



1800 – 2000 Series  
Self-Propelled Sprayers

## Designed with YOU in mind

Knight Self-Propelled sprayers meet the demands of a high output, profitable farming business.



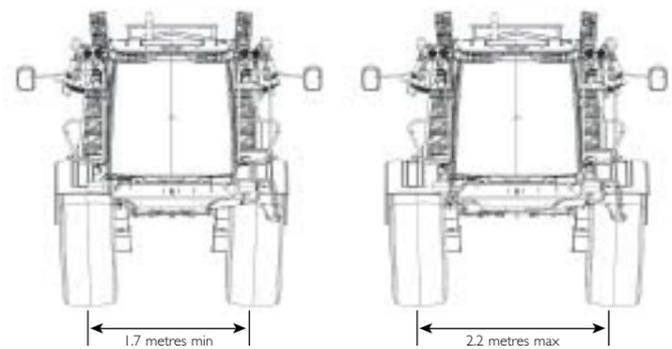
Since its formation in 1984 Knight Farm Machinery has become one of the UK's leading manufacturers of crop sprayers and cultivation equipment, combining reliability and practicality with a high degree of technical innovation. From our purpose built design and manufacturing facility in Rutland, we can tailor make your machine to meet your own specific requirements. It is this attention to detail, flexibility and customer driven design that make Knight Self-Propelled sprayers the choice of farmers worldwide.

Knight Self-Propelled Sprayers **Designed to help you Grow**

### YOUR KEY TO SUCCESS!

Look out for these icons as a quick reference to how each Knight feature benefits YOU!

-  Saves you Money
-  Comfortable
-  Accurate Application
-  High Output
-  Simple to Use
-  Eco-friendly



### Hydraulic Track Adjustment



High work rates can be maintained when switching between different tramline widths due to the quick, in cab, on the move, hydraulic track adjust system. At the push of a button you can change the vehicle track width from 1.7m up to 2.0m on the 1800 series machine and from 1.8m up to 2.2m on the 2000 series machine.

### Hydrostatic Transmission



The SmartDrive™ electronic transmission system, fitted as standard on our 2000 series machines, helps to keep your running costs down and output up by reducing fuel consumption and maintaining a constant spraying speed. You can also be sure to maximize the productivity of your working day thanks to the 40kph travel speed to get you from one job to the next. Foot operated four-wheel braking also provides safe and efficient stopping.

### Traction Control



Wheel slip is electronically managed by the SmartDrive™ Off Road system to keep you moving in difficult conditions. This keeps running costs down and output up.

### Engine



The highly efficient Perkins 6 cylinder Stage IV/Tier 4 final engine provides you with a reliable power solution for optimum performance whilst saving you money with minimum fuel use. Available in three power ratings; 174hp, 200hp and 225hp, you can choose the one that suits your needs the best. A high work rate can be maintained thanks to the fully passive after treatment system that ensures the vehicle is always ready to run when you are.

### Air Suspension System



Longer working days are no problem thanks to the smooth and comfortable ride provided by the air suspension. The self-levelling system maintains a stable and consistent ride height as the sprayer tank fills or empties and the anti-roll system provides good stability in the field or on the road.



### Electronic 4 wheel steering system



You can maximise the number of acres covered in a day using the superb manoeuvrability of a Knight self-propelled sprayer. A tight turning circle and low centre of gravity provide stability and allow for faster working speeds even on sloping ground.

You can easily negotiate headland turning thanks to the automatic spray related switching between 2 and 4 wheel steer. 4 wheel steer is automatically engaged and aligned when the last spray section turns off and 2 wheel steer is re-engaged when the first spray section comes on ensuring excellent vehicle stability and accurate spray application. The system is optimised to work with GPS spray section control. You also have the choice of foot pedal switching between 2 wheel steer and 4 wheel steer if preferred.

Your accuracy and productivity are further enhanced with the use of the hillside correction mode that automatically compensates for varying terrain by steering the sprayers' rear wheels slightly uphill. An additional safety feature provides you with peace of mind when travelling at speeds greater than 18kph by locking the machine in 2 wheel steer.

The simple to use, advanced features of a Knight Self-Propelled vehicle will ensure that you can meet the demands of your busy farm by accurately spraying large areas in a short space of time.



You can be sure of accurate and efficient spray application with the simple to use Knight fingertip fluid control system and MAXImizer plumbing system.



### Industry Leading Boom Design



Knight has led the way with their patented and innovative boom design for many years. Designed with strength, durability and stability in mind you can be sure that a Knight boom will give you maximum productivity when you need it.

The 4 series, twin fold boom, available up to 30m, provides you with strength and durability in a simple construction for a long reliable life. The boom can be operated with one side folded and is equally suited to specialist operations or large arable farms.

The Tri-fold, triple stage folding boom is available in almost any width up to 40m and folds down to 3m wide for road transport. This boom can be operated with only two stages deployed and uses our patented hydraulic breakaway system to protect against impact.



Further cost saving and environmental benefits are provided by the Knight patented Anti-yaw system which maintains horizontal boom stability ensuring accurate application of the chemical across the whole field.

Boom stability can be further enhanced by fitting DISTANCE-Control. This automatic boom height and levelling system helps to minimise operator fatigue whilst ensuring spraying accuracy. Automatic boom raise at the headlands also ensures you have good boom clearance when turning on ground that is not quite as smooth as you would like.

### Fingertip Fluid Control



The Knight Fingertip Fluid Control system is so easy to use that you will be able to work longer, more productive days. The Fingertip fluid control is operated via the cab mounted Muller spray computer or from the panel on the side of the sprayer. There are no complicated valve layouts to learn, just three simple push buttons that you use to select filling, tank washing and spray line rinsing. All other functions are automatically controlled by the logic of the unique MAXImizer™ plumbing system.

### MAXImizer™ Plumbing System



Knights patented MAXImizer™ plumbing system cuts costly chemical waste by doubling up on the function of the sprayer pipework. The pressurised boom circulation system forces dilute chemical to every nozzle in seconds and fully rinses the spray boom during filling. Air operated nozzle bodies combined with the continuous flow and pressure offer clean and fast switching designed specifically for GPS nozzle control. You can avoid chemical waste, overspray and under spray with this accurate and efficient sprayer.

The working day will pass with ease when you are in the comfort of the spacious, climate controlled cab.

**The Claas Vista Cab**



Whilst operating a Knight Self Propelled sprayer you are free to move around in one of the most spacious cabs on the market. Operator comfort is further enhanced by the ergonomic positioning of all vehicle and sprayer controls, the three axis adjustable steering column and the plentiful leg room. A pleasant climate is automatically maintained by the high quality climate control system whilst a DAB radio with Bluetooth hands free and a large fridge under the passenger seat keep you relaxed and refreshed whilst at work.

An exceptionally quiet working environment helps to further maintain your comfort thanks to superb soundproofing and air suspended cab.

The Claas Vista cab gives you excellent all-round visibility thanks to large windows and narrow pillars. You have an uninterrupted view of the spray boom thanks to the curved rear window.

When fitted with the fully approved Category 4 cab you have the highest standard of protection from hazardous substances. A healthy, dust free and chemical free working environment is maintained by the multistage filtration and pressurisation of the cab.

A laminated windscreen and both operator and passenger seatbelts provide you with additional safety whilst at work.

Outside the cab Knight continues to provide you with the equipment required for a more productive workplace.

The working lights on a Knight Self Propelled sprayer give you the best view of the field, road and machine even at night. Safe longer working days are possible with the LED & Xenon working lights, headlights and two flashing beacons. Boom lighting or individual nozzle lighting are also available.

Safe and easy cab access saves time when you stop to refill the sprayer tank. A clean water supply and clothing locker are conveniently located beneath the cab steps. A large, easily accessible, pneumatically operated storage locker is also located under the front of the cab.



You will find it easy to stay in control with the clearly visible and simple to use vehicle and sprayer controls provided by Knight.

A long days spraying can be undertaken in comfort with the ergonomic positioning of all vehicle and sprayer controls.

The clearly arranged control centre is incorporated into the armrest and attached to the driver's seat. You can adjust its position to the most comfortable place for you.

- 1 You have an unobstructed view of the **Muller spray terminal** making it easy for you to stay in control.
- 2 All the vehicle information is clearly displayed on the **Knight IVC screen**.
- 3 Your hand rests easily on the **multifunction joystick** where you have instant control over driving speed as well as the sprayer functions.
- 4 The addition of a **reversing camera** gives you a clear view behind the machine.



### Knight Integrated Vehicle Controller (IVC)



All the vehicle information you need is clearly displayed on the IVC allowing you to concentrate fully on the sprayer operation and getting the best out of your days spraying.

The IVC developed by Knight combines steering control, transmission control and engine management into one easy to use, intuitive terminal. The full colour digital display is clearly visible, with soft touch buttons on either side of the screen to easily navigate the controller functions.

The digital Dashboard is always visible in the centre of the screen. This provides you with key information such as RPM and forward speed as well as fuel level, oil level and warning lights.



Selecting between Road and Field mode is easily achieved at the touch of a button, as is the control of various steering modes. The advanced logic of the Knight 4 wheel steering system allows seamless selection of 2 or 4 wheel steering independent of the current steering position. The IVC automatically looks after the spray related switching between 2 and 4 wheel steer on the headlands.

The IVC also makes work on hillsides simple to negotiate with the easy control of the hillside correction feature. Full engine diagnostic data can be accessed via the IVC helping with maintenance and problem solving.

You will find cost effective, accurate spraying is easy with the ISOBUS ready MULLER spray control. These computers provide precision farming capability through an intuitive and user friendly interface.

You can choose the terminal and software that's right for you and your farm:

#### BASIC-Terminal

Sprayer information is clearly displayed on this colour display whilst any settings can be done quickly and easily via the simple control layout with soft keys.



#### COMFORT-Terminal

This large colour display makes all sprayer data easily visible whilst any settings can be done quickly and easily via the intuitive control layout with soft keys.



#### Touch I200

This large colour display gives you the ability to choose your own screen layout to show up to 5 precision farming functionalities at once, in landscape or portrait orientation. The touch screen control which is designed for use in rugged conditions allows you to easily take control of all sprayer settings.



#### TRACK-Leader



This GPS controlled guidance system helps you to maintain a high work rate whilst achieving higher yields with chemical and fuel savings. The integrated light bar ensures precise driving in parallel tracks or contours with less overlaps and gaps making work possible at night and in poor visibility. You can record obstacle locations with the field data which will activate a warning when you are approaching the obstacle helping you to protect against any costly damage. Data is easily transferred to and from your farm PC via a USB memory stick. Partly completed jobs can be saved and restored at any time.

#### SECTION-Control



You can count on simple and accurate, cost effective spray control with the GPS controlled automatic boom section or single nozzle switching. After setting the field boundary the individual spray sections or nozzles are automatically turned on and off providing minimum overlap. This will keep chemical usage at a minimum which in turn will save you money whilst protecting the environment. You can also maintain a high work rate without getting tired as the system allows you to easily work at wider widths, with limited visibility or even at night.

#### FIELD-Nav & Farmpilot



You can save time and money with the Field-Nav system to navigate you to the location of your next job. Destinations are easily recorded so you can eliminate unneeded driving time even in unknown areas.

Remote monitoring and connection to your self-propelled sprayer from the farm computer is possible with farmpilot. The position of the vehicle can be tracked, job status checked and new jobs sent direct to the operator from the farm office. It is also possible to monitor and diagnose any sprayer faults removing the need for unnecessary service visits and keeping you up and running.

#### TANK-Control



The addition of an electronic sight gauge makes tank filling simple. Filling is automatically shut off when the tank contents reach the desired amount preventing the possibility of overflowing the tank. The external display provides an exact reading of the tank contents which is also displayed on the sprayer terminal in the cab.



#### Automatic Steering



Reduced driver fatigue and improved accuracy can be provided by installing an automatic steering system. Knight offer a choice of solutions to integrate with your chosen GPS provider. Spraying with or without tramlines becomes a simple task eliminating wasted time, chemical and fuel and maximising your yield. You will also be able to get more hours out of your working day as poor visibility or work after dark will no longer be a problem.

From choosing your new machine, to aftersales service and support you can always rely on the customer focused team at Knight Farm Machinery.



### Sales

When considering your purchase of a new Knight sprayer you can count on receiving expert sales support and advice whether dealing directly with us or through one of our specialist dealers. Our knowledgeable technical sales staff can help you to create a new machine specification that suits your needs precisely. From our purpose built headquarters in Rutland we can custom build your machine to match your personal specification and with a visit to our factory you can view your very own machine on the production line.

In conjunction with our preferred finance provider we can offer you competitive, low rate financing options to help fund the purchase of your new machine. A full range of finance options tailored to your individual cash flow needs are available, including Hire Purchase and Contract Hire.\*

### Service

Knight understands 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 testing. Our team of highly trained service engineers are available for onsite visits to your farm with their fully equipped mobile workshops.

### Parts

Our dedicated spare parts department can provide you with parts identification and advice to ensure you get your parts quickly and efficiently. Guaranteed next day delivery is offered throughout mainland UK and an out of hours collection service from our factory is also available.



\*Finance provision is subject to status. Terms and conditions apply.

## Technical Information



### Vehicle Specification

	1800 Series	2000 Series
<b>Engine</b>	175hp (129kw) Stage IV / Tier 4 Final Perkins 6 cylinder, 7.1 Litre 200hp (151kW) and 225hp (168kW) options available	200hp (168kw) Stage IV / Tier 4 Final Perkins 6 cylinder, 7.1 Litre 225hp (168kW) option available
<b>Transmission</b>	Hydrostatic wheel motor, four wheel drive, 40 kph Optional SmartDrive™ electronic transmission control with oil immersed brakes at each wheel	Hydrostatic wheel motor, four wheel drive, 40kph Standard Fitment of SmartDrive™ electronic transmission control with oil immersed brakes at each wheel
<b>Cab</b>	Claas Vista Cab – Climate controlled, pressurised, carbon filtered, air seat, training seat. Optional Cat 4 filtration	Air suspended Claas Vista Cab – Climate controlled, pressurised, carbon filtered, air seat, training seat. Optional Cat 4 filtration
<b>Size</b>	Length 7.9m – Width 3.0m – Wheel base 3.3m	Length 8.9m – Width 3.0m – Wheel base 3.4m
<b>Track Width</b>	68" to 80" (1.7m to 2.0m) Optional hydraulic adjustment	72" to 88" (1.8m to 2.2m) hydraulically adjustable
<b>Crop Clearance</b>	1.0m dependant on wheel size	1.1m dependant on wheel size
<b>Wheels</b>	Rowcrop Typical option 14.9 R34 – Flotation Typical option 600 60 R28	Rowcrop Typical option 14.9 R46 – Flotation Typical option 710 60 R38
<b>Suspension</b>	Air bag with auto ride height control	Air bag with auto ride height control
<b>Fuel Capacity</b>	390 litres	390 litres
<b>Turning Circle</b>	10.4m	10.6m
<b>Hydraulics</b>	Electro hydraulic individual supply for vehicle and sprayer auxiliary functions	Electro hydraulic independant supply for auxiliary functions
<b>Weight</b>	8.6t unladen – 13t gross	11.4t unladen – 17.8t gross

### Sprayer Specification

<b>Tank</b>	3000 litre, 3500 litre, 4000 litre fibreglass. Stainless steel options available	4000 litre, 5000 litre and 6000 litre stainless steel
<b>Boom</b>	Twin fold to 30m, Tri fold from 28m to 40m with electronic breakaway for 24m working, auto height and levelling option	Twin fold to 30m, Tri fold from 28m to 40m with electronic breakaway for 24m working, auto height and levelling option
<b>Spray lines</b>	Stainless steel spray lines with single or double row of single, three way or five way nozzles	Stainless steel spray lines with single or double row of single, three way or five way nozzles
<b>Boom Hydraulics</b>	Electro hydraulics operated from central computer for all functions	Electro hydraulics operated from central computer for all functions
<b>Pump</b>	300 litre/minute six cylinder diaphragm 600 litre/minute combination diaphragm and centrifugal option	300 litre/minute six cylinder diaphragm 600 litre/minute combination diaphragm and centrifugal option
<b>Controller</b>	Muller Elektronik controller used to operate all spray, fill and wash functions and boom folding. Optional electronic sight gauge with auto tank fill shut off	Muller Elektronik controller used to operate all spray, fill and wash functions and boom folding. Optional electronic sight gauge with auto tank fill shut off
<b>Regulation</b>	Flow based electronic regulation operating flow compensating diaphragm pressure regulator	Flow based electronic regulation operating flow compensating diaphragm pressure regulator
<b>Filling Station</b>	Stainless steel induction hopper with rotary can rinsing system. Convenient and simple layout with push button control of filling, tank rinsing, spray line rinsing, engine speed and pump operation	Stainless steel induction hopper with rotary can rinsing system. Convenient and simple layout with push button control of filling, tank rinsing, spray line rinsing, engine speed and pump operation



**Knight Farm Machinery Ltd**  
Wireless Hill, South Luffenham, Oakham  
Rutland LE15 8NF  
T 01780 722200 F 01780 722201  
E [tech.sales@knight-ltd.co.uk](mailto:tech.sales@knight-ltd.co.uk)  
[www.knight-ltd.com](http://www.knight-ltd.com)

*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.*



*This publication is printed on paper made using sustainably produced pulp. This is virgin fibre from managed forests. The manufacturing mill has ISO 14001 environmental standard accreditation and the fibres are bleached using Chlorine Free bleaching process (ECF).*