

# WinPC-NC function matrix

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**WinPC-NC Light  
and Economy  
can run under  
32 bit Windows  
only**

Our multifunctional CNC machine control software WinPC-NC is available in different variants

- Light** Low cost solution for CNC beginners with direct LPT printer port controlling. Able to run typical applications like engraving, milling of modelling parts, PCB drilling and more.
- Economy** Control program with direct LPT printer port output and enhanced functions like tangential cutting, fully 3D abilities, mass production support, more import filters for common NC formats, free definable macros, synchronisation with external signals and more
- USB** Software with similar functionality to Economy but controlling the machine by USB port and a small control box including two LPT like and pinout compatible connectors.
- Professional** Full functional CNC control program with external axes controller cpu for all realtime tasks. Absolute reliable and stable for industrial applications and enhancable with optional peripheral modules like teachin keypad, 24V input/output signals, signal conditioner and converters. Special technological functions for laser cutting, automatic tool changer, digitizing sensor and much more.

	<i>Light</i>	<i>Economy</i>	<i>USB</i>	<i>Professiona</i>
<b>Input/output signals and machine controlling</b>				
Controlling the CNC machine	LPT (LPT1)	LPT (LPT1+LPT2)	USB 2.0 small box	serial axes controller
Input signals for limit and homing switches	5	10	10	up to 256
Additional outputs for drilling spindle, cooling, dispensing a.m.	4	8	8	up to 256
Motor currenxy by running signal, boost signal	✓/✓	✓/✓	✓/-	✓/✓
Inputs/outputs freely definable and assingable	✓	✓	✓	✓
Industrial conform 24V signals, optional	-	-	-	✓
Optional converters and adapters for clock/direction signals	-	-	-	✓
Analoge output 0-10V for spindle speed	-	8Bit - PWM	8Bit - PWM	0-10V - PWM
Ready signal for safety control, toggle, chargepump, 12.5kHz	✓	✓	✓	✓ (5kHz)
Realtime ability with Windows	good	good	best	best
Dependant from background programs/processes in Windows	yes	yes	no	no
Maximum step rate (kHz)	12	24	80	40
Controlled axes	3 (XYZ)	4 (XYZ TABC)	4 (XYZ TABC)	4 (XYZ TABCUVW)
<b>Hardware and operating system requirements</b>				
Runs with Windows versions	2k/XP/Vista/7 32 bit version	2k/XP/Vista/7 32 bit version	2k/XP/Vista/7 32 and 64 bit	all from Win95 32 and 64 bit
Processor and clock frequency	Pentium/Athlon Dual/QuadCore >1.4GHz	Pentium/Athlon Dual/QuadCore >1.4GHz	Pentium/Athlon Dual/QuadCore >1GHz	from Pentium 2 with 266 MHz
Peripheral ports (onboard or ISA/PCI board) (LPT must be hard connected, no USB-to-LPT adapter)	LPT	LPT and USB	USB 2.0	COM or USB-to-COM adapter
<b>Parameter settings, adjustments to machine and axes</b>				
Individual axes resolutions, steps and distance/revolution	✓	✓	✓	✓
Speeds, acceleration and deceleration ramps for each axis	✓	✓	✓	✓
Testing functions for mechanics and switches, motor tuning	✓	✓	✓	✓
Backlash compensation	✓	✓	✓	✓
Synchronisation to different input signals	-	✓	✓	✓
Several predefined ramp profiles	-	-	-	✓
Loadable individual created ramp profiles	-	-	-	✓
<b>Data formats and import filters</b>				
HPGL, PLT	✓	✓	✓	✓
Common drilling formats, Excellon, Sieb&Meyer	✓	✓	✓	✓
G codes with subroutines and abs./rel. movements	-	✓	✓	✓
Multicam 2D and 3D, extended HPGL	-	✓	✓	✓
ISEL NCP	-	✓	✓	✓
Postscript, vector informations, EPS/AI	✓	✓	✓	✓

	<i>Light</i>	<i>Economy</i>	<i>USB</i>	<i>Professional</i>
<b>Program functions</b>				
Intelligent look ahead for smooth movements w/o interruption	✓	✓	✓	✓
Integrated editor for creating and modifying NC files	✓	✓	✓	✓
Multi lingual, selectable after installation, 17 most important	✓	✓	✓	✓
Graphical display, zooming, turning and mirroring of data	✓	✓	✓	✓
Works with NC files in unlimited size	✓	✓	✓	✓
Machine positioning simply to a mouse click	✓	✓	✓	✓
Manual movements step by step or per defined distance	✓	✓	✓	✓
File origin and parking positions definable by teachin	✓	✓	✓	✓
Different tool parameters to each color or tool	✓	✓	✓	✓
Tool change switchable or simulation	✓	✓	✓	✓
Definable dwell times at tool movements	✓	✓	✓	✓
Comfortable wizzard for assigning signals to input/output lines	✓	✓	✓	✓
Z clipping at defined maximum tool depth	✓	✓	✓	✓
Automatic reload for NC file at modifications	✓	✓	✓	✓
Special display of drilling jobs	✓	✓	✓	✓
Orientation of moving buttons swichable to adjust to machine	✓	✓	✓	✓
Contour smoothing function for perfect edges	✓	✓	✓	✓
Tool lift for Z axis, savety clearance for rapid movements	✓	✓	✓	✓
Independent scaling factors for each axis	✓	✓	✓	✓
Speeds and positions in millimeters or inches	✓	✓	✓	✓
Mirroring and turning NC data	✓	✓	✓	✓
Realtime job display at jobs	✓	✓	✓	✓
Automatic identification of NC data	✓	✓	✓	✓
Tool colors and names free definable	✓	✓	✓	✓
Tool repetitions and Z axis feed	-	✓	✓	✓
Surface block and sensor for automatic zero point definition	-	✓	✓	✓
Free programmable 4th axis as U ABC T	-	✓	✓	✓
Tool length measurement and compensation of differences	-	✓	✓	✓
Tangential axis for foil and paper cutting	-	✓	✓	✓
Mass production with definable rows and coloums of NC data	-	✓	✓	✓
Resume interrupted job exactly to the step	-	✓	✓	✓
Cylindric engraving with diameter definition and 4th axis	-	✓	✓	✓
Feedrate and spindle override	-	✓	✓	✓
Software limit switches and machine dimension monitoring	-	✓	✓	✓
Comfortable and flexible macro programming	-	✓	✓	✓
Free definable reference positions at switches	-	✓	✓	✓
Comfortable teachin function	-	✓	✓	✓
Start of job from line no. or percent or prev.cancel position	-	✓	✓	✓
Automatic tool change support and molette output signal	-	✓	✓	✓
Digitizing and reproduction of 3D parts	-	-	-	✓
Macro for automatic finding Z zero level by surface probe	-	-	-	✓
Z height correction on the fly by inputs or keys, best for plasma or gascutting applications	-	-	-	✓
Dual X axis and special adjusting function at reference move	-	-	-	✓
External keypads for mouse free teachin	-	-	-	✓
Special technological functions for dispensing applications	-	-	-	✓
Automatic tool change, magazine monitoring sensor signals	-	-	-	✓
Free definable messages and bitmap display from input lines	-	-	-	✓
Support of dual and multiple heads	-	-	-	✓
Different counters and timers, machine/spindle running time	-	-	-	✓
Different housings for standard and industrial applications, optional stepper cards with different sizes and power	-	-	-	✓
Includes	CD	CD, USB dongle	CD, cable, USB box	CD, cable, CPU with housing
Manual, PDF and printed	✓ / -	✓ / ✓	✓ / ✓	✓ / ✓
Price (EUR incl. german sales tax)	149,-	279,-	389,-	from 952,-