



# HPC milling cutters

## Cutting data recommendations, Application examples

The cutting data recommendations in the table are only guide values and depend to a high degree on the stability of the machine, fixture and workpiece.

Cutting groups	Material group	Composition / structure	Tensile strength	Hardness	Cutting speed $v_c$ m/min		Feed rate $f_z$ mm/z	
			RM (MPa)	HB HRC	PCD / PCD 3		W 9930-....	W 9931-....
21	Aluminium forging alloys	not heat treatable		60	-6000	PKD	0,05-0,20	0,1-0,25
22		heat treatable/heat treated		100	-6000	PKD		
23	Aluminium casting alloys	<12% Si not heat treatable		75	-6000	PKD		
24		<12% Si heat treatable/heat treated		90	-6000	PKD		
25		>12% Si not heat treatable		130	-2000	PKD 3		

## Sealing surface milling

Workpiece	Oil sump
Material	GD-AISI8...
Tools	HPC milling cutter, dia. = 63 mm, no. of cutting edges = 12, HSK 63-A
Cutting speed	$v_c = 2,980$ m/min
Revolution	$n = 9,500$ rev/min
Feed per tooth	0.16 mm
Feed rate	32,000 mm/min
Achieved surface finish quality	$R_z = 15$

