

## Operating Guidelines • Series LPC Tips (Self-Centering) NEW

ISO	Material	Condition	Tensile Strength RM (N/mm <sup>2</sup> )	Hardness HB	Matl. Group No.	Cutting Speed Vc (SFM)	Feed vs. Drill Diameter - IPR (inches/rev)		
							Ø20-29.9 mm (.7874-1.1772")	Ø30-34.9 mm (1.1811-1.3740")	
<b>P</b>	Non-alloy steel and cast steel, free cutting steel	<0.25%C	Annealed	420	125	1	260-460	.010-.018	.012-.020
		≥0.25%C	Annealed	650	190	2	260-430		
		<0.55%C	Quenched and tempered	850	250	3	260-400		
		≥0.55%C	Annealed	750	220	4	230-360		
			Quenched and tempered	1000	300	5	165-300		
	Low alloy steel and cast steel (less than 5% alloying elements)	Annealed	600	200	6	230-400	.008-.016	.010-.018	
		Quenched and tempered	930	275	7	230-360			
			1000	300	8	165-300			
			1200	350	9	130-230			
	High alloy steel, cast steel, and tool steel	Annealed	680	200	10	165-300	.008-.012	.010-.014	
		Quenched and tempered	1100	325	11	130-260			
<b>K</b>	Grey cast iron (GG)	Ferritic	-	160	15	300-530	.012-.020	.014-.022	
		Pearlitic	-	250	16	260-460			
	Cast iron nodular (GGG)	Ferritic	-	180	17	300-595			
		Pearlitic	-	260	18	260-460			
	Malleable cast iron	Ferritic	-	130	19	300-530			
		Pearlitic	-	230	20	260-460			

▶ NOTE: For deep hole drilling (+8xD), reduce the cutting parameters by 30%