SELECTING THE CORRECT DRILLING FEED AND SPEED

MATERIAL ↓	DRILL DIAMETER →	1/16 1.6	3/32 2.4	1/8 3.2	3/16 4.8	1/4 6.4	5/16 7.9	3/8 9.5	7/16 11.1	1/2 12.7	9/16 14.3	5/8 15.9	11/16 17.5	3/4 19.1	13/16 20.6	7/8 22.2	15/16 23.8	1 25.4
ALUMINUM	RPM	12224	8489	6112	4075	3056	2445	2037	1746	1528	1358	1222	1111	1018	940	873	800	760
	FEED/IPR	.001	.001	.002	.003	.003	.004	.005	.006	.007	.007	.008	.008	0.10	.011	.011	.012	.013
	HP	.03	.04	.06	.17	.22	.32	.44	.57	.71	.87	1.07	1.23	1.42	1.68	1.95	2.2	3
	THRUST(LBS)	11	17	25	35	45	65	96	135	180	238	238	300	365	440	515	750	900
	SFM	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
BRASS	RPM	9168	6367	4584	3056	2292	1834	1528	1309	1146	1013	917	834	764	705	655	612	573
	FEED/IPR	.001	.001	.002	.003	.004	.005	.005	.006	.007	.008	.009	.010	.011	.011	.012	.013	.014
	HP	.03	.03	.04	.09	.18	.27	.34	.46	.52	.78	.94	1.18	1.28	1.45	1.62	1.84	2.02
	THRUST(LBS)	6	11	17	33	55	80	105	134	167	200	245	290	330	380	420	470	520
	SFM	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
CAST IRON/ MILD STEEL	RPM	4456	2971	2139	1425	1070	856	713	611	535	475	428	389	357	329	306	285	260
	FEED/IPR	.001	.002	.002	.004	.005	.006	.007	.008	0.10	0.10	.012	.013	.014	.015	.016	.016	.016
	HP	.04	.04	.06	.12	.21	.28	.36	.43	.55	.76	.90	1.05	1.20	1.40	1.50	1.75	2.5
	THRUST(LBS)	12	24	39	69	135	165	225	295	345	430	570	650	700	795	870	1095	1200
	SFM	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
STEEL MEDIUM CARBON (250 BHN)	RPM	3667	2546	1835	1220	917	733	611	524	458	408	367	334	310	290	262	244	220
	FEED/IPR	.001	.002	.002	.003	.004	.006	.006	.008	.008	.010	.011	.012	.013	.013	.014	.015	.016
	HP	.05	.09	.13	.24	.43	.48	.66	.99	1.24	1.50	1.85	2.10	2.25	2.45	2.95	3.5	4.2
	THRUST(LBS)	19	35	62	105	150	198	260	333	395	460	615	765	880	1050	1187	1300	1450
	SFM	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
STAINLESS STEEL 304	RPM	3183	2122	1528	1018	764	611	509	436	382	340	305	278	255	235	218	204	191
	FEED/IPR	.001	.001	.002	.002	.003	.004	.005	.005	.006	.007	.007	.008	.009	.009	.010	.010	.011
	HP	.03	.05	.08	.10	.14	.23	.35	.41	.56	.74	.82	1.0	1.3	1.4	1.7	2.0	2.1
	THRUST(LBS)	15	29	54	105	255	342	435	540	650	774	900	1035	1139	1240	1485	1750	1865
	SFM	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
PLASTIC / WOOD	RPM	6366	4244	3056	2037	1528	1224	1018	873	764	679	611	555	509	470	436	407	382
	FEED/IPR	.001	.002	.002	.003	.004	.004	.005	.006	.007	.008	.009	0.10	.011	.012	.013	.014	.015
	HP	.03	.03	.03	.03	.05	.06	.08	.12	.16	.20	.25	.31	.37	.44	.51	.59	.68
	THURST(LBS)	9	14	20	40	58	68	89	112	142	160	176	188	219	231	262	295	330
	SFM	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

NOTE: Table shows average setting. Adjust for tool life, production rate, hardness of material, and type of tool used.
For split point drills reduce thrust requirements by approximately 30%.

DEEP HOLE PECK DRILLING

DEPTH OF HOLE TO DIA. OF DRILL BIT RATIO	REDUCTION OF RPM	REDUCTION OF FEED IPR
3:1	10%	10%
4:1	20%	10%
5:1	30%	20%
6-8:1	35-40%	20%

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