



# MONTINI

SPECIAL ELECTRIC FORKLIFT TRUCKS



NEW 4-WHEEL 48V ELECTRIC FORKLIFT TRUCKS  
WITH LOAD CAPACITY OF 2000 KG OF THE **MR ENERGY** SERIES  
WITH **LITHIUM TECHNOLOGY**

**MR 2.0 ENERGY**  
**MR 2.0 GA ENERGY**

# MONTINI has expanded its range of electric forklifts with the new MR 2.0 ENERGY series.

In keeping constant pace with the latest in handling solutions, MONTINI has made an important addition to its product portfolio: the new **MR 2.0 ENERGY** series. These **4-wheel 48V forklifts** with a **load capacity of 2000 kg** offer extended operational autonomy, accommodating both **lead-acid batteries** (ranging from 630Ah to 1020Ah) and advanced LFP **lithium-ion batteries** (525Ah).

More specifically, these forklifts, **available in 4 models**, have been specially designed to work in confined spaces, both indoors and outdoors, manage logistics operations serving production activities, handle heavy-duty work applications and meet the specific needs of operators.

## MONTINI Super Steering.

Rear-axle steering up to **101 degrees**, as standard, which:

- ensures the same steering capability as a 3-wheel forklift in narrow aisles and in tight, restricted manoeuvring spaces;
- guarantees safe and stable load handling with maximum agility, manoeuvrability and ease of operation for a comfortable driving experience.



### MR 2.0 ENERGY

48V | nominal capacity 2000 kg at load centre 500 mm | lead-acid battery up to 840Ah

Wheelbase (y): 1528 mm  
Length (l2): 2144 mm  
Turning radius (Wa): 1780 mm

Total width (b1/b2): 1086/995 mm  
Overhead guard height (h6): 2134 mm  
Seat height (h7): 947 mm

### MR 2.0 GA ENERGY

48V | nominal capacity 2000 kg at load centre 500 mm | lead-acid battery up to 1020Ah

Wheelbase (y): 1528 mm  
Length (l2): 2144 mm  
Turning radius (Wa): 1780 mm

Total width (b1/b2): 1086/995 mm  
Overhead guard height (h6): 2134 mm  
Seat height (h7): 1104 mm

### MR 2.0 ENERGY LITHIUM

48V | nominal capacity 2000 kg at load centre 500 mm | lithium battery 48V-525Ah

Wheelbase (y): 1528 mm  
Length (l2): 2144 mm  
Turning radius (Wa): 1780 mm

Total width (b1/b2): 1086/995 mm  
Overhead guard height (h6): 2134 mm  
Seat height (h7): 947 mm

### MR 2.0 GA ENERGY LITHIUM

48V | nominal capacity 2000 kg at load centre 500 mm | lithium battery 48V-525Ah

Wheelbase (y): 1528 mm  
Length (l2): 2144 mm  
Turning radius (Wa): 1780 mm

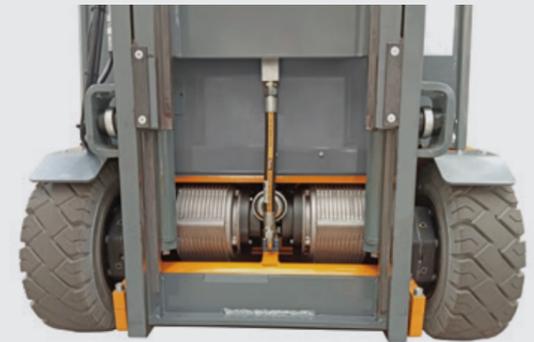
Total width (b1/b2): 1086/995 mm  
Overhead guard height (h6): 2134 mm  
Seat height (h7): 1104 mm

# AC twin-motor traction, electro-hydraulic control valve and electric braking.

The forklifts in MONTINI's new **MR ENERGY** series come with exceptional technical solutions, both as standard and optional equipment.

The **twin-motor traction**, with innovative **alternating current (AC) electronic inverter technology with Can-Bus communication**, guarantees:

- high efficiency and low energy consumption;
- extended battery autonomy, thanks to the excellent performance of the electric motors, which provide high efficiency over a wide range of speeds;
- energy saving and low maintenance costs;
- no polluting CO<sub>2</sub> emissions, respecting the quality of the environment.



Motors with **integrated gearboxes without hydraulic brakes** means:

- noise-free operation of the forklift;
- electric service brake and electromagnetic parking brake.



**Hydraulic control valve block with manual levers**, as standard. **Electro-hydraulic control valve block** (optional) featuring:

- a simplified hydraulic system with a hydraulic pump that delivers the fluid directly to the control valve block;
- helical gear pumps, which reduce noise and increase hydraulic efficiency to ensure a better driving experience and minimum operating costs.

Optional equipment with the **patented CSM (Comfort Security Montini) suspension system**, namely hydropneumatic suspension on the rear steering axle, designed to significantly reduce jolts and vibrations transmitted to both the user and the forklift, while increasing stability and comfort for optimal operation.

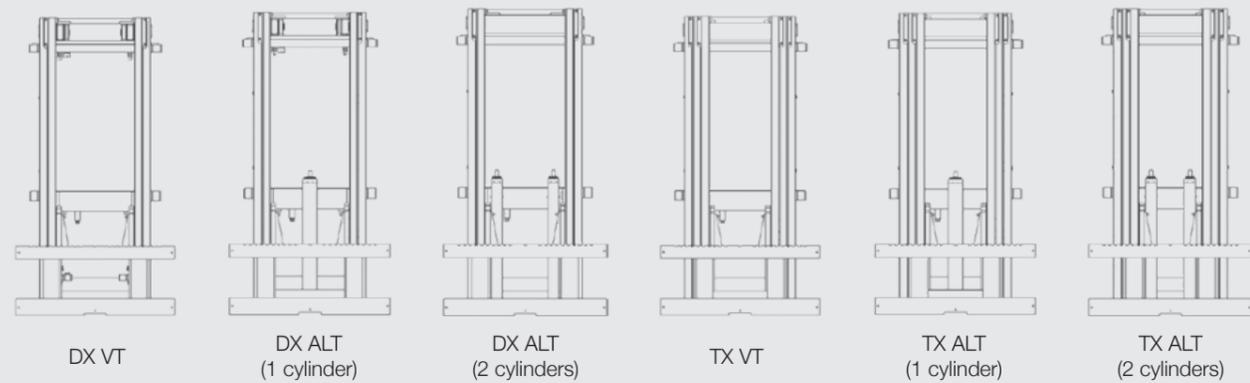


# Inimitable mast for excellent strength, visibility and load capacity.

The masts, entirely designed and manufactured by MONTINI, feature ground bearing slides and angular guide shoes to assure:

- high residual load capacity at high lifts;
- excellent visibility in all working conditions;
- maximum smoothness and greater stability;
- concrete response to the most varied operational requirements.

A **wide range of masts** is available, in both DX (Duplex) and TX (Triplex) versions, with total visibility (T.V.) or total free lift (T.F.L.).



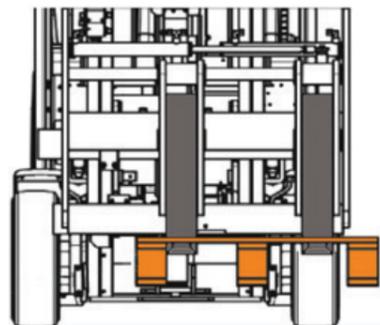
Option of **customised mast solutions**.

**Sideshift integrated into the fork carriage**, extremely compact and with excellent visibility.

**Sideshift with grease nipples** for easier guide shoe lubrication.

**Hydraulic fork positioner integrated into the forklift** (optional) for precise and synchronized movement of the forks, without reducing the load capacity.

**MONTINI fork positioner with independent forks** (optional) which, when loading and handling euro-pallets 800x1200 mm with pick-up side 800 mm inside a lorry, **permit to place the pallet snug with the edge of the load bed**, without the need for additional positioning manoeuvres and with no risk of colliding with and damaging its side panels.



# New display designed for the operator.

The **new, large digital colour display**, with multifunctional navigation buttons, provides access to all basic forklift functions, diagnostics and maintenance alert logs, in a wide choice of languages, all clearly displayed to facilitate service jobs.



The display, **which is easy to read thanks to its ambient lighting sensor which automatically controls its backlighting with day and night modes**, offers access from its start page to the following information:

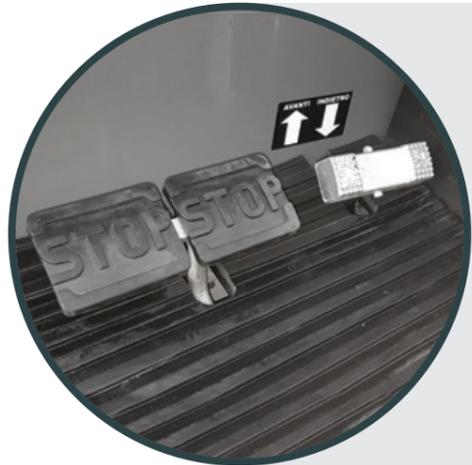
- truck model and serial number;
- date and time;
- speedometer and operating hour meter (partial and total);
- hour meter which counts down to scheduled maintenance deadlines;
- battery voltage and charge indicator;
- maximum truck speed;
- compass to indicate the direction of travel of the truck;
- status led (green, yellow and red) to indicate whether the truck is working properly or not;
- inverter and motor temperatures;
- alarm messages, with date and time of alert.

**Exclusive and customizable operator password** (optional).

**The display can be customised with the logo of the Technical Service Centre** (optional).

## Pedal boards.

With a view to offering personalisation options for **MR ENERGY** forklift trucks so that they can suit the individual operator's requirements, MONTINI offers different types of **pedal boards**.



Pedal board with a **rocker-type forward/reverse pedal** and a wide, comfortable brake pedal, to assure a safe and secure foothold.



A large, spacious pedal board with **single drive pedal** (with forward/reverse switch button on the provided hydraulic control armrest) combined with a large brake pedal.



The **cab** is spacious and equipped with a large platform and comfortable seat. The **dashboard** is equipped with a multifunctional display. The steering wheel is height- and tilt-adjustable, and is small in size to facilitate handling.

## Hydraulic controls.

The forklift trucks in MONTINI's new **MR ENERGY** series have manual levers as standard. They can be equipped (optional) with **different types of hydraulic controls**, to ensure maximum precision and performance as well as exceptional driving comfort.



The user-friendly, ergonomic **hydraulic control with joystick** enables the operator to control all hydraulic functions with a single controller. Maximum productivity thanks to the use of two simultaneous operating functions of the lifting unit.



The simple to use and easily accessible **hydraulic control with fingertips** (mini-levers) is installed in an ergonomic and adjustable armrest. Simply operate the fingertip controls gently for agile, precise and safe handling.



The **hydraulic control with pilot levers** (mini-joysticks) makes driving the forklift truck easy and reliable. Easily accessible and simple to use, it is installed in an ergonomic, adjustable armrest to guarantee comfortable driving positions.

## Better performance for top operation!

MONTINI forklifts in the new **MR ENERGY** series combine operator comfort with **efficient operation**, thus offering **extremely high performance when working**.

They are the ideal solution for a wide range of handling requirements and the perfect choice for companies wanting an unbeatable combination of performance, eco-sustainability and efficiency.

Their stand out feature is the **excellent travel speed**, which makes **MR ENERGY** forklift trucks the ideal solution for quick handling even over long distances, ideally suited to use in a vast range of mixed indoor/outdoor applications.

It is possible to select the **preferred performance profile** from the three available ones.



ECO

**ECO:**  
energy saving mode,  
characterised by low acceleration  
and slow lifting speed.



STANDARD

**STANDARD:**  
customized profile with **optimized  
performance**.



RAPID

**RAPID:**  
profile characterised by **maximized  
and top performance**.



## Comfort, manoeuvrability and agility.

MONTINI forklifts in the new **MR ENERGY** series are **easy to manoeuvre** and **silent** since equipped with motors with integrated gearboxes without hydraulic brakes.

They offer **lasting and reliable performance and comfort for the user**.

The driving position has been optimized to offer excellent comfort and easy handling, with comfortable **seats** that reduce stresses and attenuate vibrations and shocks to prevent them being transmitted to the operator, thus improving comfort and boosting productivity.

Grammer seat "Primo M" in PVC as standard supply.

- 1 Lumbar support
- 2 Safety belt
- 3 Backrest adjustment
- 4 Weight adjustment
- 5 Longitudinal adjustment



As standard, possibility to set **various configurations of seat belt parameters** to prevent, and even eliminate, the hazards attendant on improper use of the seat belt by the operator when working.



Grammer seat "Primo M" complete with armrests and headrest, in fabric (optional).

Grammer seat "Primo L" complete with armrests and headrest, in PVC or fabric, also with heating (optional).

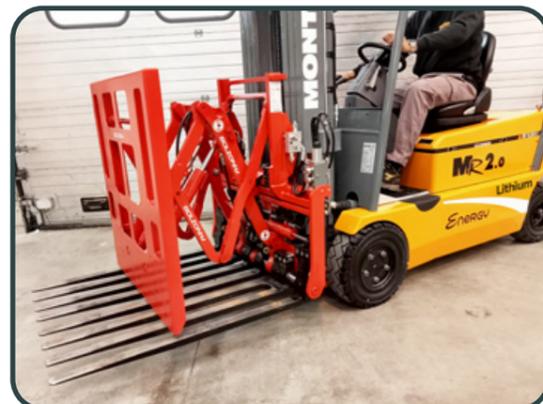
- 1 Headrest
- 2 Heating
- 3 Tilting left armrest
- 4 Tilting right armrest
- 5 Fabric cover
- 6 Pneumatic suspension



## Ergonomics, comfort and versatility.

As is always the case with MONTINI, **ergonomics, comfort and versatility** were the focus of attention when designing these new forklifts featuring:

- new steering column (standard);;
- new, responsive, height- and tilt-adjustable steering wheel (standard) for exceptional manoeuvrability and unparalleled driving comfort;
- large digital colour display with protective housing (standard);
- spacious accessories holder and USB socket (standard);
- two handles for the operator, one at the front (standard) to facilitate safe access to the driving position, and one at the back (optional) to act as a support when reversing and with horn button;
- large panoramic window (optional) on the overhead guard including wiper, offering the best possible view;
- new fenders with a streamlined design;
- possibility of set up (optional) with specific equipment for every need.



## Equipment variations.

**Overhead guard designed to be easily fitted with cab at any time**, without the need to modify or replace the original frame.

The overhead guard can be optionally equipped with:

- full paneling consisting of front and rear windows with wipers, upper lexan cover, and side doors;
- front window and openable rear window with wipers, and PVC side doors;
- large upper panoramic window with wiper, to offer the best visibility when storing loads at high lifts;
- heated (or thermal) windows, which are anti-fogging and extremely transparent;
- heating system;
- radio installation kit.



In addition, the overhead guard can be offered in **drive-in version** and with an **upper iron grid** for protection against dropped loads.

The **wide range of optional extras** (including lights, indicators and mirrors) enable users to customise **MR ENERGY** forklifts based on the workplace and to suit the application and its operational requirements:

- adjustable LED working lights, including a bar-shaped type, installed on the mast or on the overhead guard;
- LED warning spotlight (blue or red);
- LED flashing light, also with appropriate protection;
- rearview mirror, also in panoramic version.



## Extended battery autonomy.

**MR ENERGY** forklifts can be equipped with conventional lead-acid batteries or modern lithium-ion batteries.

### 48V lead-acid batteries up to 1020Ah.

The well-known lead-acid battery option is **suitable for any application**, offering **high capacity Amp/h** and a **considerable work autonomy**.

MONTINI batteries offer a **wide choice of optional set-ups**:

- **centralised water top-up system** with tank for filling up the battery cells;
- **electrolyte level indicator** on the battery plug or battery cell;
- **electrolyte level indication on the display**;
- **air circulation system in the cells and special plug**;
- **special battery box** with integrated handles for easy removal of the battery.



### High capacity lithium-ion batteries 48V-525Ah.

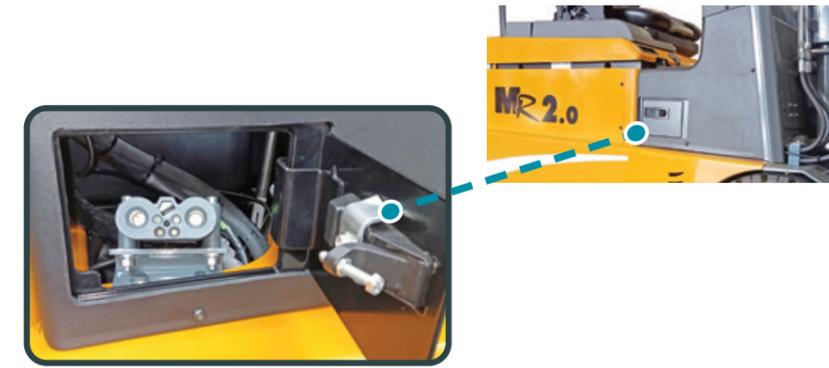
These batteries offer higher performance and are more efficient and versatile than their conventional lead-acid counterparts:

- **maintenance-free**;
- **no gas emissions**;
- **fast recharging in just a few hours**, so that the forklifts can be recharged when not in use or during work pauses, thus ensuring that the truck can be used throughout the day;
- **no need for a special charging room**, since recharging requires no more than a normal plug via the external charger, which considerably reduces space and running costs.



## Direct charging.

The **battery is charged in direct mode**, on the new **MR ENERGY LITHIUM** forklift trucks, using the easily accessible connector protected by a convenient cover flap, as with electric cars.



## Services and safety.

**MR ENERGY** forklift trucks can be supplied in a “smart” version, intelligent and perfectly suited to the client’s specific requirements, by equipping them with the latest generation **MONTINI intelligent high frequency 48V battery charger**.

The MONTINI intelligent battery charger **automatically tops up the water in the battery without the need for an operator that performs this task**.

The charger communicates with the **battery BMS** via Can-Bus connection.

The **BMS (Battery Management System)**, located on the battery, **informs the battery charger about the battery capacity and electrolyte level**.



The MONTINI intelligent battery charger automatically adjusts its current to suit the battery capacity, and memorises the need to top up the electrolyte if necessary.

The charger remotely sends the charge and discharge data to a dedicated controller, which thus monitors the efficiency of the battery itself.

Another option is that of equipping the trucks with the **innovative REMOTE CONTROL system**.

The REMOTE CONTROL system connects the forklift trucks to the factory computer system, thus enabling reliable tracking in line with production operations.

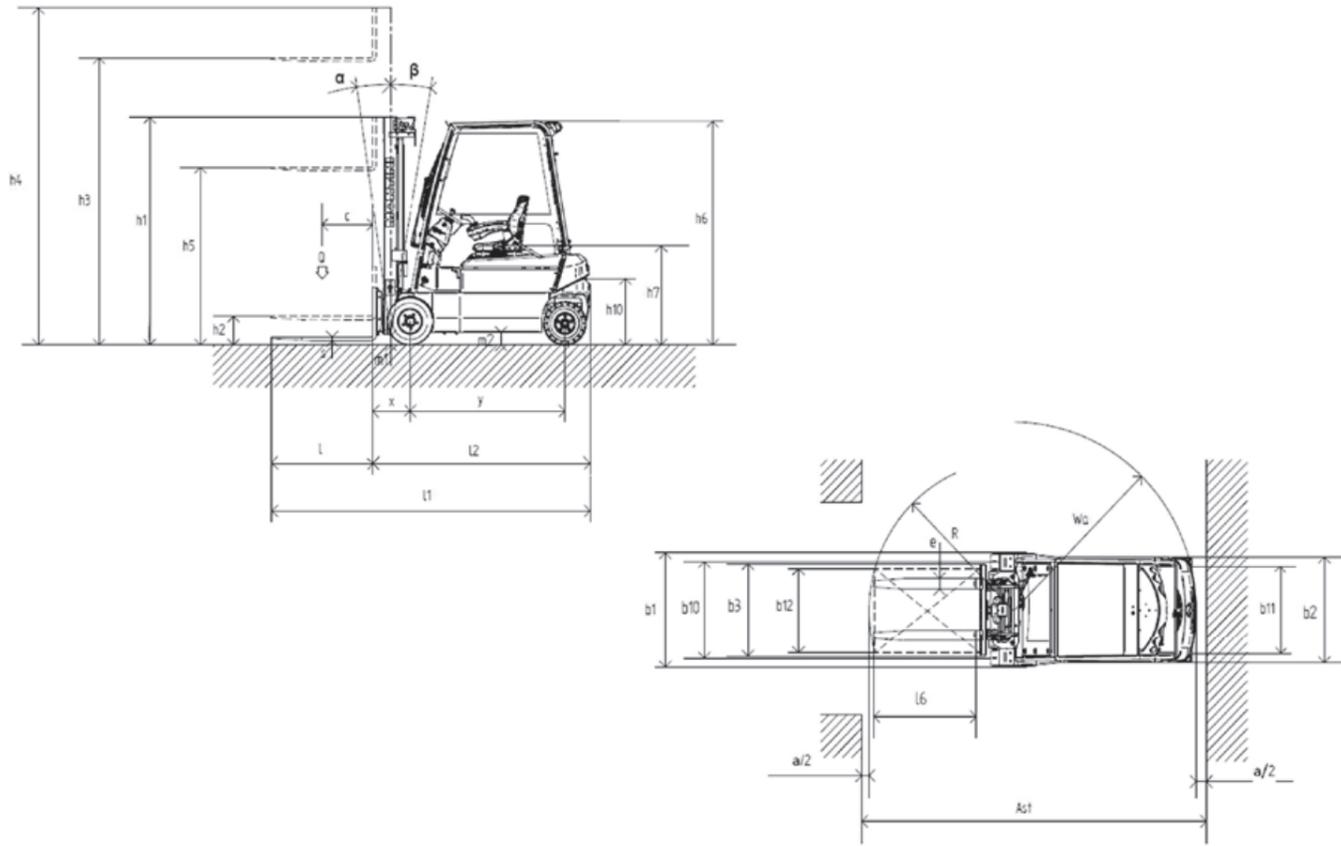
The REMOTE CONTROL offers:

- **fault diagnostics** via remote data transmission;
- **forklift truck localization**;
- **anti-theft system activation** and **block of forklift operation**.

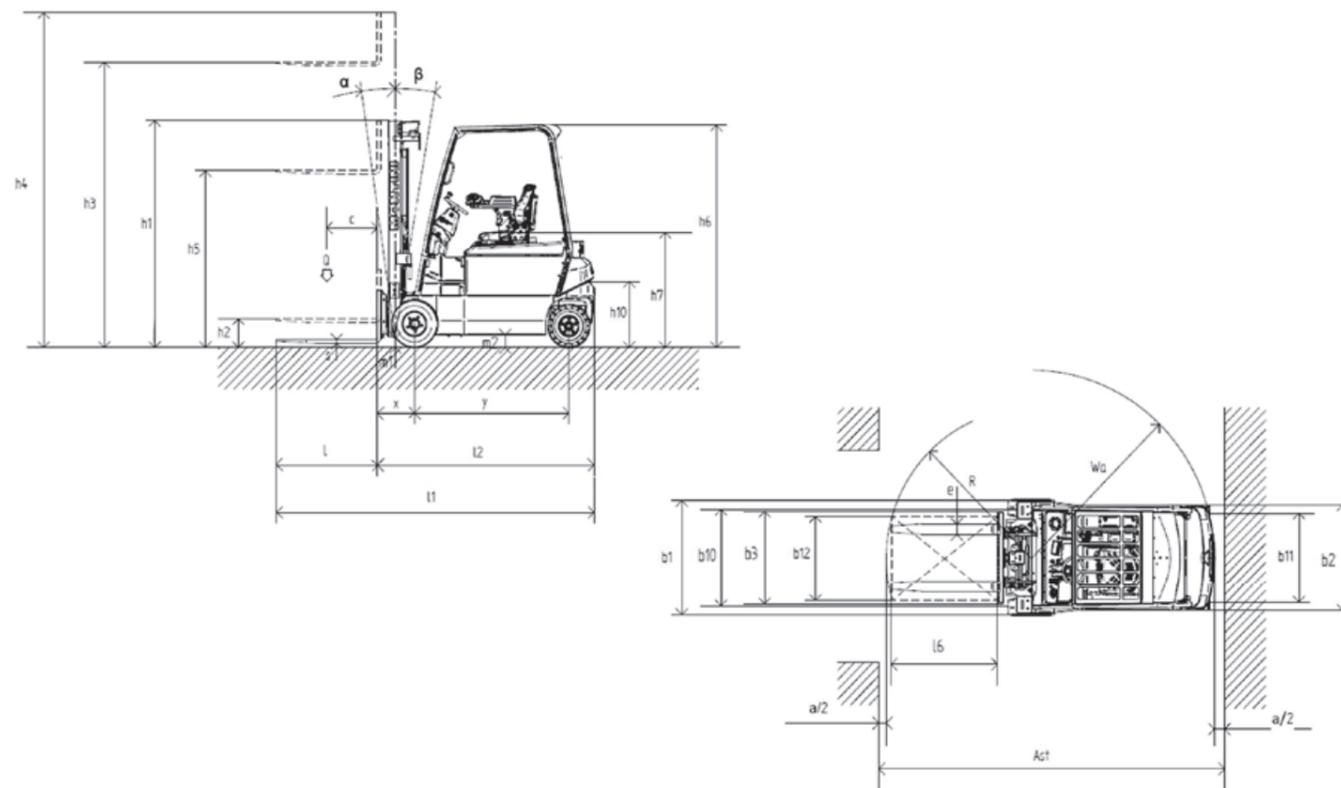


# Technical features.

## MR 2.0 ENERGY | MR 2.0 ENERGY LITHIUM



## MR 2.0 GA ENERGY | MR 2.0 GA ENERGY LITHIUM



FEATURES	Manufacturer	MONTINI					
		MR 2.0 ENERGY	MR 2.0 GA ENERGY	MR 2.0 ENERGY LITHIUM	MR 2.0 GA ENERGY LITHIUM		
1.2	Model	MR 2.0 ENERGY	MR 2.0 GA ENERGY	MR 2.0 ENERGY LITHIUM	MR 2.0 GA ENERGY LITHIUM		
1.3	Power supply: electric, diesel, petrol, LPG, electric mains	electric	electric	electric	electric		
1.4	Drive type: hand-guided, pedestrian, stand-on, sit-on, order picker	sit-on	sit-on	sit-on	sit-on		
1.5	Capacity/Load	Q (t)	2	2	2		
1.6	Load centre	c (mm)	500	500	500		
1.8	Load distance	x (mm)	367	367	367		
1.9	Wheelbase	y (mm)	1528	1528	1528		
WEIGHTS	2.1	Weight	Kg	3440	3570	3440	3570
2.2	Axle load, front/rear, laden	Kg	4825/615	4935/635	4825/615	4935/635	
2.3	Axle load, front/rear, unladen	Kg	1660/1780	1770/1800	1660/1780	1770/1800	
EQUIPMENT	3.1	Tyres		SE	SE	SE	SE
3.2	Tyre size, front		180/60-10	180/60-10	180/60-10	180/60-10	
3.3	Tyre size, rear		16x6-8	16x6-8	16x6-8	16x6-8	
3.5	Wheels, number front/rear (x=driven wheel)		2x/2	2x/2	2x/2	2x/2	
3.6	Track width, front	b10 (mm)	918	918	918	918	
3.7	Track width, rear	b11 (mm)	839	839	839	839	
OVERALL DIMENSIONS	4.1	Max. tilt of mast/fork carriage, forward/backward (α-β)	Degrees	4°/6°	4°/6°	4°/6°	4°/6°
4.2	Lowered mast height	h1 (mm)	2165	2165	2165	2165	
4.3	Free lift	h2 (mm)	-	-	-	-	
4.4	Lifting height	h3 (mm)	3300	3300	3300	3300	
4.5	Extended mast height	h4 (mm)	3850	3850	3850	3850	
4.7	Overhead guard height	h6 (mm)	2134	2134	2134	2134	
4.8	Seat height	h7 (mm)	947	1104	947	1104	
4.12	Tow coupling height	h10 (mm)	635	635	635	635	
4.19	Total length	l1 (mm)	3144	3144	3144	3144	
4.20	Length to face of forks	l2 (mm)	2144	2144	2144	2144	
4.21	Overall width	b1/b2 (mm)	1086/995	1086/995	1086/995	1086/995	
4.22	Forks dimensions	s/e/l (mm)	35/120/1000	35/120/1000	35/120/1000	35/120/1000	
4.23	Fork carriage ISO 2330, class/type, A, B		ISO 2A	ISO 2A	ISO 2A	ISO 2A	
4.24	Min. fork carriage width	b3 (mm)	910	910	910	910	
4.31	Ground clearance, under mast, laden	m1 (mm)	91	91	91	91	
4.32	Ground clearance, centre of wheelbase, laden	m2 (mm)	120	120	120	120	
4.33	Aisle width with pallet 1000x1200 (l6xb12) - pick-up side 1200	Ast (mm)	3472	3472	3472	3472	
4.34	Aisle width with pallet 800x1200 (b12xl6) - pick-up side 800	Ast (mm)	3597	3597	3597	3597	
4.35	Turning radius	Wa (mm)	1780	1780	1780	1780	
4.36	Distance from turning centre and truck centre axis	b13 (mm)	0	0	0	0	
DATA AND PERFORMANCE	5.1	Travel speed, laden (Eco,Standard,Rapid)	Km/h	14/16/18	14/16/18	14/16/18	14/16/18
5.1.1	Travel speed, unladen (Eco,Standard,Rapid)	Km/h	14/16/18	14/16/18	14/16/18	14/16/18	
5.2	Lift speed, laden (Eco,Standard,Rapid)	m/s	0,34/0,40/0,45	0,34/0,40/0,45	0,34/0,40/0,45	0,34/0,40/0,45	
5.2.1	Lift speed, unladen (Eco,Standard,Rapid)	m/s	0,42/0,49/0,57	0,42/0,49/0,57	0,42/0,49/0,57	0,42/0,49/0,57	
5.3	Lowering speed, laden/unladen	m/s	0,54/0,36	0,54/0,36	0,54/0,36	0,54/0,36	
5.5	Drawbar pull, laden/unladen	daN	3022/3414	3022/3414	3022/3414	3022/3414	
5.6	Max. drawbar pull, laden/unladen	daN	10795/11187	10795/11187	10795/11187	10795/11187	
5.7	Gradeability, laden/unladen	%	8,5/14,3	8,5/14,3	8,5/14,3	8,5/14,3	
5.8	Max. gradeability, laden/unladen	%	19,6/32,1	19,6/32,1	19,6/32,1	19,6/32,1	
5.9	Acceleration time, laden (Eco/Standard/Rapid)	s	5,8/5,2/5	5,8/5,2/5	5,8/5,2/5	5,8/5,2/5	
5.9.1	Acceleration time, unladen (Eco/Standard/Rapid)	s	5,8/5,2/4,8	5,8/5,2/4,8	5,8/5,2/4,8	5,8/5,2/4,8	
5.10	Service brake		electric	electric	electric	electric	
ELECTRIC MOTOR	6.1	Traction motor, output S2 60'	Kw	2x4,5	2x4,5	2x4,5	2x4,5
6.2	Lift motor, output S3 15%	Kw	15	15	15	15	
6.3	Battery according to DIN 43531/35/36 A, B, C		-	-	-	-	
6.4	Rated voltage/capacity 5h	V/Ah	48/630-840	48/840-1020	48/525	48/525	
6.5	Battery weight, min./max.	Kg	955/1100 <b>1.</b>	1263/1385 <b>1.</b>	955/1100 <b>1.</b>	1263/1385 <b>1.</b>	
6.6	Energy consumption according to EN 16796	KWh/h	-	-	-	-	
MISCELLANEA	8.1	Type of electronic control		inverter	inverter	inverter	inverter
10.1	Working pressure for auxiliary equipment	bar	150	150	150	150	
10.2	Oil flow rate for auxiliary equipment	l/min	-	-	-	-	
10.7	Noise level at operator's ear	db (A)	< 66 db (A)	< 66 db (A)	< 66 db (A)	< 66 db (A)	
10.8	Tow coupling, model/type		-	-	-	-	

1. Other capacities available on request.

This technical data sheet, compliant with Directive VDI 2198, indicates the values for standard equipment only. Different tyres, masts, equipments etc. may alter these values.



# MONTINI

SPECIAL ELECTRIC FORKLIFT TRUCKS

## Choose specialization.

Choose MONTINI special electric lift trucks.

### MONTINI s.r.l.

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