



# 標準螺絲供應有限公司 (513831-P) STANDARD BOLTS & NUTS SDN. BHD.

No. 47 & 49, Jalan TPP 1/1, Taman Industri Puchong, 12th Miles,  
47100 Puchong, Selangor Darul Ehsan, Malaysia.

Tel: 03-8062 3811 (Hunting Line)

Website: <http://www.standardbolts.net>

Fax: 03-8062 2230, 8068 2811

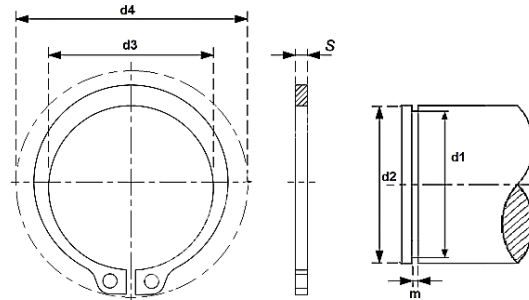
E-mail: [sale@standardbolts.net](mailto:sale@standardbolts.net)



## EXTERNAL CIRCLIP (DIN471)

**Material**  
Steel

**Finishing**  
Steel comes in Black Oxide finishing



Shaft Diameter	d3	Tol.	d4		s	d2		m	axial force
			Fitted						H13
Ø 3	2.7		7		0.4	2.8		0.5	230
Ø 4	3.7	+0.04	8.6		0.6	3.8		0.5	300
Ø 5	4.7	-0.15	10.3		0.7	4.8		0.7	380
Ø 6	5.6		11.7		0.7	5.7		0.8	700
Ø 7	6.5	+0.06	13.5		0.8	6.7		0.9	800
Ø 8	7.4	-0.18	14.7			7.6		0.9	1200
Ø 9	8.4		16			8.6			1380
Ø 10	9.3		17			9.6			1530
Ø 11	10.2		18			10.5			2100
Ø 12	11		19			11.5			2300
Ø 13	11.9		20.2		1	12.4		1.1	3000
Ø 14	12.9	+0.10	21.4			13.4			3250
Ø 15	13.8	-0.36	22.6			14.3			4000
Ø 16	14.7		23.8			15.2			4900
Ø 17	15.7		25			16.2			5200
Ø 18	16.5		26.2			17			6900
Ø 19	17.5		27.2			18			7250
Ø 20	18.5	+0.13	28.4			19			7700
Ø 21	19.5	-0.42	29.6			20			8050
Ø 22	20.5		30.8		1.2	21		1.3	8450
Ø 23	21.5		32.6			22			8850
Ø 24	22.2		33.2			22.9			10100
Ø 25	23.2		34.2			23.9			10600
Ø 26	24.2	+0.21	35.5			24.9			11000
Ø 27	24.9	-0.42	37.2			25.6			14500
Ø 28	25.9		37.9			26.6			15000
Ø 29	26.9		39.1			27.6			15600
Ø 30	27.9		40.5			28.6			16200
Ø 32	29.6		43		1.5	30.3		1.6	21000
Ø 33	30.5		44.4			31.3			21600
Ø 34	31.5	-0.25	45.4			32.3			22200
Ø 35	32.2	-0.5	46.8			33			26700
Ø 36	33.2		47.8		1.5	34		1.85	27600
Ø 37	34.2	-0.25	49.4			35			28300
Ø 38	35.2	-0.5	50.2			36			29100
Ø 40	36.5		52.6		1.75	37.5		1.85	38100
Ø 42	38.5		55.7			39.5			40000
Ø 45	41.5	-0.39	59.1			42.5			43000
Ø 47	43.5	-0.9	61.6			44.5			45000
Ø 48	44.5		62.5			45.5			46000
Ø 50	45.8		64.5			47			57000
Ø 52	47.8		66.7			49			59500
Ø 55	50.8		70.2			52			63000
Ø 56	51.8		71.6			53			64000
Ø 57	52.8	+0.46	72.6		2	54		2.15	65000
Ø 58	53.8	-1.1	73.6			55			66500
Ø 60	55.8		75.6			57			69000
Ø 62	57.8		77.8			59			71000
Ø 63	58.8		79			60			72500

### SBN Klang (Branch)

Standard Bolts & Nuts (Klang) Sdn Bhd  
No. 135 & 137, Jalan Batu Tiga Lama,  
Berkeley Town center, 41300 Klang,  
Selangor Darul Ehsan, Malaysia  
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Email: [sbnk@standardbolts.net](mailto:sbnk@standardbolts.net)

### SBN Sg Buloh (Branch)

Standard Bolts & Nuts (Sg. Buloh) Sdn Bhd  
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Megamas Business Centre, Kg Baru Sg. Buloh,  
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### SBN Johor (Branch)

Standard Bolts & Nuts Supply Sdn Bhd  
No. 12 & 14, Jalan Ros Merah 2/17,  
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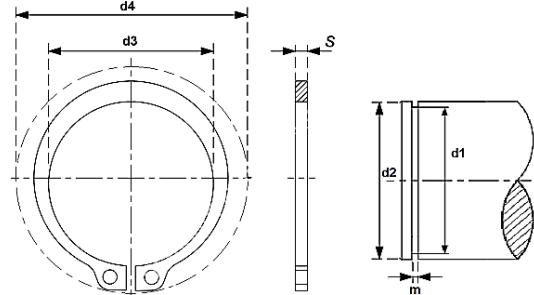
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## EXTERNAL CIRCLIP (DIN471)

**Material**  
Steel

**Finishing**  
Steel comes in Black Oxide finishing



Shaft Diameter d1	d3	Tol.	d4		s	d2		m	axial force in N
			Fitted			h12	h13		
Ø 65	60.8	+0.46 -1.1	81.4	2.5	2.5	62	2.65	H13	75000
Ø 68	63.5		84.8			65			78400
Ø 70	65.5		87			67			80500
Ø 72	67.5		89.2			69			83000
Ø 75	70.5		92.8			72			86000
Ø 78	73.5		96.1			75			90000
Ø 80	74.5		98.1			76.5			107000
Ø 82	76.5		100.3			78.5			110000
Ø 85	79.5		100.3			81.5			114000
Ø 88	82.5		106.5			84.5			119000
Ø 90	84.5	+0.54 -1.3	108.5	3	3	86.5	3.15	H13	121000
Ø 95	89.5		114.8			91.5			128000
Ø 100	94.5		120.2			96.5			135000
Ø 105	98		125.8			101			162000
Ø 110	103		131.2			106			170000
Ø 115	108		137.3			111			178000
Ø 120	113		143.1			116			185000
Ø 125	118		149			121			193000
Ø 130	123		154.4			126			201000
Ø 135	128		159.8			131			20900
Ø 140	133	165.2	136	217000					
Ø 145	138	170.6	141	225000					
Ø 150	142	177.3	145	289000					
Ø 155	146	182.3	150	300000					
Ø 160	151	188	155	310000					
Ø 165	155.5	193.4	160	320000					
Ø 170	160.5	198.4	165	329000					
Ø 175	165.5	203.4	170	338000					
Ø 180	170.5	210	175	348000					
Ø 185	175.5	215	180	338000					
Ø 190	180.5	+0.72 -1.7	220	4	4	185	4.15	h13	335000
Ø 195	185.5		225			190			327000
Ø 200	190.5		230			195			319000
Ø 210	198		240			204			488000
Ø 220	208		250			214			512000
Ø 230	218		260			224			535000
Ø 240	228		270			234			529000
Ø 250	238		280			244			503000
Ø 260	245		294			252			544000
Ø 270	255		304			262			525000
Ø 280	265	+0.81 -2	314	5	5	272	5.15	H13	508000
Ø 290	275		324			282			491000
Ø 300	285		334			292			473000

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