

Sprayer LED



Complete solution for lighting on field sprayers

An effective and efficient solution for lighting up the nozzles on fieldsprayers.

The system is simple and flexible, and can be mounted on all fieldsprayers.



Introduction

The Sprayer LED solution consists of High Power LED lamps for the nozzles, and a central power supply. Industrial connectors between the lamps ensures that they are easy to connect, and a series of mounting-kits makes it easy to mount the lamps on the fieldsprayer.

Proven technology, optimized design

Our LED lamps have been tested in a number of years, and with the newest upgrades the system is easier to mount and connect than before. All lamps are now connected in a single chain, making splitters unnecessary.

Get an offer on Sprayer LED

When you contact your dealer, he needs to have the following information to calculate a price:

- Field-sprayer model
- Number of nozzles
- Distance between nozzles
- Mounting kits
- Accessories

Lend a test-kit

We offer free lending of lamps and mounting kits for testing, and also to see which mounting-kits fits your fieldsprayer. Contact your dealer to arrange a loan of a test-kit.

Your dealer:

More information on:
www.matronics.eu/sprayerled
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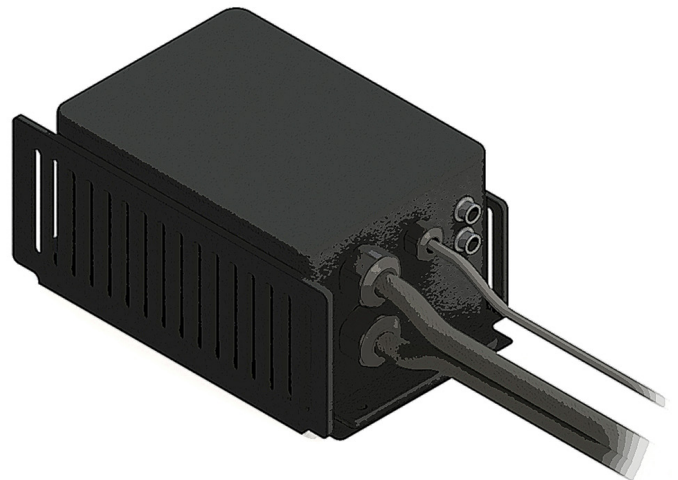
Powerful power supply

The 240W power supply is the heart of the solution. Its primary function is to boost the voltage from 12V up to 24V. The higher voltage allows more lamps to be connected in series, removing the need for splitters. At 12V it is only possible to connect 8 in series, but with 24V you can connect 40 lamps in series.

There is 15 meter cable to the power supply, and 2 meter cable to the relay control. The supply cable is 2 x 6mm², and the relay cable is 2 x 0.25mm².

Reliable

The voltage converter in the power supply is protected against overloading and shorting of the output. The powersupply is encased in a IP65 cabinet of black anodized aluminium. The extra cooling element around it ensures thermal stability.



Relay control

The built-in relay control makes it easy to control the power to the lamps, either by using the lamps built-in control, a switch on the sprayer, or inside the tractor.

M8 connectors from end to end

With M8 connectors on the outputs and on all the lamps, it is straight forward to connect the lamps. The standard version has two outputs, one for each boom. With 40 lamps on each side of the sprayer, there are enough for even the larger fieldsprayer.

Data

Input voltage	11V -14V
Input current max	22A
Output voltage	24V
Output current max	10A
Dimensions	170mm x 114mm x 78mm
Outputs	2 or 3

Powerful and flexible LED lamps

Flexibility and easy mounting was the primary goal with the lamp. The shape makes it possible to mount it with cable-ties, bolts, brackets and pipe-clamps. The mounting-holes are placed both through the front and the sides of the lamp, in both ends.



Compact

The lamp is very compact, with dimensions of only 80mm x 25mm x 23mm. This makes it easy to find space on the booms.



Different models

The lamps are available as single or as pairs, with different combinations of input and output cables. The difference is if the cables should come out from the same end, or opposite end. Which type you should use depends on the booms and method of mounting.

Simple construction

The lamp consists of few but high quality components that together make up a reliable and solid lamp. The materials in plastic, aluminum and PUR are all resistant to chemicals.

The aluminium-frame around the lamp protects the optics and the electronics against impact from crops and branches. The potting using PUR makes the lamp completely waterproof, with an ingress protection rating of IP68. The same design is used for our underwater-lamps. The optic is made of impact resistant polycarbonate.

Reliable

Each lamp has a LED driver built-in, which removes external driver-boxes on the boom. In case one lamp stops working, the rest will continue to work. This also minimizes the number of parts to replace if a defect occurs, where alternative solutions might require replacing multiple lamps and driver.

High light output

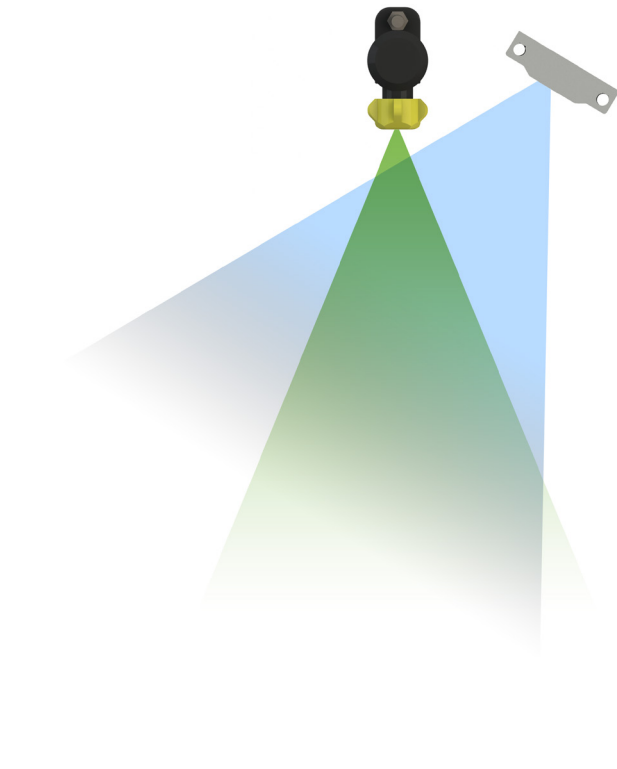
The powerful High Power LED has a high light output, and uses a large 60 degree optic.

Data

Voltage	6V - 36V
Dimensions	80mm x 25mm x 23mm
LED driver	Built-in
Light output	150 Lumen
LED Optics	20mm, 60 degrees
Consumption	1,3W

Mounting and placing the lamps

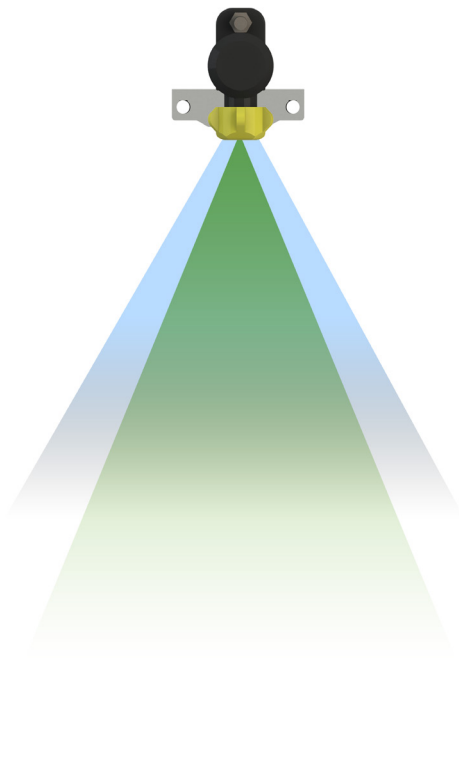
It is important that the lamps are placed optimally so that they cover as much of the spray as possible. Typically the design of the booms dictates which mounting kit that can be used, and thus also how the lamps can be placed. In most sprayers you might need different kits, if the individual booms are constructed differently.



Mounting on the side of a nozzle

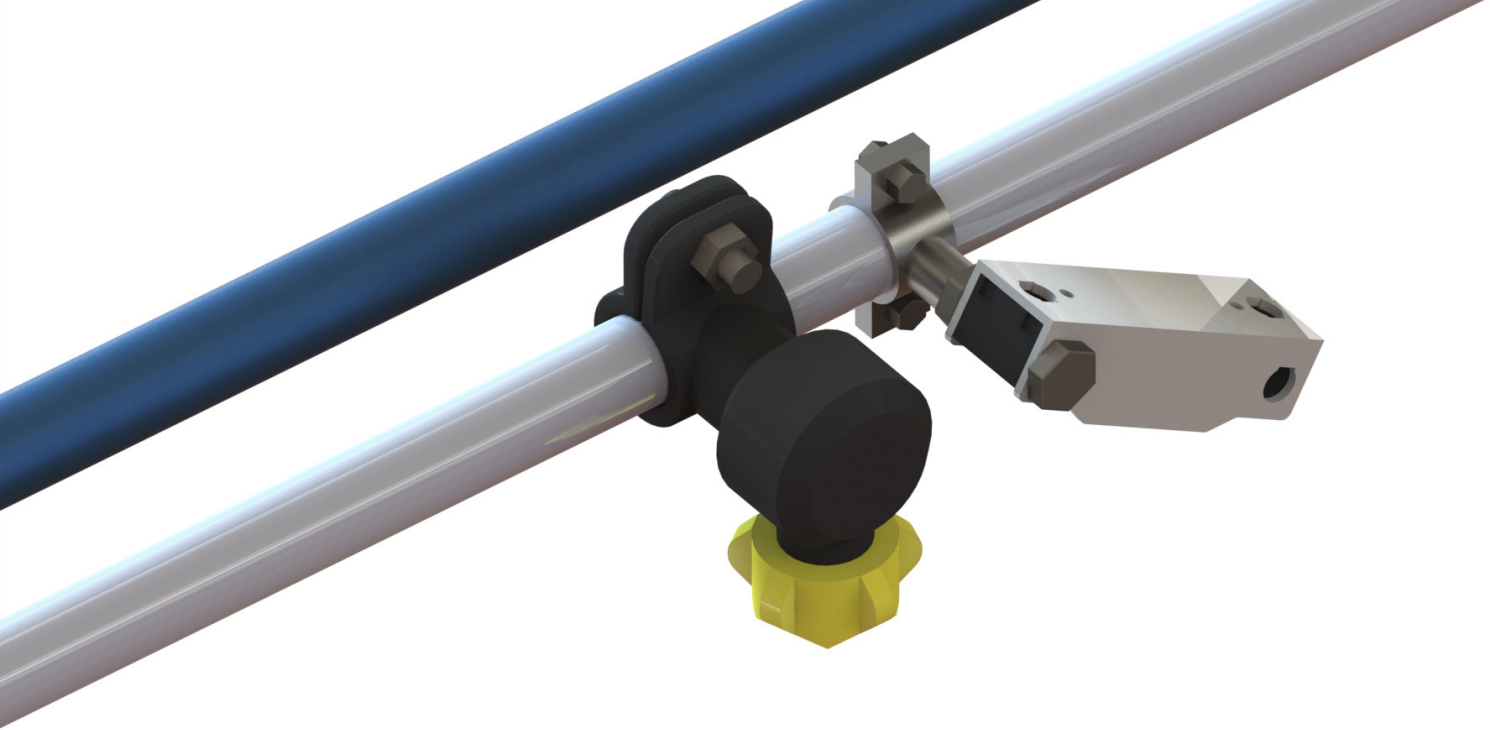
When the lamp is mounted on the side of the nozzle, you should angle the lamp so most of the spray is covered. Typically a lamp will also cover some of the spray from the next nozzle, so the that full spray will be lit up.

Mounting on the side is best done using a pipe-bracket or a flex-bracket.



Mounting behind the nozzle

This placement is used if the design of the boom allows the lamp to be zip-tied right behind the nozzle. The lamp should be placed as close to the nozzle as possible.

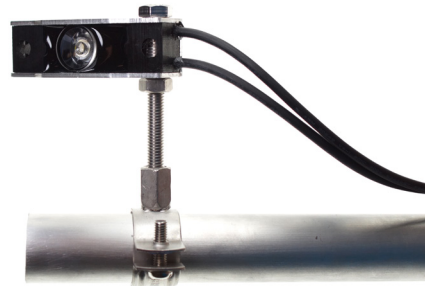


Mounting kits

We have complete mounting-kits, that make it easy to mount the lamp on pipes, flat profiles and on bolts.

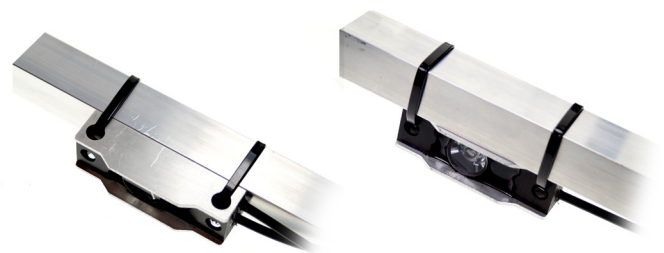
Pipe-clamps

The stainless steel pipe-clamps make it easy to mount the lamps on the pipes which the nozzle are often mounted on, or the pipes that the booms themselves are made of. The kit includes 1 x M8 x 60mm bolt, 2 x M8 nuts and 2 x M8 washers, all in stainless steel. They are available for pipes with the diameters Ø15-19mm, Ø20-25mm and Ø26-30mm



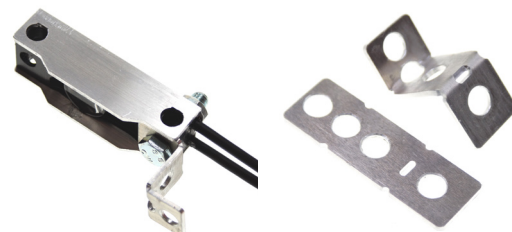
Zip-ties

Zip-ties makes it both easy and quick to mount the lamps. Our 4.8 x 200mm zip-ties have a fitting size, with good strength and durability, that gives you a secure fastening. The mounting holes are designed so that the zip-ties are not damaged by the metal. The lamp can be zip-tied both on its back and on the side.



Flex-bracket

The flex-bracket is used to bolt the lamp on to the booms. It is made of aluminium, and is intended to be bent so that the lamp can be placed close the the nozzle. We include 1 x M8 x 30mm bolt, 1 x M8 nut and 1 x M8 washer in stainless steel.



Part numbers

Below you can see all parts of the Sprayer LED series, and the part number. Contact your dealer for pricing information.

Lamps

761021	2 lamps, cables in the same end (type 1)
761022	2 lamps, cables each end (type 2)
761011	1 lamp, cables same end (type 1)
761012	1 lamp, cables each end (type 2)
761013	1 lamp, no output cable

Power supply

761202	240W power supply with 2 outputs
761203	240W power supply with 3 outputs

Mounting kits

761101	Zip-ties, 100 pcs. 4.8 x 200mm
761121	Flex-vinkel, 60 x 20mm, 1 x M8 x 30mm bolt, 1 x M8 nut, 1 x M8 washer
761111	Pipe clamp 15-19mm, 1 x M8 x 60mm bolt, 2 x M8 nut, 2 x M8 washers
761112	Pipe clamp 20-25mm, 1 x M8 x 60mm bolt, 2 x M8 nut, 2 x M8 washers
761113	Pipe clamp 26-30mm, 1 x M8 x 60mm bolt, 2 x M8 nut, 2 x M8 washers

M8 cables and accessories

The cables are used to extend the cables from the lamps to the power supply, and between the booms.

C0803MF001	M8 cable, male to female, 300mm
C0803MF002	M8 cable, male to female, 600mm
C0803MF003	M8 cable, male to female, 1000mm
C0803MF005	M8 cable, male to female, 1400mm
C0803MF006	M8 cable, male to cable, 5000mm
C0803FC001	M8 connector, male, for mounting on cable
C0803FC002	M8 connector, female, for mounting on cable
C0800EC001	M8 plastic end-cap, Male
C0800EC002	M8 plastic end-cap, Female

Mounting accessories

We also have a selection of general mounting accessories

507039	100 pcs. zip-ties, 2.5 x 100mm
507040	100 pcs. zip-ties, 2.5 x 200mm