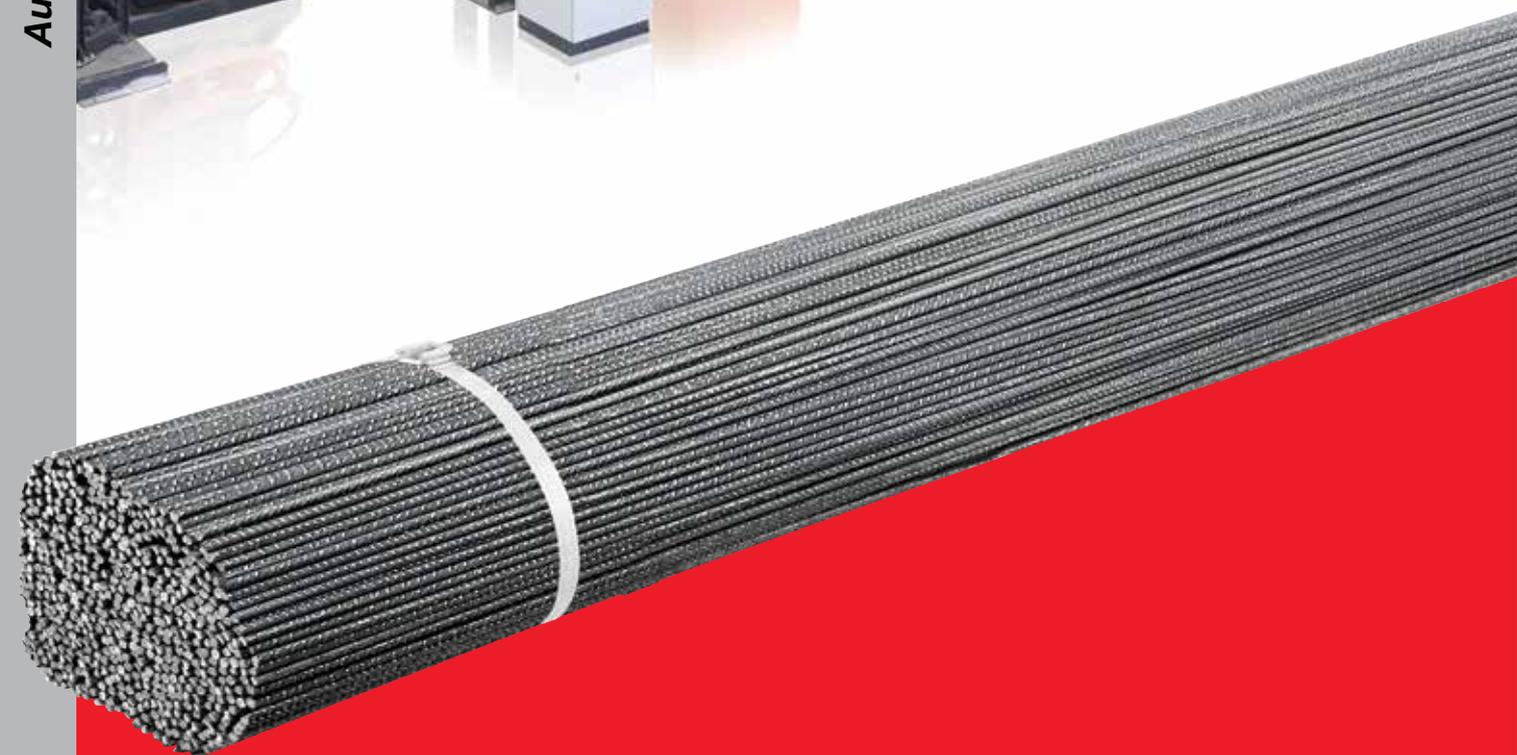




Automatic straightening machine from coil

# Bitronic **F13**

*Automatic straightening machine from coil*



**MIEP**  
the history of innovation



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# Bitronic F13

## TOP PRODUCTIVITY

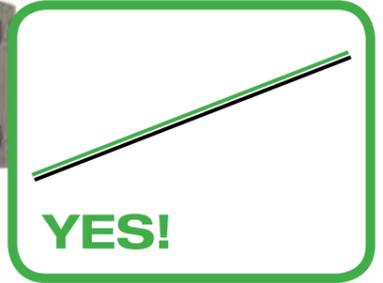
**BITRONIC F13** is the most technological "entry level" model developed for the straightening and cutting of rebar from coil, thanks to **high speed** (up to 1,8 m/s ) and superior **product quality** achievable for single or double wire production.



## EFFICIENCY IN COST REDUCTION

The machine's **high productivity** (single or double wire) can always be guaranteed thanks to different possible configurations that are "tailor made" either to **mass production** (same diameter and length, commercial bars) or to "**classified**" **production**, where the **processing of individual building elements** such as beams and columns are made up of smaller tags consisting of different diameters and lengths. The Bitronic Series reaches very high efficiency levels with greatly reduced set-up times and fewer operators, therefore **drastically reducing the production cost per unit of weight**.

# AFS<sub>2</sub> anti-twist and straightening system



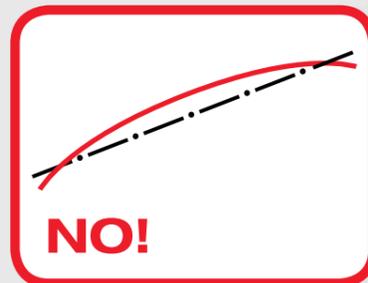
The **AFS<sub>2</sub>** system guarantees the straightening.

## QUALITY AND PRODUCTIVITY

The **BITRONIC F13** is a user friendly automatic straightening machine that provides superior quality of finished products.

The combined action of an exclusive series of **patented devices** minimizes the setup time and **drastically reduces 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 bars not straightened.

## CONTROLLED STRAIGHTENING

The combined functions of the **AFS<sub>2</sub>** system and the dynamic visualization of infeed rollers, allows a simple management of two wires single straightening.



patented

## AFS<sub>2</sub>: AN INNOVATIVE SOLUTION FOR COIL

**AFS<sub>2</sub>** (advance feeding system 2) is a straightening system able to control **the effect of wire rotation on its own axis**, that has origin during the pulling phase. Therefore, **straight bars can always be produced**. The exclusive design of the innovative straightening group **AFS<sub>2</sub>** prominently increase the meeting point between infeed rollers and the two wires, so the correct traction is guaranteed.

**The coil ribs deformity are reduced at the least without modify the mechanical characteristics of wires**, typical in traditional straightening systems.



± 1 mm

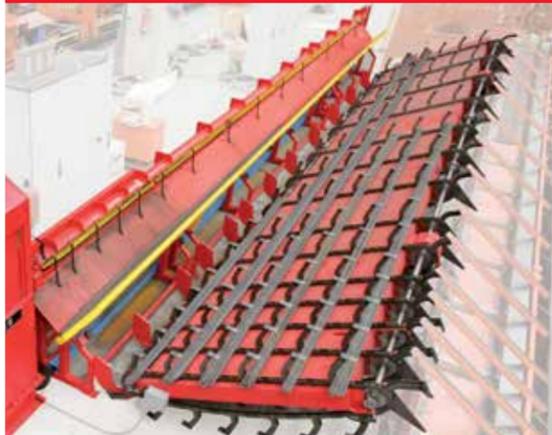


## WORLD SYSTEM: TOTAL CONTROL



- **MEP Industrial PC "World System" operator control panel is comprised of:**
  - LCD "Touch Screen" for the user friendly graphical visualization of all data.
  - Compact, "embedded" microprocessor with low power consumption and a compact flash disk with no moving parts (diskless).
  - Linux operating system.
- **The custom software developed by MEP allows:**
  - Control of all speed parameters in execution via a virtual potentiometer.
  - Saving and archiving of data relative to work cycles and generation of daily production statistics (positions, diameters, times, weights, etc.).
  - "Active diagnostic" system for a constant efficiency check of all machine devices.
  - Automatic activation of the scheduled maintenance program.
  - Interface compatible with optical bar code reader through RS 232 port.
  - USB connection port
  - Possible to connect to Company Network through RJ45 Ethernet port (LAN port) or RS 232 port.
  - VPN Connection-ready for remote assistance via Internet (through Company Network).

## CHAIN FEEDER



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

## OUTFEED CHANNEL WITH ALIGNMENT DEVICE



- The guiding support is available in several versions, allowing the **collection and distribution of straightened bars** according to specific production needs. The version that includes the **automatic alignment device** (optional) is particularly suitable for the production of bundles intended for **welded mesh equipment**.

## AUTOMATIC TYING UNIT



- The **automatic tying unit** aligns and ties the cut to length bars. When Integrated with the **BITRONIC F13** system, this eliminates the need for manual binding. (OPTIONAL)

## STORAGE RACKS



- The **storage rack** is a unit that collects the cut to size bars automatically creating a large warehouse storage. The plant automatically manages every single job maintaining a high level of productivity. (OPTIONAL)

## TECHNICAL AND PRODUCTION CHARACTERISTICS

	<b>PROCESSING WIRE DIAMETER (other measures upon request)</b>		
	Cold drawn, hot rolled, smooth or ribbed wire	Ø 5 - Ø 13 mm	#2 - #4
	fy = 600 N/mm <sup>2</sup> - ft = 700 N/mm <sup>2</sup> (other loads on request)		
	<b>DOUBLE STRAND PROCESSING WIRE DIAMETER</b>		
	Cold drawn, hot rolled, smooth or ribbed wire	Ø 5 - Ø 10 mm	#2 - #3
	fy = 600 N/mm <sup>2</sup> - ft = 700 N/mm <sup>2</sup> (other loads on request)		
	<b>BAR PRODUCTION</b>		
	Lenght (other measures upon request)	100 mm ÷ 12000 mm - 4" ÷ 39-4"	
	Maximum feed rate *	1,8 m/s - 6 fps	
	Lenght tolerance	±1 mm/m - ± 1/25"	
	<b>SHEAR</b>		
	Cutting time	~0.2 s	
	<b>INSTALLED POWER</b>		
	Maximum (other measures upon request)	43,5 kW - 58 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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