

PR GIS 2025

Magni RTH 8.51 - The tallest rotating telescopic handler in the world



Peerless versatility, performance and safety

The new RTH **8.51** replaces the previous world record holder, the RTH 6.51, setting new standards for **lifting capacity** and **versatile application**.

The innovative new RTH 8.51 is based on a winning engineering concept: by carefully optimising its materials and structural parts, our engineers were able to maintain the **same dimensions and weight as the RTH 6.51**, but increase its **maximum lifting capacity by more than 2,000 kg**.

Reach modes: M1, M2, M3

The new RTH 8.51 integrates the **3 reach modes** featured on the other models in the range into a single unit, a first in the category:

- **M1 - Max Outreach Mode**

The RTH boom “Max Outreach Mode”, standard on all Magni rotating telescopic handlers, features a unique extension sequence, with the smaller, end sections extended first and the larger sections kept until last.

This extension mode increases both the range and the load capacity of the boom’s horizontal reach. It also provides greater load capacity at maximum height.

- **M2 - Max Capacity Mode**

The boom extension “Max Capacity Mode” is a leading-edge characteristic provided on RTH 8.35, 8.39 and 8.46 models. It extends the boom sections in a specific order, starting with the largest and finishing with the smallest sections. This configuration optimises load capacity in the early stages of extension, thus enabling the boom to handle bigger loads than Max Outreach Mode. This mode

is therefore ideal for operations which require lifting of heavy loads within a short operating range.

- **M3 - Full Power Mode**

The new “Full Power Mode” revolutionises the operation of Magni telescopic handlers, deactivating boom extension and retraction when the working position is reached in order to increase load capacity and improve operating stability. Available on 6- and 8-tonne RTH models, this feature, when combined with Magni winches or winch booms, provides load capacity performance comparable with that of off-road cranes for a given reach.

This mode allows boom extension to be blocked to reduce the impact of the dynamic forces generated by friction on the chains. In practice, extension is deactivated while rotation and lifting are still enabled, in exactly the same way as on telescopic boom cranes.

The main benefit of this function is the significant increase in load capacity, achieved by eliminating the dynamic effects generated by the boom extension system. What’s more, once these forces have been eliminated the horizontal boom can be extended further, increasing reach capacity.

These modes enable the operator to adapt the machine's performance to the application, thus maximising both safety and efficiency.

According to preliminary comparative studies, in M1 mode the RTH 8.51 delivers up to **60% better lifting performance at maximum reach than the 6.51.**

Performance that challenges off-road cranes

With a maximum working height of **51 metres**, the Magni RTH 8.51 is **the world's tallest rotating telescopic handler**, offering performance that rivals that of compact off-road cranes, while retaining the unique versatility of interchangeable attachments. At the same time, thanks to its **full range of platform attachments**, including the new **TP 4.5.10** (premiered at Bauma 2025), the machine can reach a **working height of 63 metres**, making it a viable alternative to even the tallest **aerial platforms on the market.**

The RTH 8.51 is compatible with **more than 60 attachments**, enabling it to satisfy the requirements of any sector, including:

- **cladding panel** installation using vacuum handler attachments
- **green area maintenance** with tree cutter attachments
- special **operations** made possible by a wide range of specific solutions for any need

The sustainable choice: the Twin Power system

The RTH 8.51 can be equipped with Magni TH’s exclusive **Twin Power** system, which - once the machine is stabilised - enables it to **operate in full electric mode** by connecting to a 400V power socket. This is an ideal solution for reducing environmental impact and noise in sensitive and indoors applications.

With the new RTH 8.51, Magni TH has set a new benchmark for rotating telescopic handlers: a machine that encompasses the very best engineering, and with a view to the future.

TH 3.6 E



With a maximum load capacity of 3 tonnes, the TH 3.6 E is a revolutionary product for Magni. It combines a compact footprint with outstanding versatility and a highly efficient power supply.

Aimed at the construction and logistics sectors, its low-profile design makes it ideal for confined spaces, enclosed areas and worksites sensitive to noise and emissions.

Long lasting power and consistent performance

The 350V battery chosen by Magni TH is not only more powerful: it is also highly efficient, lightweight and reliable throughout its service life. Thanks to its optimised 29A current output, its thermal dissipation is up to 9 times lower than standard products. The result? A more compact system and consistent performance under even the most challenging conditions.

Hydrostatic transmission: fluidity and power

Imagine always having exactly the right power at your fingertips, without wastage. Combining a hydrostatic transmission with an electric motor offers outstanding efficiency over a wide range of speeds, guaranteeing performance comparable to combustion engine systems: traction force up to 41 kN, gradeability of 83%, and 20 km/h maximum speed. A pioneering technology in the sector, developed with major investments into R&D, combining power and sustainability.

Fast charging, efficiency and uninterrupted operation

The TH 3.6 e is the only telescopic handler on the market to offer 28 kW Superfast CCS charging: just one hour is enough to charge the system from 0 to 80%. Alternatively, a 13 kW option (3 hours) and standard 6.6 kW option (5.5 hours) are also available, depending on the application.

Intelligent energy recovery

Every touch of the brakes, every deceleration is transformed into valuable energy. The TH 3.6 e's regenerative system recharges the battery on the move, reduces brake wear and increases overall range. Lowering the boom also exploits inertia in a controlled

way, resulting in lower consumption, quieter operation and, above all, outstanding comfort.

Uncompromising versatility and comfort

Enclosed spaces, urban areas, restricted worksites: with its electric power system, the TH 3.6 E opens up new possibilities, thanks to its zero emissions and minimal operating noise. For the operator, this translates into greater flexibility and improved user comfort.

An investment that pays for itself

Despite a higher initial outlay, the TCO of the TH 3.6 e, i.e. the total cost of ownership throughout its entire life cycle, is lower than that of the diesel model thanks to its lower energy costs and reduced maintenance. Not to mention the availability of state and regional subsidies that can cover up to 80% of the investment.

Freedom in your pocket: Magni TH introduces Keyless functionality to its telescopic handlers

Magni has extended the functionality of its medium/high load capacity RTH and TH ranges with its Keyless functionality, a solution designed to improve user-friendliness and increase operational security.

At the heart of this innovation is a compact electronic key, similar to those used in the automotive sector, which enables the engine to be started and stopped with a simple button in the cab, eliminating the need for a mechanical key.

In addition to starting, the keyless key can control the cab, courtesy and work lights at a distance, making it easier to locate the machine in crowded or poorly lit worksites. This is particularly handy in applications with reduced visibility, during night shifts and in the winter.

Magni TH's Keyless functionality facilitates everyday operation and makes working both more efficient and safer.

The option is expected to be available by the end of the year on the medium/high load capacity RTH and TH ranges.

A new RFID sensor for Q-FIT: more functionality and greater operational efficiency

From August 2025 onwards, all MAGNI TH machines will be equipped with a new RFID sensor integrated into the Q-FIT system.

The new features introduced by the system include:

- **Tilt display on the touchscreen:** this means that all movements of the attachment are always under control
- **Platform levelling even with the boom extended:** there will no longer be any need to lower the boom to the ground to level the platform, thus improving efficiency and operational safety.

The new RFID sensor will be **retrofitable to all machines with new cabs, manufactured from 2023 onwards**, making it a practical, cost-effective upgrade for existing fleets.

Magni TH presents the new Tester: a modern tool for quick and autonomous interventions on the RTH and TH range of telescopic handlers

From November 2025, it will be possible to order the new Magni Tester, a compact and intuitive device designed to simplify the updating, diagnostics and maintenance of all new generation telescopic handlers.

The tool stands out for its ease of use, direct connection to the cloud and ability to operate autonomously, even without a network connection, provided that the appropriate update has been carried out before connecting to the machine.

Key features include:

- **Simplified software updates:** it allows updates to be downloaded and installed in just a few steps, managing parameters quickly and securely and reducing execution times to a matter of minutes.
- **Easy maintenance:** it reduces intervention times thanks to the autonomous programming of control units already in stock at the Magni sales network.
- **Smart diagnostics:** it detects any anomalies in real time and allows for comprehensive assistance, even remotely.

Download all images here:

<https://www.magnith.com/wp-content/uploads/2025/09/GIS-2025-images.zip>

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