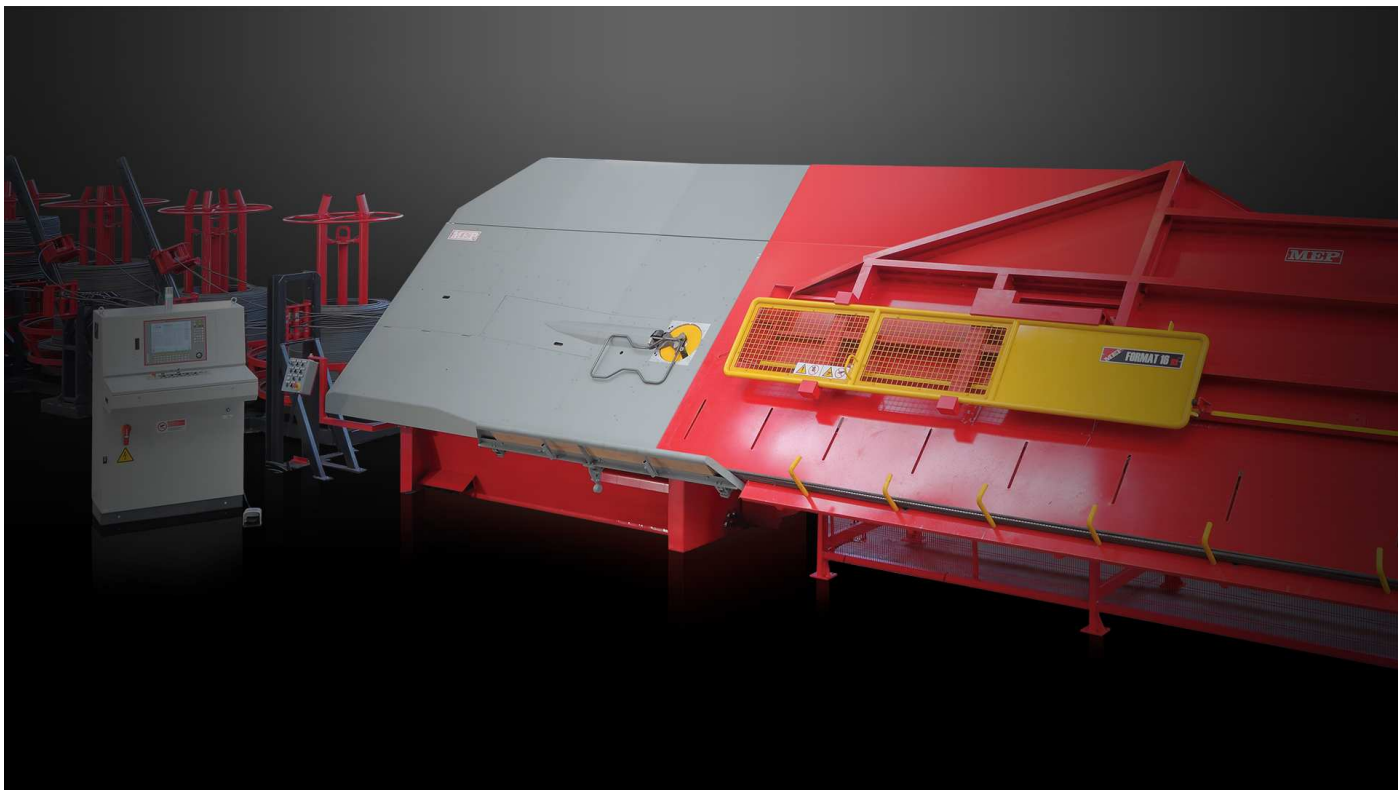


Станки гибочные для изготовления хомутов Format HS

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	



Format 16 HS Plus

Stirrup bending machine

The FORMAT 16 HS PLUS is 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.

DESCRIPTION

TYPE
3D

COIL / REBAR
COIL

SINGLE STRAND PROCESSING WIRE DIAMETER
Ø 6 - Ø 16 mm
2 - # 5

DOUBLE STRAND PROCESSING WIRE DIAMETER
Ø 8 - Ø 14 mm
2 - # 4

CHANGE SPEED (STIRRUPS/H)
1400

MEP S.p.a. reserves the right to change technical data without prior notice.



Format 22 HS 3D

Stirrup bending machine

The FORMAT 22 HS 3D is 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.

DESCRIPTION

TYPE
2D

COIL / REBAR
COIL

SINGLE STRAND PROCESSING WIRE DIAMETER
Ø 10 - Ø 22 mm
3 - # 7

DOUBLE STRAND PROCESSING WIRE DIAMETER
Ø 10 - Ø 16 mm
3 - # 5

CHANGE SPEED (STIRRUPS/H)
2040

MEP S.p.a. reserves the right to change technical data without prior notice.

Format 12 HS

A NEW GENERATION

The **FORMAT 12 HS** is 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 **FORMAT 12 HS** is 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.



CONTROLLED STRAIGHTENING

Specific corrections can be applied on the straightening set up of each individual wire even though working in double strand mode and also during the working cycle, thus without stopping the production.

patented

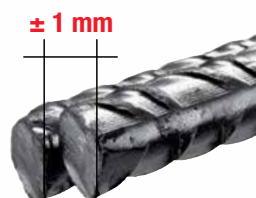
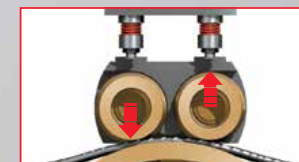
AN INNOVATIVE SOLUTION

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.

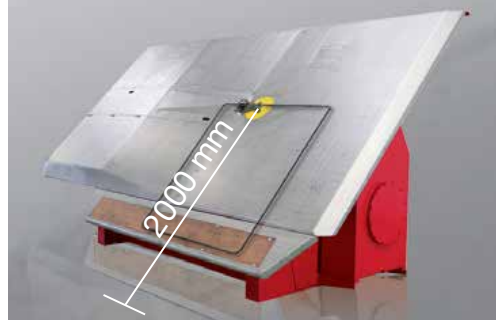
The **independent control** of the traction on two wires, as well as the increased surface of contact with the **large infeed wheel**, eliminates any difference in length between the two wires.

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.



SAFETY AND ERGONOMICS



The **AFS** creates **stirrups** which are **always closed**, thus **eliminating** the typical and dangerous **manual operation** during the bending process by operator. The **exclusive tilted work surface** provided with a lower swinging device **prevents the stirrups from falling on the ground** and also **allows the production of large-sized stirrups** (a distance of 2000 mm between the central bending pin and the floor). These solutions ensure that the operator can work in **optimal safety conditions**, in an extremely **ergonomic environment**.

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.
 - Automatic backup saving system in case of accidental power interruption for safeguarding files and memory support integrity.

- **The custom software developed by MEP allows:**
 - Data input with graphic visualization of programmed and pre-memorized shapes with feasibility checks via a "dynamic simulation".
 - The programming allows to store all the speed and compensation parameters based upon the dimensions of the stirrup and the wire diameter.
 - 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 (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).



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



- **Multi-wire pre-feeding unit.** Fully automatic, 5 positions for the wire changeover managed electronically by the control panel. (OPTIONAL)



- **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 pins that conform to 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

	SINGLE STRAND PROCESSING WIRE DIAMETER	
cold drawn, hot rolled, smooth or ribbed wire	from Ø 4 to Ø 12 mm	from #2 to #4
$f_y = 600 \text{ N/mm}^2$ - $f_t = 700 \text{ N/mm}^2$ (other loads upon request)		
	DOUBLE STRAND PROCESSING WIRE DIAMETER	
cold drawn, hot rolled, smooth or ribbed wire	from Ø 4 to Ø 10 mm	from #2 to #3
$f_y = 600 \text{ N/mm}^2$ - $f_t = 700 \text{ N/mm}^2$ (other loads upon request)		
	SQUARE STIRRUP DIMENSIONS	
minimum with Ø 4 mm wire (optional bending pin)	50 mm x 50 mm	2" x 2"
maximum if clockwise	1500 mm x 1500 mm	4-11" x 4-11"
maximum if counterclockwise (with eventual optional cover extension)	2000 mm x 2000 mm	6-7" x 6-7"
	LENGTH OF STRAIGHTENED AND CUT-TO-LENGTH BAR	
minimum	5 mm	3/16"
maximum (if equipped with optional supporting guide; other sizes upon request)	12000 mm	39-4"
	CENTRE FORMING TOOLS DIAMETER	
minimum	12 mm	1/2"
maximum (other sizes upon request)	70 mm	3"
	MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND	
standard	2000 mm	6-7"
optional upon request	> 2000 mm	> 6-7"
	OPERATING TEMPERATURE	
standard	-5° C / +40° C	23° F / 104° F
optional upon request	-15° C / +55° C	5° F / 131° F
	INSTALLED POWER	
maximum (other sizes upon request)	25 kW	35 hp

THE PLANT DOES NOT REQUIRE COMPRESSED AIR.

f_y : max. unit yield point - f_t : max. tensile strength

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

Format 14 HS

A NEW GENERATION

The **FORMAT 14 HS** is 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

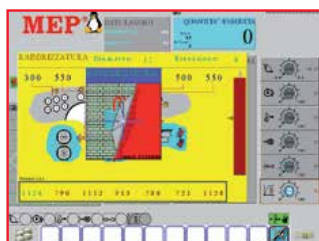
The **FORMAT 14 HS** is a user friendly automatic stirrup bender that provides **superior quality of finished products**.

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.



CONTROLLED STRAIGHTENING

Specific corrections can be applied on the straightening set up of each individual wire even though working in double strand mode and also during the working cycle, thus without stopping the production.

patented

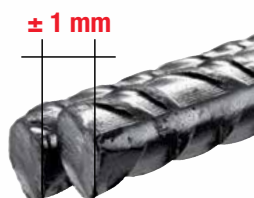
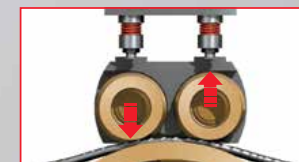
AN INNOVATIVE SOLUTION

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.



SAFETY AND ERGONOMICS



The **AFS** creates **stirrups** which are **always closed**, thus **eliminating** the typical and dangerous **manual operation** during the bending process by operator. The **exclusive tilted work surface** provided with a lower swinging device **prevents the stirrups from falling on the ground** and also **allows the production of large-sized stirrups** (a distance of 2000 mm between the central bending pin and the floor). These solutions ensure that the operator can work in **optimal safety conditions**, in an extremely **ergonomic environment**.

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.
 - Automatic backup saving system in case of accidental power interruption for safeguarding files and memory support integrity.

- **The custom software developed by MEP allows:**
 - Data input with graphic visualization of programmed and pre-memorized shapes with feasibility checks via a "dynamic simulation".
 - The programming allows to store all the speed and compensation parameters based upon the dimensions of the stirrup and the wire diameter.
 - 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 (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).



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



- **Multi-wire pre-feeding unit.** Fully automatic, 5 positions for the wire changeover managed electronically by the control panel. (OPTIONAL)



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



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

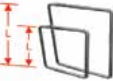


- **Supporting and collecting unit** for the production of straight bars and bars bent at one end. (OPTIONAL)



- **Bender supplied with central bending pins that conform to 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

	UK	USA
	SINGLE STRAND PROCESSING WIRE DIAMETER	
	cold drawn, hot rolled, smooth or ribbed wire fy = 600 N/mm ² - ft = 700 N/mm ² (other loads upon request)	from Ø 6 to Ø 14 mm from #2 to #4
	DOUBLE STRAND PROCESSING WIRE DIAMETER	
	cold drawn, hot rolled, smooth or ribbed wire fy = 600 N/mm ² - ft = 700 N/mm ² (other loads upon request)	from Ø 6 to Ø 12 mm from #2 to #4
	SQUARE STIRRUP DIMENSIONS	
	minimum with Ø 6 mm wire (optional bending pin)	50 mm x 50 mm 2" x 2"
	maximum if clockwise	1500 mm x 1500 mm 4-11" x 4-11"
	LENGTH OF STRAIGHTENED AND CUT-TO-LENGTH BAR	
	minimum	5 mm 3/16"
	CENTRE FORMING TOOLS DIAMETER	
	minimum	12 mm 1/2"
	MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND	
	standard	2000 mm 6-7"
	OPERATING TEMPERATURE	
	standard	-5° C / +40° C 23° F / 104° F
	INSTALLED POWER	
	maximum (other sizes upon request)	25 kW 35 hp

THE PLANT DOES NOT REQUIRE COMPRESSED AIR.

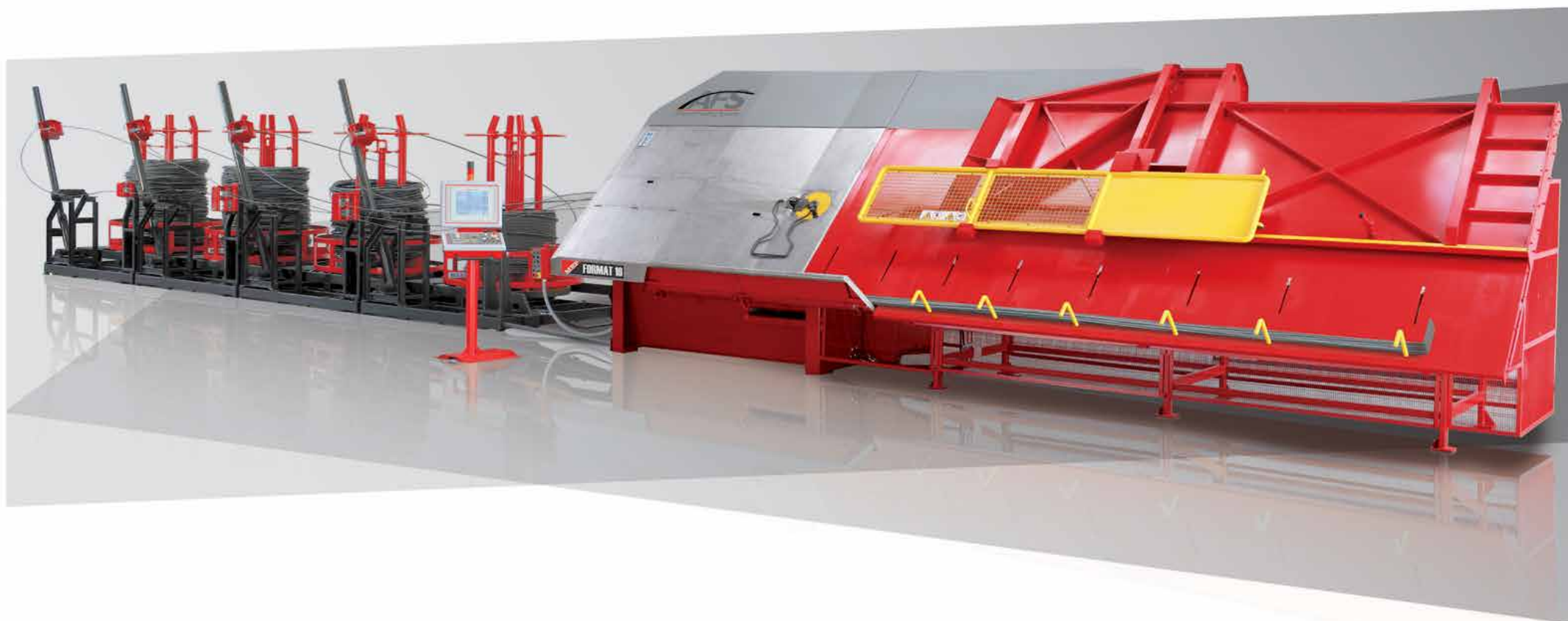
fy: max. unit yield point - ft: max. tensile strength

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

Format 16 HS Format 16 HS 3D

A NEW GENERATION

The **FORMAT 16 HS** - **FORMAT 16 HS 3D** is 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 in **2D** or **3D** (optional patented device) automatically thanks to a complete array of accessories, able to satisfy the widest range of productive requirements.





QUALITY AND PRODUCTIVITY

The **FORMAT 16 HS - FORMAT 16 HS 3D** is 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.

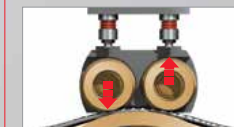
patented

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.

FORMAT 16 HS

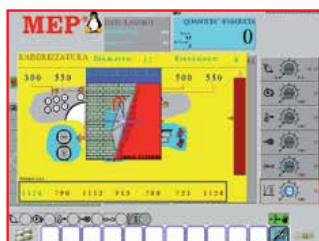


FORMAT 16 HS 3D



CONTROLLED STRAIGHTENING

Specific corrections can be applied on the straightening set up of each individual wire even though working in double strand mode and also during the working cycle, thus without stopping the production.



SAFETY AND ERGONOMICS



The **AFS** creates **stirrups** which are **always closed**, thus **eliminating** the typical and dangerous **manual operation** during the bending process by operator. The **exclusive tilted work surface** provided with a lower swinging device **prevents the stirrups from falling on the ground** and also **allows the production of large-sized stirrups** (a distance of 2000 mm between the central bending pin and the floor). These solutions ensure that the operator can work in **optimal safety conditions**, in an extremely **ergonomic environment**.

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.
 - Automatic backup saving system in case of accidental power interruption for safeguarding files and memory support integrity.

- **The custom software developed by MEP allows:**
 - Data input with graphic visualization of programmed and pre-memorized shapes with feasibility checks via a "dynamic simulation".
 - The programming allows to store all the speed and compensation parameters based upon the dimensions of the stirrup and the wire diameter.
 - 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 (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).



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



- **Multi-wire pre-feeding unit.** Fully automatic, 6 positions for the wire changeover managed electronically by the control panel. (OPTIONAL)



- **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 pins that conform to 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.



- **Ring forming unit** for the production of rings or spirals. (OPTIONAL)

TECHNICAL AND PRODUCTION CHARACTERISTICS

	SINGLE STRAND PROCESSING WIRE DIAMETER 2D - 3D	FORMAT 16 HS	FORMAT 16 HS 3D
	cold drawn, hot rolled, smooth or ribbed wire	from Ø 6 to Ø 16 mm	from #2 to #5
	fy = 600 N/mm ² - ft = 700 N/mm ² (other loads upon request)		
	DOUBLE STRAND PROCESSING WIRE DIAMETER 2D		
	cold drawn, hot rolled, smooth or ribbed wire	from Ø 6 to Ø 12 mm	from #2 to #4
	fy = 600 N/mm ² - ft = 700 N/mm ² (other loads upon request)		
	SQUARE STIRRUP DIMENSIONS		
	minimum with Ø 6 mm wire (optional bending pin)	50 mm x 50 mm	- 2" x 2"
	maximum if clockwise	1500 mm x 1500 mm	- 4-11" x 4-11"
	maximum if counterclockwise (with eventual optional cover extension)	2000 mm x 2000 mm	- 6-7" x 6-7"
	LENGTH OF STRAIGHTENED AND CUT-TO-LENGTH BAR		
	minimum	5 mm	- 3/16"
	maximum (if equipped with optional supporting guide; other sizes upon request)	12000 mm	- 39-4"
	CENTRE FORMING TOOLS DIAMETER		
	minimum	24 mm	- 1"
	maximum (other sizes upon request)	80 mm	- 3" 50 mm - 2"
	MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND		
	standard	2000 mm	- 6-7"
	optional upon request	> 2000 mm	- > 6-7"
	OPERATING TEMPERATURE		
	standard	-5° C / +40° C	- 23° F / 104° F
	optional upon request	-15° C / +55° C	- 5° F / 131° F
	INSTALLED POWER		
	maximum (other sizes upon request)	25 kW - 35 hp	40 kW - 53 hp

THE PLANT DOES NOT REQUIRE COMPRESSED AIR.

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

Note: #2 = 1/4" ; #4 = 1/2" ; #5 = 5/8"

Format Line 16

Format Line 16 3D

BAR AND COIL 2D-3D WITH ZERO SCRAP: THE FIRST IN THE WORLD

FORMAT LINE is the most innovative **stirrup bender**, designed to produce stirrups out of **coil** or **stock rebar** according to the different production requirements in a **fully automatic way**, guaranteeing maximum **flexibility**, **productivity** and **quality** of the finished product. **FORMAT LINE** is the first equipment in the world to use 100% of the bar's length without generating additional **scrap**.



MAXIMUM FLEXIBILITY AND PRODUCTIVITY, AT LOW COST

Small or large **stirrups**, straightened or bent **bars**, as well as **circles** and **spirals** are produced in **2D** or **3D** (optional patented device).

The **full automated process** allows to use **less machines**, to **reduce the workforce** and therefore to **cut the cost per unit of weight** of the finished products.



Unrivalled quality and productivity

FORMAT LINE is the first machine in the world able to switch production from bar to coil in fully automatic mode avoiding manual settings, mistakes and waste of time that would normally come with it.

FORMAT LINE allows to obtain, in a simple way, a superior quality product. The combined action of an exclusive series of patented devices reduces the setting times and dramatically reduces the amount of products to be rejected.

A system of the latest generation of drives and controls allows to achieve levels of productivity per hour without equal.

FROM BAR TO COIL IN A FEW SECONDS



The use of the same feeding unit for the processing of the bar (1) and coil (2), allows to switch the production from one to another in a very short time. The straightening system "ARS" (Anti Rotation System) reconfigures itself in function of the type of material and diameter to be worked using the stored data.

With this solution, the machine is ready to restart the production in a few of seconds.

MAGNETIC BAR LOADING

Is used for the loading of the bars during the work cycle. It is equipped with a mechanical contrast for the pre-alignment (trimming) of the bars.



"ARS" Anti-Twist and Straightening System

**"ARS", THE GENIAL SOLUTION
FOR BARS AND COIL**

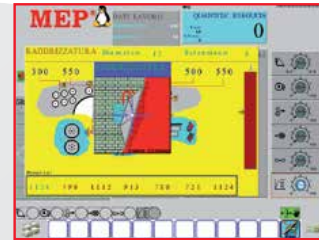
The "**ARS**" (anti rotation system) is a straightening system that eliminates the effect of the wire rotation on its own axis.

Therefore, closed stirrups and straight bars can be always produced.

The independent control of the traction on two wires eliminates any difference in length between the two wires and the coil ribs are far less deformed by the straightening process in case where there are geometric or dimensional differences.



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



CONTROLLED STRAIGHTENING

The combined action between the "ARS" and the on-screen electronic pointer provides a real and full automated automatic control of straightening functions.



The "ARS" system
guarantees perfect
straightening
with close stirrups.

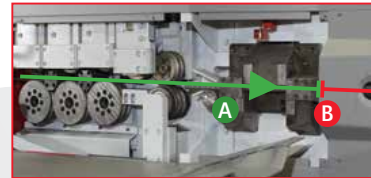
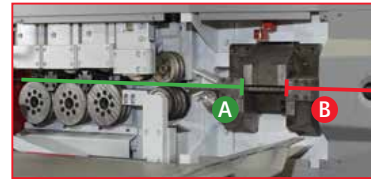
patented

Patented solutions for an unmatched precision

THE SOLUTION THAT EVERYONE EXPECTED: 100% OF THE BAR, ZERO SCRAP

FORMAT LINE is the first machine in the world able to use the full length of the bar, be it commercial length (12-15m) or pre-cut to size, in a fully automatic way. The scraps is reduced to zero (in the case where the optimization allows it), making FORMAT LINE unique.

TWO SHEARS: PUSHING SYSTEM (PATENTED)



FORMAT LINE is equipped with a shear at "double effect" for the alignment of the initial part (head A) and end (tail B) of 2 bars.

In this way, the two new bars A can push those nearing B completing the processing.

This patented system in combination with the roller extractor rollers allows the use of 100% of the bar.

TWO SHEARS FOR MAXIMUM PRECISION



Generally the actual length of stock rebars is not known but always exceed the nominal theoretical of 12 or more meters (12,03/12,04m...). remove offcuts of any size.

It is unlikely to be able to ensure the length tolerances of the planned cuts, without having first measured the bars.

The solution to this problem is represented by the patent which involves the use of two shears which allow to have the certainty of the measurement of each cut, in addition to remove the scrap from the machine, of any size.

While the first shear (1) makes the intermediate cuts between two stirrups or bars (1), the second shear (2) cuts the tail of the bar (3) only after the achievement of the right length (2). In this way, we avoid the classic method which provides a first alignment cut of the bars, completely random, which produces differences in the length, not predictable.

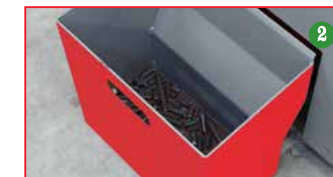
SCRAP: NO MORE A PROBLEM



The scrap is managed according to its length. In case it is less than 100 mm (2), the end of the bar is cut and separated from the rest of the production automatically collected in a dedicated outside bin.

In the case of longer lengths (1), the piece is automatically extracted from the front.

This process is full automated and it does not require any manual intervention by the operator with consequent downtime of the machine.



SAFETY AND ERGONOMICS



With the "ARS" system it is **always** granted to obtain **closed stirrups**, thus **eliminating** the typical and dangerous **manual operation** during the bending process by operator. It is possible to produce straight bars or bent at one side in **total safety**.

WORLD SYSTEM: TOTAL CONTROL



The world system through an interface "user friendly" allows total control of all the devices of the equipment, enhancing performance.

- 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 (disk-less).
 - Linux operating system.
 - Automatic backup saving system in case of accidental power interruption for safeguarding files and memory support integrity.
- The custom software developed by MEP allows:
 - Data input with graphic visualization of programmed and pre-memorized shapes with feasibility checks via a "dynamic simulation".
 - Control of all speed parameters in execution via a potentiometer.
 - Availability to program up to 7 different templates for each bar.
 - Availability to plan and automatically performs a sequence of different pieces together e.g. beams with variable pitch. (optional)
 - Saving and archiving of data relative to work cycles and generation of daily production statistics (positions, diameters, times, weights, etc.).
 - Availability of cutting lists optimized creating automatic working cycles.
 - "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).

WAREHOUSE STORAGE: BAR-COIL



Fix stock bars, composed by one single compartment (capacity 2500 kg) for the storage of the bars.
The **pay off** stations (optional) allow the use of coils having a capacity up to 3,200 kg.

THE FASTEST BENDING PINS CHANGE



FORMAT LINE is equipped with a set of fast fitting bending pins. They are made in **accordance** with the **international regulations**, allowing the **fast change** during the diameter change phase, so the production can restart quickly.

UNIVERSAL BLADES



The three cutting units use **universal knives**, for all diameters processed with **4 cutting faces**.



- **3D bending pin**
Optional patented system allows the automatic production of 3D stirrups. (OPTIONAL)

ACCESSORIES



- **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)

TECHNICAL AND PRODUCTION CHARACTERISTICS

	SINGLE STRAND PROCESSING WIRE DIAMETER		FORMAT LINE 16 3D	
	cold drawn, hot rolled, smooth or ribbed wire		from Ø 6 to Ø 16 mm - from #2 to #5	
	fy = 600 N/mm² - ft = 700 N/mm² (other loads upon request)			
	SINGLE STRAND PROCESSING WIRE DIAMETER			
	hot rolled, smooth or ribbed wire		from Ø 8 to Ø 16 mm - from #2 to #5	
	fy = 600 N/mm² - ft = 700 N/mm² (other loads upon request)			
	DOUBLE STRAND PROCESSING WIRE DIAMETER			
	cold drawn, hot rolled, smooth or ribbed wire		from Ø 6 to Ø 13 mm - from #2 to #4	
	fy = 600 N/mm² - ft = 700 N/mm² (other loads upon request)			
	DOUBLE STRAND UP TO			
	hot rolled, smooth or ribbed wire		from Ø 8 to Ø 13 mm - from #2 to #4	
	fy = 600 N/mm² - ft = 700 N/mm² (other loads upon request)			
	SQUARE STIRRUP DIMENSIONS			
	minimum with Ø 6 mm wire (optional bending pin)		50 mm x 50 mm - 2" x 2"	
	maximum if clockwise		1000 mm x 1000 mm - 40" x 40"	
	maximum if counterclockwise (with eventual optional cover extension)		2000 mm x 2000 mm - 6 - 7" x 6 - 7"	
	LENGTH OF CUT-TO-LENGTH BAR			
	minimum		5 mm - 3/16"	
	maximum (if equipped with optional supporting guide; other sizes upon request)		12000 mm - 39-4"	
	CENTRE FORMING TOOLS DIAMETER			
	minimum		24 mm - 1"	
	maximum (other sizes upon request)		80 mm - 3"	
	MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND			
	standard		1300 mm - 4'3"	
	optional upon request		> 1300 mm - > 4'3"	
	STORAGE RACK			
	1 compartment up to 12.000 mm length			
	(other sizes and configurations available upon request)			
	OPERATING TEMPERATURE			
	standard		-5° C / +40° C - 23° F / 104° F	
	optional upon request		-15° C / +55° C - 5° F / 131° F	
	INSTALLED POWER			
	maximum (other sizes upon request)		36 kW - 48 hp	

THE PLANT DOES NOT REQUIRE COMPRESSED AIR.

fy: Max. unit yield point - ft: Max. Tensile strength

По вопросам продаж и поддержки обращайтесь:

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