

HOW TO ORDER METRIC PARTS

It's easy to order metric hardware including metric screws, spacers, and standoffs by simply selecting the American Standard Parts you require and adding the metric requirements in the RFQ. For example, the metric requirement for a threaded spacer may be "M 3.5 x 0.6 Thread". Reference the below conversion dimension charts to order metric screws, standoffs, and other metric hardware.

How to order metric male/female standoff

Once you have selected one of our American Standard Parts, you just need to add your metric requirement in the RFQ. For example, "M3.0 x .5 Thread".

Metric Thread	Min. Depth	
	A	B
2.5 x 0.45	3.97	3.97
3.0 x 0.50	4.76	6.35
3.5 x 0.60	6.35	9.53
4.0 x 0.70	9.53	11.10
5.0 x 0.80	9.53	12.70
6.0 x 1.00	12.70	15.00
8.0 x 1.25	12.70	15.00

If you need a longer Male Thread than shown in the table above, you may add your requirement. For example, "B = 3.0 x .5 Thread, B = 7.5 MM Length. NOTE: When the body length L is less than or equal to the thread depth A, we will provide the maximum number of threads possible.

CONVERSION (SAE to Metric & Metric to SAE) To convert inches to millimeters, multiply inches x 25.4. To convert millimeters to inches multiply millimeters x 0.039370.

SPACER TOLERANCES Tolerances in the manufacture of Standoffs and Spacers. Length: up to 100MM long \pm .13 MM. O.D. \pm .152 MM.

METRIC THREADS

Clearance Hole		Recommended Thread Sizes	Depth of Thread Recommended blind hole thread engagement (Drilled and Tapped both ends)	
Diameter x Pitch	Clearance Hole Range		Diameter x Pitch	Thread Size
1.6 x 0.35	1.8 – 2.1	M1.6 x 0.35	M 2.5	4.8 mm
2.0 x 0.40	2.2 – 2.8	2.0 x 0.40	3.0	8.4
2.5 x 0.45	2.7 – 3.1	2.5 x 0.45	3.5	9.5
3.0 x 0.50	3.2 – 3.6	3.0 x 0.50	4.0	11.1
3.5 x 0.60	3.7 – 4.2	3.5 x 0.60	5.0	12.7
4.0 x 0.70	4.2 – 4.8	4.0 x 0.70	6.0	14.3
5.0 x 0.80	5.3 – 6.0	5.0 x 0.80	7.0	14.3
6.0 x 1.00	6.3 – 7.0	6.0 x 1.00		
6.3 x 1.00	6.7 – 7.5	6.3 x 1.00		
8.0 x 1.25	8.5 – 9.5	8.0 x 1.25		
		10.0 x 1.5		
		12.0 x 1.75		

LENGTH OF THREAD

Brass, Aluminum & Steel Parts: M2.5 thread is tapped thru 15.99 MM in length. M3 and larger thread is tapped thru 25.4 MM in length.

Stainless Steel & Nylon Parts: M2.5 thread is tapped thru 9.6 MM in length M3 thread is tapped thru 12.7 MM in length. M3.5 and larger threads are tapped thru 25.4 MM in lengths. For lengths longer than specified above, see Depth of Thread Chart.

SCREW DIMENSIONS

Oval Head Machine Screws

Metric screw dimensions in millimeters, including M2.5 and M4 screws.

Thread Size 'D'	M2	M2.5	M3	M4	M5	M6
Head Height, Max "K"	1.7	2.1	2.4	3.7	3.9	4.7
Head Dia, Max "D2"	4.4	5.5	6.3	9.4	10.4	12.6
Driver Size "No."	1	1	1	2	2	3

Pan Head Slotted Machine Screws

Dimensions in millimeters

Thread Size 'D'	M3	M4	M5	M6
Head Height, Max "K"	1.8	2.4	3	3.6
Head Dia, Max "D2"	6	8	10	12
Driver Size "No."	.50	.70	.80	1

Pan Head Crossed Recessed Machine Screws

Metric screw dimensions in millimeters

Thread Size 'D'	M2	M2.5	M3	M4	M5	M6
Head Height, Max "K"	1.6	2	2.4	3.1	3.8	4.6
Head Dia, Max "D2"	4	5	6	8	10	12
Driver Size "No."	1	1	1	2	2	3

Flat Head Machine Screws

Metric screw dimensions in millimeters

Thread Size 'D'	M2	M2.5	M3	M4	M5	M6	M8	M10
Head Height, Max "K"	1.2	1.5	1.65	2.2	2.5	3	4	5
Head Dia, Max "D2"	3.8	4.7	5.6	7.5	9.2	11	14.5	18
Pitch "P"	.40	.45	.50	.7	.8	1	1.25	1.50

Socket Head Cap Screws

Dimensions in millimeters

Thread Size 'D'	M3	M4	M5	M6	M8	M10	M12	M14	M16	M20
Head Height, Max "K"	3	4	5	6	8	10	12	14	16	20
Head Dia, Max "D2"	5.5	7	8.5	10	13	16	18	21	24	30
Hex Key Sz "S"	2.5	3	4	5	6	8	10	12	14	17

Hexagon Head Cap Screws

Dimensions in millimeters

Thread Size 'D'	M4	M5	M6	M8	M10	M12	M14	M16	M20	M24
Head Height, Max "K"	2.8	3.5	4	5.5	7	8	9	10	13	15
Across Flats, "S"	.7	8	10	13	17	19	22	24	30	36
Pitch, "P"	.7	.8	1	1.25	1.5	1.75	2	2	2.5	3

Button Head Screws

Dimensions in millimeters

Head Dia, Max 'B'	Head Height, Max 'R'	Socket Size, Nom 'S'
5.7	1.65	2
7.6	2.20	2.5
9.5	2.75	3
10.5	3.30	4
14.0	4.40	5
17.5	5.50	6
21.0	6.60	8
28.0	8.80	10

Important Data, Metric, Machine Screws

Dimensions in millimeters

Nominal Screw Length	Tolerance on Length, mm
to 3 mm incl.	.2
over 3 to 10 mm	.3
over 10 to 16 mm	.4
over 16 to 50 mm	.5
over 50 mm	1.0

Position of Head: The axis of the head shall be located at a true position relative to the axis of the screw shank within a tolerance zone having a diameter equivalent to 6% of the specified maximum head diameter, or the specified maximum width across flats of hex and hex flange heads, regardless of feature size.

All tolerances are plus and minus.

METRIC – SAE EQUIVALENTS

8ths/4ths	16ths	32nds	64ths	SAE Decimal	Millimeters
			1/64	.016	0.397
		1/32		.031	0.794
			3/64	.047	1.191
	1/16			.062	1.588
			5/64	.078	1.984
		3/32		.094	2.381
			7/64	.109	2.778
1/8				.125	3.175
			9/64	.141	3.572
		5/32		.156	3.969
			11/64	.172	4.366
	3/16			.188	4.763
			13/64	.203	5.159
		7/32		.219	5.556
			15/64	.234	5.953
1/4				.250	6.350
		17/64	.266	.266	6.747
		9/32		.281	7.144
			19/64	.297	7.541
	5/16			.312	7.938
			21/64	.328	8.334
		11/32		.344	8.731
			23/64	.359	9.128
3/8				.375	9.525
			25/64	.391	9.922
		13/32		.406	10.319
			27/64	.422	10.716
	7/16			.438	11.113
			29/64	.453	11.509
		15/32		.469	11.906
			31/64	.484	12.303
1/2				.500	12.700
			33/64	.516	13.097
		17/32		.531	13.494

METRIC – SAE EQUIVALENTS *continued*

8ths/4ths	16ths	32nds	64ths	SAE Decimal	Millimeters
			35/64	.547	13.891
	9/16			.562	14.288
			37/64	.578	14.684
		19/32		.594	15.081
			39/64	.609	15.478
5/8				.625	15.875
			41/64	.641	16.272
		21/32		.656	16.669
			43/64	.672	17.066
	11/16			.688	17.463
			45/64	.703	17.859
		23/32		.719	18.256
			47/64	.734	18.653
3/4				.750	19.050
			49/64	.766	19.447
		25/32		.781	19.844
			51/64	.797	20.241
13/16				.812	20.638
			53/64	.828	21.034
		27/32		.844	21.431
			55/64	.859	21.828
7/8				.875	22.225
			57/64	.891	22.622
		29/32		.906	23.019
			59/64	.922	23.416
	15/16			.938	23.813
			61/64	.953	24.209
		31/32		.969	24.606
			63/64	.984	25.003
1				1.000	25.400



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