# GASPARDO



TRAILED SPRAYERS RANGE



## CAMPO RANGE

Gaspardo presents its new range of sprayers: reliable and efficient, mounted or trailed, they can meet the needs of every farmer. The generous supply of standard equipment, the continuous development of new solutions, and the care and attention during the development of the equipment are what make these machines a faithful ally for the protection of your harvests.



## INDEX

Practicality and productivity	4
Spray management	5
Easy maintenance	6
Boom versions	8
Monitor: everything under control!	10
CAMPO 15C - 20C	12
CAMPO C 22 – 32 / 22-32 P	14
CAMPO 44 - 65	16
Technical features	18





# Maximum comfort for increased productivity

#### PRACTICAL STORAGE COMPARTMENT

The storage compartment, standard on all versions, is practical and easily accessible, so you'll always have all the necessary protections readily available, to work with maximum safety.





#### **EVERYTHING IN THE RIGHT PLACE**

The control panel summarises all the machine's functions: all the levers and main commands have been grouped on the left side with clear and precise indications for the intake and delivery valves. The premixer an the hand washing tank are near the valve controls, so as to have everything immediately accessible.

#### **PREMIXER**

The premixer strongly limits contact with chemical products during the treatment preparation phases and begins the dilution of the product with the flow to the main tank. The cannister cleaning nozzle allows you to use 100% of the product without leaving any dangerous residue in the bottles. A small parallelogram with a release spring allows the premixer to be brought into a convenient position, and it can then be repositioned next to the main tank









# Spray management: efficiency and technology

The pressure control groups are offered in 3 different versions: with manual, electrical or computerised control (diagram on page 14-15). For the mechanical unit a general ON/OFF command has been provided, and can be activated from the cockpit. The machines equipped with electrical control and "ALA" series booms have a solenoid valve group which, by means of a dashboard, allows the control of all of the boom's movements by acting on a single hydraulic distributor.

#### FILL UP IN A FEW MOMENTS!

The CAMPO 65 model offers the rapid refill kit, which provides the use of a centrifugal pump (>1000lt/min), pipes with increased sections and 3 standard filters, making it possible to refill the tank in record time, reducing dead time.





#### ROTATING TANK CLEANING NOZZLE

The 360° rotating nozzle and smooth, regular walls of the tank allow a complete cleaning of the main tank, without exposing the user to pesticides. No residue from the previous treatment will be able to contaminate or damage the next crop to be treated!

#### **FILTERS**

All the filters are easily identifiable, accessible and can be extracted for cleaning.



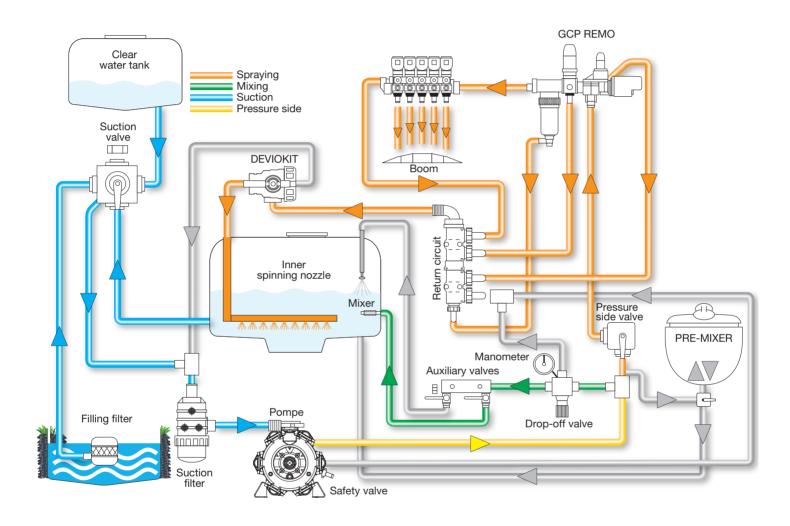






# Good treatment begins with easy maintenance

When operations in the field come to an end, the most important part begins for the work to be done well: maintenance for the next job! The Gaspardo sprayers have all the solutions to make these very important operations simple and automatic.



#### **DEVIOKIT**

The Deviokit system is standard on all the models: this function allows you to clean the spray circuit while avoiding any dilution inside the main tank. Field operations can therefore be interrupted and resumed at any time without running the risk of clogging the filters and pipes with any type of product.

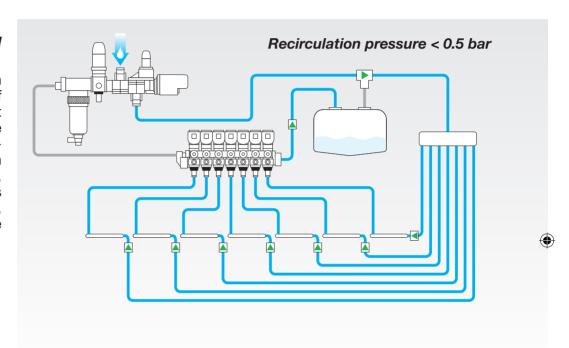
#### **(**

# Semi-continuous recirculation for a distribution that is always even

To ensure maximum precision and distribution quality, a recirculation kit is available (standard in the professional versions), which ensures a uniform distribution of the mixed product, eliminating any delays in opening the sections of the longer booms as well.

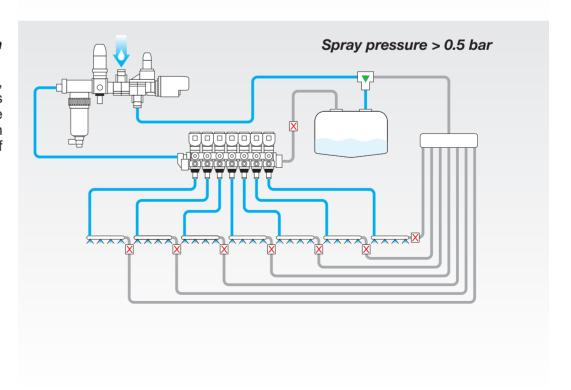
## Case 1: Water sections closed and recirculation active

The mixed product is made to run inside the single water sections of the boom at a pressure below that of the anti-drip device of the nozzle holder (about 0.2 bar) without activating the spray. To ensure even distribution on the entire boom, there are some calibrated throttles inside the recirculation manifold, which ensure the uniformity of the flow on each section.



#### Case 2: Activation of the water section and spraying

When the spray signal is activated, the water circuit instantly increases its pressure (above 0.5 a) inside the single sections, allowing an even distribution on the entire length of the boom.





# Choose your sprayer, start with the boom!

Gaspardo has always best expressed itself in meeting the needs of each customer: this philosophy has been respected in its new sprayers, offering the possibility to combine different types of booms for each model offered.

#### ALA C

The model based on the ALA family for trailed sprayers: the closure of the boom is lateral along the sides of the tank. The second section of the boom has vertical folding. To easily overcome obstacles on the boom side, the standard equipment include uni-jet nozzles with bayonet quick couplings.

Range: 16-18 metres





#### ALA 500

Completely renewed in the geometry of the frame and the new components, the new ALA 500 boom provides closure at the last section of the boom with upward folding, allowing easy movement at the edge of the field and between electrical pylons. The boom is complete with hydraulic blocking of the self-leveller, balance corrector, variable geometry, tri-jet nozzles and hydraulic lifting.

Range: 18-19-21-22 metres

#### ALA 600

A new creation, the ALA 600 boom offers a new frame geometry, new materials (DOMEX steel) and new solutions to ensure stability and reliability, even on the most difficult terrain. The boom folds laterally at the last section. The boom is complete with hydraulic blocking of the self-leveller, balance corrector, variable geometry and tri-jet nozzles.

Range: 18-19-20-21-22-23-24 metres





#### ALA 700

Designed to guarantee optimal work capacity on the CAMPO 32 P and CAMPO 32 S models, the very robust design of the frame ensures reliability and an optimal capacity in absorbing vertical stress. The last section of the boom closes laterally, avoiding any risks of hitting the high voltage cables. The boom is complete with hydraulic blocking of the self-leveller, balance corrector, variable geometry, tri-jet nozzles and 1500 mm hydraulic lifting. The hydropneumatic suspension of the boom is located on the cylinders of the parallelogram.

Range: 24-27-28 metres



#### ALA 900

At the top of the range of Gaspardo boom versions, ALA 900 encompasses 2 years of research and work in R&D: the project consisted of the design of the entire structure, including the central body, with the goal of maximising the concepts of stability, reactivity and reliability, making it possible to take full advantage of the all of its potential for a quality of work that has never been so high.

Range: 27-28-30-32-33-36 metres



#### SELF-LEVELLING

For the product to be evenly distributed, it is of absolute importance that the boom always keeps a parallel alignment to the ground, especially during high speed operations. For the booms of trailed sprayers, trapeze self-levelling systems with connecting tie rods between the boom and the pendulum chassis are provided. The movements are cushioned and slowed by dampers or return springs.





#### SELF-LEVELLER LOCK

A cylinder, activated by the control unit, allows you to lock or unlock the oscillations of the self-leveller. A sliding guide pin always ensures a secure and instant locking for every boom distribution condition.

#### HANDLER WITH HYDROPNEUMATIC SUSPENSION

In the CAMPO models, depending on the version, a nitrogen hydropneumatic shock absorber is available, and works on the cylinders of the handler (both cart and parallelogram). The boom's shock absorption helps to reduce its oscillations and prevent damages arising from stresses that occur on the most rough terrain.





#### DAMPENED VARIABLE GEOMETRY

The cylinders located on the first boom allow the two side booms to assume different angles with respect to the ground so as to move independently of each other. This function is useful to maintain the parallelism to the ground on hilly terrain or in valleys. Also available in dampened version for independent operation on the right or left side and a more reactive response.

#### SUSPENDED AXLE: A STEP AHEAD

Maximum performance thanks to the suspended axle, which allows the sensible reduction of stress on the boom and on the whole machine, for greater stability and safety during treatment.





# Management computer everything under control



#### **BRAVO 180 S**

The basic Arag offer is compact and essential, allowing management of spraying functions and the oleodynamic system.



#### **BRAVO 400 S**

The "premium" Arag offer which, in addition to the normal computer dispersal functions, offers the main GPS functions and automatic closure of the sections, as standard.



#### 854

Teejet monitor with all the basic functions, equipped with a pushbutton panel and 5.7" screen. If equipped with the "Matrix" GPS, it allows both parallel drive and the automatic closure of the sections.



#### ISOBUS - BASIC TERMINAL

The ISOBUS solution from Müller; all the information and controls can be accessed through the wide 5.7" display. The ISOBUS monitor can be used as a virtual terminal, even by other machines equipped with the same technology.

COMPUTER	BRAVO 180 S	854	BRAVO 400 S	ISOBUS
Management of sections (max)	7	9	13	11
Reading functions: (I/ha) / Pressure / Speed / Instantaneous flow / Surface treated / Quantity distrib- uted / Work time	•	•	•	•
Flow function: pressure depending on the speed	•	•	•	•
Manual dose variation	•	•	•	•
Parallel Drive	0	0	•	•
GPS functionality	-	0	•	•
Variable dose and reading of prescription maps	-	0	0	0
Automatic closure of sections	-	0	•	0
Distance control	-	-	0	0
Display	black/white	black/white	5,7"	5,7"*





#### Flow adjustment depending on work speed

The computer makes it possible to automatically recalibrate the correct flow (Lt/min) depending on the work speed, to adapt it to the dose to be distributed (Lt/Ha). This is a very useful function, both in manoeuvring on the edge of the field (braking and restarting) and in the normal management and control for correct spraying. Available with the following monitors: Arag Bravo 180 S a 400 S, Teejet 854 and ISOBUS system.

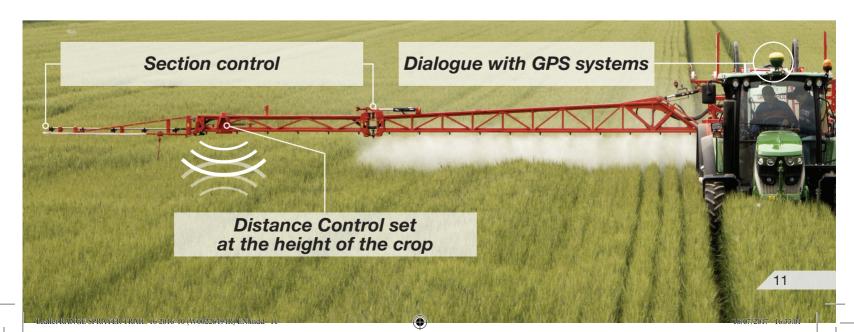
#### Automatic section control

Allows the closure of the sections in the event of overlapping with an already treated area. In this case the management computer is connected to a parallel or automatic drive system, which recognises the already treated area and intervenes by closing the sections necessary. Available on Teejet 854 and Arag 400S computers, or with the ISOBUS system.

#### Distance control – automatic detection of the crop/terrain

The system makes it possible to automatically check the height of the boom: once the desired distance from the soil or crop is set, the control unit will automatically manage all of the hydraulic movements of the boom (handler, balance corrector and independent geometry).







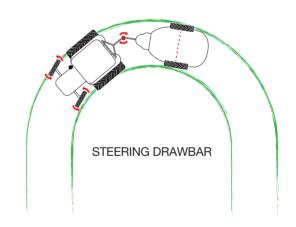


#### Great work capacity in a compact frame

Designed specifically for small and medium plots of land (Max 4-6 hectares), they are the perfect compromise between a good running time and a low weight.



the steering drawbar is an effective solution that guarantees trailed vehicles agility and practicality even when manoeuvring in very tight spaces. The articulation in the centre of the drawbar allows the machine to follow the path of the tractor. Treading in turns will be lower and at the same time a greater steering angle will be possible.



#### «Cart» handler: compact and stable

The CAMPO 15 and CAMPO 20 versions are made only with cart handler «C» with 1000 (1400 mm opt) travel. This solution permits a more compact, streamlined structure with a lower weight. To ensure correct stability on soil as well, it is equipped with a hydropneumatic shock absorption system as standard.







## Compact and light

## Versatile thanks to the solid structure and adjustable wheel track

The robust chassis and adjustable wheel track (1450-2100mm) ensure stability and reliability, even on hilly terrain. The lower weight and a balanced centre of gravity allow a constant optimal stability and work safety.



#### Skid lifter: The range of 12 to 21 metres bars

The following boom versions are available on both the CAMPO 15 and CAMPO 20 models:

- Work X with rear X closure, 12 and 15 metres
- ALA C with side closure and vertical last section, 12 and 15 and 16 metres
- ALA 500 with side closure and vertical last section, 18,19 and 21 metres
- ALA 600 with side closure and vertical last section, 18,19, 20 and 21 metres



Version with folding boom with side closure and vertical last section. Max 21 metres.



Version with Work X boom with rear closure and vertical last section. Max 15 metres.





#### The perfect compromise

Designed for medium-sized companies and contractors, the CAMPO 22 and CAMPO 32 models make it possible to manage more than 10 hectares with a single fuelling, thanks to their higher tank capacity.



The CAMPO 22 and 32 models, with both the suspension of the handler and the variable geometry, are equipped with a hydropneumatic shock absorber. This safety devices consists of a compressible inert (N) gas tank, which allows stabilisation of the boom from mild vibrations, in addition to preserving the boom in case of violent bumps.



#### Comfortable in daily use

The chassis with side members is specially designed to ensure maximum stability in all the movement phases of the machine. The wheel track is adjustable (1450-2100 mm) and is also available with a pneumatic braking system (1600-2500 mm). The good ground clearance (60 cm) makes it possible to enter the field even in the later stages of the crop (such as with wheat or soybeans).



#### The wind that sustains your harvests

The VENTO air hose has been expressly designed for the ALA500-600 series in various measurements and comes with a  $\emptyset$  800mm fan, hydraulically actuated by a pump multiplier unit, actuated by PTO, with cooling radiator, electric speed regulator and canvas conveyors for air distribution with tensioning system.



## Versatile and reliable

#### 2 boom lifting solutions:

#### Cart: CAMPO «C»

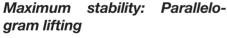
- Compact and light
- Hydropneumatic suspension
- Vertical travel from 1000- 1400(opt) mm
- Max boom length 21 metres

#### Parallelogram: CAMPO «P»

- Stable and sturdy
- Hydropneumatic suspension
- 1500 mm vertical travel
- Max boom length 28 metres

# Compactness Lift excursion Performances Stability Sturdiness





The parallelogram lifting system allows a better absorption of vibrations thanks to the more sturdy structure and its geometric properties.



#### Versatile for a 360° use: From 12 to 28 metres

### CAMPO 22-32 C

- Work X with rear X closure, 12 and 15 metres
- ALA C with side closure and vertical last section, 12 and 15 and 16 metres
- ALA 500 with side closure and vertical last section, 18,19 and 21 metres
- ALA 600 with side closure and vertical last section, 18,19, 20 and 21 metres

## **CAMPO 22-32P**

- ALA 500 with side closure and vertical last section, 18,19, 21 and 22 metres
- ALA 600 with side closure and vertical last section, 18,19,20,21,22,23 and 24 metres
- ALA 700 with side closure and vertical last section, 24,27 and 28 metres



#### Working autonomy

The high tank capacity ensures a long running time and allows management of up to 20 hectares from a single fuelling.



#### Reinforced chassis for the most demanding uses.

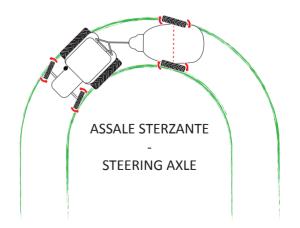
The structure of the chassis was made specifically to guarantee maximum strength and reliability during spraying and transport operations. The adjustable wheel track (1650-2250 mm) and the twin wheel kit ensure good stability and reduce treading on the soil.

#### CAMPO AS: Steering axle

Thanks to the steering axle system, the wheels of the sprayer faithfully follow the imprint left by the wheels of the tractor, thus limiting the treading to a narrower area and avoiding excessive damage to the crop at the end of the field.



#### Reduced treading and increased product health.

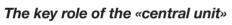




## Maximum professionalism

#### Top performance: ALA 900

The CAMPO 44-65 models are fitted solely with the ALA 900 version of the boom. Designed to meet the market's needs for increased performance and reliability, it encompasses the best of Gaspardo technology. The ALA versions are available in the following measurements: 27, 28, 30, 32, 33 and 36 metres.



A new central unit, redesigned to support booms over 36 metres. The structure was designed to absorb both vertical and horizontal stress, allowing better reactivity of the boom by containing the vibrations.



#### A game of balance

The aluminium tips, in addition to reducing the total weight of the boom, give the frame a more compact centre of gravity, improving its stability.



#### The 10,000 hectare test

The two years of work by our technical department, which led to the development of the new CAMPO 44-65 with ALA 900, celebrated the acceptance test milestone, with 10,000 hectares already worked in one season. The excellent work done was thus confirmed on the field, ensuring utmost quality and reliability for our customers.

18/07/2017 16:35:20



CHASSIS EQUIPMENT								
MODEL	Chassis	Handler	Tank capac- ity	Pump Flow rate	Boom handler	Wheel track width mm		
		version	Lt	Lt/min	mm			
CAMPO 15	15-20	Cart:	1700	160	1000 (1400*opt)	1450-2100		
CAMPO 20	15-20	Cart	2100	220	1400 (1000*opt)	1450-2100		
CAMPO 22	22-32	Cart	2400	250	1500	1500-2100		
CAMPO 22	22-32	Parallelogram	2400	250	1500	1500-2100		
CAMPO 32	22-32	Cart	3200	250	1500	1500-2100		
CAMPO 32	22-32	Parallelogram	3200	250	1500	1500-2100		
CAMPO 44	44-65	Parallelogram	4500	300	1500	1650-2250		
CAMPO 65	44-65	Parallelogram	6500	560 (1000 opt)	1500	1880-2250		

BAR VERSION									
ALA RANGE		ALA C	ALA 500	ALA 600	ALA 700	ALA 900			
Available widths	m	16-18	18-19-21-22	18-19-20-21- 22-23-24	24-27-28	27-28-30-32- 33-36			
Boom sections	No.	5	5-7	5-7-9	7-9-11	9-11-13			
Quick couplings required	No.	1	1	1	1	1			
Cylinders	No.	2	4	4	4	6			
Boom sections	No.	2	2	2	2-3	3			
Last section closure	type	vertical	vertical	lateral	vertical	vertical			
Hydraulic lifting	type	cart	cart*- parallelogram	cart*- parallelogram	parallelogram	parallelogram			
Handler suspension	type	mechanical- hydropneumatic (opt)	hydropneumatic	hydropneumatic	hydropneumatic	hydropneumatic			
Self-levelling lock	type	mechanical	hydraulic	hydraulic	hydraulic	hydraulic			
Tilt variation		-	as standard	as standard	as standard	as standard			
Variable geometry		-	as standard	as standard	as standard	as standard			
Air hose		-	optional	optional	optional	-			









	MACHINE	<b>BODY EQUIP</b>	MENT			
TECHNICAL INFORMATION	CAN	IPO C	CAMPO P	CAMPO 44	CAMPO 65	
TECHNICAL INFORMATION	15-20	22-32	22-32	44-44 AS	65-65 AS	
Available boom lengths	12-21	12-21	12-27	27-36	27-36	
Centralised control panel	•	•	•	•	•	
Agitation circuit	•	•	•	•	•	
Circuit cleaning tank	•	•	•	•	•	
Hand washing tank	•	•	•	•	•	
Cistern washing system	•	•	•	•	•	
Deviokit	•	•	•	•	•	
Rotating cistern cleaning nozzle	•	•	•	•	•	
Premixer	•	•	•	•	•	
Refilling pipe with filter	•	0	0	0	0	
Foam row marker	0	0	0	0	0	
Tri-jet jets	0	0	0	•	•	
Independent hydraulic jet	0	0	0	0	0	

TYRES SUPPLIED											
TYRE	230/95 R36	230/95 R44	270/95 R44	270/95 R48	300/95 R46	340/85 R38	340/85 R48	380/85 R28	380/90 R46	420/85 R38	520/85 R38
EXTERNAL DIAMETER Ø (mm)	1350	1550	1630	1730	1730	1540	1800	1360	1850	1680	1850
15-20 C	•	0	-	-	-	-	-	-	-	-	-
22 C	•	0	0	0	0	О	0	0	-	0	-
32 C	-	0	0	•	0	-	0	-	-	0	-
22 C	-	0	•	0	0	0	0	-	-	0	-
32 C	-	0	-	•	0	-	0	-	-	0	-
44	-	-	-	•	0	-	•	-	0	-	0
65	_	_	_	_	_	_	_	_		_	0

15-20 22 C 32 C 22 C 32 C 44 65

A= Tread (mm)
B= Shoulder (mm)
C= Rim diameter (inches) i.e. 230/95 R36 A= 230 (mm) B= 230x95% (mm) X= 36"

o Optional • Standard - Not available

# GASPARDO





#### MASCHIO GASPARDO S.p.A.

Headquarters and production plant Via Marcello, 73 I-35011 Campodarsego (PADOVA) - Italy Tel. +39 049 9289810 - Fax +39 049 9289900 info@maschio.com - maschio.com

#### MASCHIO GASPARDO S.p.A.

Production plant
Via Mussons, 7
I-33075 Morsano al Tagliamento (PN) - Italy
Tel. +39 0434 695410 - Fax +39 0434 695425

10-16 Cod. W00226494R Maschio Gaspardo Marketing Dept.

For graphic reasons, some pictures and images do not show the "EC" safety guards. Technical datas and models shown in this catalogue are not binding. We reserve the right to revise the contents of this catalogue, to amend or improve the specifications without notice.