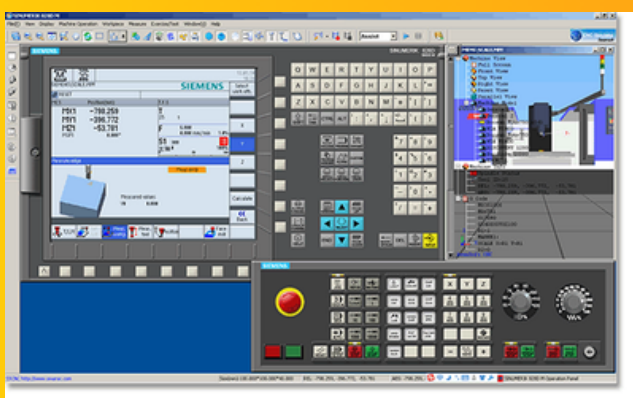
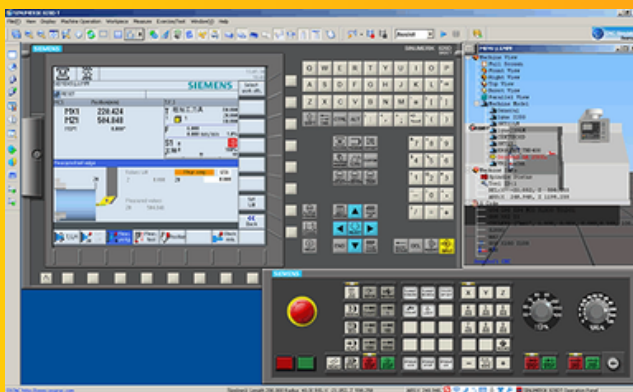




CNC SIMULATION SOFTWARE 2 AND 3 AXIS



CNC SIMULATION INCLUDES AT LEAST 25 CNC BRANDS, 119 CNC CONTROLLERS, AND 273 OPERATIONAL PANELS. IT HAS PROGRAMMING AND PROCESSING FUNCTION FOR FANUC, SIEMENS(SINUMERIK), MITSUBISHI, FAGOR, HAAS, PA, ROMI, GSK, HNC, KND, DASEN, WA, GREAT, SANYING, RENHE, SKY, JNC, DECEKEL, GTC2E, NCT, MAZAK. BY USING THE SOFTWARE IN PC, STUDENTS CAN MASTER THE OPERATION OF ALL KINDS OF NC LATHE, NC MILLING AND MACHINING CENTER IN SHORT TIME. TEACHERS RECEIVE REAL-TIME OPERATION INFORMATION FROM STUDENTS AT ANY TIME THROUGH NETWORK. THIS SOFTWARE IS ALSO THE FIRST AND THE ONLY DOMESTIC NC SIMULATION SOFTWARE WHICH CAN BE UPDATED AUTOMATICALLY ONLINE FOR FREE.

1. 3D Modeling based OPENGL, Dual Monitor Display.
2. Dynamic rotation, zoom, move, full screen, switch views, etc.
3. G Code parse code(M code) and other instruction.
4. 2/3 Axis Milling Simulation.
5. G code debug Tool.
6. Custom code and cycles in different NC system are supported.
7. Simulate post process file produced by UG, Pro-E, MasterCAM.
8. Windows MACRO recording and replay.
9. Operation process (AVI) recording and replay.
10. Workpiece setting and mounting.
11. ATC change tool machine, Four, Eight and Twelve Turret.
12. Vertical and horizontal change tool system switch.
13. Tool preset by using manual method.
14. Machining with coolant, sound and iron fragment effect.
15. Measure tools : edge finder, feeler gauge, micrometer, calipers etc.
16. Management tool and performance parameters adopt technology.
17. Embedded all kind of tools in Supporting customize tool.
18. Three-dimensional size measure of workpiece after it is machined.
19. Roughness measure based tool cutting parameters.
20. Automatic update online.

>FANUC

FANUC0iM	FANUC0iT	FANUC0MD	FANUC0TD
FANUC18iM	FANUC18iT	FANUC18M	FANUC18T
FANUC21iT	FANUC21iM	FANUC0iMF	FANUC0iTF
FANUC0iMF10.4 inch	FANUC0iTF10.4 inch	FANUC0iMFPlus	FANUC0iTFPlus

>SINUMERIK

SINUMERIK802SeM	SINUMERIK802SeT	SINUMERIK802S/C M	SINUMERIK802S/C T
SINUMERIK802DM	SINUMERIK802DT	SINUMERIK810D/840DM	SINUMERIK810D/840DT
SINUMERIK801	SINUMERIK828D M	SINUMERIK828D T	SINUMERIK808D M
SINUMERIK808D T	SINUMERIK840D M	SINUMERIK840D T	SINUMERIK ONE M
SINUMERIK ONE T			

>GUANGZHOU GSK

GSK980M	GSK980TD	GSK980TDb	GSK980TB
GSK980TA	GSK983M	GSK983TC	GSK983TA
GSK928MA	GSK928TD-L	GSK980MDi	GSK980TDi
GSK218MC	GSK25iM	GSK980TC3	

>BEIJING KND

KND1000M	KND1000T	KND100M	KND100T
KND10M	KND1TB	KND1Ti	KNDK2000TC
KND K2200iM	KND K2200iT		

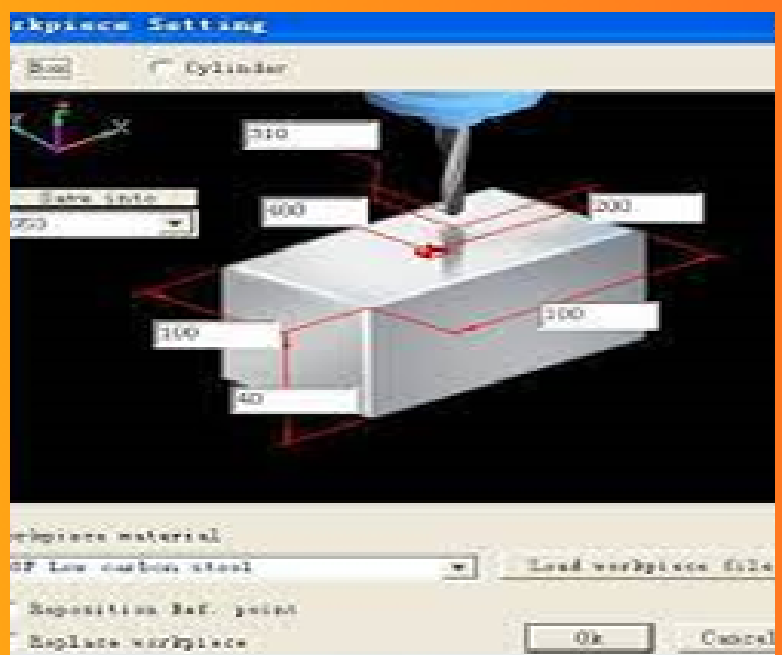
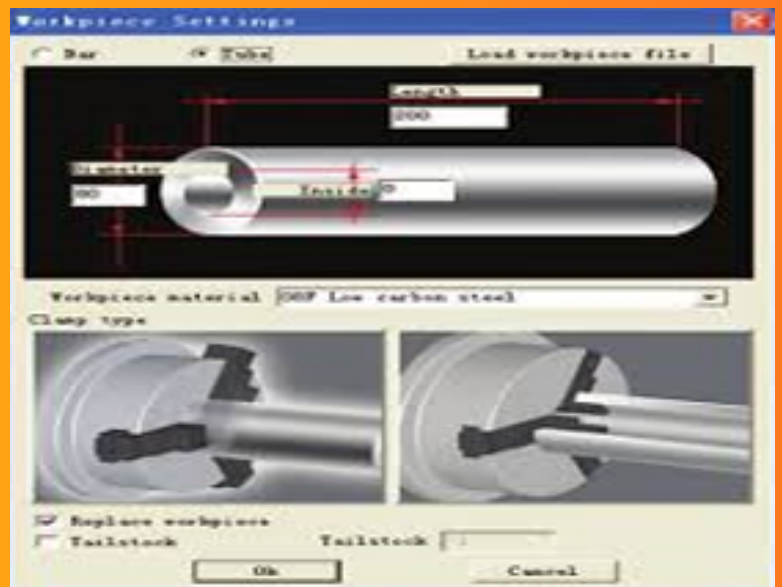
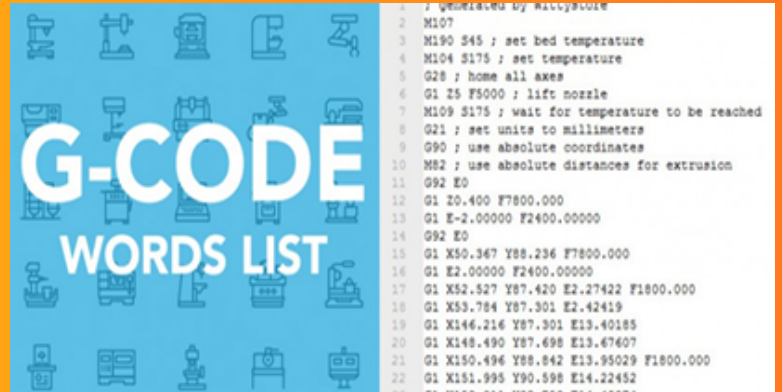
>MITSUBISHI

EZMotion-NC60 M	EZMotion-NC60 T	EZMotion-NC68 M	EZMotion-NC68 T
MITSUBISHI M70M	MITSUBISHI M70T	MITSUBISHI E70M	MITSUBISHI E70T
MITSUBISHI M80M	MITSUBISHI M80T	MITSUBISHI E80M	MITSUBISHI E80T

>NANJING WA

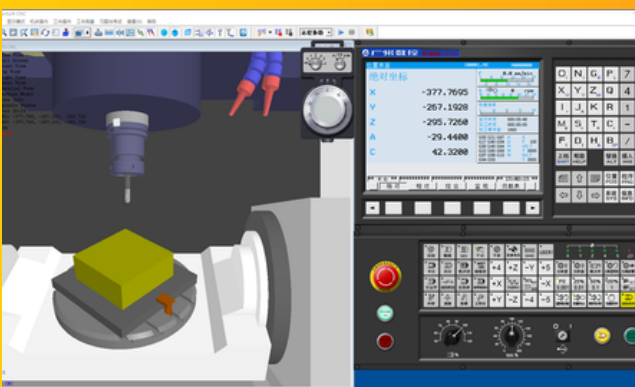
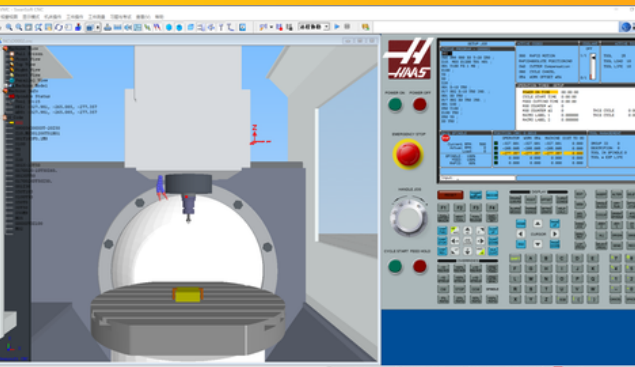
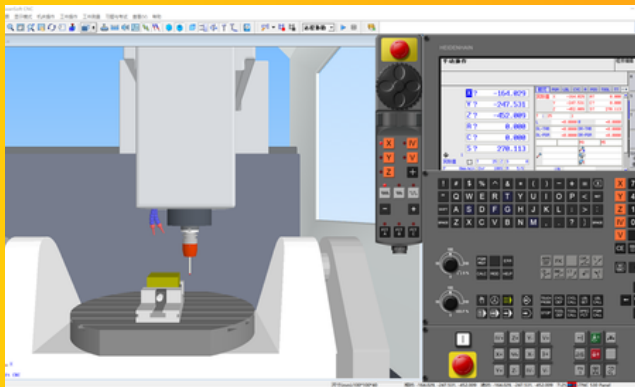
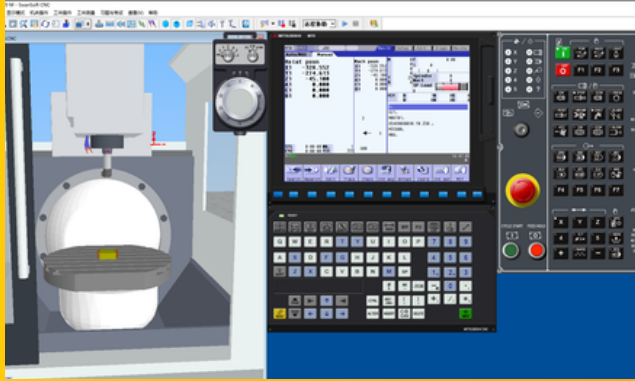
WA310M/WA320Mi	WA310M/WA320Ti	WA31DM	WA31DT
WA21DT			

CNC SIMULATION SOFTWARE 2 AND 3 AXIS





CNC SIMULATION SOFTWARE 4 AND 5 AXIS



THE 5-AXIS SIMULTANEOUS MACHINING AND MULTI-DIRECTIONAL PLANE POSITIONING MACHINING SIMULATION OF THE 5-AXIS MACHINING CENTER, IT CAN PROVIDE DUAL-TABLE ROTARY MACHINE STRUCTURE AND DUAL-SWING HEAD MACHINE STRUCTURE, AS WELL AS HYBRID SINGLE-SWING HEAD AND SINGLE-TABLE MACHINE STRUCTURE MODELS, AND PROVIDE IMPORTANT MACHINE PARAMETERS OF EACH MACHINE MODEL STRUCTURE. IT CAN REALIZE THE SIMULATION OF VARIOUS FOUR-AXIS AND FIVE-AXIS MACHINING CENTERS SUCH AS A-AXIS, AC-AXIS AND BC-AXIS.

1. Blank definition, fixture calibration, workpiece clamping, workpiece zero setting, tool installation, after the tool collides, you can see the broken tool, manual operation on different panels of the same machine system, etc.

2. Simulation of machining process: including editing, automatic operation, and manual data input (MDI) mode of NC machining programs, real-time cutting of 3D workpieces, display of tool path, provision of tool compensation, coordinate system settings, etc.

3. Machine structure type: providing 4-axis with A-axis rotation structure, 5-axis AC dual-table rotary cradle structure, 5-axis BC dual-table rotary structure, 5-axis BC single-swing head single-table structure, 5-axis BC double-swing head structure.

4. Processing characteristics: with multi-axis simultaneous machining and multi-directional plane positioning machining, curved surface machining, inclined surface machining functions, can also realize one-time clamping, multiple surface machining, several times clamping and turning surface machining.

5. Set workpiece zero point tools: such as edge-finder, reference mandrel, Z axis gauge, electronic probe, etc.

6. Program editing: NC programs generated by various CAM software can be imported through DNC, or NC programs can be manually edited through the panel.

7. Program function: 1) SIEMENS supports ISO, variable programming, inclined surface machining, tool compensation, drilling cycle, face milling pin cycle, cavity machining cycle. 2) MITSUBISHI Supports ISO programming, support canned cycle programming. 3) FANUC supports ISO programming, macro instruction programming, canned cycle programming. 4) HEIDENHAIN supports ISO programming as well as conversational programming and canned cycles.

8. Blank type: hexahedron, cylinder, support CAD model import of any shape.

9. Fixture types: flat pliers, craft plate, pressure plate, three-jaw chuck, special fixture, etc.

10. Tool library: its type contains drill, flat, ball, bull, chamfer mill, etc. Users can customize the size of the cutter.

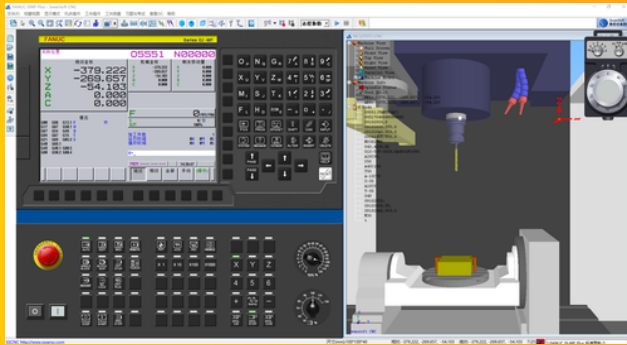
11. Measurement: providing a variety of general measurement tools, can measure the processed 3D model, can measure the typical geometrical dimensions of various inclined surfaces of the workpiece. The measurement accuracy reaches 0.001mm.

12. Multi-axis model conversion: 5-axis machine can be imported into 4-axis machine parts.

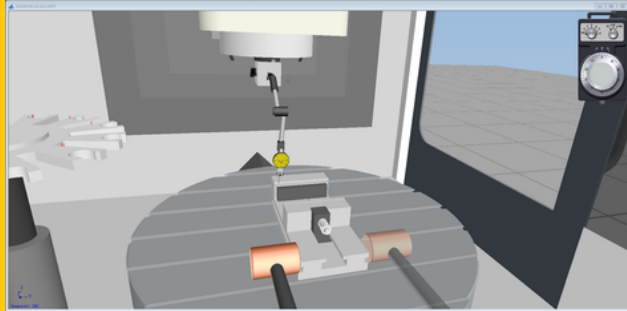
13. International version: Support multi-language.

14. Extended functions: support interpolation process simulation, dual screen display, touch screen gesture operation.

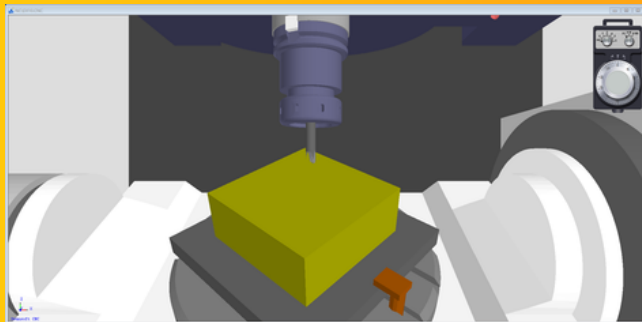
• MAIN INTERFACE



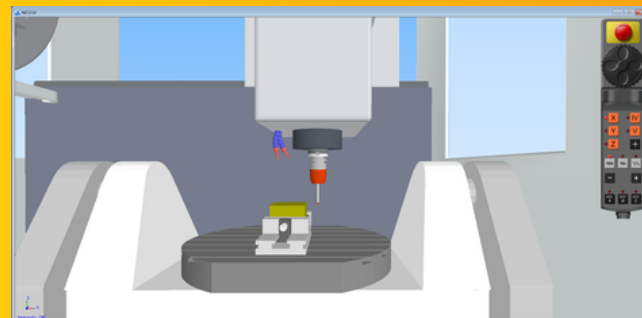
• CALIBRATION FIXTURE



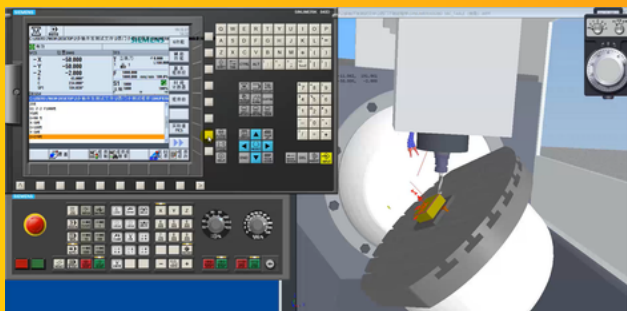
• TOOL BREAKING EFFECT



• ELECTRONIC PROBE DETECTION



• 5 AXIS FANUC MACHINING



AVAILABLE CONTROLLERS

>FANUC

FANUC0iM
FANUC18iM

FANUC0iMF
FANUC21iM

FANUC0iMF10.4 inch
FANUC0iMFPlus

FANUC18M
FANUC 31i-MODEL B5

>SINUMERIK

SINUMERIK828D M

SINUMERIK840D M

SINUMERIK840D sl

SINUMERIK ONE

>Guangzhou GSK

GSK25iM

>MITSUBISHI

MITSUBISHI M70M

>HNC

HNC-210BM
HNC-848Di

HNC-818BM

HNC-818D

HNC-848B

>KND

KND 2200i

>FAGOR

FAGOR 8055M

>HAAS

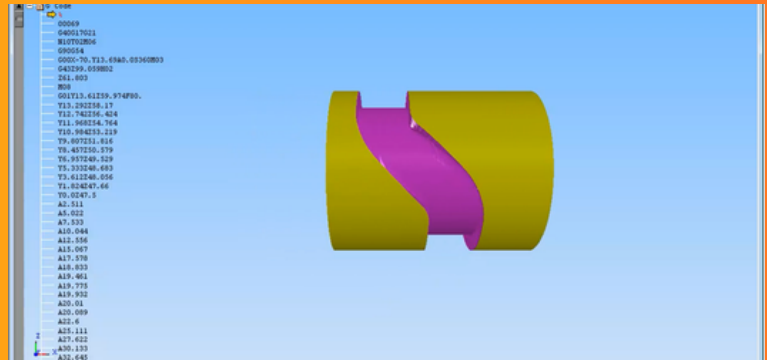
HAAS VM

>Heidenhain

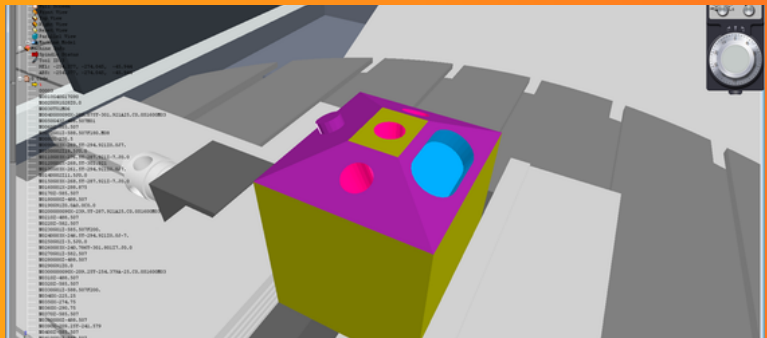
Heidenhain iTNC530

Heidenhain iTNC640

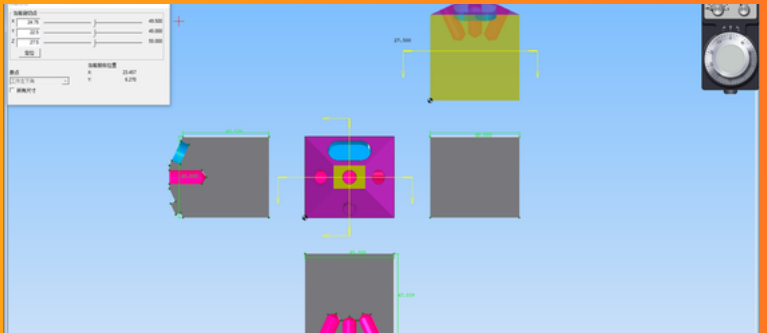
• 4 AXIS CAM MACHINING



• 5 AXIS BASE MACHINING



• 5 AXIS BASE MEASURE



The screenshot displays the 'Tool list' window in SolidWorks. At the top, there is a visual representation of a tool rack with five slots labeled 1 through 5. Slot 3 is currently occupied by a tool. Below this, a table lists the tools in the rack:

Loc.	Type	Tool name	ST	D	Length	alpha
1	END MILL		1	1	0.000	0.000
2	FACING TOOL		1	1	0.000	0.000
3	DRILL		1	1	0.000	0.000
4	BELL NOSE END MILL		0	0	0.000	0.000
5						

The 'BELL NOSE END MILL' tool in row 4 is highlighted. The 'alpha' column contains icons for tool selection. The bottom status bar shows 'SQ2-2R', 'Work offset', 'User variable', and 'SD'.

The screenshot shows the Mazak Control Panel (MCP) interface. The top status bar indicates "Feed Hold from MCP". The program path is "D:\VILLAW\HCSW\SQ201004\SQ20101.COMMON\TRIP\SIMUSAC.MPF". The tool list shows the following data:

Tool	Position (mm)
MX1	-196.424
MY1	-246.169
MC1	-46.883
MSP1	0.000*
MSP1	307.813*

The T.F.S. (Tool Feed Speed) section shows the following data:

Function	Value	Unit	Percentage
F	0	mm/min	100.0%
S1	0		100%
SP	0		100%

The right side of the screen shows auxiliary functions and act values. The act values are:

Act. values
Flameless

The figure shows two CNC control panels side-by-side. The left panel is a Siemens 840D, and the right panel is a Sinumerik 840D. Both panels have a red emergency stop button at the top left. The Siemens panel has a rotary selector with positions for 'STOP', 'FEED', 'RAPID', and 'AUTO'. The Sinumerik panel has a rotary selector with positions for 'STOP', 'FEED', 'RAPID', and 'AUTO'. Both panels have a grid of function buttons for various CNC operations. The Siemens panel has a 'STOP' button with a red background, while the Sinumerik panel has a 'STOP' button with a green background. Both panels have status LEDs at the bottom.

NO	Name	Type	Length	Diameter	Round...	RPM	Rate
001	t1	End C...	120.00	12.00	0.00	0	0.00
002	t2	Ball...	120.00	12.00	0.00	0	0.00
003	t3	Dome...	120.00	12.00	4.00	0	0.00
004	t4	Drill...	120.00	12.00	0.00	0	0.00
005	t5	Berin...	120.00	12.00	0.00	0	0.00
006	t6	Tappi...	120.00	12.00	0.00	0	0.00
007	t7	Face...	100.00	80.00	0.00	0	0.00

Tool Management

Tool Magazine

Mount Tool Setting

Add Into Magazine

