

Spanner opening SW		Nominal size of wrench, mm	Metric sizes														Nominal Size of Wrench	American sizes								
			Thread diameters															Thread diameters - American standard ANSI								
			DIN ISO 272		ISO R 272 1968		German standard DIN			French standard		Swedish standard			Nuts				Bolts and screws							
Minimum dimension mm ¹⁾	Maximum dimension mm ¹⁾	Standard hexagon	Large hexagon	Screw with flange	Nut with flange	Normal hexagon	Small hexagon	Normal hexagon ²⁾	Large hexagon ³⁾	Small hexagon ⁴⁾	Screw with flange ⁵⁾	Nut with flange ⁶⁾	NFE 27-111-1930 ⁶⁾	Metric, large ^{a)} SMS 1412	Metric, small ^{b)} SMS 1414	Whitworth, large ^{c)} SMS 1413	Whitworth, small ^{d)} SMS 1415	a Normal (No)	b Square (No)	c Heavy (No)	d Machine Screw Nuts (No)	e Normal (No)	f Heavy (No)	g Machine Screws (No)	h Square Head Set Screws (No)	
36.73	37.01	37																								
37.10	37.60	38												24			7/8	1"	17/16			7/8		7/8		
38.10	38.60																									
38.30	38.61																		1 1/2	1"			1"			1 1/2
39.89	40.20																		19/16							
41.10	41.60	41	27	24			27	30	27	24					27				15/8			1"		1"		
41.50	41.81																									
42.10	42.60	42													27			1"	1 1/8							
42.67	42.93																									
43.08	43.38																		1 11/16	1 1/8	1 1/8		1 1/8			
44.70	45.03																		1 3/4							
46.10	46.60	46	30	27			30	33	30	27	36		30	30					1 13/16			1 1/8		1 1/8		
46.28	46.61																									
47.10	47.60	47															1 1/8	1 1/4	1 13/16			1 1/8		1 1/8		
47.88	48.21																		1 7/8	1 1/4	1 1/4		1 1/4			
50.10	50.60	50	33	30			33	36	33	30			33	33					2"			1 1/4		1 1/4		
51.08	51.44																					1 1/4		1 1/4		
52.10	52.60	52														1 1/4	1 3/8		2 1/16	1 3/8	1 3/8		1 3/8			
52.68	53.04																									
54.12	54.72	54												36					2 1/16	1 3/8	1 3/8		1 3/8			
54.25	54.61																		2 1/8							
55.12	55.72	55	36	33			36	39	36		42			36												
55.88	56.26																		2 3/16			1 3/8		1 3/8		
56.12	56.72	56														1 3/8	1 1/2		2 1/4	1 1/2	1 1/2		1 1/2			
57.45	57.84													39												
58.12	58.72	58																	2 1/4							
60.12	60.72	60	39	36			39		39	36				39		1 1/2	1 5/8		2 3/8			1 1/2		1 1/2		
60.66	61.06																		2 7/16							
62.23	62.64																									
63.12	63.72	63												42					2 1/2							
63.83	64.24																									
65.12	65.72	65	42	39			42		42		48			42		1 5/8	1 3/4		2 9/16			1 5/8				
65.43	65.86																		2 5/8					1 3/4		
67.03	67.46																									
67.12	67.72	67												45												
70.12	70.72	70	45				45		45					45		1 3/4	1 7/8		2 3/4			1 3/4		1 3/4		
70.26	70.69																									
71.12	71.72	71												48					2 13/16							
71.81	72.26																		2 15/16							
75.03	75.51																									
75.15	75.85	75	48				48		48		56			48		1 7/8	2"		3"			1 7/8				
76.61	77.09													52									2"			
77.15	77.85	77																	3 1/8			2"		2"		
79.81	80.31																									
80.15	80.85	80	52				52		52					52		2"								2"		
82.15	82.85	82												56												
85.15	85.85	85	56				56		56																	
86.18	86.72																		3 3/8					2 1/4		
88.15	88.85	88												60					3 1/2			2 1/4		2 1/4		
89.36	89.92																									
90.15	90.85	90	60				60		60													2 1/4		2 1/4		
94.15	94.85	94												64												
95.15	95.85	95	64				64		64																	
95.76	96.34																		3 3/4					2 1/2		
98.93	99.52																		3 7/8			2 1/2		2 1/2		
100.15	100.85	100	68				68		68					68								2 1/2		2 1/2		
105.20	106.00	105	72				72		72					72												
105.33	105.97																		4 1/8					2 3/4		
108.51	109.14																		4 1/4			2 3/4		2 3/4		
110.20	111.00	110	76				76		76					76												
114.91	115.57																		4 1/2					3"		
115.20	116.00	115	80				80		80																	
116.20	117.00	116												80												
118.08	118.77																		4 5/8			3"		3"		
120.20	121.00	120	85				85		85																	

ASME/ANSI B 18.2.2-1987

- 1) maximum and minimum dimensions for metric sizes according to DIN 475/2 series 1 and ISO 691 (machined tolerances), American sizes according to ANSI B 18.2.1 + ASME/ANSI B 18.2.2
- 2) DIN ISO 4014, 4016, 4017, 4018, 4032, 4034, 4035, 4036, 8673, 8674, 8675, 8676, 8675, sizes in brackets only DIN 439, 555, 558, 601, 609, 610, 917, 931, 933, 934, 935, 936, 937, 960, 961, 979, 980, 985, 986, 1587, 2510/5, 6330, 6331, 7967, 7968, 79900
- 3) DIN 6914, 6915, 7999 (SW 21 + 34)
- 4) DIN 561, 564
- 5) DIN 6921, 6922
- 6) DIN 6923, 6926, 6927
- 7) Standards prior to 1963
- 8) old standards

- a) Hex Flat and Hex Flat Jam Nuts
Hex Nuts and Hex Jam Nuts
Hex Slotted Nuts
Hex Thick Nuts
Hex Thick Slotted Nuts
Hex Castle Nuts
- b) Square Nuts
- c) Heavy Square Nuts
Heavy Hex Flat Nuts
Heavy Hex Flat Jam Nuts
Heavy Hex Nuts
Heavy Hex Jam Nuts
Heavy Hex Slotted Nuts

ANSI B 18.2.1-1981

- a) ANSI B 18.6.3 - 1972
- b) Square Bolts
Hex Bolts
Hex Cap Screws
Lag Screws
- c) Heavy Hex Bolts
Heavy Hex Structural Bolts
Heavy Hex Screws
- d) ANSI B 18.6.3 - 1972 (R 1983)
- e) ANSI B 18.6.2 - 1972 (R 1983)
- * Square Bolt and Lag Screws only

SP = Spark Plug