



HEXAGON
MANUFACTURING INTELLIGENCE

WORKNC
Feature Chart

Systems

	WORKNC 2D WNC-2D	WORKNC 2D Positional WNC-2DP	WORKNC 3X WNC-3X	WORKNC 3X Positional WNC-3XP	WORKNC Full 3X WNC-F3X	WORKNC Full License WNC-FL	WORKNC Robot System WNC-BOTS	WORKNC Educational WNC-EDU	WORKNC Teacher System WNC-TEACH
CAD Module									
2D and 3D Wireframe Design	•	•	•	•	•	•	•	•	•
Free-form Surface Design and Editing	•	•	•	•	•	•	•	•	•
Import DXF, DWG, STL, IGES, STEP, Parasolid, SOLIDWORKS	•	•	•	•	•	•	•	•	•
Milling									
Access to Machining Sequences - create, edit and run Sequences	•	•	•	•	•	•	•	•	•
Dynamic Stock Management	•	•	•	•	•	•	•	•	•
Dynamic Holder Collision Checking	•	•	•	•	•	•	•	•	•
Stock Update	•	•	•	•	•	•	•	•	•
Drilling and 2.5 Axis Milling Toolpath Strategies	•	•	•	•	•	•	•	•	•
Surface Context Management (multiple allowances)			•	•	•	•	•	•	•
Basic Surface Strategies			•	•	•	•	•	•	•
Advanced Surface Strategies					•	•	•	•	•
Positional Machining (3+2) (Angular Views)		•		•		•	•	•	•
Collision Checking									
Dynamic Holder Collision Checking for roughing toolpaths	•	•	•	•	•	•	•	•	•
Machine Collision Checking	•	•	•	•	•	•	•	•	•
Tool collision checking for both cutter and holder	•	•	•	•	•	•	•	•	•
Minimum safe tool length calculation	•	•	•	•	•	•	•	•	•
Collision Curve and Colliding Elements display	•	•	•	•	•	•	•	•	•
Collision ranges display along the toolpath	•	•	•	•	•	•	•	•	•
Splitting toolpath into colliding and non-colliding sections	•	•	•	•	•	•	•	•	•
Maximum collision free holder profile calculation	•	•	•	•	•	•	•	•	•
Milling – 2.5 Axis									
Automatic and Manual Hole Machining	•	•	•	•	•	•	•	•	•
Point Drilling and Drilling, Tapping/Threading	•	•	•	•	•	•	•	•	•
Tangent to Curve and Curve Remachining	•	•	•	•	•	•	•	•	•
On-curve Engraving, Chamfering and Pocketing with Waveform	•	•	•	•	•	•	•	•	•
Die Flats Roughing and Die Flats Finishing	•	•	•	•	•	•	•	•	•
Facing, Rib Machining and Manual 2D	•	•	•	•	•	•	•	•	•
Wall Machining and Wall Plunge Machining	•	•	•	•	•	•	•	•	•
Milling - Roughing									
Global Rough/Rerough	•	•	•	•	•	•	•	•	•
Waveform Roughing			•	•	•	•	•	•	•
Flat Surface rough/Rerough			•	•	•	•	•	•	•
Parallel Roughing					•	•	•	•	•
Adaptive Trochoidal, Spiral Core and Plunge Roughing					•	•	•	•	•
Milling - 3X Finishing									
Z-Level Finishing and Remachining			•	•	•	•	•	•	•
Optimised Z-Level Finishing and Variable Step Finishing			•	•	•	•	•	•	•
Planar Finishing and Remachining, and Optimised Planar Finishing			•	•	•	•	•	•	•
Spiral/Radial Finishing and Between 2 Curves			•	•	•	•	•	•	•
Keyways and Thin Wall Machining			•	•	•	•	•	•	•
Flat Surface Finishing and Contour Remachining			•	•	•	•	•	•	•
3D Contouring - Pencil Trace and 3D Drive Curve Finishing			•	•	•	•	•	•	•
Low-High Finishing and High-Low Finishing					•	•	•	•	•
Edge Finishing, Along the Curve and 2D Drive Curve Finishing					•	•	•	•	•
Continuous Finishing, ISO Finishing and 3D Finishing					•	•	•	•	•
Undercut Remachining and Parallel Pencil Trace					•	•	•	•	•
Combined Z-Level Finish + Optim.					•	•	•	•	•

Errors and omissions excepted.



WORKNC Feature Chart

Modules and Specialist Systems

	WORKNC Educational WNC-EDU	WORKNC Teacher System WNC-TEACH	Viewer WNC-VW	Shop Floor Editor WNC-SFE	WORKNC Robot System WNC-BOTS	WORKNC Robot Module WNC-ROBOT	WorkXplore WNC-PXP	WorkXplore Advanced Import Pack WNC-3DR	WorkXplore Export Pack WNC-EXP	Advanced Toolform WNC-ATF	Auto5 WNC-MA5	Standard 5-Axis WNC-M5X	5-Axis Post Processor (Universal) WNC-P5X	5-Axis Post Processor WNC-P5XCS	Extra Workzone Calculation Window WNC-1XWZ	Three Extra Workzone Calculation Windows WNC-3XWZ	Advanced Parallel Processing WNC-APL	Extreme Parallel Processing WNC-EPL
Viewer and Shop Floor Editor																		
Load WORKNC Industrial Workzones	•	•	•	•	•													
Load WORKNC Educational Workzones	•	•																
Measure, Visualise, Zoom, Orbit, Simulate	•	•	•	•														
Edit Feeds and Speeds	•	•		•														
Generate NC code		•		•														
Save WORKNC Industrial Workzones				•	•													
Save WORKNC Educational Workzones	•	•																
WorkXplore																		
Import DXF, DWG, MESH, IGES, STEP, Parasolid, SOLIDWORKS format files								•										
Import Solid Edge, Inventor, ACIS 3D, CADD5, JT format files								•										
Markup, Measure and Analysis tools.								•										
Export STL, DXF, DWG format files.								•										
Import of 2D and 3D Catia V4, Catia V5, Catia V6, NX, PTC format files								•										
Export of IGES, STEP, and WORKNC format files and batch conversion									•									
Especial Machining Technologies																		
Calculate toolpath with non-parametric tool shapes (barrel cutters), for Parallel Finishing (3X), Rolling (5X) and Global Roughing	•	•								•								
Multi-Axis																		
WORKNC Auto5 and WORKNC Auto 3+2	•	•									•	•						
WORKNC 5 Axis Standard, Blade and Impeller Strategies	•	•										•						
Post-Process any 5 Axis Toolpath with any Post-Processor	•	•											•					
Post-Process any 5 Axis Toolpath using the checksum specified Post-Processor	•	•											•	•				
Calculate a selected list of applicable toolpaths for Robots					•													
Export to Robot Simulation, Simulate, and post-process to Robot Language					•	•												
Processing Power																		
Calculate a second workzone when another one is running *															•			
Calculate three extra workzones																•		
Calculate up to 4 parallel processes when off maintenance **	•	•															•	
Calculate up to 16 parallel processes																		•

* the WNC-FL on maintenance also offers a second workzone calculation ** Any system on maintenance also offers 4 parallel processes

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Interfaces

	WORKNC 2D WNC-2D	WORKNC 2D Positional WNC-2DP	WORKNC 3X WNC-3X	WORKNC 3X Positional WNC-3DP	WORKNC Full 3X WNC-F3X	WORKNC Full License WNC-FL	WORKNC Robot System WNC-BOTS	WORKNC Educational and Teacher WNC-EDU and WNC-TEACH	Direct Interface CATIA V4 WNCAD-001	Direct Interface CATIA V5 WNCAD-002	Direct Interface Unigraphics (NX) WNCAD-004	Direct Interface Pro-Engineer WNCAD-005	Direct Interface JT WNCAD-006	Direct Interface CATIA V6 WNC-XC6	Direct Interface Basic Bundle WNC-XBAS	Direct Interface Bundle Max WNC-XMAX
Default Direct Interfaces																
Load IGES files	•	•	•	•	•	•	•	•								
Load STL files	•	•	•	•	•	•	•	•								
Load Parasolid files	•	•	•	•	•	•	•	•								
Load STEP files	•	•	•	•	•	•	•	•								
Load SolidWorks files	•	•	•	•	•	•	•	•								
Load VISI files	•	•	•	•	•	•	•	•								
Load Vero Transfer Files (V_T)	•	•	•	•	•	•	•	•								
Optional Direct Interfaces																
Load CATIA V4 files								•	•							•
Load CATIA V5 files								•		•						•
Load Unigraphics files								•			•					•
Load Creo Elements/Pro (formerly Pro/ENGINEER) & Pro/DESKTOP files								•				•				•
Load JT files in WORKNC Designer								•					•			•
Load CATIA V6 files in WORKNC Traditional								•						•		•
Load Autodesk Inventor files								•							•	•
Load Solid Edge files								•							•	•
Load ACIS files								•							•	•
Load CADDs files								•							•	•
Load JT files in WORKNC Traditional								•							•	•

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