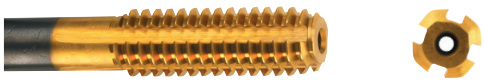
SUGGESTED TAPPING SPEEDS

MATERIAL	SFM	TAPPING RPM																		
		#0 M1.6	#1	#2 M2	#3 M2.5	#4	#5 M3	#6 M3.5	#8 M4	#10 M5	#12	1/4 M6	5/16 M8	3/8 M10	7/16 M11	1/2 M12	5/8 M16	3/4 M18	1" M24
LOW CARBON STEEL	55	3503	2879	2444	2123	1877	1682	1523	1282	1106	973	841	674	561	481	420	336	280	210
MEDIUM CARBON STEEL	35	2229	1832	1555	1351	1194	1070	969	816	704	619	535	429	357	306	268	214	178	134
HIGH CARBON STEEL	10	637	524	444	386	341	306	277	233	201	177	153	122	102	87	76	61	51	38
CAST STEEL	25	1592	1309	1111	965	853	764	692	583	503	442	382	306	255	219	191	153	127	96
300 SERIES STAINLESS STEEL	20	1274	1047	889	772	682	611	554	466	402	354	306	245	204	175	153	122	102	76
400 SERIES STAINLESS STEEL	15	955	785	667	579	512	459	415	350	302	265	229	184	153	131	115	92	76	57
GREY CAST IRON	70	4459	3665	3111	2702	2389	2140	1939	1631	1408	1238	1070	857	713	612	535	428	357	268
DUCTILE CAST IRON	50	3185	2618	2222	1930	1706	1529	1385	1165	1006	885	764	612	510	437	382	306	255	191
ALLOY CAST IRON	40	2548	2094	1778	1544	1365	1223	1108	932	805	708	611	490	408	350	306	245	204	153
ALUMINUM CAST ALLOYS	60	3822	3141	2666	2316	2047	1834	1662	1398	1207	1062	917	735	611	525	459	367	306	229
ALUMINUM DIECAST ALLOYS	70	4459	3665	3111	2702	2389	2140	1939	1631	1408	1238	1070	857	713	612	535	428	357	268
ALUMINUM WROUGHT ALLOYS	80	5096	4188	3555	3088	2730	2446	2215	1864	1609	1415	1223	980	815	700	611	489	408	306
ZINC DIECASTINGS	80	5096	4188	3555	3088	2730	2446	2215	1864	1609	1415	1223	980	815	700	611	489	408	306
COPPER	60	3822	3141	2666	2316	2047	1834	1662	1398	1207	1062	917	735	611	525	459	367	306	229
BRASS, FREE MACHINING	60	3822	3141	2666	2316	2047	1834	1662	1398	1207	1062	917	735	611	525	459	367	306	229
CAST BRONZE	50	3185	2618	2222	1930	1706	1529	1385	1165	1006	885	764	612	510	437	382	306	255	191
NICKEL ALLOYS	10	637	524	444	386	341	306	277	233	201	177	153	122	102	87	76	61	51	38
TITANIUM ALLOYS	10	637	524	444	386	341	306	277	233	201	177	153	122	102	87	76	61	51	38
PLASTIC, THERMOSETTING	40	2548	2094	1778	1544	1365	1223	1108	932	805	708	611	490	408	350	306	245	204	153
PLASTIC, THERMOPLASTIC	80	5096	4188	3555	3088	2730	2446	2215	1864	1609	1415	1223	980	815	700	611	489	408	306

1. Speeds are starting points for cold forming taps or for cutting taps in thru hole applications.
2. Fine pitch cold forming taps less than 1/2" diameter may be run faster in soft material with good lubrication. Increase tapping RPM gradually until tap heat buildup due to lubrication failure begins to occur.
3. For cutting taps in blind holes, reduce RPM by 25% to 50%.
4. Tap Feed Rate = Tap RPM x Tap Pitch (Displacement/Revolution)
   Example: 1/4-28 Tap @ 1000 RPM
   Feed Rate = 1000 Rev/Min. x 1/28 Inch/Rev)= 35.71 in/Min
   Example: M6 x 1.0 Tap @ 1000 RPM
   Feed Rate = 1000 Rev/Min. x 1.0 mm/Rev)= 1000 mm/Min

COOLANT-THRU TAPS

THRU - COOLANT



RADIAL - COOLANT

ANGULAR - COOLANT

FAST DELIVERY ON STANDARD COOLANT-THRU TAPS

Using Balax's EDM process, almost any standard Thredshaver or Thredfloer tap can be modified into the coolant-thru tap style of your choice: thru-coolant, radial coolant, or angular coolant. It's economical and turn-around time is fast.

SPECIAL COOLANT-THRU TAPS FOR CUSTOM APPLICATIONS

For processes requiring an engineered special coolant-thru tap, custom tap blanks are made with coolant-thru holes in the style best suited for the tapping application.