

Trailed Sprayers



KNIGHT
AN INVESTMENT IN QUALITY

Designed to help you **Grow**

Knight Sprayers are the first choice for farmers requiring high quality equipment in a wide range of sizes and specifications.



The sprayers incorporate advanced plumbing and chemical induction systems, as well as hydraulically operated boom folding and height adjustment.

Knight sprayers remain at the forefront of new technological advances in control systems, boom design, suspension systems, drawbars and plumbing systems.

The innovative fingertip fluid control system with integrated intelligence makes spraying simple and efficient.

The 'MAXImizer' plumbing system provides automatic, fast efficient agitation and rinsing of the complete sprayer including all the boom pipework.

All design and engineering takes place in a purpose built factory allowing flexibility and control to supply every customer with a machine tailored to their specific requirements.

SPRAYER FEATURES

Booms & Spray Lines

- › Booms available up to 40m.
- › Two stage folding available up to 30m. Three stage folding from 28m to 40m.
- › High volume “Air Sleeve” option available for dense crop canopies.
- › Section switching by air stop nozzles with single, three way or five way options.
- › Twin line or multiple nozzles on a single line can be used for simple

Boom Suspension & Folding

- › Vertical boom movement is controlled by a terrain following centre pivot.
- › Horizontal boom movement is minimised by the patented fast response tilt system and Knight anti-yaw mechanism.
- › Narrow folding of the boom tips reduces swing out and ensures optimum stability when turning.

Suspension

- › Two stage Aeon suspension is a standard feature.
- › Self levelling pneumatic suspension is also available.
- › The suspension system gives a smooth ride whether the machine is unladen or laden.

Pump

- › 300 litre/minute six cylinder diaphragm pump as standard.
- › High volume diaphragm pump and centrifugal pump options.

Tank

- › Tank options of 2500 upto 6500 litre are available across the sprayer range.
- › Fiberglass fully baffled tanks.
- › Modular clean water wash tanks.
- › Internal rotary tank rinsing jets.
- › Stainless steel tank option available.

Filling Station

- › Convenient and simple layout.
- › Stainless steel induction hopper with rotary can rinsing system.
- › Optional *fingertip* push button control of filling, tank rinsing and spray line rinsing.
- › A digital electronic sight gauge and automated tank filling system can be incorporated into the control system.

MAXimizer Plumbing

- › The “MAXimizer” plumbing system uses a patented, highly economic layout to reduce the number of parts and volume of fluid retained in the sprayer.
- › Pressurised circulation of product is maintained in the spray lines for fast and accurate nozzle switching.
- › The system provides optimum performance for use with GPS automatic nozzle switching systems.
- › Most of the pipework is automatically flushed and re-mixed during filling.



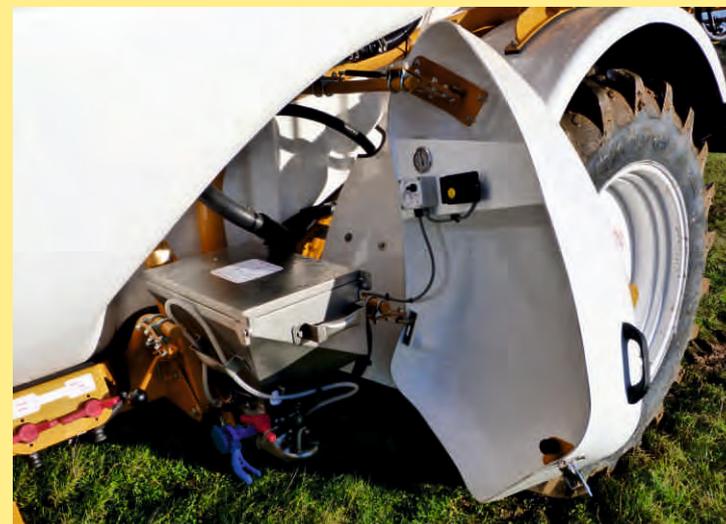
TRAILBLAZER



The Knight Trailblazer steering axle trailed sprayer has a stylish and modern design with capacities and specifications to suit the requirements of every farm.

SPRAYER SPECIFICATION

- Tank** 3600,4200, 5200 & 6000 litre rotationally moulded polyethylene.
Twin modular clean water tanks.
Internal tank rinsing nozzles.
- Boom** Gullwing boom up to 24m.
'4 series' boom up to 28m.
Tri fold boom up to 40m.
- Drawbar** Conventional with continental option.
- Hydraulic steering axle with electronic control.**
- Suspension** Two stage aeon suspension with air suspension option.
- Spray lines** Stainless steel spray lines with single, three way or five way nozzle bodies.
Twin nozzles on a single spray line option.
- Boom Hydraulics** Electro hydraulics.
- Pump** 300 litre/minute six cylinder diaphragm
High volume diaphragm pump and centrifugal pump options available.
- Controller** Muller GPS ready Basic terminal used to operate all spray functions, boom folding and automatic steering.
Fingertip fluid control and electronic sight gauge with auto tank fill shut off option.
ISOBUS options.
- Regulation** Flow based electronic regulation operating a pressure compensating ramsay regulator.
- High speed axle, air brakes and ABS options.**
- MAXImizer Plumbing systems with pressure circulation and air stop nozzles.**



Ergonomic filling station. Also available with *Knight fingertip fluid control* and digital tank display options.



Integrated clothing locker



Easy access to filters & pump



Hydraulic steering axle with electronic control

The Knight EUA steering axle trailed sprayer is designed to meet the needs of farmers wanting a large capacity, high specification machine.

SPRAYER SPECIFICATION

Tank	Up to 4000 litre fibreglass tank or 6500 litre stainless steel tank. Modular clean water tank and internal tank wash heads.
Boom	Gullwing boom up to 24m. 4 series boom up to 30m. Tri fold boom up to 40m.
Drawbar	Conventional with continental or 3 point linkage option.
Hydraulic steering axle with electronic control.	
Suspension	Aeon suspension with air suspension option.
Spray lines	Stainless steel spray lines with a single or double row of single, three way, or five way nozzles.
Boom Hydraulics	Electro hydraulics.
Pump	300 litre/minute six cylinder diaphragm High volume diaphragm pump and centrifugal pump options available.
Controller	Muller GPS ready Basic terminal used to operate all spray functions, boom folding and automatic steering. Fingertip fluid control and electronic sight gauge with auto tank fill shut off option. ISOBUS options.
Regulation	Flow based electronic regulation operating flow compensating Ramsay diaphragm pressure regulator.

High speed axle, air brakes and ABS options.

MAXImizer Plumbing systems.



The filling station has a convenient and simple layout. The stainless steel induction hopper has a rotary can rinsing system. Knight *fingertip* push button control of filling, tank rinsing and spray line rinsing and a digital electronic sight gauge and automated tank filling system can be incorporated into the control system.



The Knight ES Trailed Sprayer is a simple yet sophisticated machine. The universal tracking drawbar connects to the tractor lower links and can be changed between tracking and non tracking

SPRAYER SPECIFICATION

Tank	Up to 3000 litre fibreglass tank. Modular clean water tank and internal tank wash heads.
Boom	Gullwing boom up to 24m.
Drawbar	Universal tracking drawbar with a dual damping system.
Suspension	Aeon suspension with air suspension option.
Spray lines	Stainless steel spray lines with a single or double row of single, three way, or five way nozzles.
Boom Hydraulics	Hydraulically operated boom (from tractor spool valves).
Pump	260 litre/minute six cylinder diaphragm.
Control	Manual section switches. Optional Muller Spraylight section and rate control.
Regulation	Ramsay diaphragm pressure regulator.

MAXImizer Plumbing system

GPS compatible options



Universal Tracking Drawbar

- › The sprayer is attached to the tractor link arms, minimizing crop damage.
- › The pump is mounted below the drawbar to reduce the PTO angle.
- › The drawbar is dual damped using hydraulic rams and friction pads for optimum stability.
- › Conventional trailed, tracking or steering configurations can be achieved.



SPECIALIST REQUIREMENTS

Knight understand the importance of being able to provide each customer with a sprayer specification to suit their specialist requirements.

A range of additional features are available to tailor a machine to your needs.

These include:

Stainless Steel Tanks

- › 4000 litre up to 6500 litre.

Air Assisted Spraying

- › The ability to control droplet size regardless of application rate improves sprayer productivity.
- › Spray drift is also reduced, so spraying can continue safely and effectively on many more days a year.

Air Sleeve

- › High capacity air sleeve system.
- › Ideal for penetrating dense crop canopies.
- › A popular option for vegetable growers.
- › Up to 24m.

Fingertip Fluid Control

- › Fingertip fluid control can be operated from the Muller computer in the cab or from the panel on the side of the sprayer.
- › There are no complicated valve layouts to learn, just three simple push buttons that are used to select filling, tank washing and spray line rinsing.
- › All other functions are automatically controlled by the logic of the unique 'MAXImizer' plumbing system.

Air Brakes

- › Air over hydraulic trailer brake connector or full air braking system.
- › Load compensating valve adjusts brake pressure to match axle load.

Boom Incline

- › Boom tips can be raised and lowered independently of main height.
- › Decline option available.
- › Works automatically with distance control.

Clean Water Wash down Kit

- › Enables the sprayer to be washed down in the field.



INTEGRATED INTELLIGENCE

All sprayer functions are controlled with the MULLER Elektronik multifunction computer. These computers provide precision farming capability through an intuitive and user friendly interface.

MULLER BASIC-Terminal

The Muller BASIC terminal is the ideal option for the operator who would like more sophistication on their machine. The multifunction computer provides a simple control layout for the operation of all sprayer functions and includes the following features:

- › 15cm anti reflective display with 10 softkeys.
- › Muller CAN-bus system with simple single plug connection between tractor and sprayer.
- › Multifunction joystick giving the operator greater control over important functions while working the sprayer, allowing them to be carried out easily and quickly.
- › Manual boom section switching up to 9 spray sections.
- › Sequential or nest spray section switching.
- › Full boom hydraulic control with manual boom lift, tilt and folding functions from either terminal or multifunction grip.
- › Automatic or manual spray rate regulation.
- › Current speed and application rate and tank volume constantly displayed.

MULLER COMFORT-Terminal

Available as an upgrade, the Muller COMFORT controller combines all the features of the BASIC controller into an ISOBUS terminal.

Additional features include:

- › Large VGA (640 x 480 pixel) colour, antireflective display with 12 soft keys.
- › Split display main and header.
- › ISOBUS 11783 system & terminal.
- › USB data transfer.



OPTIONS AVAILABLE:

DISTANCE-Control

Automatically maintains the pre set distance from the boom to the target surface.

A combination of boom lift and tilt is used to control the boom position.

Automatic boom raise at headlands.



TANK-Control Electronic Tank Sight Gauge

Exact gauge of the tank contents.

Residual amount in the tank is taken into account when filling.

Can be linked into ***Knight Fingertip Control*** to shut off filling at a desired amount.

Tank content automatically displayed on the Muller screen in the cab.



SECTION-Control

Enables the automatic switching on and off of the spray sections, any time a sprayer section moves into a

previously applied area it is automatically switched off. Sprayed area and overlaps displayed.

Field boundary, boom sections automatically switched off

outside working area.



TRACK-Leader II

D-GPS, parallel or contour guidance.

2D or 3D and birds eye view

Adjustable zoom of the field

Headland guidance

Obstacle warning

Storing and continuing the navigation at any time.

Multiple Nozzle Control

Airtec nozzle control

TASK-Management

Input and output job data to and from the farm PC.

FarmPilot

Tracking of position data

Order progressing

Fleet management

Machine monitoring and diagnosis

FEILD-Nav

Satellite navigation

Reversing Camera

Knight Farm Machinery is based in the rural county of Rutland at the heart of the UK arable farming area.

Since its formation in 1984 Knight Farm Machinery has become one of the UK's leading manufacturers of crop sprayers and cultivation equipment, combining reliability and practicality with a high degree of technical innovation.

Field Support

Knight Farm Machinery understand the importance of having your machine up and running when you need it. With the help of our nationwide dealer network we provide a complete service and maintenance programme including full seven day support and NSTS sprayer testing.



Company policy is one of continuous improvement and we reserve the right to change specification without notice. Specifications shown include both standard and optional features.



Knight Farm Machinery Ltd, Wireless Hill, South Luffenham, Oakham, Rutland, LE15 8NF
Tel: 01780 722200 - Fax: 01780 722201 - www.knight-ltd.com - tech.sales@knight-ltd.co.uk

