



Automatic Straightening Machine from coil

# RH 13-16

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# MEP

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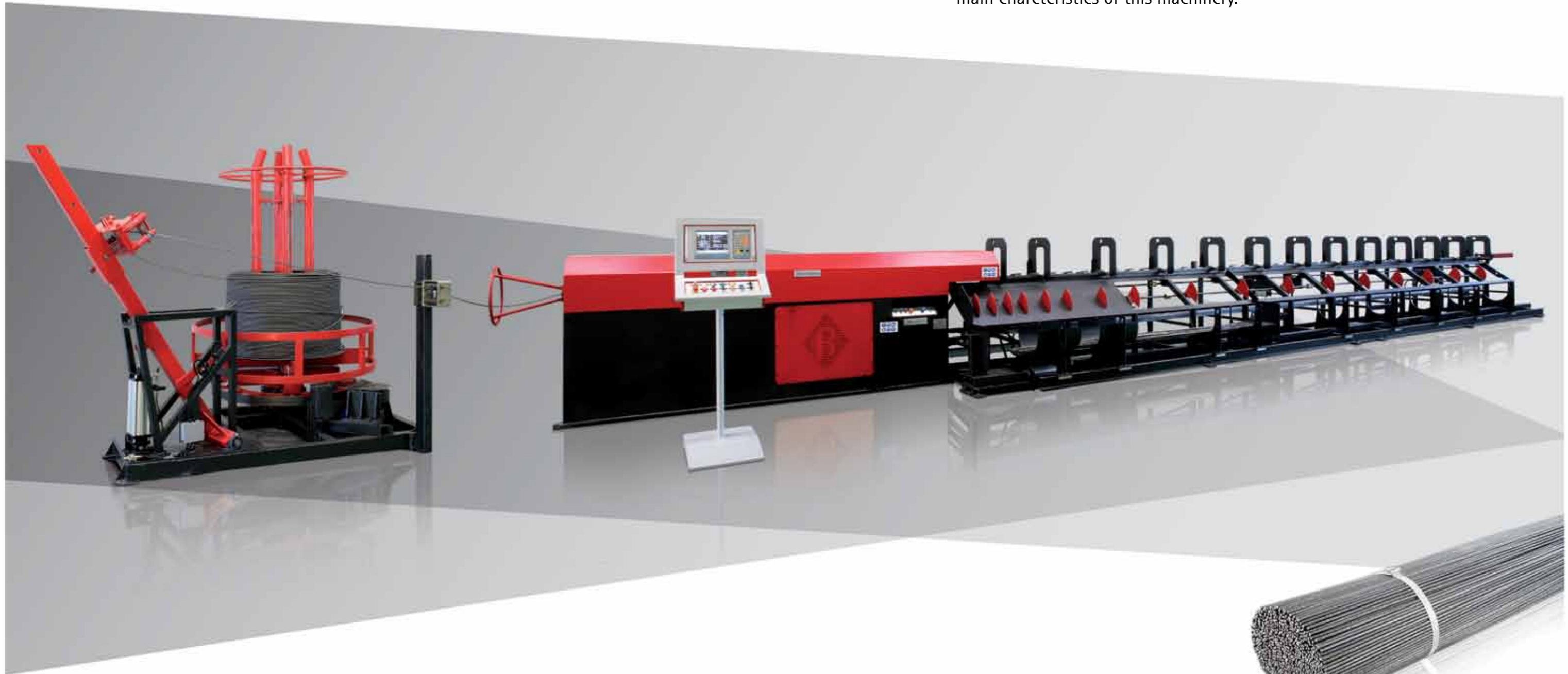
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# RH 13-16

## QUALITY STRAIGHTENING

The **RH** series straightening machines are designed for **straightening and cutting of wires** up to a maximum length of 12 meters. Product **quality, usability** and **sturdiness** are the main characteristics of this machinery.



## FLEXIBILITY

The different configurations allow to set the **production** according to specific needs: **high volume productions** (same diameter and length), **flexibility** (different diameters and lengths).

# Straightening system

## WINNING POWER



The straightening process is achieved through a rotating group equipped with **hyperbolic rollers** having **adjustable tilt and pitch**. During the rotation phase, the wire is simultaneously dragged and straightened. This feature **minimizes the longitudinal ribs deformation** and does not affect **the mechanical characteristics** of the steel material. The use of **dedicated rotors**, depending on the various diameters, additionally **improves the finished product quality**. The (patented) tailstock system allows the operator to **change rotors quickly and easily**.



## CONSTANT QUALITY CONTROL



The insertion and straightening unit has an independent infeed that allows a **constant control of the wire speed**, originated by the hyperbolic rotor, based on the different diameters. An optimal quality of straightening is thus achieved.

## FLYING SHEAR



The flying shear cut to length the wire while is moving ensuring **high speed performances** and the **respect of the measurement tolerances**.

## WORLD SYSTEM: TOTAL CONTROL



- **The MEP Industrial PLC operator control panel is composed of:**
  - LCD screen for data visualization in a "user friendly" graphic form.
  - Low power consumption (embedded) microprocessor.
  - Input/output and axes control electronic circuit boards equipped with short-circuit prevention system.
- **MEP's developed software allows:**
  - Inputting bars production data and memorizing several batches to be produced in sequence.
  - Displaying production status.
  - Adjusting production speed and decoiler rotation speed through potentiometers.
  - Control of all the machine parameters depending on the diameter used.
  - Utilizing an "active diagnostic" system to verify constantly the efficiency of all the plant's devices.
  - Predisposition for the memorization of the data related to the daily work cycles (diameters processed and daily weights processed subdivided by diameter).
  - Predisposition for alarms history with related memorization of machine stop time and production time.
  - Predisposition for production downloading through external computer or optical reader through serial port RS 232 (e.g. bar code reader).

| PRODUZIONE |            |    |                  |
|------------|------------|----|------------------|
| 1          | Lotto n.   | 13 | Sensore          |
| 4888       | Lunghezza  | 8  | Velocità         |
| 18         | Diametro   | 8  | Pezzi tot. fatti |
| 1888       | Pezzi tot. | 8  | Pezzi can. fatti |
| 188        | Pezzi can. | 8  |                  |
| 8          | Kg         | 8  | na               |

## OUTFEED CHANNEL WITH ALIGNMENT DEVICE



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



## ACCESSORIES

- GBO1-GBM decoilers equipped with a braking system controlled by the control panel, based on the production cycle. GBM version is provided with motorization.










## WIRE BUTT WELDER



- Allows to weld the ends of two coils in order to reduce the handling time. (OPTIONAL)

## TECHNICAL AND PRODUCTION CHARACTERISTICS

|   |   |  |  |
|---|---|---|---|
|  | <b>BAR WORKABLE DIAMETER</b>  | <b>RH13/1</b>   | <b>RH 16/1</b>  |
|   | cold drawn, hot rolled, smooth or ribbed wire   | from Ø 5 to Ø 12 mm   | from Ø 5 to Ø 16 mm   |
|   | $f_y = 600 \text{ N/mm}^2 - f_t = 700 \text{ N/mm}^2$ (other loads upon request)      | from # 2 to # 4   | from # 2 to # 5   |
|  | <b>BARS PRODUCTION</b>  |   |   |
|   | length  | 300 mm ÷ 14000 mm   | 11'-8" ÷ 45'-11"  |
|   | length tolerance with encoder   | ± 5 mm (up to 6 m)  | ± 3/16" (on 19'8" bar)  |
|   | length tolerance with mechanical stop   | ± 2 mm (up to 6 m)  | ± 1/16" (on 19'8" bar)  |
|   | length tolerance with sensors   | ± 8 mm (up to 6 m)  | ± 5/16" (on 19'8" bar)  |
|  | <b>STRAIGHTENING</b>  |   |   |
|   | straightening system  | hyperbolic rotors   |   |
|   | diameter change   | manual, through interchangeable rotors  |   |
|   | quantity of interchangeable rotors included (other rotors on request at extra charge) | 3   |   |
|   | cutting system  | flying shears   |   |
|   | forward movement speed  | 0,6 ÷ 1,5 m/s   | 0,9 ÷ 1,5 m/s   |
|   |   | from 1.97 fps to 4.92 fps   | from 2.95 fps to 4.92 fps   |
|  | <b>TEMPERATURE</b>  |   |   |
|   | standard  | +4° C / +40° C  | 39.2° F / 104° F  |
|  | <b>INSTALLED POWER</b>  |   |   |
|   | maximum (other sizes on request)  | 41 kW   | 54.98 hp  |

THE PLANT REQUIRES THE USE OF AN AIR COMPRESSOR.

fy: maximum yield conventional limit - ft: maximum breaking point conventional limit

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

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