

SPG 10 ECO

The technology:

The new controller consists of:

- A compact control module with large illuminated LCD display and touch-screen operation
- A pressure sensor that measures operating pressure
- Fast-switching high-pressure electromagnetic valves for opening and closing the nozzles (50 bars)
- An electric pressure regulator (50 bars)
- A level sensor that measures barrel contents with high precision
- A speed sensor to measure the sprayer's effective travel speed
- PC software
- A flow sensor that continuously measures the nozzles' precise output quantity

Manual operation mode:

In this mode, the on-board computer becomes a normal electric controller for opening and closing the nozzles as well as electric pressure adjustment.

Automatic operation mode:

The on-board computer always keeps the programmed operating pressure constant by controlling the electric pressure regulator, even in changing situations. (e.g. opening/closing of nozzles)

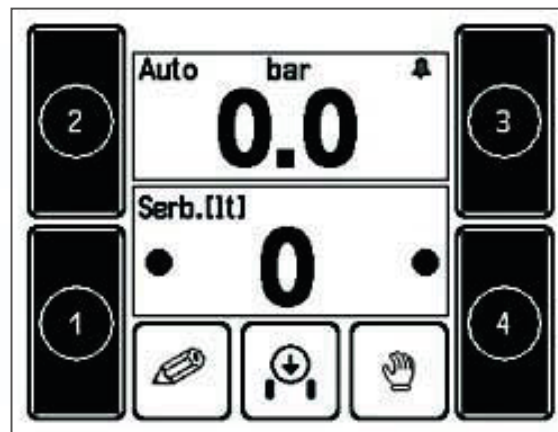
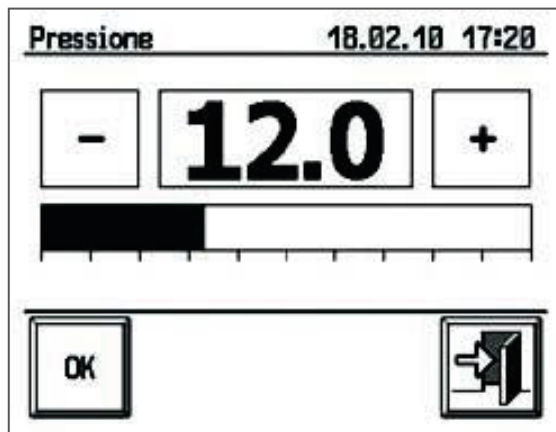
Display modes:

The following data is shown on the large LCD display:

- Operating pressure
- Barrel contents

Advantages:

- Easy and clearly laid out operation
- Constant display of all important spray data
- Constant pressure during the entire operation



LOCHMANN
sprayer innovation

COMPUTER-CONTROLLED ELECTRONICS



SPG 10 PLUS

The controller was developed by Lochmann Plantatec GmbH in conjunction with Elmed Electronics to optimise plant protection and increase efficiency.

The technology:

The controller consists of:

- A compact control module with large illuminated LCD display and touch-screen operation
- A pressure sensor that measures operating pressure
- Fast-switching high-pressure electromagnetic valves for opening and closing the nozzles (50 bars)
- An electric pressure regulator (50 bars)
- A level sensor that measures barrel contents with high precision
- A speed sensor to measure the sprayer's effective travel speed

Optional:

- A flow sensor that continuously measures the nozzles' precise output quantity

Manual operation mode:

In this mode, the on-board computer becomes a normal electric controller for opening and closing the nozzles as well as electric pressure adjustment.

Semi-automatic operation mode:

The on-board computer always keeps the programmed operating pressure constant by controlling the electric pressure regulator, even in changing situations. (e.g. opening/closing of nozzles)

Fully automatic operation mode:

Using the selected data and effective travel speed that it has automatically read, the on-board computer calculates the correct output quantity, which it automatically adjusts with the pressure regulator. The output quantity is continuously adapted to the changing travel speed so that the chosen application quantity (lt/ha) is adhered to exactly.

Creating a spraying program:

- Select the plot and active ingredients to be applied
- Enter the desired concentration or output quantity lt/ha and travel speed
- The program will now automatically suggest the ideal nozzle size and calculate the required operating pressure.

Display modes:

The following data is shown on the large LCD display:

- Operating pressure
- Barrel contents
- Travel speed (km/h)
- Output quantity (l/min)
- Total output quantity
- Application quantity (l/ha)
- Total area treated (ha)
- Information about the plot and active ingredient

Advantages:

- Easy and clearly laid out operation
- Constant display of all important spray data
- Recording of all effective current data
- No inconvenient calculation of operating pressure
- A beep sound if the ideal pressure and travel speed are too high or low
- There is also a beep sound if the nozzles are blocked
- Large memory for 10,000 spraying programs and much more
- Only one-time programming, reuse
- Application quantities are always exact, nothing is left over (this saves money and is eco-friendly)
- When the sprayer is being filled, required data such as filling capacity, active agent and dosage can be queried

Management advantages:

- Automatic creation of the GlobalGap operating book with the actual data measured up to disease, etc
- Inventory accounting for active ingredients in accordance with GlobalGap
- Precise overview, active ingredient costs and total quantity of active ingredients, time spent

