



# Specifications and Sizes

## American Thread

Size	Decimal Equivalent	Threads Per Inch		Allen Screw		Button Heads		Flat Heads	
		Coarse & Fine		Maximum Key Size	Maximum Head O.D.	Maximum Key Size	Maximum Head O.D.	Maximum Key Size	Maximum Head O.D.
#4	.112	40	40	0/02	.100	1/16	.212	1/16	.255
#5	.125	40	44	3/32	.205	5/64	.238	5/64	.281
#6	.138	32	40	7/64	.226	5/64	.262	5/64	.307
#8	.164	32	36	9/64	.270	3/32	.312	3/32	.359
#10 (3/16)	.190	24	32	5/32	.312	1/8	.361	1/8	.411
1/4	.250	20	28	3/16	.375	5/32	.437	5/32	.531
5/16	.3125	18	24	1/4	.469	3/16	.547	3/16	.656
3/8	.375	16	24	5/16	.562	7/32	.656	7/32	.781
7/16	.4375	14	20	3/8	.656	---	---	1/4	.844
1/2	.500	13	20	3/8	.750	5/16	.875	5/16	.938
5/8	.625	11	18	1/2	.938	3/8	1.00	3/8	1.188
3/4	.750	10	16	5/8	1.125	---	---	---	---

## Metric Thread

Size	Threads Per Inch		Allen Screw		Button Heads		Flat Heads	
	Coarse & Fine		Key Size	Maximum Head O.D.	Key Size	Maximum Head O.D.	Key Size	Maximum Head O.D.
3mm	0.5	---	2.5mm	5.5mm	2mm	5.70mm	2mm	6.40mm
4mm	0.7	---	3mm	7.0mm	2.5mm	7.60mm	2.5mm	8.60mm
5mm	0.8	---	4mm	8.5mm	3mm	9.50mm	3mm	10.60mm
6mm	1.0	---	5mm	10.00mm	4mm	10.50mm	4mm	12.60mm
8mm	1.25	1.00	6mm	13.00mm	5mm	14.00mm	5mm	16.80mm
10mm	1.50	1.25	8mm	16.00mm	6mm	17.50mm	6mm	21.00mm
12mm	1.75	1.50	10mm	18.00mm	8mm	21.00mm	8mm	25.00mm

## Washer Specifications

Size	Flat Washers			AN Washers			GW Washers		
	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness	O.D.	I.D.	Thickness
#6	3/8	5/32	3/64	---	---	---	---	---	---
#8	7/16	3/16	3/64	---	---	---	---	---	---
#10	1/2	7/32	3/64	.437	.203	1/32	---	---	---
#12	9/16	1/4	1/16	---	---	---	---	---	---
1/4	5/8	9/32	1/16	.500	.265	1/16	5/8	.260	.08
5/16	11/16	11/32	1/16	.562	.328	1/16	11/16	.323	.09
3/8	13/16	13/32	1/16	.625	.390	1/16	13/16	.385	.09
7/16	59/64	15/32	1/16	.750	.453	1/16	59/64	.448	.10
1/2	1-1/16	17/32	3/32	.875	.516	1/16	1-1/16	.510	.11
9/16	1-3/16	19/32	3/32	1.062	.578	1/16	---	---	---
5/8	1-5/16	21/32	3/32	1.187	.641	1/16	1-5/16	.635	.12
3/4	1-1/2	13/16	9/64	---	---	---	---	---	---

## Wrench Sizes (Width across flats) - Hex Bolts

American		Metric	
Wrench Size	Bolt Diameter	Wrench Size	Bolt Diameter
7/16	1/4	5.5mm	3mm
1/2	5/16	7mm	4mm
9/16	3/8	8mm	5mm
5/8	7/16	10mm	6mm
3/4	1/2	11mm	7mm
13/16	9/16	13mm	8mm
15/16	5/8	17mm	10mm
1 1/8	3/4	19mm	12mm

## Torx Size and Bit Sizes

Torx Size	Bit Size
6/32	T-10
8/32	T-15
10/24	T-25
10/32	T-25
1/4	T-27
5/16	T-40
3/8	T-45
1/2	T-55
5/8	T-60

## Tensile Strengths of Material Requirements

Material	LBS.
Stainless Steel	85,000
Grade 2	85,000
Grade 5	120,000
Grade 8	150,000

## Metric Flat Washer Specifications

Size	Flat Washers		
	O.D.	I.D.	Thickness
4mm	9	4.3	0.8
5mm	10	5.3	1
6mm	12	6.4	11.6
7mm	14	7.4	1.6
8mm	16	8.4	1.6
10mm	20	10.5	2
12mm	24	13	2.5
14mm	28	15	2.5
16mm	30	17	3
18mm	34	19	3