



Series 43APR-3 43APR-4 Metric	Ae x DC	Ap x DC	Vc (m/min)	DC • mm					
				APR-3		APR-4			
				20	25	20	25		
N ALUMINIUM ALLOYS 6068, 7075	Slot 	1	≤ 1	1600	RPM	25461	20369	25461	20369
				(300-2100)	Fz	0.14	0.15	0.12	0.13
				Feed (mm/min)	10694	9166	12222	10592	
	Profile 	≤ 0.5	≤ 1.5	1800	RPM	28644	22915	28644	22915
				(300-2100)	Fz	0.16	0.17	0.14	0.15
				Feed (mm/min)	13749	11687	16041	13749	
	HSM 	≤ 0.1	≤ 2	2100	RPM	33418	26735	33418	26735
				(300-2100)	Fz	0.19	0.20	0.16	0.17
				Feed (mm/min)	19048	16041	21388	18180	

Series 43APR-3 43APR-4 Metric	Ae x DC	Ap x DC	Vc (m/min)	DC • mm					
				APR-3 LONG					
				12	16	20	25		
N ALUMINIUM ALLOYS 6068, 7075	Slot 	1	≤ 1	1600	RPM	26522	19892	15913	12731
				(300-2100)	Fz	0.10	0.11	0.12	0.13
				Feed (mm/min)	7957	6564	5729	4965	
	Profile 	≤ 0.5	≤ 1.5	1800	RPM	31827	23870	19096	15277
				(300-2100)	Fz	0.12	0.13	0.14	0.15
				Feed (mm/min)	11458	9309	8020	6875	
	HSM 	≤ 0.1	≤ 2	2100	RPM	37131	27849	22279	17823
				(300-2100)	Fz	0.14	0.15	0.16	0.17
				Feed (mm/min)	15595	12532	10694	9090	

RPM stated may be outside of most machine tools in the smaller sizes, adjust the surface speed but maintain the Fz
 For best results use the peak power of the specific machine torque chart.
 Typically 10kw is required to remove 1 litre of material (MMR).
 Eg. >> (Ae x Ap x Feed) / 1000000 >> Therefore Full slotting Ø25: 25 x 25 x 7333 = 4.58 Litres so it needs a min of 46Kw.
 Larger cuts and chip load consume more power.
 Review the power chart of each machine to determine MAX power for ultimate performance.
 Example below shows peak power @ 10,000 rpm.
 The APR-4 design is for ultimate metal removal but typically requires more power, and is also better suited to horizontal machines.
 The new coolant supply is designed for MQL as well as normal emulsion coolant on the same data.
 Ensure max MQL flow prior to cutting.
 Refer to the SGS Tool Wizard® for complete technical information (www.kyocera-sgstool.com).

