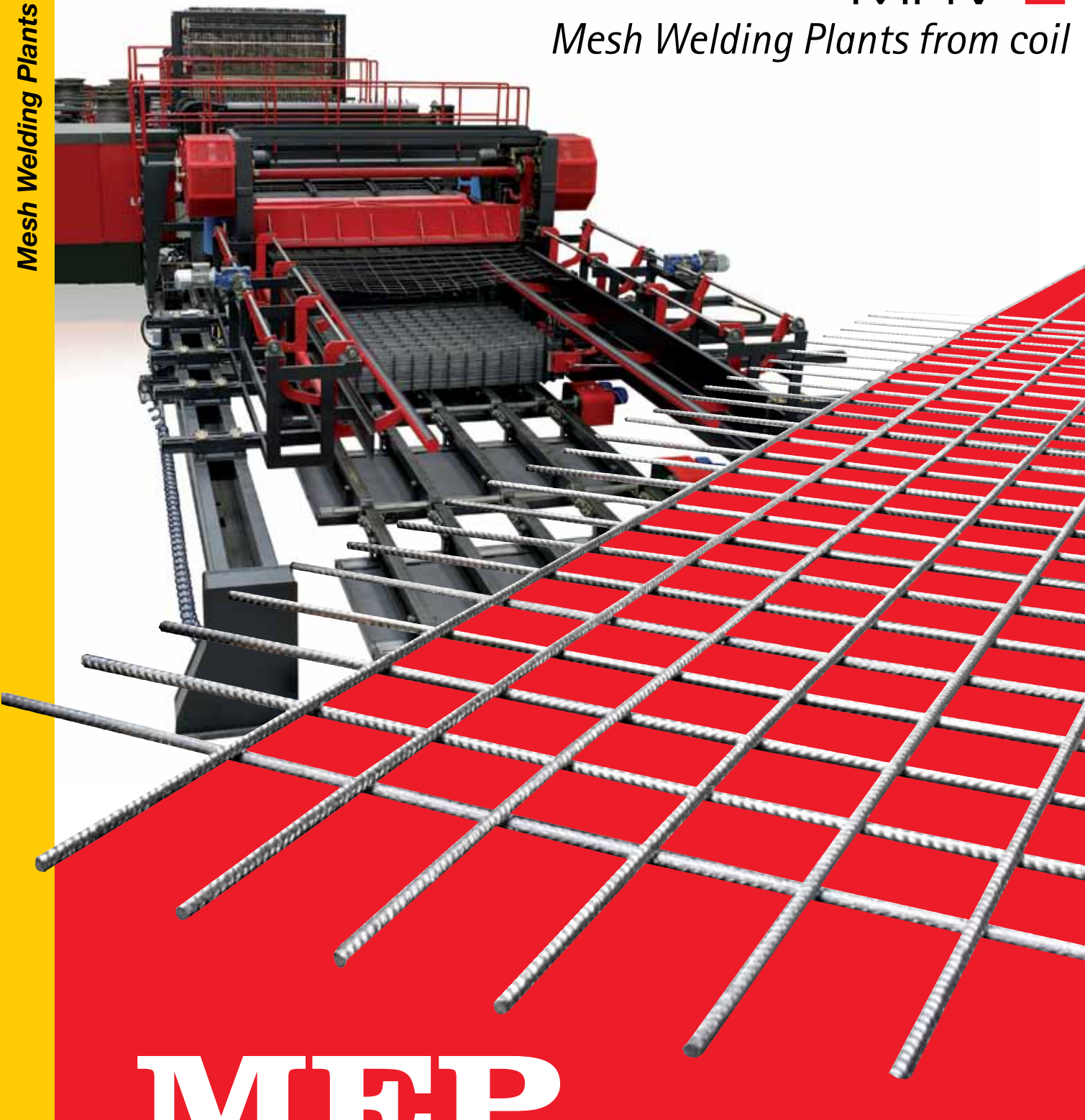




Mesh Welding Plants from coil

P-C Weld • Twin P-C Weld
Combi Weld • Twin Combi Weld
MRV 2

Mesh Welding Plants from coil



MEP
the history of innovation



www.mepgroup.com



Flexibility and modularity

GUARANTEED PRODUCTIVITY FOR EVERY REQUIREMENT

MEP welding mesh plants are designed to produce **electro-welded mesh from cold-drawn or hot-rolled wire**.

High productivity, reliability and structural robustness allow these plants to consistently deliver high volume series production (large batches of constant diameters and pitches). A wide range of modules enables the system to be **fully automated**, thus completely eliminating manual intervention.



FLEXIBILITY: PANEL, COIL OR BOTH

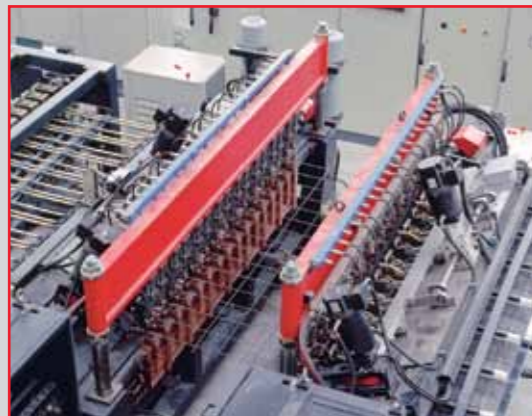
We design mesh plants in order **to suit any production requirement**, depending on the type and number of welding heads and on the finished product configuration, either in panel or coil. Stacking and stocking systems for mesh rolls and mesh panels can be **specifically designed** to suit the client and even adapted for **upgrade of an existing plant** at a **later stage**.

Versatility at your service

- LONGITUDINAL WIRE COIL-HOLDER
- LOOP AND TENSION CONTROL GROUP AND LONGITUDINAL FEEDING DEVICE
- WELDING HEAD
- SHEAR
- TURNING AND STACKING DEVICE
- MESH REELER IN COILS



The **P-C-Weld** mesh plant incorporates a welding head designed for the production of standard mesh in medium and high volumes. It is equipped with **single cross wire insertion** system to cope with **longitudinal pitches of 50 ÷ 100 ÷ 150 ÷ 200 mm ...**



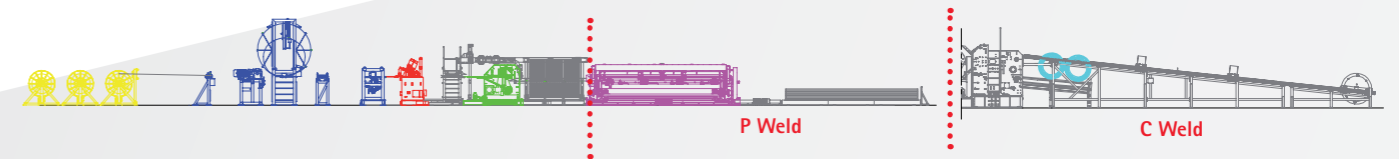
The **TWIN P-C WELD** version is equipped with a double welding head set-up operating **simultaneously processing two cross wires**, thus **doubling the plant's production capacity**. The plant can process mesh with minimum longitudinal pitch of **100 ÷ 150 ÷ 200 mm ...**



The **MRV 2** is an innovative plant design based on the performance of **two welding heads mounted one above each other** and able to **simultaneously weld two mirrored panels** that can be efficiently stacked without the need of a turning device. The plant can process **cross wire with length up to 4000 mm**. This means that productivity can be increased by producing a wide mesh transversally rather than longitudinally. Available **pitches are 100 ÷ 150 ÷ 200 mm ...**

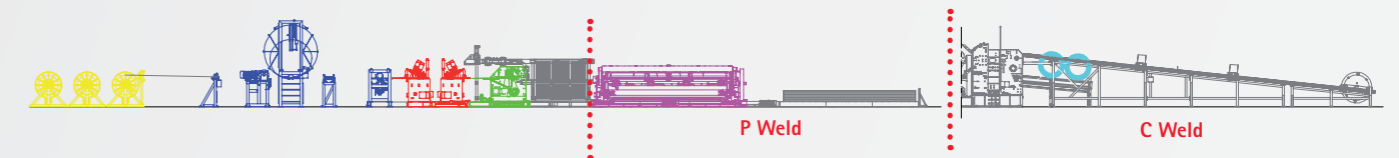
P-C Weld

Mesh in panel or coil (single welding head).



Twin **P-C** Weld

Mesh in panel or coil (two parallel welding heads).



Combi Weld

Mesh in panel or coil (single welding head).



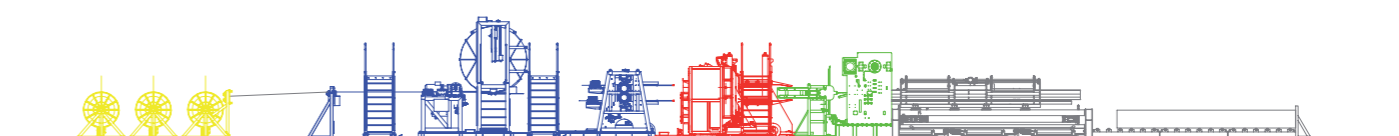
Twin **Combi** Weld

Mesh in panel or coil (two parallel welding heads).



MRV 2

Mesh in panel (two welding heads, one above the other).



Automation and high productivity

MEP mesh welding plants are equipped with the latest automation technology to perfectly control all electronic and mechanical functions. All plants are designed to reach **unequaled hourly productivity performance**.

LENGTH UP TO 4 M

The **MRV 2** is a plant able to **simultaneously produce two mirrored mesh panels up to 4000 mm in length (AFS)**, thus simplifying the production cycle and eliminating dead times caused by stacking of the mesh panels. The **two sets of welding heads, one above the other**, achieve massive output of light and medium weight meshes in **large batches of standard sizes**.

CROSS WIRE CHANGE IN A FEW SECONDS

The exclusive **crosswire change-over (optional)** automatically performs the wire change in a few seconds.

Thanks to this solution, the machine is ready to **restart production very quickly**, with no operator intervention.

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.

This **exclusive control system enables utmost flexibility in the welding cycle**, according to the customer's specific requirements.

More than 100 welding programs are available (i.e. welding points placed at extremities).



Decoiling under control

In order to assure high productivity and high quality finished product, accurate control of the decoiling process and high quality wire straightening of all wires is necessary.

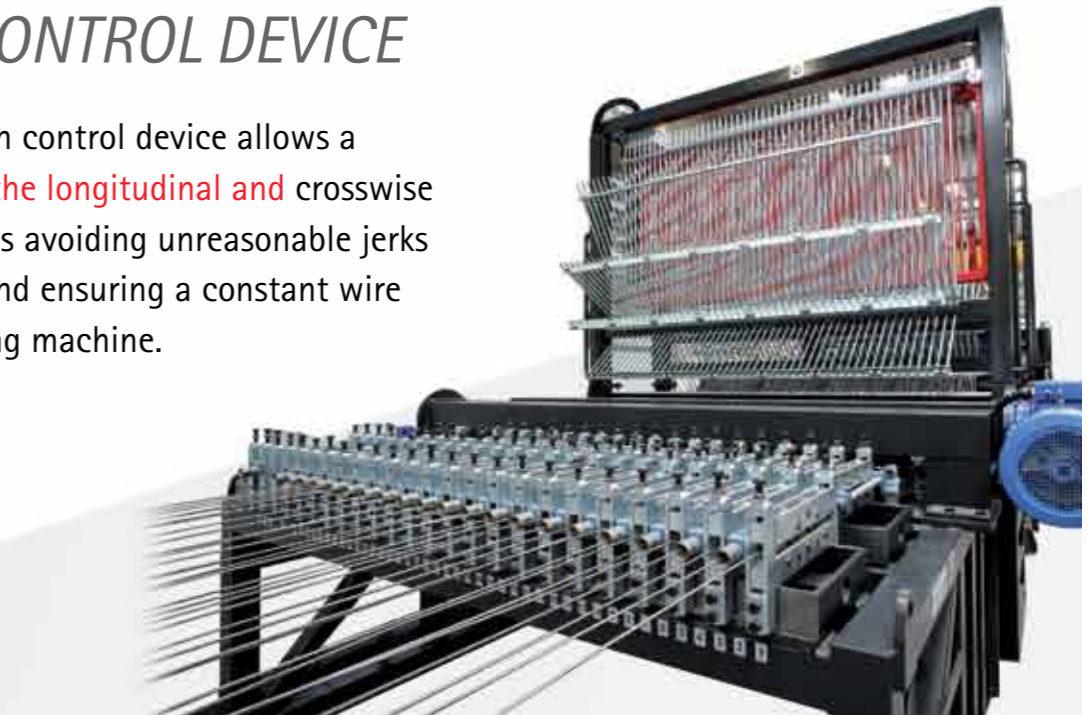


PAY-OFF STATIONS

Pay-off stations for longitudinal and cross wires can be horizontal or vertical according to the kind of material to be processed and to the factory logistics.

TENSION CONTROL DEVICE

The loop and tension control device allows a proper handling of the longitudinal and crosswise decoiling speed, thus avoiding unreasonable jerks or excessive force and ensuring a constant wire feed into the welding machine.

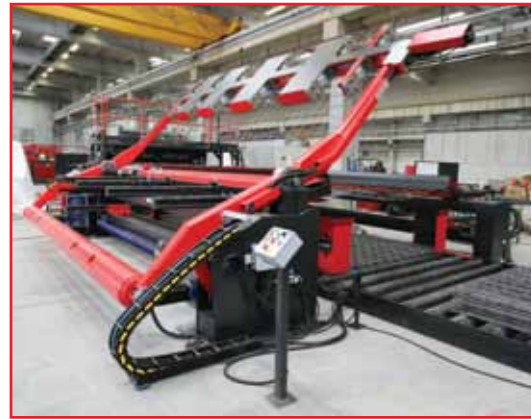


PRE-FEEDING AND STRAIGHTENING

Pre-feeding and pulling units of the longitudinal wires are equipped with individually adjustable roller straightening units.



Off-loading and binding automatic systems



TURNING AND STACKING DEVICE

Automatic device for turning and stacking mesh panels. This unit optimizes the stacking of panels, thus increasing the weight per unit of volume.

(OPTIONAL AVAILABLE ON P-WELD AND TWIN P-WELD)

TYING DEVICE

An automatic device to tie the mesh to eliminate manual intervention. (OPTIONAL)



STOCKPILER

Equipped with a motorized forward feed roller and pneumatic sideboards, the stockpiler enables a gradual overlapping of produced panels. (OPTIONAL AVAILABLE ON MODEL MRV 2)

The pack is automatically transferred to a forward feed-roller from which it can be loaded in full safety.



BUNDLING-MACHINE

An automatic bundling-machine allows to stockpile, by overlapping them, a number of bundled mesh packets. (OPTIONAL)



Two mesh rolls simultaneously

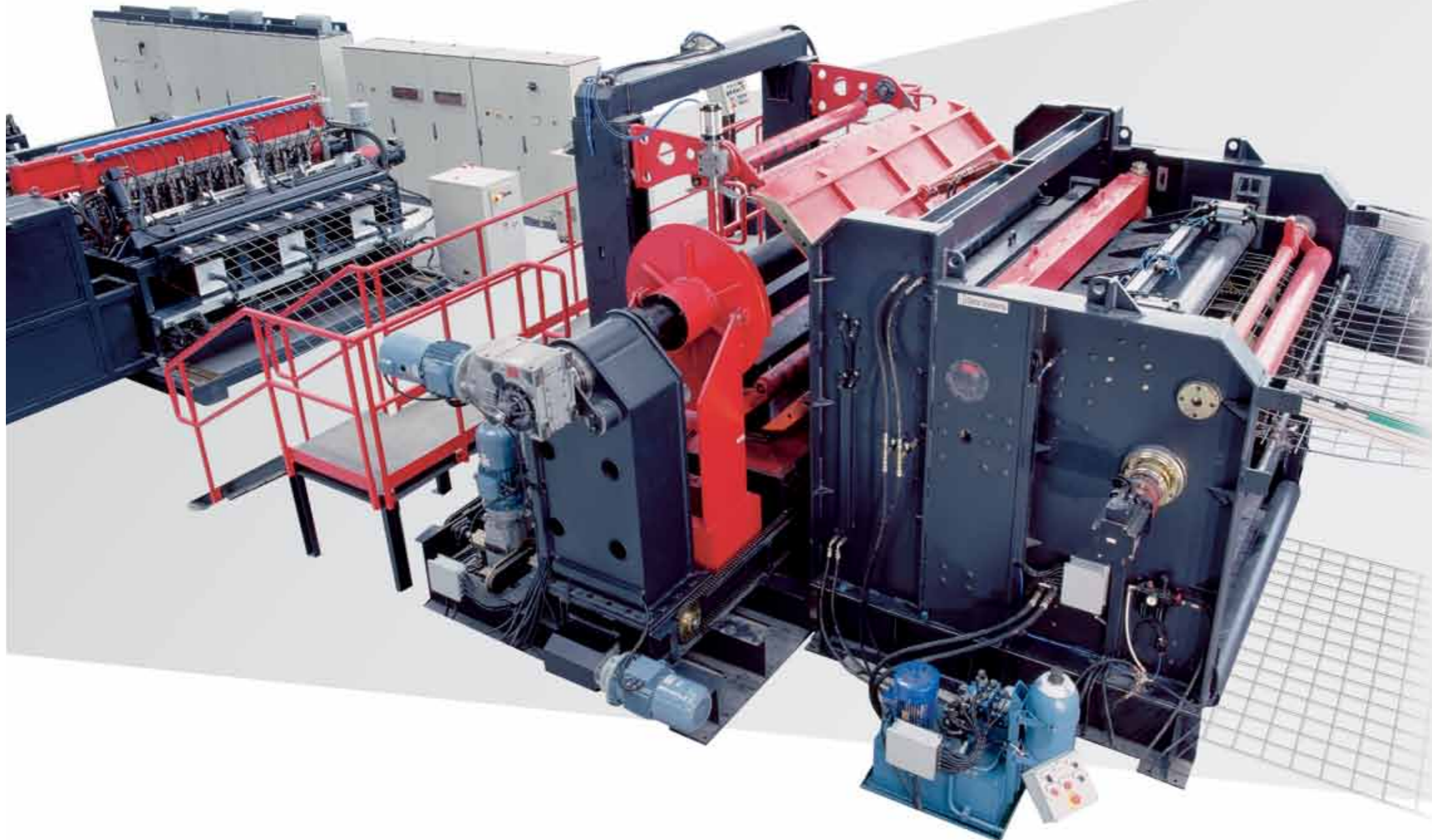
An automatic mesh rolling device ensures a continuous production of mesh in rolls. As soon as rolls have been produced, an automatic device picks and places them in the stocking area. Now, the mesh rolling device is ready to receive the mesh that, in the meantime, has been cut in two sections (double coil) and stocked in the buffer section. The combined action of the buffer and the stocking station, leads to highly efficiency production by reducing the machine idle time which normally occurs between the completion of one mesh roll and the beginning of the next.



Buffer station of mesh in coil.



Double roll winding device.



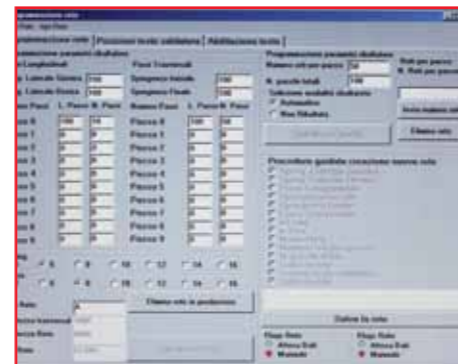
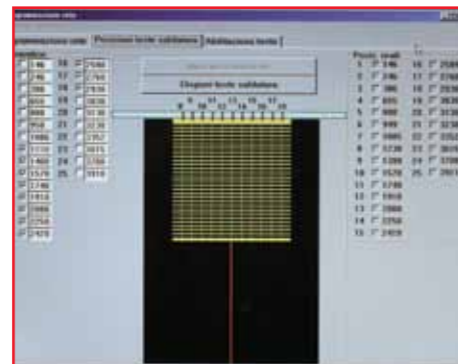
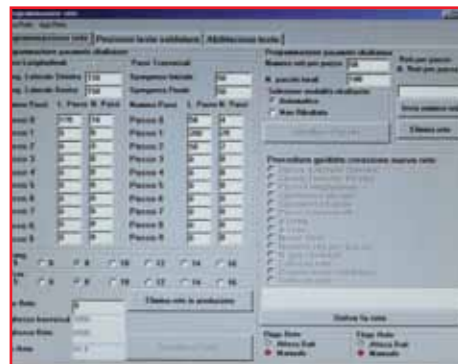
Withdrawing and off-loading automatic device.



Longitudinal cutting unit for mesh produced to form two rolls.

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 consumption 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 mesh.
 - Memorization of 200 different mesh types.
 - 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 operations and metres of mesh produced).
 - "Active Diagnostics" System for a constant efficiency check-up of all elements of the system.
 - Remote assistance via Ethernet (optional).
 - USB Port for data transfer.
 - RJ45 Ethernet standard port (LAN port) for direct link to company's net.



FLASH CUT



- A tough electro-pneumatic shear takes care of the mesh cutting. It operates in such a way to neither stop nor slow down the working cycle, thus optimizing the machine's productivity.

SIDE TRIMMERS



- Cutting and trimming devices for the crosswise protrusions (max. diameter 8 mm) for the production of trimmed flat panels. (OPTIONAL)

TECHNICAL AND PRODUCTION CHARACTERISTICS

	UK		USA		MRV 2
	P WELD TWIN P WELD	C WELD TWIN C WELD TWIN 2 C WELD	COMBI WELD - panel	TWIN COMBI WELD coil	
WORKABLE WIRE DIAMETRE (other diameters on request)	3,4 mm - 8 mm	3,4 mm - 6 mm	3,4 mm - 8 mm	3,4 mm - 6 mm	3,4 mm - 8 mm
cold-drawn, hot-rolled, smooth or corrugated CW, LW wire	0.134" ÷ 0.315"	0.134" ÷ 0.239"	0.134" ÷ 0.315"	0.134" ÷ 0.239"	0.134" ÷ 0.315"
fy = 600 N/mm ² - ft = 700 N/mm ² (other stresses on demand)					
MESH PRODUCTION					
mesh width (other sizes on request)	1200 ÷ 2500 mm 48" ÷ 98"	1200 ÷ 3650 mm 48" ÷ 114"	1200 ÷ 2500 mm 48" ÷ 98"	1200 ÷ 3650 mm 48" ÷ 144"	1200 ÷ 4000 mm 48" ÷ 154"
mesh max. length (other sizes on request)	1500 ÷ 6000 mm - 60" ÷ 240"	17000 ÷ 80000 mm 670" ÷ 3150"	1500 ÷ 6000 mm 60" ÷ 240"	17000 ÷ 80000 mm 670" ÷ 3150"	1500 ÷ 6000 mm 60" ÷ 240"
max number of welding points *	P - C Weld: 150 max/stroke Twin P - C Weld: 250 max/stroke		150 max/stroke	250 max/stroke	250 max/stroke
LONGITUDINAL WIRES (LW)					
number of cross wires	According to the pitch and the mesh width to be produced				
LP mesh pitch (other sizes on request)	programmable from 50 mm (according to model) - programmable from 2" (according to model)				
CROSS WIRES (CW)					
number of crosswise wires	According to the pitch and the mesh length to be produced				
CP mesh pitch (other sizes on request)	programmable from 50 mm (according to model) - programmable from 2" (according to model)				

THE SYSTEM REQUIRES THE USE OF AN AIR COMPRESSOR AND A WATER COOLING SYSTEM.

fy: max. unit yield stress - ft: max unit tensile stress

* Strokes per minute depending on wire diameter and feeding of longitudinal wires.
Single welding head: max. 150 strokes per minute. Double welding head: max. 250 strokes per minute.

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