

SWISSPOWER

M4x Latest technology & innovation









Triple Power Boom

With the M4x series, the unique, patented and proven Menzi Muck boom kinematics have been taken yet another step further. The result is a kinematic arm that makes this walking excavator a mountain specialist. The clever arm continuously yields sufficient power to the machine so that it can move dynamically in the terrain without additional options. Thanks to 114% higher force at the boom cylinder, going off-road becomes child's play.





Chassis

Innovative, patented undercarriage concept with optimal kinematics at ideal power ratios P-Vation for horizontal and vertical parallel wheel adjustment. Powerful H-Drive travel drive for uncompromising working and driving. Perfected mountain stabilizers and an ideal articulation point matched to the angle of the slope.



New Design by Alberto Bicego

The Menzi Muck M4x walking excavator series is not only excels regarding technology and performance, but also focuses on a modern, innovative design that is both functional and practical. The strategic design means the components of the upper carriage and cab have been optimally adapted to meet the demands on our machine.



I-Control

The intelligent machine control architecture permits the full exploitation of the walking excavator's potential. The software-controlled electronics open up a wide range of possibilities for the hydraulic system. An intuitive operating concept, new functions such as I-Steering and intelligent interfaces for attachment devices complete the system. The result: increased efficiency, reduced fuel consumption, more direct control and exceptional sensitivity paired with maximum precision and power.



Spacious panoramic cab

Best all-round visibility, state-of-the-art cab design and optimised ergonomics for healthy, concentrated and fatigue-free work. Redesigned thermal management with increased heating and cooling capacity for maximum comfort. A clear and intuitively designed 12" colour touch screen gives you full control of the machine at all times. Intelligent details such as inductive smartphone charging, a drink cooler and numerous storage compartments make everyday work all that much easier.

Triple Power Boom

The boom kinematics of the Menzi Muck walking excavator are the result of many years of mature innovations. The result is a kinematic arm that makes this walking excavator a slope specialist. The standard, sophisticated kinematics system continuously yields sufficient power to the machine so that it can move dynamically in the terrain. Stepping becomes child's play thanks to 114% extra force on the boom cylinder combined with 22% extra force on the dipper cylinder.

Clever line of force

The direct positioning of boom & dipper cylinder provides perfect force guidance.

Wide-angle kinem and power ampli Patented arm kinem for the greatest pos force progression ov entire working ran

Boom cylinder

The overhead cylinder gives this boom cylinder excellent lifting power and at the same time unrivalled support forces.



Swivelling

It's a Menzi Muck innovation that delivers controlled sensitivity even on the steepest terrain.





Modern & functional cab design.

Joystick
The proven and extremely functional Menzi Muck Joystick has been enhanced with IX-Steering.

IX-Steering
Turning the Joystick creates a new operating level which allows direct steering of the X-chassis.

12" touch screen
All information and
functions are clearly arranged in the operator's
field of vision.

Central electrics
Fuses with LED monitoring, clear arrangement, optimum accessibility

I-CONTROL

I-CONTROL
Multifunctional
operating concept
Simple and intuitive
design Touch screen
combined with switches

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Inductive
smartphone
charging
Place the smartphone
on the anti-slip mat
and it charges
automatically.

Air distribution
A large air duct
evenly supplies all air
outlet nozzles and
increases efficiency.



I-Control Engine-independent heating direct interface to the engine-independent heating

Thermal management
Increased heating and cooling capacity for maximum well-being incl. direct interface to the engine-independent heating



Air distribution

Air distribution
A repositioned air
nozzle increases the
air flow along the
door, optimises
defrosting and
creates harmonious
air distribution in the
cabin.

12-inch touchscreen

The 12-inch touchscreen was developed and designed by the Menzi Muck software specialists specifically for walking excavator use. The clear design provides a precise display and means easy operation for the user. Simply swipe to the next page or arrange the switches on the display in the way that best suits your application.

Cockpit
Rotational speeds,
temperatures and
fill quantities
clearly at a glance

Camera
Easily change the image and connect up to 4 cameras.

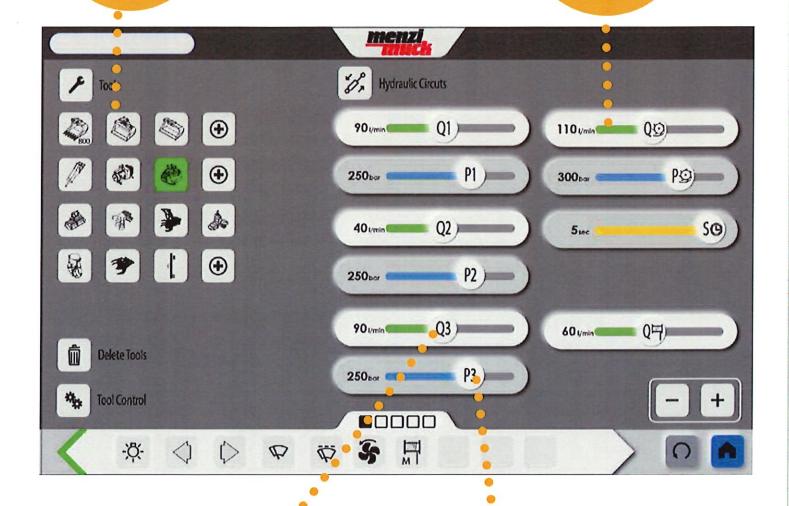
Operator menu Simply save individualisations.



Tool management

Tools
Choose your
attachment devices,
add new ones or
simply delete old
ones.

Litres & pressure
Depending on the
attachment device,
you have the option
of conveniently
adjusting pressure &
litres using the sliders.



Joystick
configuration
Consistent naming
(e.g. Q1/P1), facilitates
assignment and
individualisation of the
Joystick settings.

Hydraulic circuit
Select for yourself the
hydraulic circuit to
which the tool is
connected and save
the settings.

Maintenance & Support

Refuelling

Convenient refuelling of diesel and SCR on the operator's side.
The diesel filling pump enables easy handling.

protected. Filling couplings optionally available



Fleet management

I-Telematik provides efficient management of the Menzi Muck fleet. It covers machine data collection, data analysis, fleet ma-nagement and service. All important machine data can be accessed at any time via the web browser.



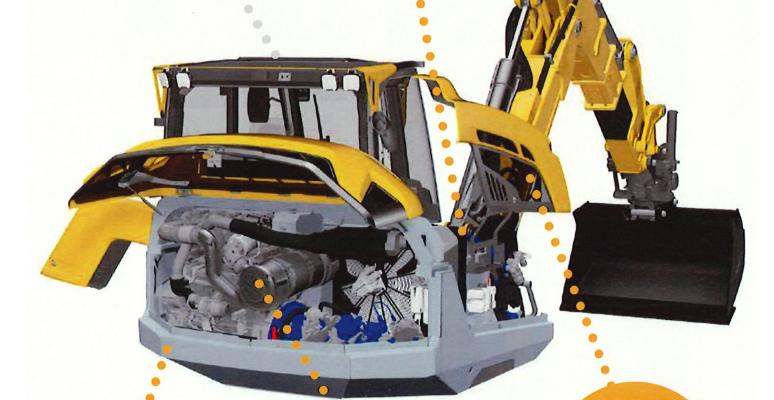


I-Telematik

A data transmission and location system facilitates service & diagnosis and facilitates fleet management.

Resources

Resource-saving hydraulic oil management An oil analysis (every 1,000 operating hours or after one year) determines the ideal moment for the oil change.



Web service interface

Access your machine's information via the web. Use the data directly in your system.

Engine compartment

Air cleaner in optimum maintenance position, easily accessible: measuring point for hydraulic pressures, oil dipstick with supply connection for engine oil.

Side cover, right

Access to windscreen wiper water reservoir, hydraulic oil filler and hydraulic tank level indicator

I-Control

I-Control

The intelligent machine control architecture facilitates the full exploitation of our walking excavator's potential. The electronics with the software expand the possibilities of the hydraulic system. The result: Increased efficiency, reduced fuel consumption, more direct control and exceptional sensitivity paired with maximum precision and power.

Pump technology

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Proven pump technology with modern control technology, combined with innovative pump management increases efficiency and reduces fuel consumption.

Hydraulic oil system

The latest filter technology, a flow-optimised hydraulic tank and monitoring of the return filter with I-Control, extend the service life of the hydraulic oil, reduce maintenance costs.

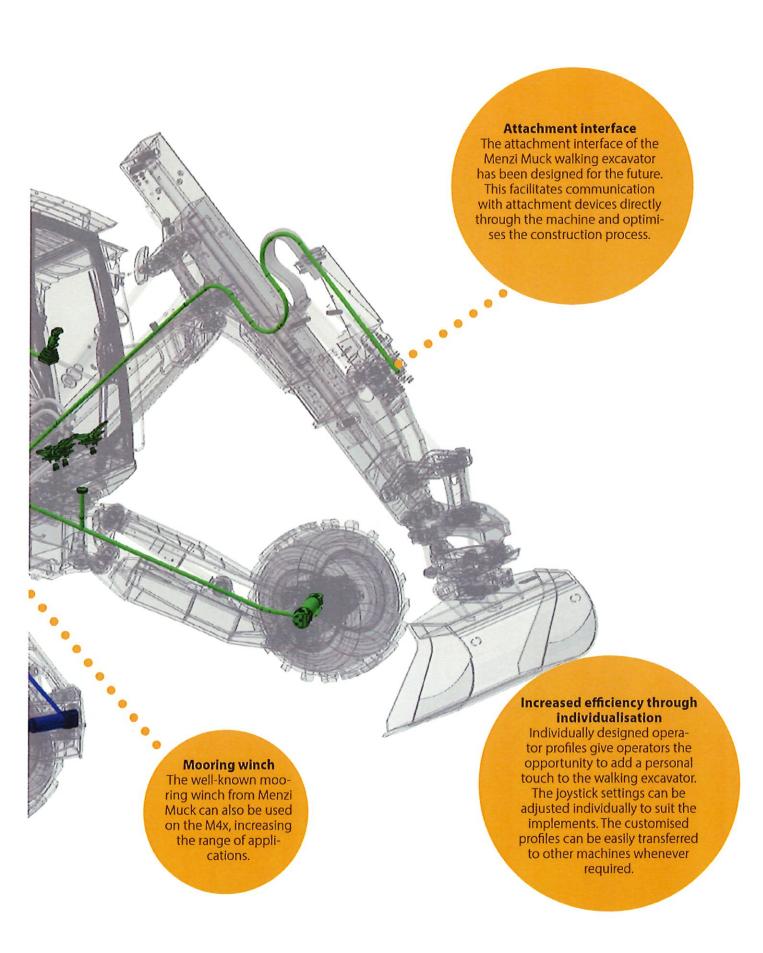


Intelligent performance management

The power of the 3.6 L Deutz engine is distributed to the hydraulic pumps as required. The three modes, Power, Eco and Fine are perfectly matched to the M4x. The electronics recognise when the operator demands power, meaning that the Deutz diesel engine can be used in a resource-saving manner.

The latest generation of valve technology

The latest generation hydraulic block provides more direct actuation and exceptional sensitivity plus maximum precision and power.



Chassis Generation X

Exceptional kinematics

P-Vation stabiliser front and rear Sophisticated arrangement of pivot points on the chassis for horizontal and vertical parallel adjustment of all wheels. Maximum adjustment range and steering angle to increase safety and application possibilities.

Unrivalled gradient
P-Vation stabilizers for slopes
others have to go around.
Unsurpassed slope proximity
and maximum wheel width
adjustment of over 5,500 mm
for true stability.

IX-Steering

Turning the joystick creates a new operating level which allows direct steering of the X-chassis.

Steering mode

Choose between front steering, rear steering, 4-wheel steering or crab steering. You can use IX Steering on the joysticks to correct the stabiliser steering directly, or steer as required, among other things.

Tyres up to 710 mm

For special applications and situations, wide tyres up to 710 mm increase safety and usability and reduce ground pressure.

Off-road mode

Self-locking differential in slippery or soft conditions for maximum traction and powerful drive.

Sensor steering

Linear sensors in the steering cylinders, angle sensors on the swivel feet and in the rotary transmission provide automatic direction detection and pass the information on to I-Control.

Deep wading

Maximum ground clearance guarantees a fording depth of 2,105 mm for municipal and water applications.

Mountain stabilizers

Perfect for working on very steep terrain, installation of sturdy front and rear mountain stabilizers possible Optimal design guarantees ideal articulation point matching the angle of the slope.

Chain mode

Collision protection through electrical activation of forestry or snow chain mode, individually adjustable.

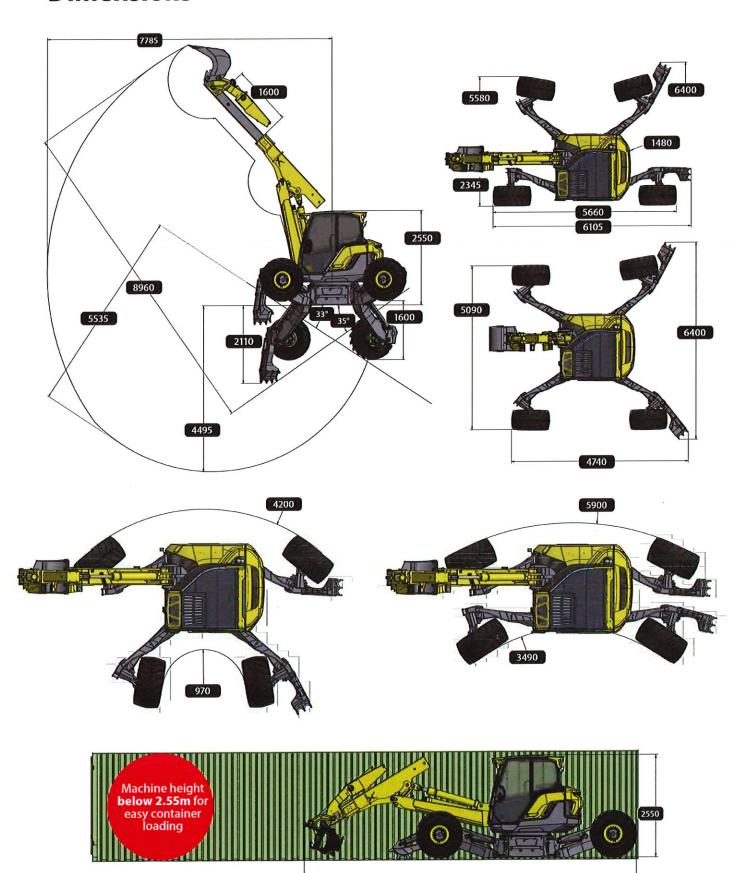
Winch mode

Collision protection of special wire rope winches by electrical disconnection of the stabilizers, individually adjustable.

Travel drive

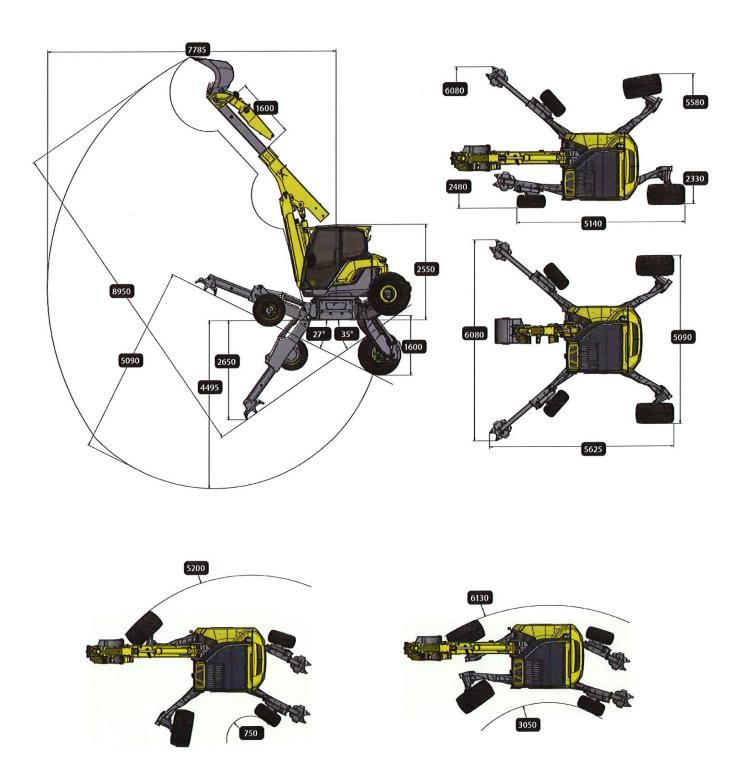
More traction optimal balance between power and speed in two gears.

Menzi Muck M445x Dimensions

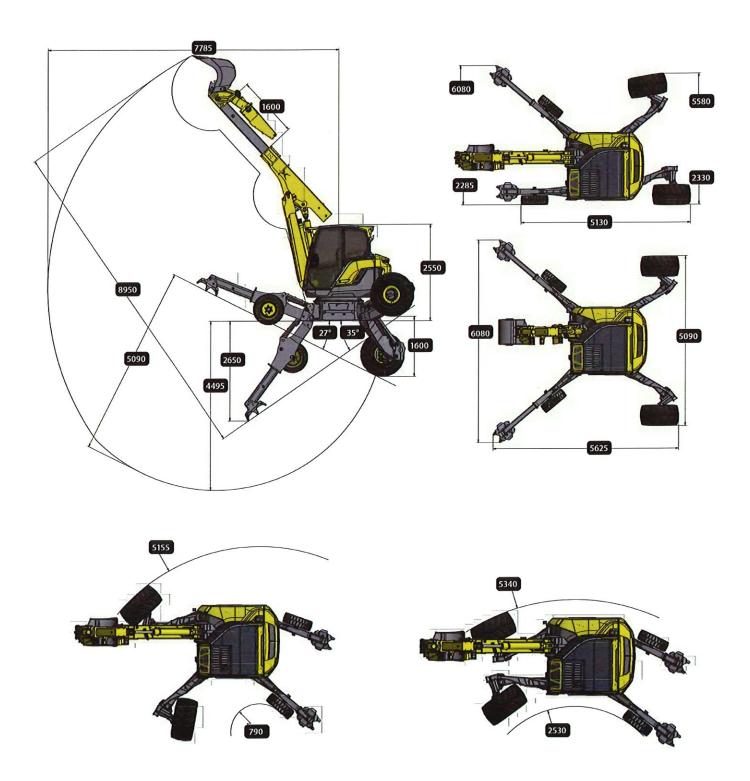


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Menzi Muck M435x Dimensions



Menzi Muck M425x Dimensions





M4 technical data, dimensions and figures

Engine

Deutz 4-cylinder diesel	TCD 3.6 L4 HP	
Emissions level	EU level V/US Tier 4	
Displacement	3621 cm ³	
Performance according to ISO 14396	105 kW (143 HP) at 2,000 rpm	
SCR catalytic converter	with AdBlue supply	
Integrated diesel particulate filter	with automatic regeneration	
Max. torque	550 Nm at 1,600 rpm	

Travel drive

Driving speed max.	10 km/h*
Separate hydraulic pump	180 l/min, max. 420 bar
Service brake	hydrostatic
holding brake	Spring loaded accumulator

Weight in kg

M425x without tools from	10,600 kg**
M435x without tools from	11400 kg**
M445x without tools from	11500 kg**

Unrivalled power

Lifting force @ 3.0 m boom length	9,100 kg	
Lifting force @ 4.5 m boom length	4750 kg	
Lifting force @ 6.0 m boom length	3100 kg	
Breakaway force	109 kN	
Ripping force	77 kN	
Telescope thrust	191 kN	

Swivelling

Radial piston engine with automatic on the internal teeth of the large-dir ring.	multi-disc holding brake acts directly nensioned double-row ball slewing
Swivel range	360° endless
Swivel torque	48,000 Nm
Swivel speed	up to 10 rpm
Slewing ring module 10	Ø 1,200 mm

^{*} depending on type and tyre dimension

Hydraulic system

Working hydraulics	Rexroth LUDV
Pumps	Swash plate axial piston pumps
Workpump	260/min, 320 bar
Fan pump	50 I/min, 180 bar
Additional connections	6

Hydraulic control circuits

Adjusting the auxiliary hydraulic connections vi	a the touch screen
Control circuit Q1 on the arm: proportional, litres and pressure adjustable	max. 150 l/min 50 - 320 bar
Control circuit Q2 on the arm: proportional, litres and pressure adjustable (opt.)	max. 100 l/min 50 - 320 bar
Control circuit Q3 on the arm: proportional, litres and pressure adjustable (opt.)	max. 50 l/min 50 - 320 bar
Control circuit Q4 on arm (quick coupler) (opt.)	30 - 300 bar
Powerline, litres and pressure adjustable (opt.)	max. 150 l/min 50 - 350 bar
Winch connection on the chassis proportional, litres adjustable (opt.)	max. 120 l/min
Return pipe	
Leakage line (opt.)	

Filling quantities

Fuel tank	1301
Fuel tank, chassis	2151
AdBlue tank	201
Hydraulic oil system content	2001

Tyres

Road traffic license CH and EU with width	out special permit up to 710 mm tyre
Standard	W/Ø in mm
300-15 (M425x)	300 / 820
400/55-17.5 (M435x)	390 / 890
600/50-22.5 (M445x)	600 / 1170
Option	
710/40-22.5	710 / 1170



^{**} depending on equipment

Innovative standard equipment and useful options

standard + optional o

Upper carriage

Diesel filling pump with limit switch	+
Gas spring-assisted opening of the side and tail gate	+
Integrated tool compartment	+
Additional toolbox	0
Direction recognition with automatic changeover	+
Cylinder on arm with end position damping	+
Powerline	0
Leakage line	o
Control circuit Q1 + Q2	+
Control circuit Q3 + Q4	0
Control circuit pressure adjustment Q2 + Q3	0
Return filter with optimised air separation (In to OUT)	+
Reversing fan	0
Lifting equipment (CH and EU)	0
Lift and swivel limitation (boom & swivel)	0
Lift and swivel limitation (all arm functions)	0

Cab

"Roll-Over Protection System" – DIN ISO 3471	+
FOPS protective grid roof Level II according to DIN ISO 3449 Compact	+
FOPS protective grid roof Level II according to DIN ISO 3449 Forest	0
Removable windshield OPS-tested according to ISO 8084	0
Front safety screen for forest according to ISO 21876	0
Low-vibration and low-noise cabin	+
Grammer operator's comfort seat	+
Grammer operator's comfort seat Evolution with seat climate control	0
Ergonomic joystick with Ix-Steering	+
Cab tiltable with hydr. hand pump	+
Headlight ring on the roof with up to 6 LED headlights	0
5 LED work lights	+
LED auxiliary lights on arm or cab (various versions)	0
LED swivel light	0
Protective grid on windshield (different variants)	0
Safety glass (different variants)	0
Door with sash window	0
Spacious, ergonomic cockpit	+
Reversing camera	+
Powerful heater with 8 adjustable air nozzles	+
Air conditioning	0
Engine-independent heating	0
Pollen filter	+
DAB+ radio with USB/MP3 player	+
Three-point safety belt	0

Wiping and windscreen washer	+
Telekmatik tracking system	+
LCD Display 12.1" touchscreen	+
USB charging station	+
Inductive charging station	+
Central electrics with LED monitoring of the fuses	+

Generation X chassis

Optimally protected components	+
Mountain stabilizers, front	0
Mountain stabilisers, rear (M445x)	0
Hydraulic wheel height adjustment (M435x)	+
Winch attachment possible at front or rear	+
Mooring winch preparation	0
Remote control for winch	0
Electric winch collision protection	+
Automatic parking brake	+
Differential lock	+
Linear displacement sensors in the steering cylinder	+
Active angle sensors	+
Electric chain collision protection	+
Hydraulic freewheel (M425x)	0
Chassis cylinder with check valves	+

Other special features

Vacuum pump for hydraulic system	0
Automatic idling	0
Road traffic license (CH and DE)	0
Automatic central lubrication (whole machine or upper carriage only)	0
Central lubrication cartridge filling	0
Biodegradable hydraulic oil	0
Hydraulic affluent filter	0
Forest version	0
Drilling equipment	0
Municipal maintenance equipment	0
Special paintwork	0
Low temperature package	0
Start & Stop on the joystick	+
Automatic idling	0

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