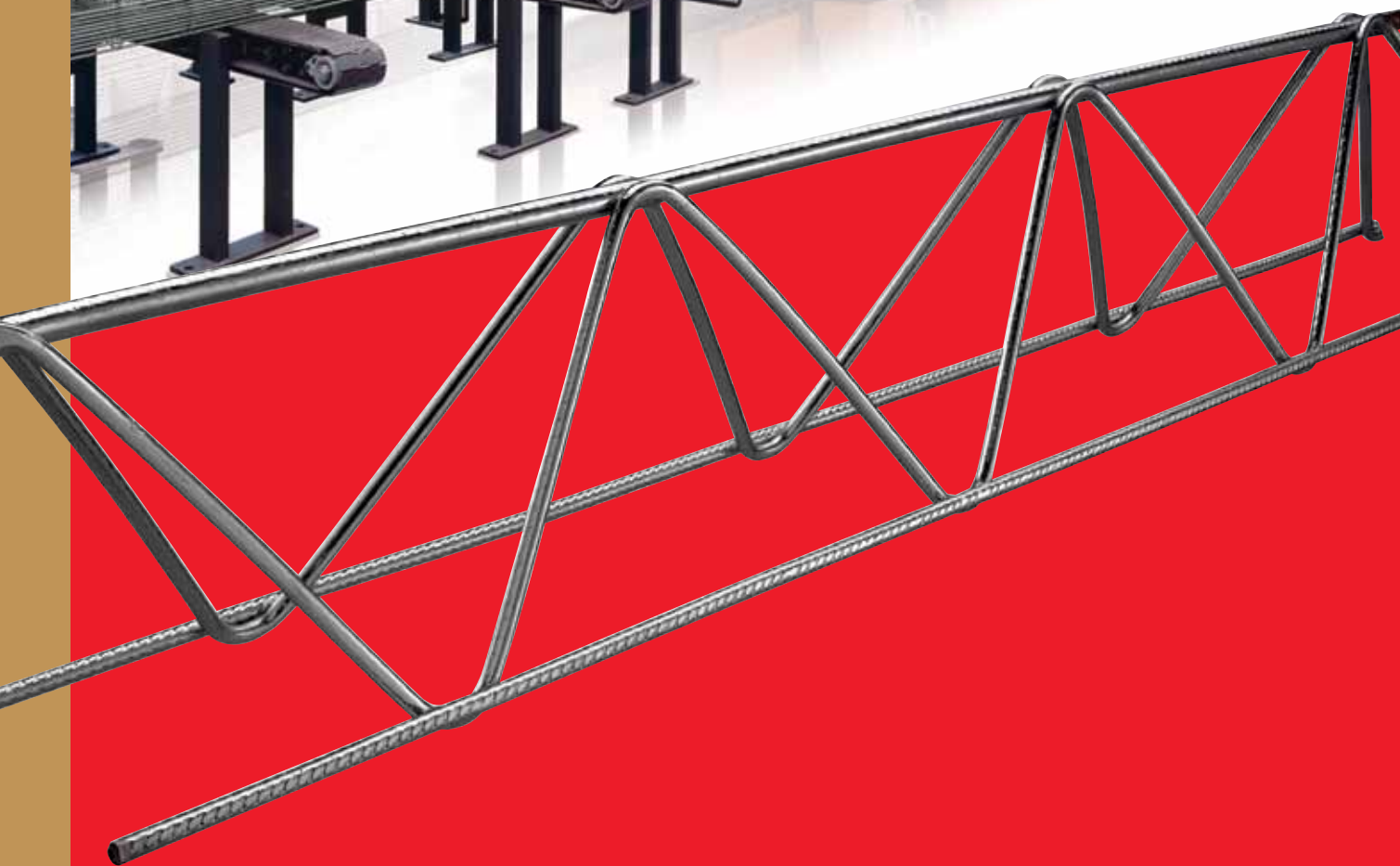




Truss girder welding machines

MTM 200-400

Truss girder welding machines



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the history of innovation



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MTM 200-400

IT'S ALL ABOUT PRODUCTIVITY

The **MTM** Series are highly productive plants designed to produce lattice girders. This is thanks to **high automation**, very **short set-up times** particularly when changing the height, **robust construction** and **machine reliability**.



FAST SET-UP

Both the **MTM 200** and **400** versions can be tailor made to suit various **high efficiency** configurations. These are suitable for a **variety of production** scenarios whether producing large series of standard lattice girders or manufacturing a **mix of different sizes and dimensions**.

MTM 200-400

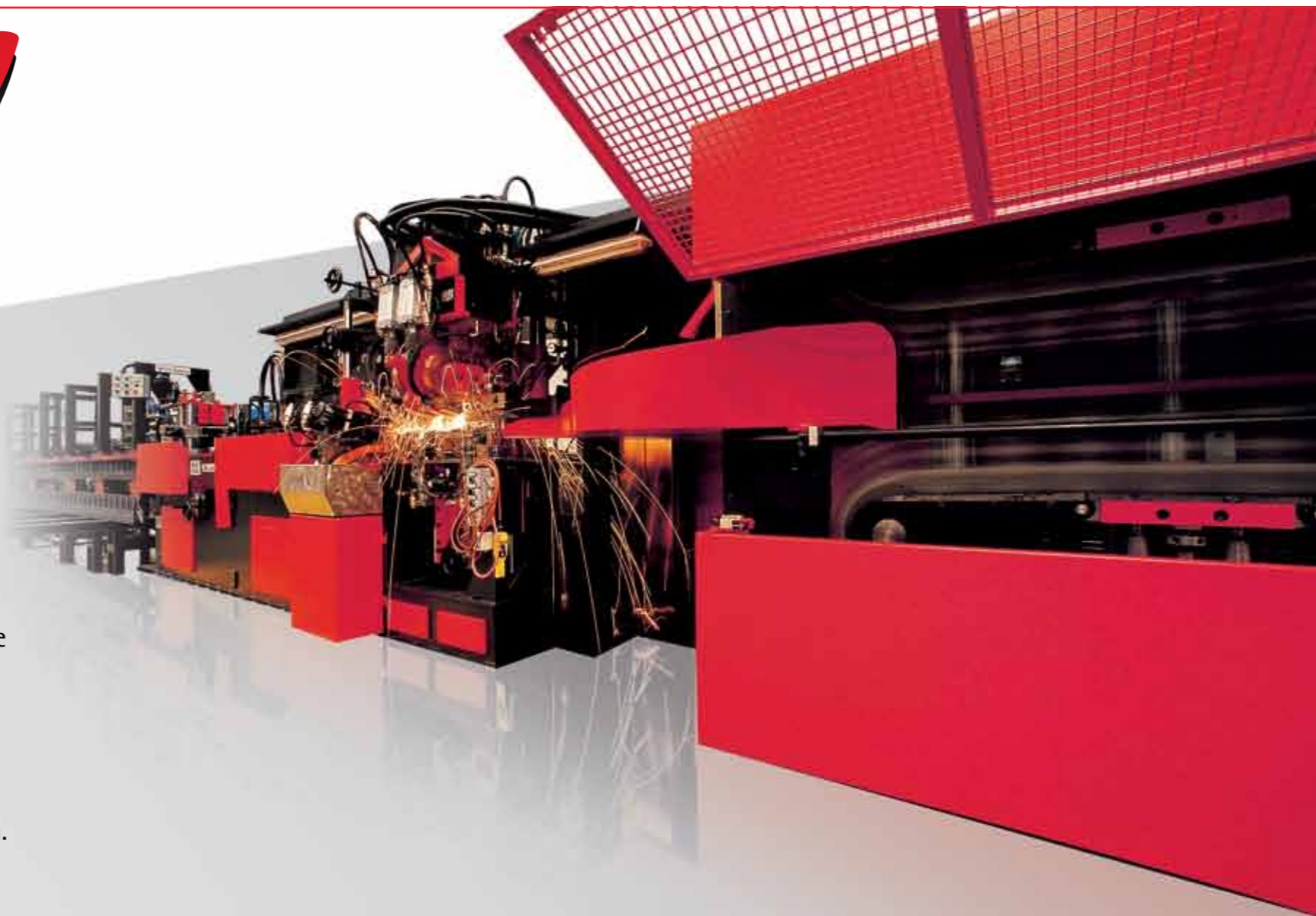
TOP QUALITY

The **MTM** Series are easy to operate to obtain **top quality products**. The design incorporates a number of exclusive devices addressing the reduction of set-up and fine tuning times and therefore to a **dramatic reduction of production waste**. The machine's development, incorporating the newest generation of machine control systems, allows the **MTM** Series to **reach unequalled productivity rates**.

The **MTM 400** is designed for easy and rapid change of product height and wire diameter of the lattice girder. It is equipped with a welding unit consisting of **two fixed pistons in the lower section** and two height adjustable mobile **pistons in the upper section**.

The **MTM 400** produces complete lattice girder sections with a step of **400 mm**.

The **MTM 200**, equipped with a simplified welding unit, produces complete lattice girder sections with step of **200 mm**.

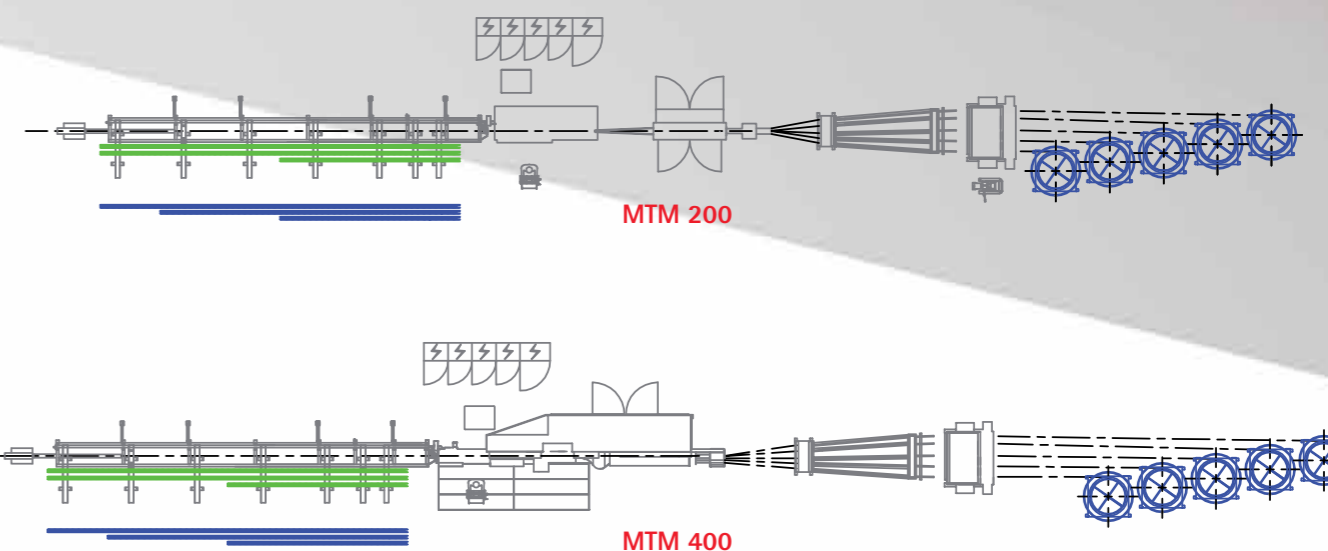


WELDING UNDER CONTROL



The use of **latest welding technology** (controlled current profiles) **overcomes variations in the mechanical characteristics** of the steel material, whilst assuring **reduced power consumption**.

VERSATILITY AT YOUR SERVICE: MTM 200-400



Leading solutions

PERFECT GEOMETRY



The **continuous chain forming device (zig-zag)** comprises a pair of chains which **bend the two diagonal wires**. The exclusive system allows independent control of the forming of the **two wires during the feeding and shaping process**, so that any difference in section or mechanical characteristics between the two wires can be taken in account. In this way the **lattice girder will always be well formed with excellent symmetry and straightness**.

AUTOMATIC POSITIONING



The **vertical positioning** of the chain forming groups is controlled by **electric motors**, so that it can be rapidly changed to match with any lattice girder height and wire size. It is an easy, precise operation having a very beneficial impact in reducing machine idle time. (**MTM 400**).

PERFECT SYNCRONISATION



The **feeding group is perfectly synchronised** with the chain forming group so that **the lattice girder will be produced in perfect symmetry**.

CONTROLLED STRAIGHTENING

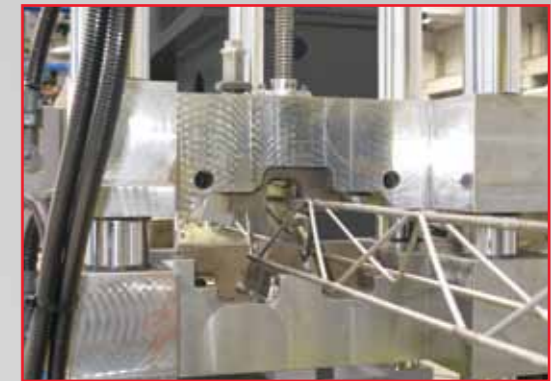


The **MTM** is equipped with separate **straightening groups**: one for the (zig-zag) **diagonal wires** consisting of **rollers** and another one for the longitudinal **wires** consisting of **rotors**. The rotors can **operate at variable speeds** and, if required, they can **independently rotate in opposite directions** in order to consistently achieve perfect straightening of the longitudinal wires. This produces flat, straight **lattice girder**.



TRANSVERSAL CUT

A **strong hydraulic shear** cuts the lattice girder **to the required size** at 100 mm steps. It is designed to operate without slowing down the production cycle.



CONSTANT DE-COILING

In order to assure high productivity and high quality finished product, all **MTM** versions are equipped with loop and tension control devices allowing a **constant control of the de-coiling** to consistently and uniformly feed the machine thus obtaining a precise weld.

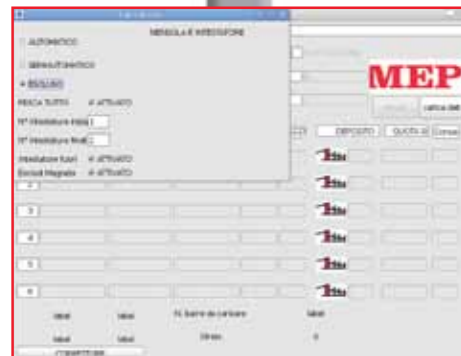


AUTOMATIC COLLECTION

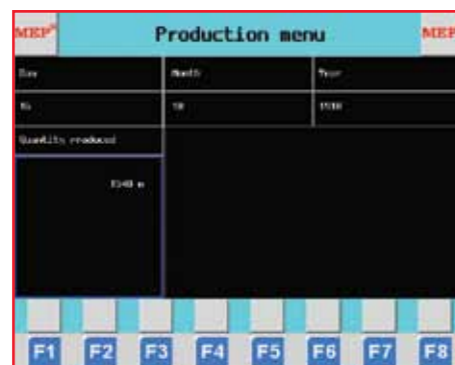
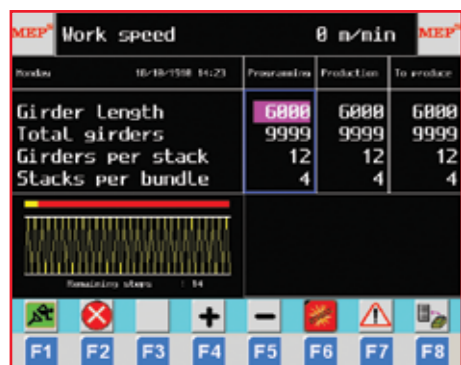


The finished lattice girders can be collected by means of an **automatic stacking-machine** that allows the material to be stacked according to the **production and delivery plan**. The complete pack is then transferred on a belt conveyor in order to facilitate the subsequent tying and evacuation operations.

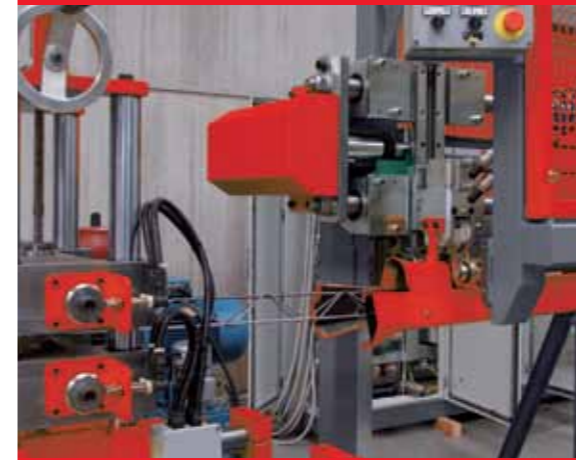
WORLD SYSTEM: TOTAL CONTROL



- **Operator's panel for MEP Industrial P.C., consisting of:**
 - LCD screen for the visualization of all information in a "user-friendly" graphic mode.
 - Low absorption compact micro-controller ("embedded").
 - Input/output electronic boards equipped with prevention systems against short-circuits and axle control.
- **The software, expressly designed by MEP, allows:**
 - Data input with graphic visualization of programmed and pre-memorized lattice-girders.
 - Check-up of all machine parameters with possibility of selecting different welding programs.
 - Memorization and filing of data related to daily working cycles and generation of daily production statistics (number of welding strokes and metres of lattice-girders produced).



SYNCHRONIZED WORKING CYCLE



- The automatic transfer device of the lattice girder comes into operation after the cutting operation, thus enabling the production of next section.

MOBILE WELDING BUTT



- Allows the ends of two coils to be welded in order to reduce wire insertion times. (OPTIONAL)

TECHNICAL AND PRODUCTION CHARACTERISTICS

	MTM 200	MTM 400
WORKABLE WIRE DIAMETER Longitudinal wire diameters (other diameters on request) ZIG ZAG wire diameters (other diameters on request)	from Ø 5 to Ø 12 mm 0.196" ÷ 0.472"	from Ø 5 to Ø 12 mm 0.196" ÷ 0.472"
	from Ø 3,5 to Ø 6 mm 0.135" ÷ 0.239"	from Ø 3,5 to Ø 6 mm 0.135" ÷ 0.239"
	fy = 600 N/mm ² - ft = 650 N/mm ² (other loads on request)	
TRUSS-GIRDER PRODUCTION		
Truss-girder forward speed	18 m/min 59 fpm	33 m/min 108 fpm
Truss-girder height (other sizes on request)	80÷300 mm 3" ÷ 1'	80÷300 mm 3" ÷ 1'
Base (inner size) (other sizes on request)	70÷100 mm 2 3/4" ÷ 4"	70÷100 mm 2 3/4" ÷ 4"
Forward pitch	200 mm 8"	400 mm 16"
Truss-girder length (other sizes on request)	2000 ÷ 12000 mm (multiples of 100 mm) 79" ÷ 480" (multiples of 4")	2000 ÷ 12000 mm (multiples of 100 mm) 79" ÷ 480" (multiples of 4")

THE SYSTEM REQUIRES AN AIR-COMPRESSOR AND A WATER COOLING SYSTEM.

fy: max. unit yield point - ft: max. breaking point

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