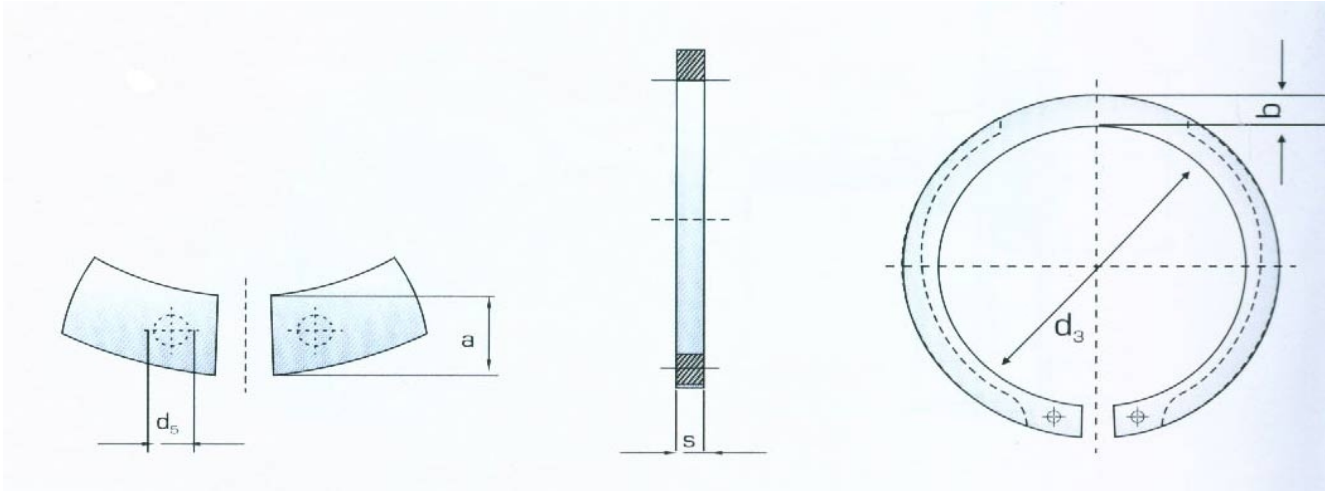


# HAJI TOOLS & HARDWARE

HOUSE OF STAINLESS STEEL FASTENERS

## Technical Specification of Circlips, Retaining Rings for Shafts as per DIN 471

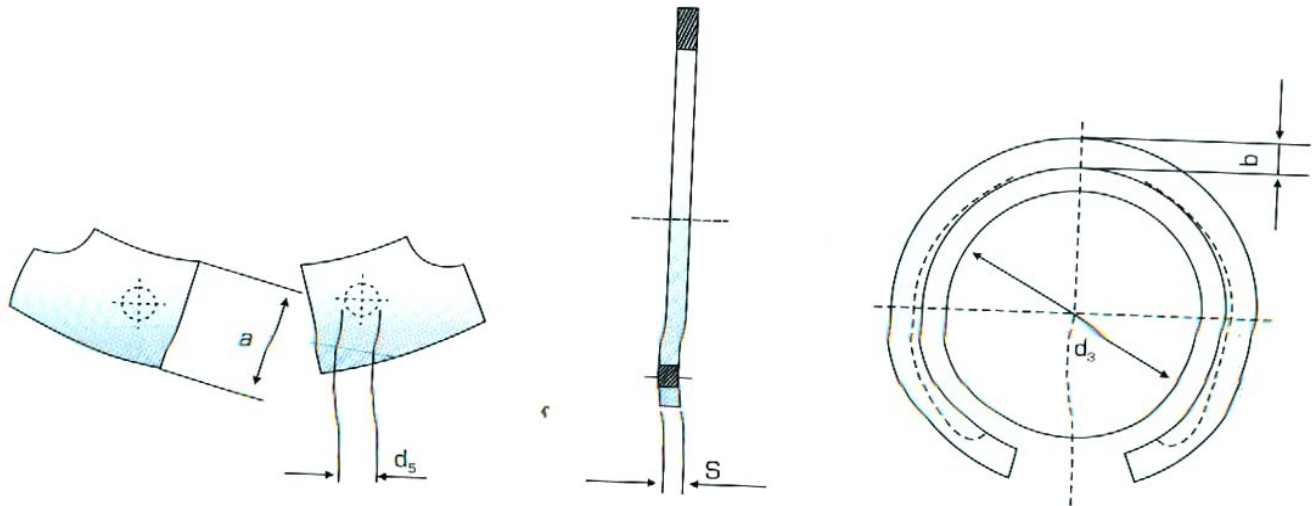


Nom. Size	S	d3	d5	b	a min
3	0.4	2.7	1	0.8	1.9
4	0.4	3.7	1	0.9	2.2
5	0.6	4.7	1	1.1	2.5
6	0.7	5.6	1.2	1.3	2.7
7	0.8	6.5	1.2	1.4	3.1
8	0.8	7.4	1.2	1.5	3.2
9	1	8.4	1.2	1.7	3.3
10	1	9.3	1.5	1.8	3.3
11	1	10.2	1.5	1.8	3.3
12	1	11	1.7	1.8	3.3
13	1	11.9	1.7	2	3.4
14	1	12.9	1.7	2.1	3.5
15	1	13.8	1.7	2.2	3.6
16	1	14.7	1.7	2.2	3.7
17	1	15.7	1.7	2.3	3.8
18	1.2	16.5	2	2.4	3.9
19	1.2	17.5	2	2.5	3.9
20	1.2	18.5	2	2.6	4

# HAJI TOOLS & HARDWARE

HOUSE OF STAINLESS STEEL FASTENERS

## Technical Specification of Circlips, Retaining Rings For Bores as per DIN 472

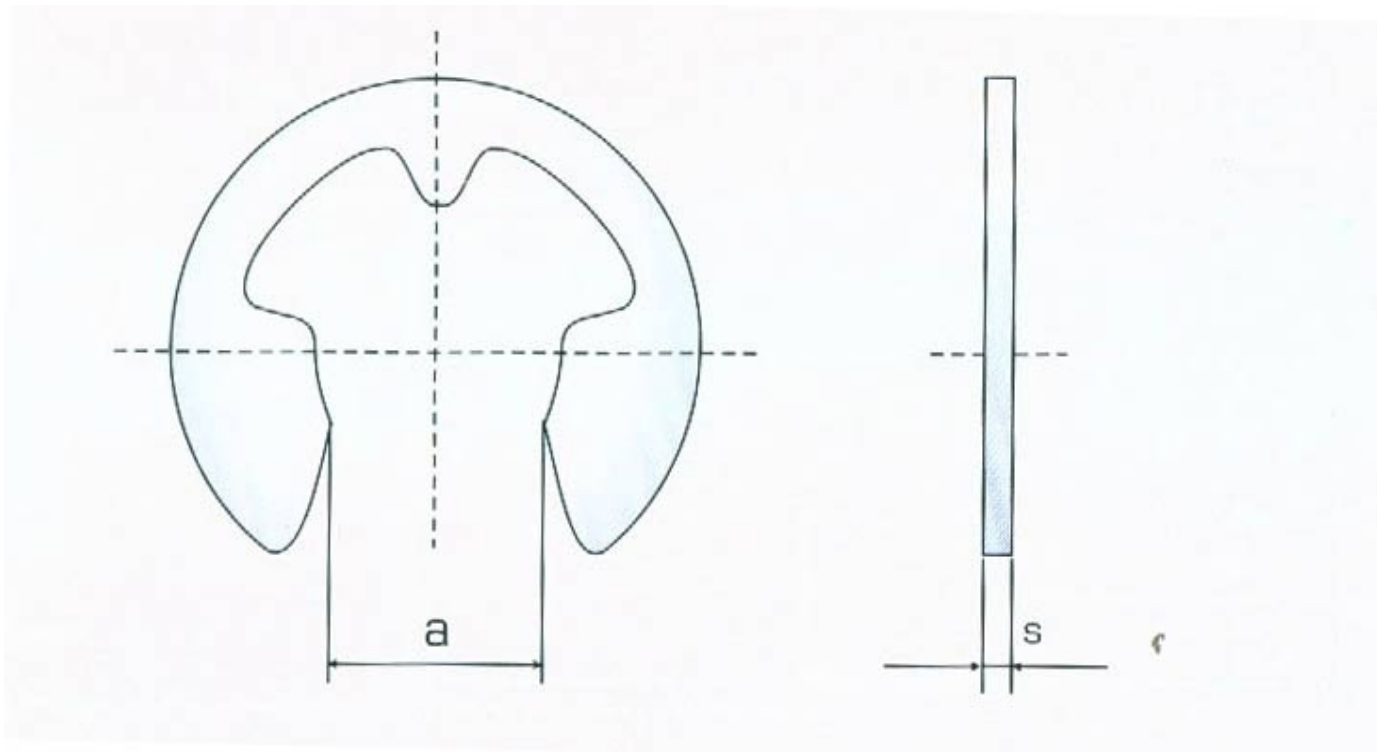


Nominal Size	s	d3	b1	d5	a max
8	0.8	8.7	1.1	1	2.4
9	0.8	9.8	1.3	1	2.5
10	1	10.8	1.4	1.2	3.2
11	1	11.8	1.5	1.2	3.3
12	1	13	1.7	1.5	3.4
13	1	14.1	1.8	1.5	3.6
14	1	15.1	1.9	1.7	3.7
15	1	16.2	2	1.7	3.7
16	1	17.3	2	1.7	3.8
17	1	18.3	2.1	1.7	3.9
18	1	19.5	2.2	2	4.1
19	1	20.5	2.2	2	4.1
20	1	21.5	2.3	2	4.2

# HAJI TOOLS & HARDWARE

HOUSE OF STAINLESS STEEL FASTENERS

## Technical Specification of Retaining Washer For Shaft (E- Clip)



Nominal Size	s	Lock Washers a
3.2	0.6	2.70
4	0.7	3.34
5	0.7	4.11
6	0.7	5.26
7	0.9	5.84
8	1.0	6.52
9	1.1	7.63
10	1.2	8.32
12	1.3	10.45
15	1.5	12.61