Threaded fasteners are generally available in coarse or fine thread. Metric fasteners, which are gaining popularity as a result of the influx of foreign products imported into the United States, are available in

NON METRIC FASTENERS

For non metric fasteners, The American Standard for Unified threads refers to coarse threads by the designation UNC and to fine thread by the designation UNF, although some still refer to coarse thread fasteners as USS. The USS or United States Standard was used for many years on most threaded products produced in the United States. Though obsolete, the USS designation is still accepted. Fine Thread is usually referred to as SAE (Society of Automotive Engineers). While this is considered an incorrect designation, it is still widely accepted. Unlike metric, fasteners produced in the US make their determination as to coarse or fine by the number of threads per inch. The more threads per inch on a specific diameter bolt or screw, the finer the thread. For example: 1/4-20 is coarse while 1/4-28 is fine.

COARSE THREADS

The coarse threaded fastener (UNC) is the most common. It is used in general applications for threading into lower tensile strength materials such as cast iron, mild steel, and with softer materials, (bronze, brass, aluminum, magnesium, and plastics) to obtain the optimum internal stripping resistance of the internal thread. It is suitable where rapid assembly or disassembly is required or if corrosion or slight thread damage is possible. What this means, is that practically everything, (except specialty applications, such as automotive and aircraft manufacturing,) utilizes the coarse threaded fastener.

Non Metric Fasteners	
Coarse	Fine
4-40	-
6-32	-
8-32	-
10-24	10-32
12-24	-
1/4-20	1/4-28
5/16-18	5/16-24
3/8-16	3/8-24
7/16-14	7/16-20
1/2-13	1/2-20
9/16-12	9/16-18
5/8-11	5/8-18
3/4-10	3/4-16
7/8-9	7/8-14
1-8	1-14

FINE THREADS

Fine threaded fasteners (UNF) have a greater tensile stress area, than comparable sizes of coarse threaded fasteners. Fine thread is used in applications where the amount of thread engagement is short or where the load carrying capacity requires maximum holding power of both external threads and mating internal threads.

METRIC FASTENERS

Metric fasteners are gaining popularity, primarily as a result of the automotive industry. All imported vehicles, as well as most domestic vehicles utilize metric fasteners. Metric fasteners are unique in two ways: First, the head of the metric fastener is measured in millimeters and as such, a standard wrench will not successfully turn a metric bolt. Secondly, there are no hard lines of diferentiation between a coarse or fine thread metric fastener. In fact, metric fasteners have gradations of coarse, fine & extra fine which are referred to as its pitch. While the differences from size to size are difficult to explain, the following chart may serve as a general rule.

Standard		Fine		Extra Fine	
Size	Pitch	Size	Pitch	Size	Pitch
2mm	0.40	2mm	-	2mm	-
3mm	0.50	3mm	-	3mm	-
4mm	0.70	4mm	-	4mm	-
5mm	0.80	5mm	-	5mm	-
6mm	1.00	6mm	-	6mm	-
7mm	1.00	7mm	-	7mm	-
8mm	1.25	8mm	1.00	8mm	-
10mm	1.50	10mm	1.25	10mm	1.00
12mm	1.75	12mm	1.50	12mm	1.25
14mm	2.00	14mm	1.50	14mm	1.25
16mm	2.00	16mm	1.50	16mm	1.25
18mm	2.50	18mm	1.25	18mm	-
20mm	2.50	20mm	1.50	20mm	1.50
22mm	2.50	22mm	1.50	22mm	-
24mm	3.00	24mm	2.00	24mm	-
27mm	3.00	27mm	-	27mm	-
30mm	3.50	30mm	-	30mm	-
33mm	3.50	33mm	-	33mm	-
36mm	4.00	36mm	-	36mm	-