

Rotational speeds and feed for High-Speed Twist Drills

MATERIAL AND CUTTING SPEED (FT PER MINUTE)

Dia- meter of drill (In.)	Alumi- num	Brass &Bronze	Cast iron	Mild steel 0.2-0.3 carbon (LOW)	Steel0.4-0.5 carbon(MED)	Tool steel 1.2 carbon and drop forgings	Conn, rod molyb- denum steel	3.5 nickel steel	Stainless steel and monel metal	MalleableIron	Feed per revolution (in.)
	300	200	100	110	80	80	55	60	50	85	

Revolutions per minute

1/16.....	18,336	12,224	8,112	6,724	4,883	3,668	3,404	3,976	3,056	5.192	0.0015
1/8.....	9,168	6,112	3,056	3,362	2,444	1,834	1,702	1,968	1,528	2,596	0.002- 0.003
3/16.....	6,106	4,072	2,036	2,242	1,630	1,222	1,120	1,324	1,018	1,734	0.004
1/4.....	4,684	3,056	1,528	1,681	1.222	917	851	994	764	1,298	0.005
>5/16.....	3,666	2,444	1,222	1,344	978	733	672	794	611	1.039	0.005
3/8.....	3,064	2,036	1,018	1,121	815	611	560	662	509	867	0.006
7/18.....	2.622	1,748	674	921	699	524	481	568	437	742	0.007
1/2.....	2.292	1,628	764	840	611	459	420	497	382	649	0.008

9/16.....	2,037	1,356	679	747	543	407	373	441	340	577	0.008
5/8.....	1,636	1,224	612	673	489	367	337	396	306	520	0.009
11/16.....	1,666'	1,110	656	611	444	333	300	360	273	472	0.009
3/4.....	1,524	1,016	508	559	408	306	279	330	254	433	0.010
13/16.....	1,422	948	474	521	379	285	261	308	237	403	0.010
7/8.....	1,314	876	438	482	349	262	241	286	219	371	0.011
15/16.....	1,221	814	407	448	328	244	224	285	204	346	0012
1	1,146	764	382	420	308	229	210	258	191	325	0.013
1 1/16.....	1,077	718	359	396	287	215	197	233	180	305	0.013
1 1/8.....	1,020	680	340	374	272	204	187	221	170	288	0.014
1 3/16.....	966	644	322	354	258	193	177	209	161	274	0.014
1 1/4.....	918	612	308	337	245	183	168	199	153	260	0.015
1 5/16....	873	582	291	320	233	175	160	189	148	248	0.015
1 3/8.....	834	556	278	306	222	167	153	180	139	236	0.015
1 7/16.....	795	530	265	292	212	159	146	172	133	225	0.015
1 1/2.....	762	508	254	279	204	153	140	165	127	216	0.015

1 9/16.....	732	468	244	288	195	146	134	159	122	207	0.016
1 5/8.....	702	468	234	257	188	141	129	152	117	201	0.016
1 11/16...	678	452	226	249	181	136	124	147	113	192	0.016
1 3/4.....	654	436	218	240	175	131	120	142	109	186	0.016
1 13/16...	630	420	210	231	168	126	116	137	105	179	0.016
1 7/8.....	612	408	204	224	163	122	112	133	102	173	0.016
1 15/16...	591	394	197	216	158	118	108	128	99	168	0.016
2.....	573	382	191	210	153	115	105	124	96	162	0.016

Rotational speed value for carbide twist drills are 200 to 300 percent higher than H.S.S,