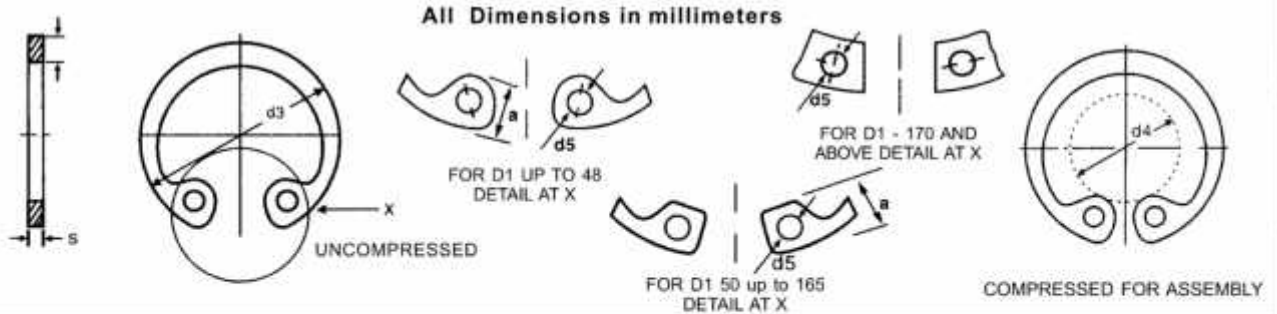


INTERNAL CIRCLIPS

DIN 472
IS: 3075



Bore Dia d1	CIRCLIP							GROOVE DATA											
	S H11	a Max	b Approx	D3	Tol. On D3	D4 Compr essed	d5 Min.	d2	Tol. On d2	M1 H13	M2 min	N min	Axial Force Kgf						
8	0.8	2.4	1.1	8.7	+0.36 -0.18	2.8	1	8.4	H11	0.9	1	0.6	128						
9		2.5	1.3	9.8		3.5		9.4					144						
10	1	3.2	1.4	10.8		1.2	3.1	10.4		1.1	1.2	1.1	1.1	160					
11		3.3	1.5	11.8			3.9	11.4						176					
12		3.4	1.7	13		1.5	4.7	12.5		1.2	1.2	1.2	1.2	240					
13		3.6	1.8	14.1			5.3	13.6						314					
14		2	3.7	1.9		15.1	1.7	6		14.6	1.1	1.2	1.1	1.1	336				
15			3.8	2		16.2		7		15.7					422				
16		1	3.8	2		17.3	1.7	7.7		16.8	1.1	1.2	1.1	1.1	515				
17			3.9	2.1		18.3		8.4		17.8					547				
18	1.2	4.1	2.2	19.5	+0.42 -0.21	8.9	2	19	H12	1.3	1.4	2.1	725						
19		2.3	20.5	9.8		20		764											
20			2.4	21.5		10.6	21	780											
21		2.5	22.5	11.6		2.6	22	810											
22		2.6	23.5	12.6			23	835											
24		1.5	4.4	2.6		25.9	2.5	14.2		25.2	1.6	1.7	2.6	2.6	1160				
25			4.5	2.7		26.9		15		26.2					1200				
26		1.2	4.7	2.8		27.9	2.5	15.6		27.2	1.6	1.7	2.6	2.6	1250				
28	4.8		2.9	30.1		17.4		29.4		1330									
30	1.5	4.8	3	32.1		2.5	19.4	31.4		1.6	1.7	2.6	2.6	1370					
31		3.2	33.4	19.6	32.7		1380												
32	3.2		34.4	20.2	33.7	1390													
34	1.75	3.3	36.5	+0.50 -0.25	22.2	35.7	1.6	1.7	2.6	2.6	2.6	2320							
35		3.4	37.8		23.2	37						2690							
36		3.5	38.8		24.2	38						2640							
37		3.6	39.8		25	39						2716							
38		3.7	40.8		26	40						2820							
40		5.8	3.9		43.5	2.5						27.4	42.5	1.85	2	3.8	3.8	3.8	4050
42			4.1		45.5							29.2	44.5						4250
45		1.75	6.2		4.3	48.5						2.5	31.6	47.5	1.85	2	3.8	3.8	4310
47	4.4		50.5	33.2	49.5	4350													
48		4.5	51.5	34.6	50.5	4320													
51	2	6.5	4.6	54.2	+0.92 -0.46	36	53	2.15	2.3	2.3	2.3	6070							
52		4.7	56.2	37.6		55	6025												
55		5	59.2	40.4		58	6350												

Bore Dia d1	CIRCLIP							GROOVE DATA					
	S H11	a Max	b Approx	D3	Tol. On D3	D4 Compr essed	d5 Min.	d2	Tol. On d2	M1 H13	M2 min	N min	Axial Force Kgf
56		6.8	5.1	60.2		41.4		59					6075
58		6.9	5.2	62.2		43.2	2.5	61					6150
60			5.4	64.2	+0.92	44.4		63					6210
62	2	7.3	5.5	66.2	-0.46	46.4		65					6170
63			5.6	67.2		47.4		66					6160
65		7.6	5.8	69.2		48.8		68					7820
68			6.1	72.5		51.4		71				4.5	8170
70		7.8	6.2	74.5		53.4	3	73					8420
72			6.4	76.5		55.4		75					8650
75	2.5	6.6	79.5			58.4		78					9000
78		6.8	82.5			60		81					9350
80		8.5	85.5			62	3	83.5	H12	2.65	2.8		11200
82		7	87.5			64		85.5					11500
85			7.2	90.5		66.8		88.5					11900
88		8.6	7.4	93.5		69.8		91.5					12300
90			7.6	95.5		71.8		93.5					12600
92	3	8.7	7.8	97.5		73.6		195.5				5.3	12900
95		8.8	8.1	100.5	+1.08	76.4		198.5		3.15	3.3		13300
98		9	8.3	103.5	-0.54	79		101.5					13700
100			8.4	105.5		81		103.5					14000
102		9.2	8.5	108		82.6	3.5	106					16300
105			8.7	112		85.6		109					16800
108		9.5	8.9	115		88		112					17300
110		10.4	9	117		88.2		114					17600
112			9.1	119		90		116					17900
115		10.5	9.3	122		93		119					18400
120			9.7	127		97		124				6	19200
125	4	11	10	132		102		129					19900
130			10.2	137		107		134					20700
135			10.5	142		112		139					21500
140		11.2	10.7	147	+1.26	117		144					22300
145		11.4	10.9	152	-0.63	122		149	H13	4.15	4.3		23100
150		12	11.2	158		125		155					30000
155			11.4	164		130		160					30900
160			11.6	169		133		165					31900
170			12.2	179.5		145		175					33900
175			12.7	184.5		149		180					34800
180			13.2	189.5		153	4	185					34500
185			13.7	194.5		157		190				7.5	34930
190			13.8	199.5		162		195					34000
195			13.8	204.5	+1.44	167		200					33000
200				209.5	-0.72	171		205					32500
210				222		181		216					50000
220				232		191		226					52200
230		14 Max		242		201		236				9	54900
240				252		211		246					52500
250				262		221		256					50500
260	5			275		227		268		5.15	5.3		54000
270				285	+1.62	237		278					51800
280		16 Max		295	-0.81	247	5	288				12	50000
290				305		257		298					48200
300				315		267		308					46500

Material: Spring steel HRC = 47 to 52 or HV = 480 to 558 kp / mm2 up to 38 mm bore diameter
HRC = 44 to 49 or HV = 440 to 510 kp / mm2 from 40 to 200 mm bore diameter
HRC = 40 to 45 or HV = 392 to 453 kp / mm2 from 210 to 300 mm bore diameter