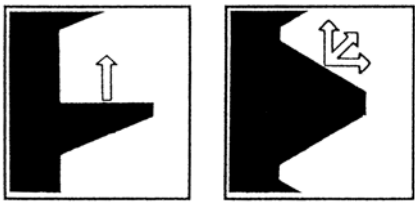
Threaded Inserts

Product #11M30, 11M40, 12J20, 12K10, 12k40, 12K50, 12K60

Woodcraft's Threaded Inserts are designed to provide high strength and wear-resistant joints which are necessary in constructing "knock-down" furniture, displays, or working jigs. These brass inserts utilize a unique buttress thread design (Figure 1) to maximize their pull-out resistance when they are installed in wood, chipboard, or plywood. Because these threads are only half the width of conventional metal threads, they minimize the displacement of wood in their pilot holes during installation. Wood failure caused by cracking, splitting, or hole enlargement is thus eliminated.

Threaded inserts are effective for both cross-grain and end-grain applications. To install the inserts, pilot holes must first be bored using the proper diameter drills (Chart 1). These holes must be deep enough to accommodate the total length of the inserts and machine screw fasteners (bolts). The location of these holes in the wood is important. A minimum centerline distance of two times ($\geqq 2H$) the hole diameter ("H") from an edge or four times the hole diameter from the centerline of another hole is recommended for cross-grain installations (Figure 2). This rule is particularly important for plywood and particle board. In end-grain installations, a minimum centerline distance equal to one hole diameter from an edge or two times the hole diameter from the centerline of another hole is recommended.

Figure 1



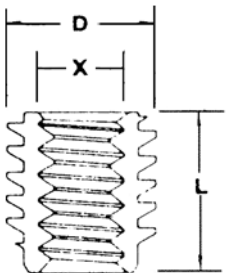
Buttress thread produces pure tensile load

Conventional thread induces radial vector

A countersink should be cut in the hole edge to eliminate the possibility of the wood splitting or lifting. The diameter of the countersink at the surface should be at least equal to the outside diameter of the insert.

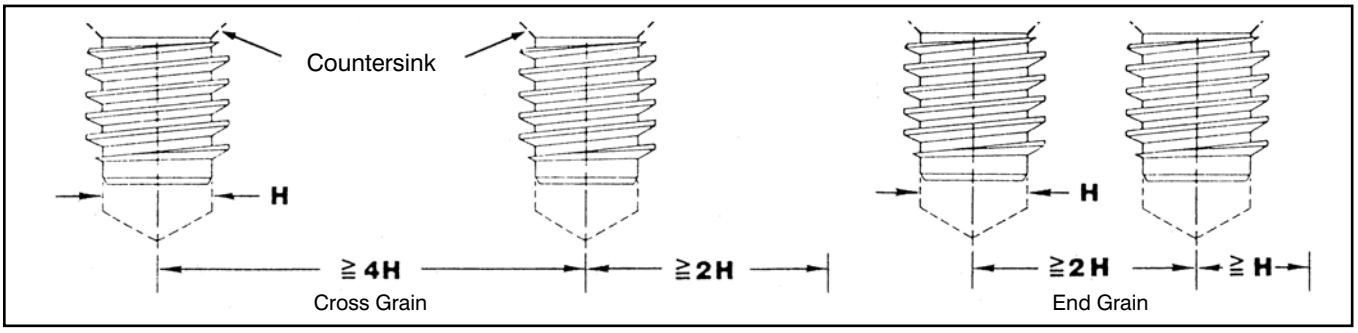
To install an insert, a screwdriver can be used by placing the blade in the slot machined into the top of the insert. For added torque and control, special "T" wrenches with threaded tips are available in stores, through the Woodcraft catalog and woodcraft.com.

Chart 1



Woodcraft Number	Internal Thread (X)	Outside Diameter (D)	Length (L)	Pilot Hole Diameter
12J20	6 - 32	.328"	3/8"	1/4"
12K40	8 - 32	.328"	3/8"	1/4"
12K10	10 - 24	.453"	1/2"	3/8"
12K50	1/4 - 20	.453"	1/2"	3/8"
12K60	5/16 - 18	.594"	5/8"	1/2"
11M30	3/8 - 24	.594"	5/8"	1/2"
11M40	3/8 - 16	.594"	5/8"	1/2"

Figure 2



H = Pilot Hole Diameter