Control units for irrigation
IRRIGAMATIC

MaterMacc

Irrigate automatically when and where needed



97+540.EN.1125

Irrigate automatically when and where needed



Making the most of the presence of water is among the modern farmer's needs.
Sprinkler irrigation machines and systems, including the controllers applied to them, offer an advantageous aid to irrigation activity as they make the best use of water pressure resulting in savings of the precious natural resource.
MaterMacc is proud to share its know-how, the result of more than forty years of experience in the field, with major manufacturers of irrigation sprinkler rollers.

Indice

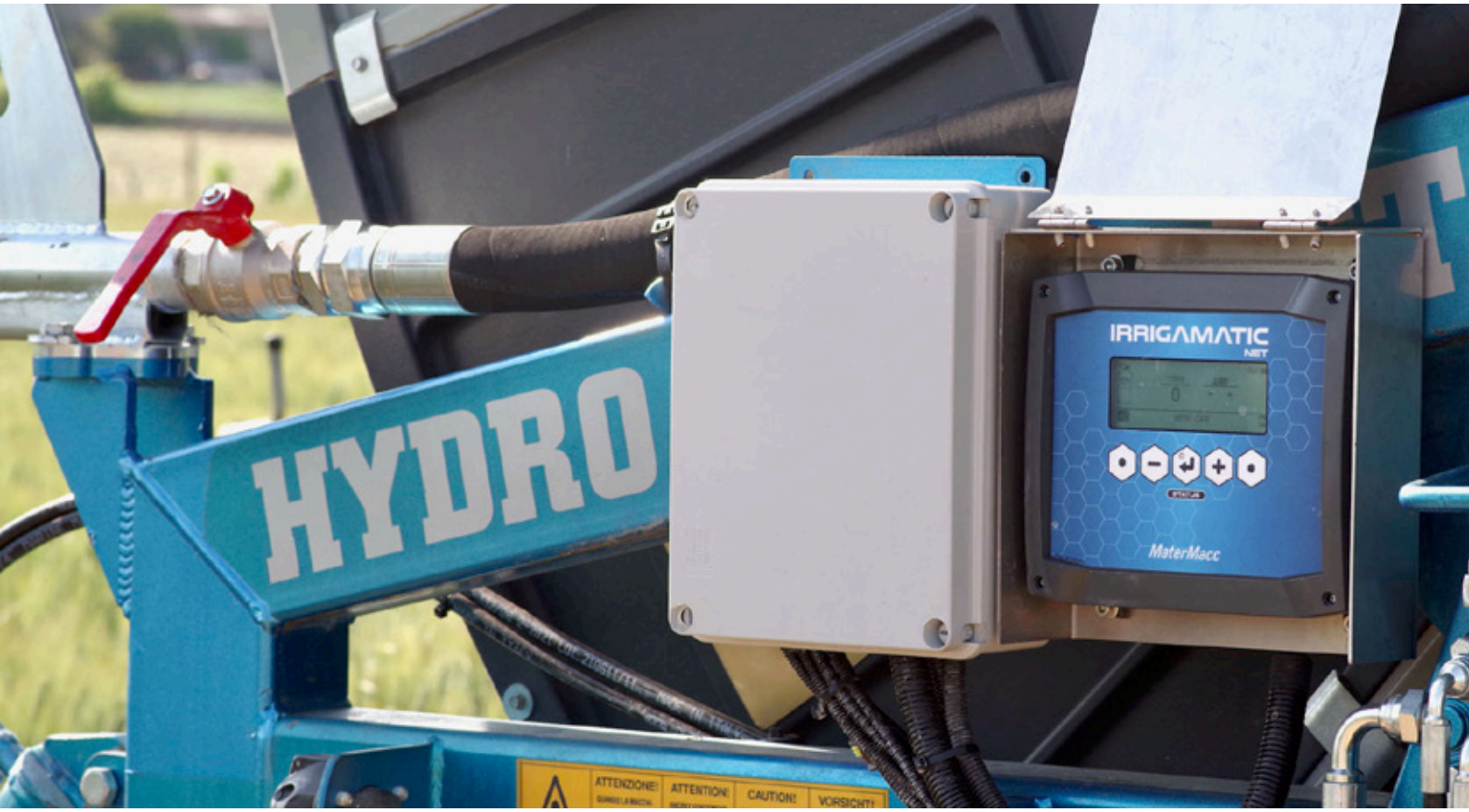


IRRIGAMATIC - Irrigate automaticlly when and where needed

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All indications regarding technical characteristics, dimensions, weights, power, etc., as well as pictures are approximate and not binding.
Machine set-ups shown are not specific to the country of use and may also represent set-ups not available as standard and not available in all countries. Your trusted MaterMacc Dealer will provide you with all necessary information.

Electronics at the service of irrigation

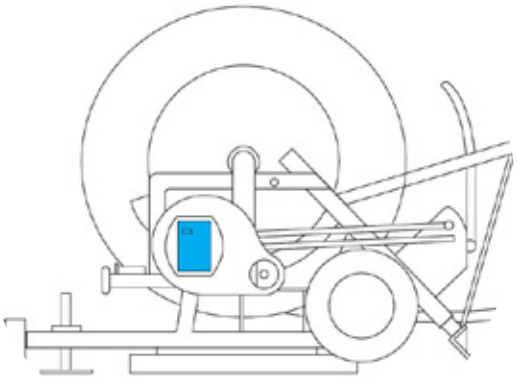


For functional and high-performance irrigation machines

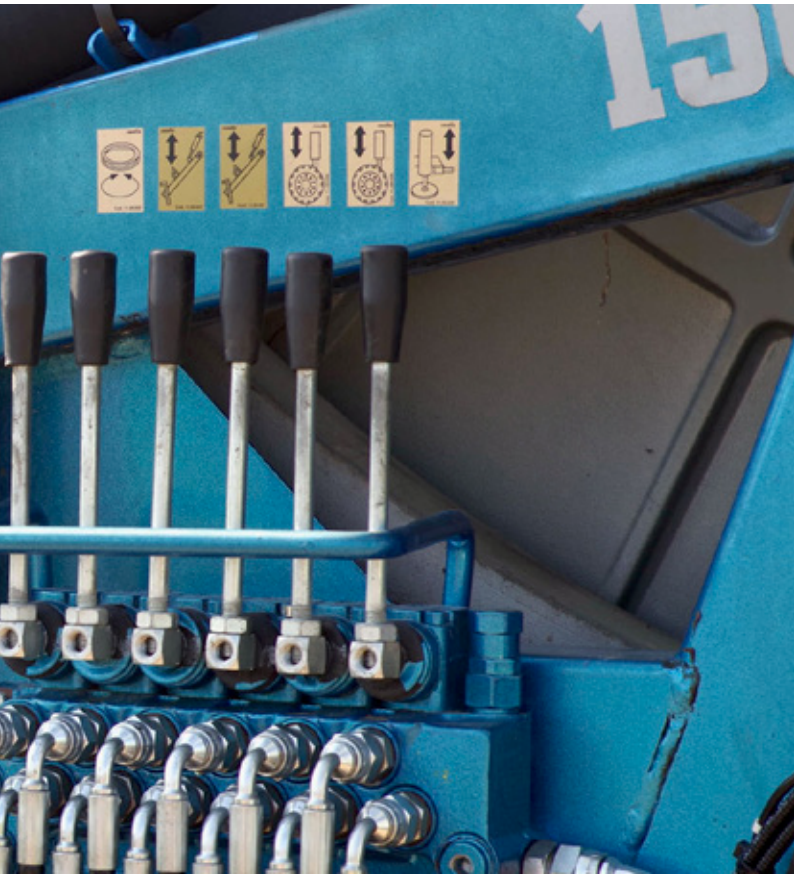
The MaterMacc IRRIGAMATIC electronic management monitors can be applied to all self-propelled sprinklers, turbine, pneumatic, with internal combustion engine or with hydraulic return and are characterized by the new generation applied electronics designed to make irrigation machines functional and performing.

IRRIGAMATIC B is characterized by an interface based on the 16x2 backlit LCD display and 6 scroll keys. The selection and setting of the control parameters are organized in menus to ensure automatic, simple and safe management of the machine.

IRRIGAMATIC NET maintains the same characteristics as version B, bringing a significant advantage to the range: the sprinkler can be controlled remotely thanks to the connection with the new MM Connecta web app - compatible with all Android and IoS systems, tablets, smartphones, Ipads, iPhones and smart TVs.



Application on motor pump





1



2

Engine control

With the MTR expansion wiring, complete safety control of the diesel engine used for recovery is obtained: the control unit allows you to switch on or stop only at the time of 'recovery' or during the actual irrigation phase (return of the trolley). The main engine parameters are also checked and shown on the display.

The MTR wiring for connection to the MaterMacc B / NET control unit on the auxiliary diesel engine: the exchange of data and information from the control unit and engine takes place quickly and easily through this connection.

Main functions

1 IRRIGAMATIC NET
Controlled by App compatible with iOS and Android
From smartphones, tablets and PCs. Sends a notification in case of scheduled event (end of work, wind, rain...). Allows to query more than 10 parameters of the equipment
Performs start - stop - speed change commands while reducing maintenance activities.
2 IRRIGAMATIC B
Measurement of unrolled and rerolled hose. Working speed adjustment from 1 to 4 sectors (4 to 850 m/h).
End time setting with recalculation of control parameters.
Closing the irrigation cycle at a programmed distance (crop overrun).

Safety and reliability wherever you are

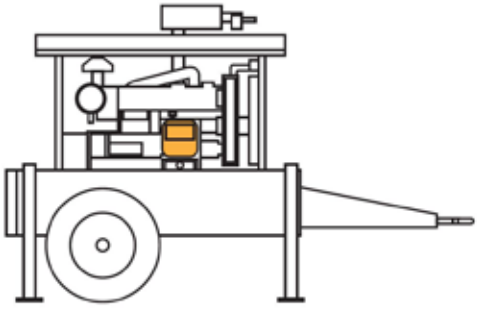


Safety guarantee with MOTORMATIC

It is possible to connect a MOTORMATIC control unit to Irrigamatic NET to control the motor pump.
In this case, the two controllers can be monitored symbiotically via App.

Main funtions

MOTORMATIC SE
Motor pump diagnostics and protection.
Manual operation (motor rpm setting) and/or automatic operation (operating pressure setting).
Interoperability with Irrigamatic for irrigation management.
Hot swap between manual and automatic mode operation (rpm control/pressure control).







Even more functionality together

Connected via data protocol, the Elcos Ltd. CEM-190 control unit makes simplified engine management, including stage V, available to the MaterMacc application with the following displays:

- Revolutions (RPM)
- Water pressure
- Operating mode
- Fuel level
- Engine status

MM Connecta: one App, multiple possibilities

Always sensitive to digital and IT development, MaterMacc has created a unique portal in which is possible to check the status of one's machine fleet. This is possible both at the dealer level - that is, by distinguishing the various customers equipped with Irrigamatic NET - and at the farm level by checking the machines owned by a specific farmer or contractor.

By connecting with the MM Connecta web app - compatible with all Android and IoS systems, tablets, smartphones, Ipads, Iphones and smart TVs - work operations can be carried out from the comfort of home. This translates into time and money savings by users who do not have to travel to the field to operate directly on the machine.

Smart control





Irrigamatic B

Functions:

- Current date and time
- Measurement of the rolled out and rewound pipe
- Setup the time for work start and finish
- Initial pause from 0 to 120 min
- Working speed adjustment from 1 to 4 sectors (4 to 850 m/h)
- Displays the work duration and work end time
- Setup of work end time and automatic adjustment of working settings
- Final pause from 0 to 120 min
- End of the irrigation cycle at a programmed distance (over the crop)
- Operations once the irrigation is over
- Automatic switch-off for energy saving

Options:

- Connection to a pressure switch or transducer
- Speed measurement with feeling roller
- Management of a timed auxiliary irrigator
- Connection with wind - rain sensors
- Connection with a flow meter (mm/H2O)
- Wirings for MTR 3S functionalities (rewind engine)

Irrigamatic NET

Functions:

- Controllable with MM Connecta web App
- Equipped with built-in 4G Lte GSM module and Global SIM
- Notifies you when a programmed event takes place (end of work, wind, rain, ...)
- Check more than 10 parameters of the installation
- Execute start - stop - change speed commands
- Current date and time
- Measurement of the rolled out and rewound pipe
- Setup the time for work start and finish
- Initial pause from 0 to 120 min
- Working speed adjustment from 1 to 4 sectors (4 to 850 m/h)
- Displays the work duration and work end time
- Setup of work end time and automatic adjustment of working settings
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Options:

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IRRIGAMATIC E MOTORMATIC





Motormatic

Functions:

- Diagnostic and protection of motor-pump: oil pressure, engine temperature check and overheat protection, automatic engine shutdown in case of belt breakage, low fuel warning, liquid levels, Engine rev count and overspeed protection, fuel consumption
- Manual (engine rev) and/or automatic (operating pressure) operating mode: engine pre-heating and cool-down management, timerized operation management, serial comunication with MaterMacc Irrigamatic for irrigation management
- Hot swap between manual and automatic mode operation (rpm control/pressure control)
- Automatic engine start with up to 5 ignition attempts
- Manual switch for service operations (e.g. bleeding fuel line)
- Automatic clutch input
- Hour meter
- Maintenance reminders can be set in a dedicated sub-menu
- Suitable for all kinds of farming conditios: frost protection, fruit crops, vegetable crops, vineyards, open field...

Options:

- Throttle actuator
- Pressure transducer
- Minimum pressure switch
- Flow meter

MM Connecta

Functions:

- Web App for Android and iOS systems
- Possibility of remote control of the irrigation machine
- Remote control of any control unit on motor pump (e.g. Elcos)
- Possibility to program and change the parameters of the working cycle
- Possibility of storing work cycles (presets)
- Consult and modify parameters according to user usage level (user, manufacturer etc.)
- Diagnostics of installed accessory components
- Job data consultation. Archiving and repairing irrigation activities for increased efficiency

Components for every need





Components for irrigation systems



Every farm has different needs. Our mission is to meet those needs and solve them with minimal effort on the part of the farmer in terms of time and money. To do this, we offer various types of components to automate and customize one's irrigation machine.



Inductive speed sensor

Detects the speed at the passage of the pinion teeth. Available with standard range (4 mm) or long range (8 mm).



Contact roller

Coated in textured rubber, it is available in several sizes for standard or pneurile sprinklers.



Magnetic speed sensor

Speed sensor for contact roller with coiled cord.



By-pass valve adjustment

Valve with elastic edge to operate with water of different composition. Can be otorized with controlled by the control unit. Available in various sizes.



Ball-valve adjustment

For pneurile sprinklers or for controlling additional sprinklers. Can be motorized with controlled by the control unit.



Epicyclic motor reduction unit

For by-pass valve for models up to 3" and 4" HP.



Gearmotor

Gearmotor for by-pass valves up to 3"



Combustion engine speed controller

This gearmotor is contolled by the ECU and adjusts the throttle of the internal combustion engine that powers the rewinding system.



Hydraulic valve adjustment

Motor reduction units dedicated to oil flow adjustment sprinklers with hydraulic motors activating the rewinding system. Versions available: 180° - 270°; 3 rev. - 5 rev.

Components for irrigation systems



Slow closing stop

The valve consists of a cast iron body, with EPDM gasket and stainless steel shaft. Available in different sizes.



Slow closing motor reduction unit

For operating the throttle valve up to 3". Available in versions closing in 1.5 minutes or in 4 minutes.



Slow closing motor reduction unit 4"

Version with supplementary gears for 4” to 5” valves with 4 minutes operating time.



Motorized shunt valve

For hydrovalve control (inlet or outlet). Available in 3-way or 5-way versions.



End of rewinding sensor

It receives a signal at end of rewinding to activate the final pause of the irrigation cycle.



Manual adjustment

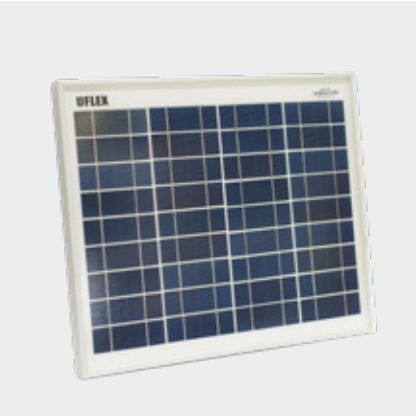
By-pass valve flow rate manual adjustment.

COMPONENTS



Stainless steel case

To store and protect the console. Provided with padlock and inspection window.



Photovoltaic panel

Used for power battery maintenance. 12V output and 10W power with regulator.



Pressure switch

It detects the absence of water in the pipeline and consequently suspends the irrigation cycle.



Rain-wind sensor

Capacitive rain sensor and helix wind sensor for Irrigamatic.



Pressure transmitter

For Irrigamatic and Motormatic.
0-25 Bar, 4-20 mA.



Linear actuator

For MOTORMATIC only.
12V power supply and 100 mm.e. stroke.

MaterMacc





Our company history

- MaterMacc was founded in 1983 out of a passion for agriculture and the constant search for new solutions in agriculture.
- The company specialises in the development and manufacture of pneumatic precision planters for traditional crops as well as pneumatic and mechanical planters, no-till planters and crop care machines.
- We also manufacture electronic equipment for the control and management of agricultural machinery and tools for controlling irrigation systems.
- MaterMacc stands for technology and quality – made in Italy to serve agriculture.

Safe and functional watering

- MaterMacc is proud to offer electronic irrigation management monitors that can be applied to major irrigation machines
- In-house development and MM design: product-specific architecture handled, easier upgrades, periodic adjustments from direct suggestions from our customers
- Easy-to-use touch: intelligible controls, intuitable icons and quick learning
- Internally developed MM Connecta portal: one portal for multiple equipment (irrigation, seeders, weeders), instant diagnostics, set-ups and calibrations with a simple phone call, shorter service time

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