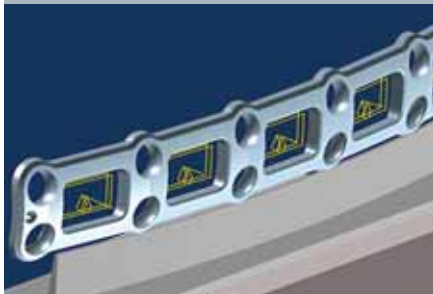


Milling of a medical part on an MIKRON HSM 400U

hyperMILL® integrates everything from 2D, 3D and HSC up to 5axis strategies on a simple Windows-based user interface. Thus the user can choose from a comprehensive spectrum of milling strategies, all of which follow a uniform operating principle – considerably facilitating training and daily use.

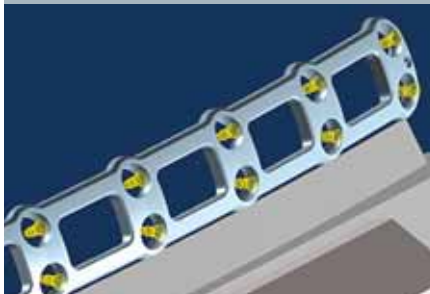
2D contour machining

2D machining supports the output of control cycles. This enables tool radius correction, feedrate compensation and subsequent editing on the controller.



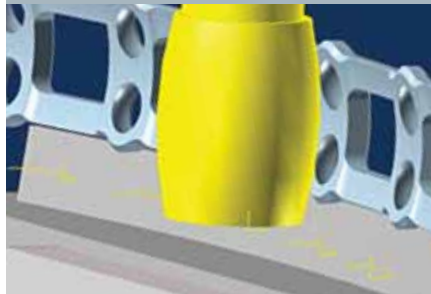
3D roughing and finishing

hyperMILL® offers various 3D roughing and finishing strategies. Therefore the user can always choose the most efficient method depending on the surface shape.



5axis swarf cutting

Where the geometry enables swarf cutting, the machining time can be greatly reduced. The cycle also supports tapered and barrel-shaped tools.



Process Step	Tool	Diameter [mm]	Corner Radius [mm]	Number of Teeth	Spindle Speed [min ⁻¹]	Feed Rate [mm/min]	Lateral Feed [mm]	Axial Feed [mm]	Processing Time [min]
		D	R	z	n	v _f	a _e	a _p	t
Roughing	End mill	10	–	4	3.000	1.200	1	10	6'0"
Prefinishing	Ball mill	8	4	2	12.000	1.000	1	0,5	3'0"
Center	NC-drill	6	–	2	4.000	50	–	–	2'0"
Drilling	Drill	1,5	–	2	8.000	100	–	–	0'30"
Drilling	Drill	5	–	2	3.800	300	–	–	1'0"
Finishing surface	Ball mill	4	2	2	28.000	4.500	0,15	0,2	9'30"
Contouring	Contour tool	4,5	2,86	2	5.000	50	0,05	–	3'0"
Roughing pocket	End mill	–	0,5	3	40.000	600	0,015	0,02	1'30"
Finishing pocket & walls	End mill	–	0,6	2	8.000	500	0,01	0,015	3'0"
Chamfer milling	Chamfer tool	0,5	0	2	20.000	500	0,01	0,01	2'30"
Processing Time (Total)									32'00"

Machine MIKRON HSM 400U, 42.000 min⁻¹ Material Titanium 5 (3.7165) Focus Medical