



Automatic straightening machine from coil

Bitronic **F13**

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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.

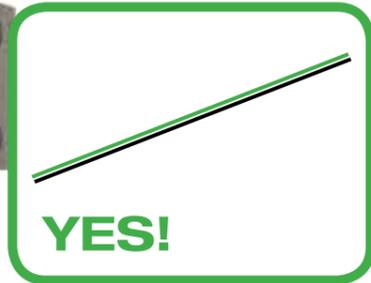


EFFICIENCY IN COST REDUCTION

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**.



anti-twist and straightening system



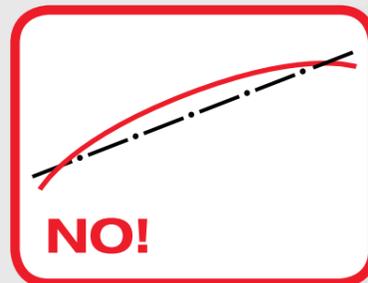
The **AFS2** system guarantees the straightening.

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.



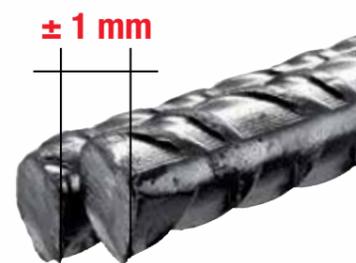
patented

AFS2: AN INNOVATIVE SOLUTION FOR COIL

AFS2 (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 **AFS2** 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.



CONTROLLED STRAIGHTENING

The combined functions of the **AFS2** system and the dynamic visualization of infeed rollers, allows a simple management of two wires single straightening.

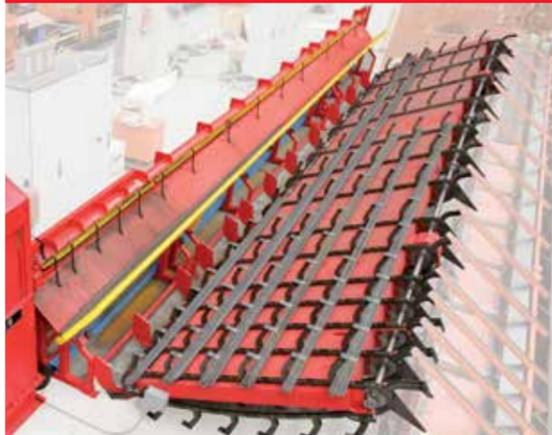


WORLD SYSTEM: TOTAL CONTROL



- **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

	PROCESSING WIRE DIAMETER (other measures upon request)		
	Cold drawn, hot rolled, smooth or ribbed wire	Ø 5 - Ø 13 mm	#2 - #4
	fy = 600 N/mm ² - ft = 700 N/mm ² (other loads on request)		
	DOUBLE STRAND PROCESSING WIRE DIAMETER		
	Cold drawn, hot rolled, smooth or ribbed wire	Ø 5 - Ø 10 mm	#2 - #3
	fy = 600 N/mm ² - ft = 700 N/mm ² (other loads on request)		
	BAR PRODUCTION		
	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"	
	SHEAR		
	Cutting time	~0.2 s	
	INSTALLED POWER		
	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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