

## THREAD CUTTING SCREWS



These thread cutting screws have an off-center shank slot which provides a true cutting action, eliminating a separate tapping operation and generating a perfectly mated thread that contributes to a stronger fastening. When compared to machine screws in tapped holes, fewer thread cutting screws will achieve the same holding power. Thread cutting screws may be removed and redriven.

As a general rule, Type 1 thread cutting screws are recommended for steel parts having a thickness less than half of the screw diameter. The Type 23 thread cutting screw, with its wider shank slot, is recommended for use in cast iron and soft metals such as zinc and aluminum castings — and in some plastics.

The Type 25 thread cutting screw, combining a wide thread cutting shank slot and acute cutting edge with spaced threads for low driving/high stripping torque, is ideal for cutting mating threads in thermoset plastic.

The Type 17 screw will drill its own hole and cut close mating threads in wood, light plastics and particle board.

A complete line of Types F and BF thread cutting screws is also available from WCL.

WCL provides thread cutting screws in diameters ranging from a number 4 through a 3/8" and in lengths from 1/4" through 2". All conventional head styles and drives are available.

### RECOMMENDED PILOT HOLE SIZES — THREAD CUTTING IN STEEL

STEEL THICKNESS	SCREW SIZE										
	4-40	6-32	8-32	10-24	10-32	1/4-20	1/4-28	5/16-18	5/16-24	3/8-16	3/8-24
Up to .047	.089	.110	.136	.154	.161	.205	—	—	—	—	—
.063	.089	.111	.136	.154	.166	.209	—	.2656	.277	.323	.339
.078	.093	.113	.140	.1562	.166	.209	.221	.2656	.277	.323	.3438
.094	.093	.116	.140	.159	.166	.213	.221	.272	.2812	.3281	.3438
.109	.093	.116	.144	.161	.169	.213	.228	.272	.2812	.332	.348
.125	.096	.120	.144	.166	.169	.2188	.228	.277	.290	.339	.348
.141	.098	.120	.147	.166	.1719	.221	.228	.281	.290	.339	.348
.188	.101	.125	.152	.173	.177	.228	.2344	.290	.295	.348	.358
.250	.104	.128	.154	.177	.180	.234	.238	.295	.2969	.358	.3594
.313	—	.128	.154	.177	.180	.234	.238	.295	.2969	.358	.3594
Up to .375	—	—	—	.177	—	.234	—	.295	.2969	.358	.3594

NOTE: Type 1 Thread Cutting screws are recommended for steel with thicknesses less than half of the screw diameter. Type 23 Thread Cutting screws are recommended for all other applications in metal.

### RECOMMENDED PILOT HOLE SIZES — THREAD CUTTING IN PLASTIC

CELLULOSE COMPOUNDS				PHENOLICS, POLYSTYRENE, URETHANE COMPOUNDS			
TYPE 23		TYPE 25		TYPE 23		TYPE 25	
SCREW SIZE	DIA.	SCREW SIZE	DIA.	SCREW SIZE	DIA.	SCREW SIZE	DIA.
4-40	.0980	4-24	.0995	4-40	.0995	4-24	.1040
6-32	.1200	6-20	.1200	6-32	.1250	6-20	.1250
8-32	.1440	8-18	.1440	8-32	.1470	8-18	.1470
10-24	.1660	10-16	.1660	10-24	.1695	10-16	.1695
1/4-20	.2210	1/4-14	.2210	1/4-20	.2280	1/4-14	.2280
5/16-18	.2770	5/16-12	.2770	5/16-18	.2812	5/16-12	.2900
3/8-16	.3390	3/8-12	.3438	3/8-16	.3438	3/8-12	.3438

NOTE: These tables are based on many years of testing and experimental work. Before specifications are finalized, hole size tolerances for specific application should be determined through testing.