

Innovative Technologies | [www.ermaksan.com.tr](http://www.ermaksan.com.tr) | Press Brake Series



## **SPEED-BEND**

Synchronized Hydraulic Press Brake





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### After half a century, Ermaksan is moving confidently into the future

With 48 years of technological investment and our innovative R&D department, Ermaksan has become one of the world's leading companies in the sheetmetal fabrication machinery industry.

Ermaksan is a pioneer in the industry with strong R&D department, 80.000 m<sup>2</sup> modern production facility, highly qualified team of 700 staff dedicated to high quality manufacturing of our machine tools.

Our factory is equipped with the latest industry leading precision CNC machines. Under the supervision of expert engineers, the factory manufactures 3,000+ machines annually. Ermaksan is one of the world's leading companies in the industry represented by exclusive dealers around the world with strong technical support in 70 countries.

Ermaksan designs and manufactures durable, productive, and value based machinery. We do this by, continuously meeting customer demands and exceeding industry standards towards sustainable growth.

High Tech  
CNC Machines  
manufactured by  
Ermaksan;

- New Generation Fiber Lasers
- CO<sub>2</sub> Lasers
- Press Brakes
- Servo Motorized Hybrid Press Brakes
- Plasma Cutting Machines
- Punch Presses
- Shears
- Iron Workers

**CNC PRESS BRAKE MODEL S**

Your partner for presentation of the needs

**Speed-Bend**  
Synchronized Hydraulic Press Brake.

Production time is the most important factor in maximising profit in enterprises.

Speed-Bend series is designed to enable speed and high quality production capability in order to decrease time per unit costs.

Your new future trend...

SHIFT TO SPEED

**Motorized crowning system**  
Motorized crowning system helps bending your parts in same angle along every point of piece by sending signals to controller.

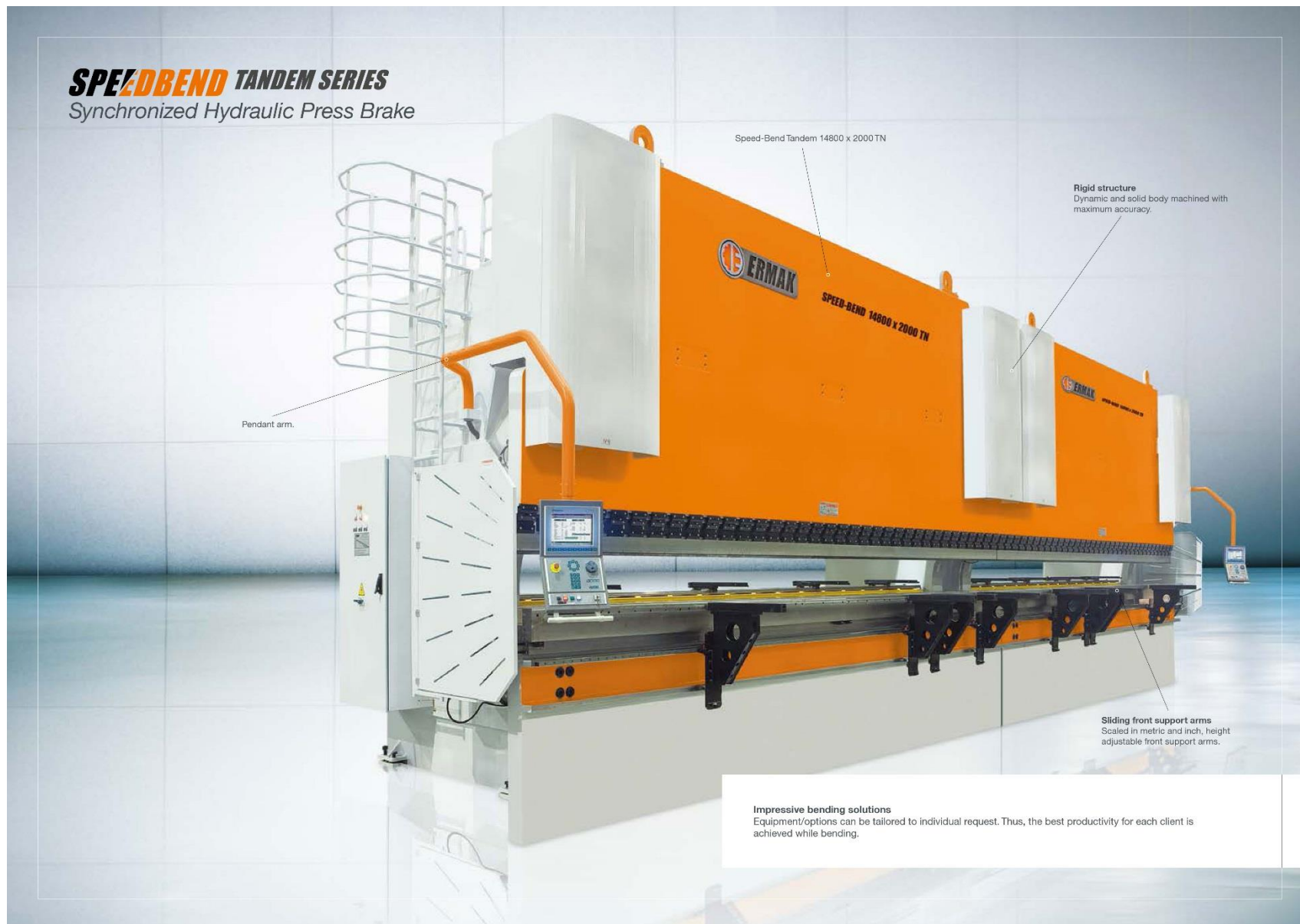
**Rigid structure**  
Dynamic and solid body machined with maximum sensitivity.

**Sliding front support arms**  
Scaled in metric, height adjustable front support arms.

**Shift to speed**  
To meet demands; free fall and return movement speeds are increased with Speed-Bend. Twice times faster production than regular CNC press brakes.

# Advantages of Speed Bend





# Extreme production with high performance in less time...

↓ "High-Speed Free Fall"

→ "High Bending Speed"

↑ "High Return Speed"

Free-fall, bending and return speeds of Speed-Bend press brakes series makes is the best choice to meet demands in today's competitive markets. Speed-Bend series offer twice as fast production capacity compared to conventional CNC press brakes.

While increasing the speed, engineers of ERMAKSAN R&D did not forget to increase the stroke and opening (daylight) for an ever more versatile press brake.

With these specs, deep bends can be achieved with longer tools, parts can be easily taken out from front of the machine...

Z-type parts can be bent with long dies.

Servo motorized back gauge X + R + Z1 + Z2 (standard)

CNC backgauge designed by ERMAKSAN is fast and accurate. The strong construction ensures an efficient operation for many years. The system moves with servo motor driven ball screw shafts and on linear bearings with an accuracy of 0.01.

Backgauge can be upgraded with X1, X2, Z1, Z2, R1 and R2 on your request.



Back gauge fingers  
Special design foldable back gauge fingers.



C 2000 rear light guard  
CE standard safety protections help you work in safer conditions.

4 axis (X, R, Z1, Z2) servo motorized back gauge  
Backgauge positioning with 0.05 mm accuracy.

# Shift to Speed-Bend

- High Bending Speed
- High Bending Accuracy
- High Bending Capacity

- High quality and repetitive bending is obtained by using synchronized cylinders and valves.
- Automatic axis referencing and calibrating when machine is turned on.
- All ERMAKSAN machines are designed using SOLID WORKS 3D programming and made with enhanced ST44-1 quality steel with the latest technology.
- Rigid upper beam runs on 8-point bearings with bending precision of 0.01 mm.
- Well-known top and bottom tool brands are long lasting stiffened and provide precise bending.
- Silent high pressure pump.



**Delem DA-96T controller**  
Ease of use combined with state-of-the-art technology go hand in hand, improving productivity.



## Shift to Speed-Bend

If you are looking for speed, versatility and high efficiency, Speed-Bend press brakes are the right choice.

**CNC PRESS BRAKE MODEL S**

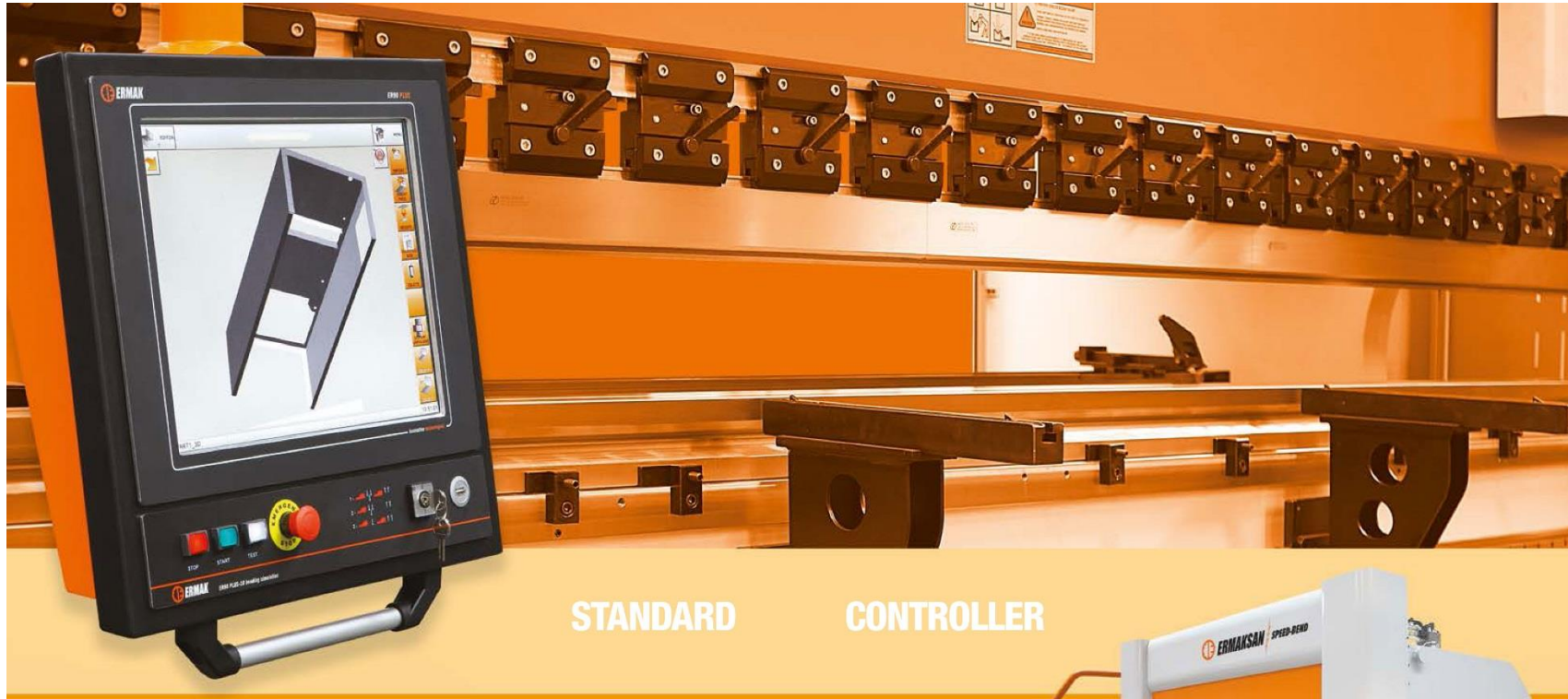
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**CNC PRESS BRAKE MODEL S**

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**STANDARD**

**CONTROLLER**

**General Specifications**

- Windows-style operating system.
- 2D and 3D programming.
- 3D drawing feature.
- 2D DXF import feature.
- Automatic bending sequence search and collision control.
- 17" LCD touch-screen that allows user to view machine body, mould, back gauge, side protection guards, and components.
- Changeable colour display unit (buttons, machine colour, background colour, colour patterns, the background).
- Multi-functional alpha numeric keyboard.
- External attachment of keyboard and mouse possible.
- Angle measurement and control through IMG 100 system.
- Enabling Tandem type operational application.
- Dynamic crowning.
- Remote access.
- Application of digital protractor.
- Motorized front-support system.
- Configuration for up to 16 axes.
- Error message display.
- Inch / mm, t / us tons unit alterations.

**ERMAK ER90 Plus**  
**3D Bending Simulation**

**ERMAK CAD/CAM Bending simulation software:**

- For ERMAKSAN press brakes CAD / CAM sheet metal bending simulation. ER90 PC (Windows 98SE / ME / NT4 / 2000 / XP)
- Language Options: English, Spanish, Turkish, Dutch, French, German, Italian, Japanese, Polish, Portuguese, Russian, Finnish, Czech, Chinese.



## CNC PRESS BRAKE MODEL S

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### STANDARD CONTROLLER

## Cybelec ModEva 12S

### General Specifications

- Windows XP operating system.
- Large-key keyboard (mechanical movement) and integrated track sensor.
- 6 topic sensitive function keys.
- TFT 12" high-resolution colour display.
- 1GB memory.
- Integrated 3,5" floppy-disk (optional CD-ROM, LS 120, or others).
- Printer output and 2 x RS232 ports.
- Error messages.
- Standard PC 1200 computer simulation program.
- Ethernet RJ45 and 2 x USB ports.
- VGA display output.
- Change Inch/mm, TON/TONS, etc..
- Speed, stop time and top plate measurement leaking.
- CE safety loop management.
- Security and interactive broadcasting of usual posts.
- Up to 16 axes can be configured.
- Laser angle measurement.
- Motorized front support system.
- Tandem working.
- Dynamic crowning.
- Integrated Mouse.

## Delem DA-66T

### General Specifications

- 2D graphical touch screen programming mode.
- 3D visualisation in simulation and production.
- 17" high resolution colour TFT.
- Windows applications compatible.
- Delem Modusys compatibility. (module scalability and adaptivity)
- USB, peripheral interfacing.
- Open system architecture.
- User specific application support within the controllers multitasking environment.
- Sensor bending & correction interface.
- **Standard:**
  - Colour LCD display.
  - 17" TFT, high brightness.
  - 1280 x 1024 pixels, 32 bit colour.
- Full touch screen control. (IR-touch)
- Storage capacity 256 MB.
- 3D graphics acceleration.
- Standard Windows\* networking.
- Emergency switch.
- Integrated OEM-panel.
- USB flash memory drive.
- **Programming:**
  - Alphanumeric product naming.
  - Real-scale product programming and visualisation.
  - Automatic bend sequence calculation.
  - Easy graphical bend sequence swap and move.
  - Hemmed product programming.
  - One page programming table.

## CNC PRESS BRAKE MODEL S

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### Standard Equipment

- Mono block, welded steel frame rigid to deflection and high tensile with ST44 A1 material.
- 6 axes (Y1, Y2, X, R, Z1, Z2)
- Back gauge system with X, R, Z1, Z2 axis driven by AC servo with colored graphics.
- HOERBIGER servo hydraulic system.
- CNC controlled motorized anti-deflection system.
  - Hardened and ground standard sectioned top and 4V-Die bottom tools (835 mm section).
- Easy to clamp tool holding system with upper and lower tools.
- Standard graphic controllers can be selected from: ER-90 3D colour graphical touch screen controller with offline software, Cybelec Mod Eva 12 S 3D colour graphics with PC 1200 offline software, Delem DA-66T 2D with colored graphics.
- Electrical panel with cooling system designed to meet CE standards and composed of automation and electrical equipment with SIEMENS branding.
- Ergonomic user friendly, pendant control panel.
- Back light safety guards (category-4)
- Front side covers with safety switches.
- Synchronization of Y1+Y2 axis provided by linear encoders with 0,01 mm tolerances.
- Foot pedal suitable to CE regulation.
- Sliding front support arms with T slot and mm/ inch rulers.
- Throat depth 410 mm.

### Optional Equipment

- Graphical controllers; Cybelec ModEva 15S 3D with PC 1200 offline software, Delem DA-66T 3D graphical colour controller.
- X1+X2 axis, R1+R2 axis.
- SICK C4000 advanced finger protections 14 mm (easy programmable SICK software with PC: Blanking, reduced resolution, cascade working etc.)
- Laser protection system for die area, LASERSAFE PCSS, AKAS LASER SAFETY IILC2000, AKAS LASER SAFETY IILC2000 (MOTORIZED), sick V 4000 (camera based system), DSP photo electric laser safety.
  - Laser angle measurement system, with LASERSAFE IMG 100 or Data-M cobra Laser check system.
- Hydraulic and Dynamic-Hydraulic anti-deflection (crowning) features.
- ERMAK Pneumatic top tool clamping system.
- Hydraulic top and bottom tool clamping system.
- CNC controlled bending supports (AP3+AP4 axis).
- Hydraulic oil coolant and oil heaters.
- Automatic central lubrication system.
- Special throat depth (500,600,750 mm and above).
- Special top and bottom tools.
- Software options EBS ERMAK bending system software for ER-90 Plus, Cybelec PC1200, Cybelec CYCAD 2D DXF conversion, Delem V-Bend /V-DXF /V-Draw, Delem profile W2D/W3D.
- Tandem applications.
- Tool cabinets.

### Safety Systems



Fiessler Akas LCIIM Protection System (S)



SICK Light Barrier (S)



**Laser Safe (O)**  
Laser safe that is produced specifically for press brakes and is the leader among safety systems. Laser safe keeps the operator's safety at the top level.



DSP Laser Protection System (O)



**C 2000 Rear Light Guard (S)**  
CE standards safety protections help you work in safer conditions.



**IMG 100 Laser Safe and Angle Measurement System (O)**  
Laser Finger Protection helps you save time with easy installation.  
- Angle Measurement can be used with ER-80.

### Top Tool Clamping Systems



**Promecam Top Tool Clamping System (S)**  
Top tool clamping system which provides quick tool change.



**Hydraulic Tool Clamping System (O)**  
Hydraulic tool clamping systems clamp, correct and centre the tools automatically without need for air. These are perfect solutions to shorten the setup timing and for automated press brakes.

#### Rol-1



With patented balled type upper top tools, the tools can be inserted or removed vertically; ROL-1 clamping system eliminates difficulty of removing tools by sliding along the beam.

#### Rol-1 KDS



Double-sided Roll 1 tool clamping system allows tools to be inserted in reverse.

#### Rol-1 PN (Pneumatic)



Pneumatic clamping systems; air pressure forces the tools to fasten and centre themselves. An excellent solution for shortening set up time on press brakes.

#### Rol-5 System



Standard Promecam type tools can be inserted or removed vertically; ROL-5 clamping system eliminates difficulty of removing tools by sliding along the beam.

**Bottom Tool Clamping and Crowning Systems**

**Other Equipment**



**Multi-V Bottom Tool (O)**  
Multi V or U type adjustable tools.



**Hydraulic Bottom Tool Clamping System (O)**



**CNC Motorized Crowning System (S)**  
CNC crowning system that communicates with the CNC controller, performs crowning automatically and enables the part to be at even bending angle at any given point.



**Wila Bottom Tool Clamping System (O)**



**Wila Hydraulic Tool Clamping Systems (O)**



**Throat (O)**  
Special throat depths are offered up to 1500 mm for large bends.



**6 Axes Backgauge with Servo Motor (O)**  
6 axes (X1+X2+R1+R2+Z1+Z2) (O) rapid and precise back support systems with servo motor. They enable you to increase the production performance and quality.



**Sliding Front Support Arms (S)**



**Tool Storing Cabinet (O)**

