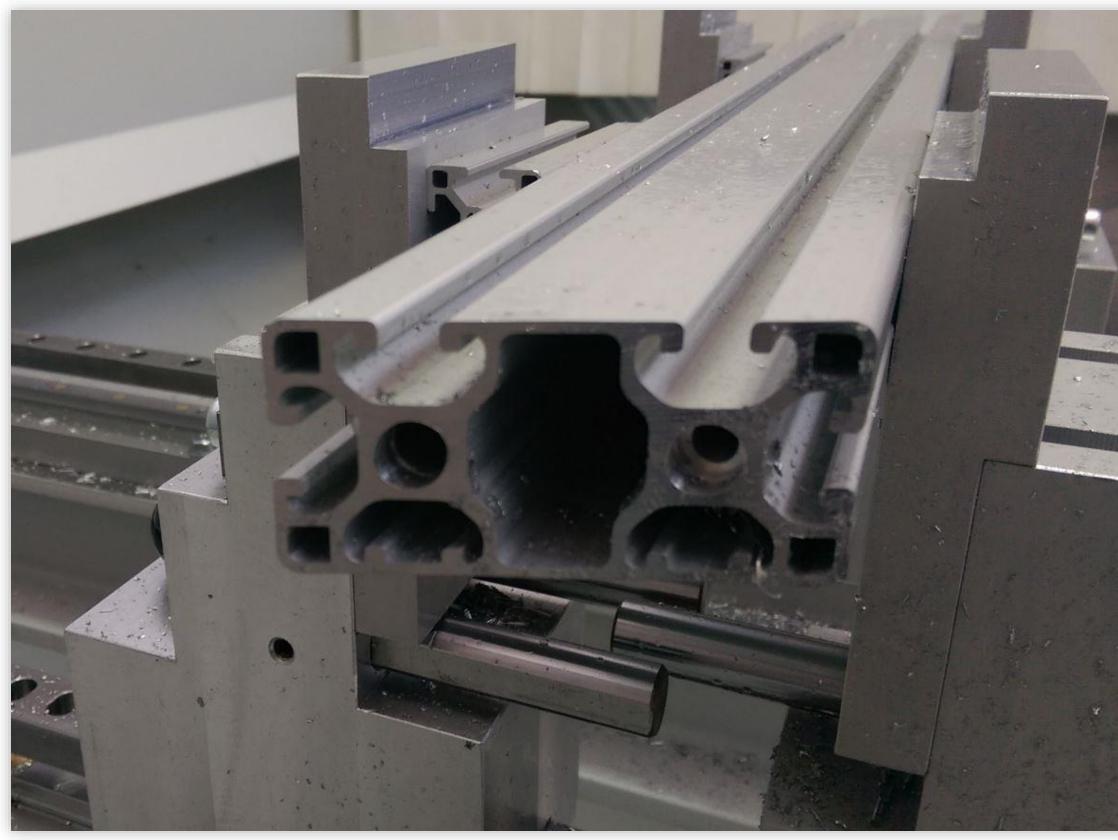


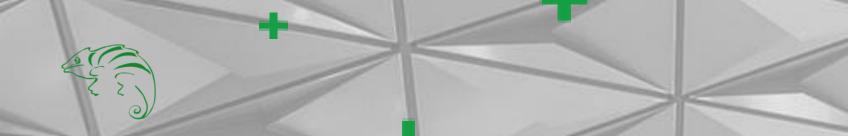
software

Made by CAMäleon





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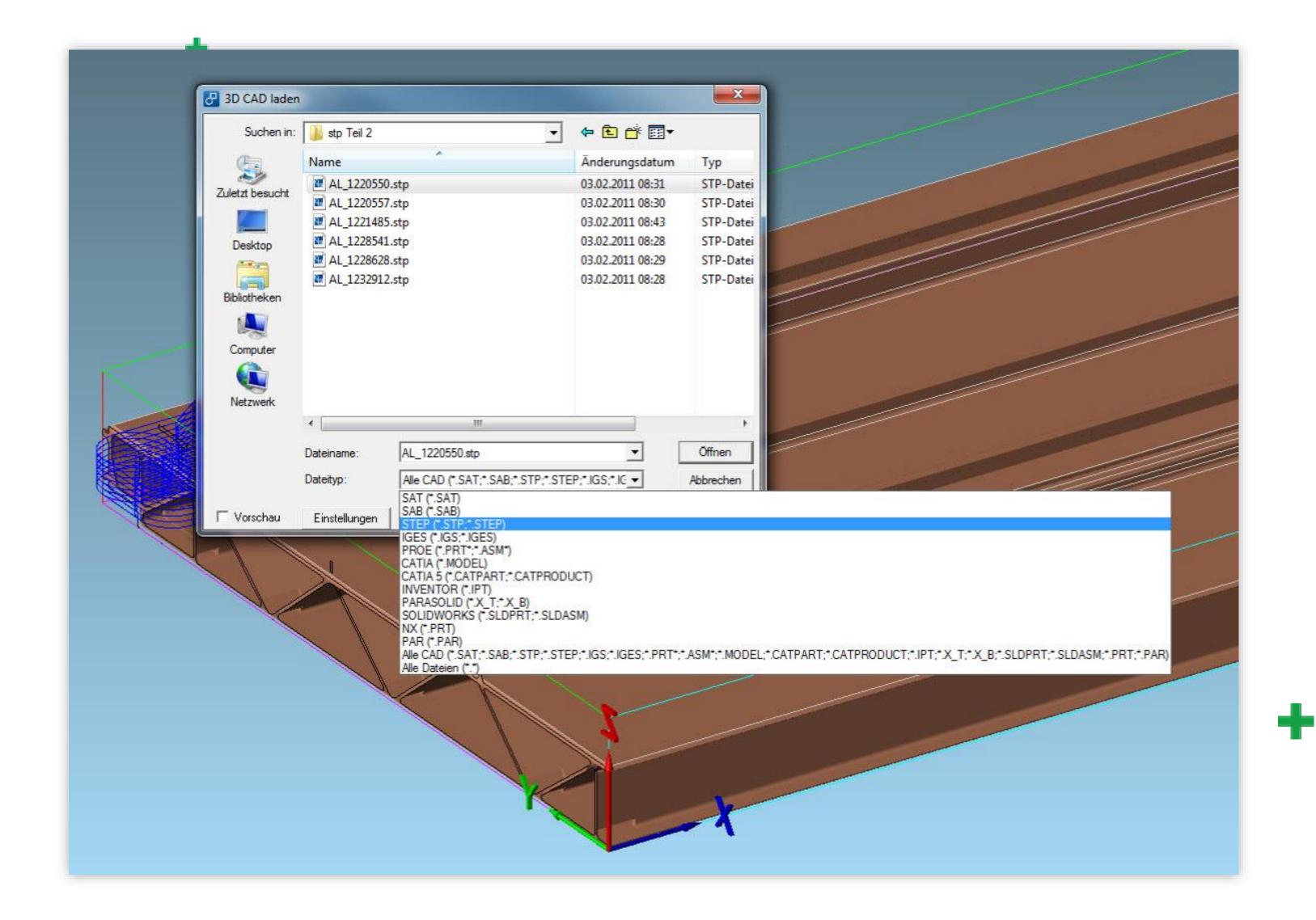


PUMA Pro Profile processing with maximum efficiency

- All common milling strategies
- Free Milling
- 5 axis simultaneous milling
- Surface milling
- Bended profiles management
- Innovative clamp management
- 3D simulation with machine model
- Creation of working papers
- Automatic feature recognition









3D model import

Supported formats:

Default

- SAT

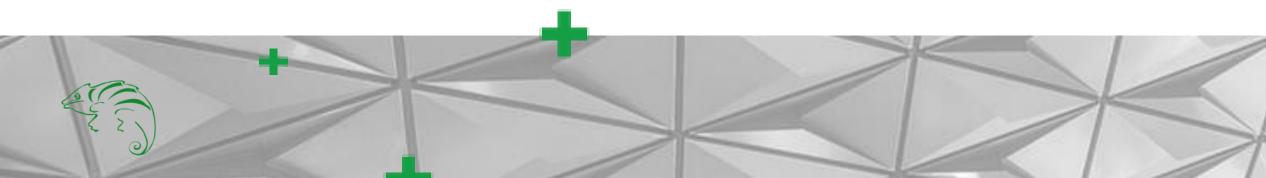
- SAB

Optional

- STEP
- IGES
- PROE
- CATIA
- INVENTOR
- PARASOLID
- SOLIDWORKS
- NX
- PAR



ordinate			Technology	
15 pick	{x ² } X	side of machining Seitenansicht unten	Tool	
		Seitenansicht vorne	determining	CUT 1
71.9 pick	{x²} X	Seitenansicht oben	uctorning	
0 pick	{x²} X	Seitenansicht hinten	Tool	
A	ala	Daten 6 Bohrung	delete	
	gle 0 C 0		S 12000	
		Depth	F 2000 F in 500	
- AND	ll view	Deptł 5 pick	F 12000 F m1500	
ol : T7 assigned		divide automatically		
Rectangle Circle pocket		divide automatically	_ machining direction 0	ptions
ore Thread Oblong hole		Number of cuts 2		•
ength Width Angle				✓ G41/G42
0 8 45		Distribute : Number + z + depth	C Asynchronism	T Broach
		Nifrom to Rückz.		
tuation picture		1 0 -2.5	Additional techn	ology
		2 -2.5 -5		
			Oblong hole 20/8	
Γ		0 -2.5		
		New Delete		
	5			
		G0 in chamber		
and the second se				



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Standard operations

Easy to create:

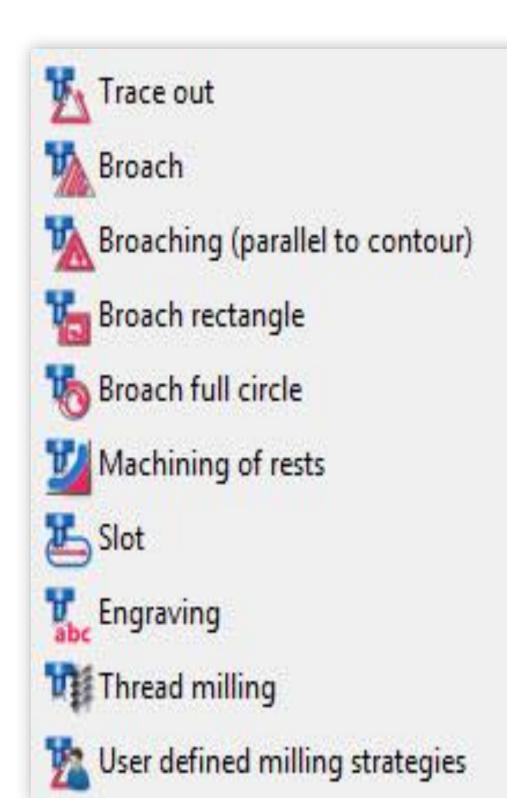
- Drilling
- Threads
- Long holes
- Rectangle pockets
- Circle pockets (with/without Helix Interpolation)

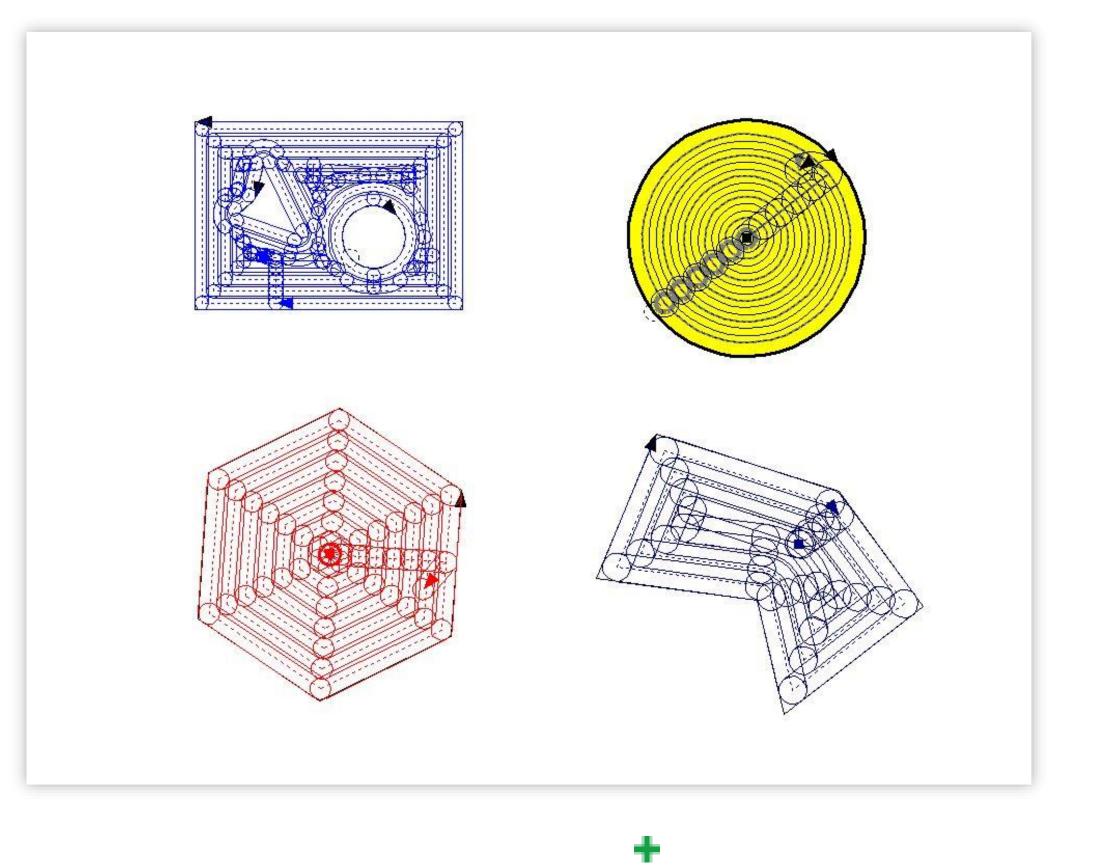
Parameter:

- Cut division
- Synchronous/Asynchronous
- Radius compensation
- Processing name
- Tool allocation
- G0 in profile chamber







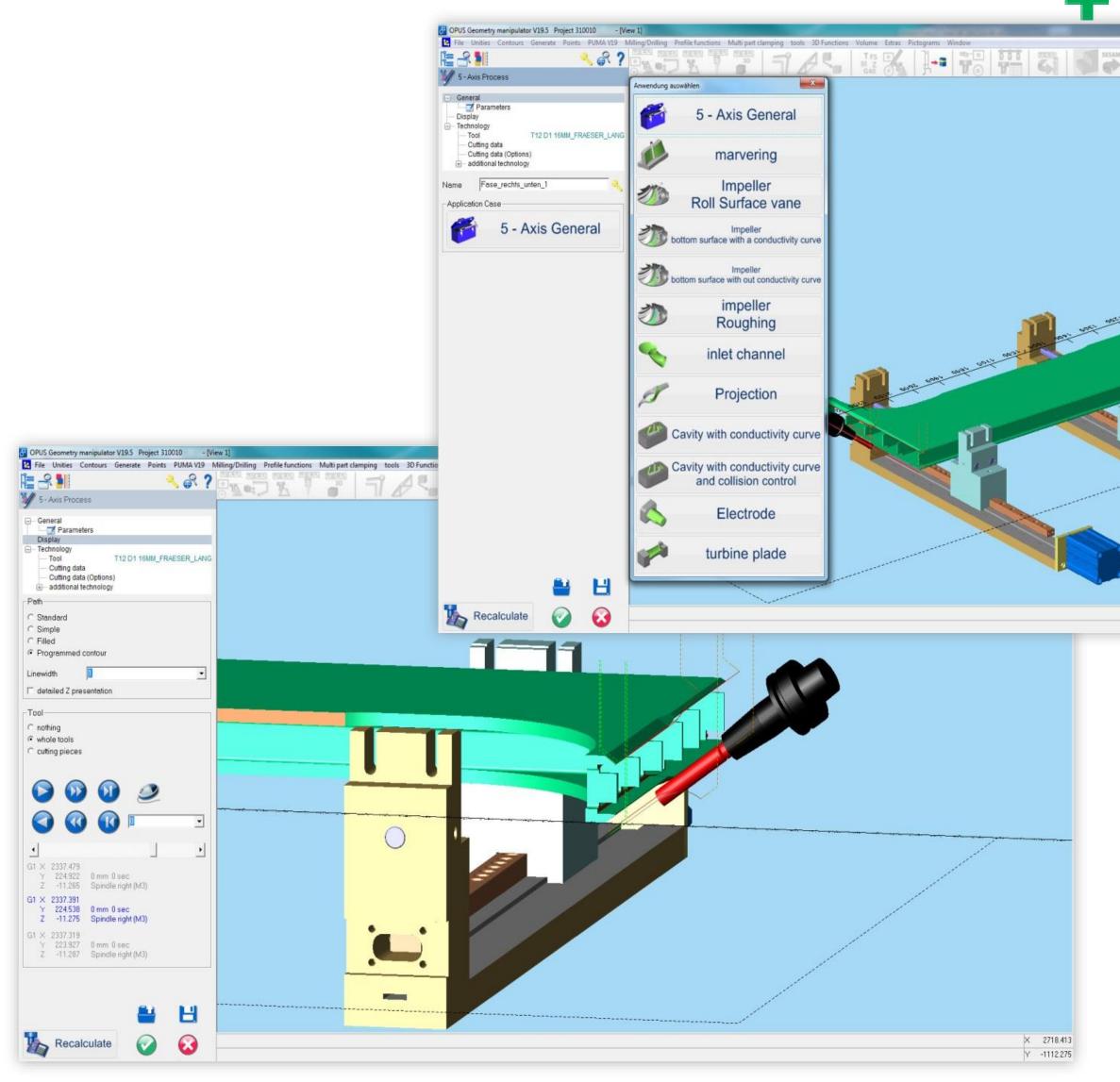




Milling

For any contours a wide range of processing strategies are available.





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The set of an and a set of a s × 3304.739 Y 944.463

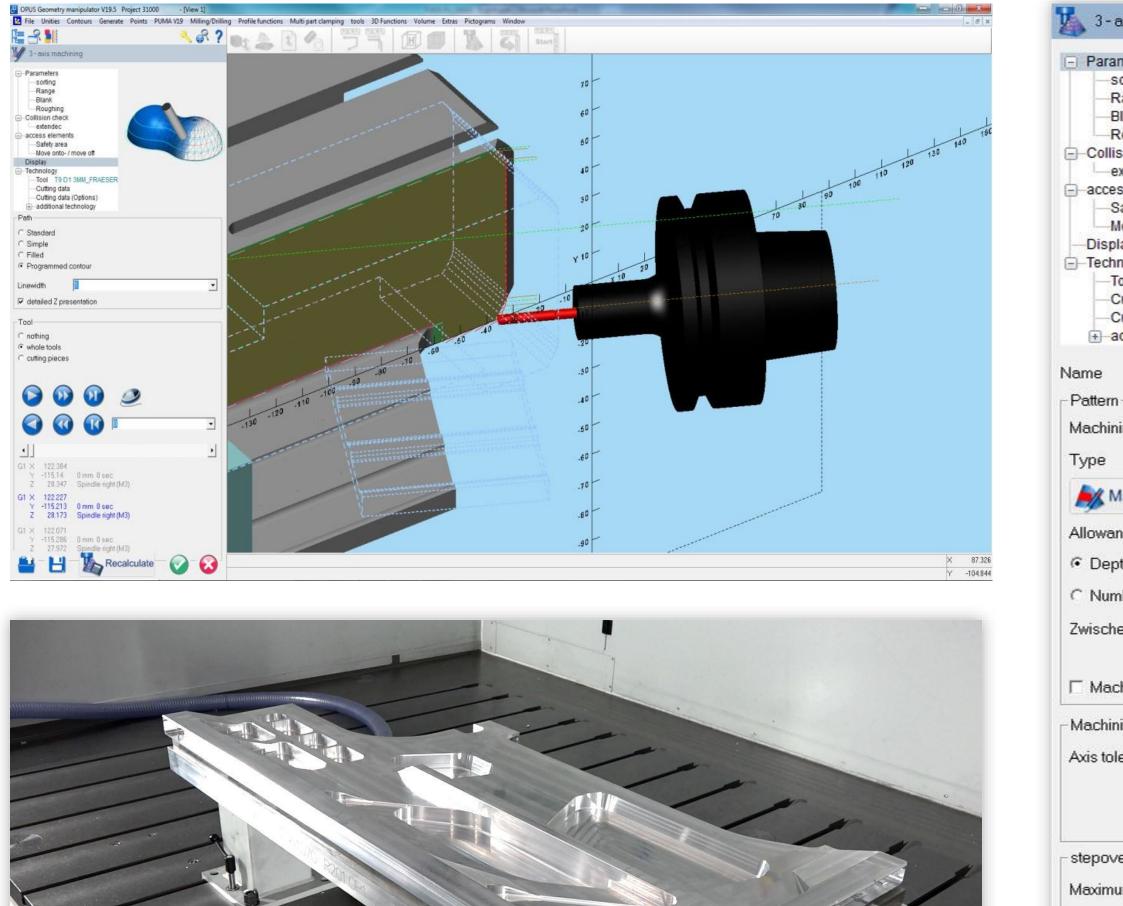
ModuleWorks 5 axis module

- Simple creation of the milling path by edge/surface selection
- Test mode for the created path incl. tool display
- Preset for the most important machining methods
- Saving and loading parameter sets









Maximu Depth of Tool dia

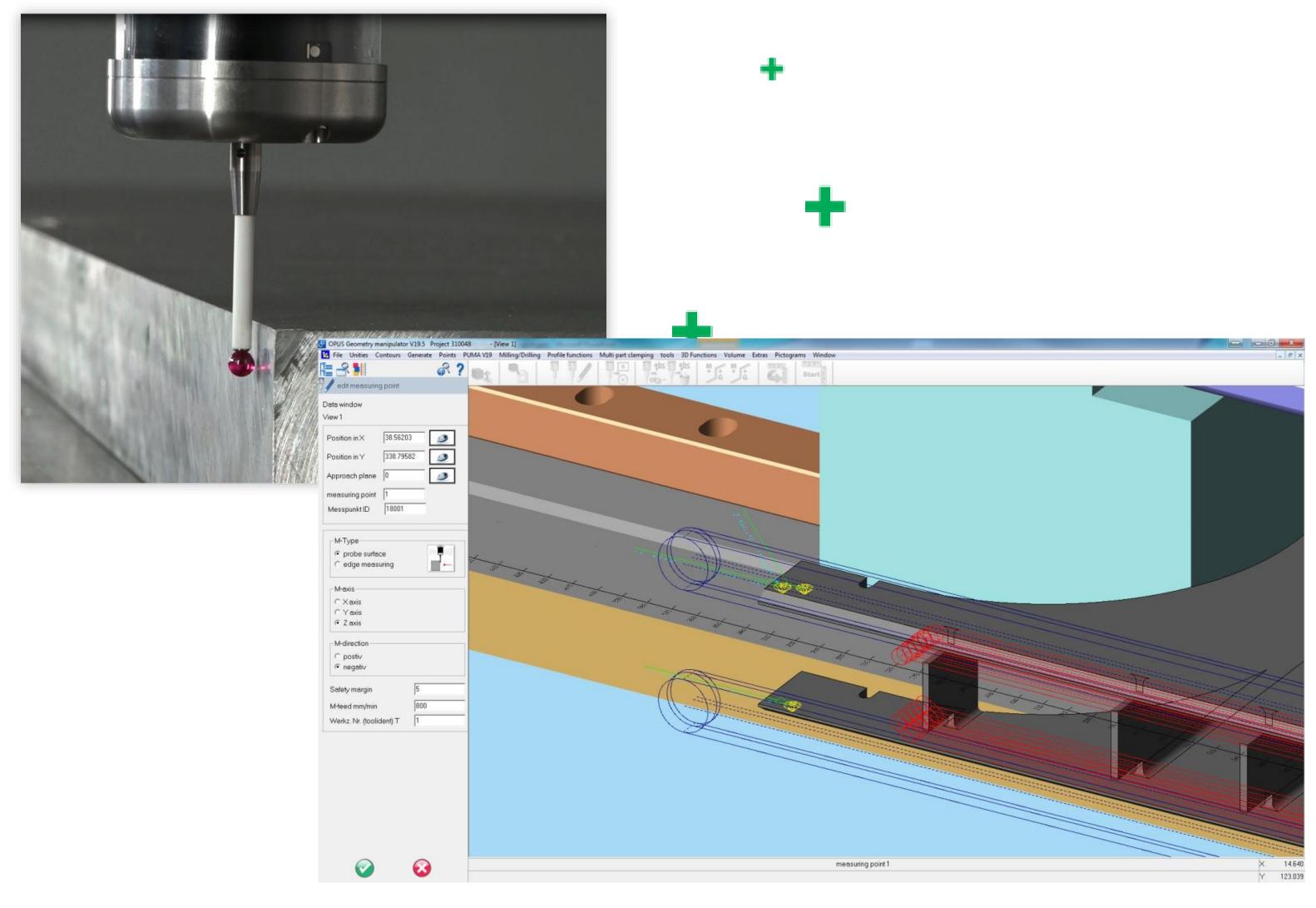
3 - axis machining	
arameters sorting Range Blank Roughing ollision check extendec ccess elements Safety area Move onto- / move off isplay echnology Tool Cutting data Cutting data (Options) additional technology	
e 3-axis surface	machining 50:1
wance Global Depth feed Number of paths schenschnitte CD	Roughing Parallel cuts project curve Constant in Z Constant stepover Plane field Corner processing Projection Trochoidal epth feed 0 umber of paths 0 Closed offset
oover imum stepover oth of roughness I diameter %	8 0 50
H 🍒	Recalculate

ModuleWorks 3 axis surface milling module

- All common milling strategies available
- Saving and loading parameter sets
- Collision test
- Test mode for the created path incl. tool display



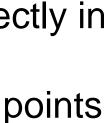




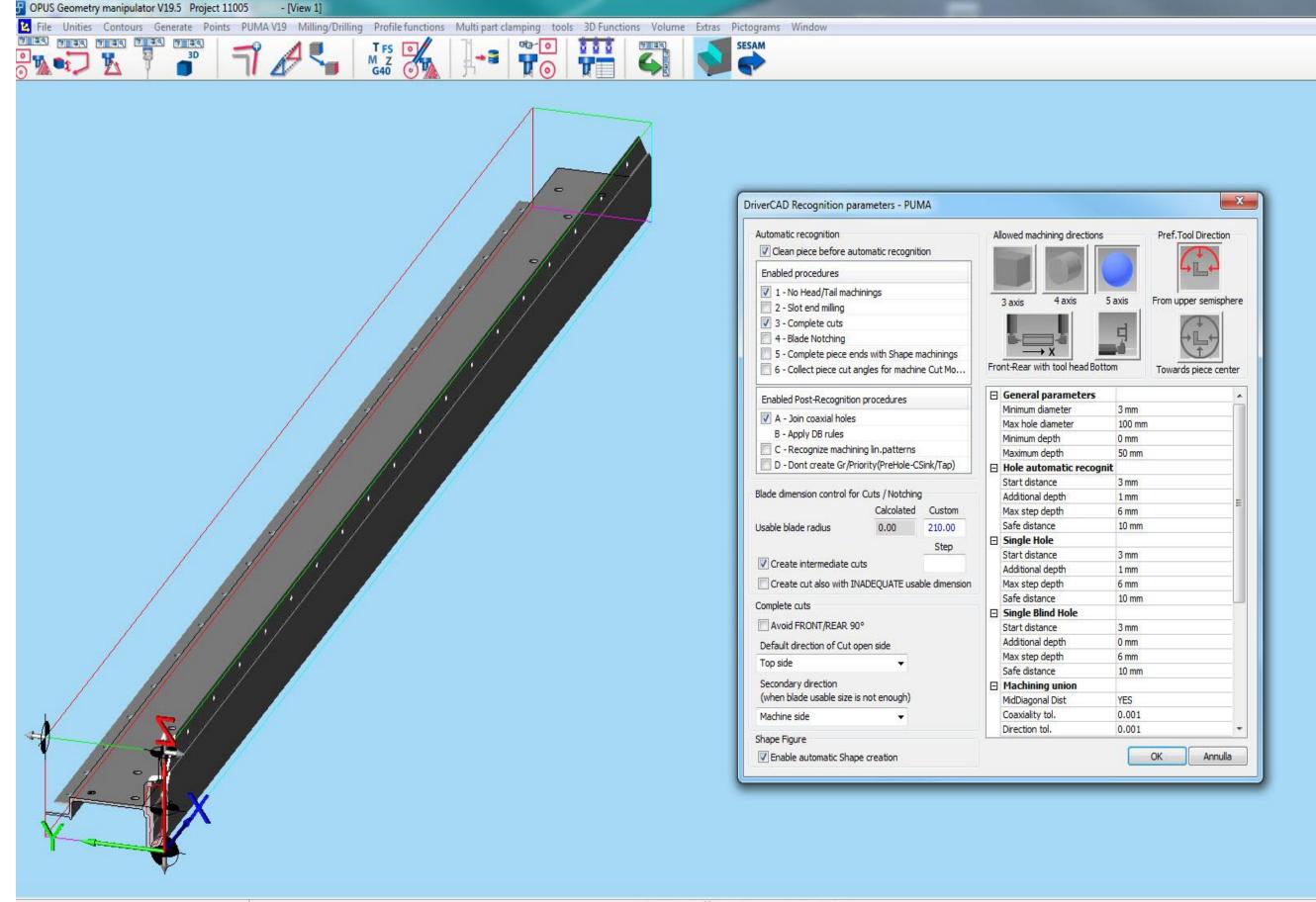


Radioprobe: Measuring and correction of machining

- Edge/surface measuring in all axis
- Set and assign measurement points directly in the geometry
- Move the X 0 point with measurement points
- Correction of contour elements







3DExtractor Übernahmeparameter einstellen



Automatic feature recognition(AFR)

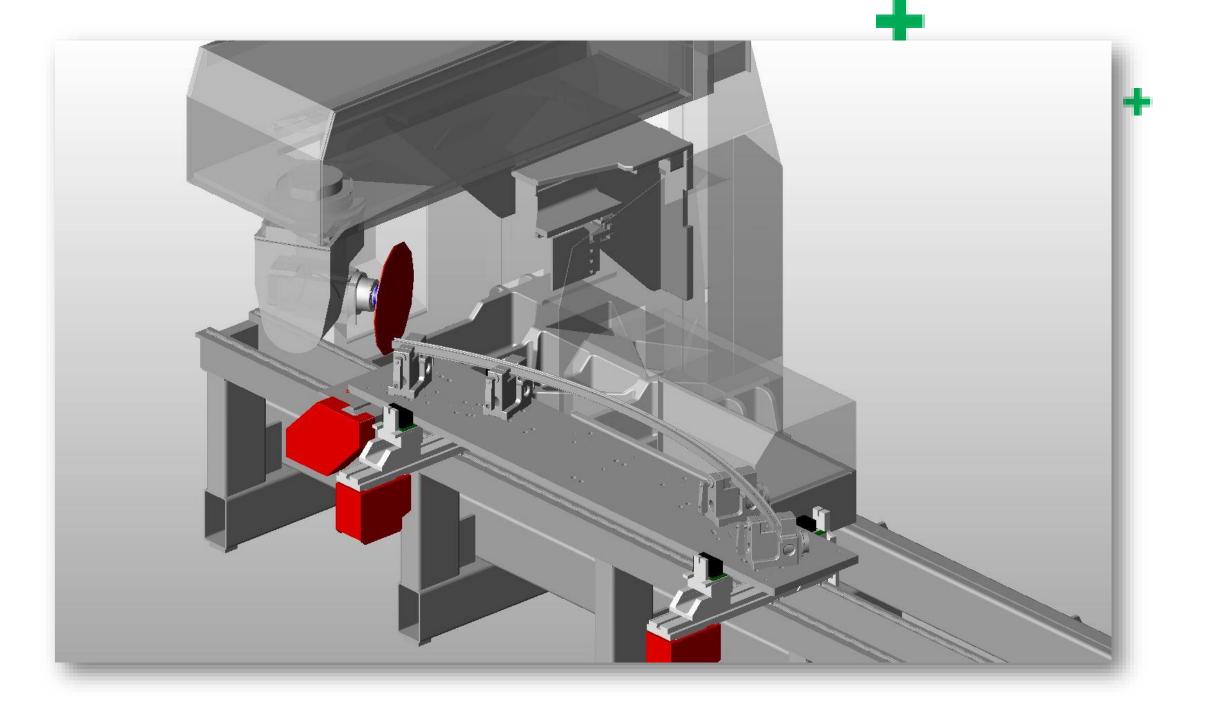
Automatic recognition of machining operations with a wide range of adjustment options.

DW 287.3

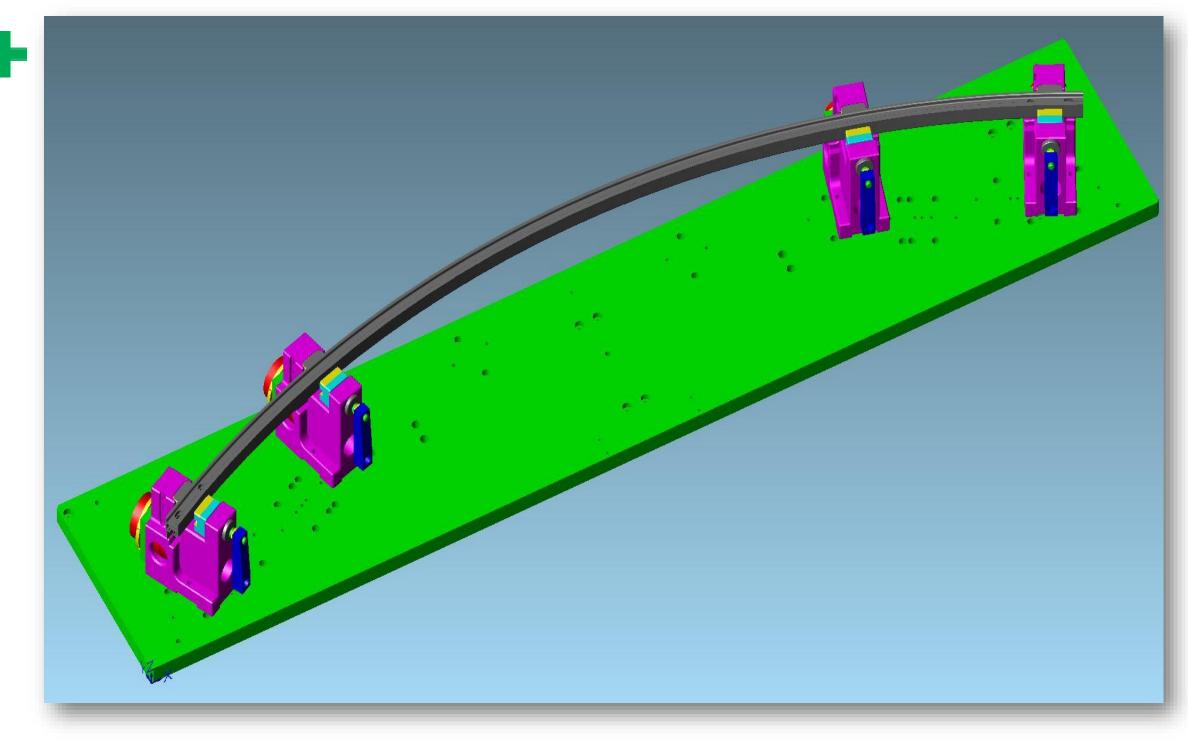
KW 20.99



Bended profiles management

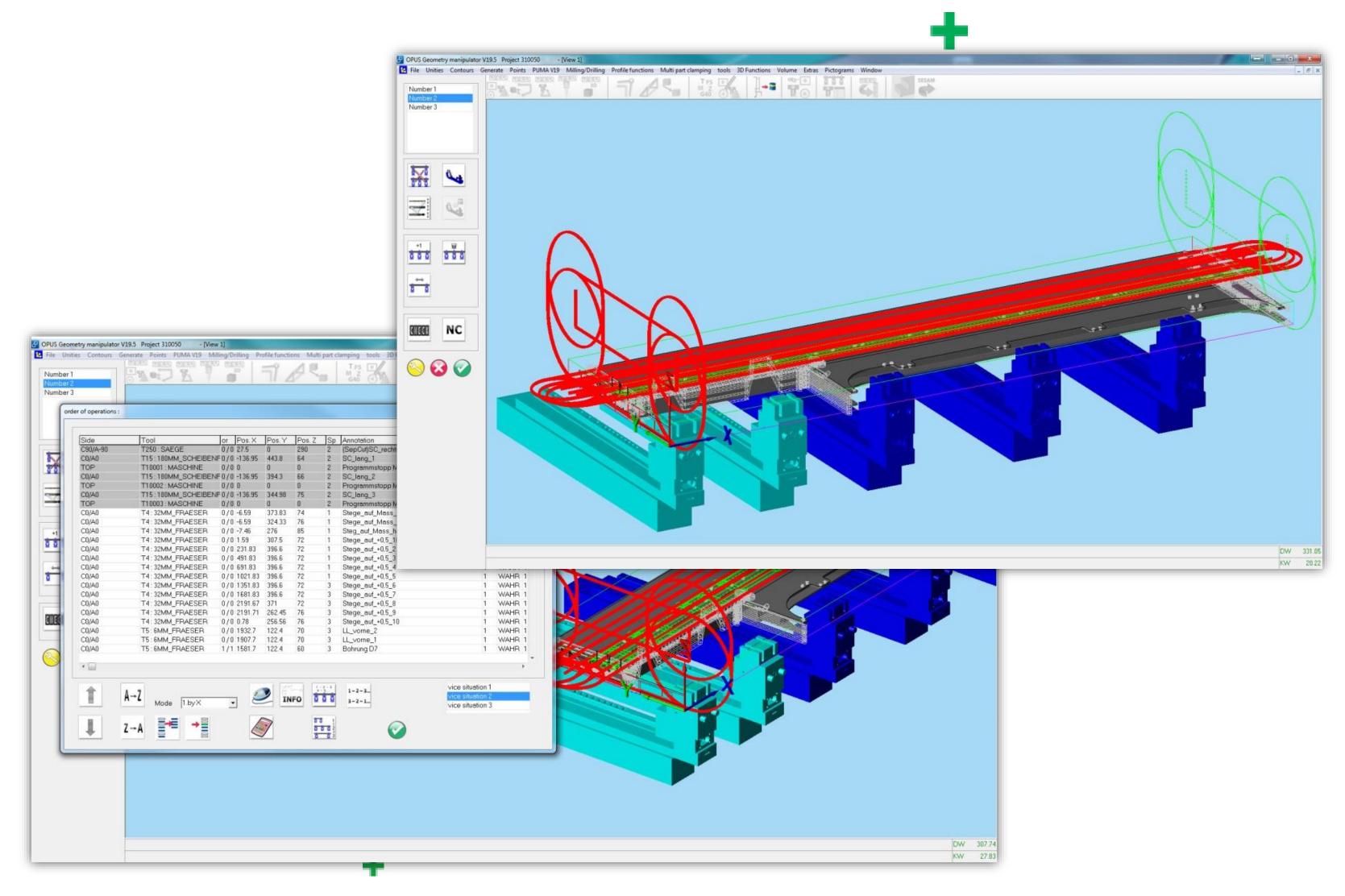






- Correct 3D view of curved profiles
- Real representation of clamps or equipment
- Real definition of approach and exit movements
- Representation of clamping devices in the 3D simulation





Innovative clamping management

- Movement of the clamps by mouse click
- Real representation of the clamps
- Fast sorting of the processing order

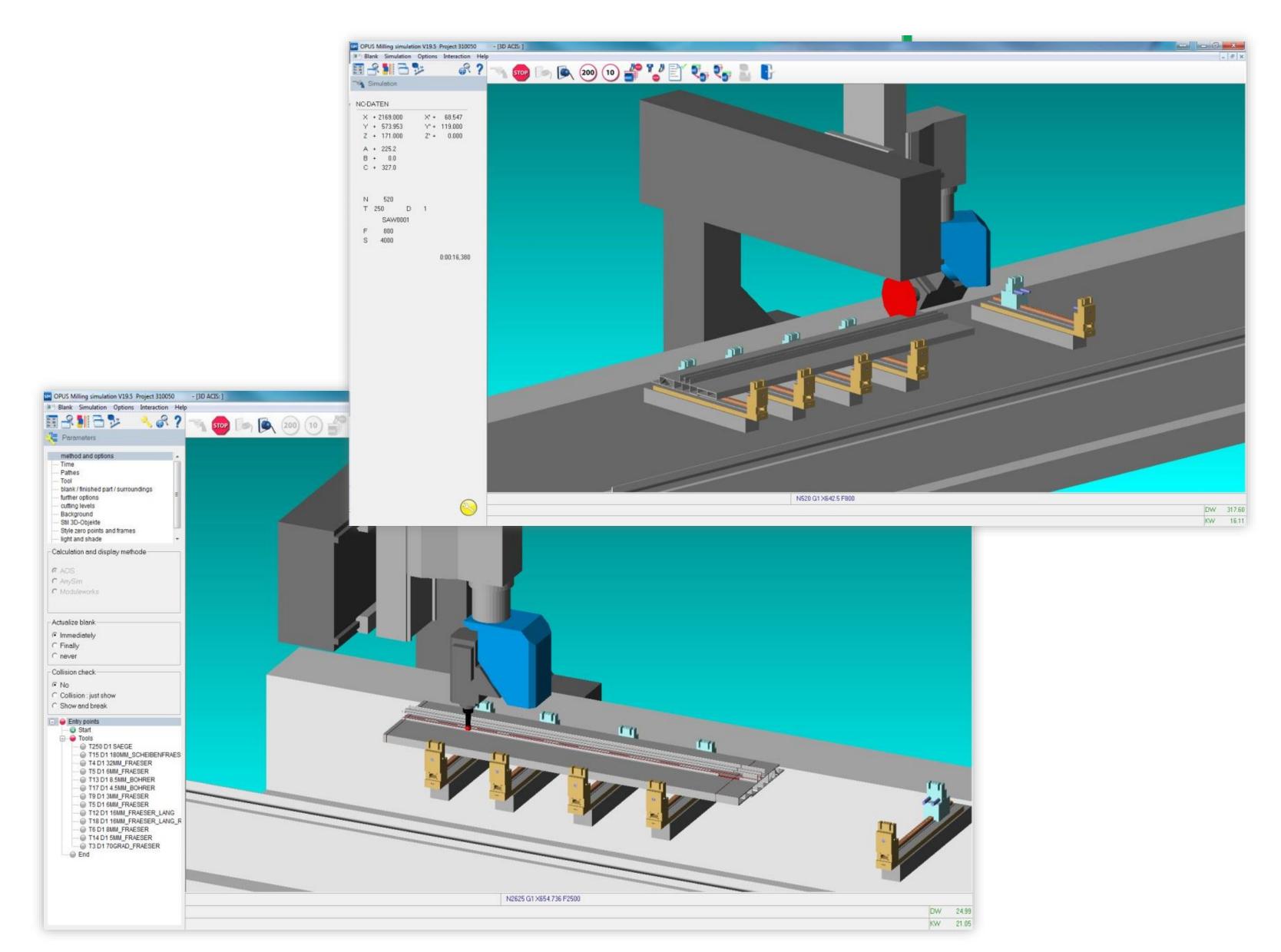


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1.50		: MA_AP70S]
	dit OPUS modules Sesam Search	
₩	◈금।। 🖗 🔧 ?	
🔆 Proje	ct Center	. N55 ;PROFILE VALUE : HEIGHT=73 / WIDTH=642.5 / LENGTH=2141.5-
		- N60 ;**** TOOLLIST ****¬ - N65 ;T250 : SAW0001 / SAEGE / LG=94.39999 LA=3.4/ N350¬
Project	050	- N70 <mark>;T15 : SAW0003 / 180MM_SCHEIBENFRAESER / LG=158.5001 LA=3.5/ N675-</mark> - N75 ;T4 : MILL0007 / 32MM FRAESER / LG=129.9999 LA=23/ N1160-
310	4P705	. N80 <mark>;T5 : MILL0008 / 6MM_FRAESER / LG=121 LA=30/ N2935</mark>
310		. N85 ;T13 : DRILL0001 / 8.5MM_BOHRER / LG=161 LA=65/ N4575- 20 N90 ;T17 : DRILL0002 / 4.5MM BOHRER / LG=136 LA=40/ N6940-
	AP70S	. N95 <mark>;T9 : MILL0002 / 3MM_FRAESER / LG=80.99999 LA=25/ N7415-</mark> . N100 <mark>;T5 : MILL0008 / 6MM FRAESER / LG=121 LA=30/ N11975-</mark>
310		. N105 <mark>;T12 : MILL0013 / 16MM_FRAESER_LANG / LG=180 LA=85/ N12665-</mark>
	AP70S	. N110 ;T18 : MILL0017 / 16MM_FRAESER_LANG_R2 / LG=180 LA=85/ N14770- . N115 ;T6 : MILL0009 / 8MM_FRAESER / LG=130 LA=40/ N15110-
310		. N120 ;T14 : MILL0014 / 5MM_FRAESER / LG=132 LA=35/ N16465¬ . N125 ;T3 : MILL0015 / 70GRAD FRAESER / LG=156 LA=56/ N16895¬
	AP70S	N130 ;**** END TOOLLIST ***** N135 ; End of Programmhead
310		30 N140 DEF REAL X_BLOCK_OFFSET, Y_BLOCK_OFFSET, Z_BLOCK_OFFSET
	AP70S	. N145 DEF REAL X_SAVE_G54, Y_SAVE_G54, Z_SAVE_G54¬ . N150 DEF REAL BLENGTH, WKL¬
310	11	- N155 X_BLOCK_OFFSET=0 ;type in offset in X- - N160 Y BLOCK OFFSET=0 ;BEILAGE IN Y HIER EINTRAGEN-
MA_/	AP70S	- N165 Z_BLOCK_OFFSET=0 ;type in offset in Z- N170 BLENGTH=2194-
		- ni/v DLEngin-2194-
		40
		N175 ;NULLPUNKTE XYZ SCHREIBEN-
		N180 \$P_UIFR[17,X,TR]=\$P_UIFR[18,X,TR]-Y_BLOCK_OFFSET ;NP_X_G518 -> G517- N185 \$P_UIFR[17,Y,TR]=\$P_UIFR[18,Y,TR]+X_BLOCK_OFFSET ;NP_Y_G518 -> G517-
		N190 \$P_UIFR[17,Z,TR]=\$P_UIFR[18,Z,TR]+Z_BLOCK_OFFSET ;NP Z G518 -> G517-
		- <mark>; !! Koordinatensystem und a_achse verdrehen !!</mark> - N195 \$P uifr[17,2,Rt]=-90 ; X-achse wird laengste achse rot um z G517-
		. N200 \$P_UIFR[17,A,TR]=-90 ; A-ACHSE VERSCHIEBEN A0 B90 -> SEITE VORNE-
NC	new project	50 -
	the project	- N205 X_SAVE_G54=\$P_UIFR[17,X,TR] <mark>;SAVE X ORGIN-</mark> N210 Y_SAVE_G54=\$P_UIFR[17,Y,TR] ;NULLPUNKT Y_SICHERN-
NC	open project	N215 Z_SAVE_G54=\$P_UIFR[17,Z,TR] ;NULLPUNKT Z_SICHERN- N220 ;SPANNER IN KANAL 1 POSITIONIEREN-
0	A 4 679	- N225 SPANNER:-
3-3	Change work project	. N230 ;NULLPUNKTE SPANNER U1 - U8 SCHREIBEN- . N235 \$P_UIFR[17,U2,TR]=\$P_UIFR[18,U2,TR]-X_BLOCK_OFFSET ;NP_U2_G518 -> G517-
		. N240 \$P_UIFR[17,U3,TR]=\$P_UIFR[18,U3,TR]-X_BLOCK_OFFSET ;NP_U3_G518>_G517- 60 N245 \$P_UIFR[17,U4,TR]=\$P_UIFR[18,U4,TR]-X_BLOCK_OFFSET ;NP_U4_G518>_G517-
	show part program mask	N250 \$P_UIFR[17,U5,TR]=\$P_UIFR[18,U5,TR]-X_BLOCK_OFFSET ;NP_U5_G518>_G517-
1		. N255 \$P_UIFR[17,U6,TR]=\$P_UIFR[18,U6,TR]-X_BLOCK_OFFSET <mark>;NP_U6_G518 -> G517</mark> . N260 \$P_UIFR[17,U7,TR]=\$P_UIFR[18,U7,TR]-X_BLOCK_OFFSET <mark>;NP_U7_G518 -> G517</mark>
	edit documents	. N265 \$P_UIFR[17,U8,TR]=\$P_UIFR[18,U8,TR]-X_BLOCK_OFFSET ;NP U8 G518 -> G517- . N270 ;SPANNERACHSEN IN KANAL HOLEN-
- some	DNO	- N275 M71 ; SPANNERKLEMMUNG AUS- N280 G4 F1-
DNC	DNC	. N285 GETD(U1,U2,U3,U4,U5,U6,U7,U8)¬
	Close	. N290 STOPRE¬ 70 N295 G90 G517 G0 U2=-354 U3=-776 U4=-1289 U5=-1798 U6=-7380+X_BLOCK_OFFSET U7=-7380+X_BLOCK_OFFSET U8=-7380+X_BLOCK_OFFSET
X	Remove from project list	- N300 STOPRE- N305 M55 ;ANSCHLAG HEBEN-
	Close	
	Leave in project list	

Editor with Project Center

The project center does not only contain the NC code. One folder is automatically created for each project, in which all the related files can be stored. The programmer has a complete overview of the project in one click.





3D Simulation

- Simulation directly from the NC code
- Visible removal of material
- Start from any tool
- Display of the axis positions
- Display of current tools
- Display of the cutting data
- Display of the processing time





SetupSheet:

l	Program-No.:	310050	Programmer:
I	Artikel-No.:	0000000310050	Program-Name:
l	Machine:	MA_AP70S	Clampset-No.:
	Toolpakage:	Endsäule1	Description:
l	Date-create:	06.10.2016	Date-change:

Offset

Singlepart

Programhead

+

Clamp:

Clamp:	Clamp Pos.:						
1	0	2	354	3	776	4	1289
5	1798	6	undefined	7	undefined	8	undefined

Tool-used

/ SAEGE			T15 / 180MM_SCHEIBENFRAESER			T4 / 32MM_FRAESER		
	Tool-dia.:	350		Tool-dia.:	180		Tool-dia.:	32
	Feed:	800	800	Feed:	1500		Feed:	2500
	Infeed:	800		Infeed:	1500	~	Infeed:	2500
L-y	Speed:	4000		Speed:	4000		Speed:	15000
	Cutter length:	3.4	L	Cutter length:	3.5		Cutter length:	12
	Immersed length:	3.4	32	Immersed length:	3.5		Immersed length:	23
	Toollengthtotal:	94.3999		Toollengthtotal:	158.500		Toollengthtotal:	129.999
	Toolpitch:	0		Toolpitch:	0		Toolpitch:	0



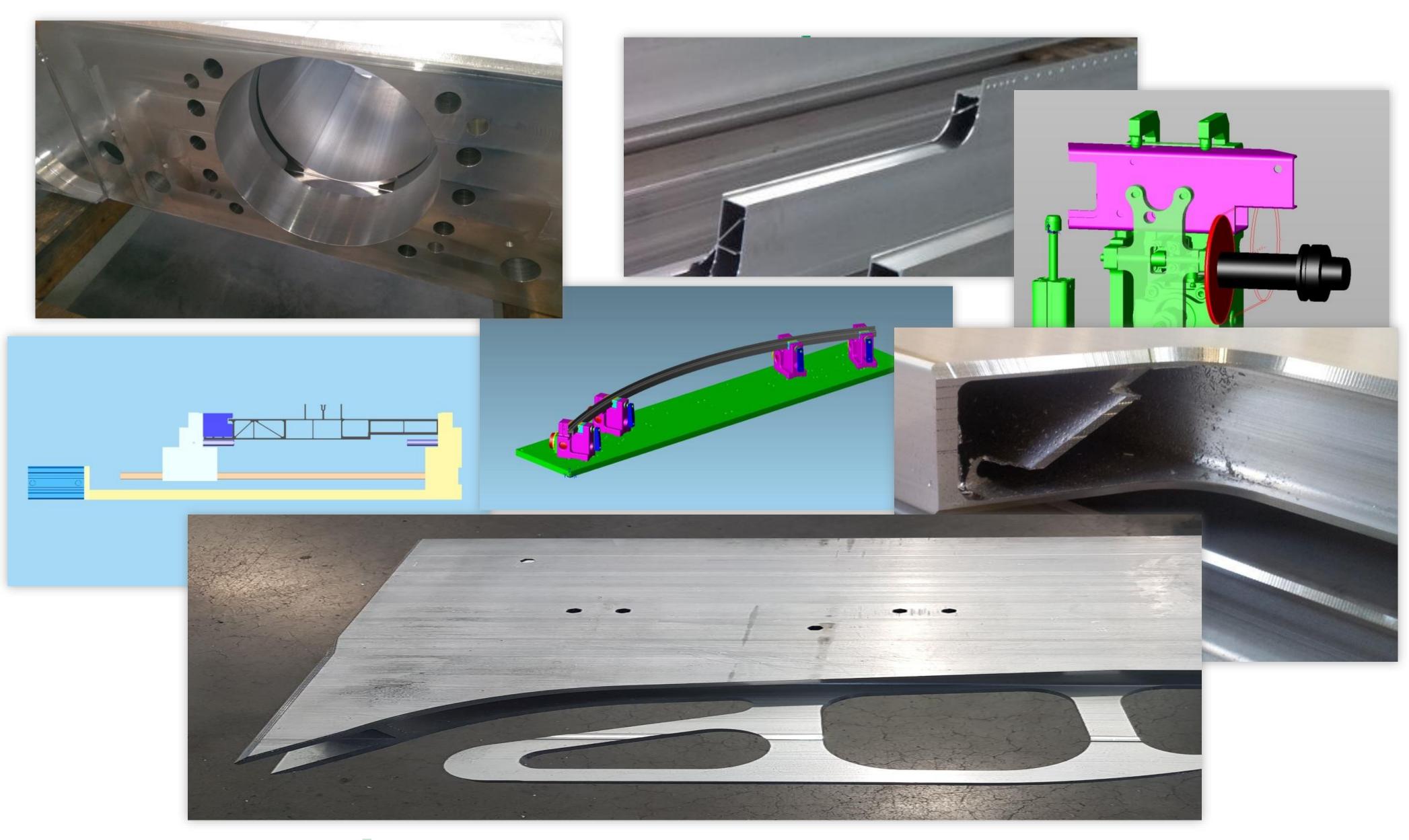


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Setup sheet for the machine operator

Displays the profile position, the tools, the program name and the clamping positions







Practical examples







Thanks for the attention

www.camaeleon.de

