



Parameter recommendation for slot drills

Drill type	2 546							
Application	Slots with $L > 2 \times D$				Slots with $L \leq 2 \times D$			
Cutting speed	v = 150 m/min							
D1	f	n	F	R	f	n	F	R
Diameter	Chip load	Spindle speed	Infeed	Retract rate	Chip load	Spindle speed	Infeed	Retract rate
[mm]	[$\mu\text{m}/\text{rev}$]	[krpm]	[m/min]	[m/min]	[$\mu\text{m}/\text{rev}$]	[krpm]	[m/min]	[m/min]
0.30	8	159	1.2	5.0	4	159	0.6	4.0
0.35	9	136	1.2	6.0	5	136	0.6	5.0
0.40	10	119	1.2	7.0	6	119	0.7	6.0
0.45	11	106	1.2	8.0	7	106	0.7	7.0
0.50	13	95	1.2	10.0	8	95	0.7	8.0
0.55	16	87	1.4	12.0	9	87	0.8	10.0
0.60	19	80	1.5	15.0	10	80	0.8	12.0
0.65	22	73	1.6	18.0	11	73	0.8	15.0
0.70	25	68	1.7	20.0	13	68	0.9	18.0
0.75	28	64	1.8	20.0	15	64	0.9	20.0
0.80	31	60	1.8	20.0	17	60	1.0	20.0
0.85	34	56	1.9	20.0	18	56	1.0	20.0
0.90	37	53	1.9	25.0	19	53	1.0	20.0
0.95	40	50	2.0	25.0	21	50	1.0	20.0
1.00	42	48	2.0	25.0	22	48	1.0	20.0
1.05	44	45	2.0	25.0	23	45	1.0	20.0
1.10	46	43	2.0	25.0	24	43	1.0	20.0
1.15	48	42	2.0	25.0	25	42	1.0	20.0
1.20	50	40	2.0	25.0	26	40	1.0	20.0
1.25	52	38	2.0	25.0	27	38	1.0	20.0
1.30	54	37	2.0	25.0	28	37	1.0	20.0
1.35	56	36	2.0	25.0	29	36	1.0	20.0
1.40	58	35	2.0	25.0	30	35	1.0	20.0
1.45	60	33	2.0	25.0	31	33	1.0	20.0
1.50	62	32	2.0	25.0	32	32	1.0	20.0
1.55	64	31	2.0	25.0	33	31	1.0	20.0
1.60	66	30	2.0	25.0	34	30	1.0	20.0
1.65	68	29	2.0	25.0	35	29	1.0	20.0
1.70	71	28	2.0	25.0	36	28	1.0	20.0
1.75	74	27	2.0	25.0	37	27	1.0	20.0
1.80	74	27	2.0	25.0	38	27	1.0	20.0
1.85	77	26	2.0	25.0	39	26	1.0	20.0
1.90	80	25	2.0	25.0	40	25	1.0	20.0
1.95	80	25	2.0	25.0	40	25	1.0	20.0
2.00 - 3.175	80	25	2.0	25.0	40	25	1.0	20.0

General recommendation:

- ⇒ Use shorter flute lengths for slots with $L \leq 2 \times D$.
- ⇒ A lower infeed reduces burrs and delamination.
- ⇒ A lower retract rate improves the cleanliness of the slots.

Diameter	Flute length	Stack height Material thickness 1.55 mm	Hit count	No. of regrinds
0.35 - 0.45	4.0	1	3000	1 - 2
0.40 - 0.55	5.50	1 - 2	4000	1 - 2
0.50 - 0.75	7.0	2 - 3	4000	1 - 2
0.60 - 0.75	8.50	3 - 4	4000	1 - 2
0.80 - 3.175	8.50	3 - 4	5000	2 - 3