

TOP DRILL S+ • TDS504 Series • WU20PD™ • Through Coolant • Inch

Material Group	Cutting Speed – vc Range – SFM		Recommended Feed Rate (f) by Diameter									
	min	– max	Tool Diameter (inch)	.125–1/8	.188–3/16	.250–1/4	.313–5/16	.375–3/8	.500–1/2	.625–5/8	.750–3/4	
	P	1	300 – 590	IPR	.003–.006	.004–.007	.005–.009	.006–.011	.007–.013	.008–.015	.009–.019	.012–.024
	2, 3, 4, 6, 7	260 – 390	IPR	.004–.007	.004–.007	.006–.010	.007–.012	.008–.015	.009–.017	.011–.020	.015–.026	
	5, 9, 10, 11	230 – 390	IPR	.003–.007	.004–.007	.005–.010	.006–.012	.007–.015	.008–.017	.010–.020	.013–.026	
	12, 13	160 – 260	IPR	.002–.004	.002–.004	.004–.006	.004–.008	.006–.009	.006–.011	.008–.014	.010–.018	
M	14,1	100 – 160	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008	
	14,3	100 – 200	IPR	.002–.003	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008	.006–.009	
	14,2, 14,4	100 – 160	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008	
K	15, 16	330 – 690	IPR	.004–.009	.005–.009	.006–.012	.008–.015	.009–.017	.010–.019	.012–.024	.015–.029	
	17, 18, 19	430 – 520	IPR	.004–.007	.005–.007	.006–.010	.008–.012	.009–.014	.010–.016	.012–.019	.015–.024	
	20	330 – 560	IPR	.003–.007	.004–.007	.005–.010	.006–.012	.007–.014	.007–.016	.009–.019	.012–.024	

TOP DRILL S+ • TDS504 Series • WU20PD • Through Coolant • Metric

Material Group	Cutting Speed – vc Range – m/min		Recommended Feed Rate (f) by Diameter									
	min	– max	Tool Diameter (mm)	3,0	4,0	6,0	8,0	10,0	12,0	16,0	20,0	
	P	1	90 – 180	mm/r	0,08–0,16	0,09–0,18	0,12–0,24	0,14–0,29	0,17–0,34	0,20–0,39	0,24–0,47	0,31–0,60
	2, 3, 4, 6, 7	80 – 120	mm/r	0,09–0,17	0,10–0,19	0,14–0,25	0,17–0,31	0,21–0,37	0,24–0,42	0,29–0,52	0,38–0,65	
	5, 9, 10, 11	70 – 120	mm/r	0,08–0,17	0,09–0,19	0,13–0,25	0,16–0,31	0,19–0,37	0,21–0,42	0,26–0,52	0,32–0,65	
	12, 13	50 – 80	mm/r	0,05–0,09	0,06–0,11	0,09–0,16	0,11–0,20	0,14–0,24	0,15–0,27	0,20–0,35	0,26–0,45	
M	14,1	30 – 50	mm/r	0,04–0,07	0,05–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20	
	14,3	30 – 60	mm/r	0,04–0,08	0,06–0,10	0,08–0,12	0,09–0,14	0,10–0,16	0,12–0,18	0,14–0,20	0,16–0,22	
	14,2, 14,4	30 – 50	mm/r	0,04–0,07	0,06–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20	
K	15, 16	100 – 210	mm/r	0,11–0,22	0,12–0,24	0,16–0,31	0,20–0,38	0,23–0,44	0,25–0,49	0,31–0,60	0,38–0,74	
	17, 18, 19	130 – 160	mm/r	0,11–0,17	0,12–0,19	0,16–0,25	0,20–0,31	0,23–0,36	0,25–0,40	0,31–0,48	0,38–0,60	
	20	100 – 170	mm/r	0,08–0,17	0,09–0,19	0,12–0,25	0,14–0,30	0,17–0,35	0,19–0,40	0,24–0,48	0,30–0,60	

Solid Carbide Drills

Inch tolerance			Metric tolerance		
nominal size range	D1 tolerance m7	D tolerance h6	nominal size range	D1 tolerance m7	D tolerance h6
>.1181–.2362	.0000/.0005	.0000/- .0003	>3–6	0,004/0,016	0,000/-0,008
>.2360–.3937	.0000/.0006	.0000/- .0004	>6–10	0,006/0,021	0,000/-0,009
>.3937–.7087	.0000/.0007	.0000/- .0004	>10–18	0,007/0,025	0,000/-0,011
>.7078–1.0000	.0000/.0009	.0000/- .0005	>18–25,4	0,008/0,029	0,000/-0,013