

# Logic

# ISOTRONIC

## ISOBUS System «ISO HARROW»

The ISOBUS communication between power harrow and tractor allows to display all the working parameters and the hydraulic handlings through simple interfaces of control monitor.

- Absorbed power control
- Gearbox temperature monitoring
- Hydraulic handling control
- Monitoring of cardan positioning
- Monitoring of cardan shaft
- Slippage
- Monitoring of roller misalignment



## AGRICULTURE 4.0

The software ISOBUS «ISO HARROW» of TORO ISOTRONIC allows data reception and sending during work phases. The traceability of the data responds to the most modern requirements of sustainable and innovative agriculture.



### Equipment always under control!

With MG-Live it is possible to access own equipment at any time from PC or APP to check both geolocation and work data in real time.



### Remote Service

#### MASCHIO GASPARDO service

The software «ISO HARROW» receives updates directly from MASCHIO GASPARDO technical assistance service.



CLOUD



MG-Live

ISOBUS terminal

Mobile Network



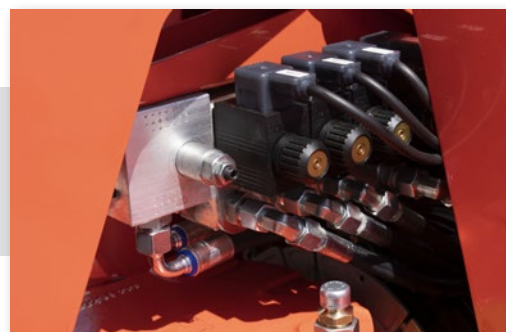


# GASPARDO

## Growing Together

### **SIMPLIFIED HYDRAULICS**

Using a single double-effect hydraulic distributor, it is possible to control all the hydraulic movements of the power harrow comfortably from the Universal Terminal. The entire system is electrically driven, managed through the ISOBUS protocol.



### **FUNCTIONAL DESIGN**

To protect the innovative mechanical and electronic components, TORO ISOTRONIC is equipped with specific covers for the centralised hydraulic system, the ISOBUS control units, the cardan protections and the rear roller.

TORO ISOTRONIC	WORKING WIDTH	TRANSPORT WIDTH	WEIGHT	TINES	WORKING DEPTH	POWER REQUIRED
	cm	cm	kg	No.	cm	HP
5000	500	240	4294*	40	28	160-400
6000	600	240	4671*	48	28	180-400
7000	700	240	5012*	56	28	250-400

\* Weight with packer roller Ø 550 mm

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**GASPARDO**

Growing Together



# TORO ISOTRONIC ISOBUS power harrow

## **TRADITION AND INNOVATION**

TORO ISOTRONIC introduces a new generation of electronically controlled power harrows. Equipped with ISOBUS communication protocol, it represents one of the most important innovations at MASCHIO GASPARDO. Created to meet the needs of high-power tractors' new generations, it is based on the evolution of the TORO RAPIDO PLUS model, with multiple mechanical, structural and electronic innovations that make it a unique piece of equipment on the market.

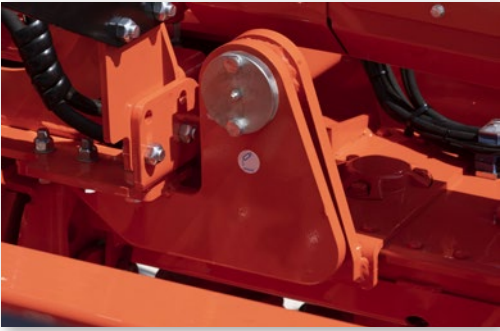
**TORO ISOTRONIC**



## **AGRONOMIC BENEFITS**

- *Excellent seedbed preparation*
- *Fast sowing*
- *No sole formation*
- *Uniform levelling*
- *Even germination*





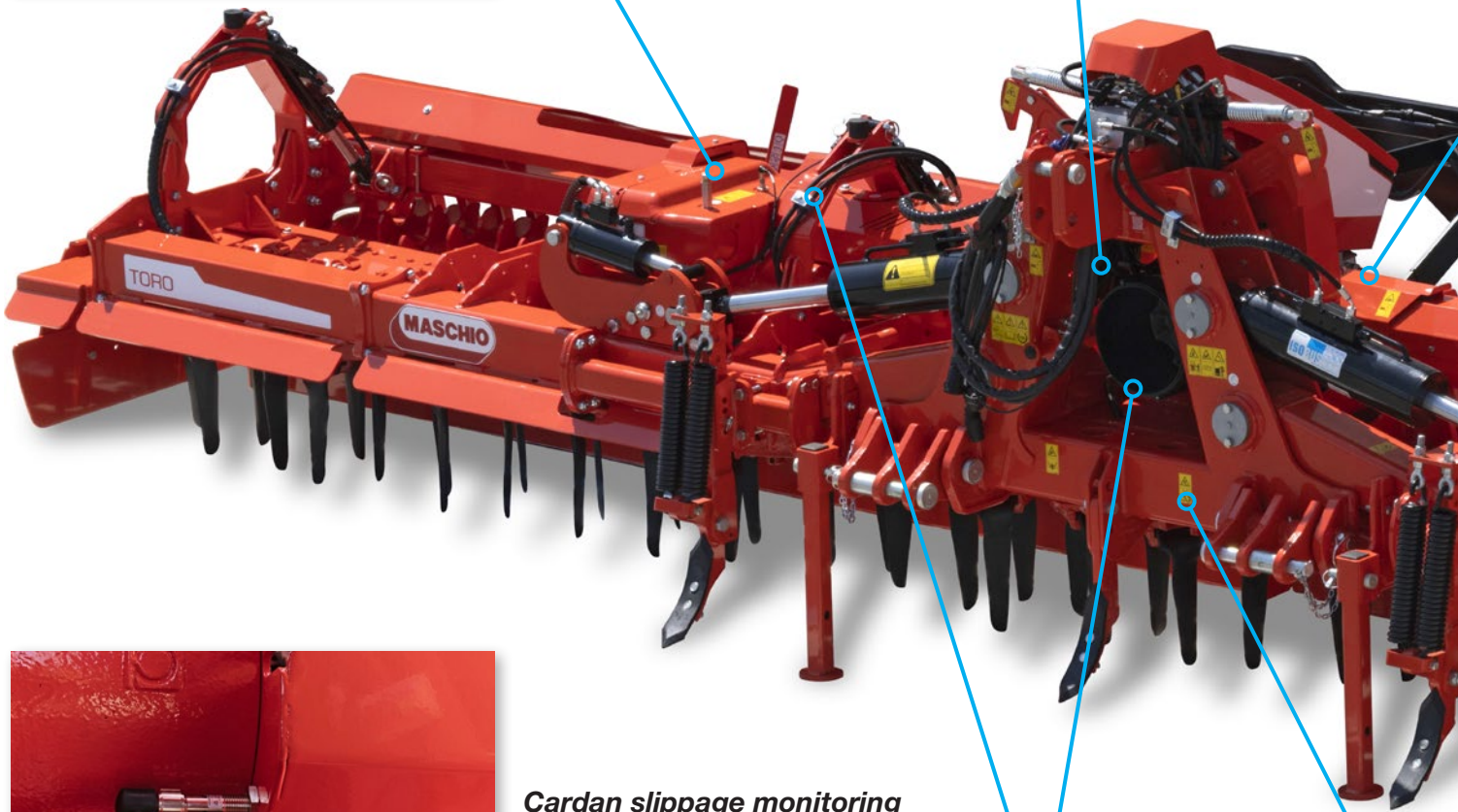
### ***Secondary hinges***

Used also for JUMBO, they ensure more robustness and resistance to contrast side wings' twisting.



### ***Gearbox temperature control***

A sensor constantly measures all the gearboxes' temperature. The value is reported in real time on the Universal Terminal in the cabin.



### ***Cardan slippage monitoring***

A special sensor allows to monitor the slippage of the cardan shafts. An alarm signal displayed on a dedicated screen indicates that slippage has occurred.



### ***Absorbed power control***

A load cell that measures the absorbed power guarantees continuous monitoring of the transmission components. The light on the main screen and the specific value are displayed on the Universal Terminal in the cabin.

# Technical and electronic innovation

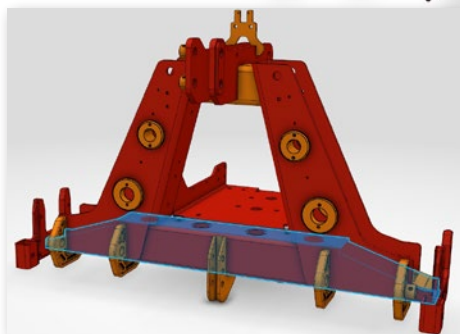
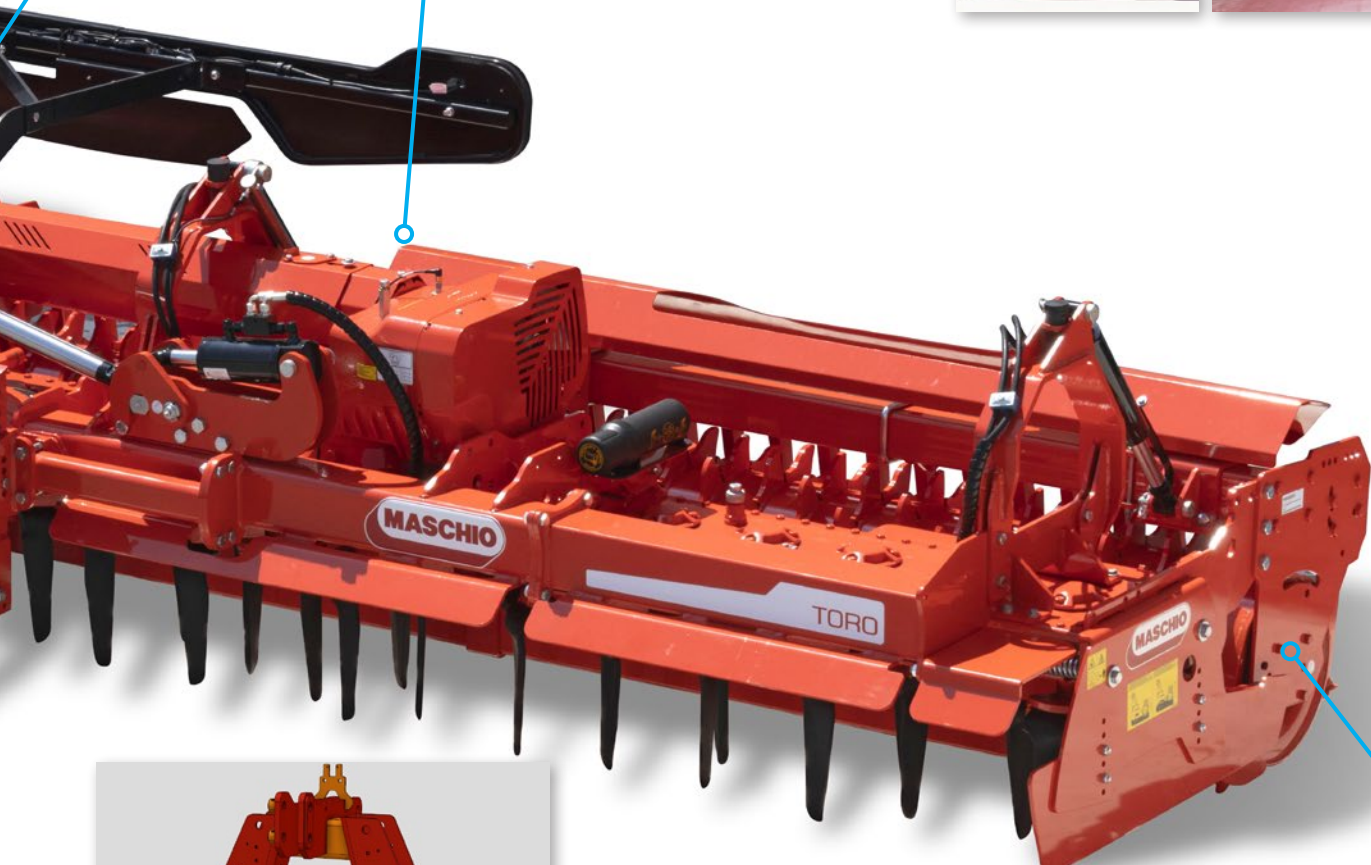
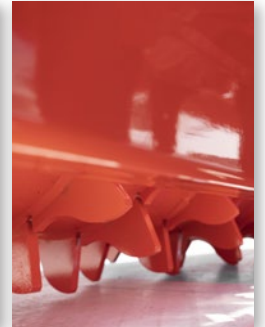
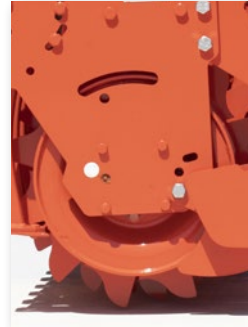
## **Monitoring of cardan positioning**

Thanks to a special sensor it is possible to check the position of the cardan shaft during closing phase. In the event that position is incorrect, a warning light and a specific indication will appear on the Universal Terminal in the cabin.



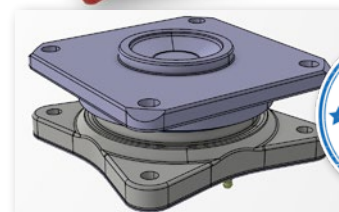
## **New levelling bar and larger roller**

To optimise soil refinement, TORO ISOTRONIC uses a great levelling bar close to the tines together with a large rear roller (550 mm diameter).



## **Air-cooling device for oil gearbox**

The central gearbox oil uses an innovative cooling system. A gear pump constantly maintains oil in circulation, which working together with the reservoir obtained at the base of the third point hitch, increase the heat exchange surface.



## **Roller bearings BLINDATO**

Equipped with a special polyurethane ring, the bearings BLINDATO totally isolate internal organs from mud and dust.