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# Format **16 Hs** Format **16 нs з**р



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.







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.



# CONTROLLED STRAIGHTENING

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

# 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, 6 positions for the wire changeover managed electronically by the control panel. (OPTIONAL)

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



 Bender supplied with central bending pins that conform to international standards. Exclusive MEP design, designed to facilitate the overlapping and the quiding 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 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   |                 |
|   | $fy = 600 \text{ N/mm}^2$ - $ft = 700 \text{ N/mm}^2$ (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 |                 |
|   | $fy = 600 \text{ N/mm}^2$ - $ft = 700 \text{ N/mm}^2$ (other loads upon request) |                                       |                 |
| 6   | 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"                      |                 |
| C   | CENTRE FORMING TOOLS DIAMETER  |                                       |                 |
|   | minimum  | 24 mm - 1"                            |                 |
|   | maximum (other sizes upon request)   | 80 mm - 3"                            | 50 mm - 2"      |
| 4   | MAXIMUM DISTANCE BETWEEN CENTRAL BENDING PIN AND THE GROUND                      |                                       |                 |
|   | standard   | 2000 mm - 6-7"                        |                 |
|   | optional upon request  | > 2000 mm - > 6-7"                    |                 |
| C.  | OPERATING TEMPERATURE  |                                       |                 |
|   | standard   | -5° C / +40° C - 23° F / 104° F       |                 |
|   | optional upon request  | -15°C/+55°C - 5°F/131°F               |                 |
|   | INSTALLED POWER  |                                       |                 |
| <b>S</b>  | 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"                |  |                                       |                 |





### MEP Macchine Elettroniche Piegatrici

via Leonardo Da Vinci, 20 I - 33010 Reana del Roiale (UD) - ITALY Tel. +39 0432 851455 Fax+39 0432 880140



### MEP Brasil

MEP France S.A.

8 bis, rue des Oziers

Tel. +33 1 34300676 Fax+33 1 34300672

Rua Bom Jesus da Cachoeira, nº 100 Parque Edu Chaves CEP 02236-020 - Sao Paulo - BRASIL Tel. +55 11 2240.4610 - 2240.4553 Fax+55 11 2240.4610 - 2240.4553

BP 40796 Zone d'Activités du Vert Galant 95004 St. Ouen L'Aumône FRANCE





Fax+





MEP Asia Co., Ltd. 1303 Ho, 301-Dong, Bucheon Techno Park 345 Sukcheon Ro, Ojung-Gu Bucheon, Gyunggi-Do - SOUTH KOREA Tel. +82 32 329 1956 Fax +82 32 329 1957

Ул.Новаторов, 36 корп.3 Офис XXIV

www.mepgroup.com sales@mepgroup.com

MEP Nord-Europe GmbH Brienner Strasse 55 D-80333 München GERMANY Tel. +49 089 41610829

### MEP Polska Sp. z o.o. ul. Józefowska 13/A 93-338 Łódź POLAND Tel. +48 42 645 7225 Fax+48 42 645 7058

**MEP Vostok OOO** 

119421 Москва Россия Tel./Fax: +7 495 745 04 90