



800 and 800i Series Trailed Sprayers



JOHN DEERE

The 800 and 800i Series trailed sprayer models share more than a common design. They also set new standards for productivity, spraying accuracy, operator comfort and convenience. Loaded with innovations, these trailed sprayers provide measurable advantages. They give you greater control over tight spraying schedules, improve timeliness, increase effectiveness, help you control costs and lead the way in addressing environmental concerns.

Best of all, these new sprayers are built by John Deere. Any way you look at them, these new John Deere trailed sprayers measure up.

RADICALLY BETTER, SUPERIOR SPRAYING



John Deere 800 and 800i Trailed Sprayers		
Model	832 / 832i / 832i TF	840 / 840i / 840i TF
Tank Capacity	3200 L	4000 L
Double folding boom	18 – 30 m	18 – 30 m
Transport width	2.55 m	2.55 m
Triple folding boom	24 – 36 m	24 – 40 m
Transport width	3.00 m	3.00 m

832 and 840

The 832 and 840 sprayers are an excellent choice when you need a highly productive and rugged, dependable sprayer. It offers 3200 litre (832) or 4000 litre (840) solution tanks. Available with boom sizes up to 40 metres, this machine is ideal for large arable farmers and contractors where maximum application timeliness and productivity is needed.



832i and 840i

The 832i and the 840i sprayers with ISOBUS ready spray controllers set new standards for productivity, accuracy, automation and convenience while delivering more potential than ever before to save costs for chemical applications with Intelligent Spraying Solutions, like AutoTrac, BoomTrac and GreenStar Sprayer Pro.



800 and 800i TwinFluid

The 832i TF and 840i TF sprayers are the ultimate choice for extra large arable farmers or intensive potato or vegetable growers. The TwinFluid, low volume, air assisted spraying system reduces filling and transport time to boost productivity and improve timeliness. Improved spray deposition and better crop penetration deliver excellent spray efficiency to minimise dose rates and maximise yields.



Introduction	2-3
Technology Overview	4-5
ISOBUS Technology	6-7
Sprayer Pro package	8-9
Sprayer Control	10-11
Chassis, Suspension and Tyres	12-13
Drawbar Configurations	14-15
Spraying Systems	16-19
Spray Booms	20-23
TwinFluid System	24
Ringline & Continuous Circulation System	25
Specifications	26

Forward thinking technology for the ultimate application

Technical capabilities, convenience, ease of use, superb spraying accuracy ... if you're looking for a sprayer that delivers all these advantages, the John Deere 800 and 800i Series trailed sprayers are built for you. The 800 Series sprayers are available with the TwinFluid, low volume application technology to boost productivity and reduce drift. The Ringline circulation (standard on 800) as well as the continuous circulation system with pneumatic nozzle shut off (base on 800i and 800i TF) gets you into the field quickly, without wasting chemical and enables a fast and thorough washout. Plus, the new 800i Series ISOBUS ready sprayers with GreenStar 2 displays provide you advanced documentation, guidance and sprayer control options.



ENTAM study proves outstanding John Deere performance



Independent research confirms the outstanding performance of John Deere trailed sprayers. The European Network for Testing Agricultural Machinery (ENTAM) tested and evaluated virtually every functional aspect of a John Deere 840 trailed sprayer. The results? The 840 trailed Sprayer was the first sprayer on the market that met or exceeded every single ENTAM-test requirement, based on the European standard for Environmental Protection for Sprayers (EN-12761).

The sprayer was thoroughly tested to determine the accuracy and technical performance of the machine. Measurements performed include items such as tank agitation, spray distribution quality, accuracy of dose rate, regulation speed of rate control, amount of dead volume, accuracy of measuring devices (pressure gauge, flow sensor, level indicator, etc), dripping of nozzles, cleaning and rinsing of empty containers with the chemical inductor and more.

The chart provides an overview of the ENTAM test results. Better yet, talk to your John Deere dealer for information and greater insights into the performance advantages offered by John Deere's 800 and 800i Series trailed sprayers.



Before delivery, all John Deere sprayers are thoroughly tested at the factory. This patternator test measures flow rate and spray distribution across the boom width to assure the highest level of application accuracy.

ENTAM Assessment

ENTAM Assessment of John Deere Trailed Sprayer

(0 = meets standard, + exceeds or ++ far exceeds standard)

Test criteria acc. EN 12761/2	Contents – Technical Requirement	Assessment (840-27 m)
4.1.1.1	Spray tank surface roughness (max. 0.1 mm)	++
4.1.1.2	Spray tank max. volume (min. 5% above nominal)	0
4.1.1.3	Residual liquid (max. 0.5% nominal capacity +2 l/m working width; here max. allowed: 74 liters)	0 (dilutable) ++ (undilutable)
4.1.1.4	Accuracy spray tank contents gauge up to 20% filling contents (max. 7.5%) Accuracy spray tank contents gauge from 20% filling contents (max. 5%)	0 ++
4.1.1.5	Agitation systems test homogeneity of spray liquid concentration, deviation max. 15%	0
4.1.3.1	Width of individual boom sections (max. 6 m)	++
4.1.3.2	Boom height adjustment range (min. 1 m)	+
4.1.5	Anti drip device (max. 2 ml after 8 sec)	++
4.1.6 (a)	Accuracy of pressure gauge (max. 0.2 bar inaccuracy)	++
4.1.6 (b)	Accuracy of flow sensor (max. 5% error)	+
4.2	Accuracy of rate control system (deviation from target rate, max. 6%)	+
4.2.2 (a)	Regulation speed for changing operating conditions (max. 10% deviation of dose rate after 7 seconds)	+
4.2.2 (b)	Consistency of dose rate (CV max. 3%)	++
4.2.3	Pressure drop between pressure gauge and nozzles (Max. 10%)	++
4.3.1 (a)	Accuracy of single nozzle flow rate (max. 5% deviation from mean value)	+
4.3.1 (b)	Deviation nozzle output from spray table	+
4.3.1 (c)	Uniformity of transverse spray liquid distribution (CV max. 7% or max 9% respectively)	+
4.4	Volume of clean water tank (min. 10% of main tank)	0
7	Cleaning of empty chemical containers (max 0,01% of original concentration after 30 sec)	++

Note: The assessment takes place in 3 steps linearly according to the permissible variation (++,+,0)

Take full command of your sprayer with the GreenStar 2 ISO displays

ISOBUS is the international standard for communication between tractors, implements and farm software. All future leading edge technology will be based on this standard. The new 800i sprayers are fully compatible with all ISOBUS ready tractors. ISOBUS enables control and operation of different implements with one ISO terminal.

The new ISOBUS compatibility:

- Saves time and hassle while connecting different implements
- Allows easier operation of different machines
- Frees more space in the cab for better visibility
- Saves money since only one display is required

What does ISOBUS mean for you when it comes to spraying?

- Total control of the sprayer with the highest level of automation for refilling, mixing, spraying and documentation.
- GS2 Displays are pre-loaded with guidance, documentation and map based spraying software

GS2 Displays

- Two different displays available
- Certified to meet ISOBUS standards
- Single display for all certified implements
- Excellent control with integrated solution



When your tractor is equipped with the StarFire iTC GPS receiver you can use AutoTrac or Parallel Tracking for guidance to reduce overlap and skips, while also accessing more advanced documentation and spray control tools.

The GS2 reconfigurable display gives you full control your sprayer while accurately recording spray applications and provides you a whole new view of your in-field guidance.

Insert the Compact Flash card and start spraying immediately. All spray applications are automatically recorded and the data can be utilised to generate all the necessary reports for documentation in the office.

When you want to analyse and optimise your farming operation why not use John Deere desktop software. Desktop software lets you take into account your previous crop yield and other documented applications when planning your next spraying job (spray to map). Then simply take your planned job and place the Data Card into the GreenStar 2 display, select the pre-defined task and start spraying. While you are working to optimise your farming operation and increase profits you also automatically create the documentation that legislation requires for traceability, to prove best practices and to demonstrate cross compliance for your records.



GS2 FieldDoc Basic Package – intelligence in documentation

The new documentation features of the GreenStar 2 displays provide on screen mapping in colour, which helps you eliminate overlaps and skips. During spraying, real time changes in application rates and boom section activation status are reflected on the as-applied maps in the GreenStar 2 System, along with a legend that defines each colour recorded. This provides the most accurate documentation for spray applications to prove full compliance with buffer zones and provides better data input for all further applications. The 800i Series trailed sprayer is also prepared for map based spraying with variable rate applications.



Take monitoring and recording of important spray operations to the next level. Easy to use drop down menus and an on-screen "virtual keyboard" make adding and transferring critical information for your specific spray job easy and fast. A Compact Flash card slot speeds up data transfer from the job computer to the desktop and vice versa and avoids making mistakes.

Smarter farming begins here

Our Agricultural Management Solutions are exactly that ... solutions to the management and operational issues those growers have faced for years. Whether it's steering the tractor, recording application rates, monitoring overlaps and skips, switching boom sections on and off or any other GPS-based function, the new GreenStar 2 System enhances the functionality of our original GreenStar system and adds a reconfigurable display. And our John Deere system is completely integrated with all the systems within your tractor and sprayer.



Sprayer Pro package

- Intelligence in automation
- Automatic boom section control
- Automatic master on/off



SprayPRO Package – intelligence in automation

You can order your full ISOBUS ready 800i Series trailed sprayer with the optionally available GreenStar Sprayer Pro package.

Sprayer Pro takes full control over the boom sections and automatically switches them on and off when entering an area in the field that has already been sprayed or when outside the field boundaries. The master valve is automatically switched on and off at the headland.

Depending on the type of chemicals sprayed, two different operation modes can be selected:

- No overlap to avoid crop damage
- No skips for complete field coverage

The new SprayPRO package enables automatic boom section control when spraying point rows, as well as automatic master valve on/off at the headland.

A broad range of options keep you in control

Choose from a variety of control boxes to operate your trailed sprayer and tailor it to your needs. The EL-4 automatic rate controller provides simple operation, advanced functionality and reliable performance. It can be equipped with the EHB-2 hydraulic switch box for enhanced control of spray boom functions and the trailing drawbar.

For additional functionality in combination with the GSD 2100 or GSD 2600, ISO displays select the CAN-BUS based EHC-2 switch box. The EHC-2 control box is the most advanced controller to command a sprayer. The EHC-2 control box offers electronic control of all sprayer functions. The communication is via CAN-BUS technology as found on state-of-the-art tractors and cars. This electronic system improves diagnostics and offers much more functionality. Reliability and serviceability are taken to a new level by using robust wiring harnesses with completely electronic controllers and connectors as used on John Deere tractors.



EL-4 Control

The EL4 control box lets you control pressure, Master valve and up to 9 boom section valves. Additional functions, such as boom tilt control with preset trimming and edge tip activation are available too. The large, durable switches are easy to operate. The frequently used Master valve switch is larger for easy access. The integrated spray rate controller offers accuracy and ease of use. You only have to choose the colour of the nozzle and the desired target application rate and the controller will do the rest. During spraying you can simultaneously monitor travel speed, spray pressure, application rate and alternating volume sprayed and hectares treated. It is possible to change the target application rate "on-the-go" for temporary over or under dosing in certain areas; for example, with liquid fertiliser or herbicides.

The hydraulic boom and drawbar functions can easily be operated electro-hydraulically by the EHB-2 switch box. With EHB-2 you can operate boom folding, folding boom tips left and right, boom lock, boom height and individual boom raise and lower (variable geometry). If the sprayer is equipped with automatic trailing, drawbar steering is also operated through the EHB-2.

Control Boxes

- Variety of control boxes
- Convenient control
- Large, durable switches



EHC-2 Control

With the EHC-2 switch box the following functions can be controlled:

- Spraying pressure (both liquid and air pressure for sprayers with TwinFluid)
- Master valve and up to 15 boom section valves (with sequential control)
- Edge tips and foam marker
- Boom height adjustment
- Boom folding, boom folding tips left/right
- Boom tilt with preset trimming (rotary switch)
- Boom lock
- Raise and lower boom left/right (variable geometry)
- Automatic trailing with Headland Management System
- Agitation on/off
- Automatic tank filling



Sequential section control

The EHC-2 offers a new method of section control. You can open and close all boom sections sequentially with just three switches. This makes operation much easier and the control boxes remain much smaller. You don't have to search for the switches when switching on/off sections one after another when spraying in a narrow land. The LEDs show you the status of the sections (on/off). With the skip button you can select any other possible configuration. And when the SKIP button is held, all sections open simultaneously. Instead of having to use up to 15 section switches, you now have much easier control with only 3 switches.



FUNCTIONALITY OF SPRAY RATE CONTROLLER	EL-4	EHC-2 + GS2
REGULATION MODE		
Pressure sensor	choice	not available
Flow sensor	choice	not available
Pressure and flow based	choice	X
TwinFluid (flow, liquid, air pressure)		for TF
Boost mode (± 10%) for target rate	X	X
DISPLAY INFORMATION DURING SPRAYING		
Speed (km/h)	X	X
Spray pressure (bar)	X	X
Actual application rate (l/ha)	X	X
Target application rate (l/ha)	X	X
Volume sprayed (l)	X	X
Hectares covered (ha)	X	X
Nozzle selected	X	X
Droplet size (BCPC classification)		X
Total flowrate (l/min)	X	X
Tank volume (l)		X
Remaining area (ha)/distance (m) with tank level		X
Active working width (m)		X
Wind speed (m/s)		-
TANK LEVEL CONTROL		
Digital tank level sensor w/ alarm		X
Digital tank level sensor w/ automatic filling		-
PROGRAMMING		
Preset nozzles and target rates	X	X
Density correction for fertiliser (pressure based)	X	X
Nozzle calculator	X	
Nozzle calculator including droplet size data		X
SENSOR CALIBRATION		
Automatic calibration	X	X
Wheel sensor setting for two tyre options		X
ALARMS / WARNINGS		
Pressure / flow cross check		X
Min / max pressure for each nozzle		X
Flow sensor limit (min. measuring value)		X
Tank almost empty (programmable)		X
Tank level to switch off agitation (programmable)		X
Automatic agitation stop at programmable level		X
REGULATION SYSTEM / FEATURES		
Min. / Max. regulation pressure (programmable)	X	X
Regulation mode change at low flow sensor limit		X
Anticipation of regulating valve at headland		X
Automatic reset to default position of regulating valve (prevents overdose after empty tank)		X
Programmable regulation start delay time (s)		X
DATA MEMORIES / INFORMATION		
Field memories	-	16
Total memory	1	1
Sprayed volume (l)		X
Sprayed area (ha)		X
Sprayed / Total distance (m)		X
Sprayed / Total time (h)		X
DIAGNOSTICS		
Monitoring sensor and switch box status		X
Logging warnings and alarms		X
GREENSTAR PRECISION FARMING SOLUTIONS		
DGPS compatible (Starfire, Mobile Processor)		X
Parallel Tracking / AutoTrac		-
Field Documentation		X

Greater strength, increased versatility, higher speed

A massive chassis provides a solid foundation for high capacity solution tanks and wide spray booms. The chassis is made to withstand the toughest field conditions and high speed road transport of up to a homologated 50 km/h with fully loaded tanks. The design of the sprayer is short and compact to allow sharp turning and accurate trailing but the centre of gravity is low enough to ensure utmost stability when spraying on slopes.

Chassis and Suspension

- Massive, heavy duty chassis – Unsurpassed strength, durability and trouble-free performance
- Large axles and a rugged chassis allow the use of larger tyres to improve flotation and reduce soil compaction
- Heavy duty chassis design with innovative axle suspension for 50 km/h road transport with full tank
- Maintenance free, dependable double link axle suspension is built specifically for sprayers to provide outstanding suspension over a wide range of loads



Large heavy duty axles with drum brakes and integrated speed sensor offer years of trouble-free spraying. Different axle widths are available to tailor the track width of the sprayer to different row spacing and tramline systems. With the fixed axle you can change the tread from 1.50 to 1.80 m by changing the wheels between left and right. Sliding axles offer a stepless adjustment of track width either from 1.50 to 2.00 m or from 1.72 to 2.25 m. All sprayers can be equipped with either hydraulic or pneumatic brakes.



High speed transport option.
If you spend a lot of time moving your sprayer from one field to another or to your filling location, you'll pick up speed and efficiency with the high speed transport option. It lets you transport at speeds up to 50 km/h with fully loaded tanks, where allowed. The high speed options include (depending on the type of sprayer) heavier axles, wheels and tyres, as well as enhanced braking.



Heavy duty axle suspension.
For smoother and faster road transport, as well as absorbing shocks in the fields, the sprayer can be equipped with the optional double link axle suspension. Bear in mind that axle suspension for sprayers must be particularly versatile to cope with both full and empty load situations. Sophisticated polyurethane dampers with micro air chambers offer superb suspension performance and don't require any maintenance at all. Complicated height regulation systems for the axle are not necessary, since the change of travel between full and empty load is very short. It's simple and reliable but still

offers unsurpassed absorption of heavy shocks. Since the double link suspension only allows vertical axle movement, the sprayer will not lean in corners or on hillsides. What's more, the boom will always remain parallel to the field. With double link suspension your sprayer runs smoother on the road and in the field with less stress applied to your machine. This means more comfort, more productivity and a longer sprayer life.

With the smooth and flat underside of the frame and a superb under-frame ground clearance of 750 mm (with 48 inch wheels), crop damage is minimal.



Drawbar configurations for any type of tractor

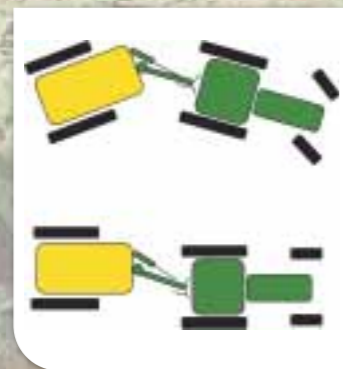
The drawbar type and tow eye configuration can be tailored to any kind of tractor connection, whether it is a swaying drawbar, a pick-up hitch, a Piton Fix, a height adjustable wagon hitch or a ball type hitch. You have the choice between a lower linkage drawbar or a universal drawbar (universal drawbar is standard for 800i and 800i TF). The universal drawbar can be set in an upper and lower linkage position. This drawbar is adjustable both in length and height, so any kind of tractor will be fully compatible and accurate trailing can always be achieved. The pumps and optional compressor(s) for TwinFluid are completely protected but remain easily accessible for service. Both drawbars are mounted on the chassis with one heavy duty pivot point. The drawbar can be upgraded from a fixed configuration to automatic trailing.



Lower linkage drawbar.



Universal drawbar.



Hydraulic steering allows manual control of the drawbar, particularly useful when spraying on slopes to avoid down hill drift.



Headland Management System

Two sensors mounted on the drawbar measure the variation of the tractor to the drawbar, activating the automatic drawbar control. The drawbar steering should only work on headlands and not while spraying, to ensure a stable ride and a good spray distribution. With the Headland Management System the trailing system is now automatically switched ON at the headland every time. Once you've made the turn, the steering is automatically switched OFF ... and the drawbar is automatically steered back into the central position so that the machine runs straight behind the tractor. You also have the option of manual control on hillsides or to manoeuvre the sprayer into tight corners. This trailing system offers outstanding accuracy and a very short turning radius, without affecting boom ride and stability on the road and in the field.

The Headland Management System provides completely automatic control of the trailing drawbar and puts spraying jobs on the fast track. Manual control lets you manoeuvre the sprayer into tight corners or prevent the sprayer from slipping when spraying on hillsides.



Two sensors on the drawbar activate the automatic drawbar control. These sensors measure the angle of variation of the tractor relative to the drawbar and let the sprayer wheels follow the rear wheels of the tractor to reduce crop damage at the headland. The drawbar steering is available with a single or double steering cylinders for working on the steepest slopes.

The automatic trailing drawbar provides an innovative headland management system for fully automatic, effortless operation

After making the headland turn, the drawbar is centred again and switched into manual mode. The sprayer runs smoothly during spraying without excessive yawing of the boom.



The John Deere drawbar steering system uses an electro-hydraulic controlled drawbar with a heavy duty hinge point that provides fine-tuned tracking control and durability.



Automatic Trailing Drawbar

John Deere's automatic trailing drawbar has proven its crop-saving value in crops such as sugar beet, potatoes and vegetables. Enhancements make this unsurpassed feature even greater value. With the automatic trailing drawbar, an electro-hydraulic control allows the wheels of the sprayer to follow exactly in the tractor's tracks. It pays for itself with less crop damage. Plus, it reduces pulling requirements – another important benefit.

Trailing Drawbar

- Innovative automatic trailing drawbar design reduces crop damage
- Short and compact machine design provides outstanding tracking and manoeuvrability and enables sharp turning
- Headland Management System with single, pushbutton offers convenience without affecting boom ride and stability

Maximum versatility – Easy to operate

No. Description

- 1 Piston diaphragm pump
- 2 Filling hose with strainer and float
- 3 Filling hose connection
- 4 Drain valve solution tank
- 5 Suction selection valve
- 6 Suction filter
- 7 Recirculation valve
- 8 Primary pressure regulator
- 9 Electric spray pressure regulator
- 10 Pressure selection valve
- 11 Shut-off valve chemical inductor (or rinsing head)
- 12 Pressure filter
- 13 Electric operated master valve
- 14 Spray gun connection
- 15 Pressure gauge

No. Description

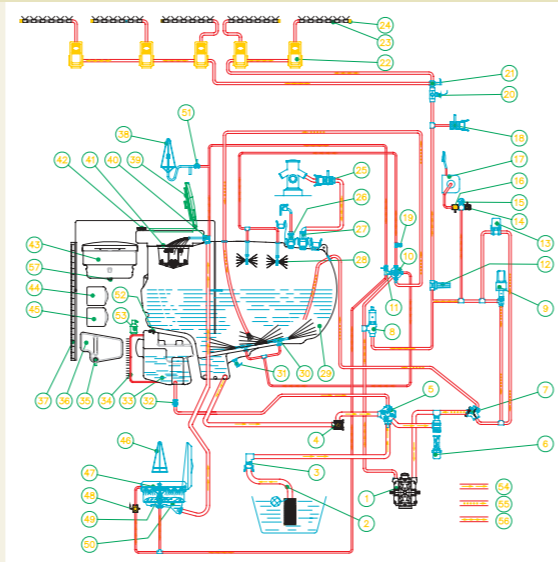
- 16 Shut-off valve brush with hose reel
- 17 Brush with hose reel
- 18 Transfer valve with hose connection
- 19 Strainer tank rinsing nozzles
- 20 Flow sensor
- 21 Pressure sensor
- 22 Electric boom section valves
- 23 Spray line
- 24 End cap with quick coupling
- 25 Shut-off valve external pump filling connection
- 26 Waterline filling connection
- 27 External pump filling connection
- 28 Rotating tank rinsing nozzles
- 29 Solution tank
- 30 Hydro injectors for agitation

No. Description

- 31 Tank pressure sensor for digital tank level
- 32 Non return check valve rinse tank
- 33 Rinse tank
- 34 Liquid level indicator rinse tank
- 35 Drain tap hand wash tank
- 36 Hand wash tank
- 37 Liquid level indicator solution tank
- 38 Rinsing head in filling opening with tenter
- 39 Hinged tank lid
- 40 Injector chemical inductor
- 41 Basket strainer
- 42 Tank deaeration
- 43 Spray chemical receptacle
- 44 Protective clothing locker (clean clothing)
- 45 Protective clothing locker (used clothing)

No. Description

- 46 Tenter for chemical inductor
- 47 Ring line chemical inductor
- 48 Shut-off valve ring line chemical inductor
- 49 Rinsing head chemical inductor
- 50 Chemical inductor
- 51 Shut-off valve rinsing head in filling opening
- 52 Tank lid rinse tank
- 53 Soap pump dispenser
- 54 Suction line
- 55 Return line
- 56 Pressure line
- 57 Drain valve spray chemical receptacle
- 58 Shut-off valve suction line filling injector
- 59 Filling injector
- 60 Shut-off valve filling injector



Operator Station

- Centralised operator station provides superior access to all major functions, including filling, wash tank, agitation control and machine rinse
- Innovative polyethylene solution tank design promotes more complete mixing, better stability during transport, complete emptying on slopes and easy cleanout
- Independent high pressure system allows tank mixing at high pressure while spraying at low pressure

Filling the solution tank with water and chemicals, rinsing the chemical containers, flushing the sprayer, switching the agitation on and off and more is made simple by only using two rotary valves with logical symbols for operating all major tasks. You work faster and the risk of making mistakes is reduced.

The hinged tank lid with 400 mm diameter and basket strainer provides ample room for adding chemicals or inspection. The raised neck design prevents spillage during transport.

You can fill the sprayer quickly with the sprayer's self priming piston-diaphragm pump or with an external pump through a separate filling connection with quick couplers. With the optional electronic tank level control (base on 800i Series), the desired filling level can be set and as soon as the tank is full, an audible alarm will sound, or the filling valve will be closed automatically. Filling is more accurate and spillage is prevented. With the optional transfer connection, you can pump remaining solutions, such as liquid fertiliser, back to a storage tank.



Innovative Solution Tank Design

The design of the polyethylene solution tank combines a low centre of gravity with a round shape and smooth surfaces. Dead corners are eliminated to ensure perfect agitation and complete cleaning. The deep sump and the steep, sloping bottom provide complete emptying in all field conditions. Massive tank walls and large area frame support offer outstanding durability and strength.

Agitation is performed with high pressure hydro injectors at the bottom of the tank, with additional mixing from return flow of the pump. The agitation can be switched off manually or electrically (base on 800i Series) from the cab to prevent foaming and to empty the tank completely. With the GreenStar controller it is even possible to automatically switch off the agitation below a programmable tank level (base on 800i Series).



A large platform with wide, slip resistant steps provides easy and safe access to the solution tank.

The tank level indicator with centre-mounted float is easy to read, both from the cab and from the operator station. The sight tank-level indicator will not get dirty or discoloured with chemicals. Accurate digital tank-level readout in the cab is also available with the GSD controller.

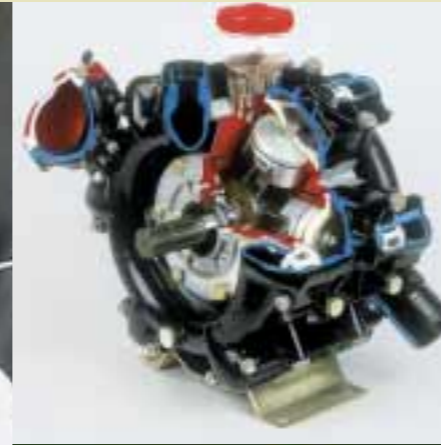
Enhancing convenience, efficiency, accuracy and safety

The large 60 litre chemical inductor swings out for easy access.

Liquids, powders and granulates can all be easily filled from ground level and are directly mixed with clean water. A powerful injector, working at 10 bar, transfers diluted chemicals through a basket strainer, into the tank. The automatic container rinse head removes all residues from the chemical containers. Just place the container over the rinse head and push down.

Wet System

- Pressure and flow based rate control enables accurate dosage for better crop treatment and chemical savings
- Section valves mounted in the boom provide faster response and reduced dead volume to save chemicals
- A separate high pressure circuit for agitation, tank cleaning and chemical inductor functions ensure high performance independent of spray pressure
- Heavy duty self priming piston diaphragm pumps offer both high flow and pressure



Heavy duty piston diaphragm pumps are self priming and offer both high flow and pressure. A single pump with 280 l/min capacity is standard. For larger booms or as an option, two pumps – each with 280 l/min capacity – are available. The first pump is used for spraying and the second for agitation. Both are used together to fill the sprayer. This increases filling capacity and enables spraying with higher application rates. High capacity pumps let you spray with lower engine speed for less noise, lower fuel consumption and reduced wear.

The Master and section valves are electrically operated. Motorised seat valves are integrated into the boom and provide instant start and shut-off of individual boom sections as well as allow the liquid circulation through the spray lines up to the section valve (only with ringline circulation). When the sprayer is equipped with the advanced pressure circulation with pneumatic nozzle shut off the spray liquid circulates through the spray lines up to the nozzle bodies (only with pneumatic nozzle shut off) Both systems prevent missed spray areas, eliminate overlaps, save chemicals and prevent environmental contamination.

The filter system of the sprayer is a 3 step approach. The first filter is the basket strainer in the filling opening. Undiluted chemicals from the inductor remain there until completely dissolved. The large suction filter with 30 mesh screen protects the pump from particles. The pressure filter protects the nozzles from clogging and is available with 50 or 80 mesh screen, depending on nozzle size. The TwinFluid sprayers have additional in-line section filters. The suction and pressure filters are placed together at the front left side of the sprayer for easy access and convenient maintenance.



The spray pressure is electronically controlled by a large diaphragm pressure regulator. This allows you to spray at both low and high application rates and ensures a very constant and stable pressure. All John Deere trailed sprayers have an electronic spray rate controller in base. Spray controllers on the 800 series are available with pressure sensor, flow sensor or both. The 800i Series is equipped with both sensors, you have a double-check and very versatile sprayer enabling to spray with both pressure or flow based regulation. When spraying based on flow, the controller will automatically switch to pressure based regulation when low flow rates occur.



A large 400 litre rinse tank is located underneath the solution tank at the front of the frame. This allows easy filling, lowers the centre of gravity and improves weight transfer to the tractor to reduce pulling requirements. With the rinse tank, the sprayer can be rinsed with clean water, either with a full or empty tank. With the recirculation valve the return flow of the pump to the tank can be redirected to the suction side of the pump to prevent any return into the tank. In this way, it is possible to flush the pump, control unit, section valves, filters, spray lines and nozzles even with a full tank without diluting the tank solution. So, if you have to interrupt spraying, in case of rain, you still can flush the sprayer and start again later with a clean sprayer.



A large storage box at the right side of the sprayer can be used for transporting larger chemical containers. The lid can be opened in two ways for quick access for small parts or total access for larger packs. A drain valve ensures proper cleaning in case of any leakages.



When filling is completed, you can wash your hands and protective clothing with clean water from a separate 20 litre hand wash tank and soap from a dispenser. The handwash tank can easily be removed to fill with clean water.



Two storage lockers provide plenty of room for storing protective clothing, as well as other parts such as nozzles, filters and cleaning brushes. One locker is for contaminated protective equipment, the other one for clean parts.



For a complete wash-out of the solution tank, there are two rotating tank nozzles mounted inside the tank that provide thorough cleaning.

Three dimensional spray booms give more uniform coverage over uneven terrain

A broad range of three dimensional spray booms brings a whole new level of strength, stability and accuracy to every spraying job.

Two different boom types are available: A double folded boom from 18 to 30 metres with a transport width of only 2.55 metres and a triple folded boom from 24 to 40 metre with a 3.00 metre transport width. If your fields are widely dispersed you will appreciate the narrow 2.55 metre transport width of the double folding booms. The triple-folding booms allow very wide booms, while still maintaining a compact machine. Trailing accuracy, stability and manoeuvrability remain as good as with the smaller machines with double folding booms.

Boom construction and suspension

- Parallelogram boom lift provides a large height range adjustment
- Central pendulum system features shock absorbers that minimise boom swaying
- Independent anti-yaw device isolates the spray boom completely from movements in yaw direction
- Superior boom ride under any field condition offers significantly improved spray liquid distribution and increases chemical effectiveness
- BoomTrac automatic boom tilt and height control system reduces operator stress and increases efficiency.

BoomTrac Automatic Boom Tilt & Height Control



Uneven ground and changing crop conditions both impact boom height and spraying accuracy. The John Deere BoomTrac automatic boom tilt and height control system helps to prevent uneven chemical application, while also making the job of the operator much easier. BoomTrac uses two ultrasonic sensors – one at each end of the boom – to constantly measure the height of the spray boom above the crop. If the boom is not level with the canopy, or is too high or low, an electronic controller adjusts the height and angle of the boom until it is parallel to the crop and at the right height. As a result, spray application is more uniform, while the operator can concentrate on driving the tractor, without struggling to adjust the spray boom.

With a boom height range up to 2.55 m (with 270/95R48 row crop tyres), the John Deere spray boom design with parallelogram boom lift provides all-season long application. It's the perfect answer when you need the utmost in versatility for either spraying immature crops or late season applications of tall crops, without affecting ground clearance. The boom height can be read from the cab on an optional scale at the front of the sprayer. The height adjustment cylinders are equipped with a nitrogen damper to provide a smooth ride during transport and absorb shocks in the field during spraying. The booms are supported by rolls in transport position to reduce stress. A transport hook mechanically locks the height adjustment when the boom is folded in, to ensure safe road transport.



Spray Boom Suspension

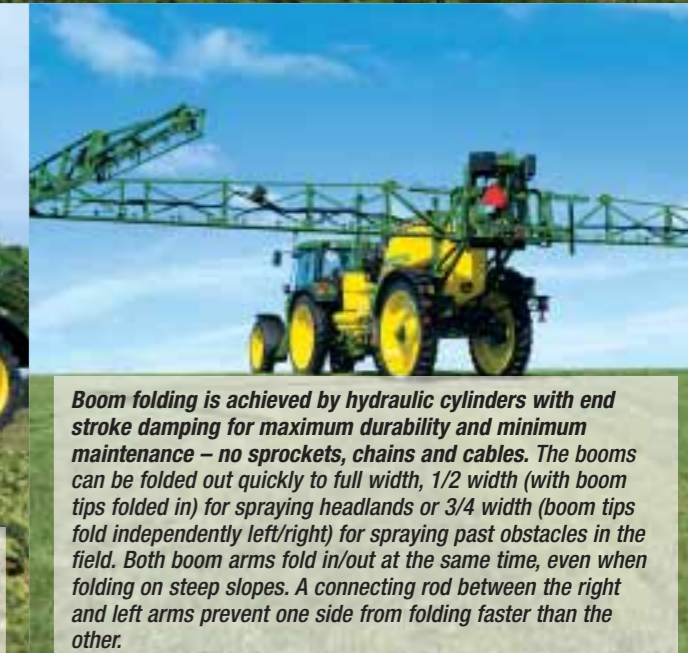
Rough fields and tough operating conditions can have a major impact on your spraying accuracy. John Deere booms feature a responsive suspension system that provides superior boom stability. The booms are suspended vertically, horizontally and in the yaw direction. The result is an extremely well balanced spray boom that provides an exceptionally level spraying platform. You gain a more even liquid distribution and improved spraying results.

The central pendulum system features shock absorbers that dampen excessive boom swaying. The anti-yaw device has a horizontal degree of freedom which completely isolates the spray boom from machine movements in yaw direction. This boom suspension and anti-yaw dampening provide excellent performance under all field conditions, since it's much less sensitive to boom adjustments, tank level, tractor coupling and other operating conditions.

The boom suspension is equipped with hydraulic boom tilt. When spraying on slopes, the boom tilt can be readily adjusted so that the boom stays parallel to the field while retaining the full pendulum action. The boom tilt is controlled with a rotary switch. This lets you adjust the boom very quickly and accurately in any desired position.



The triple-folded spray booms fold into a low profile, compact transport package. Interference with the tractor is greatly reduced, providing perfect compatibility for using droplet hoses to apply liquid fertiliser.



Boom folding is achieved by hydraulic cylinders with end stroke damping for maximum durability and minimum maintenance – no sprockets, chains and cables. The booms can be folded out quickly to full width, 1/2 width (with boom tips folded in) for spraying headlands or 3/4 width (boom tips fold independently left/right) for spraying past obstacles in the field. Both boom arms fold in/out at the same time, even when folding on steep slopes. A connecting rod between the right and left arms prevent one side from folding faster than the other.

Exceptional boom strength, reliability and versatility

The John Deere Trailed Sprayers adapt easily to your specific spraying application needs. The spray-lines can be equipped with single or multiple nozzle bodies. The end plugs and supply hoses of the stainless steel spray lines are fitted with quick-connect couplings. Rinsing the sprayer is simple and fast.



As a further enhancement, variable geometry is available. The spray boom arms can be raised or lowered independently of each other to spray any kind of sloping field.

Boom Construction and Design

- The 3-dimensional spray boom design for outstanding strength, durability and reliability
- All pivot points are equipped with self adjusting ball and socket bearings to ensure that the boom will not sag even after many years of operation
- Liberal use of stainless steel components for long life, trouble free performance



The booms are equipped with high quality stainless steel spray lines. This gives you years of dependable, trouble-free service.



The new, three dimensional spray booms are designed to minimise torsion, bounce and swaying to achieve the best possible spray distribution and to ensure durability and strength.



Breakaway protection is standard on every John Deere boom. Boom tips can fold forward, backwards and even up when hitting an obstacle or touching the ground to prevent serious damage.



All swivel points of the boom have self adjusting ball-and-socket bearings to ensure dependability and long life. The bearings also assure that the boom will not sag even after many years of operation.



Special fertiliser nozzles are available to apply liquid fertiliser at different growth stages or sensitive crops without the risk of scorch. All fitting material on the sprayer is stainless steel or treated with a special coating. This sprayer is perfectly protected against the corrosive action of liquid fertiliser.

Nozzles and Bodies



The sprayer can be fitted with rugged single or multiple nozzle bodies for a quick changeover to varying spray patterns, droplet spectra and spray volumes. Nozzle bodies have bayonet caps with colour coding to identify quickly the correct nozzle and prevent spraying errors. The diaphragm check valve prevents dripping.



For added convenience, revolving nozzle bodies let you quickly switch from up to five different nozzles in the field or shut off individual nozzles. There's a blind position between each nozzle.



For spraying field boundaries or along water courses, special edge tips are provided to prevent undesired emission of chemicals outside the field to minimise environmental contamination. These asymmetric edge nozzles are mounted 20 cm near the last nozzle and should be used when spraying at the boundaries of the field, with the last nozzle being closed and the edge nozzle in action. The operation of opening and closing of the edge tips can be performed manually or electrically from the cab.

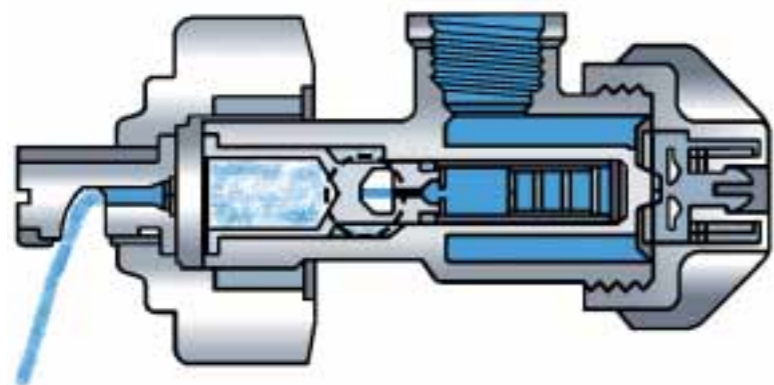
Advanced TwinFluid system for precise, low volume application

You don't need a 10,000 litre sprayer to get the productivity you need. The advanced TwinFluid low-volume application technology is a more intelligent solution. It lets you stretch capacity, improve coverage, and minimise soil compaction. Low volume application lets you cover many more hectares without the need of refilling. In fact, the 4000 litre 840TF trailed sprayer, equipped with the TwinFluid technology gives you the capacity 10,000 litre sprayers used with common application rates. With TwinFluid nozzles, air and liquid are atomized and carry the spray solution to the target. Droplet speed and entrainments are increased, allowing you to spray finer droplets, at lower spray volumes (80 – 150 l/ha). The finer droplets let you spray in a wider range of conditions with much less susceptibility of drift.

TwinFluid System

- High capacity, low volume spray application technology
- Adjustable droplet size on-the-go
- Automated buffer zone management
- Less drift
- Better crop penetration
- Increased productivity

Finer droplets, less drift



Droplet size and spray volume are determined by both air and liquid pressure. As air pressure increases (with a constant liquid pressure), both spray volume and droplet size decrease. As liquid pressure increases (with a constant air pressure) both spray volume and droplet size increase. An accurate manual control of TwinFluid nozzles is therefore almost impossible.

For this purpose a TwinFluid control system is integrated into the GreenStar controller.

With this system, both application rate and spray quality are always maintained. The operator just has to select desired application rate and droplet size, depending on type of chemical and weather conditions.

Droplet size greatly influences crop coverage and chemical efficiency.



Advantages of TwinFluid

- **Very high spraying capacity**
Spraying with lower water volumes means less time wasted to refill and transport. During the limited, ideal, spraying hours of the day, you can spray instead of fill and transport.
- **Droplet size easy to adjust**
With one nozzle you can easily adjust the droplet size from very coarse to very fine from the tractor cab and without having to change the application rate. You have the flexibility to react to changing weather conditions "on-the-go".
- **Advanced buffer zone management**
Buffer zone management automates low drift setting when spraying field boundaries or along water courses to reduce drift and minimise environmental contamination. You can switch on-the-go to a much finer droplet spectrum when spraying in the field to improve chemical efficacy.
- **Reduced drift**
With the same droplet size, you have less drift compared to conventional nozzles. It gives you more hours to spray and you can also spray more hectares during those hours with lower wind speed, higher humidity and lower temperatures.
- **A more effective droplet spectrum**
Spraying with finer droplets means less waste of chemical because of run-off from the target. This means a better spray deposition and the ability to reduce dose rates when spraying contact fungicides.
- **Boom levelling is not influenced**
Unlike sprayers with air sleeve booms, there is no influence on the boom levelling system. It is also possible to utilise TwinFluid with working widths up to 40 m.
- **A much wider flow rate and speed range**
You can change the nozzle flow rate in a much wider range, without affecting the droplet size. This allows you to change the application rate "on-the-go".



With the TwinFluid system, air is supplied by an oil-free, air cooled compressor driven by the tractor PTO by means of a gearbox.



With an on-board wind speed sensor, the actual velocity can be determined. The controller will recommend the operator the right droplet size or warn him when there is too much wind to spray.

Advanced circulation systems save time and chemicals

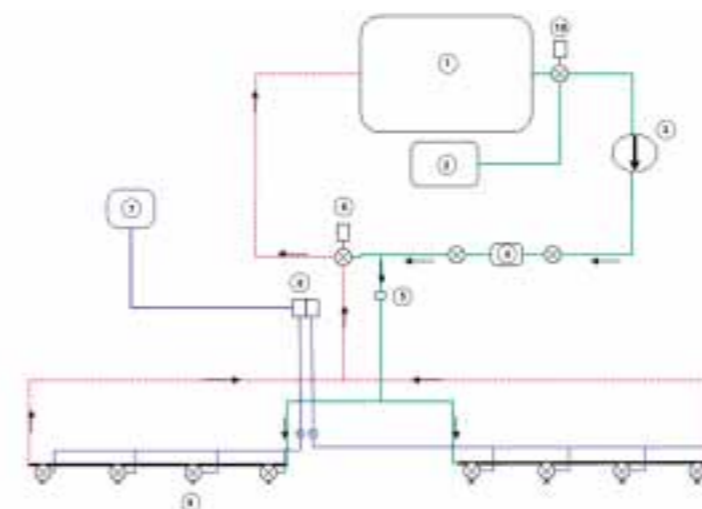
Think of the time and chemicals you waste when you clean out the sprayer ... or when you start spraying a field for the first time. When filling the sprayer with chemical, after rinsing out, the clean water has to be purged from the spray lines on the headland before the chemical can reach every nozzle. The headland can get an excessive dose of chemical with burnt patches and resulting environmental contamination. The first part of the field is

often not effectively treated, which can be seen later with triangles of weeds or diseases occurring in the field.

That's why we developed ringline circulation as well as the advanced pressure-operated continuous circulation with pneumatic nozzle shut-off. These remarkable systems speed up and simplify cleanout and let you begin spraying immediately when entering the field. No need to

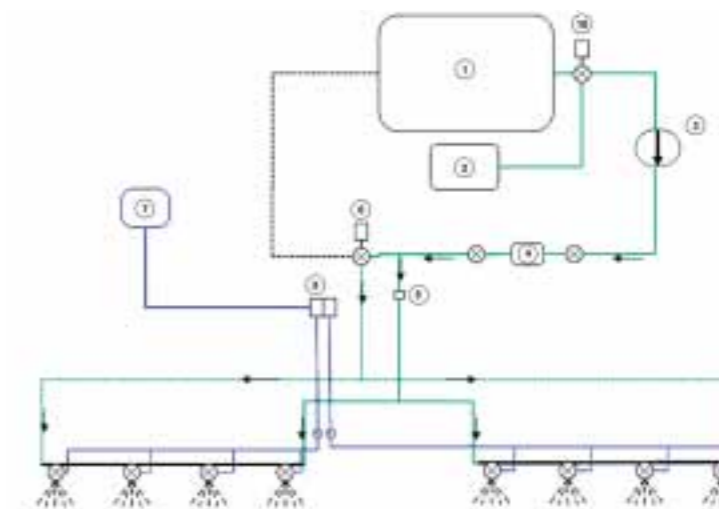
waste chemical at the headlands while waiting for the spraying system to charge. Simple, dependable and cost-effective, it's just one more reason why a John Deere trailed sprayer is your best choice for a more productive and cost effective application.

Continuous pressure recirculation: Recirculation mode



1. Solution Tank
2. Rinse Tank
3. Solution Pump
4. Flow Sensor

Continuous pressure recirculation: Spray mode



5. Pressure Sensor
6. Spray/Circulate valve
7. Air Reservoir Tank
8. Air Valve Manifold
9. Air Stop Nozzles
10. Suction Valve

Ringline circulation

The ringline circulation system provides a quick start without wasting time and chemicals and keeps the spray liquid circulated up to the section valves in the spray boom to prevent sedimentation of chemicals, when the master valve is switched off.

Continuous Pressure Circulation with pneumatic nozzle shut-off

The 800i series is equipped with a continuous pressure circulation system with pneumatic nozzle shut off. This system allows liquid to circulate at a high pressure, preventing sedimentation in the spraylines when the master switch is turned off. The pneumatic nozzle shut off system with individual air lines to each nozzle ensures an instant start and stop to spraying and prevents the nozzles from dripping even at high circulation pressures and flow rates.

Both systems work automatically whenever the pump is running and the master valve is switched off.

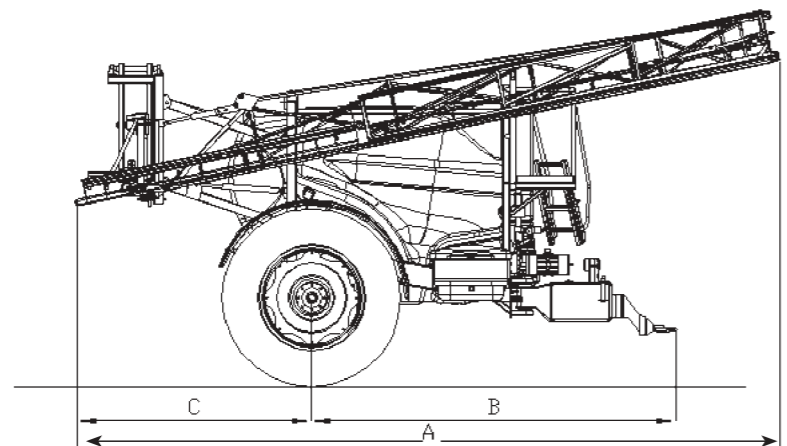
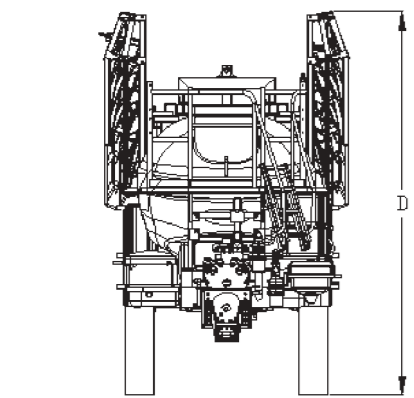
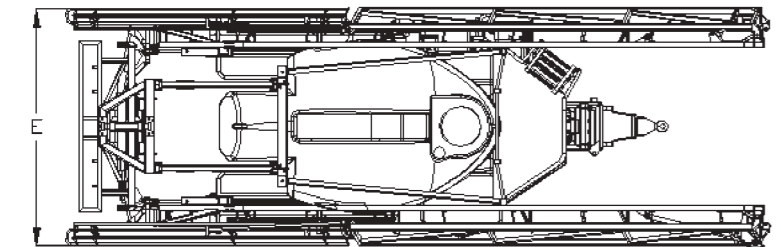
System Advantages:

- Quick start when changing chemicals
- No time wasted at the headland waiting for chemicals to reach the nozzles
- Virtually no blocked nozzles, even at low application rates
- No dripping of nozzles
- No settling out of chemicals in spray lines
- Easy wash-out of sprayer
- Saves chemical, time and money and protects the environment

Sprayboom Sizes*

SPRAYBOOM	NO. OF SECTIONS	SECTION WIDTHS (M)
Double-folding booms		
18 / 12 m	6	3-3-3-3-3-3
20 / 12 m	5	4-4-4-4-4
21 / 12 m	5 / 7	4,5-4,5-3-4,5-4,5 / 3-3-3-3-3-3-3
24 / 12 m	4 / 6 / 8	6-6-6-6 / 4-4-4-4-4-4 / 3-3-3-3-3-3-3-3
24 / 15 m	7	4,5-3-3-3-3-3-4,5
27 / 15 m	9	3-3-3-3-3-3-3-3-3
28 / 14 m	7 / 8	4-4-4-4-4-4-4 / 3-4-4-3-3-4-4-3
30 / 15 m	9	3-4,5-3-3-3-3-4,5-3
Triple-folding booms		
24 / 18 m	8	3-3-3-3-3-3-3-3
27 / 18 m	7	4,5-4,5-3-3-3-4,5-4,5
27 / 21 m	9	3-3-3-3-3-3-3-3-3
28 / 20 m	7	4-4-4-4-4-4-4
30 / 21 m	9	4,5-3-3-3-3-3-3-4,5
32 / 21 m	8	4-4-4-4-4-4-4-4
33 / 21 m	9 / 11	3-3-4,5-4,5-3-4,5-3-3 / 3-3-3-3-3-3-3-3-3-3-3
36 / 24 m	9 / 12	4-4-4-4-4-4-4-4-4 / 3-3-3-3-3-3-3-3-3-3-3-3
39 / 27 m	9 / 13	4,5-4,5-4,5-4,5-3-4,5-4,5-4,5-4,5 / 3-3-3-3-3-3-3-3-3-3-3-3-3
40 / 27 m**	13	3,5-3-3-3-3-3-3-3-3-3-3,5

* Not all options are available in all countries. ** Only available for 840i



Technical Specifications

MODEL	832	832i	832iTF	840	840i	840iTF
Nominal tank volume	3200 L	3200 L	3200 L	4000 L	4000 L	4000 L
Real tank volume	3360 L	3360 L	3360 L	4200 L	4200 L	4200 L
Rinse tank volume	400 L	400 L	400 L	400 L	400 L	400 L
Hand wash tank	20 L	20 L	20 L	20 L	20 L	20 L
Pump capacity standard	280 L/min	280 L/min	280 L/min	280 L/min	280 L/min	280 L/min
Pump capacity optional	2 x 280 L/min	2 x 280 L/min	-	2 x 280 L/min	2 x 280 L/min	-
Sprayboom widths						
Double-folding boom	18 – 30 m	18 – 30 m	18 – 30 m	18 – 30 m	18 – 30 m	18 – 30 m
Triple-folding boom*	24 – 36 m	24 – 36 m	24 – 36 m	24 – 39 m	24 – 40 m	24 – 40 m
Track width						
150/180 cm, fixed axle	•	•	•	•	•	•
150/200 cm, sliding axle	•	•	•	•	•	•
172/225 cm, sliding axle	•	•	•	•	•	•
Ground clearance u. axle	75 cm	75 cm	75 cm	75 cm	75 cm	75 cm
Boom height	50 – 255 cm	50 – 255 cm	50 – 255 cm	50 – 255 cm	50 – 255 cm	50 – 255 cm

* Dimensions are approximate and based on sprayers with 270/95R48" tires

Weights

MODEL	832	832i	840	840i
Total weight empty	3400 kg	3400 kg	3460 kg	3460 kg
Total weight full	7020 kg	7020 kg	7880 kg	7880 kg

All weights are approximate with base equipment and 24 m boom

Hydraulic Tractor Requirements

MODEL	832	832i	840	840i
Total weight empty	3400 kg	3400 kg	3460 kg	3460 kg
Total weight full	7020 kg	7020 kg	7880 kg	7880 kg

All weights are approximate with base equipment and 24 m boom

Measurements

BASE SPRAYER	SPRAYBOOM	A	B	C	D	E
832/840	18/12 m	583 cm	387 cm	237 cm	364 cm	255 cm
832/840	20/12 m	583 cm	387 cm	237 cm	364 cm	255 cm
832/840	21/12 m	583 cm	387 cm	237 cm	369 cm	255 cm
832/840	24/12 m	595 cm	387 cm	250 cm	369 cm	255 cm
832/840	24/15 m	595 cm	387 cm	250 cm	369 cm	255 cm
832/840	27/15 m	730 cm	387 cm	237 cm	369 cm	255 cm
832/840	28/14 m	694 cm	387 cm	250 cm	364 cm	255 cm
832/840	30/15 m	743 cm	387 cm	250 cm	369 cm	255 cm
832/840	24/18 m	465 cm	387 cm	235 cm	351 cm	300 cm
832/840	27/18 m	535 cm	387 cm	235 cm	351 cm	300 cm
832/840	27/21 m	540 cm	387 cm	310 cm	351 cm	300 cm
832/840	28/20 m	492 cm	387 cm	262 cm	351 cm	300 cm
832/840	32/21 m	562 cm	387 cm	310 cm	351 cm	300 cm
832/840	33/21 m	610 cm	387 cm	310 cm	351 cm	300 cm
832/840	36/24 m	622 cm	387 cm	262 cm	373 cm	300 cm
840	39/27 m	680 cm	387 cm	253 cm	387 cm	300 cm
840	40/27 m	680 cm	387 cm	253 cm	387 cm	300 cm

* Dimensions are approximate and based on sprayers with 270/95R48" tyres

Specifications and design subject to change without notice.



The highly manoeuvrable, John Deere 300 Series Orchard Sprayers were developed specially for the unique needs of orchard spraying.



The 500 Series mounted sprayers are ideal for both large and small fields as well as in hilly conditions. They're designed to give you greater control over spraying schedules.



The compact design of the 700 Series trailed sprayers ensures a low centre of gravity for a high degree of stability in the field and on the road.



The 800 and 800i Series trailed sprayers set new standards for productivity, spraying accuracy, operator comfort and convenience. Loaded with innovations, these trailed sprayers provide measurable advantages.



The 5430i self propelled sprayer is for producers and contractors who need the ultimate in sprayer reliability and accuracy. Many of the components in the 5430i are taken from existing John Deere technology.

Dealer support

When it's time to upgrade your sprayer, you'll be ahead when you invest in a new John Deere trailed sprayer. You'll enjoy outstanding convenience, superior spray accuracy and genuine John Deere quality and reliability – the same traits that make John Deere tractors, combines and forage harvesters the preferred choice. You also get access to an exceptional dealer organisation with John Deere trained personnel who know every spot of your sprayer. They can trouble-shoot a problem and have the tools to fix it quickly – because they understand the importance of timely crop application. And they are ready to do whatever is necessary to keep you running at maximum efficiency. You would probably pay extra for service this good ... but John Deere offers it as a standard feature in every product. See your John Deere dealer, today!

Loaded with extras (at no extra cost!)

All John Deere dealers are linked to a computerised parts inventory system. Parts are stocked for immediate retrieval; special-order parts can be delivered quickly from central parts warehouses (usually within 24 hours). Dedicated delivery is on hand, 7 days a week during the spraying season.

With more than 1000 independent dealerships and parts warehouses throughout Europe, you're never very far away from the best parts and service support. Any manufacturer can claim to be your partner – but only John Deere backs you up with genuine John Deere parts and John Deere trained service personnel, conveniently located near you and your operation. And to keep your equipment running properly, you'll find that your dealer is willing to go the extra mile. It's another benefit of doing business with John Deere.



JOHN DEERE CREDIT

"Take the credit for buying the best"

John Deere Credit – A range of finance options as powerful as our products. Contact your John Deere dealer for a comprehensive range of finance options to suit the specific needs of your business.
Not available in all countries please consult your local dealer.

This literature has been compiled for worldwide circulation. While general information, pictures and descriptions are provided, some illustrations and text may include finance, credit, insurance, product options and accessories NOT AVAILABLE in all regions.

PLEASE CONTACT YOUR LOCAL DEALER FOR DETAILS. John Deere reserves the right to change specification and design of products described in this literature without notice.

"John Deere's green and yellow colour scheme, the leaping deer symbol and JOHN DEERE are trademarks of Deere & Company."



JOHN DEERE

RELIABILITY IS OUR STRENGTH

www.johndeere.co.uk
www.JohnDeereInternational.com
www.johndeere.co.za
www.deere.com.au