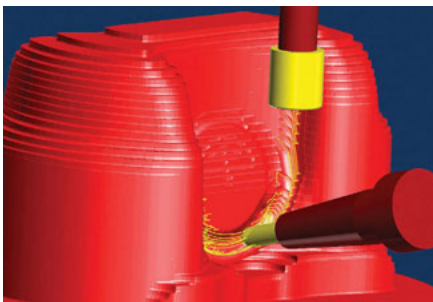
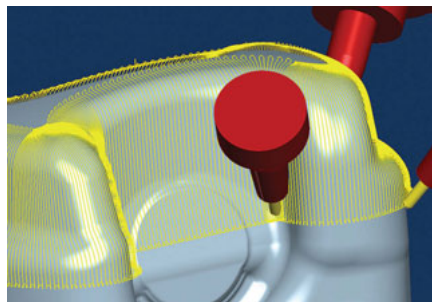


## Piston: Milled on a Hermle C 40 U

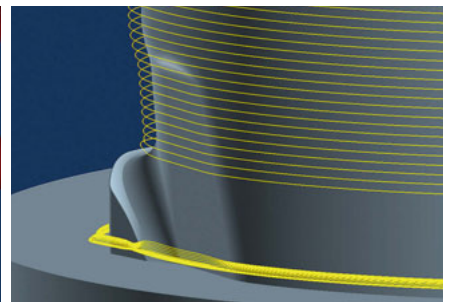
hyperMILL® provides a wide range of 2.5D, 3D and 5-axis strategies for fast, reliable machining of workpieces with high cores and partially undercut areas. 5-axis simultaneous movement in combination with automatic collision control and avoidance ensure reliable machining of workpieces matching this geometry.



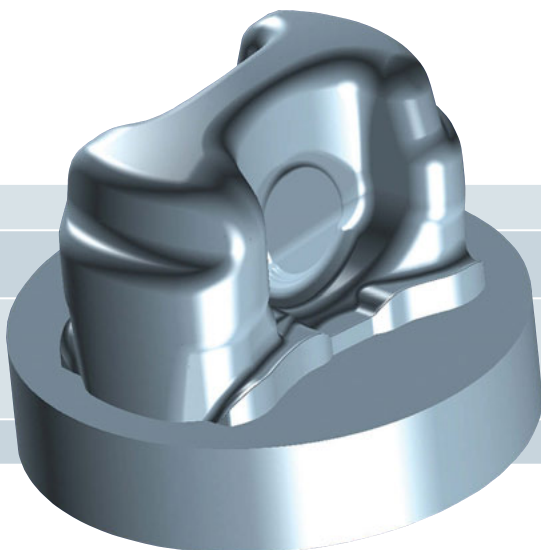
**Arbitrary stock roughing** In conjunction with stock tracking, this strategy offers a very reliable method of rest material roughing using various tool orientations.



**Automatic indexing** The smaller, automatically calculated indexing steps result in better surface quality and minimal movement of the rotary axes due to optimised tool positioning.



**Undercut machining** Reliable, automatic collision control and avoidance guarantees safe and continuous machining, even when dealing with undercut geometries.



### Machine: Hermle C 40 U

<b>Main drive (motor spindle)</b>	<b>Spindle specifications</b>	<b>18.000 min<sup>-1</sup> / 15 kW</b>
<b>Machining area</b>	<b>Rapid traverse and feedrate</b>	<b>45.000 mm/min</b>
	<b>Traverse path X/Y/Z</b>	<b>850/700/500</b>
<b>NC rotary table</b>	<b>Clamping surface</b>	<b>ø 800 mm</b>
	<b>Traverse path B axis</b>	<b>25°/-110°</b>
	<b>Traverse path C axis</b>	<b>infinite</b>
	<b>Max. table load</b>	<b>1.400 kg</b>
<b>Automation</b>	<b>Controller</b>	<b>HEIDENHAIN iTNC 530</b>



**OPEN MIND Technologies AG**  
 Argelsrieder Feld 5 • 82234 Wessling  
 Phone: +49 8153 933-500 • Fax: +49 8153 933-501  
 E-mail: Info.Europe@openmind-tech.com  
 Internet: www.openmind-tech.com



**Maschinenfabrik Berthold Hermle AG**  
 Industriestraße 8-12 • 78559 Gosheim • Germany  
 Phone: +49 7426 95-0 • Fax: +49 7426 95-6110  
 E-mail: info@hermle.de  
 Internet: www.hermle.de



**FRANKEN GmbH & Co. KG**  
 Frankenstraße 7/9a • 90607 Rückersdorf • Germany  
 Phone: +49 911 9575-5 • Fax: +49 911 9575-327

**EMUGE-Werk Richard Glimpel GmbH & Co. KG**  
 Nürnberger Straße 96-100 • 91207 Lauf  
 Phone: +49 9123 186-0 • Fax: +49 9123 14313  
 E-mail: info@emuge-franken.de  
 Internet: www.emuge-franken.de

**Machine: Hermle C 40 U**

Job step	Tool	Diameter [mm]	Corner radius [mm]	Number of teeth	Spindle RPM [min <sup>-1</sup> ]	Feedrate [mm/min]	Step-over [mm]	Infeed depth [mm]
		D	R	z	n	v <sub>f</sub>	a <sub>e</sub>	a <sub>p</sub>
Top roughing	Bullnose endmill	42	2	3	1.250	5.500	27	0,7
Base roughing	Bullnose endmill	42	2	3	1.250	5.500	27	0,4
Rest material roughing	Ballmill	16	8	4	4.000	3.100	6	0,5
Preliminary finishing	Ballmill	16	8	4	4.000	3.100	0,3	0,5
Preliminary finishing	Ballmill	12	6	2	5.300	2.100	0,2	0,3
Preliminary finishing	Ballmill	8	4	2	8.000	1.600	0,2	0,2
Finishing	Ballmill	8	4	2	8.000	1.600	0,2	0,15

