OPERATING PARAMETERS - LPF TIPS

ISO	Material	Condition	Tensile Strength RM (N/mm2)	Hardness (HB)	Matl No.	Cutting Speed VC (SFM)	Feed vs. Drill Diameter		
							Ø20-29.9mm (.7874"-1.1772")	Ø30-34.9mm (1.1811"-1.3740")	Ø35-41.9mm (1.3800"-1.6496")
							IPR (inches/rev)		
P	Non-alloy steel <0.25% C & cast steel, > = 0.25% C free cutting <0.55% C steel > = 0.55% C	Annealed	420	125	1	260-460	.012 - .020	.012 - .020	.014 - .022
		Annealed	650	190	2	260-430			
		Quenched & Tempered	850	250	3	260-400			
		Annealed	750	220	4	230-360			
		Quenched & Tempered	1000	300	5	165-300			
	Low alloy steel & cast steel (less than 5% alloying elements)	Annealed	600	200	6	260-400	.010 - .018	.010 - .018	.012 - .020
		Quenched & Tempered	930	275	7	230-360			
			1000	300	8	165-300			
			1200	350	9	135-230			
	High alloy steel, cast steel & tool steel	Annealed	680	200	10	165-300	.010 - .014	.010 - .014	.012 - .016
		Quenched & Tempered	1100	325	11	130-265			
K	GreyCast Iron (GG)	Ferritic	-	160	15	300-600	.014 - .022	.014 - .022	.016 - .024
		Pearlitic	-	250	16	265-460			
	Cast Iron Nodular (GGG)	Ferritic	-	180	17	300-600			
		Pearlitic	-	260	18	265-460			
	Malleable Cast Iron	Ferritic	-	130	19	300-525			
		Pearlitic	-	230	20	265-460			

* Feed Rates are Based on Two Effective - DO NOT DOUBLE