





2400 - 2500 SERIES

SELF-PROPELLED SPRAYERS



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✓ sales@knight-ltd.co.uk



DESIGNED WITH YOU IN MIND

The Knight family started their sprayer business in 1984 driven by the need for a high quality, advanced self-propelled sprayer. This passion continues within the business today delivering these values to today's agribusinesses.

Our latest self-propelled machines bring you the very latest in spray application technology, incorporated into industry leading boom and chassis suspension system, machine strength and durability.

YOUR KEY TO SUCCESS!

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





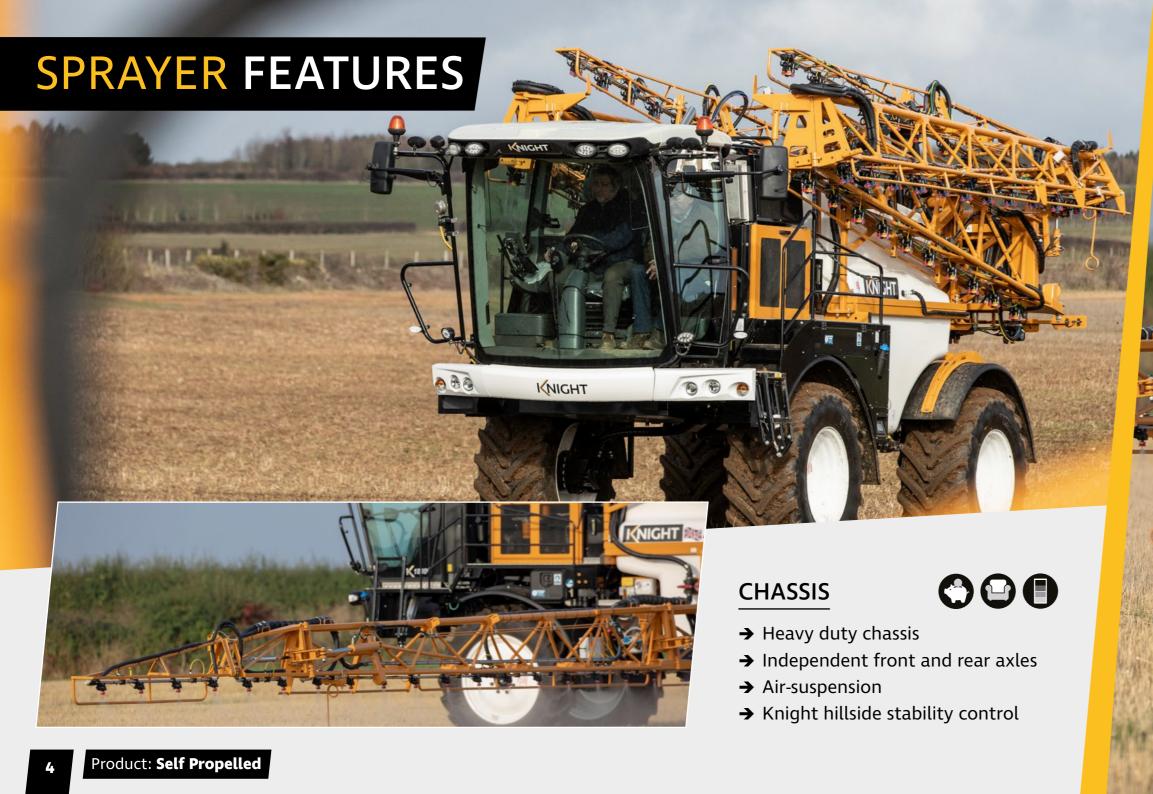












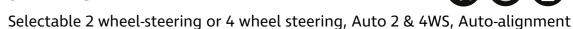


STEERING









HILLSIDE ALIGNMENT

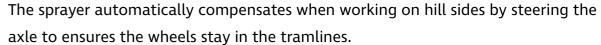












DIFFERENT DROP-LEG LENGTHS





Different length drop legs are available depending on your under-machine clearance requirements

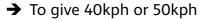
AIR-SUSPENSION UNITS

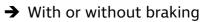


Commercial air-suspension technology & air packs are use throughout to provide you with the ultimate in ride and operator comfort.

WHEEL MOTORS



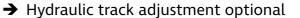




→ Optional traction control

WHEEL EQUIPMENT





→ See specification section - Page 23 & 25











Welcome to Your New Office...

Our Claas Vista cab gives unrivalled operator comfort, visibility and ergonomically placed instrumentation. Our rotary windscreen wash/wipe keeps operator vision to a maximum at all times. Tinted glass, front, side and rear sunscreens help reduce sun glare as much as possible.

An adjustable steering column and steering wheel mean the operator can set the ideal position to suit there posture. An air suspension seat provides additional luxury.



Control monitors are conveniently placed for maximum operator comfort and convenience. Both are adjustable to suit the operator. The lower Vehicle Information Screen (VIS) is where all of the machines key function information is displayed. The upper screen is the sprayer controller display, this is where all of the sprayer information is set, and displayed. Our default controller is Muller, however, because we are fully ISO-Bus compliant, we can accommodate all mainline ISO-Bus compliant controllers. Our hydrostatic speed control lever contains all sprayer boom and spray functions that are easily controlled by the soft-touch buttons on the levers face. Sprayer PTO on/off and engine RPM controls are mounted in the right hand quadrant.



Our luxury Vista cab features industry leading CAT4 filtration. Automatic temperature control with heating and air-conditioning with multipoint air vents are standard, as is a blue tooth radio and phone system. Remotely adjustable mirrors and a full LED lighting package make our cab a delight to work - day or night. Access in and out of the cab is via a wide opening door with air operated steps raising and lowering from a command switch in the door.



Our luxury operator station is suspended on twin air packs and automatically adjusts for weight and height.



Our curved rear corner windows give superb visibility to both left and right boom sections.



TANKS & STORAGE

Our self-propelled sprayers can be specified with the following tank capacities:

- → 3500/4000L fibre-glass
- → 5000/6000L stainless-steel

CLEAN WATER TANK





All Knight sprayers are fitted with clean water tanks containing more than 10% of the spray tank. Clean water tanks are filled independently to avoid contamination from the chemical system. The optional clean water tank fill uses an independent pump which automatically tops up the wash tank whenever

the operator is filling the main tank allowing

them to focus on filling with product.

STORAGE LOCKERS FOR PPE **CLOTHING AND SPARE PARTS**





All Knight sprayers have storage lockers strategically located around the machine for maximum operator convenience. The all-important PPE locker is located by the chemical filling station and includes separate compartments for clean and used items. Parts can be stored in a removable toolbox and spare nozzles can be stored in on-boom storage boxes to minimize down time.

PUMPS & PRESSURE CONTROL

MAIN PUMP - STANDARD







All Knight sprayers use multi cylinder diaphragm pumps to supply the main spray system. We use this type of pump for their simplicity, reliability, and ability to deliver consistent pressure and flow, on a linear basis, ensuring accurate product applications at all times.

FAST FILL PUMP - OPTIONAL





For customers requiring a faster fill than the standard pump provides, we offer two alternative pumps to boost fill capacity.

- → High capacity diaphragm pump
- → High capacity, hydraulically driven centrifugal pump

RAMSEY VALVE -SYSTEM PRESSURE CONTROL









Knight sprayers use a Ramsey diaphragm valve to regulate application pressure. We have used this valve for many years because it significantly reduces the workload of the sprayers electronic application control system and improves the accuracy of product application.

MA (Imizer PRO) SPRAYER FEATURES LAMMA" **GOLD MEDAL FOR INNOVATION**



Knight were the first in the industry with full product circulation that produced an instant start in the field. They have continued to pioneer advanced sprayer control and circulation and today Knight sprayers use the patented MAXImizer PRO fluid control system that keeps the entire fluid system moving during filling and agitation which prevents dead spots. This system also flushes the entire system with clean water during filling for the ultimate in machine cleaning.

TANK WASH SYSTEM





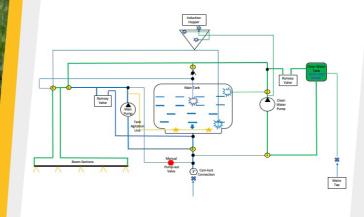
The spray tank has multiple wash heads for efficient cleaning at the end of the job. When incorporated with the Active Rinse system they can be operated independently of the chemical system for the ultimate in-field clean out including on-the-go rinsing to make sure the last drop of your chemical goes on the crop.

TANK AGITATION





All Self-Propelled sprayers feature two stage spray tank agitation that automatically selects high flow during product mixing and reduced flow when finishing the job. This gives the best possible use of expensive chemicals.



ACTIVE-RINSE – OPTIONAL EXTRA







Active-Rinse is another plumbing and circulation innovation from Knight Sprayers. It features the addition of a high flow pump in the clean water system. During the fill cycle the system automatically fills the clean water tank and provides pressurised clean water at the induction hopper for rinsing containers. It can also be used for high-speed main tank filling. During spraying, as the tanks empties to its last few litres Active Rinse can be set to wash the tank walls, ensure residual chemical is kept to an absolute minimum. The system will also rinse the spray lines with clean water before folding and transport and returns the clean water to the spray tank ready for the next load.

BLOW-OUT - OPTIONAL EXTRA



Using the sprayers compressor system, we have the ability to clean out the product suction pipe from the cam-lock connection

to the supply source tap. The compressed air pushes the product back up the supply line so the operator can have a much cleaner and safer disconnecting operation. The system also allows blow out of the sprayer pipe work when required.



MAXIMIZER PRO PLUMBING





The MAXImizer PRO pressurised circulation system ensures a continuous pressurised flow throughout the entire plumbing system to keep product in dilution. It ensures that the spray lines are always charged with dilute chemical at the target application pressure, ready for action.







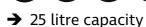


INDUCTION HOPPERS

The Knight chemical induction system forms an integral part of MAXImizer PRO fluid control which automatically rinses and cleans the induction hopper pipes and valves after use. The latest Whirlpool hopper provides continuous rinsing and agitation during chemical filling which always keeps the bowl as clean as possible. The press-on container rinsing nozzle will easily clean larger 20 litre containers even with stubborn chemicals.

STANDARD





- → Stainless steel construction
- → Hinged lid with can drain facility
- → Hopper rinse ring
- → Twin can wash heads
- → Can wash hand lance

WHIRLPOOL - OPTIONAL



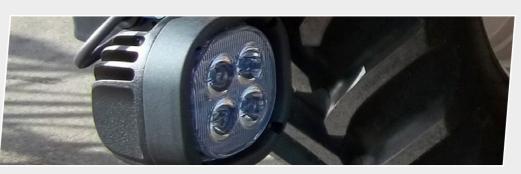
- → 30 litre capacity
- → Circular design for improved cleaning
- → Hinged lid with can drain facility
- → Continuous hopper rinsing
- → Can wash head
- → Can wash hand lance

BOOMS & BOOM HEIGHT CONTROL



At Knight Sprayers we cater for all customer requirements and pride ourselves on the quality and durability of our sprayer booms.

- → 4-SERIES UP TO 28M Standard on the self-propelled sprayers up to 28m
- → TRI-FOLD 24 TO 40M Optional on all self-propelled up to 28m and standard up to 40m



→ 4D BOOM SUSPENSION

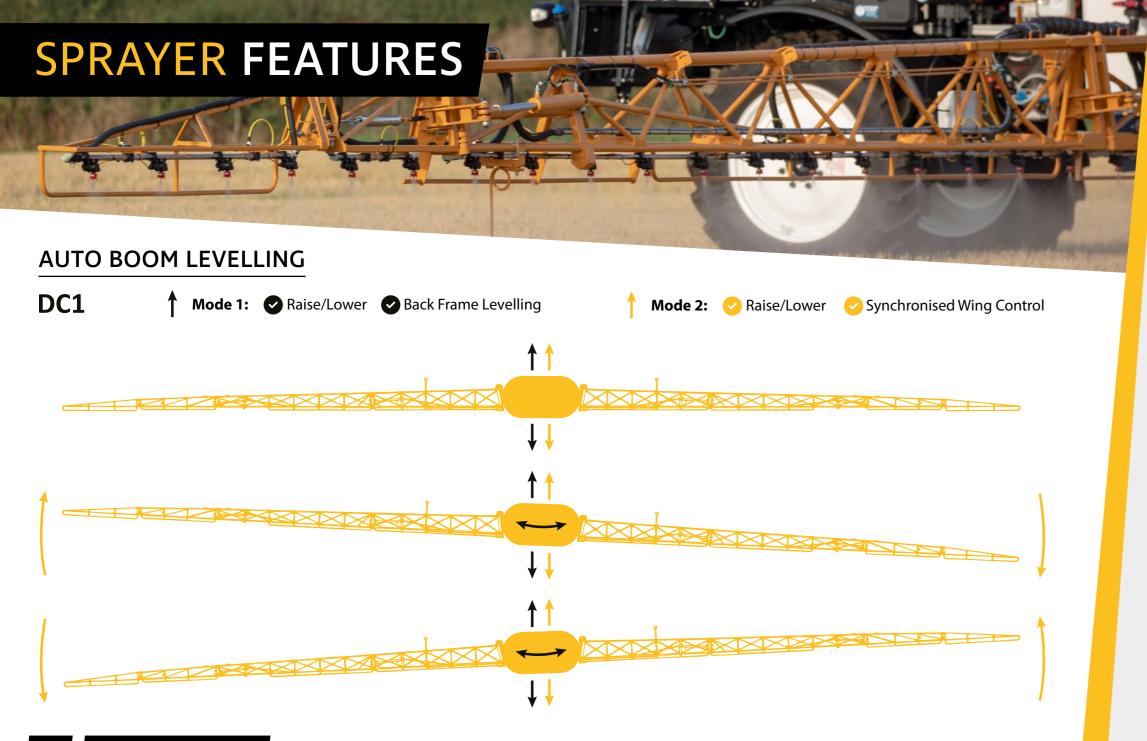
The Knight 4D boom suspension system offers an extra dimension in boom stability by isolating a fourth dimension of sideways movement. The system also offers exceptional boom stability in roll and yaw.

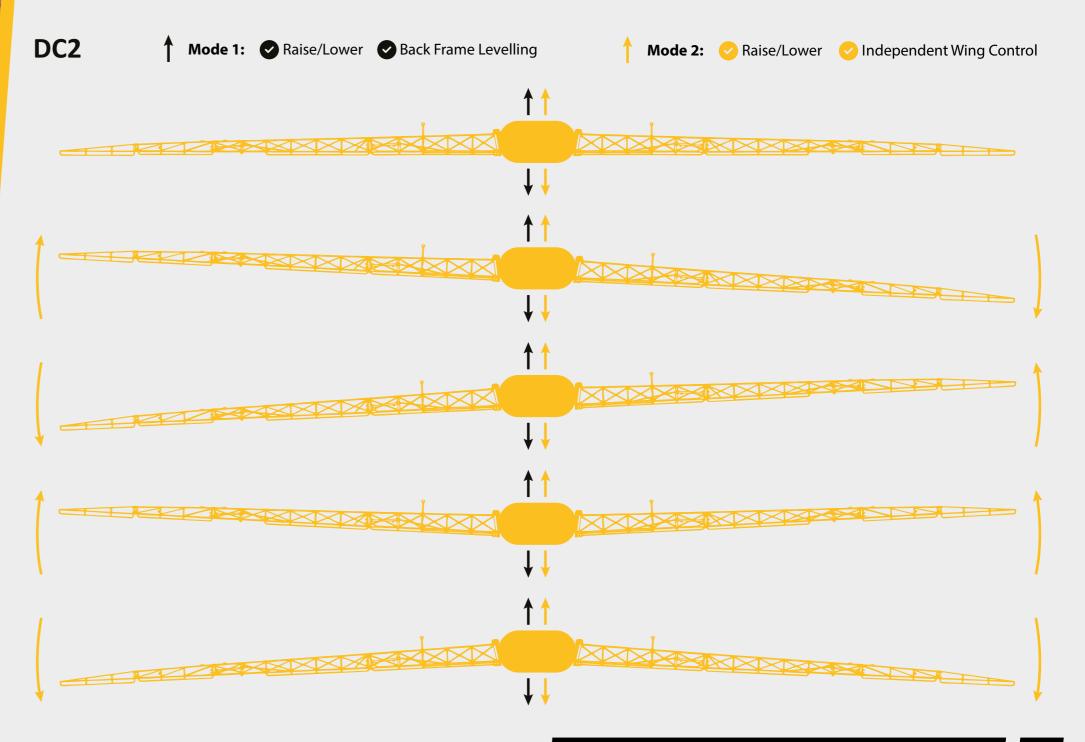
→ AUTO BOOM LEVELLING

We offer a fully automatic boom levelling and height control integrated into the spray controller. All 4-series and Tri-fold booms have the option of both negative and positive boom inclination.

- → AIR-SLEEVE BOOMS ARE AVAILABLE UP TO 24M
- → OPTIONAL NOZZLE LIGHTING MAKES LONGER WORKING DAYS POSSIBLE











The latest technology is always at the fore front of our thinking at Knight Sprayers. Whether it's chemical application related or machine and field management related, we have a precision farming system to deliver your particular requirements.

GPS STEERING & CONTROLLER OPTIONS:

Our fully integrated ISOBUS operating system will connect directly to your ISOBUS compatible tractor to form a fully integrated unit.









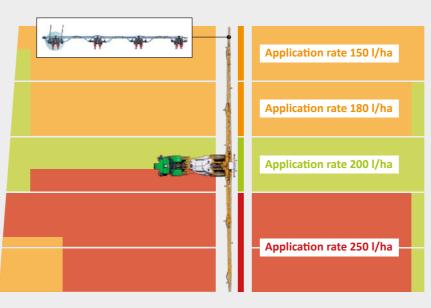
Trimble

Ag Leader

John Deere

NOZZLE BODY & SPRAY LINE OPTIONS:

- → Single line 25mm polished stainless-steel pipework
- → Single nozzle
- → Triple nozzle
- → Quin nozzle
- → Quad nozzles plus Vario-select switching
- → PWM control
- → Individual nozzle on/off



NOZZLE SWITCHING OPTIONS:

→ STANDARD

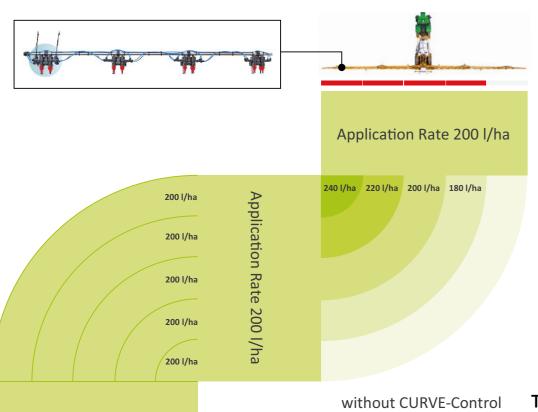
Uses the sprayer controller to switch section on/off – can be GPS controlled

→ VARIO-SELECT - GPS CONTROLLED

Uses the sprayers controller for: -

- ⇒ Section on/off
- ⇒ Nozzle/cluster on/off
- ⇒ Variable rate of individual nozzle/cluster (+/-)
- ⇒ Execution of variable rate application maps from your Farm software package

SPRAYER TECHNOLOGY



with CURVE-Control

Application Rate 200 l/ha

CURVE CONTROL – GPS CONTROLLED:

→ Automatically adjusts the cluster output (+/-) to account for the speed of the boom through a turn



Touch 800



Touch 1200

TASK BASED APPLICATIONS:

- → The most accurate and efficient way to run your application programme - two-way data transfer with traceability record storage
- → Create a work file in your farm management package
- → Accept job information into the sprayer from your farm management package
- → Return completed records from the sprayer back to your farm management package

NOZZLE TECHNOLOGY





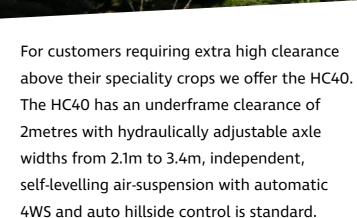


SPECIAL VEHICLES



For customers who prefer a mechanically driven power unit, we do an excellent forward control machine based on the 4000 series JCB Fastrac. With the Fastracs renowned suspension, and Vario transmission, speed, stability and operator comfort are a given.

These machines are available with tank capacity up to 4,000L and boom widths up to 40m. The spray-pack can be demounted and the forward control vehicle used for the mounting of other machines, for example a bulk lime or fertiliser spreader.



Engine horsepower choice is 170hp or 270hp and is available in either T3 (non-EUR) or T6 compliant versions (EUR). Our luxury airsuspended operator cab is standard. The HC40s' twin tanks are mounted between the wheels and adjust with the wheel track width, this keeps a low centre of gravity

aiding stability. For customers wanting the flexibility of spraying conventional crops, the pantagraph arms, to which the booms are mounted, are designed to accommodate this within their normal range of travel.



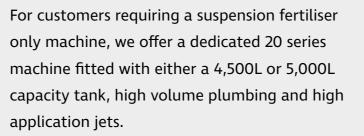
SPECIAL VEHICLES



Our HC40 operating in a bush fruit application and fitted with specialist a Quadmist air assistance system, particularly designed for moving the bushes foliage to ensure the application of fluid to the plants leaves.



The HC40 is available with either conventional booms or a 24 metre air-sleeve boom.



For customers who would like a sprayer with front mounted booms we offer our K series sprayers. Fitted with either a 4cyl (140hp) or 6cyl (200hp) the K series is only available with aluminium booms up to 24m with tank sizes of 3.500L on the K1 or 6.000L on the K2 being available.





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 purchasing your new Knight sprayer you can count on expert sales support and advice from our technical sales team and our specialist dealers. We can help you create a new machine specification to suit your exact needs.

From our purpose built headquarters in Rutland, UK we can custom build a machine to match your persona specification and with a visit to our factory, you can see your very own machine being built on our production line.

In conjunction with our preferred finance provider we can offer you a competitive way to purchase of your new sprayer including Higher Purchase and Contract Hire.*

SERVICE

Knight understand the importance of keeping your sprayer up and running. With the help of our nationwide dealer network, we provide a complete service and maintenance program including full seven day support and NSTS testing.

Our team of fully trained engineers are available for onsite visits to your farm or field with their fully equipped mobile workshop.

PARTS

Our dedicated spare parts department can help 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 available.

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



A variety of parts are available to purchase from our online store:

shop.knight-ltd.co.uk

Technical Inform	ation - Knight 2400 Series	2435	2440	2450	2460
TANK OPTIONS	3500 litre fibreglass tank with low centre of gravity for increased stability				
	4000 litre fibreglass tank with low centre of gravity for increased stability				
	5000 litre stainless steel tank with low centre of gravity for increased stability			•	
	Clean water tanks, with a capacity (>10%) of main tank				
	6000 rotor moulded plastic tank				
	Stainless steel main tank to the above capacity	•	•		
BOOM OPTIONS	Heavy duty 4-Series boom with two stage folding 24m				
	Heavy duty 4-Series boom with two stage folding up to 30m	•	•	•	•
	Heavy duty Tri-Fold boom up to 40m - electronic breakaway at 24m to enable 24m working	•	•	•	•
	DC1 automatic boom height & levelling	•	•	•	•
	DC2 automatic boom height & levelling with +/- inclination control	•	•	•	•
DPERATOR ENVIRONMENT	Luxury air suspended Claas Vista cab & seat, climate control, DAB radio, CAT4 pressurised carbon filtration, training seat		•		
STEERING SYSTEM	Automatic 2/4WS for field work with hillside correction				
	GPS Auto-steer ready	•	•	•	•
SUSPENSION	Four point air suspension with self-levelling & height compensation				
	Automated hillside stability control				
SPRAYLINES	MAXImizer PRO pressurised, high speed spray line circulation system with instant air shut off				
	Single stainless steel line with large choice of single or multiple nozzle bodies - 500mm spacing				
	Single line with twin outlets and large choice of single or multiple nozzle bodies - 500mm spacing	•	•	•	•
	Single line with twin outlets and large choice of single or multiple nozzle bodies - 250mm or 333mm spacing	•	•	•	•
	Twin line with large choice of single or multiple nozzle bodies	•	•	•	•
LUID SYSTEM	Simple, low volume - high output plumbing system with unique Knight MAXImizer PRO fluid control				
	Large capacity suction filter with interchangeable elements				
	Automatic pressure compensation via Ramsey regulator				
	Automatic spray line clean water rinsing system				
	Active-Rinse circulatory system with automatic clean water tank fill & fast fill assistance	•	•	•	•
	Liquid fertilizer ready				
PUMP	300 litre/minute diaphragm pump. Suitable for chemical or liquid fertiliser application				
	460 litre/minute diaphragm pump. Suitable for chemical or liquid fertiliser application	•	•	•	•
	High capacity centrifugal pump. Suitable for chemical or liquid fertiliser application	•	•	•	•
	Hydraulic drive from the tractor				
ELECTRONIC CONTROLLER	Muller Track-Guide 3, GPS section control for operation of all spraying, filling and boom folding functions				
	Muller Touch 1200, GPS section control for operation of all spraying, filling and boom control functions	•	•	•	•
	ISOBUS integration to customers preferred incab control system	•	•	•	•
	Curve-Control unlock for variable rate application	•	•	•	•

KEY: ■ Base Build Option

Available Option - At Extra Cost

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Available Option - At Extra Cost

echnical Informa	tion - Knight 2400 Series	2435	2440	2450	2460
REGULATION SYSTEM	Flow based rate controller system for simple setting and accurate application				•
	Pressure based rate control system for large variations of flow	•	•	•	•
	Combined flow & pressure regulation for variable rate application, Vario-Select and individual nozzle control	•	•	•	•
FILLING STATION	Ergonomic control layout with single filling control valve				
	Standard chemical induction hopper with continuous circulation, can wash and container draining				
	Push button control incorporating in-cab filling, rinse and washing				
	Electronic tank level control with automatic filling and overflow protection	•	•	•	•
	Whirlpool induction hopper with individual function control	•	•		
NOZZLE BODY OPTIONS	Single nozzle, air actuated				
	Triple nozzle, air actuated	•	•	•	•
	Quin nozzle, air actuated	•	•	•	•
	Vario-select, variable rate nozzle cluster, 4 nozzle positions air actuated	•	•	•	•
	Pulse Width Modulation (PWM) individual nozzle control - electrically actuated	•	•	•	•
NOZZLE & CAPS	Customer choice at extra cost	•	•	•	•
SECTION CONTROL	Up to 18 section shut-off available	•	•	•	•
	Individual nozzle control (EDS)	•	•	•	•
WHEEL EQUIPMENT	380/85R34 MITAS				
	380/80R38 Michelin Spraybib	•	•		
	600/60R28 Michelin Xeobib	•	•		
	710/55R34 MITAS			•	•
NGINES	Perkins Stage 5 with AddBlue - 175hp (219kw) with Global homologation				
	Perkins Stage 5 with AddBlue - 225hp (168kw) with Global homologation				
	Perkins Stage 5 with AddBlue - 300hp (225kw) with Global homologation		•	•	•
	Fuel tank capacity - 390litres				
RANSMISSION	Hydrostatic, four wheel motors, four wheel drive, 50kph				
	Per above with Smart-Drive electronic control transmission c/w: oil immersed brakes on each wheel	•	•	•	•
RACK WIDTH ADJUSTMENT	Manual track width adjustment - 68"- 80" (1.70m - 2.00m)				
	Hydraulic track width adjustment to the above track widths	•	•	•	•
INDER-MACHINE CLEARANCE	1 metre fitted with standard drop-legs				•
	1.1 metre with +100mm drop-legs, on standard wheel equipment	•	•	•	•
	1.2 metre with +150mm drop-legs, on standard wheel equipment	•	•	•	•
EHICLE DIMENSIONS	Length 7.90m - Width 3.00m (track setting dependant) - Wheelbase 3.30m				
TURNING CIRCLE	10.4m (track setting dependant)				•
MACHINE HYDRAULIC SYSTEM	Independent hydraulic supply to vehicle & sprayer - electro-hydraulic sprayer controls				
/EHICLE WEIGHT	Unladen 9,000kg - Gross is tank size & product content dependant	_			_

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Technical Inform	ation - Knight 2500 Series	2540	2550	2560
TANK OPTIONS	4000 litre stainless steel tank			
	5000 litre stainless steel tank			
	6000 litre stainless steel tank			
	Clean water tanks, with a capacity (>10%) of main tank			
BOOM OPTIONS	Heavy duty 4-Series boom with two stage folding up to 24m			
	Heavy duty 4-Series boom with two stage folding up to 30m	•	•	
	Heavy duty Tri-Fold boom up to 40m - electronic breakaway at 24m to enable 24m working	•	•	•
	DC1 automatic boom height & levelling	•	•	•
	DC2 automatic boom height & levelling with +/- inclination control	•	•	•
OPERATOR ENVIRONMENT	Luxury air suspended Claas Vista cab & seat, climate control, DAB radio, CAT4 pressurised carbon filtration, training seat	•		
STEERING SYSTEM	Automatic 2/4WS for field work with hillside correction			
	GPS Auto-steer ready	•	•	•
SUSPENSION	Four point air suspension with self-levelling & height compensation			
	Automated hillside stability control			
SPRAYLINES	MAXImizer PRO pressurised, high speed spray line circulation system with instant air shut off			
	Single stainless steel line with large choice of single or multiple nozzle bodies - 500mm spacing			
	Single line with twin outlets and large choice of single or multiple nozzle bodies - 500mm spacing	•	•	•
	Single line with twin outlets and large choice of single or multiple nozzle bodies - 250mm or 333mm spacing	•	•	•
	Twin line with large choice of single or multiple nozzle bodies	•	•	•
FLUID SYSTEM	Simple, low volume - high output plumbing system with unique Knight MAXImizer PRO fluid control			
	Large capacity suction filter with interchangeable elements			
	Automatic pressure compensation via Ramsey regulator			
	Automatic spray line clean water rinsing system			
	Active-Rinse circulatory system with automatic clean water tank fill & fast fill assistance	•	•	•
	Liquid fertilizer ready			
PUMP	300 litre/minute diaphragm pump. Suitable for chemical or liquid fertiliser application			
	460 litre/minute diaphragm pump. Suitable for chemical or liquid fertiliser application	•	•	•
	High capacity centrifugal pump. Suitable for chemical or liquid fertiliser application	•	•	•
	Hydraulic drive from the tractor			
ELECTRONIC CONTROLLER	Muller Track-Guide 3, GPS section control for operation of all spraying, filling and boom folding functions			
	Muller Touch 1200, GPS section control for operation of all spraying, filling and boom control functions	•	•	•
	ISOBUS integration to customers preferred incab control system	•	•	•
	Curve-Control unlock for variable rate application	•	•	•

Technical Information - Knight 2500 Series		2540	2550	2560
REGULATION SYSTEM	Flow based rate controller system for simple setting and accurate application	•		
	Pressure based rate control system for large variations of flow	•	•	•
	Combined flow & pressure regulation for variable rate application, Vario-Select and individual nozzle control	•	•	•
FILLING STATION	Ergonomic control layout with single filling control valve			
	Standard chemical induction hopper with continuous circulation, can wash and container draining			
	Push button control incorporating in-cab filling, rinse and washing			
	Electronic tank level control with automatic filling and overflow protection	•	•	•
	Whirlpool induction hopper with individual function control	•	•	
NOZZLE BODY OPTIONS	Single nozzle, air actuated			
	Triple nozzle, air actuated	•	•	•
	Quin nozzle, air actuated	•	•	•
	Vario-select, variable rate nozzle cluster, 4 nozzle positions air actuated	•	•	•
	Pulse Width Modulation (PWM) individual nozzle control - electrically actuated	•	•	•
NOZZLE & CAPS	Customer choice at extra cost	•	•	•
SECTION CONTROL	Up to 18 section shut-off available	•	•	•
	Individual nozzle control (EDS)	•	•	•
WHEEL EQUIPMENT	380/90R46 MITAS			
	650/65R38 Michelin Multibib			
	710/60R38 Michelin Xeobib	•	•	•
ENGINES	Perkins Stage 5 with AddBlue - 225hp (168kw) with Global homologation			
	Perkins Stage 5 with AddBlue - 300hp (225kw) with Global homologation	•	•	•
	Fuel tank capacity - 390litres			
TRANSMISSION	Twin pump Smart-Drive hydrostatic transmission, dynamic 4-wheel braking, cruise control, 50kph			
TRACK WIDTH ADJUSTMENT	Manual track width adjustment - 72"- 88" (1.80m - 2.20m)			
	Hydraulic track width adjustment to the above track widths	•	•	•
UNDER-MACHINE CLEARANCE	1.1 metre fitted with standard drop-legs			
	1.2 metre with +100mm drop-legs, on standard wheel equipment	•	•	•
	1.35 metre with +150mm drop-legs, on standard wheel equipment	•	•	•
VEHICLE DIMENSIONS	Length 8.90m - Width 3.00m (track setting dependant) - Wheelbase 3.40m			
TURNING CIRCLE	10.6m (track setting dependant)	•	•	
MACHINE HYDRAULIC SYSTEM	Independent hydraulic supply to vehicle & sprayer - electro-hydraulic sprayer controls			
VEHICLE WEIGHT	Unladen 11,400kg - Gross is tank size & product content dependant			

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KEY: ■ Base Build Option









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.

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