

TECHNOLOGY PACKAGE

Machining a workpiece with
a Stäubli robot controlled by
the Technology Package

Milling, welding, sanding, cutting,
gluing, painting, blasting, etc.



Laser
cutting



Milling



Grinding,
deburring



Plasma
cutting





From drawing to finished product

CNC Solutions is a Belgian company founded in 1992. We provide both software and hardware to create paths based on CNC. We specialise in milling and sanding and have been using Stäubli robots for this purpose for more than a decade. In addition, we have already supplied various machines for welding, (plasma) cutting and blasting. We opt for Stäubli because of the precision with which we can control the robots.

We assist our customers from the drawing to the finished product. We think along about the process and always look for the most appropriate solution for the customer. Our Technology Package is the result of ten years of experience and cooperation with Stäubli, thorough research and a great deal of practical knowledge. With This Technology Package, we can also help robot integrators to offer a solution for their client.



STÄUBLI

Smart combination of software, hardware and robotics

Stäubli robots are **ideal for precision applications** such as milling, sanding and grinding for a number of reasons:

- **Precision and repeatability:** Stäubli robots are known for their high accuracy and consistent repeatability, which is essential for precision work such as milling and grinding.
- **Speed and efficiency:** these robots are capable of working at high speeds without sacrificing accuracy, which improves the productivity and lead times of projects.
- **Robustness:** built to work in demanding industrial environments, Stäubli robots are resistant to dust, chips and other pollutants commonly encountered in such applications due to their closed structure.
- **Flexibility:** the robots can be customised by changing tools and can be programmed for complex tasks and different processes, making them suitable for a wide range of applications.
- **Compact design:** Stäubli offers robots with a compact footprint that can be integrated into smaller spaces without compromising working space or freedom of movement.



Processes such as grinding, milling, deburring, polishing, blasting (wet and dry), plasma cutting/welding, laser cutting/welding, waterjet cutting, cladding, painting, cleaning, etc. All complex processes that require expertise. **CNC Solutions' Technology Package offers undisputed added value for this purpose.** Thanks to their many years of experience, CNC Solutions has developed a Technology Package that allows robot integrators to acquire an in-house robotised solution, with a focus on productivity and flexibility.

The strength of CNC Solutions' Technology Package lies in three pillars:

- **Software:** an offline software package that allows the operator to easily and quickly learn and test a new product on the workpiece.
- **Hardware:** a Beckhoff motion controller, which allows the robot to be controlled like a standard CNC machine.
- **Robot:** controlled by the motion controller, the robot ensures precise work, and could do this 24 hours a day.

The Technology Package is the perfect fit for integrators to control trajectories.

Plug and play

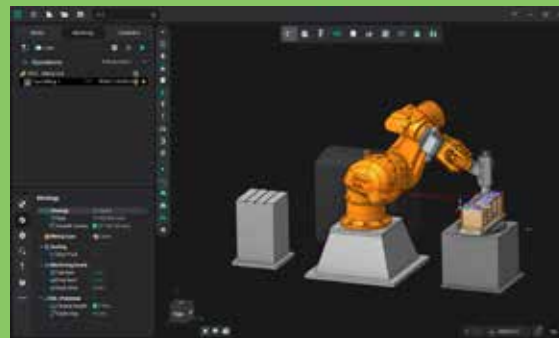
CNC Solutions' Technology Package offers everything you need to accurately machine a workpiece with your Stäubli robot. This plug-and-play system allows you to connect your robot to the controller with a single cable. The process (milling, welding, sanding, etc) is predefined to suit your machine.

The possibilities:

- ENCY Robot
- Post-processing
- G-code
- Absolute calibration
- TPC calibration
- Frame calibration
- Tool compliance
- Tool changer
- Tool station
- Singularities
- Linear external axes
- Rotary table
- OPC UA
- Real-time path adjustments
- Take tool wear into account
- Encoder wheel manual operation
- Process parameters

No more teaching thanks to ENCY Robot

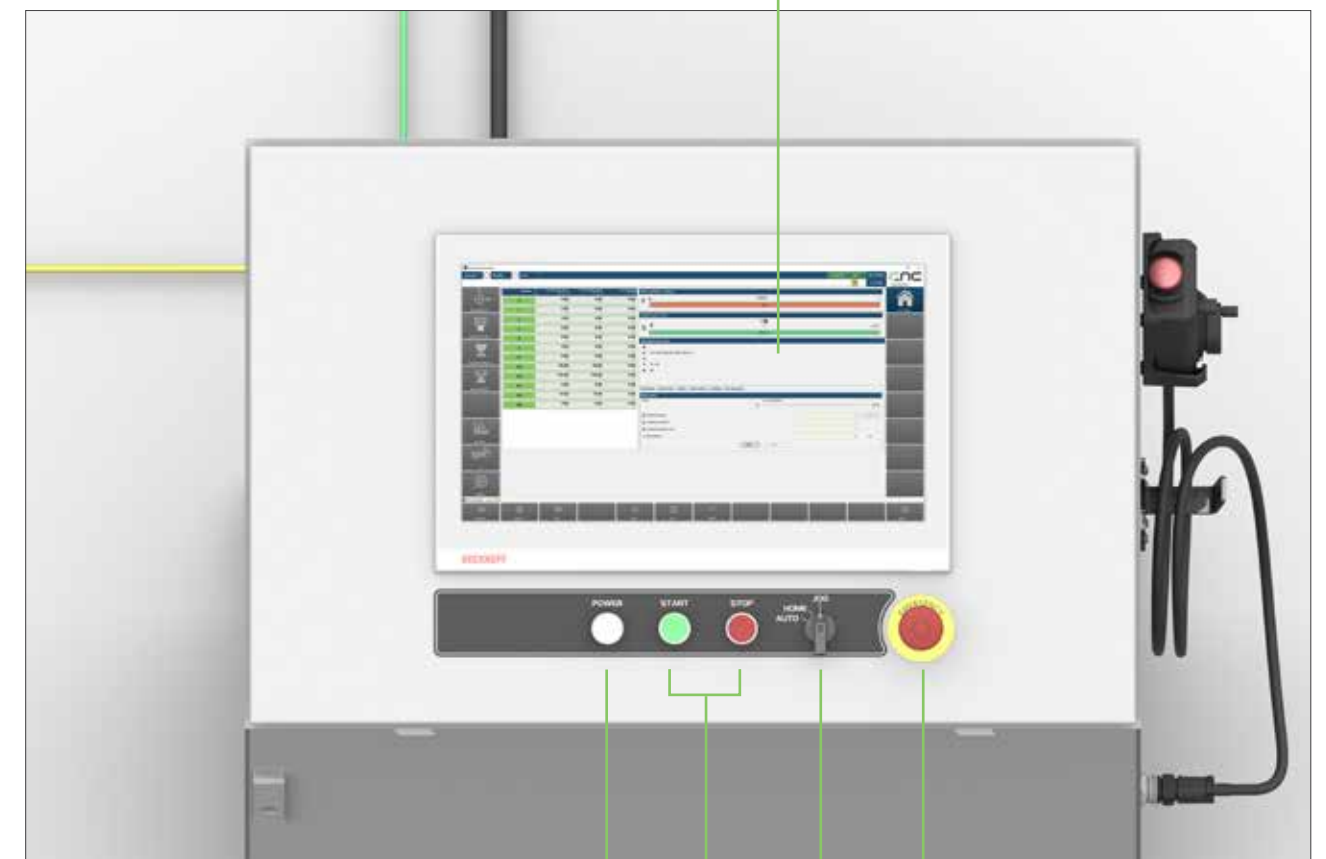
Teaching the robot is time-consuming while at the same time, the robot is not being used! ENCY Robot offers a complete offline solution for robot programming, helping you from drawing to finished product. It is an all-in-one package for design, machine setup, calculation and simulation of tool paths. ENCY allows you to simulate the entire robot environment, check axis limits and avoid singularities, and it provides full collision control. So no more online teaching!



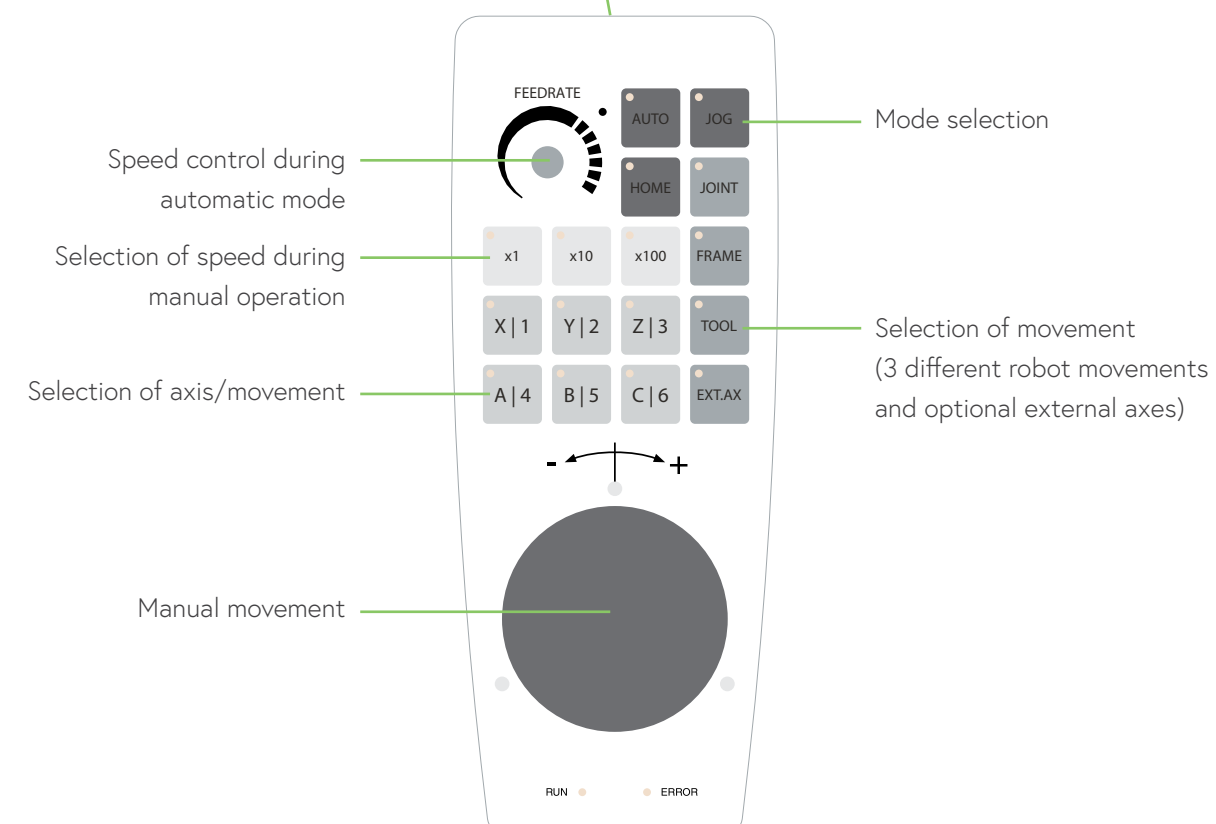
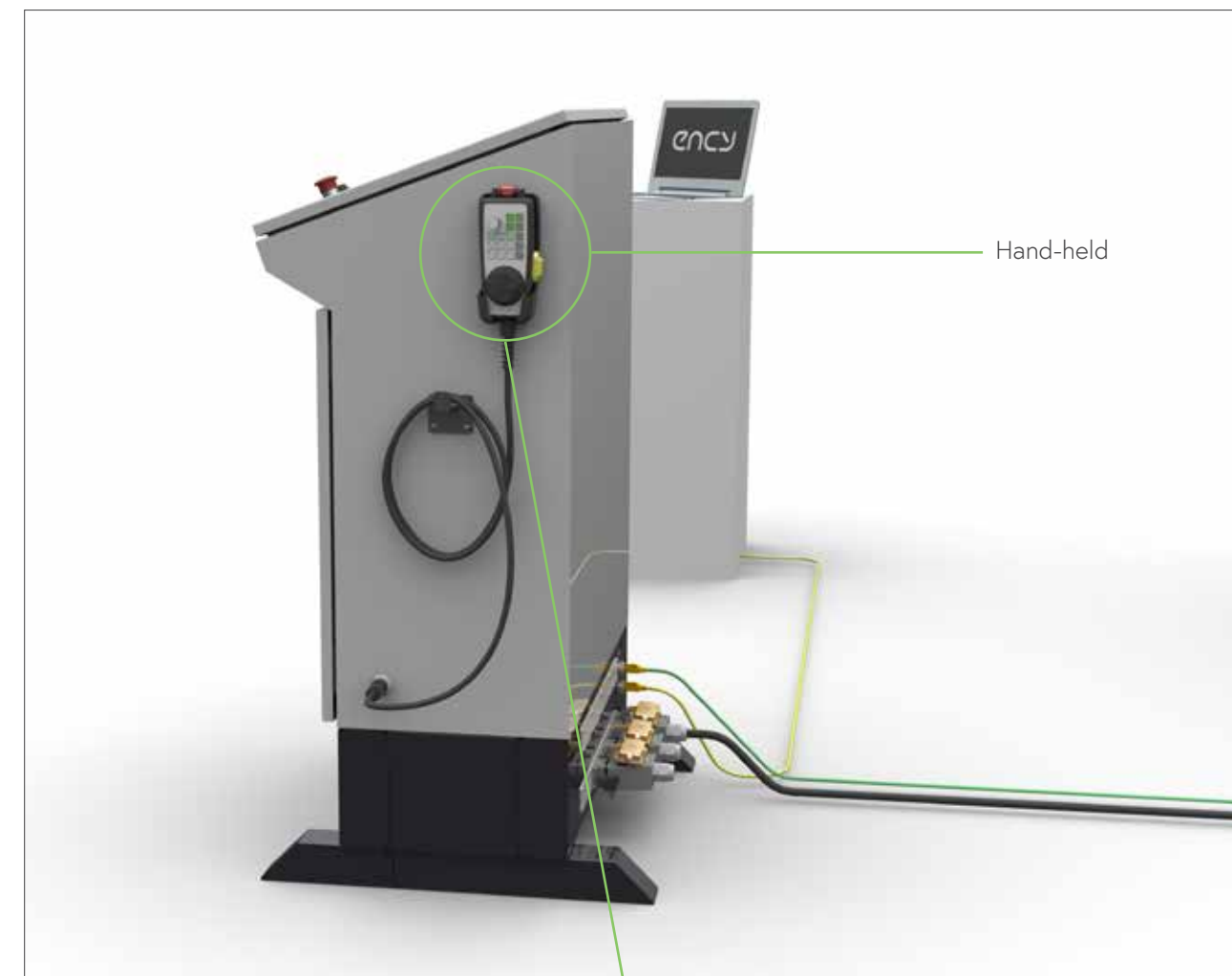
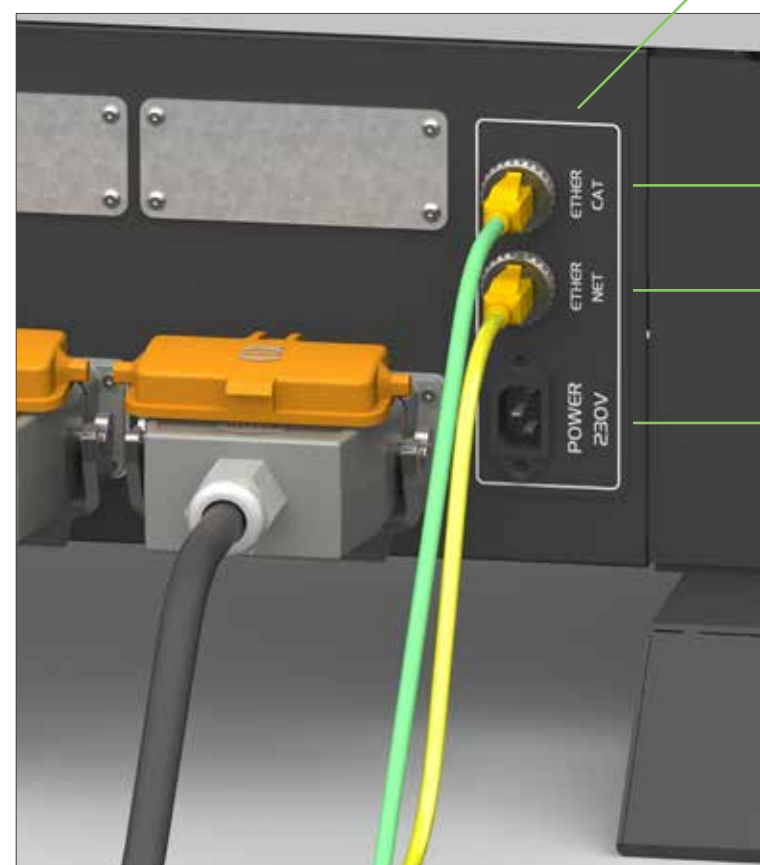
ency
Software



Intuitive CNC control with all process parameters



On/Off Start/Stop Mode selection Emergency stop

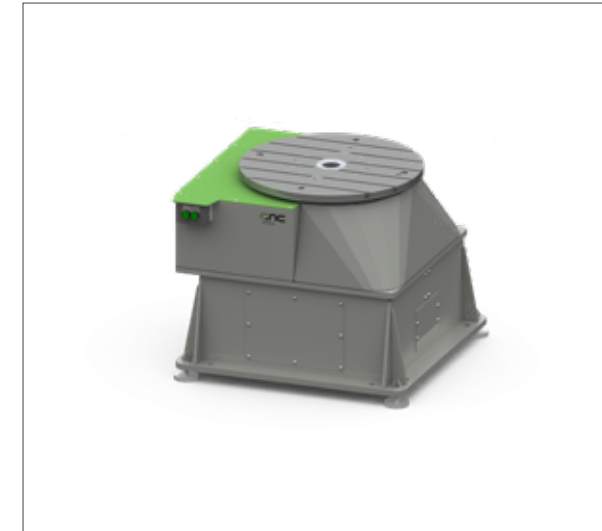


Options



Toolbox

- Open or closed tool magazine
- 10 tool positions



Turn table

- Work table or turn table, with vacuum grid or T slot
- Moves simultaneously with the robot



Modular toolbox

- Compact tool cabinet
- Drawers for tools and aggregates, for the robot to pick up
- Accessible inside (robot) and outside (operator) the robot cell



Indexing table

- The workpiece can be loaded from outside while another workpiece is being processed in the cell at the same time
- Combination of 2 work tables or 2 turn tables



Maxerade

- Master for grinding, sanding, deburring and polishing
- Tool to take in count of all tolerances during grinding
- The master can automatically pick up and drop off aggregates for grinding
- Operates by pressure force: adjustable force from 10 N to 200 N
- Full gravity compensation



Track

- Up to 12 meter/472 inch
- Moves simultaneously with the robot

Krommebeekstraat 46
8930 Menin, Belgium
T +32 (0)56 18 59 50
info@cncsolutions.be
www.cncsolutions.be

