

maskin mekanio

ECO4

CONTAINER MOBILE SCREENING PLANT



Time to join the shift

You want a mobile unit – but with a bit more capacity. You want flexibility – without compromising on screening performance. You want all the benefits of an electric machine – but you might not always have access to the grid.

ECO4 can be everything to everyone – yet it's anything but average. Its screening performance is razor-sharp, delivering clean fractions and efficient fine separation even in less-than-perfect weather conditions. The STE screen has an impressively wide range: it handles light materials like bark and wood chips, recycled materials such as brick, concrete and asphalt, as well as heavy-duty materials like ore and slag. Thanks to its powerful stroke, it also remains effective on wet and sticky materials such as soil and gravel.

With the ECO4, Maskin Mekano introduces a revolutionary innovation to simplify screen changes – the entire screen box is slidable! This makes it fast and smooth to switch between materials, making it profitable to screen even small stockpiles.

Maskin Mekano's hook-lift concept is already hugely popular, and we are proud to now offer even more capacity in the same compact and efficient format.

ECO4 comes equipped with an onboard diesel generator mounted on a sliding frame for easy access. Fuel consumption is only 3.5 litres per hour. But when grid power is available, you'll save even more money and reduce your environmental impact – while keeping your operation significantly quieter.

DECKS



2

SCREEN AREA



1.2 x 3.3

WEIGHT



15.000

TRANSPORT



Hook lift

CONSUMPTION



18 kW

3.5 l/h

SET UP TIME



5 minutes







Capable and versatile screen

The ECO4 is equipped with Maskin Mekano's proven screen STE 2-37. It is a four-bearing screen with dimensions of 1.2 x 3.3 m on the lower deck, while the upper deck is slightly longer. It has a powerful stroke of 12 mm and operates at 800 rpm with an 11° inclination. These features give the STE screen its unique performance and enable it to effectively meet the combined demands of high capacity and high screening accuracy. Read more about STE screens at www.maskinmekano.se

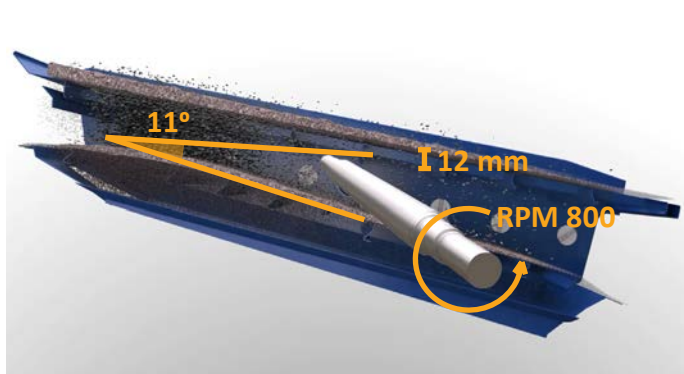
The upper deck is side tensioned in order to endure the heavy load of coarser fractions and the lower deck is end tensioned for optimum results when screening fine material. The screen box can be fitted with a ball-deck to further improve the impact when screening challenging materials. The capacity per square metre screen area is unsurpassed in the industry.

Changing meshes is cheap and quickly done, it is therefore profitable to run fairly small batches. With ECO4, Maskin Mekano presents an exciting new innovation—the entire screen can be pulled out, providing unmatched access to all screen decks. Additionally, the screen has a large number of inspection holes.

The Vibroblock concept

The Maskin Mekano Vibroblock concept means the screen box is mounted on a vibration damped frame which prevents the vibrations from the screen from transmitting to the chassis. This saves the entire plant from damages caused by vibration, whilst the screening motion remains efficient.

The Vibroblock design allows the STE screen to operate with the capacity of a four bearing screen, smoother than a two bearing screen, and keeps the power in the screen-box where it belongs.



FEATURE
POWERFUL STROKE

EFFECT
EFFECTIVE STRATIFICATION

RESULT
HIGH CAPACITY

FLAT INCLINATION

EFFECTIVE SEPARATION

HIGH QUALITY



Total control of material flow

The feed section consists of a hopper with reject grid over a powerful belt feeder. A belt feeder provides a very even flow and is easily adjustable. The hopper has a large volume and generous dimensions for a machine of this size class. Adjustment of feeding speed and tipping of the reject grid is easily performed from the cab via remote control, which also controls the opening hatch in the feeder. This means that you can always optimise the material flow onto the screen. The distance between the bars in the reject grid is adjustable but is approximately 180 mm as standard.

Stockpiling capacity

For stockpiling the plant is fitted with three hydraulically folded on-board conveyors. All drive drums are rubberized for safe operation even in less favourable weather conditions. The remote controlled radial fines material conveyor provides maximum stockpiling capacity.

Energy efficient

The ECO4 is fully electric so if you have access to mains power, you do not need a diesel engine, reducing the environmental impact and the production costs to a minimum. Noise impact is also significantly reduced. The total electricity consumption at full production amounts to approx. 18 kW.

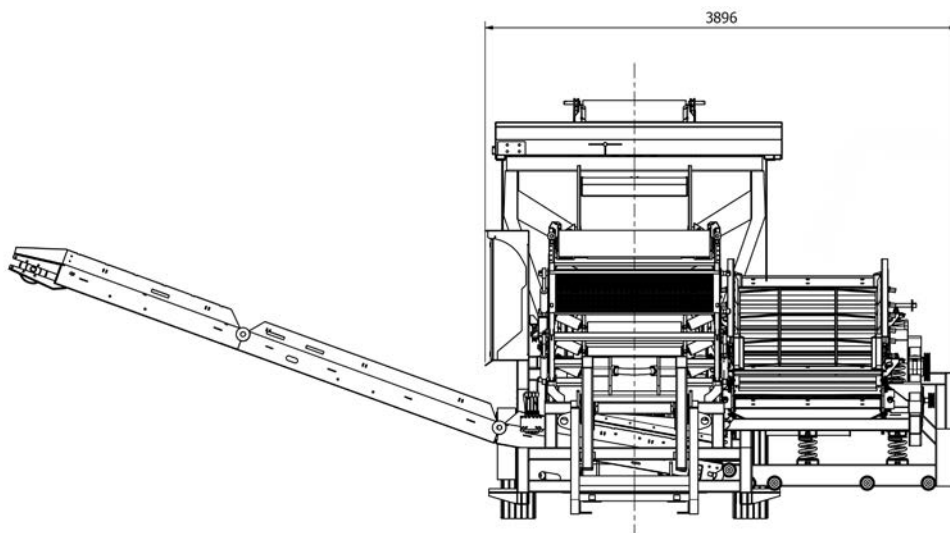
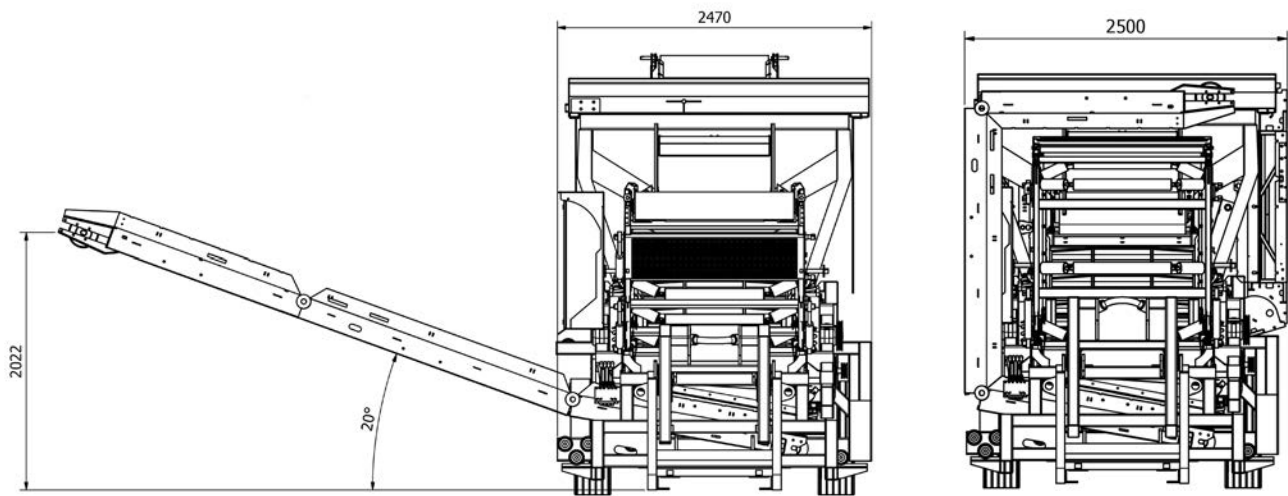
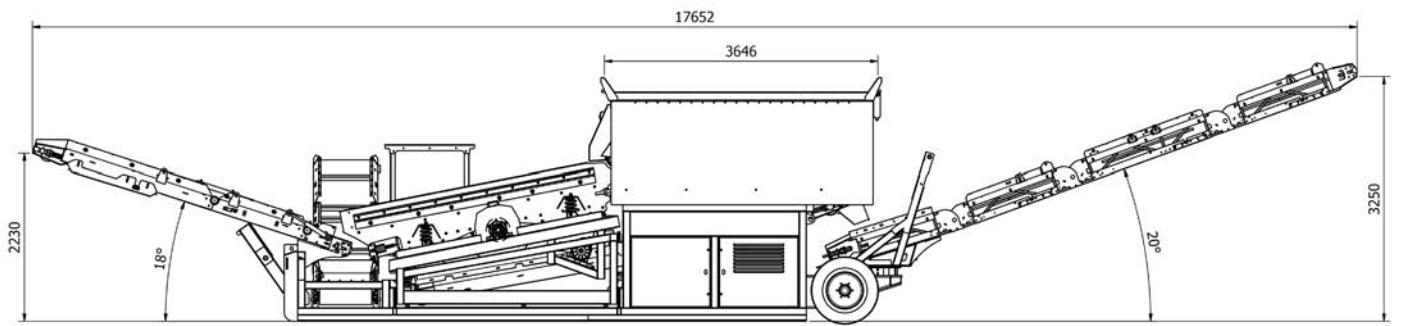
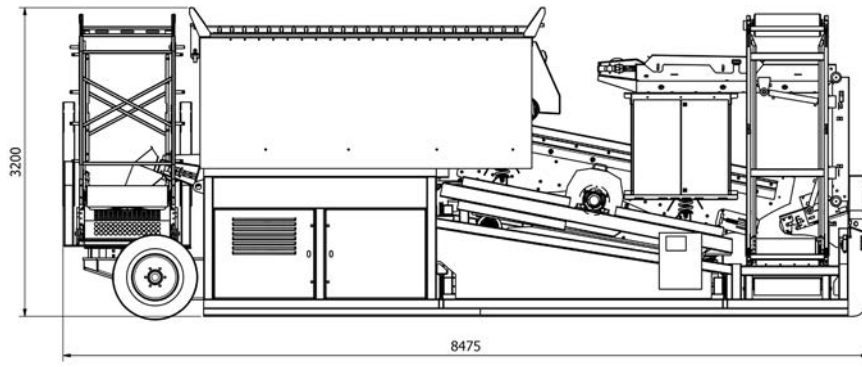
Optional diesel-electric operation

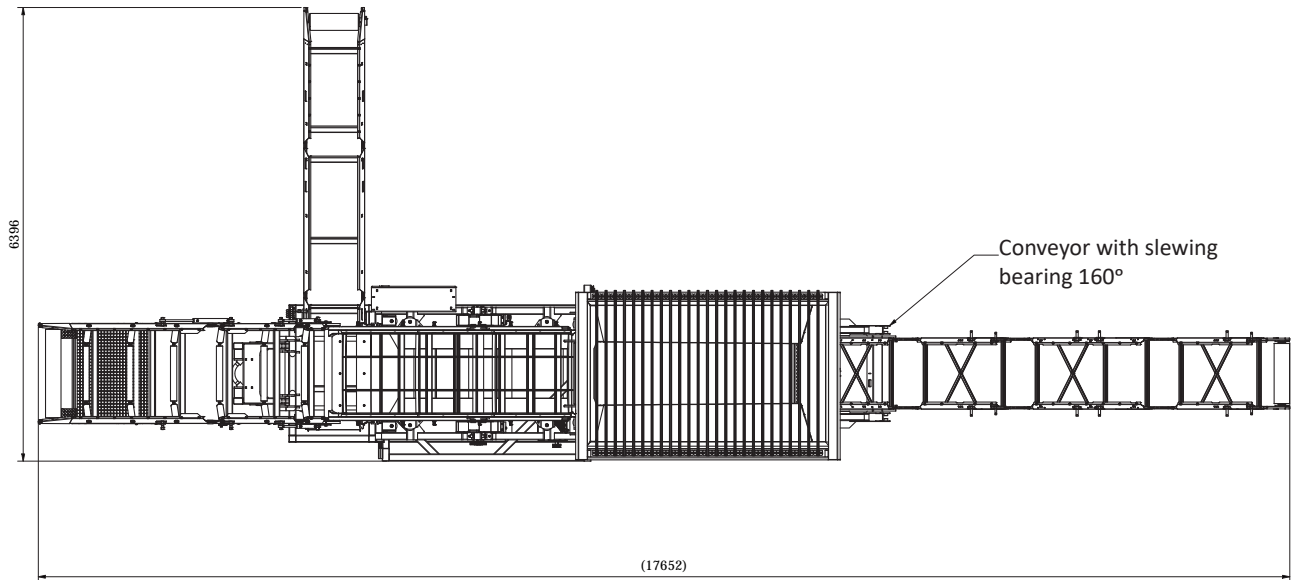
A step V diesel engine optimised for 1500 rpm is optional and mounted on a sliding frame for maximum accessibility. It runs quietly and economically. Diesel consumption is low at just 3.5 l/h, which translates into CO₂ emissions of about 10.5 kg/h.

A long and productive life

Maskin Mekano's machines are known for their operating reliability and longevity. Together with our partners, you can expect a high level of technical support and fast delivery of spare parts, which are always stocked.







FAQ

What type of diesel motor is on board?

It is an EU stage V, water cooled four cylinder motor driving a 30 kVA generator. The rotation speed is 1500 rpm, so it is both quiet and economic.

How do you change the screening media?

The upper deck is side tensioned and fastened by 4 bolts. The lower deck is end tensioned and fastened by 2 bolts only. The entire screen box is slideable for total access.

What if I only want to produce one size?

Only use the upper deck for sorting and leave the lower deck empty. The tensioning profiles in the bottom deck need to be fastened in order to prevent wear and tear, the tensioning profile in the rear needs to be removed from the screen box.

What is the feed-in-height of the hopper? What kind of loader is suitable?

The feed-in-height is 3.1 m and the reject grid is 3.6 m wide. A very suitable wheel loader is a Volvo L70, L90 or similar. It is absolutely possible to use a smaller loader, but a small access ramp will be needed.

The difference between a belt feeder and a vibrating feeder?

A belt feeder has a great speed interval and is resistant to sticky and wet material, so if you are going to produce mostly top-soil it is a great choice. A vibrating feeder is very sturdy and versatile and can process all kinds of recycling masses and heavier stones.

Is it possible to adjust the feeding speed?

Yes, the variable speed driver is controlled via the radio transmitter (also used for tipping of the reject grid).

What parts usually need to be replaced?

The ECO4 is a very robust plant featuring a lot of the same proven components as the larger Maskin Mekano plants. It is essential to retighten the screening media after a while to minimize the strain. If the filters and the oil of the motor are changed according to recommendations and the lubrication points are greased every 40th hour there is usually no need to replace any parts.

How many lubrication points are there? Can it be fitted with centralized lubrication?

It is possible to fit the ECO4 with centralized lubrication, but most customers chose not to since there are only 4 lubrication points that are very accessible and only need to be greased every 40th hour. To lubricate the bearings of the cylinders once every year is also recommended.

What is the weight of the machine?

15 tons as standard, in most countries it can be transported with a standard hook-lift bogie truck.

What is the fuel consumption?

The ECO4 has a fuel consumption of only 3.5 l/h.

The machine is very quiet, how is that possible?

The rotation speed of the diesel generator is only 1500 rpm. The screen box is mounted on a vibration damped frame which prevents the vibrations from the screen from transmitting to the chassis, this also contributes to the low noise impact. If you run it on electricity it is of course more quiet.

How long is the set-up-time?

For transport mode the conveyors are folded, this is done hydraulically without any need for manual handling. It is ready for transport in 5 minutes and ready for production in the same time.

And the capacity?

The ECO4 is suitable for a vast range of material such as asphalt, concrete, landfill and so on and of course traditional sorting tasks. The capacity when producing top soil is 40-200 tones/h, depending on how moist the material is. For other materials the capacity is usually between 140-300 tones/h.

Technical Specification Maskin Mekano ECO4

<i>Transport Length</i>	8.5 m (27.9')
<i>Transport Width</i>	2.5 m (8.2')
<i>Transport Height</i>	3.2 m (10.5')
<i>Machine Weight</i>	approx. 15.0 tons, depending on equipment
<i>Screenbox</i>	STE 2-37 Screening surface 1.2 x 3.3 m on two decks (3.9 x 7.2') Single axle mechanically controlled with 12 mm stroke 11° incline Motor 7.5 kW, 400 V
<i>Beltfeeder</i>	Width 1000 mm (3.3') Length 3.3 m (10.8') Effect 2 x 2.5 kW Hopper volume 3.4 m ³
<i>Oversize conveyor</i>	Belt width 1200 mm (3.9') Length 4.1 m (13.4') Drummotor 3.0 kW Height under the drum drive 2.2 m (7.2')
<i>Midsize conveyor</i>	Belt width 650 mm (2.1') Length 5.8 m (19.0') Drummotor 3.0 kW Height under the drum drive 2.0 m (6.6')
<i>Radial fines conveyor</i>	Belt width 800 mm (2.6') Length 7 m (23.0') Drummotor 4.0 kW Height under the drum drive 3.2 m (10.5')
<i>Hydraulic equipment</i>	Hydraulic aggregate for setup of machine and control of material flow hatch. Motor 4.0 kW
<i>Electric equipment</i>	Electrical distribution box mounted on the machine. Transformer for control current. Emergency stop on the conveyors.
<i>Driving package</i>	Dieselmotor EU stage V, 1500 RPM. Generator 30 kVA/50 Hz
<i>Wheel- and towing device</i>	Mounted on a hook-lift chassis.

Our policy is one of continuous improvement and we reserve the right to change the detailed specification of our products at any time without prior notice.

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