



**ERMAKSAN**  
METAL FABRICATING MACHINERY

*innovative technologies.*

# SPEED-BEND

Synchronized Hydraulic Press Brake





# ERMAKSAN

METAL FABRICATING MACHINERY

*innovative technologies.*

[www.ermaksan.com.tr](http://www.ermaksan.com.tr)

## 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





# 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.

**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.

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



# Advantages of Speed Bend



High operating speed.

Polished chrome-coated & hardened pistons.

**ERMAKSAN** // **SPEED-BEND**

High stroke and daylight.

Heavy strong steel mono-block body.

**Delem DA-66T controller**  
Ease of use combined with state-of-the-art technology go hand in hand, improving productivity.

CNC controlled motorized crowning. (standard)

Hardened and ground sectional top and bottom tools.

Side guards with switch.

4 axis servo-motor driven back gauge system. (standard)

Accurate bending.

Quick release top tool clamping system.

Double foot pedal.

Sliding front support arms.



# **SPEEDBEND TANDEM SERIES**

Synchronized Hydraulic Press Brake

Speed-Bend Tandem 14800 x 2000 TN

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

Pendant arm.

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

### **Impressive bending solutions**

Equipment/options can be tailored to individual request. Thus, the best productivity for each client is achieved while bending.

# 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-66T controller**  
Ease of use combined with state-of-the-art technology go hand in hand, improving productivity.



Speed-Bend 7000 x 1000 TN

## Shift to Speed-Bend

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



## The best bending results

You can bend longer and deeper parts with standard Speed-Bend Series.

Speed-Bend 3100 x 800 TN

**ERMAK SPEED-BEND**



**ER90 controller**  
Professional solutions with 3D controllers.

**Foot pedal**  
Double foot pedal helps you bend your parts automatically and easily.

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

Speed-Bend 4500 x 800 TN

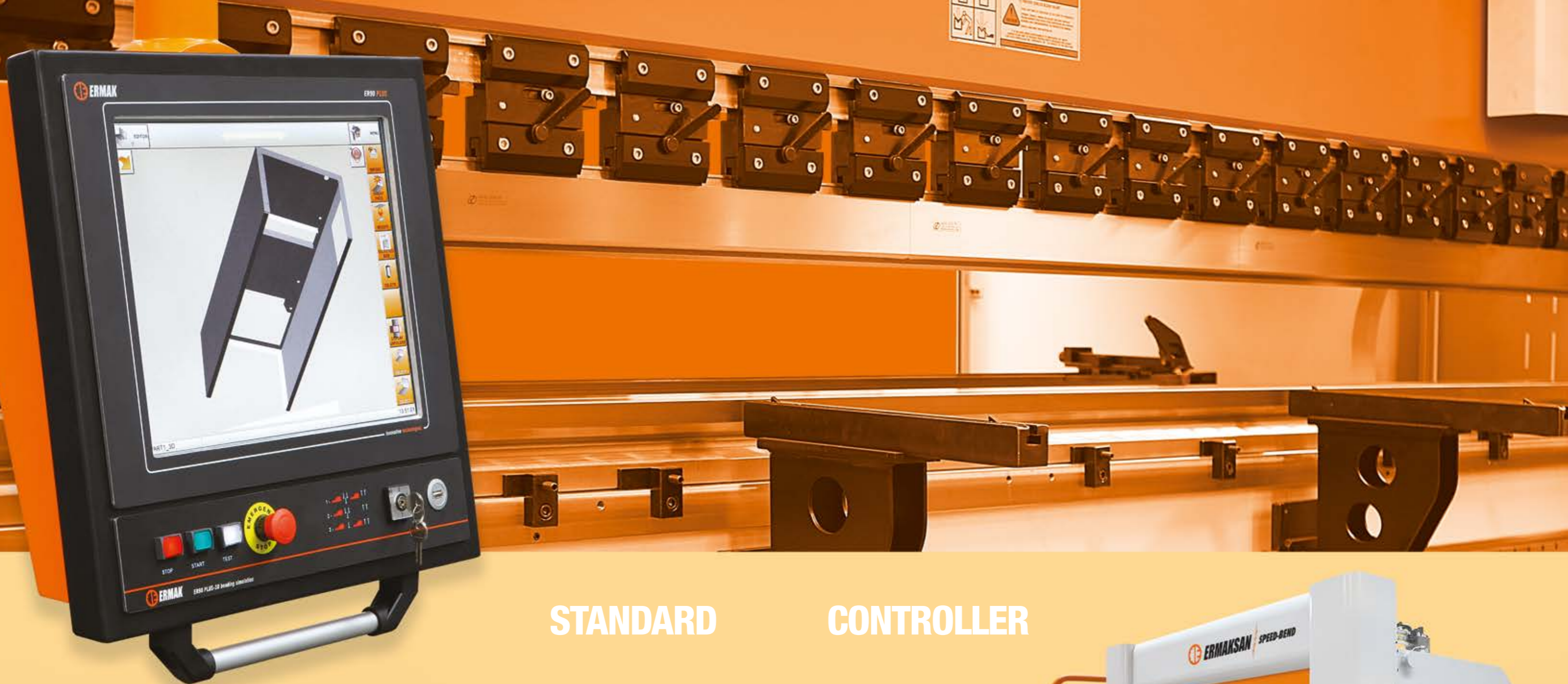
**ERMAK SPEED-BEND**



**Top clamping promecam**  
Promecam type top clampings can easily be put on and off.

**AP3 / AP4 front sheet support arms**  
CNC controlled support arms reduces your bending time significantly and is a great help for perfect bending.





**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.







## STANDARD CONTROLLER

# Cybele 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.
- 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.
- **Standard:**
- Colour LCD display.
- 17" TFT, high brightness.
- 1280 x 1024 pixels, 32 bit colour.



## 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.

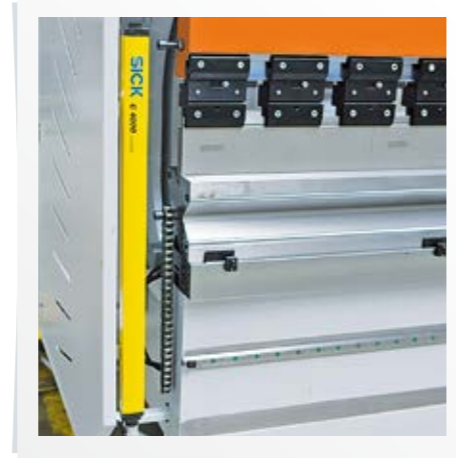
## Optional Equipment

- 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.





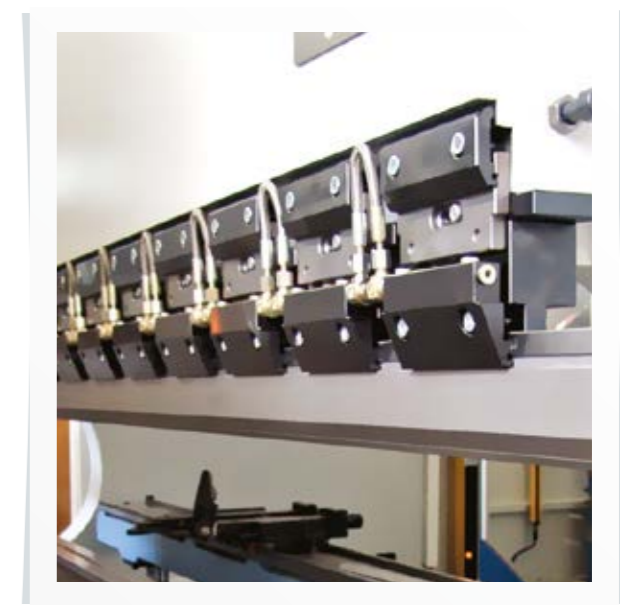
Fiessler Akas LCIM Protection System (S)



SICK Light Barrier (S)



**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.



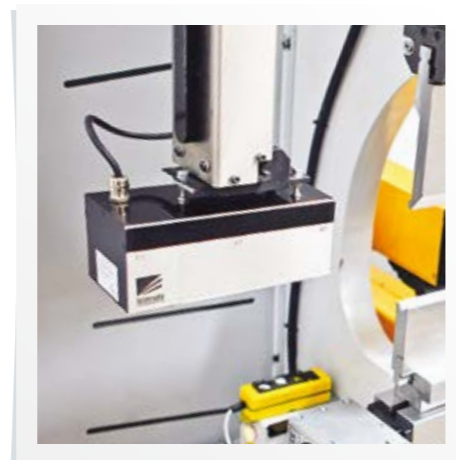
**Laser Safe (O)**  
Laser safe that is produced specifically for press brakes and is the leader among safety systems. Laser safe keeps the operator's safety at the top level.



DSP Laser Protection System (O)



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



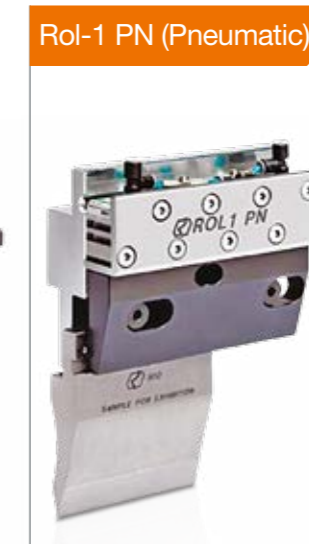
**IMG 100 laser Safe and Angle Measurement System (O)**  
Laser Finger Protection helps you save time with easy installation.  
- Angle Measurement can be used with ER-90.



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.



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



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



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)

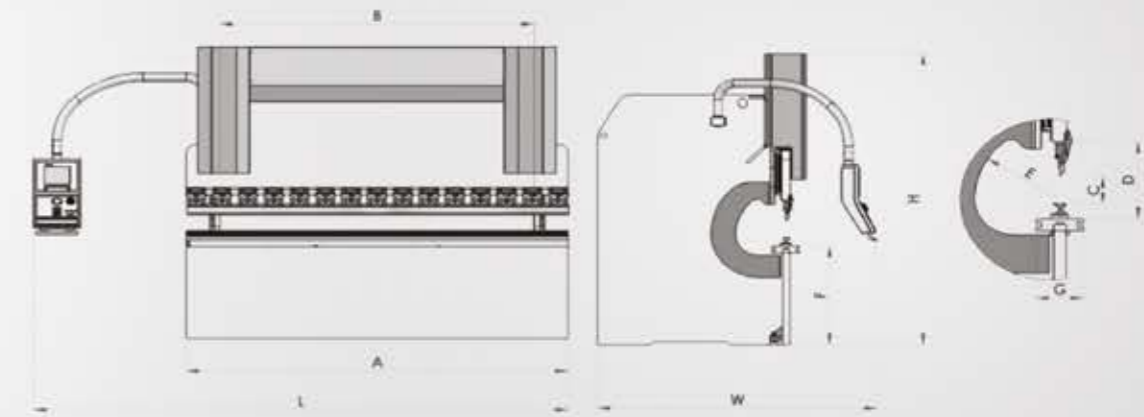


Tool Storing Cabinet (O)

# SPEEDBEND SERIES

## Synchronized Hydraulic Press Brake

### Technical Features



TYPE	Bending Length	Bending Power	Distance Between Columns	Y Rapid Speed	Y Working Speed *	Y Return Speed	Crowning	Travel in X Axis	Speed of X Axis	Travel of R Axis	Speed of R Axis	Backgauge Finger Blocks	Number of sheet Support	Oil Capacity	Motor Power	Stroke	Daylight	Throat Depth	Table Height	Table Width	Length	Height	Width	Weight	optional														
	A	B																																			Speed of Travel X1, X2 Axis	Speed of Travel R1, R2 Axis	Speed of Travel Z1, Z2 Axis
	mm	Ton	mm	mm/s	mm/s	mm/s		Standard	mm	mm/s	mm														mm/s	Amount	Amount	lt.	kW	mm	mm	mm	mm	mm	mm	mm	mm	kg.	mm/s
SB 1270 - 40	1270	40	1050	140	17	170	-	500	500	250	350	2	2	80	6	170	387	350	850	90	2150	2300	1650	3200	500	350	1000												
SB 1270 - 60	1270	60	1000	160	14	165	-	500	500	250	350	2	2	150	8	275	530	410	900	90	2250	2750	1960	4300	500	350	1000												
SB 2100 - 40	2100	40	1700	140	17	170	Motorized	500	500	250	350	2	2	80	6	170	387	350	850	90	2900	2300	1650	4100	500	350	1000												
SB 2100 - 60	2100	60	1700	160	14	165	Motorized	500	500	250	350	2	2	150	8	275	530	410	900	90	3250	2750	1960	5800	500	350	1000												
SB 2600 - 60	2600	60	2200	200	14	165	Motorized	500	500	250	350	2	2	150	8	275	530	410	900	90	3750	2750	1960	6200	500	350	1000												
SB 2600 - 100	2600	100	2200	200	12	190	Motorized	800	500	250	350	2	2	200	11	275	530	410	900	90	3750	2800	1950	7000	500	350	1000												
SB 2600 - 135	2600	135	2200	160	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	3750	2800	2050	8400	500	350	1000												
SB 3100 - 100	3100	100	2600	200	12	190	Motorized	800	500	250	350	2	2	200	11	275	530	410	900	90	4250	2800	1950	7600	500	350	1000												
SB 3100 - 135	3100	135	2600	200	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	4250	2800	2050	8800	500	350	1000												
SB 3100 - 175	3100	175	2600	180	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	4250	2800	2150	9600	500	350	1000												
SB 3100 - 220	3100	220	2600	180	10	185	Motorized	800	500	250	350	2	2	300	19	275	550	410	900	200	4550	2850	2250	11700	500	350	1000												
SB 3100 - 260	3100	260	2600	140	11	135	Motorized	800	500	250	350	2	2	300	22	275	550	410	900	220	4550	2900	2350	15200	500	350	1000												
SB 3100 - 320	3100	320	2600	140	11	150	Motorized	800	500	250	350	2	2	400	30	375	650	410	900	240	4550	3200	2450	16925	500	350	1000												
SB 3100 - 400	3100	400	2550	110	8	130	Motorized	800	500	250	350	2	2	400	30	375	650	510	1000	240	4550	3470	2650	21040	500	350	1000												
SB 3100 - 500	3100	500	2450	80	7	65	Motorized	800	500	250	350	2	2	500	30	375	675	510	1020	240	4900	3750	2650	27700	500	350	1000												
SB 3760 - 175	3760	175	3250	180	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	4900	2800	2150	11100	500	350	1000												
SB 3760 - 220	3760	220	3250	180	10	185	Motorized	800	500	250	350	2	2	300	19	275	550	410	900	160	5100	2900	2250	12800	500	350	1000												
SB 3760 - 260	3760	260	3250	140	11	135	Motorized	800	500	250	350	2	2	300	22	275	550	410	900	200	5100	3000	2350	16100	500	350	1000												
SB 3760 - 320	3760	320	3250	140	11	150	Motorized	800	500	250	350	2	2	400	30	375	650	410	900	220	5100	3150	2450	20180	500	350	1000												
SB 4100 - 135	4100	135	3600	200	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	5100	2800	2100	10800	500	350	1000												
SB 4100 - 175	4100	175	3600	180	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	5100	2850	2150	12100	500	350	1000												
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SB 4100 - 320	4100	320	3600	140	11	150	Motorized	800	500	250	350	2	2	400	30	375	650	410	900	220	5350	3150	2450	21950	500	350	1000												
SB 4100 - 400	4100	400	3550	110	8	130	Motorized	800	500	250	350	2	2	400	30	375	650	510	1000	240	5450	3470	2650	26530	500	350	1000												
SB 4100 - 500	4100	500	3400	80	7	65	Motorized	800	500	250	350	2	2	500	30	375	675	510	1100	240	5450	3850	2650	32500	500	350	1000												
SB 4100 - 600	4100	600	3400	80	8	75	Motorized	800	500	250	350	2	2	500	37	375	675	510	900	240	5900	3650	2650	36500	500	350	1000												
SB 4100 - 1250	4100	1250	3000	70	6	80	Motorized	1000	500	250	350	2	2	1200	55	510	1000	610	800	440	5900	4600	3300	77670	500	350	1000												
SB 4100 - 1500	4100	1500	2900	70	6	80	Motorized	1000	500	250	350	2	2	1500	75	610	1100	610	800	480	5900	5000	3700	92070	500	350	1000												
SB 4270 - 135	4270	135	3780	200	12	190	Motorized	800	500	250	350	2	2	300	15	275	550	410	900	90	5280	2800	2150	11100	500	350	1000												
SB 4270 - 220	4270	220	3780	180	10	185	Motorized	800	500	250	350	2	2	300	19	275	550	410	900	160	5320	3000	2250	14800	500	350	1000												
SB 4270 - 320	4270	320	3780	140	11	150	Motorized	800	500	250	350	2	2	400	30	375	650	410	900	220	5600	3200	2450	22600	500	350	1000												
SB 4270 - 400	4270	400	3780	110	8	130	Motorized	800	500	250	350	2	2	400	30	375	650	510	1000	240	5600	3470	2650	26750	500	350	1000												
SB 4270 - 600	4270	600	3600	80	8	75	Motorized	800	500	250	350	2	2	500	37	375	675	510	900	240	6100	3700	2650	37250	500	350	1000												
SB 6100 - 220	6100	220	5100	130	11	125	Motorized	800	500	250	350	4	4	300	19	275	550	410	1100	180	7500	3200	2350	26000	500	350	1000												
SB 6100 - 320	6100	320	5100	80	11	75	Motorized	800	500	250	350	4	4	400	30	375	650	410	1100	180	7500	3350	2450	31100	500	350	1000												
SB 6100 - 400	6100	400	5100	80	8	65	Motorized	800	500	250	350	4	4	400	30	375	650	510	1100	200	7650	3750	2650	39900	500	350	1000												
SB 6100 - 500	6100	500	5100	80	7	65	Motorized	800	500	250	350	4	4	500	30	375	675	510	900	240	7900	3700	2650	42800	500	350	1000												
SB 6100 - 600	6100	600	5100	80	8	75	Motorized	800	500	250	350	4	4	500	37	375	675	510	900	240	7900	3900	2650	48100	500	350	1000												
SB 6100 - 800	6100	800	5100	80	6	65	Motorized	1000	500	250	350	4	4	800	37	410	710	610	900	240	7900	4100	3050	63000	500	350	1000												
SB 6100 - 1000	6100	1000	5100	70	6	50	Motorized	1000	500	250	350	4	4	1000	45	510	900	610	800	340	7900	4350	3250	72320	500	350	1000												
SB 6100 - 1250	6100	1250	5000	70	6	55	Motorized	1000	500	250	350	4	4	1200	55	510	1000	610	800	380	7900	4800	3400	93720	500	350	1000												
SB 6100 - 1500	6100	1500	4900	70	6	55	Motorized	1000	500	250	350	4	4	1500	75	610	1100	610	800	400	7900	5000	3700	106630	500	350	1000												

\*Working speed should be max. 10 mm / sec. at CE certified machines according to the EN12622 norm.

Ermaksan reserves the right to make changes on technical specs without prior notice.





**ERMAKSAN**

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