



GASPARDO

TEMPO ULTRA ISOTRONIC: mounted sprayer

13th November 2020 – Trivellini Davide – Product Management Supervisor



Agenda

- ▶▶ **THE GROWTH OF MASCHIO GASPARDO GROUP**
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS



GASPARDO

Growing Together

To be a global leading provider of sustainable agricultural solutions.



ARATURA



CONCIMAZIONE



**PREPARAZIONE
DEL TERRENO**



SEMINA



**PROTEZIONE
DELLE COLTURE**



FIENAGIONE



**MANUTENZIONE
DEL VERDE**

1964

TILLAGE
GREEN MAINTENANCE



MASCHIO foundation in the Casetta delle Frese and the first CL tiller with side gear transmission

1994

SEEDING & PLANTING
FERTILIZATION



GASPARDO becomes part of MASCHIO Group

2013

CROP PROTECTION



UNIGREEN becomes part of the MASCHIO GASPARDO Group

2014

HAYMAKING



FERABOLI is purchased, a historic company from Cremona operating in haymaking sector

2017

PLOWING



MASCHIO GASPARDO Group obtains control of MORO PIETRO MECCANICA, a historic company operating in plowing sector

The full line!



€ 326
mio
turnover



2.000
employees



8
plants

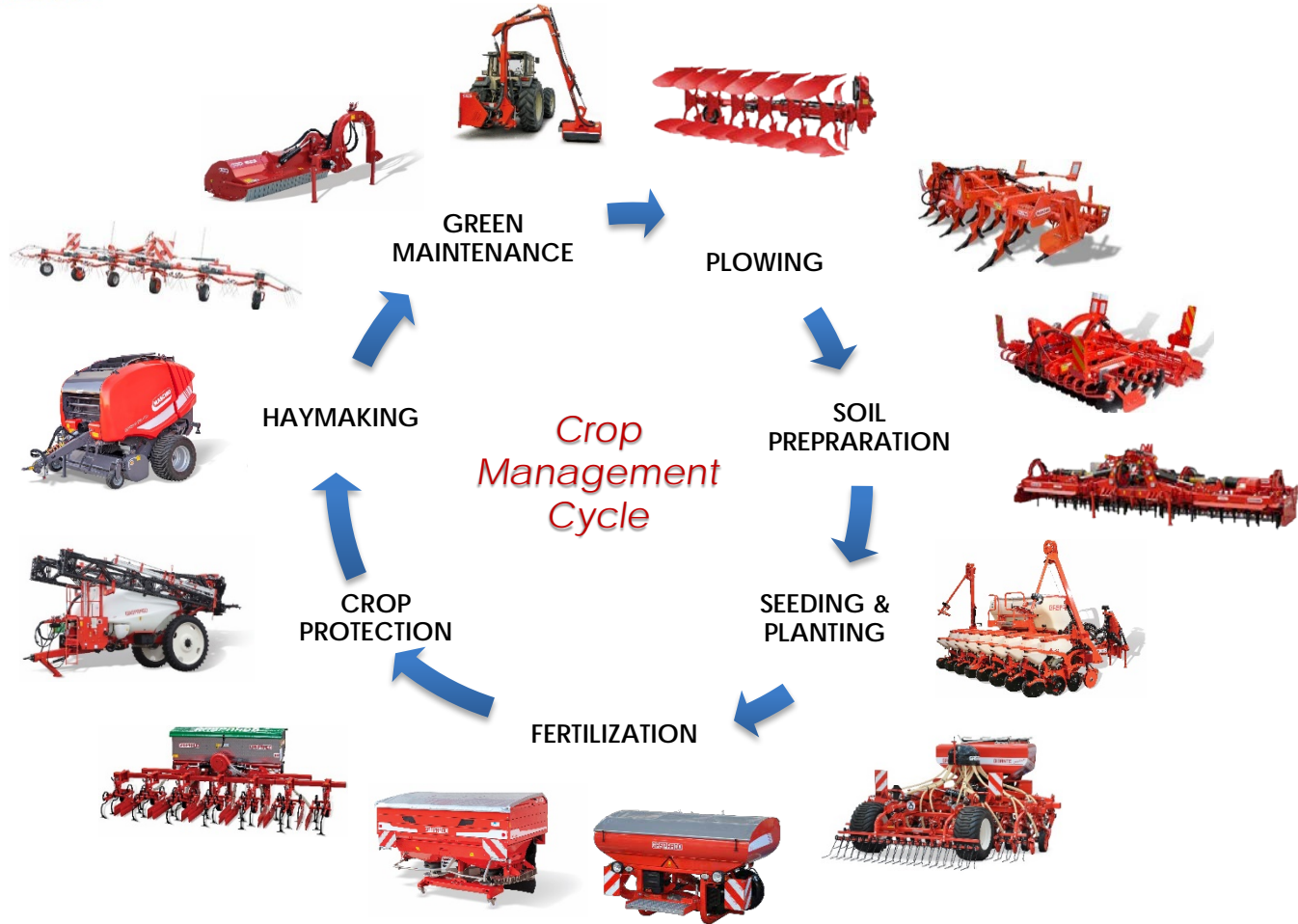


13
branches



More than 70.000
machines/year





Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ **CONCEPT & RANGE**
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

TEMPO ULTRA ISOTRONIC is the new compact medium and high level mounted sprayer, user friendly and with comfortable design.

- Tank volume: 1600 – 2000 liters
- ALA 400 Working boom's width: 21-24 -27-28 mt
- Electronic system available:
 - ❖ ISOBUS (monitor and precision farming applications: optionals)
- Light boom ALA 400 with a special design to ensure stable dynamic reaction and smooth boom movement
- New "pendulum" boom suspension with anti-yaw system to insure a perfect covering of spraying maximizing its efficiency
- Three point hitch with "quick coupling system" ensure a very quick hitch up and the machine center of gravity closed to the tractor
- Comfortable use with the new water panel (manual or electronic)
- Automatic cleaning program with the electronic water panel
- Semi-continuous circulation



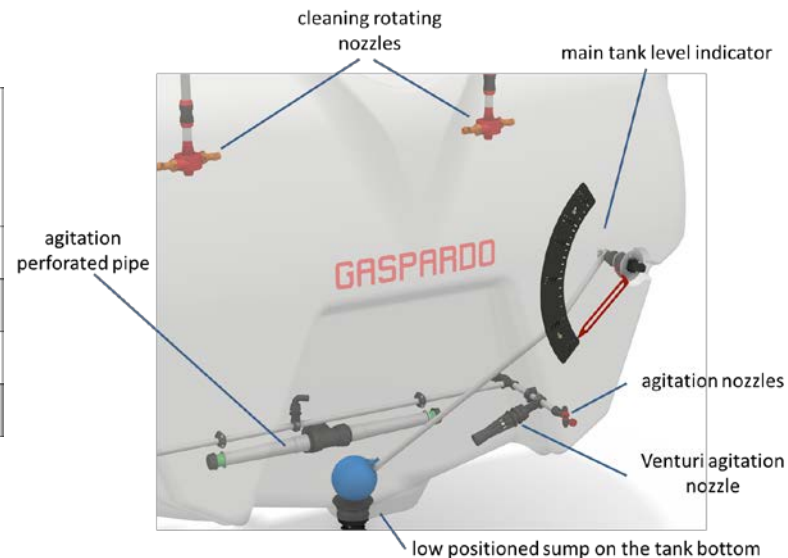
Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ **MAIN TANK**
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

The new shape of the polyethylene tanks (main, fresh water and hand wash tanks) designed by MASCHIO GASPARDO, are integrated into the main frame.

An internal rounded design of walls and a proper hydraulic system, grant in every working condition a perfect agitation and a quick and effective tank cleaning (as well as minimal residual volumes)

TEMPO ULTRA ISOTRONIC	main tank nominal volume [liters]	main tank actual volume [liters]	fresh water tank actual volume [liters]	hand wash tank actual volume [liters]
1600	1600	1820	310	20
2000	2000	2180	310	20



Agenda

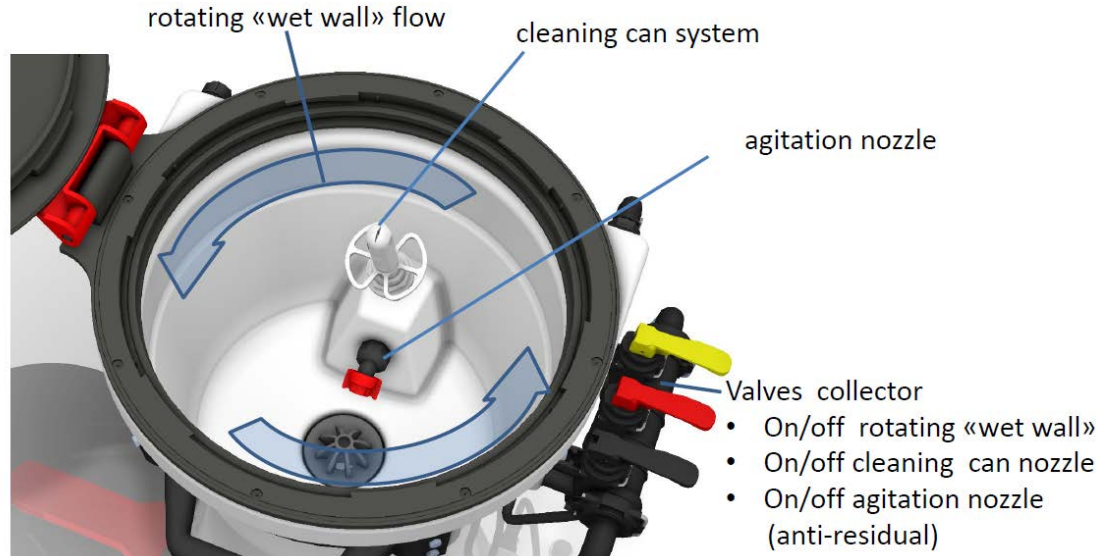
- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ **PREMIX**
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

Versatile

The new 30 liters induction bowl runs with a «wet wall» thanks to the rotating water flow coming from the top.

Fresh water supply, available during both suction and pressure filling.

Combination of the «wet wall» flow and agitation nozzle, safely prevent any blockage of the suction aperture in case of powders or granular spray agents are used.



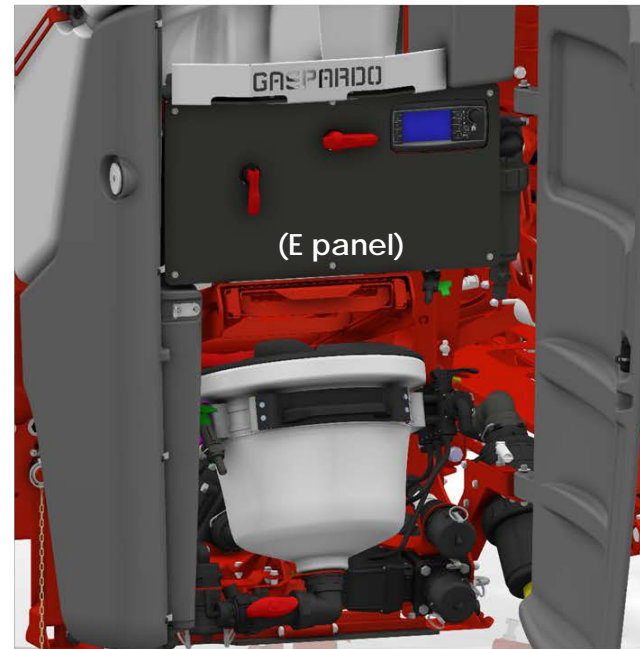
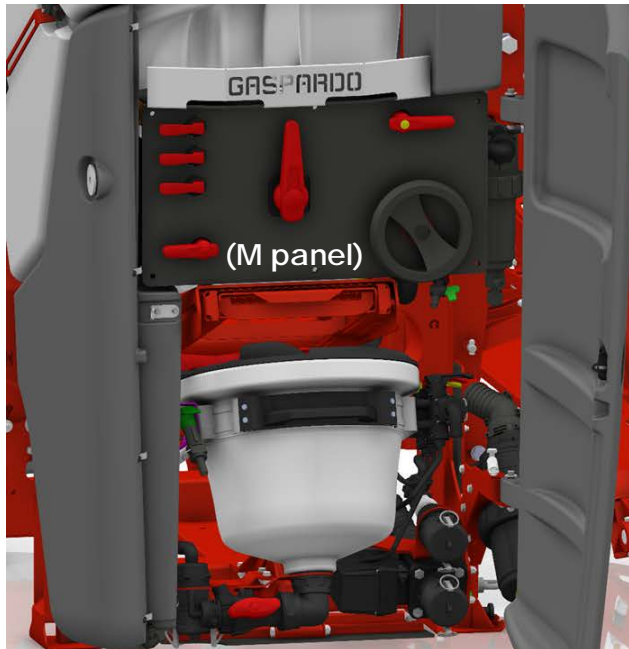
Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ **IDRIC PANEL M e E VERSIONS**
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

Easy and Comfortable

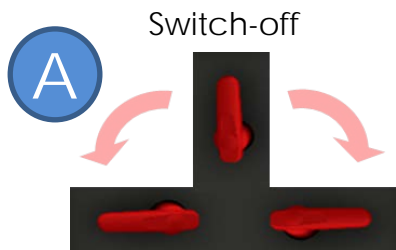
To meet the most comfortable use of the sprayer, two new idric panel have been developed.

- manual (M panel)
- electronic (E panel)





- ① Switch-on fresh water tank filling
- ② Switch-on external cleaning spray gun
- ③ Front tank water filling predisposition



Internal tank agitation switch-on

Pre-mixer water filling switch-on



Switch-on boom working phase

Main tank cleaning phase switch-on

Main tank discharge phase switch-on

3 positions water intake valve

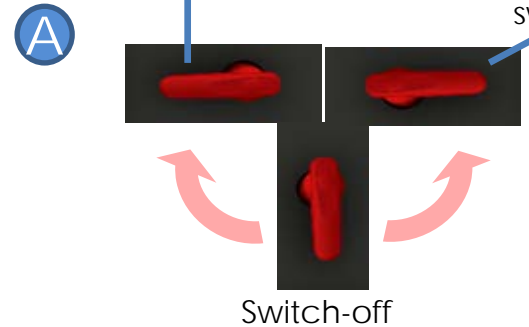
- from the main tank (spray working phase)
- from the fresh water tank (tank and circuit cleaning phase)
- From the river by camlock quick hitch



1 External cleaning spray gun switch-on

Main tank discharge switch-on

Pre-mixer water filling phase switch-on



Controller located in the electronic E idric panel

available functions

- Monitoring of working parameters
- Filling/draining control system
- Anti-sediment function
- Proportional main tank agitation
- Selectable automatic rinsing cycles
- Lights management
- Service interface

Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ ***NEW BOOM ALA 400***
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

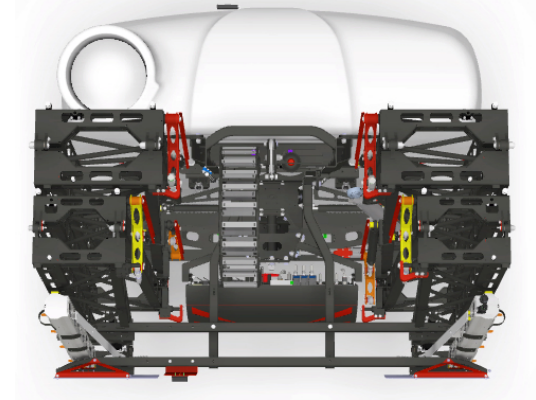
Light and compact shape

New boom ALA 400, thanks to its light compact and special shape, minimizes both the transport dimension of the mounted sprayer and the center of gravity distance from the tractor.

ALA 400 is built with multiple-folded high tensile steel that make the boom extremely robust and light.



To achieve the minimum overall height in transport, boom ALA 400 has the single pivoting axle of every arms located on the common horizontal plane



Working width & idric sections

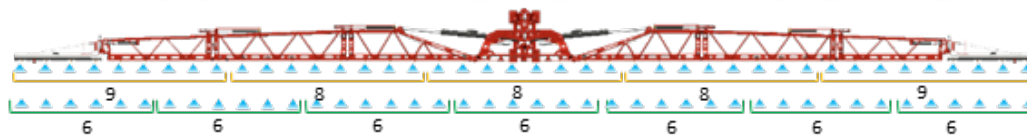
(nozzles distance = 50 cm)



21 mt

5 S.I.

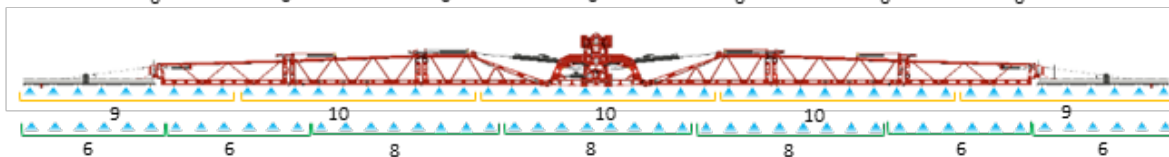
7 S.I.



24 mt

5 S.I.

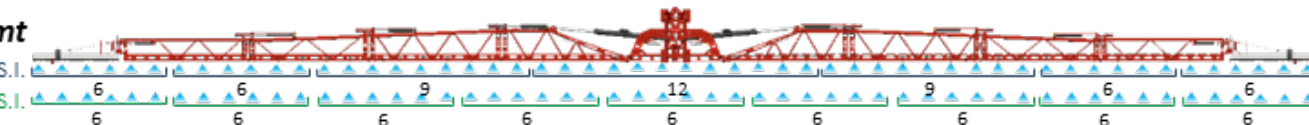
7 S.I.



27 mt

7 S.I.

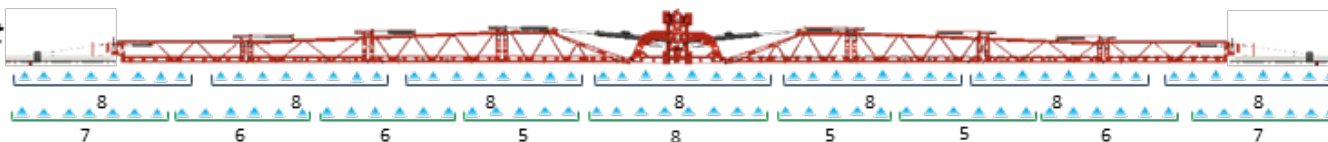
9 S.I.



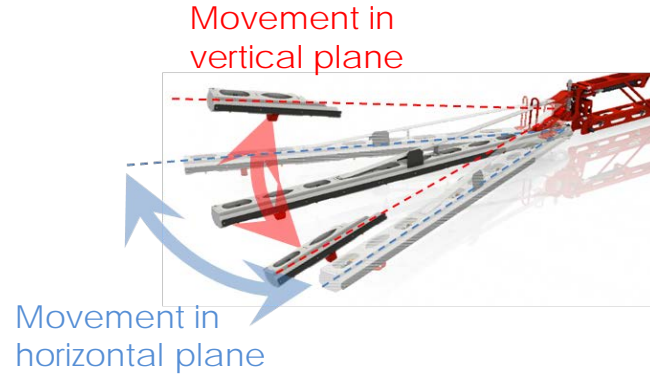
28 mt

7 S.I.

9 S.I.

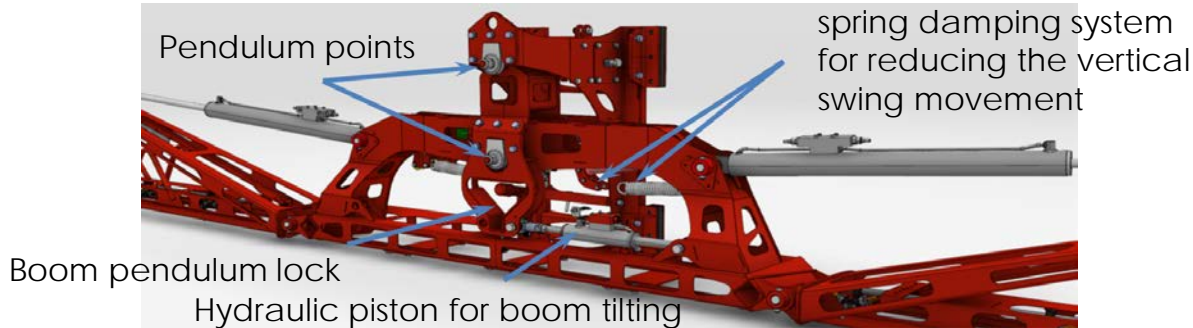


"3D motion" aluminum safety tip



New ALA 400 boom suspension

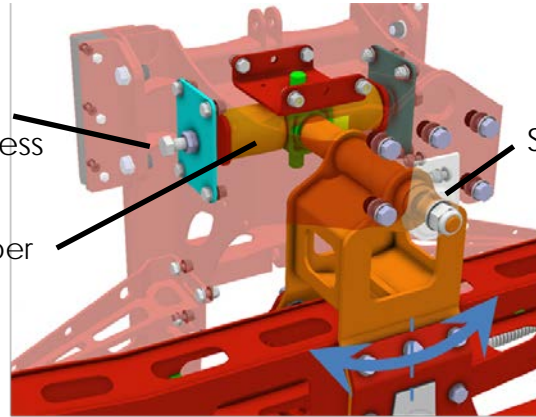
MASCHIO GASPARDO has developed a NEW "pendulum" shock-absorber boom suspension with a settable anti-yaw system that insure a perfect covering of spraying maximizing its efficiency



«Anti-yaw» device

Setting system of the anti-yaw device stiffness

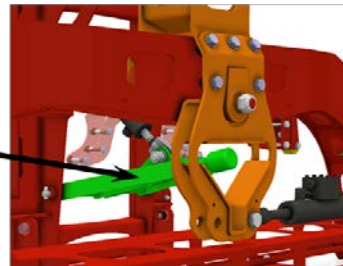
ADIPOLE damper



Swivel spherical joint

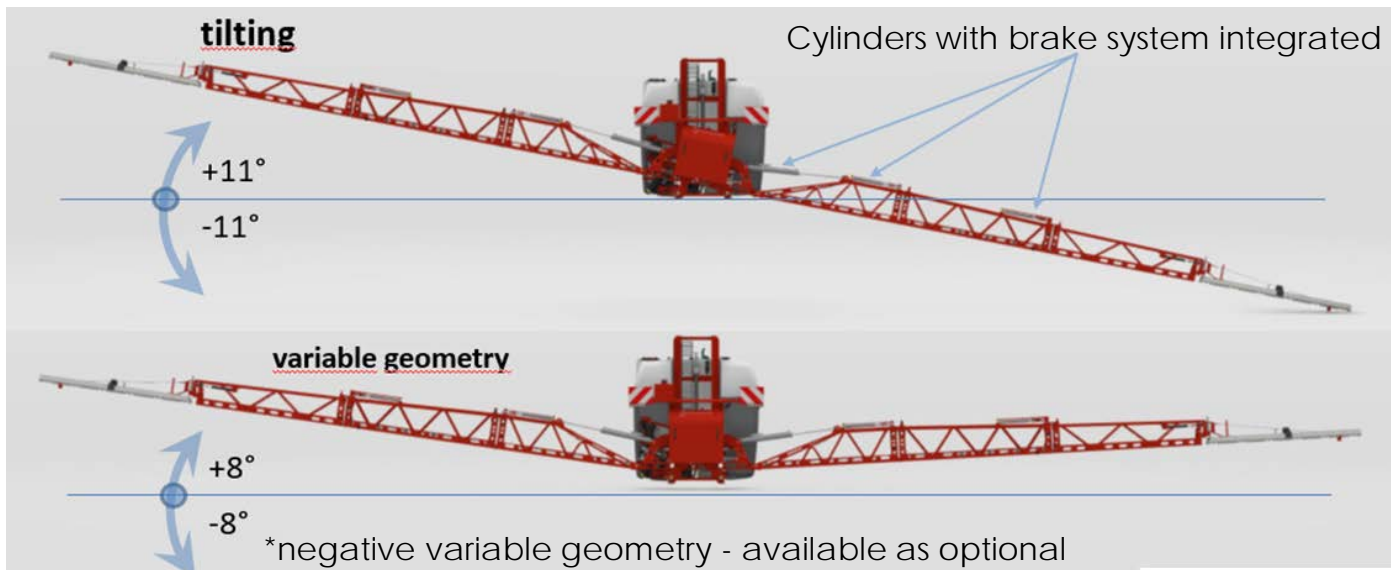
Boom pendulum lock system

Hydraulic self-centering boom pendulum lock system



hydraulic ram for boom tilting

Boom movements



Independent one-sided boom folding



Agenda

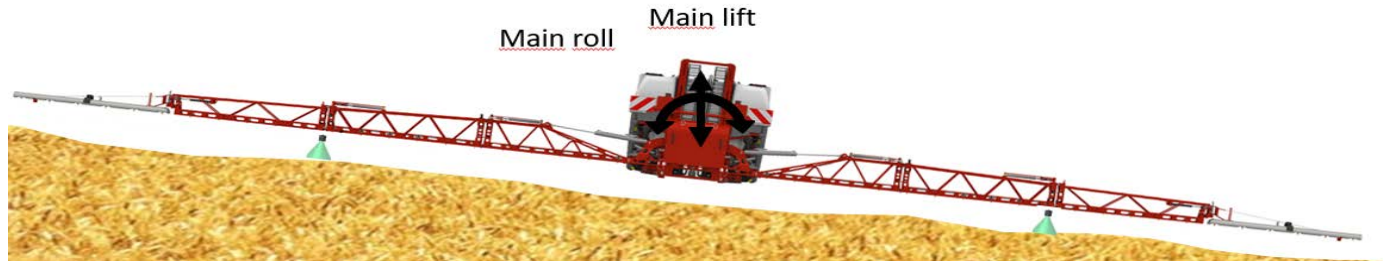
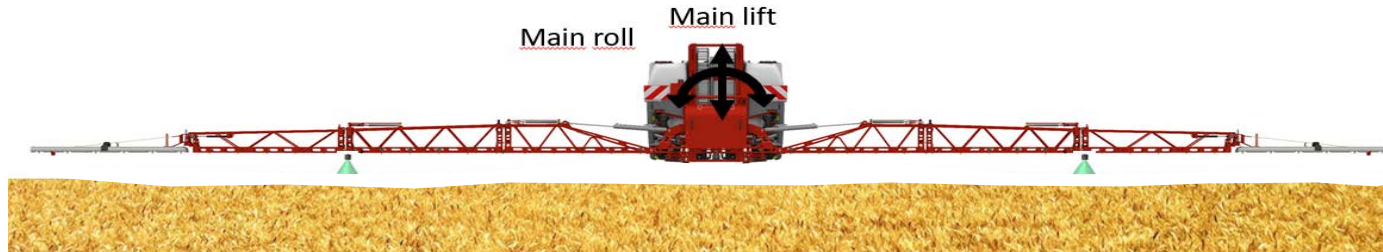
- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ***ELECTRONIC BOOM CONTROL SYSTEM***
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

Electronic boom control system

During the work in field, to ensure a perfect control of the distance between boom and crop, precise and reliable application of the sprayer boom height control is needed; spray height is maintained, even in the most severe conditions.

- «Simple» distance control system

On-Off valves are used to ensure smooth independent control of the boom, main lift and tilt



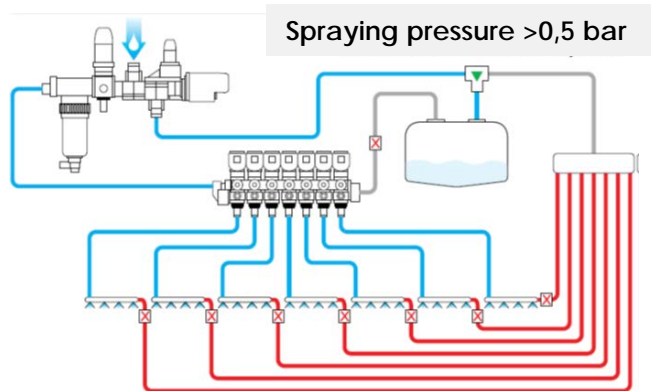
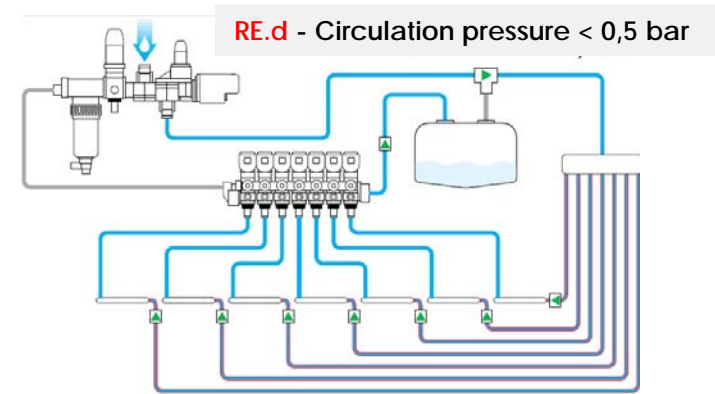
Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ **RE-CIRCULATION SYSTEM Re.D**
- ▶▶ PUMPS
- ▶▶ ELECTRONICS

RE.d RE-CIRCULATION SYSTEM

The semi-continuous circulation system ensures the highest accuracy and quality of distribution, with an uniform delivery of the mixed product, avoiding possible delays in the opening of the sections even with great length booms.

- The mixed product flows through the sections of the boom with a lower pressure (around 0.2 bar) than the nozzles' dripping pressure, without activating the spraying. To ensure good distribution along the whole boom, in the recirculation manifold there are calibrated restrictors to ensure the uniformity of the flow on each section.



- When the spraying is activated, the water circuit instantaneously increases the pressure (above 0.5 bar) within each water sections, allowing a uniform distribution over the entire length of the boom.

Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ **PUMPS**
- ▶▶ ELECTRONICS

pumps

To follow the user needs and then to insure the boom spray flow and the right internal tank agitation, GP1 is available with flow pumps.



	BPS 200	BPS 260	BP 281
N. Of diaphragms/pistons	4	5	6
Flow rate [l/min]	199	249	277
Pressure [bar]	20	20	20

On the spray boom, a Trijet nozzles holder system insures a quick change of the flow rate



Trijet nozzles holder

Agenda

- ▶▶ THE GROWTH OF MASCHIO GASPARDO GROUP
- ▶▶ CONCEPT & RANGE
- ▶▶ MAIN TANK
- ▶▶ PREMIX
- ▶▶ IDRIC PANEL M e E VERSIONS
- ▶▶ NEW BOOM ALA 400
- ▶▶ ELECTRONIC BOOM CONTROL SYSTEM
- ▶▶ RE-CIRCULATION SYSTEM Re.D
- ▶▶ PUMPS
- ▶▶ **ELECTRONICS**

ISOBUS SYSTEM – ISOBUS MONITOR

ISOBUS system has no monitor already included into the standard configuration.
8'' or 12'' ISOBUS monitors are available as option.

The normal functions of the 8'' or 12'' ISOBUS monitor allow:

- Management of the ISOBUS "boom distance control" system (distance control kit optional)
- change the spreading rate l/ha during the treatment without stopping
- Possibility of working manually.

Adding to the ISOBUS monitors the optional "precision farming" APP, TEMPO ULTRA has:

- GPS parallel guidance (*)
- Automatic section control by GPS (*) up to 9 boom sections
- Task control and variable rate management

(*GPS antenna optional)



8'' ISOBUS monitor



12'' ISOBUS monitor





GASPARDO

MASCHIO GASPARDO S.p.A.

Sede legale e stabilimento produttivo

Via Marcello, 73 - 35011 Campodarsego (PADOVA) - Italy

Tel. +39 049 9289810 - Fax +39 049 9289900

info@maschio.com - www.maschio.com