



Automatic Shaping Center

CS 440-460

CS 40-45

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CS 440-460
CS 40-45

AUTOMATIC SHAPING

The automatic double head benders belonging to the "CS 440-460" series are designed for production of stirrups and large shapes bended clockwise or counter-clockwise on both sides.

The bending sequences are controlled in full automatic mode without requiring any intervention by the operator during the working cycle, so granting high productivity along with quality of finished products.



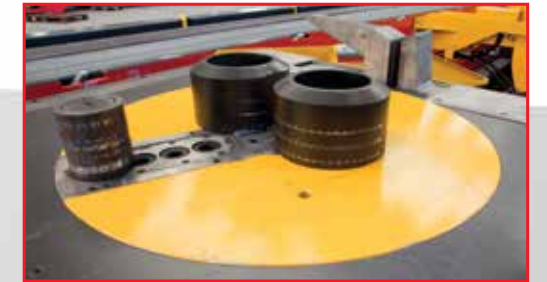
VERSATILITY AND PRODUCTIVITY

All CS Series double head benders can be installed in different configurations fitting the specific production requirements. Along with versions having one mobile head at whatever side, the unit is also available in configuration with two mobile heads capable to work simultaneously and so assuring very high productivity. The 440-460 version is a further step ahead being equipped with an exclusive retractable pin system which allows full bending ($\pm 180^\circ$) on both directions on the same piece.

Bend with no limits

BENDING PINS UNDER RULES

The automatic double head benders belonging to the "CS 460" series are equipped with an automatic device for the expulsion of the central bending pin which facilitates the replacement. Shaping centers "CS" uses a full set of **bending pins** complying to the **international standards**.



The "CS 440-460" automatic double head bender is equipped with an exclusive system designed to **bend clockwise and counter-clockwise at full $\pm 180^\circ$ angle** without any limitation, therefore **expanding the range of shapes** that can be processed on the unit.

REAL 180° CLOCKWISE AND COUNTER-CLOCKWISE

Bending is executed by mean of a **retractable lateral bending pin**. The **retractable lateral bending** pin works in a very simple and efficient manner. After having made the first two bends on counter-clockwise, -180° ① e -90° ②, the **lateral bending pin retracts** (↓) ③, and **re-position itself on the opposite side** of the processed bar to execute the next clockwise bend, $+45^\circ$ ④. The **whole sequence is very fast and performed in full automatic mode**.

AUTOMATIC CONTRASTS

The contrast clamps (CS 460) are actived automatically during the working cycle according to the shape under production process **assuring the best product quality**.



LIFTING AND FEEDING SYSTEM

The front conveyor is equipped with rubber rollers and with a **lifting arms system** specifically designed to feed the bending station, while helping the machine operator in **selecting and picking of the bars** to be processed.



BAR ALIGNMENT

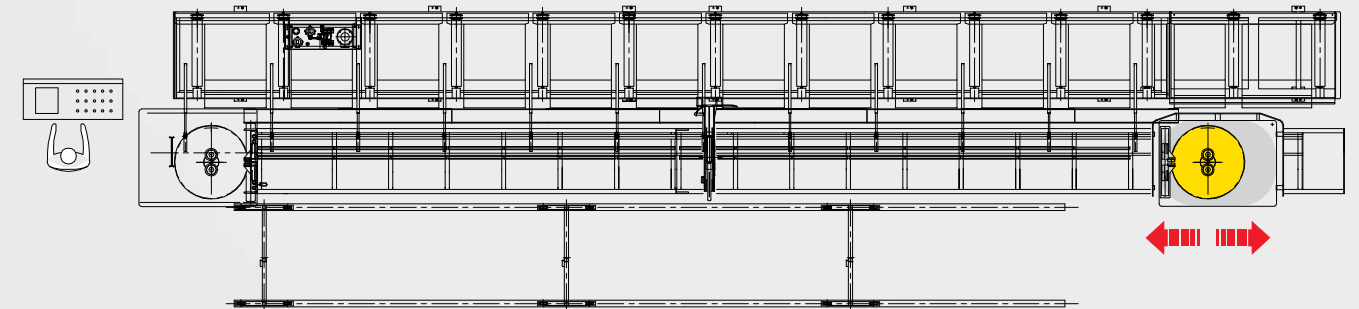
A retractable endstop, positioned on the bender, allows a perfect **bar alignment**, ensuring the **correct measurement tolerances**.



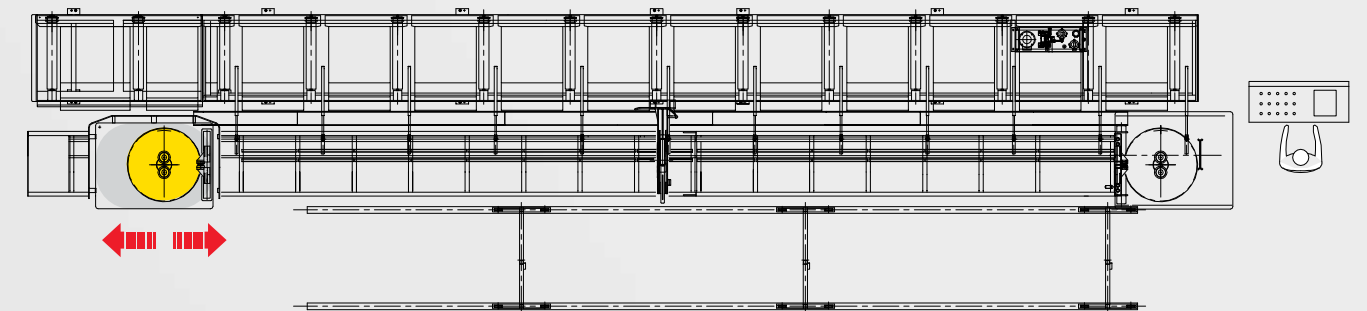
SECURE LOCK

The CS version with **two mobile heads** is equipped with a **central clamp hydraulically driven**. It ensures the **firm locking and the support** of the bars while the two heads are moving along the unit and performing the bending sequence.

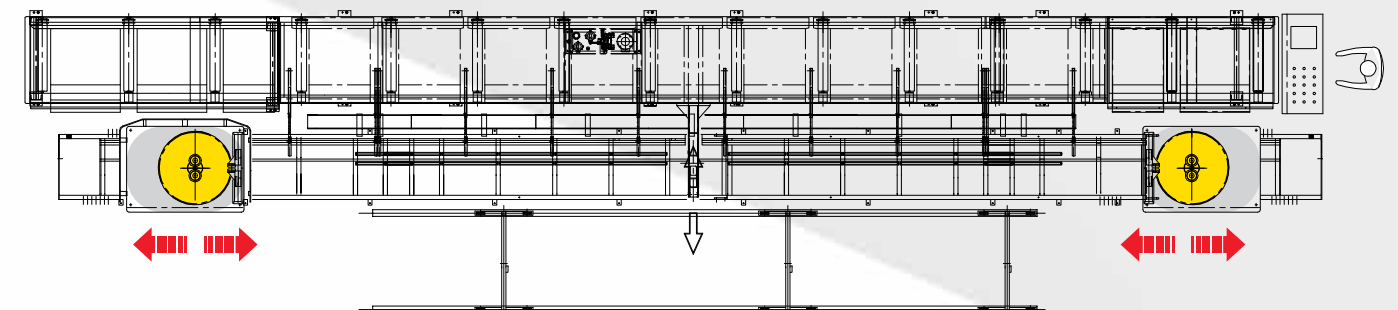
VERSATILITY AT YOUR SERVICE: CS440 CS460- CS40-45



CS440-460 o CS40-45 with fixed machine on the Left Side.



CS440-460 o CS40-45 with fixed machine on the Right Side.



CS440-460 o CS40-45 with two mobile machines.

WORLD SYSTEM Total Control

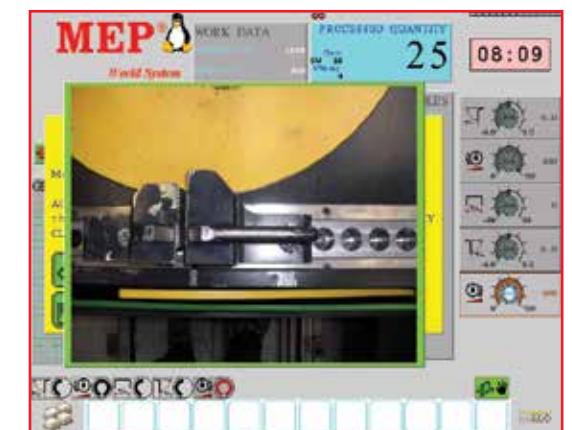
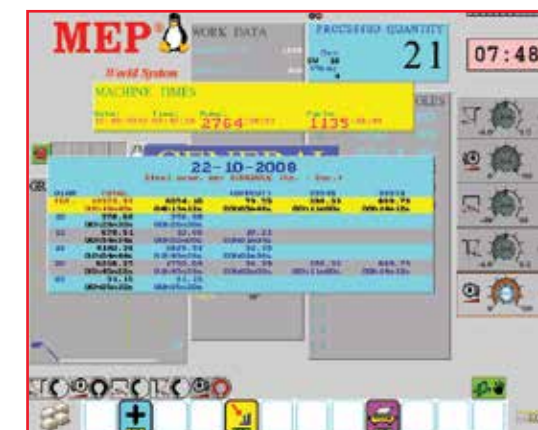
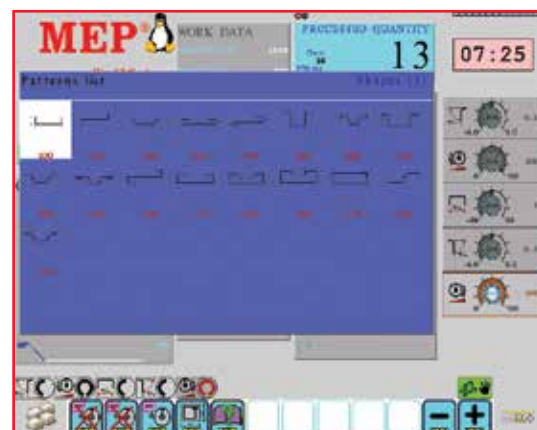
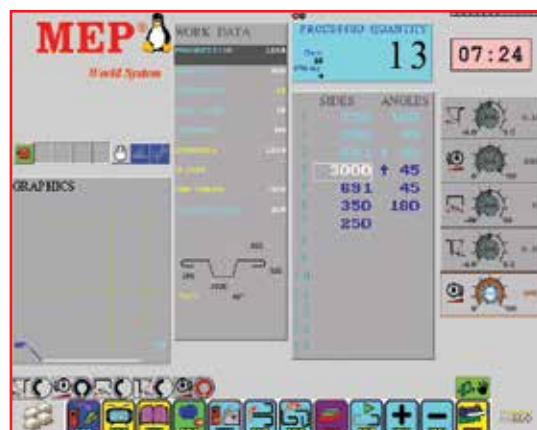
The P.C.I. System through an interface "user friendly" organized by a "Windows" structure provide the following functions:

- Programming of various types of shapes with up to a maximum of 30 sides and 29 angles (8 sides and 7 angles CS40-45 model).
- The software controls the bending cycle of the two units, depending on the diameter of the bars and bending pins lowering the time setting of the machine.
- Stores up to a maximum of 99 different forms of shaped.
- Display of various forms-programmed.
- Control and variation of the various work cycles.
- Displayed simulation of the work cycles.
- Storage summary of data daily production.
- Check function of all units of the machine.
- Displaying help messages to facilitate all operations. (CS 440-460 model).

- The unit is already prepared for any downloading of data from external computer via RS 232 link, or with a barcode reader.
- Electronic programmer unit integrated (optional) on the two benders which enables the use of this units as an independent machine. This control unit, trough a digital keyboard, allows programming up to 20 different angles that are executed sequentially.



Control panel for CS440-460



AUTOMATIC UNLOADING SYSTEM

- The **shaped products** are unloaded automatically through a system that uses **three lifting devices**, which act simultaneously. This will eliminate unnecessary effort by the operator.



CHAIN FEEDER



- The **chain feeder** is a unit that collects, transports and deposits the bars cut to size by creating an efficient **intermediate storage station**. (OPTIONAL)

DOUBLE ROLLER CONVEYOR TRANSPORT/COLLECTING CARRIAGE



- The **second motorized roller conveyor**, complete with lateral discharge, can increase the storage capacity. (OPTIONAL)

BIDIRECTIONAL BENDING FOR CS40-45



- Centers shaping CS 40-45 can be equipped with a **set of center and lateral pins for bidirectional bends**. (OPTIONAL)

LARGE RADII BENDING PINS



- Large radii bending pins set** is available with maximum diameter up to 500 mm. (OPTIONAL)

TECHNICAL AND PRODUCTION CHARACTERISTICS

REBAR	🇬🇧				🇺🇸							
	CS 40 SX		CS 45 SX		CS 440 mono-directional		CS 440 bi-directional		CS 460 mono-directional		CS 460 bi-directional	
n° 1 bar with Ø	40 mm	#11	45 mm	#14	40 mm	#11	32 mm	#10	45 mm	#14	40 mm	#11
n° 2 bars with Ø	32 mm	#10	34 mm	#10	32 mm	#10	28 mm	#9	36 mm	#11	32 mm	#10
n° 3 bars with Ø	26 mm	#8	26 mm	#8	26 mm	#8	24 mm	#8	32 mm	#10	28 mm	#8
n° 4 bars with Ø	20 mm	#6	20 mm	#6	20 mm	#6	20 mm	#6	28 mm	#8	22 mm	#7
MAX BENDING ANGLE												
Maximum	180°											
BENDING DISPLACEMENT SPEED												
	0.7 m/s - 2.30 fps				0.8 m/s - 2.62 fps							
BENDING SPEED												
	5,6 ÷ 11,2 rpm				4 ÷ 12 rpm							
PINS DIAMETER												
minimum	30 mm - 1-1/4"				40 mm - 1-5/8"							
Maximum (other measure upon request)	250 mm - 10"	250 mm - 10"	250 mm - 10"	200 mm - 8"	250 mm - 10"	200 mm - 8"	250 mm - 10"	200 mm - 8"	250 mm - 10"	200 mm - 8"	250 mm - 10"	200 mm - 8"
ROLLER CONVEYOR												
Maximum width (other measure upon request)	1005 mm - 39 9/16"											
INSTALLED POWER												
Maximum (other measure upon request)	24,4 kW - 32.7 hp				26 kW - 34.8 hp				28 kW - 37.5 hp			

Note: #6 = 3/4" ; #8 = 1" ; #9 = 1-1/8" ; #10 = 1-1/4" ; #11 = 1-3/8" ; #14 = 1-3/4"

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