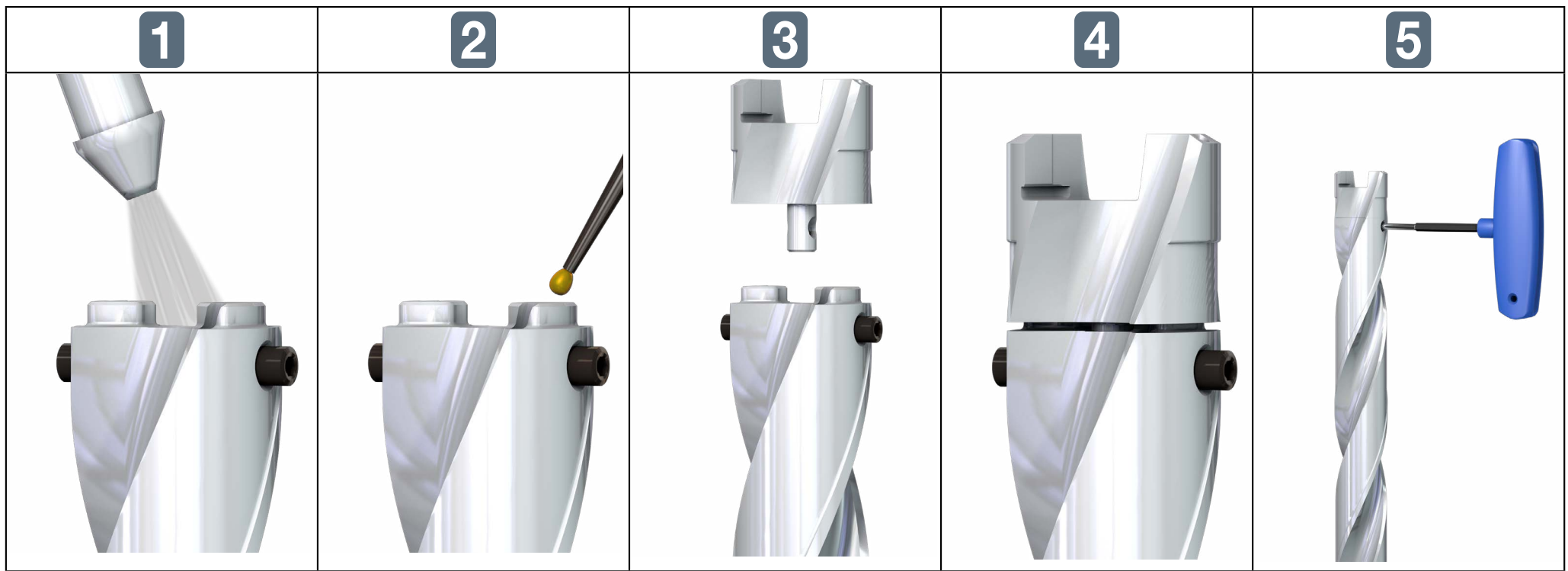


## Head and Body Assembly



## MD-DFN Cutting Parameters

		Material Groups				Recommended Machining Conditions		
ISO	Material	Condition	Tensile Strength Rm [N/mm <sup>2</sup> ]	Hardness HB	Material No.	V <sub>c</sub> [m/min]	Feed Vs. Drill Diameter	
							33<ØD<40 (mm)	
							F [mm/rev]	
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1	80-110-140	0.30-0.40-0.50
		≥0.25% C	annealed	650	190	2	90-105-130	
		<0.55% C	quenched and tempered	850	250	3	80-100-120	
		≥0.55% C	annealed	750	220	4	70-90-110	
			quenched and tempered	1000	300	5	50-70-90	
	low alloy and cast steel (less than 5% of alloying elements)	annealed	600	200	6	80-100-120		
		quenched and tempered	930	275	7	70-90-110		
			1000	300	8	50-70-90		
			1200	350	9	40-55-70		
	high alloyed steel, cast steel and tool steel	annealed	680	200	10	50-70-90	0.25-0.30-0.35	
		quenched and tempered	1100	325	11	40-60-80		
K	grey cast iron (GG)	ferritic / pearlitic		180	15	90-125-160	0.40-0.50-0.60	
		pearlitic / martensitic		260	16	80-110-140		
	nodular cast iron (GGG)	ferritic		160	17	90-135-180		
		pearlitic		250	18	80-110-140		
	malleable cast iron	ferritic		130	19	90-125-160		
		pearlitic		230	20	80-110-140		