

Colibri SPE Series

Position / Force Control Electric Servo Presses



- Up to 200 kN
- Precise,
- Flexible,
- Efficient,
- With process control

Colibri Series

Position / Force Control Electric Servo Presses

Specification

Colibri SPE electric servo presses are designed to be used in all controlled joining applications, especially assembling and forming.

Colibri SPE is equipped with integrated load and position control sensors to ensure its precision. With these sensors and an advanced computer-based control system, high-precision closed-loop process control is provided.

Performing quality control for the process at the manufacturing stage minimizes material and labor losses due to faulty production.

Advantages

High accuracy with functionality

- User selectable programs with different functions and working modes: stroke, force, distance, manual measurements and pressing time.
- Fast control loop, with force-position monitoring at real-time.
- Strong frame build with CAE design, leading to high repeatability and accuracy

Integrated quality and process control

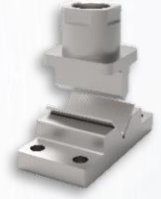
- Force-stroke graph display with control windows and limits allowing to evaluate the result on time.
- Able to define a reference muster and compare the results.
- Data sharing through pc interface to higher level proses management software with traceable process results

Flexibility and adaptability

- Comes with universal table or rod ends in order to use different type of tooling.
- Thanks to the PC based system, which allows a large capacity for programs and saving of results, also let the operator, use the press with a familiar and intuitive user interface.
- Easy start up macros for different applications allows the user a quick start of work with a new part.
- Compatibility to industrial standards. Designed according to Industry 4.0.

Environment friendly

- Higher energy efficiency, due to servo drive mechanism
- Reduced maintenance that minimizes the production lines stop times.
- Safer, cleaner and less noise generation.
- Lower operating costs.



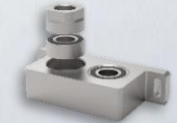
Bending/Forming



Riveting



Puching/Notching



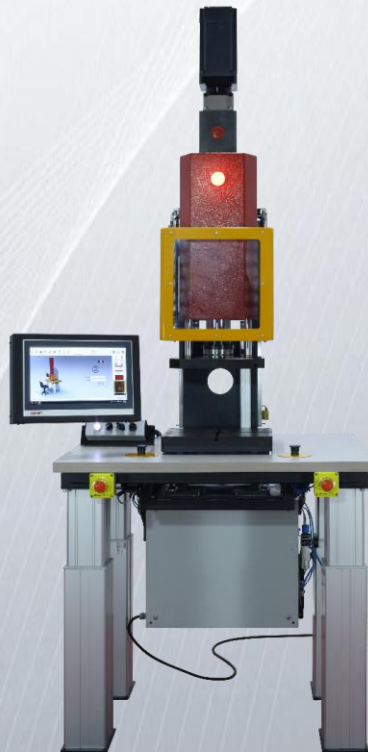
Press Fitting/Sealing



Testing



Bonding/Compression



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Software and Automation

The press control integrates a PC based Beckhoff control system allowing the management of complete press cycle even the user interface.

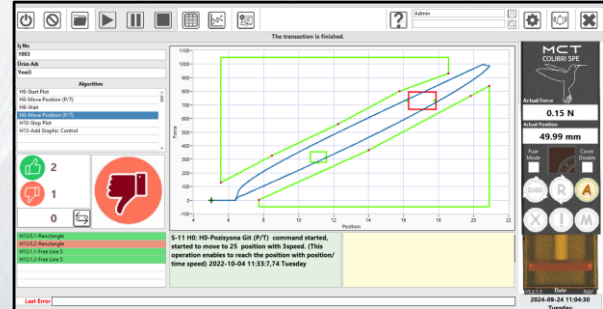
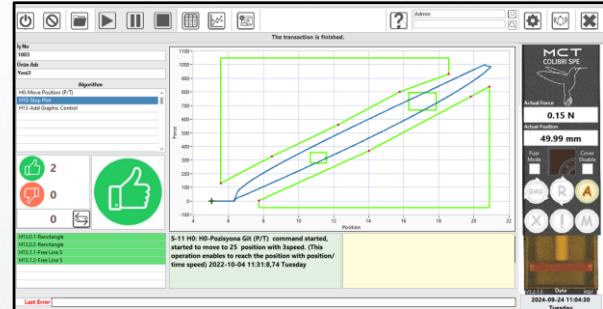
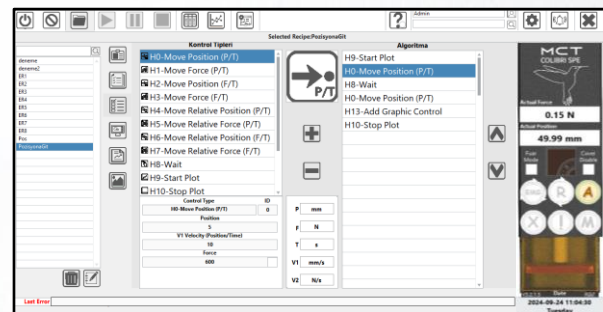
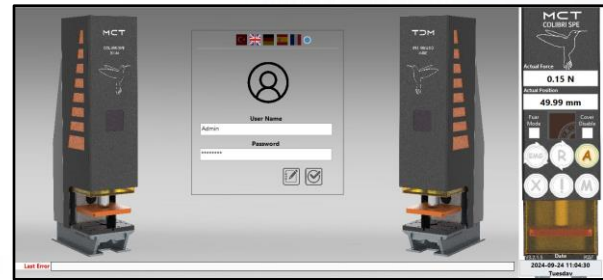
It allows process control with built-in programmable control zones and can stop the cycle or give a warning when out of tolerance.

It is possible to program using a specific force, position or a combination of both, with the graphic-based programming screen that can be adjusted throughout the cycle.

As the press can be used stand-alone, it can communicate with different devices over common bus systems. In this way, it is possible to control more than one press at the same time from a single center. It is possible to make mold/tool selection and work recipe, to store critical data about process results, and to make basic statistical calculations via computer software.

Integrated software with intelligent functions to monitor the process and complete reports of the pressing results including:

- Pressing curves, templates, saved gauge curves.
- PC storage of the results of every process in .csv and .xls files.
- Capacity for working programs limited with Pc storage capacity, practically more than thousands.
- 7 evaluation elements, including lines, windows, tunnels with limiting and input-output selection.
- Easy tracking of warnings and alarms.



Technical Specifications*	Electric Servo Press Colibri SPE 30-200	Electric Servo Press Colibri SPE 60-300	Electric Servo Press Colibri SPE 100-300	Electric Servo Press Colibri SPE 200-400
Pressing Force	30 kN	60 kN	100 kN	200 kN
Motor Power	4,2 kW	5,5 kW	5,5 kW	6 kW
Stroke	200 mm	300 mm	300 mm	400 mm
Daylight	300 mm	450 mm	450 mm	500 mm
Approach/Return Speed Max.	125 mm/s	100 mm/s	100 mm/s	80 mm/s
Working Speed Recommended Max.	20 mm/s	15 mm/s	15 mm/s	15 mm/s
Minimum Speed	0,05 mm/s	0,05 mm/s	0,05 mm/s	0,2 mm/s
Positioning Accuracy	± 0,01 mm	± 0,01 mm	± 0,01 mm	± 0,01 mm
Force Control Accuracy	± 50 N	± 100 N	± 125 N	± 250 N

*Technical specifications may change.

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Applications

Energy Efficient Hydraulic Servo Presses up to 2000 kN



- Automotive Applications
- Defense Industry Applications
- Clamping
- Combining
- Bending
- Drilling
- Assembly Processes

100 kN / 100 Nm Rotary Linear Servo Press



- Automotive Applications
- Defense Industry Applications
- Assembly Processes
- Powder Metalurgy

Energy Efficient Electrical Servo Presses up to 200 kN



- Electronic Parts Assembly Applications
- Electro-Motor Body Assemblies
- Power Electronics PCB Mounting Operations

Servo Mechanical Actuators (1kN – 200 kN)



About Us

MCT Mechatronic Control Technologies was founded in 2023 and operates as a pioneering name in control automation with its innovative engineering solutions and technological products. Based on motion control technologies, it was established to develop high-performance actuators and subsystems for the automotive, defense, and aerospace sectors. With over 20 years of experience in these fields, our dynamic team, industry-leading solutions, and innovative approach, we are here to serve you. By providing our customers with the highest quality products and services, we aim to increase efficiency in industrial processes and lead the technologies of the future.

