

Mecalac

VERSATILE WHEELED EXCAVATOR **714MW**



> Experience of your worksite

UNITING PRODUCTIVITY AND THE KNOW-HOW OF MECALAC

35 years of experience, working alongside our clients, has enabled us to develop original solutions...

- Threepiece boom operated with two asymmetric cylinders (patented system).
- Pre-selected modes to adapt driving to your preferences and experience.
- X chassis giving self cleaning in muddy conditions.

... and continually innovative solutions:

- > **ACTIVE LOCK**, hydraulic quick-release coupling *
- > **ACTIVE CONTROL**, load sensing, flow sharing, cylinders coupling **

* details page 5

** details page 9

Extremely powerful engine for this tonnage.

**88 kW / 119 BHP
at 2,100 rpm**

**up to 35 km/h
on the road**

13,5 t

Spacious and comfortable cab.

Total rotation
in 3720 mm.

Wide choice of options
and equipment.



THE IDEAL EXCAVATOR FOR YOUR URBAN SITES



PERFORMANCE

Thanks to its kinematics, the boom is efficient in all working positions. The lifting arm system with two asymmetric cylinders guarantees a homogenous lifting force both in the top and bottom end positions. The various speed ranges, up to 35 km/h on road, using a POWERSHIFT gearbox, limit the transfer time on site and between sites.

The electronic system controls all vital components via the BUSCAN, optimises excavator operation and indicates essential information to the operator for optimum machine operation.

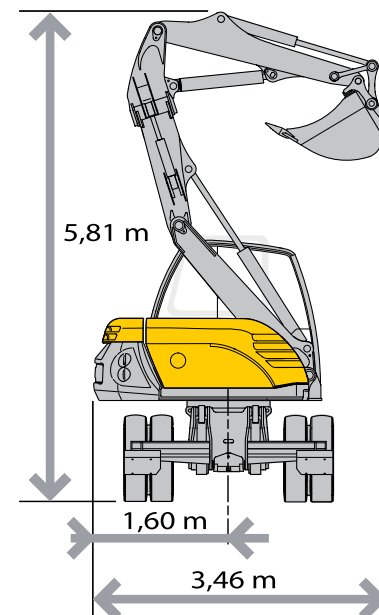
4 steered wheels (optional).



Road, drainage and earth-moving professionals, on sites where space is limited, the 714MW fulfills your compactness, performance and profit expectations. Efficiency of the kinematics, quick coupling and compactness render the 714MW ideal for all operations on work sites which demand an ever increasing level of profitability.

COMPACTNESS

With a short radius of 1,600 mm, the 714 MW works in a single lane. Furthermore, the kinematics of its equipment render it effective even in extremely restricted working zones (total excavator rotation in less than 3,720 mm). Turning radius of 4,100 mm with 4 steered wheels and the possibility to advance in crab mode minimising movement on site.



VERSATILITY = PROFITABILITY

The 714MW digs, loads, handles and may be equipped with numerous attachments. Thanks to Mecalac **ACTIVE LOCK**, hydraulic quick-release coupling, the operator can change tools in only a few seconds.

The offset* of equipment considerably facilitates trench work: the bucket may be offset by 2,300 mm to the right or to the left. This offset is used during surfacing to level, grade and create a right/left incline.

* Optional

Efficiency and kinematics, quick coupling and compactness render the 714MW flexible and adapted to all situations. A key factor in the profitability of your work sites.



THE BEST ALLY FOR YOUR WORK



EXPERTISE

For your drainage channel installation work, the 714MW meets all your needs for compactness and power. Thanks to the 4 steered wheels* (exterior turning radius 4,100 mm), the 714MW travels and works in zones with restricted working space. Furthermore, with the boom folded in, the excavator may work in a zone of less than 3.50 m in width, which leaves the other lane free and therefore does not hinder road traffic.

*Optional



EFFICIENCY

Thanks to the original boom kinematics and the lifting arm system with two asymmetric cylinders, the operator may easily position a pallet of curb stones even close to the excavator. With the front stabilisers, the machine remains stable even with a heavy load at the end of the jib.

Whether using the blade or loader bucket, the 714MW guarantees perfect levelling of the road before surfacing. The front swivel axis (+/- 8°) allows movement over all surfaces, even in rough terrain.

LIFTING CAPACITIES

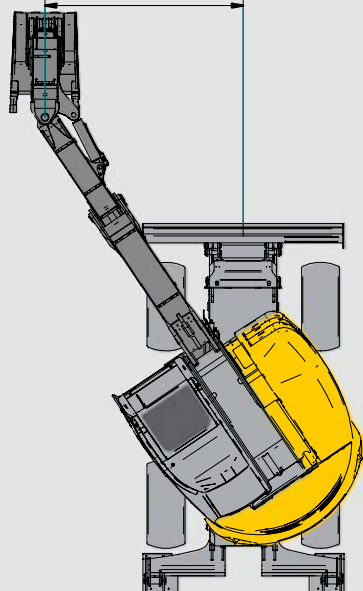
Placed on 2 stabilisers, equipped with a lifting hook used to install pipes or remove screening, you will appreciate the lifting capacity of the 714MW. Its DEUTZ engine, with latest technology, 88 kW/119 BHP delivers the power required for the most demanding operations.

The swivel blocking system provides excellent stability, essential for the handling of heavy loads, even on the cross-beam.



MECALAC OFFSET (Option)

2300 mm





COMFORT

- A very spacious cab for a machine of this category: length 2m.
- A panoramic view over the entire working zone, in particular thanks to the position of the lifting arm cylinders.
- Numerous storage spaces adapted to today's needs.
- The seat and arm rests may be adjusted independently to adapt the seating to the morphology of the user.
- A totally fold-away windscreen: the bottom section folds over the top section which is then folded under the roof. Ceiling skylight with sunscreen.
- Reduced noise in the cab thanks to improved noise insulation in the engine compartment.
- Stereo radio CD player.

ACCESSIBILITY

Intuitive and robust, the sliding hinged door may be opened and closed, even close to a wall. A fold-away footstep facilitates entry to and exit from the cab for the safety and comfort of the driver.



The operating simplicity, unparalleled level of safety and comfort all contribute to the well-being and efficiency of the driver throughout the day. Furthermore, the user-friendly controls and hydraulic functions render the 714MW extremely efficient under all working conditions.



EASY AND INTELLIGENT OPERATION



- A design based on a simplified approach to the technology for the operator, the interfaces encourage intuitive operation of the controls by the user.
- **Several pre-set operating modes** adapted to the working habits and experience of the operator.
- **Several power levels:** Heavy, Standard, Eco, depending on the work required.
- **«Auto idle»** - Automatic return to idle if the controls are not touched for a pre-defined time.
- **«Fine» button:** for particularly precise and fine work with maximum power.



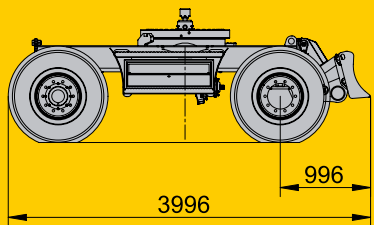
A high-definition **LCD screen**, visible even in strong sunlight, enables immediate viewing of all vital data for optimum machine operation.



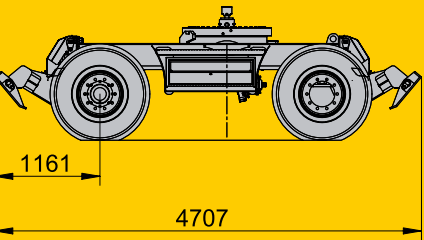
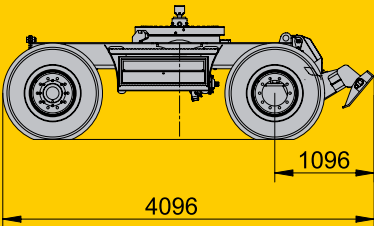
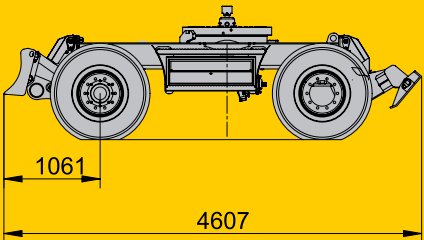
COUPLING OF CYLINDER: Control of the 2 piece boom without using the foot pedals thanks to the cylinder coupling system (Mecalac patent).

OPTIONAL CHASSIS
EQUIPMENT
(2 or 4-wheel steering)

FRONT REAR



Standard



WEIGHT

- Empty, operational, without bucket
- Type of chassis
- Rear blade 13,000 kg
- Rear stabilisers 13,000 kg
- 4 stabilisers 13,500 kg
- Front stabilisers + blade 13,500 kg

ENGINE

- Intercooled turbocharged engine (compliant with standard TIER3)
- Type DEUTZ TCD 2012 L04-2V
- Diesel 4 in-line cylinders
- Power 88 kW (119 BHP) at 2,100 rpm
- Max. torque 495 N.m at 1,600 rpm
- Cubic capacity 4,038 cm³
- Cooling water
- Air filterdry, cartridge (with clogging indicator in the cabin)
- Diesel consumption (depending on operating conditions) : 8 to 14 l/h
- Exterior noise level: 101 dB(A)

ELECTRICAL CIRCUIT

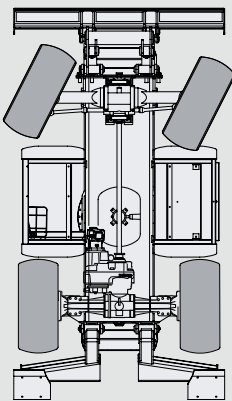
- Batteries 2 x 110 Ah/720 A
- Voltage 24 V
- Alternator 55 A
- Starter motor 4 kW

CHASSIS

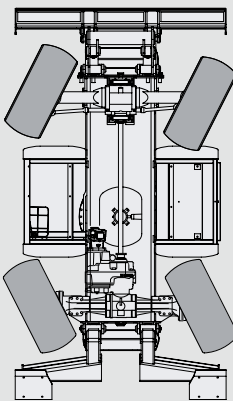
- Rigid
- Turning radius
- 4 steered wheels (optional) 4,440 mm
- 2 steered wheels 7,360 mm
- -See above for chassis optional equipment
- Blade fitted on a parallelogram:
- Lift height/ground 489 mm
- Max. depth attained/ground 150 mm
- -Stabilisers controlled independently or in pairs

BOOM

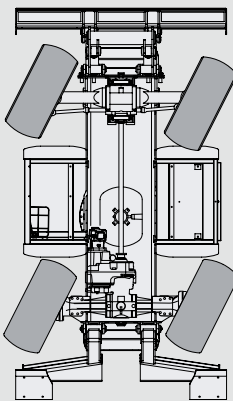
- Composed of 3 parts: jib, jib end and arm.
- Jib control with a patented system composed of two asymmetric cylinders enabling a swing of 140°.
- Standard right and left off-set with a hydraulic cylinder. (optional on multipurpose equipment): 2.30 m/machine axis
- End bearings equipped with sealing rings and greasing via the rings.
- Jib cylinders with end of travel shock absorbers.
- Quick coupling system ACTIVE LOCK:
- Mecalac quick attach with automatic mechanical locking and hydraulic over-locking.
- Unlatching controlled hydraulically.



4 x 4 x 2



4 x 4 x 4



4 x 4 x 4



Boom performance (machine equipped with a quick coupling):

	BOOM	
•-Excavator	Multipurpose	Excavator
Max. penetration force daN	5500	6200
Max. digging force daN	8400	8400

•-Loader	
Max. digging force daN	5200

- -Handling
- For lifting and handling work, the excavator must be equipped with a safety valve.

mm	dm ³	dm ³		kg
500	260	215	3	286
600	330	265	3	310
850	530	385	4	386
1000	630	455	4	422

TURRET

- Total rotation 360°
- Internal crown wheel drive mechanism
- Swivel with hydraulic motor with brake
- Rotation-speed 10 rpm
- Hydraulic motor 1260 cm³
- Max. pressure 260 bars
- -Rotation-torque 3800 daN.m
- Shock absorber for progressive turret rotation, start and stop

- Tanks, capacity :
- Hydraulic oil 140 l
- -Fuel 150 l

STEERING

- Type Orbitrol, cubic capacity 125 cm³

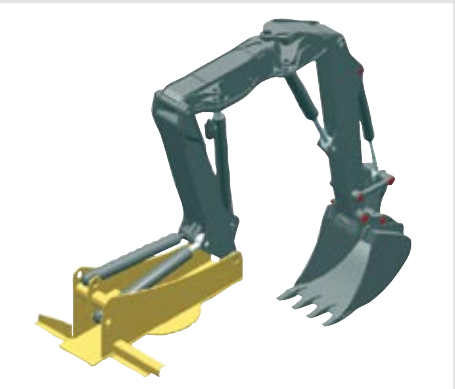


CAB

- Monoblock fastened to 4 spring posts, noise-insulated, windscreen totally folded under the cabin ceiling, sliding swing door, sliding windows in door, ceiling skylight with sunscreen.
- Controls incorporated into the consoles on both sides of the seat and adjustable according to seat position.
- Seat on hydraulic suspension struts, lateral and height adjustment to suit the driver's build, seat belt.
- Electronic control panel with LCD display directly in the driver's line of view and comprising all safety and operation monitoring data, visual and audible alarms.
- Water heating, high-speed blower, high anti-mist capacity, defrost via 5 air jets.
- Easy visibility and access to fuses and electrical components.
- Adjustable steering column.
- Stereo radio-CD player.
- Optional air conditioning.
- FOPS approved with fan guard (optional).

HYDRAULICS

- Boom circuit
- Variable capacity pump with electronic power control
- Max. pressure 350 bar
- Max.-flow-rate 205 l/min (95 cm³/tr)
- Attachments circuit (standard)
- Flow rate 130 l/min
- Pressure 180 bars
- REXROTH distributor type M6-15:
- « Load Sensing Flow Sharing » proportionality of functions respected regardless of the load on each element.



TRANSMISSION

- Open-circuit hydrostatic transmission.
- Transmission pedal inverter (two directions).
- PowerShift gearbox with 2 speed ratios (road and site) in both directions.
- 2 speed ranges for each of these ratios, high and low.
- On-site: low speed: 3 km/h
- high speed: 10 km/h
- Road: low speed: 10 km/h
- high speed: 35 km/h*
- Max. traction force: 8,300.daN
- Max. pressure: 340 bars
- Pump flow-rate: 160 l/min
- Engine: 107 cm³
- * Depending on countries

Wheels and axles

- Full 4-wheel drive, equipped with:
- Single tyres 18-19.5
- Machine-width: 2,500 mm
- Wide tyres 600 / 40-22.5
- Machine-width: 2,505 mm
- Twin tyres 10.00-20
- Machine-width: 2,500 mm
- Front drive axle inclining +/- 8° to frame, inclination blockage.

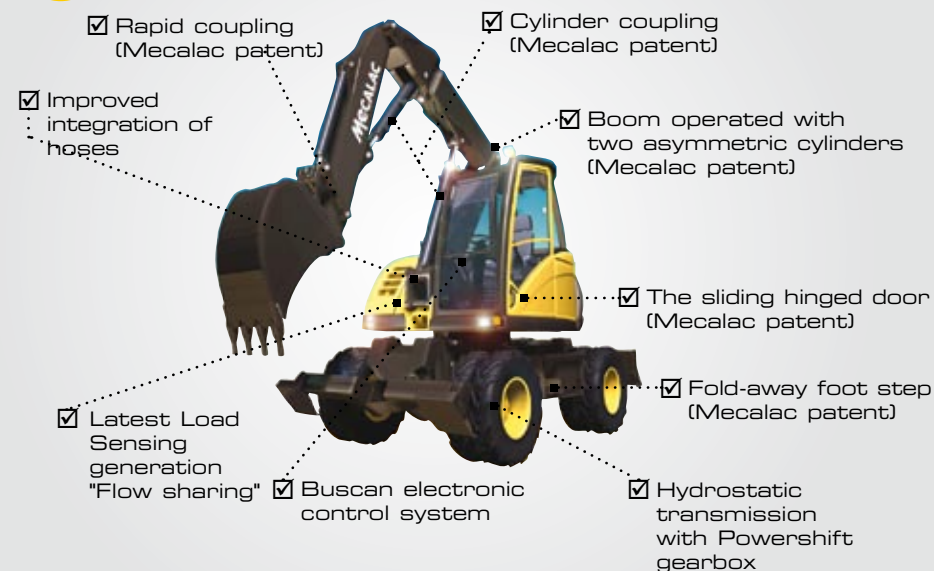
Brakes

- Double circuit central braking system.
- Oil-immersed multi-disk brakes on each axle.





TECHNOLOGICAL CLOSE UP



BUSCAN ELECTRONIC CONTROL SYSTEM

This system provides a communication interface between the various machine elements (engine, hydraulics, controls). This offers the following advantages:

- Optimise performance

Electronic regulation system for the machine pump enabling optimisation of machine operation according to the engine parameters.

- Limit pollution and reduce noise

Electronic fuel injection control system to optimise the engine performance and reduce noise and fumes emission.

- Simplify driving

Pre-selected driving modes enabling:

- work at various power levels.
- fine-tuning of machine operation for precision work.
- work at all engine speeds.

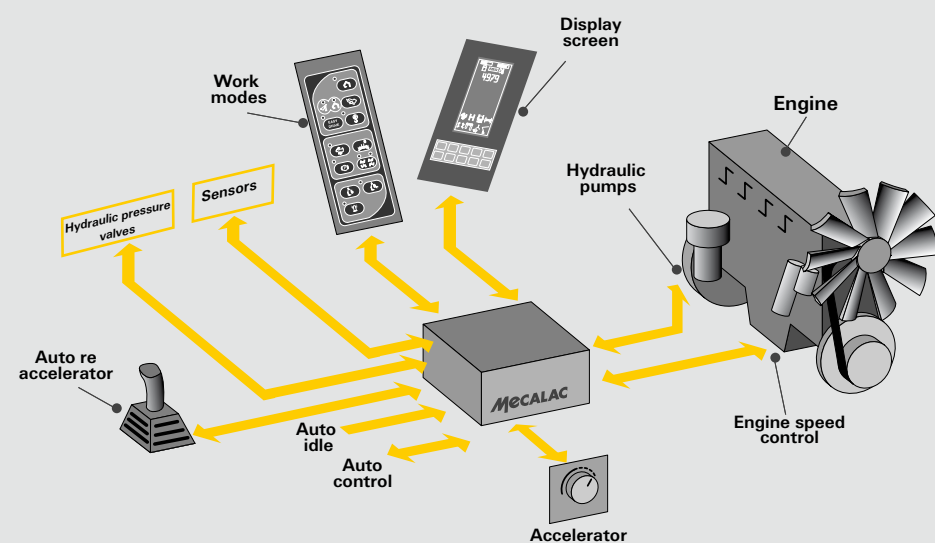
Automation: programmed trajectory (bank cutting,...).

- Fault detection

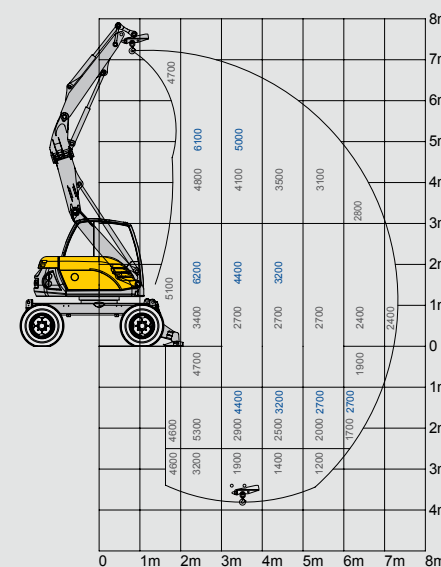
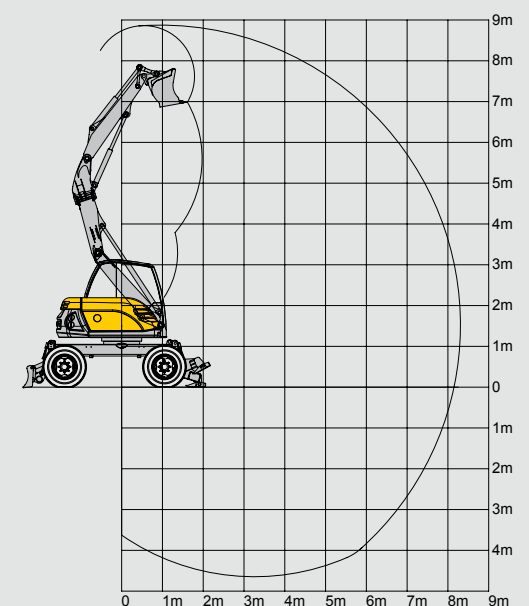
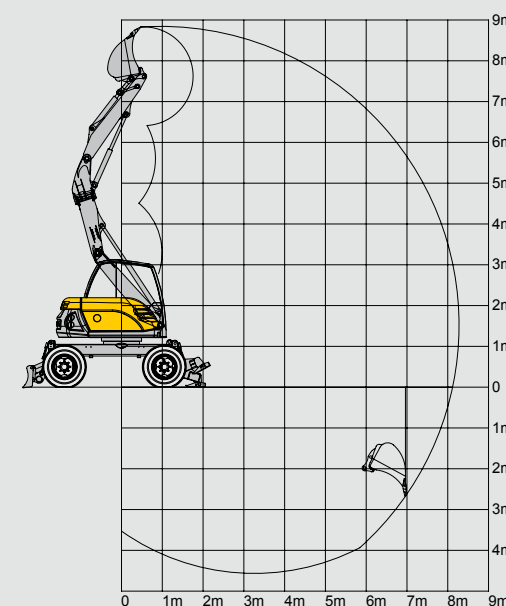
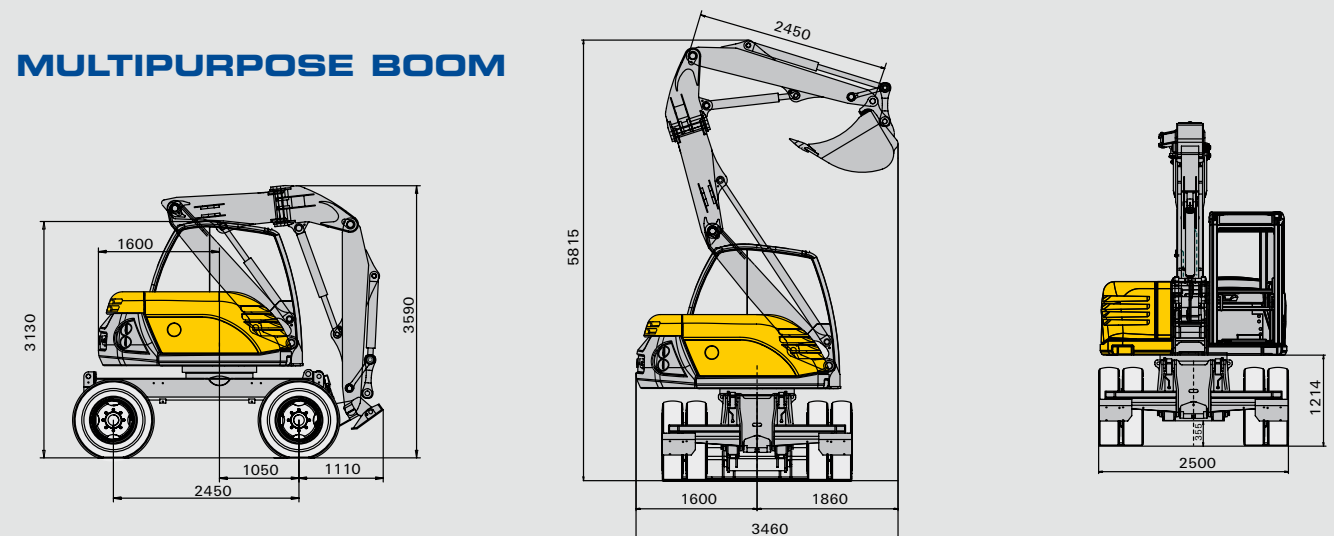
A fault code is displayed on the control monitor to facilitate fault finding.

- Easy maintenance

All «deviations» from the operating characteristics are memorized in the CPU. This record facilitates maintenance.

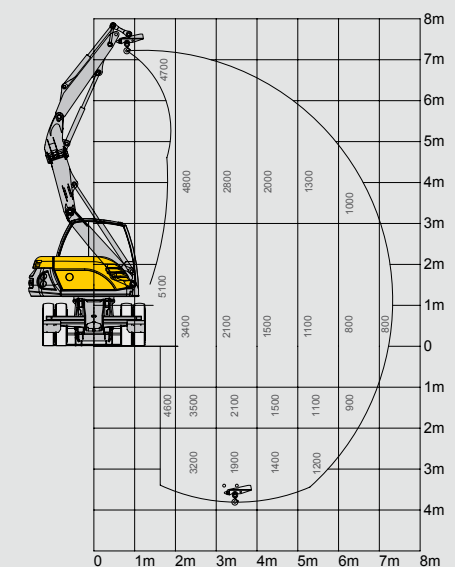


MULTIPURPOSE BOOM



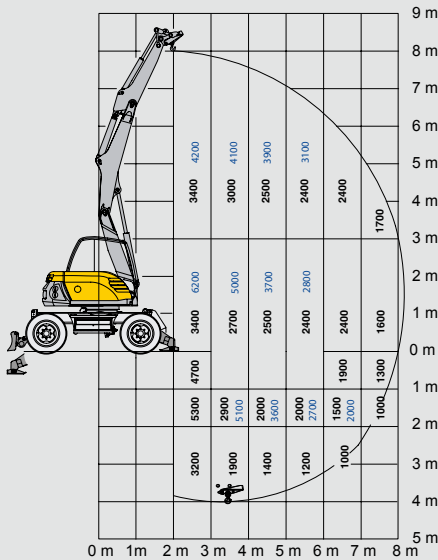
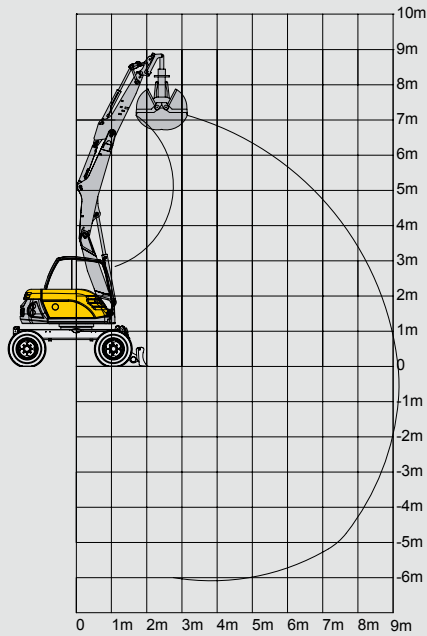
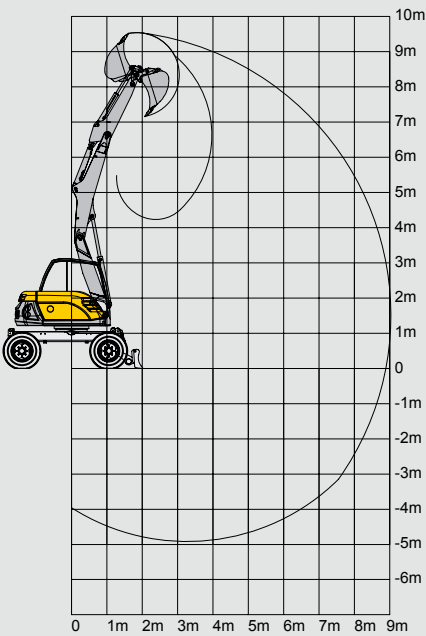
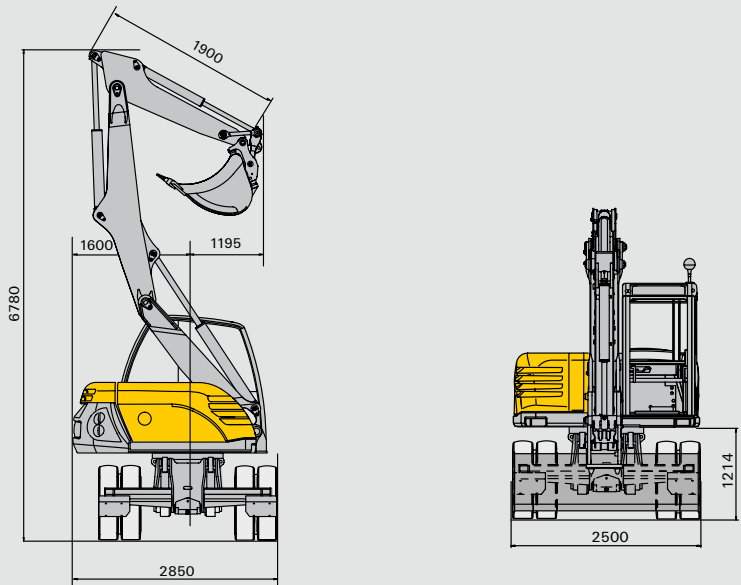
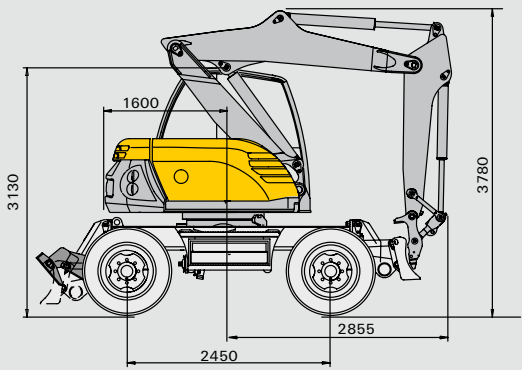
kg
ISO 10567

Loads in kg
with optimum
equipment
configuration

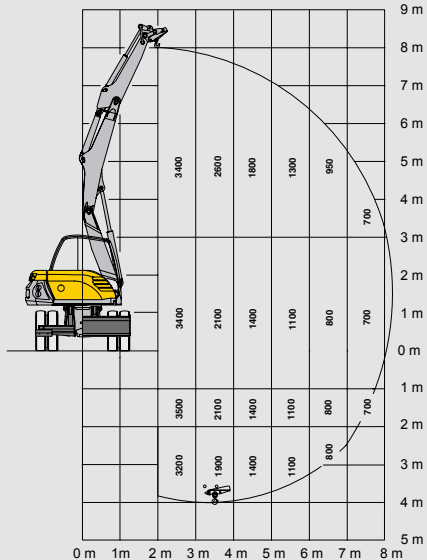


TECHNICAL FEATURES

EXCAVATOR BOOM



kg
ISO 10567
Loads in kg
with optimum
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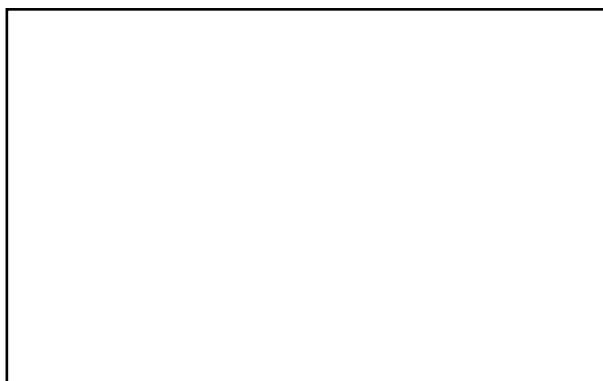


Our trade is the design, development, manufacture and commercialisation of innovative equipment for public road work adapted to a broad quality span to meet the requirements of a wide variety of customers.

The customer is at the heart of our company and we offer the benefit of our know-how with the team spirit which drives us forward.



Your local dealer



Mecalac

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