

# Cutting data recommendations for deep drills

Feed and cutting speed

## MEGA-Deep-Drill-Alu | SCD181

MMG*	Workpiece material	Strength/hardness [N/mm <sup>2</sup> ] [HRC]	Cutting speed v <sub>c</sub> [m/min]			Feed f [mm] for drill diameter						
			Internal cooling	MQL	Air	3.00	4.00	5.50	7.50	10.50	16.00	
N	N1	N1.1 Aluminium, non-alloy and alloy < 3 % Si		<b>300</b>	<b>250</b>		0.11	0.13	0.16	0.20	0.25	0.32
		N1.2 Aluminium, alloy ≤ 7 % Si		<b>250</b>	<b>200</b>		0.13	0.16	0.21	0.26	0.33	0.42
		N1.3 Aluminium, alloy > 7-12 % Si		<b>220</b>	<b>180</b>		0.13	0.16	0.21	0.26	0.33	0.42
		N1.4 Aluminium, alloy > 12 % Si		<b>180</b>	<b>150</b>		0.13	0.16	0.21	0.26	0.33	0.42
	N2	N2.1 Copper, non-alloy and low-alloy	< 300	<b>140</b>			0.09	0.11	0.14	0.17	0.21	0.27
		N2.2 Copper, alloy	> 300	<b>120</b>			0.11	0.14	0.17	0.22	0.28	0.35
		N2.3 Brass, bronze, gunmetal	< 1,200	<b>200</b>	<b>160</b>	<b>120</b>	0.14	0.18	0.25	0.32	0.41	0.53

\* MAPAL machining groups  
 \*\* If the alloy parts Cr, Mo, Ni, V, W in total > 8% then select the next highest MAPAL machining group.

The specified cutting values are guide values.  
 The optimum data for the respective machining task should be determined during the test or machining.