

ELECTRICAL CONTROL SOLUTION FOR SHEET METAL EQUIPMENT SOLUTION



TRUSTED TECHNICAL SERVICE

ELECTRICAL CONTROL SOLUTION FOR SHEET METAL EQUIPMENT SOLUTION

SYNTEC



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About Syntec

26⁺

26 years of service
experience

1

One-station
service

50⁺

Global Service
Locations

NO.1

PCbaseNo.1

- SYNTEC 26 years' experience in motion control R&D services PC Base No.1.
- Autonomous system with one-station service.
- Provide automation products & industrial internet total solution with hardware and software.
- More than 50 service locations worldwide.
- Taiwan team independent research and development, strength leading multi-brand manufacturers
- Complete ecosystem, ensuring rapid integration.



Syntec CO., LTD was established in 1995, cultivated in machine tool and automation controller' s software & hardware research and development. Syntec has stood as the most influent controller supporter in Asia market. Being as the practitioner of Syntec smart manufacturing, Leantec has integrated the specialists in Syntec group and smart manufacturing. On the ground of the experiences in machine tool and smart manufacturing, Leantec could support complete, professional solutions about informatization, automation, intellectualization to increase cooperate efficiency and build strong market competition.

LEANTEC CO., LTD (LEANTEC) was found in 2013 by Syntec Group. Based on years of cultivation in control technique, Leantec dedicated itself to provide complete solutions to smart manufacturing for clients. Ranging from industry robots, web service, automation integration, electromechanical module and smart manufacturing accessories (smart edging, smart gripper), Leantec could increase the production efficiency, quality and industry upgradation.

Our Vision: Trusted Technical Service

Our Mission: Complete Solution to Smart Fact



Grooving Machine

High Level Serial Controller

- Serial structure provides great motion control.
- Easy axial expansion with support up to 18 axes control.
- I/O plate expansion and easy disassembly. Support up to 256 I/O.
- Compact size for reduced product control cabinet volume.
- Built-in package servo tuning function, fast modifying servo parameter.
- Selective handwheel solution, supporting external AD/DA port selective solution to meet more demands.



FC-B



HC-15C



Handweel

High Performance Servo Package Solution

- Serial driver with simple wiring.
- All in one design with compact size.
- Support internet analyze tool to fast examine after-sale problem.



SYNTEC Serial Servo Motor

2D Graph Design and Convenient Input Function

- 2D graph design immediately produce groove width, depth, front and back data. (WYSIWYG)
- Mass modification through convenient input function, editing the processing data rapidly.



2D Graph Design



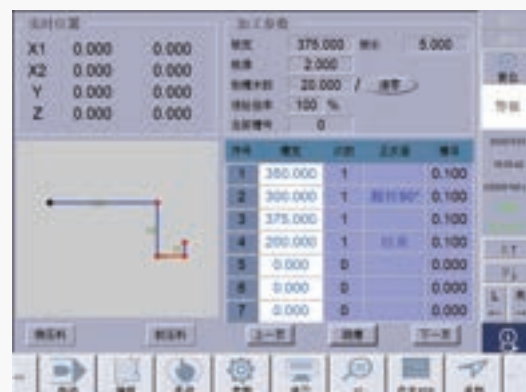
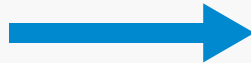
Convenient Input

DXF Import Function and MES Docking Function

- DXF file import system could fast preview and one-click program generation, meeting the offline design demand.
- Scan and produce program through scanner gun, or interfacing with MES to access data applications.



Scans access
processing program



Scan and Load

Dynamic Simulation

Color change during processing, dynamic simulation of which process is the current process.



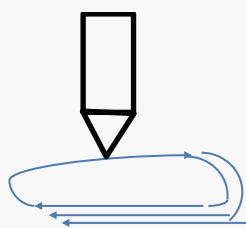
Second Step Graph



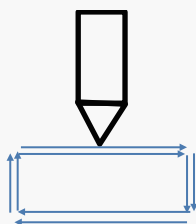
Third Step Graph

Advance Tooling and Smooth Direction Changing

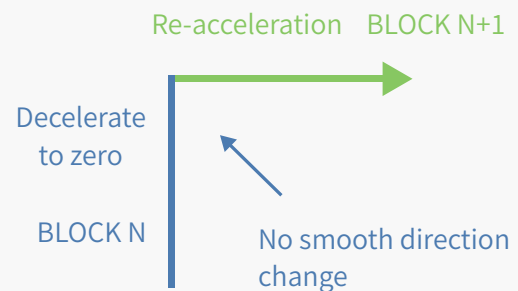
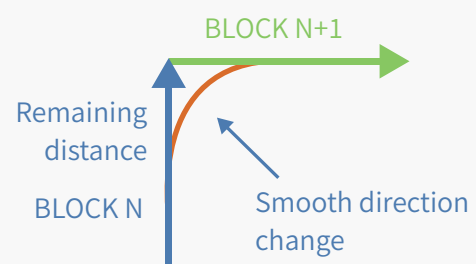
Gate path machining, improving machining efficiency by about 20%.



Traditional way comparison



Multi-tool feed path



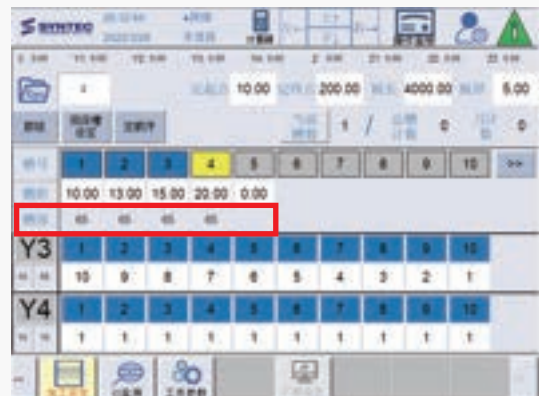
Smooth Direction Change Schematic Diagram

Same Depth Groove Setting Function

No need to differentiate between deep and shallow grooves, one click to set the groove depth.



One Key Same Depth



Setting Result

Other Special Functions

- Smart feed management, extending the tool lifespan.
- Online conversion between Chinese and English for foreign tutor convenience.
- Provide secondary development tools, developing value-added functions without programming.
- Provide users making value-added product development and protect industry-specific process knowledge.



Grooving Software Base

Bending Center

Hardware Solution

- 15 inches touch screen controller with serial communication agreement.
- Serial absolute servo solution. The coordinates power-off memory, no need to return to the original point.
- All-in-one drive solution, more space-saving power distribution.
- Support several group I/O solution for easy expansion.
- Support handwheel solution to adjust the position more convenient.



15 Inches Touch Screen

- Selective keyboard/mouth operation.
- Selective external connection computer screen solution.
- Selective grating interface.
- Selective external AD/DA.
- Support network port and RS485 interface.



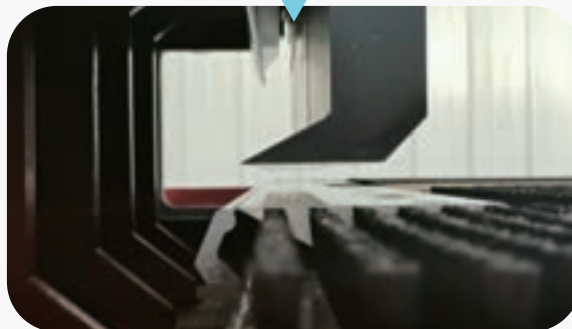
I/O



Handwheel

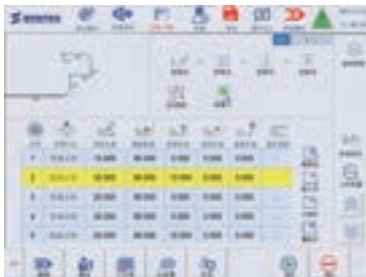


All in One Serial Servo



2D Graph Design

Directly select bending side. Order programming with 2D graphics in real time.



2D Graph Design

3D Graph Import Function

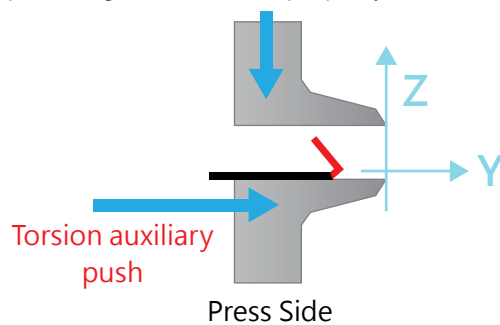
Support STEP file import with one key produce processing file.



3D Import

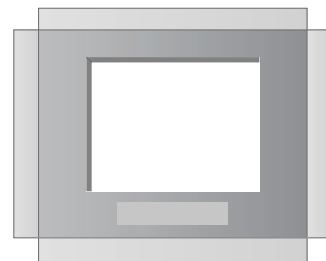
Torque Push Function

Provide torque auxiliary push when bending great board and thick board. Prevent work piece move from processing, which infect shape quality.



Empty Plate 4 Sides Location Processing Function

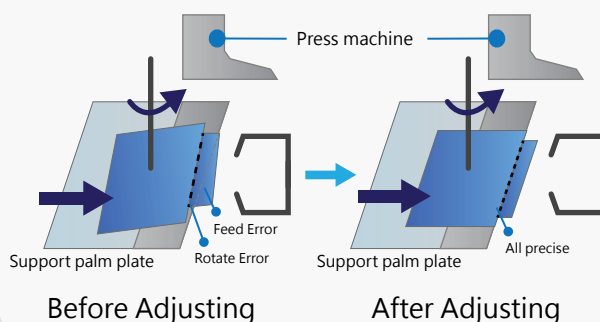
The empty plate could locate through algorithm, achieving one-time processing.



Eccentric Press

Online Adjust Function

It can automatically pause when running the program, adjust the size deviation with the handwheel, write the adjusted position with one click, and operate according to the bending steps to ensure that the material is adjusted in place at one time.



Other Software Function

- Provide automatic tooling algorithm to automatically calculate the required tool combination.
- Support up to 18 axial control.
- Handwheel simulation function could provide direct handwheel simulation to processing program.
- Support optional function for raster ruler.
- Support multiple feed methods for different board application.
- Provide C axis autonomous deviation calculation. One click correction Function.
- High openness of the system, convenient to do supporting function upgrade with the surrounding.

Electric Press Brake

Hardware Solution

- 10 inches and 15 inches touch screen optional function.
- Serial absolute servo solution. The coordinates power-off memory, no need to return to the original point.
- All-in-one drive solution, more space-saving power distribution solution.
- Support several group I/O solution for easy expansion.
- Support handwheel solution to adjust the position more convenient.
- Optional grating and deflection compensation functionality available.
- Support network port and RS485 interface.



Suspension Arm Box



72BA



15 inches touch screen

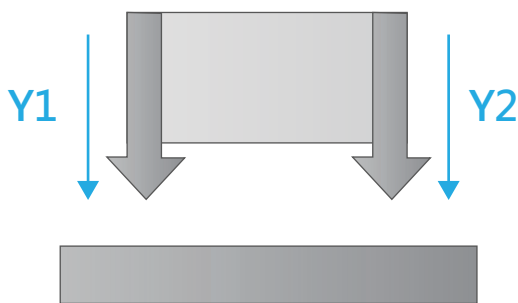


Serial Absolute Package Servo



Double Side Simultaneous Move Algorithm

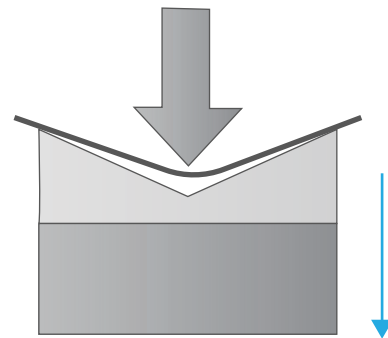
- The higher double side speed is, the better simultaneous move has. The whole synchronization error is less than 0.01mm.
- Reset and emergency stop synchronous protection, expandable multi-cylinder synchronization.



Good Synchronization and Fast Speed

Torque Limit Function

- Torque control for bending and clamping to protect the mold.
- Easy to operate.

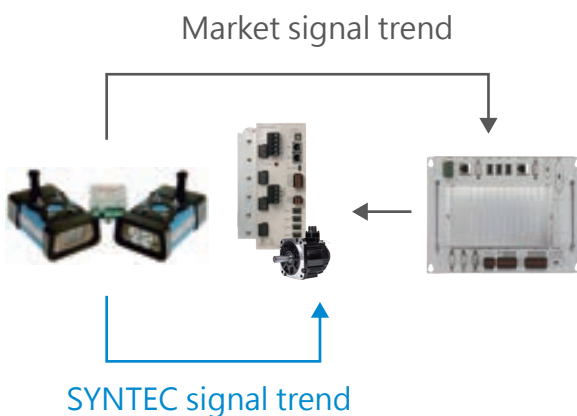


- Constant torque to close the mold, convenient for mold alignment.
- Real-time pressure monitoring during the process for safety protection.

Motor Torque Protection

Safe Lenticular More Sensitive

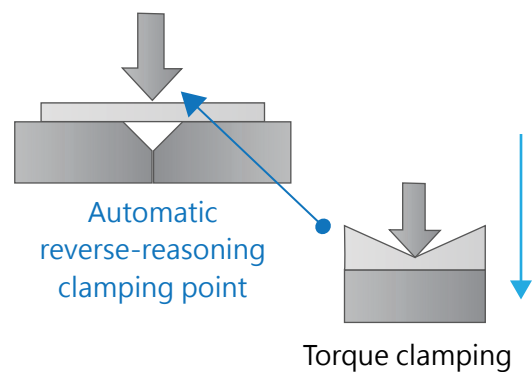
The safety lenticular signal enter driver with faster stop.



Safe Signal Connection Diagram

Clamping Enabled by One Click

- After clamping, enabled automatic reverse-reasoning clamping point position by one click.
- More precise processing results, more convenient for customers.



Torque Clamping Schematic Diagram

Hydraulic Press Brake

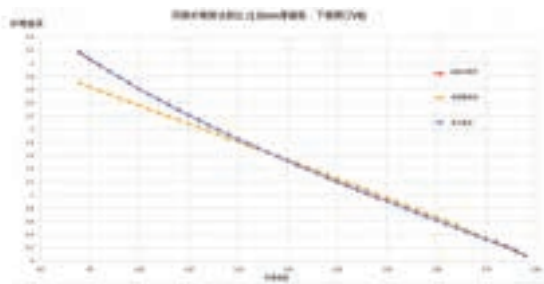
Hardware Solution

- 15 inches touch screen controller with the support up to 18 axes.
- Serial absolute servo solution with coordinates power-off memory, no need to return to the original point.
- All in one driver solution with more space saving electronic distribution.
- Standard with 16 inputs and 12 outputs, expandable with 2 sets of grating interfaces.
- Expandable 4 DA and 2 AD interface.
- Support network port and RS485 interface.



Bending Special Processing Algorithm

Align to outstanding processing algorithm. Provide process library and mold library. Precisely process.



Bending Algorithm Is Better

Assist Bending Process

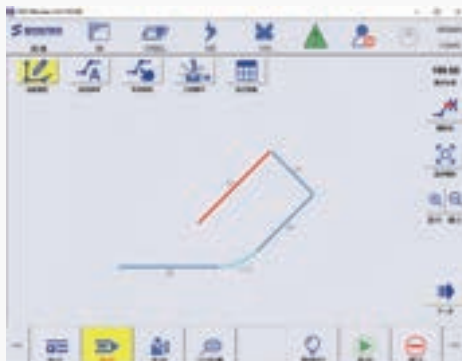
Provide assistant bending trolley function in bending system. All in one controlling solution is smarter.



Bending and Trolley All in One Machine

2D Graph Design

More fast and convenient 2D graph design function. All bending angles and lengths are entered at once, and bending steps are automatically generated and checked for interference.



2D Graph Design



Interference Check

VR/ Clamp Point Navigation Function

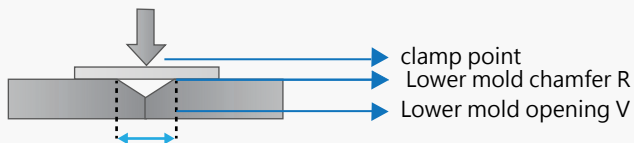
Quickly achieve precise bending angles from 90 degrees to 135 degrees.

- Bend 90 degrees and 135 degrees inaccurate.



- General operation.

only rely on the master's experience to slowly correct the parameters.



- The SYNTEC automatically calculates the recommended V/R/clamping point compensation values based on the bending results and writes them in with one click.



Graphical Simulation and Table Programming

Provide graphical simulation to make the bending easier. Table programming could complete all setting with one page.



Processing Simulation

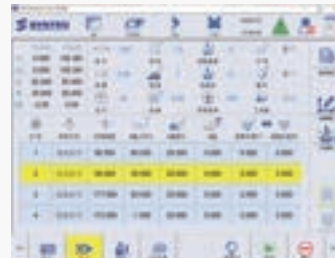


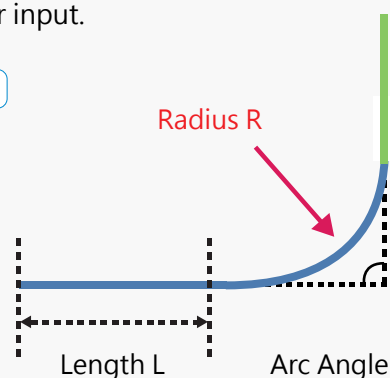
Table Programming

Curved Bending is More Convenient

The data could complete processing based on paper input.

- Data can be entered according to the drawing.

- Arc angle.
- Arc radius.
- Length L.
- Number of arc segments.
- Direct compensate arc bending angle.



Hydraulic Torsion Bar Press Brake

Hardware Solution

- 10 inches touch screen optional solution.
- Serial absolute servo solution has higher reaction.
- Optional deflection compensation.
- Optional electronic caliper.



Special Software



FC+10 Inches Touch Screen



Economical Servo



Support Double Y Axis

Supports dual Y torsion axis control, which can easily adjust the balance and angle deviation on both sides.



Double Y-Axis Torsion Shaft Function

Electronic Caliper Function

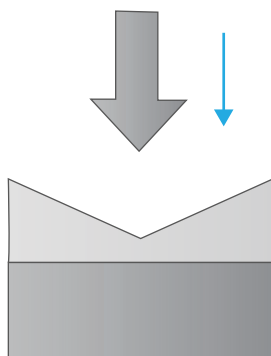
Support electronic caliper function. Set the lift height at each step to improve processing speed.



Electronic Caliper

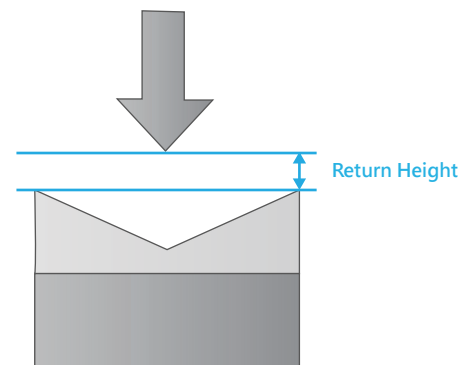
Slow Bending

Slow bending provides more reaction time. The processing is safer.



Return Height

Lenticular position feedback to adjust the return height to increase work efficiency.



Value-added Service

High Software Openness

Develop the operation interfaces based on customer demand.



Data Online

You can monitor the status and output of the machine on the cell phone and connect to the ERP of the site.



Other Functions

Bending Machine Other Functions

- Support 7+1 axis and above solution.
- Coordinate power off recall and do not need to zero.
- Provide the product model base/mold base, which could store 999.
- Angle multi-step programming.
- Internal and external radius algorithm.
- Single side/ multiple side angle compensation function.
- Mold safety area protection.
- Great arc automatic calculation.
- Smart avoidance.
- High level bending pressure algorithm.
- Deflection compensation.
- Select auxiliary bending trolley.
- Select 2D graph design.
- Standard with Chinese and English language. (can be extended to multiple languages)

Integration Soltion

Plate Metal Solution

Provide laser cutting, sheet metal slotting, bending, welding, polishing and other peripheral electronic control solutions.



SYNTEC Laser Cutting Solution



SYNTEC Sheet Metal Grooving Solution

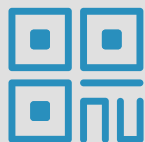


SYNTEC Sheet Metal Bending Solution





Remote
Transportation



Scan
and Process



MES
Docking



Mechanical
Arm

Metal Bending Solution



SYNTEC Sheet Metal Welding Solution



SYNTEC Sheet Metal Polishing Solution



NOTE





NOTE



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