







TECNOMA French Pioneer in innovative and responsible spraying

For more than 65 years, TECNOMA has constantly innovated to meet the needs of its customers throughout the world, offering a range of stateof-the-art self-propelled sprayers, that combine performance, reliability and comfort while ensuring respect for man and the environment.

The production integrated in Épernay and the recognised industrial know-how of the TECNOMA teams, allows for the custom configuration and subsequent assembly of self-propelled sprayers, so that they correspond to the needs and constraints of each farm.

To allow you to fully discover the range and potential of our sprayers, we suggest that you contact one of the 200 authorised TECNOMA distributors in France, or visit our website at : www.tecnoma.com



LASER, A BENCHMARK FOR **SELF-PROPELLED SPRAYERS**

Uncompromising precision and design

As the iconic self-propelled sprayer in the TECNOMA range, the LASER unveils a new style and equipment to meet the needs of all farms. Depending on the surface, crops and topography, it lowers itself with its four tank capacities from 2500 to 5200 liters and can be equipped with booms ranging from 24 to 44 meters. It is equipped with a large boom coverage and clearance area, and comes with variable hydraulic boom and hydraulic valve control (HVC) options.

The Laser range is fitted with a central pressurised category 4 cab with a panoramic view offering comfort and safety to the operator.



To guarantee the stage IV emission standard (Tier 4 final), TECNOMA has equipped the LASER with a 6 cylinder DEUTZ engine offered with 217 and 244 hp. The selection of a hydrostatic transmission with an "eco" mode, means that this self-propelled vehicle optimises power and reduces fuel consumption, regardless of the conditions and topography.

The LASER has the ISOBUS NOVATOP control unit as standard, thus giving access to precision farming. Thanks to its DPAE control, providing optimised water circulation, the NOVAFLOW and AUTONET equipment, its continuous boom circulation with AGP, its NOZAL nozzles... the LASER is one of the best self-propelled performers on the market.





MORE THAN JUST A CAB... Seat yourself at the LASER controls

Design, safety, comfort, nothing is left to chance. To allow you to use it intensively, TECNOMA studied the ergonomics and has designed its cabs to offer you the utmost protection and comfort.

- ISOBUS control terminal.
- Adjustable ergonomic armrest grouping all functionality.
- ³ Panoramic cab.
- 4 User interface.
- ⁵ MP3 Radio and bluetooth.





- Pneumatic seat with high-end automatic controls (multiple settings, ventilation, seat heating).
- Storage compartments.
- Tinted windows.
- Electrically heated rear view mirrors.
- Active carbon filtration, cab with filtration level Class 4.
- Self-regulated air conditioning and cab heating.
- Adjustable 3-axis steering column.

Let yourself be driven by your self-propelled sprayer...



- **2** Hood with hydraulic opening.
- **3** Fuel filter and water separator.
- **4** Thermal engine and hydraulic oil cooling.

ERGONOMIC CONTROL ARM-REST

- Control joystick: hydrostatic transmission and hydraulic functions.
- **2** Controls integrated in the armrest: 4 WD, engine speed, ranges...





ISOBUS control interface for spraying unit: ALL IN ONE by TECNOMA.

5 Option: box for separate section controls.

Electrically adjustable heated rear view mirrors.

FLEXIBLE AND CONTROLLED POWER

Reliable and powerful, its engine and transmission make it unique

The TECNOMA LASER is ready to operate anywhere and anytime. By remotely lifting the new TECNOMA hood, you will discover a 6 cylinder, phase 4F DEUTZ engine, which meets both performance and emission requirements. Based on model, two powers are offered: 217 and 244 hp.

A 310 liter fuel tank capacity for the 2500 model, 340 liters for the 3200-4200-5200 models and the 30 liter AdBlue tank, give the sprayer total autonomy for intensive work.

The LASER is powered by a hydrostatic transmission, consisting of 2 REXROTH pumps with variable flow and 4 fast engines for the 4-wheel drive.

- Automotive joystick.
- 3 ranges of speed.
- HYDROPILOT speed regulator/limiter.
- Differential lock on 4 wheels.
- 3 levels of brakes: dynamic, hydrostatic and static.
- "Eco" mode which automatically adjusts engine speed and hydrostatics according to the load and the speed set.



- Flat land, sloping terrain, heavily loaded land, wet land, dry land ... the LASER meets your needs.
- The combination of the DEUTZ engine and the REXROTH hydrostatic transmission makes it possible to optimise its traction. Optimum performance is guaranteed while minimising fuel costs.





ALL-TERRAIN MANOEUVRABILITY...

2 WD FUNCTION



REAR AXLE **CORRECTION FUNCTION**







4 WD FUNCTION

CRAB FUNCTION



• 4 WD function: when turning, the rear steerable wheels exactly follow the tracks of the front wheels. They are either controlled from the armrest or the foot button. The turning radius is thus reduced to allow extreme manoeuvrability in the tightest spaces.

Example: for the LASER 3200, the exterior turning radius is 5.20 metres.

- When working on sloped terrain, the rear axle correction compensates for the tilting in order to get closer to the tracks of the front axle.
- The trajectory generated by the crab function makes it possible to get out of delicate situations.

Your crops are protected during all your manoeuvres thanks to the manoeuvrability of the LASER chassis and the various 2 WD/4 WD functions.

Even more versatility with ...

The hydraulic variable track (option) allows the track to be adapted to each crop while driving at a minimum track on the road. The total width adjustment is 600 mm. The user can program 2 different working tracks. The 4 wheels are automatically positioned by simply pressing a switch. There is an option to work with different front and rear tracks to improve load distribution on the ground or to limit dust.

FOOLPROOF SUSPENSION... TECNOMA has been equipping its sprayers with AXAIR suspension for more than 20 years

The LASER benefits from AXAIR, essential for your comfort. AXAIR is an active axle suspension with load correction. The fully suspended chassis ensures excellent road handling and boom stability.

- It absorbs vibrations and slight irregularities in the terrain (high frequencies). It dampens shocks and ripples (low frequencies).
- Load compensation means that the sprayer feels the same irrespective of speed, terrain and tank load.
- An increase in speed (40 km/h) on the road or on the field will feel the same.

Laser 2500	Clearance	Mechanical 1.80 to 2.25m (standard)	Mechanical 2 to 2.70m	Mechanical 2.50 to 3.05m				
	1.05 (standard)	~	✓	✓				
	1.25	\checkmark	\checkmark	\checkmark				
	1.4 (mini track 2.25m)		\checkmark	\checkmark				
	1.6 (mini track 2.25m)		\checkmark	✓		1	1	1
Laser 3200		Mechanical 1.80 to 2.40m (standard)	Hydraulic 1.80 to 2.40m	Mechanical 2 to 2.70m	Hydraulic 2 to 2.70m	Mechanical 2.50 to 3.05m	Hydraulic 2.40 to 3.04m	Mechanical 2.80 to 3.50m
	1.05 (standard)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	✓	\checkmark
	1.25	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
	1.4 (mini track 2m)	\checkmark		\checkmark		\checkmark		\checkmark
	1.6 (mini track 2.25m)	\checkmark		\checkmark		\checkmark		\checkmark
	1.8 (mini track 2.40m)			√		\checkmark		
Laser 4200		Mechanical 1.80 to 2.25m (standard)	Hydraulic 1.80 to 2.25m	Mechanical 2 to 2.70m	Hydraulic 2 to 2.70m	Mechanical 2.20 to 3m	Hydraulic 2.40 to 3.05m	Mechanical 2.50 to 3.50m
	1.1 (standard)	✓	✓	✓	\checkmark	\checkmark	✓	\checkmark
	1.25 (mini track 2.25m)	\checkmark	\checkmark	~	\checkmark	\checkmark	\checkmark	~
	1.40 (mini track 2.25m)	\checkmark	~	✓	\checkmark	✓	~	✓
	1.60 (mini track 2.25m)	√ Machaniaal	√ Ibuduoulio	V	√ Ibuduoulio	√ Machaniaal	√	\checkmark
Laser 5200		IVIECNANICAI 2 to 2.70m (standard)	<i>Hyaraulic</i> 2 to 2.70m	2.20 to 3m	HYGFAUIIC 2.40 to 3.04m	2.50 to 3.50m		
	1.1 (standard)	\checkmark	\checkmark	√	\checkmark	\checkmark		
	1.25 (mini track 2.25m)	\checkmark	~	\checkmark	\checkmark	~		
	1.40 (mini track 2.25m)	✓	\checkmark	~	\checkmark	\checkmark		
	1.60 (mini track 2.25m)	~		✓		~		
LASER 4200 HVC		Mechanical 2.40 to 3.05m (standard)	Hydraulic 2.40 to 3.05m	Mechanical 2.25 to 2.95m	Hydraulic 2.25 to 2.95m	Mechanical 2.80 to 3.50m		
	1.25 to 1.80m hydraulic	\checkmark	~	✓	\checkmark	~		
Even m Hydrauli LASER t relation t continuc by mear In practi- and fold On the m maximum dependi	to re versatility c Variable Clear to position itself to the crop. The bus mode in the ns of a switch of ce, the sliding a without modify oad there is no m clearance is a ng on the whee	with ance (HVC) allo at the correct h function is ope 1,25 to 1,80 m n the armrest. Ixles of the macl ing the AXAIRsu change: the LA around 4 metres	ws the leight in rated in eter range hine unfold lspension. SER's s, ns.	1,25 m) (1,80 m





The AXAIR suspension, which provides the pneumatic seat, protects the operator from all vibrations and jolts.

Many hours of use without fatigue ... The LASER has been designed to offer versatility and adapt to all crops and topography. It has a wide range of tracks and clearances. Optionally, depending on the model, the LASER can be equipped with a variable hydraulic track and variable hydraulic clearance system.

A DIFFERENT WAY OF SPRAYING...

Protecting your crops is our focus and the LASER's system has been designed especially for you. From filling to rinsing after spraying, TECNOMA ensures safety and efficiency.

TECNOMA, a specialist in plastics, has been designing and manufacturing containers and tanks for many years. Lightweight rotomoulded tanks made of high density polyethylene, guaranteeing resistance, leak-tightness and rinsing quality. Simple and precise spraying while lowering costs.

THE TANKS

10

- Main tank with electronic gauge from 2500 liters to 5200 litres (nominal volume).
- Electronic gauge with dual display in cab and at the operating area.
- Rinse tank from 260 to 450 litres.
- 15 liters hand wash tank.

The LASER is equipped with a piston-diaphragm pump (PM 500, PM 700 or PM 850) with adjustable and regulated speed which supplies the spraying circuit in a stabilised manner.

- Flow rate of 240 l/min to 360 l/min at 15 bars (depending on model or option).
- Hyper-suction system for filling from 350 l/min to 500 l/min (depending on model or option).
- Suction filter 365 and 594 microns.
- Output filters 365 microns.

THE OPERATING AREA

To ensure the user-friendliness of your sprayer, it has been developed logically for intuitive use.

- Pack of two multi-way valves for all functions.
- O'CLEAR principle for secure filling.
- Induction hopper with integrated LAV'BOX mounted on a hydraulic parallelogram.
- A tank full sensor and audible warning.
- Controller in the operating area: spray pump, engine RPM and emergency stop.
- 2 connections for external suction and discharge.
- Pipe length is minimised and diameter optimised to significantly reduce dead volume: less loss of chemicals, simplified waste management.

- Induction hopper on a hydraulic lift to protect crops in the field.
- Anti-siphoning and anti-return circuit: protects the user and the environment, no foam in the tank.
- Incorporation of clear water filling: time saver, userfriendly, no dead volume in the induction hopper.
- Integrated LAV'BOX: easy container management (EVPP) by reducing the residue rate to the threshold set by the regulations in force.
- Illuminated storage compartment to keep personal protective equipment.

From the start, good practice and your safety are ensured in particular:

- By optimising the hydraulic agitation in the tank to reduce the dead volume and to homogenise the content: homogeneous spraying on all your plot.
- By minimising the tank residues and the dead volume, costs are reduced and waste management is facilitated.
- By providing clear water incorporation, time is saved during filling: time saving, optimised operator safety and reduced risk of contamination.



PRECISION SPRAYING



Since the control system is a major element in meeting the well-known spraying objective of "spraying the right amount in the right place", TECNOMA has developed a DPAE regulation with flowmeter control by the NOVATOP, NOVATOP VISIO, i.TOP and i.TOP S terminals.

The flow rates are measured by a flowmeter that is insensitive to variations in pressure, viscosity or density. The flow meter accurately measures the instantaneous flow sprayed. The control system works continuously, including during return to the start phases, so that it is ready with the correct dose as soon as the nozzles open.

To go even further...

TECNOMA offers continuous circulation systems with AGP (pneumatic anti-drip). Immediate priming, a very reactive closure, reduction of the risk of clogging allowing low and ultra low volume spraying. More precision for your sections...

Depending on the choice of booms, the number of standard sections ranges from 4 to 8. TECNOMA offers up to 18 sections, and beyond that the NCIS system opens the nozzles one by one via GPS.

Permanent boom circulation with AGP





Find all the information on the NCIS and OSS systems at www.tecnoma.com

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OSS

TECNOMA knows how your working conditions change...

During spraying, as the flow rate increases and the high pressure threshold is reached, the system changes automatically to a higher calibre nozzle, and conversely when the rate and pressure falls.

- Substantial speed variations in the same plot are becoming more frequent.
- Precision farming means using application schemes involving piecemeal doses. The instant dose while working can be very variable. However, for good homogeneous spraying, it is necessary to work with a stable drop size and pressure.

Flow variations due to changes in speed or applications selected should not vary the spray pressure or grain size. The TECONOMA OSS TECNOMA (Optimal Spray System), allows the operator to perfectly manage the quality of application by drop size while continuing to work at fairly constant pressure and grain size.











VISIO

UNIT

CONTROL **BOX i.TOP S** (in)

CONTROL UNIT

NOVATOP



PRECISION FARMING AT YOUR FINGERTIPS...

Options	ISOBUS TERMINAL fur
	Plot marking and guidance: This function enables the surface that has already been worked and the limits
	Headland mode: When the plot has already been magiven width. In this case, the contour is processed w
AUTO	Auto steering: The auto steer system guides the trad determined by the GPS signal. Nevertheless, the driv driver must however turn the machine around at the
	Automatic spraying section management: When the closed automatically according to the zones which here a section according to the zones which here a secti
	VRC mode: If the user has an SHP or ISOXML formate enables its operation. The regulation system then reposition in the plot. The transfer from the board is marked the system of the sys



Task Manager function: This is the file manager integrated into the unit. It enables the work to be carried out or that has already been carried out (planning, documentation and configuration of the work, information transfer with a PC) to be managed.

CLOSER TO THE APPLICATION...

Modern sprayers incorporate more and more functionalities and user-friendly features. For this, the ergonomics and the intuitive use of the control interface are imperative.

TECNOMA has developed a range of ISOBUS terminals allowing total control of your tools. They are used to access your hydraulic controls, to program spraying parameters and to control all your options.

With simple, fast and user-friendly terminals, you no longer have to focus on the technicality TECNOMA makes your work easier.











ctionalities - GPS applications

ne driver to be guided according to the width of the tool, the of the plots.

apped, the user may subtract the area around the plot over a when the work is complete.

ctor or self-propelled unit automatically according to the path ver may override the control of the machine when required, the headland.

he sprayer passes through the plot, the sections are opened or have already been sprayed or are to be sprayed.

t application recommendation board, the NOVATOP Terminal ceives an application instruction according to the sprayer's nade via the USB drive.



BOOMS: STABILITY AND ROBUSTNESS

For a homogeneous spraying of all points on the plot, boom stability is one of the keys to success. TECNOMA naturally aims to supply stable booms.

- Our suspension system, ALBATROSS, limits any swaying.
- Cushioned central cylinders limit floating.
- Variable geometry is served by a hydraulic suspension.
- The ascending/descending parallelogram has hydraulic damping.

The assembly is mounted on a chassis with AXAIR pneumatic suspension. This whole chain of suspension allows TECNOMA to provide stable and robust booms.

Go even faster...

The TOPFIELD II system developed by TECNOMA ensures perfect ground tracking of the boom, to get the correct distance between the boom and the target.

It contains:

- Ultrasonic sensors on the boom arms and the central part.
- Angular sensors for variable geometries.
- Independent hydraulic proportional valves for controlling variable geometries.



Originally, a top-of-the-range offer...

Hydraulic booms from 24 to 44 meters in steel or in aluminium, robust and stable for intensive use in all conditions. Manoeuvring of booms controlled by the electro-distributor from the terminal or the multi-functional joystick.



All booms in the LASER range are equipped with:

- Stainless steel Ø19 mm pipes for easy rinsing and maintenance, minimising load losses and reducing dead volume.
- A slope corrector, positive and negative variable geometries and the ³/₄-fold function.
- PENTAJET or PENTIX nozzle holders, with anti-drip diaphragms, fitted with a series of 4 nozzles in the NOZAL range (www.nozal.fr).



SPECIFICATIONS

		Clearance	Length (L)	Wheelbase (E)	Height (H)	Width (I)
Laser 2500	28/15 LVS	1.05	8.50	3.80	3.95	2.55
Laser 3200	28/15 LVS	1.05	9.40	3.94	4.00	2.55
Laser 4200 - 5200	28/15 LVS	1.10	9.60	4.48	4.05	2.55
Laser 4200 - 5200	36 GVS	1.10	9.60	4.48	4.45	3.00
Laser 4200 - 5200	36 L3X	1.10	9.60	4.48	4.15	2.55

IVCHASSIS ARCHITECTURE

	2500	3200	4200	5200
Suspension		AXAIR with load	compensation	
Ground clearance	1.05	1.05	1.10	1.10
Hydraulic ground clearance			1.25 to 1.80	
Ground clearance options (see compatibility in relation to the track)	1.25 to 1.60	1.25 to 1.80	1.25 t	o 1.60
Mechanical variable track (with standard wheels)	1.80 to 2.25	1.80 to 2.40	1.80 to 2.25	2.00 to 2.70
Mechanical variable track options	2.00 to 2.70		2.00 to 2.70 2.20 to 3.00	2.20 to 3.00
Hydraulic variable track option		1.80 to 2.40 2.00 to 2.70 2.40 to 3.04	1.80 to 2.25 2.00 to 2.70 2.40 to 3.05	2.00 to 2.70 2.40 to 3.04
Standard wheels	Front 270.95R38 Rear 270.95R48		300.9	5R52
Crop deflectors/dividers		Optio	n according to	tyres

Non-contractual values notably variable according to model, track, clearance and choice of tyres.

EVENGINE AND TRANSMISSION

	2500	3200	4200	5200
Standard engine - DEUTZ	217 CV - Phase 4F		244 CV - F	hase 4F
Fuel tank	310 L		360	L
AdBlue tank	30 L			
Transmission	Hydrostatic on 4 RM			
Hydropilot	YES			
Automotive	YES			
ECO Mode	YES			
Differential locking	YES			
Submerged brakes: static, dynam- ic, hydrostatic		YES		

HANDLING AND DRIVING

	2500	3200	4200	5200	
steering wheels	YES				
speed ranges	0 - 16 km/h 0 - 19 km/h 0 - 39 km/h	0 - 18 km/h 0 - 25 km/h 0 - 40 km/h	0 - 17 0 - 25 0 - 40	km/h km/h km/h	

ICAB ENVIRONMENT

	2500	3200	4200	5200
ROPS cab		YES		
Category IV cab		YES		
"Great comfort" cab		YES		
Automatic air conditioning		YES		
Car radio, hands free, MP3		YES		
Pneumatic load compensating seat, multiple settings, ventilated		YES		
Storage tray and refreshed compartment		YES		
Electrically heated rear view mirrors		YES		
Ladder for accessing the cab	manual		hydraulic	

WATER CIRCUIT TANKS

	2500	3200	4200	5200
Main tank (nominal volume)	2500 L	3200 L	4200 L	5200 L
Rinsing tank	260 L	440 L	450 L	450 L
Rinsing of tank by LAV'TON	2	3	4	
Hand wash		15	ίL	
Integrated implementation package with				
2 ergonomic multi-way valves			YES	
Electronic dual display gauge			YES	
Removable induction hopper with LAV'BOX		YE	ES	
Piston/diaphragm pump	PM500) or PM700 d	lepending on	boom
Pump option	PM700 o	r PM850 dep	ending on ba	se pump
Hydraulic drive with regulator YES				
Hyper suction	YES			
Triple levels of filtration	YES			

BOOMS AND EQUIPMENT

	2500	3200	4200	5200
Steel boom on parallelogram with GV and tilt corrector	24 to 30 m	24 to 36 m	24 to	38 m
Alu boom on parallelogram with GV	28 to 30 m	28 to 33 m	28 to	44 m
PENTAJET nozzle holders with 4 series of NOZAL nozzles		YE	S	
Stainless steel feed and distribution tubes		YES	S	

CONTROL SYSTEM

DPAE control flow meter NOVATOP Terminal ISOBUS Options NOVATOP VISIO, i.TOP and i.TOP S

//OTHER O	PTIONS
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Rewind + launch kit	Exterior rinse before returning to operation
NOVAFLOW filling	Automatic filling management
AUTONET for dilution rinsing	Tank residue and end of plot management
Pack electric valves	Automatic control valve management
Boom working lights	Improved night vision to increase working tin
Nork camera	Enlarges the field of view
TOPFIELD II ground tracking for boom	A stable boom provides increased worksite performance and improved application
Additional sections for standard circulation up to 9 sections)	Optimises spray surfaces
Continuous AGP circulation	Immediate priming, limits the risk of clogging allows low volume spraying, immediate anti- reactivity
Additional sections for continuous AGP circulation (up to 18 sections)	Optimises spray surfaces
Multi-nozzle system OSS/VARIOSELECT	A perfect control of the spray spectrum responding to large variations in speed or application rate L/ha)

YES

YES

Easy spraying of plot borders

End nozzle

IVOPTIONS "PRECISION FARMING"

Receiving signal DGPS, TERRASTAR or GPRS	
Guided by GPS	Precision farming, numeric farming: "GPS All in One " ALL IN ONE " by TECNOMA, The ultimate precision sprayer to improve agricultural, environmental, economic and ergonomic relations
GPS SELF-GUIDANCE	
Automatic sections	
Dose modulation	
On/off management by nozzle	
Control by section	



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