

Speeds and Feeds of High Speed Steel Drill Bits							
Drill Bit Diameter (Inches)	Speed (Revolutions per Minute)						Feed (Inches per Revolution)
	Aluminum 300 Ft	Brass 200 Ft	Cast Iron* 100 Ft	Mild Steel .2 to .3 Carbon 110 Ft	Steel .4 to .5 Carbon 80 Ft	Tool Steel 1.2 Carbon and Drop Forgings 60 Ft	
1/16	18336	12224	6112	6724	4883	3668	.0015
1/8	9168	6112	3056	3362	2444	1834	.001-.003
3/16	6108	4072	2036	2242	1630	1222	.004
1/4	4584	3056	1528	1681	1222	917	.005
5/16	3666	2444	1222	1344	978	733	.005
3/8	3054	2036	1018	1121	815	611	.006
7/16	2622	1748	874	921	699	524	.007
1/2	2292	1528	764	840	611	459	.008
9/16	2037	1358	679	747	543	407	.008
5/8	1836	1224	612	673	489	367	.009
11/16	1665	1110	555	611	444	333	.009
3/4	1524	1016	508	559	408	306	.010
13/16	1422	948	474	521	379	284	.010
7/8	1314	876	438	482	349	262	.011
15/16	1221	814	407	448	326	244	.012
1	1146	764	382	420	306	229	.013
1 1/16	1077	718	359	395	287	215	.013
1 1/8	1020	680	340	374	272	204	.014
1 3/16	966	644	322	354	258	193	.014
1 1/4	918	612	306	337	245	183	.015
1 5/16	873	582	291	320	233	175	.015
1 3/8	834	556	278	306	222	267	.015
1 7/16	795	530	265	292	212	159	.015
1 1/2	762	508	254	279	204	153	.015
1 9/16	732	488	244	268	195	146	.016
1 5/8	702	468	234	257	188	141	.016
1 11/16	678	452	226	249	181	136	.016
1 3/4	654	436	218	240	175	131	.016
1 13/16	630	420	210	231	168	126	.016
1 7/8	612	408	204	224	163	122	.016
1 15/16	591	394	197	216	158	118	.016
2	573	382	191	210	153	115	.016

*Soft grade 50% faster

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	Conn. Rod Molybdenum Steel 55 Ft	3 1/2 % Nickel Steel 65 Ft	Stainless Steel and Monel Metal 50 Ft	Mall. Iron 85 Ft	Slate 15 Ft	
1/16	3404	3976	3056	5192	916	.0015
1/8	1702	1988	1528	2596	458	.001-.003
3/16	1120	1324	1018	1734	306	.004
1/4	851	994	764	1298	229	.005
5/16	672	794	611	1039	184	.005
3/8	560	662	509	867	153	.006
7/16	481	568	437	742	131	.007
1/2	420	497	382	649	115	.008
9/16	373	441	340	577	102	.008
5/8	337	398	306	520	92	.009
11/16	300	360	273	472	84	.009
3/4	279	330	254	433	77	.010
13/16	261	308	237	403	71	.010
7/8	241	285	219	371	66	.011
15/16	224	265	204	346	61	.012
1	210	258	191	325	58	.013
1 1/16	197	233	180	305	54	.013
1 1/8	187	221	170	288	51	.014
1 3/16	177	209	161	274	48	.014
1 1/4	168	199	153	260	46	.015
1 5/16	160	189	146	248	44	.015
1 3/8	153	180	139	236	42	.015
1 7/16	146	172	133	225	40	.015
1 1/2	140	165	127	216	38	.015
1 9/16	134	159	122	207	37	.016
1 5/8	129	152	117	201	35	.016
1 11/16	124	147	113	192	34	.016
1 3/4	120	142	109	186	33	.016
1 13/16	116	137	105	179	32	.016
1 7/8	112	133	102	173	31	.016
1 15/16	108	128	99	168	30	.016
2	105	124	96	162	29	.016

Speeds and Feeds of Carbon Steel Drill Bits						
Drill Bit Diameter (Inches)	Speed (Revolutions per Minute)					Feed (Inches per Revolution)
	Brass 100 Ft	Cast Iron 50 Ft	Mild Steel .2 to .3 Carbon 40 Ft	Steel .4 to .5 Carbon 35 Ft	Tool Steel 1.2 Carbon 30 Ft	
1/16	6112	3056	2444	2140	1834	.0015
1/8	3056	1528	1222	1070	917	.002-.003
3/16	2036	1018	815	714	611	.004
1/4	1528	764	611	535	458	.005
5/16	1222	611	489	428	367	.005
3/8	1018	509	408	357	306	.006
7/16	874	437	349	306	262	.007
1/2	764	382	306	268	229	.008
9/16	679	340	272	238	204	.008
5/8	612	306	245	214	184	.009
11/16	555	273	222	194	167	.009
3/4	508	254	203	178	153	.010
13/16	474	237	190	166	142	.010
7/8	438	219	175	153	131	.010
15/16	407	204	163	142	122	.010
1	382	191	153	134	115	.011
1 1/16	359	180	144	126	108	.011
1 1/8	340	170	136	119	102	.012
1 3/16	322	161	129	113	96	.012
1 1/4	306	153	123	107	91	.013
1 5/16	291	146	116	102	87	.013
1 3/8	278	139	111	97	83	.014
1 7/16	265	133	106	92	79	.014
1 1/2	254	127	102	89	76	.015
1 9/16	244	122	97	85	73	.015
1 5/8	234	117	94	82	70	.015
1 11/16	226	113	90	79	67	.015
1 3/4	218	109	87	76	65	.015
1 13/16	210	105	84	73	63	.015
1 7/8	204	102	81	71	61	.015
1 15/16	197	98	78	69	59	.015
2	191	95	76	66	57	.015

Speeds and Feeds of Carbon Steel Drill Bits						
Drill Bit Diameter (Inches)	Speed (Revolutions per Minute)					Feed (Inches per Revolution)
	Drop Forgings 30 Ft	Molybdenum Steel 25 Ft	3 1/2 % Nickel Steel 30 Ft	Stainless Steel and Monel Metal 25 Ft	Mall. Iron 35 Ft	
1/16	1834	1528	1834	1528	2140	.0015
1/8	917	764	917	764	1070	.002-.003
3/16	611	509	611	509	714	.004
1/4	458	382	458	382	535	.005
5/16	367	306	367	306	428	.005
3/8	306	255	306	255	357	.006
7/16	262	218	262	218	306	.007
1/2	229	191	229	191	268	.008
9/16	204	170	204	170	238	.008
5/8	184	153	184	153	214	.009
11/16	167	138	167	138	194	.009
3/4	153	127	153	127	178	.010
13/16	142	119	142	119	166	.010
7/8	131	109	131	109	153	.010
15/16	122	101	122	101	142	.010
1	115	95	115	95	134	.011
1 1/16	108	89	108	89	126	.011
1 1/8	102	85	102	85	119	.012
1 3/16	96	80	96	80	113	.012
1 1/4	91	76	91	76	107	.013
1 5/16	87	72	87	72	102	.013
1 3/8	83	69	83	69	97	.014
1 7/16	79	66	79	66	92	.014
1 1/2	76	63	76	63	89	.015
1 9/16	73	61	73	61	85	.015
1 5/8	70	58	70	58	82	.015
1 11/16	67	56	67	56	79	.015
1 3/4	65	54	65	54	76	.015
1 13/16	63	52	63	52	73	.015
1 7/8	61	50	61	50	71	.015
1 15/16	59	49	59	49	69	.015
2	57	47	57	47	66	.015