

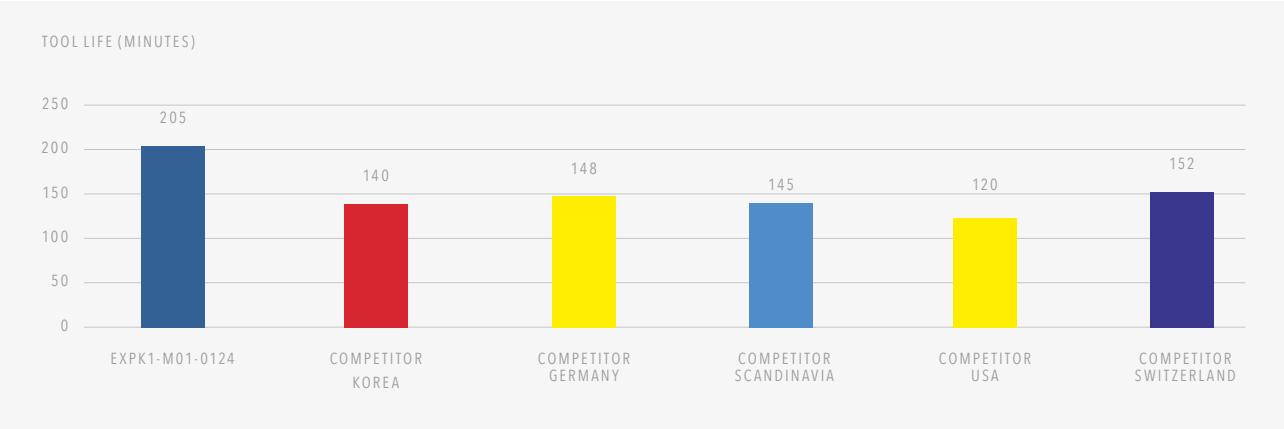
OUR NEW PERFORMMAKER Z4 2XD AFPX (EXPK1-M01-0124) - DRY MACHINING

COMPARISON WITH THE COMPETITION

Comparison of tool life when roughing in C45 (1.0503)

During in-house tests carried out at our own research center, our new Performmaker came out on top in the comparison with its competitors.

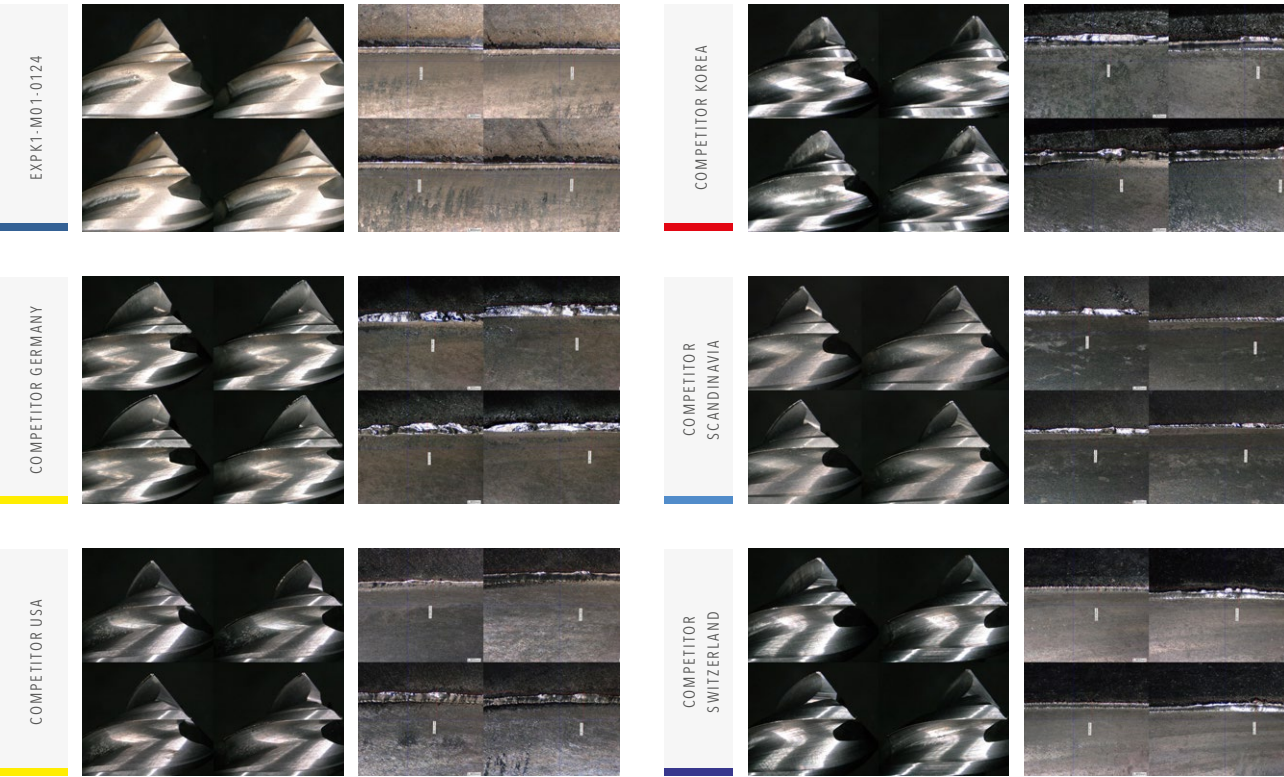
Technical parameters for roughing	
Vc	180 m/min
fz	0.075 mm/Z
ap	18 mm
ae	3.6 mm
Cooling	Air



In addition to our EXPK1 Performmaker Z4, these high-resolution photos also show our competitors’ tools at the end of their respective service lives. Our Performmaker clearly stands out from our competitors’ tools in terms of tool life and wear to its cutting edge.

TOOL LIFE CRITERION = WEAR OF CUTTING EDGE AND BREAKOUTS

End mill Z4 Ø12 2xD	Tool life (min)	Wear on cutting edge mm (average)	Milling behaviour (comment)	Image of chips
EXPK1-M01-0124	205	0.035	Homogeneous milling noise	
Competitor Korea	140	0.133	Inconsistent milling noise	
Competitor Germany	148	0.148	Increased milling noise	
Competitor Scandinavia	145	0.097	Homogeneous milling noise	
Competitor USA	120	0.120	High-pitched milling noise	
Competitor Switzerland	152	0.104	Homogeneous milling noise	



OUR NEW CHIPMAKER Z5 3xD AFPX (EXPK1-M03-0113) - DRY MACHINING






COMPARISON WITH THE COMPETITION

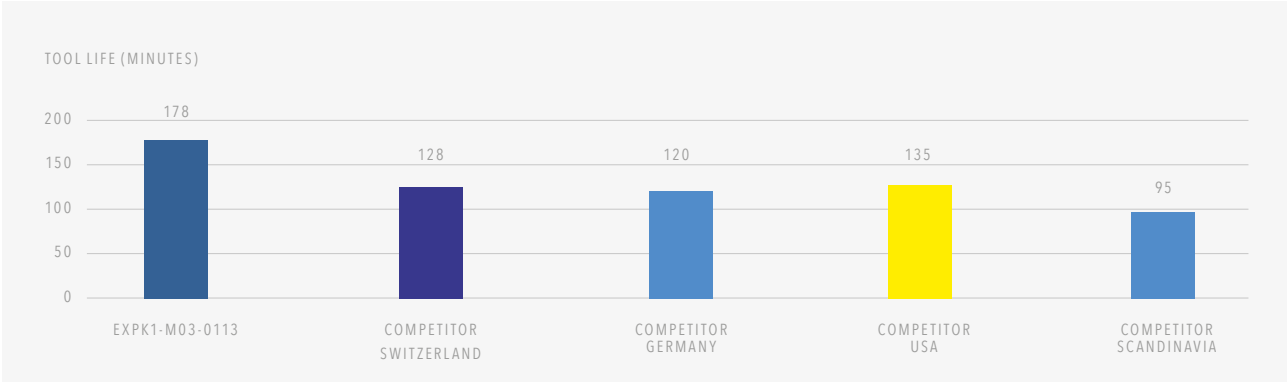
Comparison of tool life when roughing in 42CrMo4+QT (1.7225)

During further in-house testing, our new Chipmaker also impressed in trochoidal machining when compared to our competitors’ products.

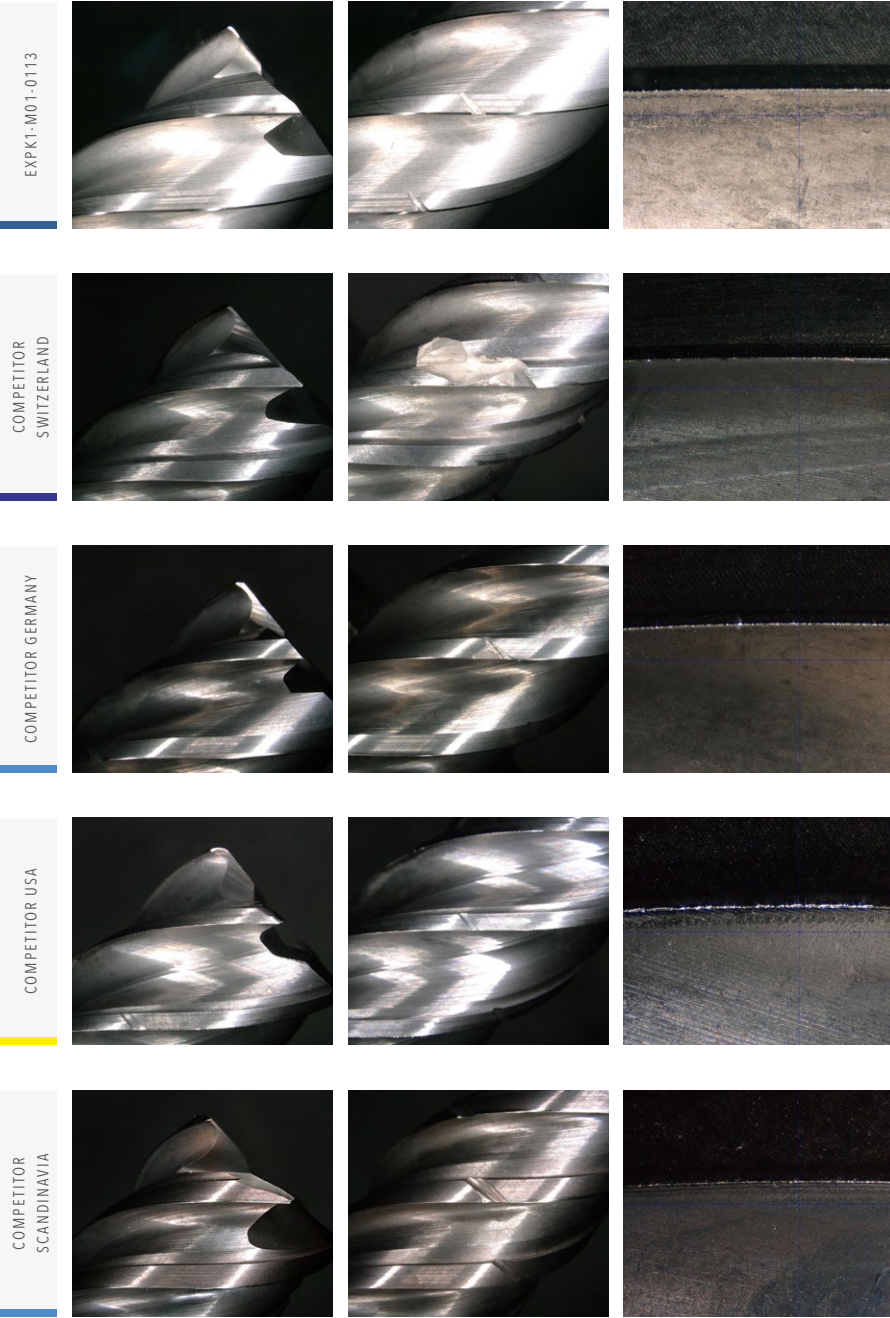
Technical parameters for roughing	
Vc	185 m/min
fz	0.132 mm/Z
ap	36 mm
ae	1.2 mm
Cooling	Air

TOOL LIFE CRITERION = WEAR OF CUTTING EDGE AND BREAKOUTS

Trochoidal milling cutter Z5 Ø12 3xD with chip breakers	Tool life min	Wear on cutting edge mm (average)	Milling behaviour (comment)	Image of chips
EXPK1-M03-0113	178	0.061	Homogeneous milling noise	
Competitor Switzerland	128	0.138	Vibrating milling noise	
Competitor Germany	120	0.147	Homogeneous milling noise	
Competitor USA	135	0.18	Homogeneous milling noise	
Competitor Scandinavia	95	0.164	Increased milling noise	

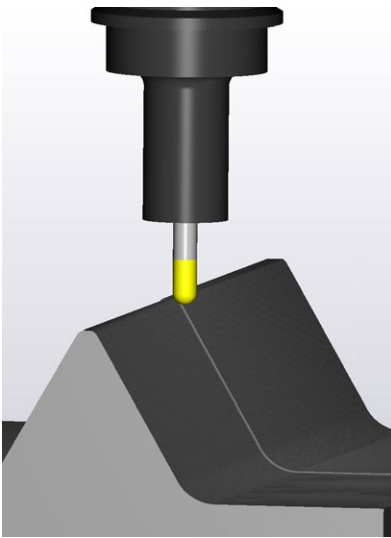


In addition to our EXPK1 Chipmaker Z5, these high-resolution photos also show our competitors’ tools at the end of their respective service lives. Here, we can clearly see that our new Chipmaker has not yet reached the limits of its wear, despite having the longest tool life. All of our competitors’ tools developed breakouts at various points by the end of their respective service lives – some of them huge.



OUR NEW ROWMAKER Z2 1.5XD AFPX (EXPK1-M08-0003) – DRY MACHINING

COMPARISON WITH THE COMPETITION



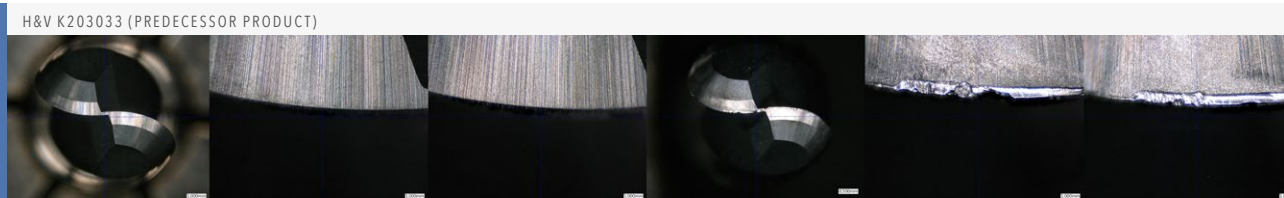
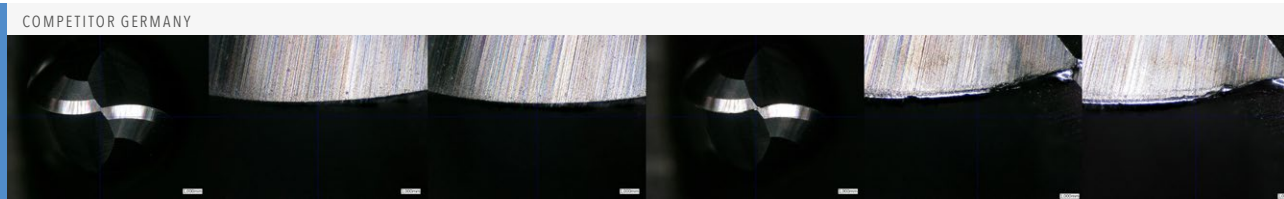
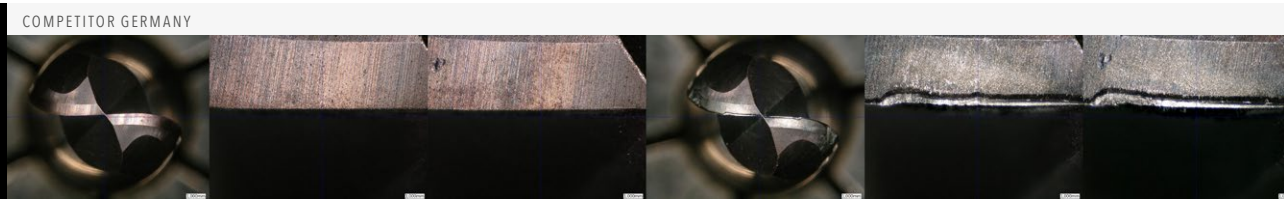
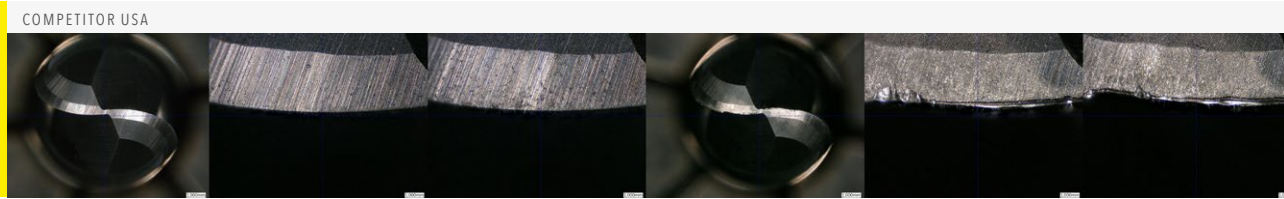
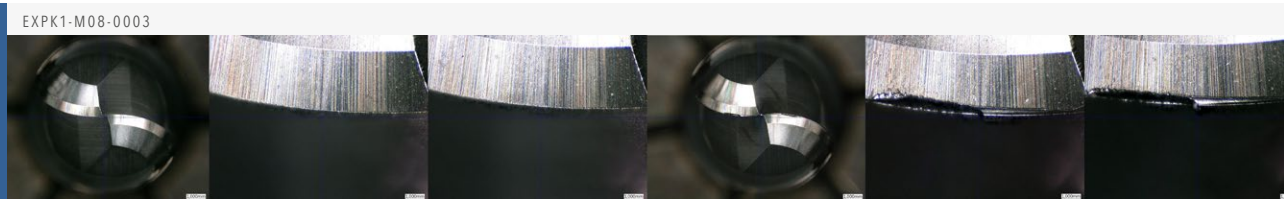
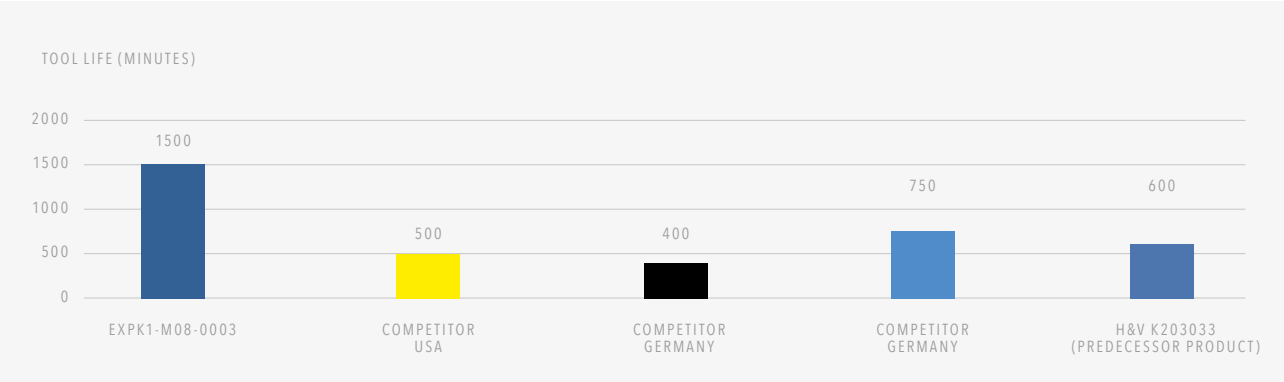
Comparison of tool life when pre-finishing, top shape in 40 CrMnNiMo 8-6-4 (1.2738)

During in-house tests carried out at our own research center, our new Rowmaker came out on top in the comparison with its competitors. The test was conducted on the graphic representation of the contour, which generates radial, axial, thrusting and tensile loads on the tool.

Technical parameters for roughing	
Vc	280 m/min
fz	0.18 mm/Z
ap	0.5 mm
ae	0.5 mm
Cooling	Air

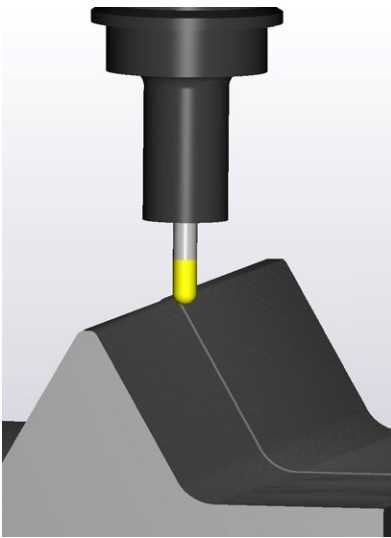
TOOL LIFE CRITERION = WEAR OF CUTTING EDGE AND BREAKOUTS

Full radius cutter Z2 1.5xD Ø8 short	Tool life min	Wear on cutting edge mm (average)	Standway m
EXPK1-M08-0003	1500	0.100	4740
Competitor USA	500	0.134	1580
Competitor Germany	400	0.112	1264
Competitor Germany	750	0.1025	2370
H&V K203033 (Predecessor product)	600	0.117	1896



OUR NEW ROWMAKER Z2 1.5XD AFPX (EXPK1-M08-0103) - WET MACHINING

COMPARISON WITH THE COMPETITION



Comparison of tool life when pre-finishing, top shape in 40 CrMnNiMo 8-6-4 (1.2738)

During further in-house testing, our new Rowmaker also impressed in wet machining when compared to our competitors’ products. The test was conducted on the graphic representation of the contour, which generates radial, axial, thrusting and tensile loads on the tool.

Technical parameters for roughing	
Vc	280 m/min
fz	0.18 mm/Z
ap	0.5 mm
ae	0.5 mm
Cooling	KSS

TOOL LIFE CRITERION = WEAR OF CUTTING EDGE AND BREAKOUTS

Full radius cutter Z2 1.5xD Ø8 short	Tool life min	Wear on cutting edge mm (average)	Standway m
EXPK1-M08-0103	800	0.094	2528
Competitor Japan	450	0.141	1422
Competitor Germany	350	0.109	1106
Competitor Germany	200	0.125	632
Competitor China	200	0.1015	632

