NEW ROUNDO wCNC^4

Easy operation for production continuity

ROUNDO

Technology at its Best

NEW ROUNDO wCNC⁴ runs under a Microsoft Windows 64 bit Operating System installed on an Industrial Siemens PC terminal – Simatic IPC 277E, 8GB RAM, CELERON N2930, 80GB SSD - complete with mouse pad and touch screen, placed on the machine's control console.

NEW ROUNDO wCNC⁴ SYSTEM

UNLIMITED POSSIBILITIES

The PC communicates with the PLC - SIEMENS ET 200SP, CPU 1510SP-1 PN - through a CAN field bus system, which ensures high speed data transfer rates and reliability. All CNC bending programs, as well as language support and machine dependant constants are stored in databases on the hard drive (Microsoft sql-server). Therefore, there are virtually no limits to the number of programs that can be stored. For loading data and backup purposes, you may also use a USB flash drive.

Furthermore, the software can be installed on a desktop computer allowing offline programming from the office. This enables the operator to prepare bending programs in advance and to visualize running machine parameters. When completed, just download the program to the machine via CD, USB flash drive, your local network or even the Internet. The machine may run a program at the same time the database is in use by another PC, achieving true online programming, which increases the available production time, and minimizes preparation and set up time.

True CNC

The NEW ROUNDO wCNC^4 system controls speeds, acceleration and deceleration ramps and optimum operating pressures to achieve the highest precision. It can also control roll parallelism and tilting on plate bending machines.
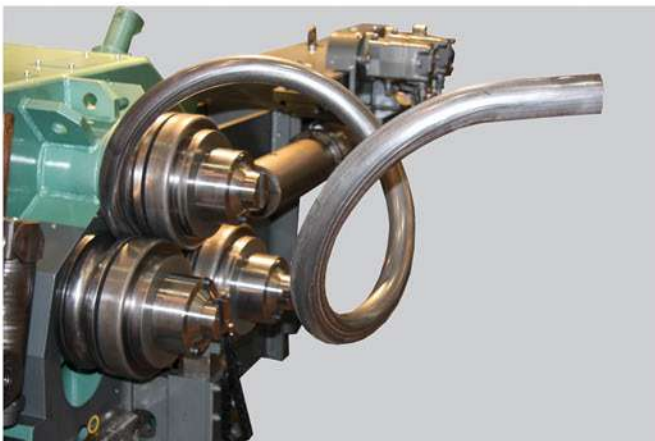
Total Control

With NEW ROUNDO wCNC^4 system there are no limits of the number of controlled axes. Optionally, two or more axes can be positioned simultaneously, providing an interpolation function for smooth transitions when bending complex shapes with multiple radii. The CNC may also control side functions on and around the machine, such as:

- **Plate bending machines**: drop end, balancing and erection of the top roll, support rolls under the lower roll, side support, top support, material infeed and outfeed systems, lifting roll, ejection device. Etc.

- **Section bending machines**: guide rolls in all their directions, pushing and pulling roll unit, mandrel and turning unit, calibration and pitch-setting devices, etc.

- **Infeed/outfeed systems**: for automatic loading and unloading of material. It is also possible to interface with industrial robots for maximum flexibility in automation.

The First with a CNC System

In 1985, ROUNDO was the first to develop CNC controls specifically adapted to bending machines. Since then, we have steadily enhanced and expanded the capabilities of our systems, allowing us to maintain our position as the world leader in this area as well. We have delivered almost 1,000 CNC-controlled bending machines, giving us the experience and know-how that all future customers will benefit from.

CNC FOR THE FUTURE

wCNC[4] was developed and designed to meet customer needs today as well as tomorrow and we will continue our efforts to maintain and enhance our position as the world leader. For you as a customer, it is essential to know that support and service are always available whenever needed. Future software upgrades may be distributed via the Internet, as well as support on-line troubleshooting.

The NEW ROUNDO wCNC[4] is your key to successful production of rolled parts for years to come!

Different CNC-system levels for different purposes and necessities

PAS-wCNC vs PS/R-wCNC

The CNC program itself is the same, including bending wizards and programming assistances etc, but there are some important differences between the systems:

PAS-wCNC
Available for all our plate bending machines (PASS110 – PAS960).
Side roll parallelism controlled by the CNC, i.e. one linear encoder at each end of the side roll.
Lower roll pinching pressure electronically adjusted via CNC
PASS: Lower roll position displayed and programmable. Parallelism is manually set.
PAS: Lower roll parallelism & position displayed and programmable, i.e. one linear encoder at each end of the roll.

PS/R-wCNC
Available for plate bending machines (PASS110 – PASS310).
- One linear encoder for each side roll.
- Side roll parallelism manually adjusted by pushbuttons.
- Lower roll parallelism is manually set.
- Lower roll position not programmable, except pinch/release commands.
- Lower roll pinching pressure manually adjusted.

Available for section bending machines:
- Full control of hydraulic guide rolls in all directions.
- Adjustment of pitch and diameter for the spiralling device and setting of hydraulic pulling unit incl. pressure adjustment with HMI.

1 | User-Friendly HMI (Human-Machine-Interface)

Our CNC-equipped machines are easy to operate and do not require any previous CNC experience. The operator can choose from a large number of languages for the CNC control. The positions of the axes and other important information are presented comprehensively and clearly on the large TFT display. The terminal, in combination with the practical stepless joystick controls, gives the operator the best possibilities to operate the machine both manually and in CNC-mode. The system is of course OPC compliant, allowing the machine to connect to shop floor monitoring software.

2 | Bending Wizards for Easy Programming

The NEW ROUNDO wCNC[4] features highly advanced Bending Wizards to simplify the creation of a CNC program. Simply enter the object data and the CNC will automatically create a complete bending program. A unique feature is that the Wizard is active in "real time", ready to recalculate the positions for each step based on any changes made to the program data. Adjustments made will be saved and will take effect immediately.

3 | Material Library

The system offers a unique feature to save "experience" by allowing the operator to create material library. Each material in the library is then given the result of the bending, learning how the material reacts. When a new program is created with the same material, the machine already knows how it will react and creates a near perfect result on the first part rolled.

4 | Drill-down functionality for Advanced Programming

For the experienced users, the CNC system offers the possibility to break down the programs into its basic steps for absolute control of each step of the program.

5 | Flying Production

Many objects require continuous bending without stops or pauses between the different radii, in order to avoid kinks or marks on the finished part. The NEW ROUNDO wCNC[4] gives you the possibility to perform flying production, including simultaneous adjustment of bending rolls, guide rolls, material supports or whichever other optional equipment you have installed on the machine.

6 | Tech-In Feature

The NEW ROUNDO wCNC[4] supports production of unusual and multiple radii parts using Teach-In feature. This allows the operator to move all axes in any way desired, and each new position will automatically be stored in the CNC program.

New ROUNDO wCNC^4
Development and advantages continue...

- Most user-friendly and powerful CNC in the market.

- Same instructions and operating principles as previous version.

- No previous technical skills and experience needed.

- No restrictions when it comes to number of programs or number of program lines.

- Possibility to stop the program while running and resume it where you left.

- Improved and enhanced offline programming on laptop or office-PC.

- Easier to move programs between machine and offline PC (improved Import/Export function).

- Easy and clear programming with Text & Graphic Interface.

- Info available in every function and window.

- User-interface fully customizable for each user's needs.

- Forward-looking: Siemens hardware to enable our customers to find spare parts on the market in an easy and quick way for many years to come.

- Changing tool set, material-parameters and programs with ROUNDO CNC One-Click-Change.

- Unlimited communication possibilities via OPC, HTTP and ROUNDO CNC Message Router.

- Enhanced programming assistance with Roundo CNC Wizards.

- Online-Assistance available.

NEW USER-FRIENDLY ROUNDO wCNC^4
updated graphic, improved functions, even easier to operate!

ROUNDO

GET IN CONTACT

WITH OUR SERVICE TEAM TO GET YOUR OLD SYSTEM

UPGRADED IN

3 DAYS!

For more information about ROUNDO wCNC^4 please get in contact with us at service@roundo.com or give us a call at +39 030 995 8735

ROUNDO

www.roundo.com

Demand results. Demand the best. Demand ROUNDO

Registered Offices:
Faccin S.p.A. - Via dell'Industria, 19
25010 Visano (BS) - Italy

Headquarters:
Via della Battaglia
46043 Castiglione delle Stiviere (MN) - Italy

info@roundo.com
service@roundo.com

+39 030 995 8735
+39 030 995 8771