



TURBOFARMER P 50.8

10 reasons to purchase a Merlo Turbofarmer

The Turbofarmer represents a milestone in the use of telehandlers in the farming sector

In 1987 Merlo created the Panoramic telehandler with its patented side-mounted engine layout, which soon became the industry benchmark. Merlo was the first manufacturer to fully realise the potential for telehandlers in the agricultural sector, and in 1996 launched the Turbofarmer series. Since then, the Turbofarmer has become the best selling product of the Merlo Group and a common feature of European mechanized farming. It is rapidly spreading throughout all the major agricultural areas in the world, making its presence felt in arable farming, livestock farming and in the recycling of biomass material for energy production. The success of the Turbofarmer lies in the cleverness of the original concept, but also in the quality of the Merlo engineering design and manufacturing process, as well as the part played by our the sales and after-sales services. A series of technical innovations make the Turbofarmer a machine that is both practical and easy to operate, but its chief advantage lies in its multifunctional capability. The attachments developed by the Merlo Group have been designed to work in perfect synergy with the Turbofarmer and make the machine/attachment combination the epitome of performance, versatility and efficiency. Attachments that are capable of optimising work, minimising costs and significantly increasing the annual usage of the Turbofarmer.

- ✓ The Turbofarmer Series is designed for agricultural use: 14 versions equipped with 7 metre and 10 metre booms, it is the widest product range on the market.
- ✓ Cab and cab suspension: version with cab suspension for maximum comfort.
- ✓ Power outputs: 102, 120 and 140 horsepower engines to suit different requirements. A wide choice of power outputs.
- ✓ Boom suspension system: dampen the load for maximum operator comfort, significantly reducing the risk of damaging materials during handling operations.
- ✓ Boom side-shift system: allows load to be positioned with maximum precision, better performance, increased comfort.
- ✓ Frame levelling: transverse levelling of the telehandler frame for maximum safety.
- ✓ Drop-portal axles: for greater ground clearance, ensuring easy operation even over the toughest terrain.
- ✓ Active electronic suspension: for greater safety of the transported load and operator comfort.
- ✓ Hydraulic system: Choice of Flow-Sharing, Load-Sensing or gear pump.
- ✓ Tow hitches and trailer braking systems: maximum versatility, performance and safety.



The Turbofarmer family welcomes the new model P 50.8

The Heavy Duty flagship: lifting capacity of 5 tonnes and a boom height of 8 metres



To complete the Turbofarmer series, Merlo has created the new P 50.8 as the top model in the range in terms of dimensions and performance. The new model retains all the main characteristics of the Turbofarmer family, while offering a number of innovative new features that will soon be extended to the other models in the Turbofarmer range.

The P 50.8 has a lifting capacity of 5 tonnes and a boom that can extend to 8 metres.

It is equipped with an engine that meets Tier 4 Interim emission standards, and which develops 115 kW /156 hp and 609 Nm of torque. Its superior power and torque, combined with a sturdy frame, a wheelbase of 2920 mm, a weight of 8800 kg and 600/55R26.5 tyres (optional), place the P 50.8 at the top of its class and enable it to perform equally well in the agricultural and construction industries, as well as the new bioenergy sectors, in the recycling and handling of biomass materials for energy production. In addition to its enormous strength, the P 50.8 boasts a raft of Merlo technological features designed to enhance safety, versatility and comfort.

- ✓ The P 50.8 completes the Turbofarmer series: Merlo customers can choose from a wide range of models and versions.
- ✓ P 50.8: designed for heavy duty applications in farming, industry, and biomass materials handling for greater versatility and performance.
- ✓ P 50.8: equipped with Tier 4 Interim engines from 115 kW/156 hp. Powerful and fully compliant with emission standards.
- ✓ M CDC: Merlo Dynamic Load Control takes safety to a whole new level.
- ✓ EPD: fuel consumption reduced by 30%
- ✓ M CVTronic: Merlo's original interpretation of the continuously variable transmission. Gradual acceleration without torque interruption.
- ✓ PTO: the mechanically-controlled PTO delivers 90% of available flywheel power. Superior PTO performance.
- ✓ Drawbar: allows use of trailed implements for greater versatility in farming applications.
- ✓ New cab: Merlo maintains its leadership in operator comfort, ergonomics and visibility.
- ✓ Eima 2012 technical innovation: winner of the technical Innovation award for the M CDC – M CVTronic systems

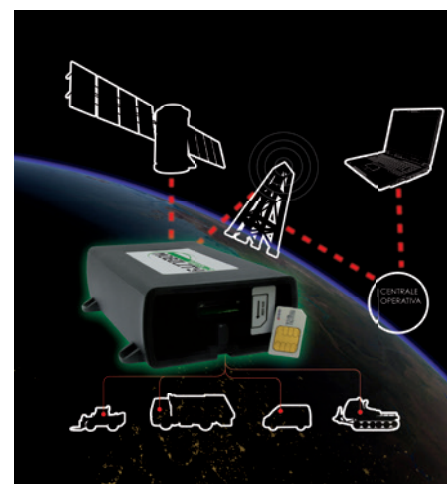
With the Merlo CDC system, safety comes as standard

Created by Merlo for professional users who require practical, effective and intuitive safety systems

Created by Merlo for professional users who require practical, effective and intuitive safety systems. Merlo has always been a leading exponent of the use of safety systems. And in this spirit, Merlo has created the Merlo Dynamic Load Control (M CDC) system for use on its own telehandlers. Merlo engineers have developed an «automatic attachment recognition system» that consists of a sensor applied to every attachment produced by the Merlo Group. These sensors relay the relevant attachment data to the M CDC electronic control unit. The system has also been designed to recognise new Merlo attachments that will become available in the future. The Control unit receives the data and installs the corresponding load diagram in the M CDC system. In this way the telescopic boom operates in conditions of maximum dynamic safety. The main operating parameters, including the weight of the load, the overhang, the boom inclination angle, and the stability index are on displayed on the screen in the cab. The operator is kept informed of the level of safety by a «traffic light» warning system displayed on the load diagram. A green light indicates conditions of maximum safety. A yellow light means that the operator must proceed with caution; if the red light appears, the M CDC system will block any manoeuvres that could compromise safety. The operator may only continue working once the operating parameters have returned within normal safety limits. The MCDC system is always activated, even when the machine is moving, and therefore exceeds the requirements of the EN15000 safety standard, ensuring maximum safety in all situations.



- ✓ State-of -the-art system: unrivalled performance, exceeding requirements of the EN15000 standard
- ✓ Covered by three international patents: Merlo's original solutions are worth protecting.
- ✓ Merlo attachments equipped with automatic load recognition. Guaranteed operational safety and functionality.
- ✓ Attachment sensor: the control unit installs the specific load diagram for the attachment, thereby ensuring maximum operational safety
- ✓ Display: shows the main operating parameters in real time. Enables the operator to respond immediately to conditions with an informed decision.
- ✓ Intuitive user interface: traffic light system informs operator of safety status at glance.
- ✓ Non-CDC attachments: manual selection of attachments not equipped with sensors. Greater versatility.
- ✓ Free zone: allows appropriate operating speeds. Greater performance, less stress.
- ✓ Weighing: detects and saves to memory the weight of the load; displays a summary of work performed.
- ✓ Possibility to set the attachment weight as the tare: simpler, more effective use.



MerloMobility

Merlo Group Infomobility

MerloMobility is a new fleet management system, conceived and developed entirely within the Merlo Group, that allows real time location of vehicles via Gps, and makes it possible to monitor vehicle operating parameters and use, to receive and process alarms in the event of breakdown or theft, as well as to send commands for event management via the internet.

Fuel savings with the new Merlo technology

EPD, the innovative, practical and effective Merlo solution allowing fuel savings of up to three litres per hour



Merlo has responded to the need to minimise energy consumption with innovative, practical and effective solutions that can save three litres of fuel per hour. Working on a hypothetical usage of a thousand hours per year and a fuel cost of 1.2* Euros per litre, this equates to savings of 3600 Euros a year. To achieve this result, Merlo engineers have developed the exclusive EPD system, protected by international patent, in which engine rpm is no longer controlled directly by the accelerator pedal, but by the EPD system. By pressing the accelerator, the operator communicates the desired speed and torque to the EPD control unit, which manages engine rpm in such a way as to obtain maximum performance from minimum fuel consumption. The EPD system also provides three manually selected operating modes: Transport and Tow, aimed at attaining or maintaining the desired speed with minimum fuel consumption; Heavy Load, used to obtain maximum performance during particularly demanding work such as excavation or snow clearance, with maximum torque delivered to the wheels for minimum fuel consumption; and Inching mode, for manoeuvring with maximum precision. In addition, there is a second potentiometer which allows the operator to set the engine idle speed, which is particularly useful when you need to ensure that the PTO shaft rotates at exactly 540 or 1000 rpm in order to get the best performance from implements. Merlo is the only telehandler manufacturer in the world offering an effective solution capable of significantly reducing energy consumption.



The EPD system also provides three manual operating modes: Transport and Tow, aimed at attaining or maintaining the desired speed with minimum fuel consumption; Heavy Load, used to obtain maximum performance during particularly demanding work such as excavation or snow clearance; and Inching mode.

- ✓ EPD system: Merlo innovation protected by patent.
- ✓ Energy savings: the EPD system manages the diesel engine and transmission to obtain fuel savings of up to three litres per hour.
- ✓ Annual savings: with an estimated annual usage of one thousand hours, the fuel saved amounts to around 3000 litres, which is roughly equivalent to 3600 Euros.
- ✓ Objectives: EPD manages engine rpm, applying parameters designed to obtain maximum energy savings.
- ✓ Accelerator pedal does not directly control engine rpm: the operator use the pedal to request speed or torque and the EPD system does the rest. Versatile and automatic system.
- ✓ Manual modes: the operator can select three manual modes: Transport & Tow, Heavy Load, and Inching for maximum efficiency in specific operating conditions.
- ✓ Diesel engine idle speed: the operator sets the ratio between engine rpm and PTO shaft rpm, choosing either the 540 or the 1000 rpm PTO.

* 1.449 Euros per litre. Quoted by ADAC (German Automobile Club) on February 2013

Merlo CVTronic: fluid and gradual acceleration without torque interruption

The first telehandler with integrated electronic systems designed to give max productivity and performance

Maximum synergy is achieved with a new transmission that combines Merlo's experience in the field of hydrostatic transmissions with new technical solutions that afford the same performance, consumption and productivity as a conventional Continuously Variable Transmission.

This system, Merlo CVTronic, is comprised of two hydrostatic motors with axial pistons and variable displacements that are supplied with oil by a load sensing hydrostatic pump driven directly from the diesel engine. Both motors work together to deliver the maximum amount of torque within the speed bands used for materials handling and open field work.

In transport, the second hydraulic motor, which is connected to the gearbox via a clutch, is completely disengaged by the electronic control unit. The transition is performed automatically, with no torque interruption.

All the oil from the pump is then directed to the main hydraulic motor, which drives the P 50.8 at speeds of up to 50 km/h, where local restrictions permit.

These solutions will be gradually extended to all the models in the Turbofarmer range, making them even more competitive.

- ✓ M CVTronic: Merlo's own original interpretation of the continuously variable transmission. Merlo's new transmission matches the performance of a conventional CVT.
- ✓ M CVTronic low speeds: two hydrostatic motors working together to deliver maximum torque. excellent drawbar power.
- ✓ M CVTronic high speeds: all the oil flow from the pump is directed to the main hydrostatic motor to attain speeds of up to 50 km/h. Maximum performance and a higher top speed than the competition.
- ✓ M CVTronic/EPD: the synergy between the two integrated systems makes for high performance and a reduction in fuel consumption of up to 3 litres per hour.
- ✓ No interruption in torque delivery: maximum efficiency and driving comfort.
- ✓ Electronic management of the M CVTronic system and speed control: maximum performance and comfort.
- ✓ Accelerator pedal: connected to the EPD system to minimise fuel consumption.
- ✓ From 0 to 50 km/h: gradual acceleration with interruption of torque delivery.



Double the annual usage of the P 50.8 with the PTO and drawbar

The multipurpose P 50.8, with an equipment package aimed specifically at open field farming applications



In livestock farming, the telehandler is primarily used for handling materials, such as hay and animal feed. By adding a mechanical power take-off, use of the P 50.8 is extended to towing a feed mixer trailer, with the advantage of using a single, versatile and powerful machine for materials handling and towing, feed mixing and distribution. With 90% of the available flywheel power transmitted to the output shaft of the mechanical PTO, the telehandler becomes a veritable mobile power plant, and not just mechanical power either, but also hydraulic, as the P 50.8 is equipped with hydraulic remote control valves with rear service couplers. The tow hitch, the trailer braking the PTO and the hydraulic remote valves are the fundamental specifications for the use of implements such as manure spreaders and slurry spreader tanks. The PTO can be connected to a sprinkler irrigation pump, or used in haymaking with round balers, spraying booms, rotary tedders. Disc ploughs and seed drills can be towed from the drawbar. Implements equipped with hydraulic rams, such as mowers, may be connected to the quick-attach hydraulic couplers of the remote valves to allow rapid adjustment of the cutter bar. The examples cited above significantly extend the range of application of the telehandler, making it a true agricultural vehicle, versatile and economical, and doubling its annual usage while halving the time taken to return the initial investment, all of which adds up to a significant contribution to profitability.

- ✓ Mechanical power take-off: state-of-the art conception and functionality.
- ✓ PTO engagement: The system allows modulated engagement according to the implement inertia. Smooth, progressive engagement.
- ✓ Power available at the PTO output shaft: 135 horsepower. Guaranteeing high performance.
- ✓ PTO speeds: 540/1000 rpm, in line with standard tractor speeds.
- ✓ PTO stub shaft: two types available, with either 6 or 21 splines, depending on the power requirements of the implement.
- ✓ Interchangeable PTO shaft: Greater operational versatility.
- ✓ D3 tow hitch: Suitable for towing trailers weighing up to 20 tonnes. Greater productivity.
- ✓ Trailer braking system: hydraulic or air braking depending on requirements. Maximum versatility.
- ✓ Drawbar: for trailed agricultural implements. Enhances versatility.
- ✓ Hydraulic remote valves: with quick-connect hydraulic service couplers. Maximum efficiency and versatility.



Enjoy the comfort of the new record-breaking cab

Whatever your size and build, the new P 50.8 cab offers tailor-made comfort

Just a glance is all you need to realise that the new cab represents a major leap forward in terms of design and ergonomics of the operator position.

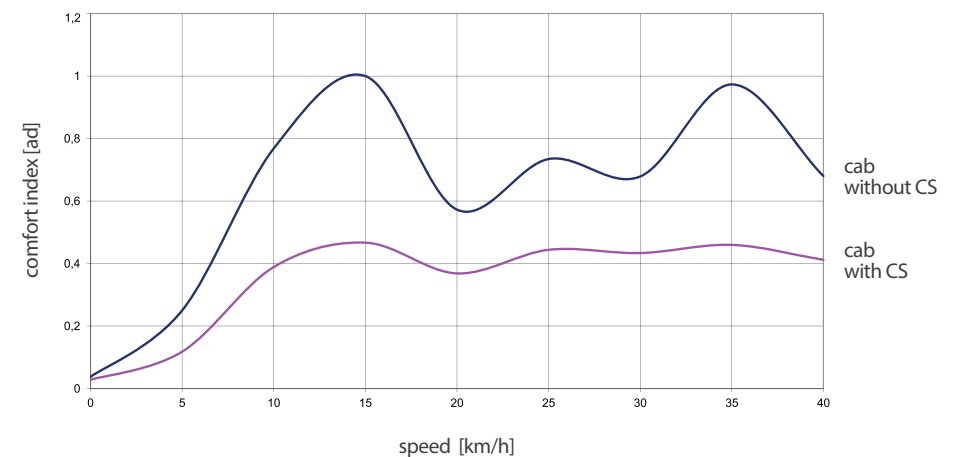
Climb aboard and you immediately feel at home. Wide opening door for easy access, comfortable driver's seat giving ample support, tilt adjustable steering wheel and outstanding visibility in all directions. Thanks to tall, curved windscreen designated «Merlo Sky-View» the operator has a unrestricted view of the boom movements.

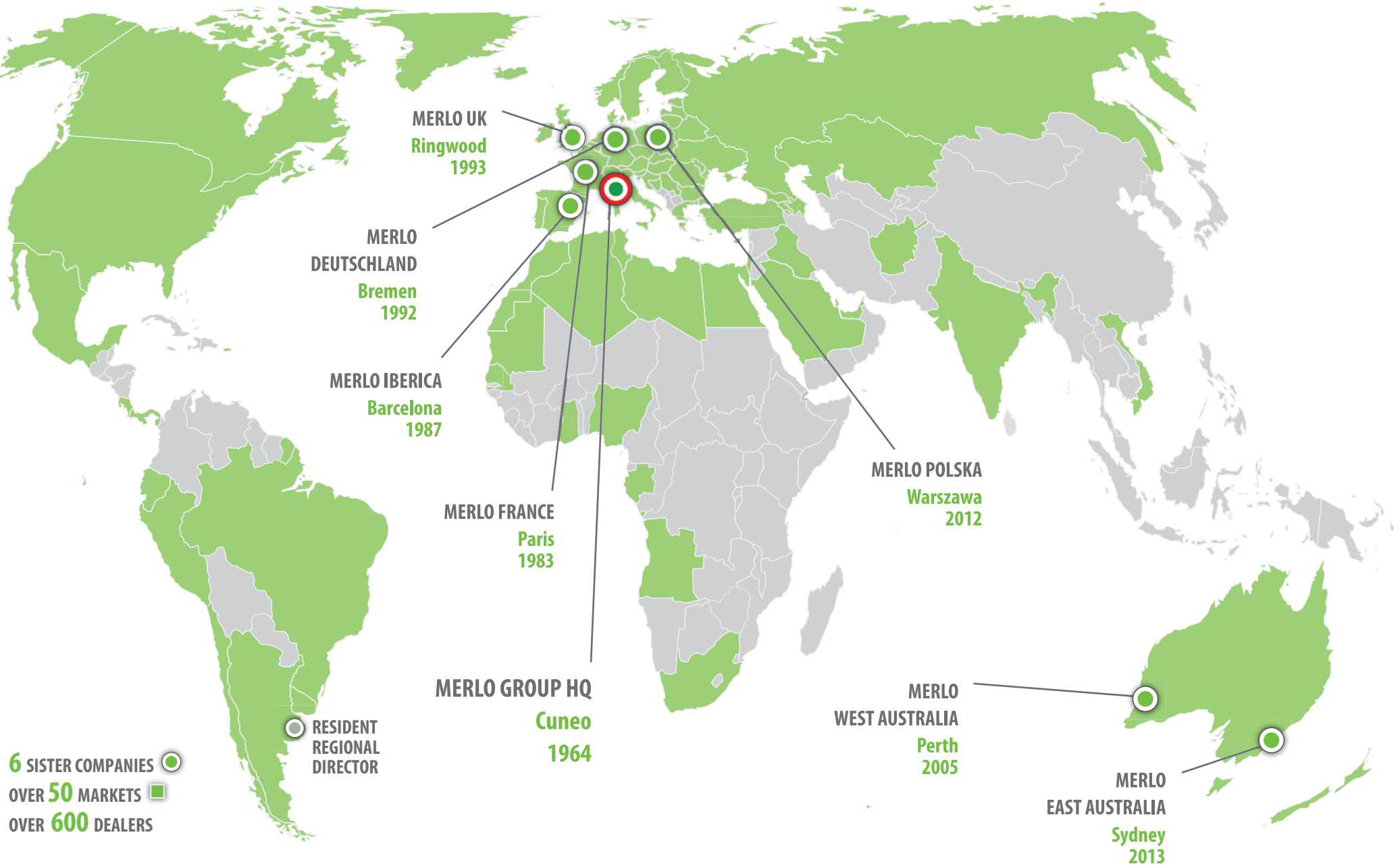
The digital instrument panel displays information about the vehicle, while information relating to the CDC Dynamic Load Control system is shown on an 8.5" display, with the display functions selectable via a control knob.

The EPD operating modes are also easy to select, as is the joystick, which incorporates the forward/reverse shuttle control.

The overall impression is of an outstanding cab specifically designed for the professional operator who demands maximum comfort and ergonomic controls for easier and more precise operation.

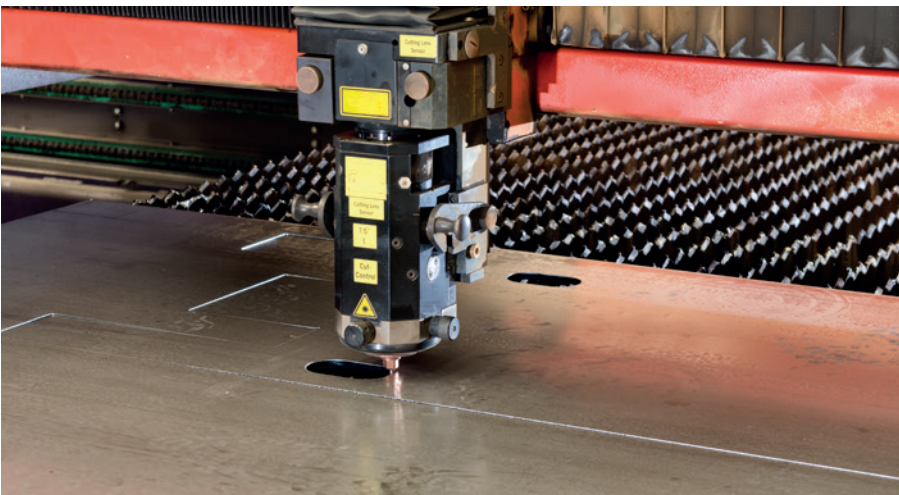
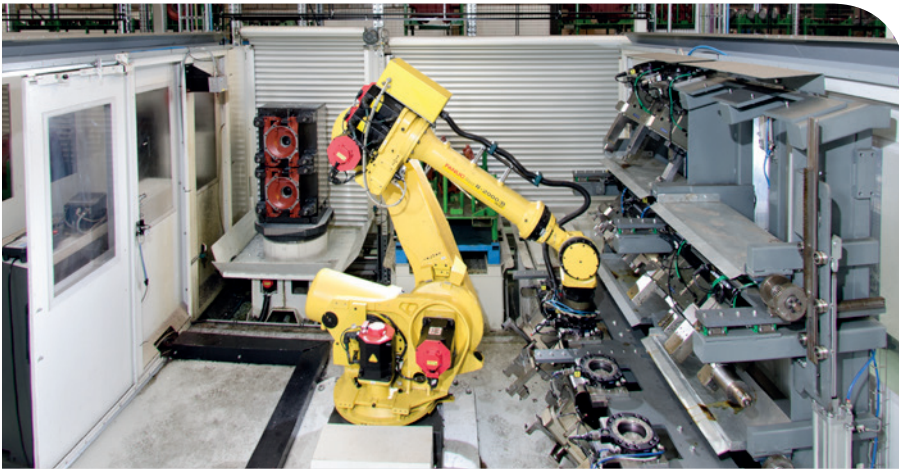
- ✓ Cab: new generation designed for maximum ergonomics, visibility and safety.
- ✓ Operator position: plenty of space for the operator to move his/her arms, shoulders and legs.
- ✓ Curved windscreen: unique on a machine of this type. Allows the operator a clear view of boom movements.
- ✓ Digital instrument panel: specifically designed for the vehicle, providing clear, accurate information. The panel also displays the instantaneous fuel consumption, helping the operator use the accelerator judiciously.
- ✓ 8.5" display: dedicated to the M CDC system, supplied as standard on the basic machine. Easy to read. M CDC functions. Selection of the functions via the selector knob is easy and intuitive.
- ✓ EPD controls: the three modes are selected manually using the potentiometers for maximum ease of use.
- ✓ Joystick: equipped with forward/reverse shuttle control for maximum operator convenience.
- ✓ Pushbuttons: the main pushbutton controls are intuitive and located on the right-hand control panel.
- ✓ A/C and heating: bi-zone system with windscreen defrost. Maximum safety and comfort.
- ✓ Radio with Bluetooth: hands-free mobile phone operation.



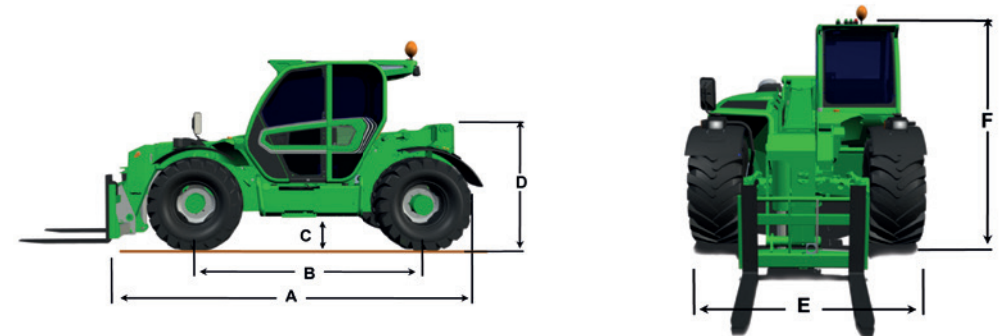


Technical data

Dimensions and weights of the new P 50.8

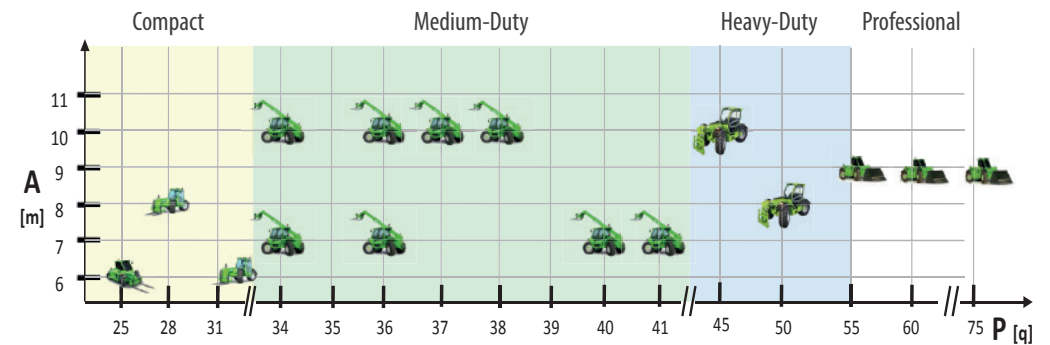


MACHINE	TYRES	MAß	A	B	C	D	E	F
P 50.8	600/55 R26,5	mm	4880	2920	480	1650	2520	2510 - 2570
WEIGHT OF THE MACHINE				8800 kg				
MAXIMUM LIFTING CAPACITY				5000 kg				
MACHINE WEIGHT/MAXIMUM LIFTING CAPACITY RATIO				1.77				



The P 50.8 is the first of a new series of Heavy-Duty Turbofarmer models:

- ✓ Maximum lifting capacity of 5 tonnes
- ✓ Maximum lift height of 8 metres





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*The telehandlers illustrated in this document may be equipped with optional or special accessories that do not form part of the standard supply but which are available on request.
In some countries certain models or attachments may not be available as a result of market restrictions or regulations.
The technical data and other information were up to date at the time of printing, however, in line with our policy of continuous technical improvement, we reserve the right to modify our products without prior notification.
Your Merlo dealer will be pleased to provide you with the latest information on all our products and services.*