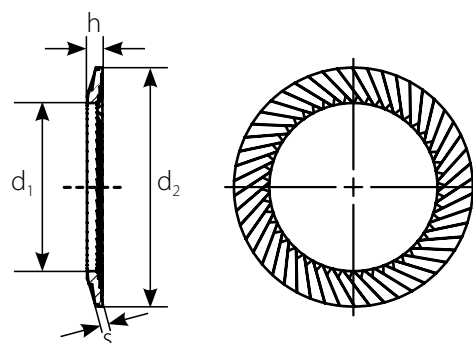


The original SCHNORR® safety washer type „S”

The Original SCHNORR® safety washer „S” is suitable for normal requirements and available for bolt sizes from M 1,6 to M 36 in grades up to 8.8. Please enquire should you require an item with different dimensions, material or surface treatment

Explanations on the table:

Article no.:	applies to the normal version made of spring steel, hardened, blackened; mechanically galvanized
h max.:	maximum dimension as delivered
h min.:	minimum dimension after load test
Available material grades:	spring steel acc. to DIN EN 10132-4; corrosion-resistant steel 1.4301; Phosphorus Bronze CuSn8; nickel cobalt alloy; creep-resistant steel 1.4122; Inconel
Surface treatments:	blackened (standard), bronzed, phosphated, galvanized, zinc lamellar coatings



Sketch of an original SCHNORR® safety washer type „S”:

Size 8 made of spring steel = safety washer S 8 FSt.

Original SCHNORR® safety washers type „S” material C60S (1.1211)

Article number/ Order reference	Finish	Size	Ordering dimensions					Packaging	
		Nominal size [mm] [Inch]	d ₁ [mm]	d ₂ [mm]	s [mm]	h _{min.} [mm]	h _{max.} [mm]	Unit [pcs.]	Weight per 1000 pieces [kg]
402300 450 000	blackened Gal.Zn8 + passivation	1.6	1.7	3.2	0.35	0.4	0.6	2000	0.013
404 400 450 100	blackened Gal.Zn8 + passivation	2.0	2.2	4.0	0.35	0.40	0.6	2000	0.021
406 800 450 200	blackened Gal.Zn8 + passivation	2.5	2.7	4.8	0.45	0.50	0.9	2000	0.039
409 400 450 300	blackened Gal.Zn8 + passivation	3.0 1/8"	3.2	5.5	0.45	0.50	0.9	2000	0.049
411 200 450 400	blackened Gal.Zn8 + passivation	3.5	3.7	6.0	0.45	0.55	0.9	2000	0.055
412 700 450 500	blackened Zn8M + passivation	4.0 5/32"	4.3	7.0	0.50	0.55	1.0	1000	0.085
414 500 450 600	blackened Zn8M + passivation	5.0 3/16"	5.3	9.0	0.60	0.60	1.1	1000	0.167
416 300 450 700	blackened Zn8M + passivation	6.0	6.4	10.0	0.60	0.70	1.2	1000	0.200
418 100 450 800	blackened Zn8M + passivation	6.35 1/4"	6.7	9.5	0.60	0.65	1.2	1000	0.150
419 200 450 900	blackened Zn8M + passivation	7.0	7.4	12.0	0.70	0.80	1.3	1000	0.355
420 400 451 000	blackened Zn8M + passivation	8.0 5/16"	8.4	13.0	0.70	0.90	1.4	1000	0.392
423 000 451 100	blackened Zn8M + passivation	10.0 3/8"	10.5	16.0	0.90	1.10	1.6	1000	0.750
425 100 451 200	blackened Zn8M + passivation	11.1 7/16"	11.6	15.9	0.90	1.05	1.6	500	0.595
426 200 451 300	blackened Zn8M + passivation	12.0	13.0	18.0	1.00	1.15	1.7	500	0.879
427 900 451 400	blackened Zn8M + passivation	12.7 1/2"	13.7	19.0	1.00	1.25	1.8	500	0.976
429 100 451 500	blackened Zn8M + passivation	14.0	15.0	22.0	1.10	1.35	2.0	500	1.641
430 700 451 600	blackened Zn8M + passivation	16.0 5/8"	17.0	24.0	1.30	1.55	2.1	500	1.984

Original SCHNORR® safety washers type “S” material C60S (1.1211)									
Article number/ Order reference	Finish	Size		Ordering dimensions					Packaging
		Nominal size [mm] [Inch]		d ₁ [mm]	d ₂ [mm]	s [mm]	h _{min.} [mm]	h _{max.} [mm]	Unit [pcs.] Weight per 1000 pieces [kg]
432 400 451 700	blackened Zn8M + passivation	18.0		19.0	27.0	1.40	1.75	2.3	250 2.970
433 800 451 800	blackened Zn8M + passivation	19	3/4"	20.0	30	1.4	1.90	2.5	250 4.100
435 100 451 900	blackened Zn8M + passivation	20		21.0	30	1.4	1.85	2.5	250 3.742
436 600 452 000	blackened Zn8M + passivation	22	7/8"	23.0	33	1.4	1.95	2.7	100 4.507
437 900 452 100	blackened Zn8M + passivation	24		25.6	36	1.6	2.15	2.9	100 5.910
439 200 452 200	blackened Zn8M + passivation	25,4	1"	27.0	38	1.8	2.35	3.1	100 7.449
440 300 452 300	blackened Zn8M + passivation	27		28.6	39	1.8	2.35	3.1	100 7.369
441 500 452 400	blackened Zn8M + passivation	30	1 1/8"	31.6	45	1.8	2.60	3.6	100 10.780
442 730 452 500	blackened Zn8M + passivation	36	1 3/8"	38.0	54	2.5	3.20	4.2	50 21.280

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Our surfaces are Cr 6-free and comply with the EU “Old Car” (2000/53/EG) RoHS-(2002/95/CE) Directive as well as the WEEE Directive (2002/96/EC)

Original SCHNORR® safety washers type “S” material X5CrNi18-10 (1.4301)									
Article number/ Order reference	Size		Ordering dimensions					Packaging	
	Nominal size [mm] [Inch]		d ₁ [mm]	d ₂ [mm]	s [mm]	h _{min.} [mm]	h _{max.} [mm]	Unit [pcs.] Weight per 1000 pieces [kg]	
403 221	1.6		1.7	3.2	0.5	0.55	0.75	1000	0.019
405 420	2		2.2	4.0	0.5	0.55	0.75	2000	0.029
407 660	2.5		2.7	4.8	0.5	0.55	0.95	2000	0.042
410 750	3	1/8"	3.2	5.5	0.5	0.55	0.95	2000	0.042
412 500	3.5		3.7	6.0	0.7	0.75	1.15	2000	0.084
414 200	4	5/32"	4.3	7.0	0.7	0.75	1.20	1000	0.081
416 100	5	3/16"	5.3	9.0	0.7	0.75	1.20	1000	0.209
417 900	6		6.4	10.0	0.7	0.75	1.20	1000	0.193
418 104	6.35	1/4"	6.7	9.5	0.7	0.75	1.20	1000	0.172
422 700	8	5/16"	8.4	13.0	1.0	1.20	1.60	1000	0.557
424 900	10	3/8"	10.5	16.0	1.0	1.10	1.60	1000	0.731
425 110	11.1	7/16"	11.6	15.9	1.3	1.30	1.85	500	0.825
427 600	12		13.0	18.0	1.3	1.30	1.85	500	1.099
428 950	12.7	1/2"	13.7	19.0	1.3	1.40	1.95	500	1.222
430 500	14		15.0	22.0	1.5	1.65	2.30	500	2.244
432 200	16	5/8"	17.0	24.0	1.5	1.75	2.30	500	2.487
433 650	18		19.0	27.0	1.8	2.05	2.60	250	3.843
433 821	19	3/4"	20.0	30.0	1.8	2.20	2.60	250	5.294
436 400	20		21.0	30.0	1.8	2.15	2.80	250	3.923
437 810	22	7/8"	23.0	33.0	1.8	2.30	3.00	100	5.893
439 091	24		25.6	36.0	2.0	2.35	3.10	100	7.508
439 170	25.4	1"	27.0	37.0	2.5	2.85	3.60	100	10.508
441 410	27		28.6	39.0	2.5	2.85	3.60	100	10.300
442 711	30	1 1/8"	31.6	45.0	2.5	3.10	4.10	100	15.185
442 790	36	1 3/8"	38.0	54.0	3.0	3.70	4.70	100	26.218

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Original SCHNORR® safety washers type “S” material C60S (1.1211)									
Article number/ Order reference	Finish	Size		Ordering dimensions					Packaging
		Nominal size [mm] [Inch]		d ₁ [mm]	d ₂ [mm]	s [mm]	h _{min.} [mm]	h _{max.} [mm]	Unit [pcs.] Weight per 1000 pieces [kg]
432 400 451 700	blackened Zn8M + passivation	18.0		19.0	27.0	1.40	1.75	2.3	250 2.970
433 800 451 800	blackened Zn8M + passivation	19	3/4"	20.0	30	1.4	1.90	2.5	250 4.100
435 100 451 900	blackened Zn8M + passivation	20		21.0	30	1.4	1.85	2.5	250 3.742
436 600 452 000	blackened Zn8M + passivation	22	7/8"	23.0	33	1.4	1.95	2.7	100 4.507
437 900 452 100	blackened Zn8M + passivation	24		25.6	36	1.6	2.15	2.9	100 5.910
439 200 452 200	blackened Zn8M + passivation	25,4	1"	27.0	38	1.8	2.35	3.1	100 7.449
440 300 452 300	blackened Zn8M + passivation	27		28.6	39	1.8	2.35	3.1	100 7.369
441 500 452 400	blackened Zn8M + passivation	30	1 1/8"	31.6	45	1.8	2.60	3.6	100 10.780
442 730 452 500	blackened Zn8M + passivation	36	1 3/8"	38.0	54	2.5	3.20	4.2	50 21.280

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Original SCHNORR® safety washers type “S” material X5CrNi18-10 (1.4301)								
Article number/ Order reference	Size		Ordering dimensions				Packaging	
	Nominal size		d ₁	d ₂	s	h _{min.}	h _{max.}	Weight
	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	[mm]	Unit per 1000 pieces
403 221	1.6		1.7	3.2	0.5	0.55	0.75	1000 0.019
405 420	2		2.2	4.0	0.5	0.55	0.75	2000 0.029
407 660	2.5		2.7	4.8	0.5	0.55	0.95	2000 0.042
410 750	3	1/8"	3.2	5.5	0.5	0.55	0.95	2000 0.042
412 500	3.5		3.7	6.0	0.7	0.75	1.15	2000 0.084
414 200	4	5/32"	4.3	7.0	0.7	0.75	1.20	1000 0.081
416 100	5	3/16"	5.3	9.0	0.7	0.75	1.20	1000 0.209
417 900	6		6.4	10.0	0.7	0.75	1.20	1000 0.193
418 104	6.35	1/4"	6.7	9.5	0.7	0.75	1.20	1000 0.172
422 700	8	5/16"	8.4	13.0	1.0	1.20	1.60	1000 0.557
424 900	10	3/8"	10.5	16.0	1.0	1.10	1.60	1000 0.731
425 110	11.1	7/16"	11.6	15.9	1.3	1.30	1.85	500 0.825
427 600	12		13.0	18.0	1.3	1.30	1.85	500 1.099
428 950	12.7	1/2"	13.7	19.0	1.3	1.40	1.95	500 1.222
430 500	14		15.0	22.0	1.5	1.65	2.30	500 2.244
432 200	16	5/8"	17.0	24.0	1.5	1.75	2.30	500 2.487
433 650	18		19.0	27.0	1.8	2.05	2.60	250 3.843
433 821	19	3/4"	20.0	30.0	1.8	2.20	2.60	250 5.294
436 400	20		21.0	30.0	1.8	2.15	2.80	250 3.923
437 810	22	7/8"	23.0	33.0	1.8	2.30	3.00	100 5.893
439 091	24		25.6	36.0	2.0	2.35	3.10	100 7.508
439 170	25.4	1"	27.0	37.0	2.5	2.85	3.60	100 10.508
441 410	27		28.6	39.0	2.5	2.85	3.60	100 10.300
442 711	30	1 1/8"	31.6	45.0	2.5	3.10	4.10	100 15.185
442 790	36	1 3/8"	38.0	54.0	3.0	3.70	4.70	100 26.218

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