



Stirrup bending machine

# Focus 12-13-14

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**MEP**  
the history of innovation



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## A NEW GENERATION

The **FOCUS 12-13-14** are the ideal solution in the field of automatic coil stirrup benders for its ease of use and high performance.

**Flexibility, productivity** and product **quality** are always guaranteed.



## FLEXIBILITY

Small or large **stirrups**, **straightened** or **bent bars**, as well as **circles** and **spirals** are fabricated thanks to a complete array of accessories, able to satisfy the widest range of productive requirements.



## QUALITY AND PRODUCTIVITY

The **FOCUS 12-13-14** are a user friendly automatic stirrup bender that provides **superior quality of finished products**.

The combined action of an exclusive series of **patented devices** minimizes the time for setup adjustments and **reduces drastically the amount of discarded products**.

A drive and control system, based on the latest generation technology, grants to reach **unparalleled levels of productivity** per hour.



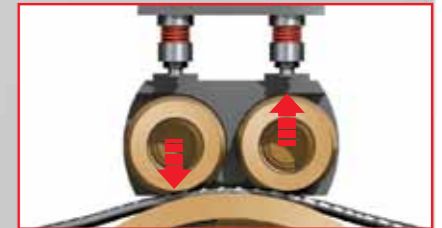
The twisting of the wire during the pulling phase creates open stirrups.

patented

## AN INNOVATIVE SOLUTION

The **AFS** is a straightening system that eliminates the effect of the wire rotation on its own axis. Therefore, **closed stirrups and straight bars** can always be produced. The **independent control** of the traction on two wires, as well as the increased surface of contact with the **large infeed wheel**, eliminates any difference in length between the two wires.

Thanks to this design and to the consequent lower pressure applied on the steel material, **the coil ribs are far less deformed by the straightening process**. The lifetime of the **infeed roller themselves** is about **8 times longer** than in case of traditional straightening methods.



± 1 mm



## CONTROLLED STRAIGHTENING

The combined functions of the **AFS** system and the on screen interface of the straightening page, provides a real time translation position of the straightening groups (available on **FOCUS 14**).



## SAFETY AND ERGONOMICS



With the **AFS** system it is **always** granted to obtain **closed stirrups**, thus **eliminating** the typical and dangerous **manual operation** during the bending process by operator.

## WORLD SYSTEM: TOTAL CONTROL



- **MEP Industrial PC "World System" operator control panel is comprised of:**
  - LCD screen for the user friendly visualization of all data.
  - Compact, "embedded" microprocessor with low power consumption.
  - Input /Output and Control Axes electronic card with protection against short circuit and overload.
- **The custom software developed by MEP allows:**
  - Data input with graphic visualization of programmed and pre-memorized shapes.
  - Saving of 500 positions in memory.
  - Control of all speed parameters in execution via a potentiometer.
  - Saving and archiving of data relative to work cycles and generation of daily production statistics (diameters processed, and daily fabricated weights by diameter).
  - "Active diagnostic" system for a constant efficiency check of all machine devices.
  - Interface compatible with optical bar code reader through RS 232 port.
  - Automatic operating speed reduction based upon the diameter of the stirrup.

## QUALITY DECOILING



- **Decoilers** equipped with an automatic braking system monitored by the control panel according to the work cycle.



- **Spacer** for the use of spooled or rewound coils. (OPTIONAL)

## ACCESSORIES



- **Motorized pre-feeding roller**, for the insertion of the wires.



- **Winch** equipped with clamping device for the wire end to be pulled. (OPTIONAL)



- **Supporting and collecting unit** for the production of straight bars and bars bent at one end. (OPTIONAL)



- **Bender** supplied with central bending tools in compliance to the international standards.  
Exclusive MEP design, designed to facilitate the overlapping and the guiding of the external wire with respect to the internal one during the bending phase. This means that complex or even very small stirrup can be realized with two wires simultaneously.

## TECHNICAL AND PRODUCTION CHARACTERISTICS

	<b>SINGLE STRAND PROCESSING WIRE DIAMETER</b>	<b>FOCUS 12</b>	<b>FOCUS 13</b>	
	cold drawn, hot rolled, smooth or ribbed wire fy = 600 N/mm <sup>2</sup> - ft = 700 N/mm <sup>2</sup> (other loads upon request)	from Ø 4 to Ø 12 mm from #2 to #4	from Ø 4 to Ø 13 mm from #2 to #4	<b>FOCUS 14</b> da Ø 6 a Ø 14 mm from #2 to #4
	<b>DOUBLE STRAND PROCESSING WIRE DIAMETER</b>			
	cold drawn, hot rolled, smooth or ribbed wire fy = 600 N/mm <sup>2</sup> - ft = 700 N/mm <sup>2</sup> (other loads upon request)	from Ø 4 to Ø 10 mm from #2 to #3	from Ø 4 to Ø 10 mm from #2 to #3	from Ø 6 to Ø 13 mm from #2 to #3
	<b>SQUARE STIRRUP DIMENSIONS</b>			
	minimum with Ø 4 mm wire (optional bending pin)	50 mm x 50 mm - 2" x 2"		
	maximum if clockwise	1000 mm x 1000 mm - 3-3" x 3-3"		
	<b>LENGTH OF STRAIGHTENED AND CUT-TO-LENGTH BAR</b>			
	minimum	5 mm - 3/16"		
	maximum (if equipped with optional supporting guide; other sizes upon request)	12000 mm - 39-4"		
	<b>CENTRE FORMING TOOLS DIAMETER</b>			
	minimum	12 mm - 1/2"		
	maximum (other sizes upon request)	48 mm - 2"	56 mm - 2 1/8"	
	<b>MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND</b>			
	standard	1300 mm - 4-3"		
	optional upon request	> 1300 mm - > 4-3"		
	<b>OPERATING TEMPERATURE</b>			
	standard	-5° C / +40° C - 23° F / 104° F		
	optional upon request	-15° C / +55° C - 5° F / 131° F		
	<b>INSTALLED POWER</b>			
	maximum (other sizes upon request)	18 kW - 24 hp	20 kW - 26.8 hp	27 kW - 36 hp

**THE PLANT DOES NOT REQUIRE COMPRESSED AIR.**

fy: max. unit yield point - ft: max. tensile strength

Note: #2 = 1/4" ; #3 = 3/8" ; #4 = 1/2"

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