

maskin mekano

ECO2

CONTAINER MOBILE SCREENING PLANT



# COMPACT BUT POWERFUL

There is a great risk of underestimating the ECO2. It is compact. It consumes very little energy. It is quiet. But it is equipped with one of the world's most powerful screen boxes of its size, so powerful that it is built on a separate vibration blocking frame.

The screen in the ECO2 operates with a stroke of 12 mm, which enables screening of traditionally difficult-to-sort materials, not least in recycling. It gives you cleaner fractions, and in many cases a longer season.

Of course the ECO2 is electric. (It can be equipped with a built-in diesel generator.) Electric power is a cornerstone for the creation of a greener future. Electric machines have superior operating economy and are easy to troubleshoot and service.

We have been building electric screening plants since the 80's. Make use of our long experience of the future.







## Powerful feeder

The feed unit consists of a heavy-duty hopper and a powerful vibration feeder that is completely resistant to the fed material. Sharp edged stones or concrete steel will not be a problem. The feeder works with strong movement and low frequency to effectively feed all kinds of masses, from concrete, asphalt and bricks to soil, gravel and wood chip. The feeding speed is adjusted with remote control.

The hydraulic reject grid (optional) is tipped using the radio controller, which can also be used to adjust the opening in the feeding chute.

## Aggressive screen

The ECO2 is equipped with Maskin Mekano's proven screen STE 2-26. It has a 12 mm powerful stroke and the inclination is only 11°, which means difficult materials never run the risk of just sliding over the screen, but are efficiently processed by the aggressive stroke.

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. The open construction gives full accessibility to the screen box for ease of maintenance and inspection.

The STE screen has an impressively wide range. It successfully screens light materials such as bark and wood chip, recycling materials in the form of bricks, concrete and asphalt, but also heavy materials such as ore and slag. On account of the aggressive stroke, it is never clogged with damp masses like landfill and soil.

## 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.

## Stockpiling

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.

## Operation on mains

The ECO2 is fully electric so if you have access to mains power, you do not need a diesel engine. The total power

consumption at full production amounts approx. 8 kW.

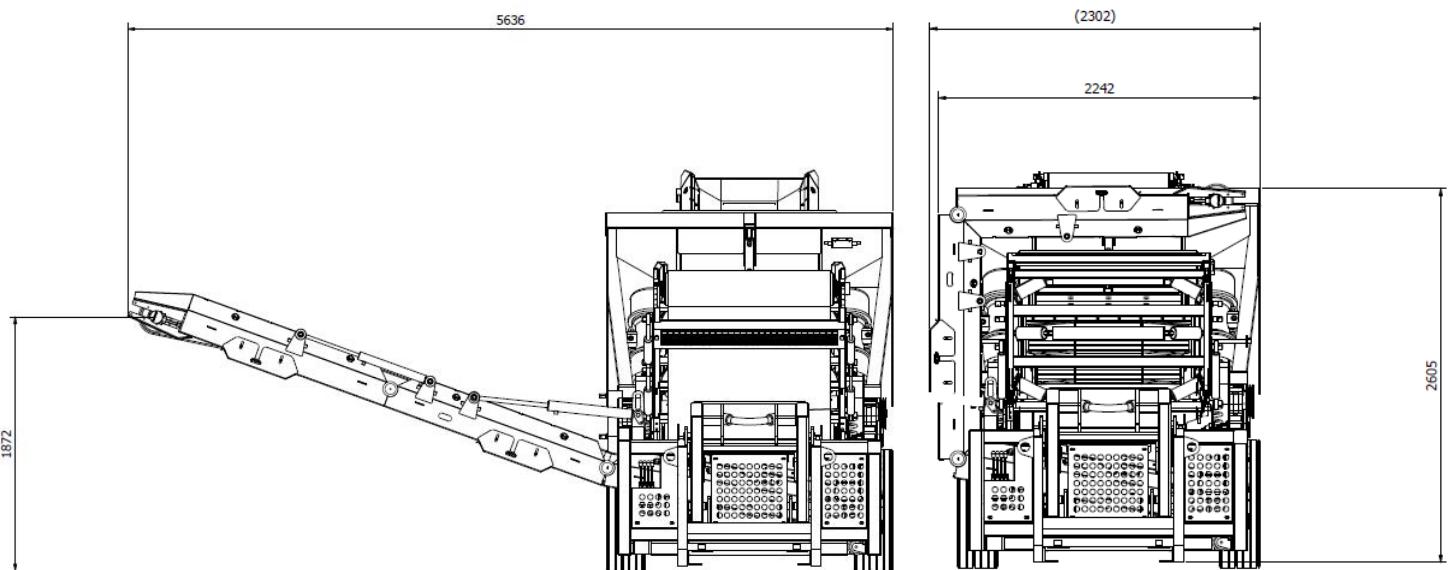
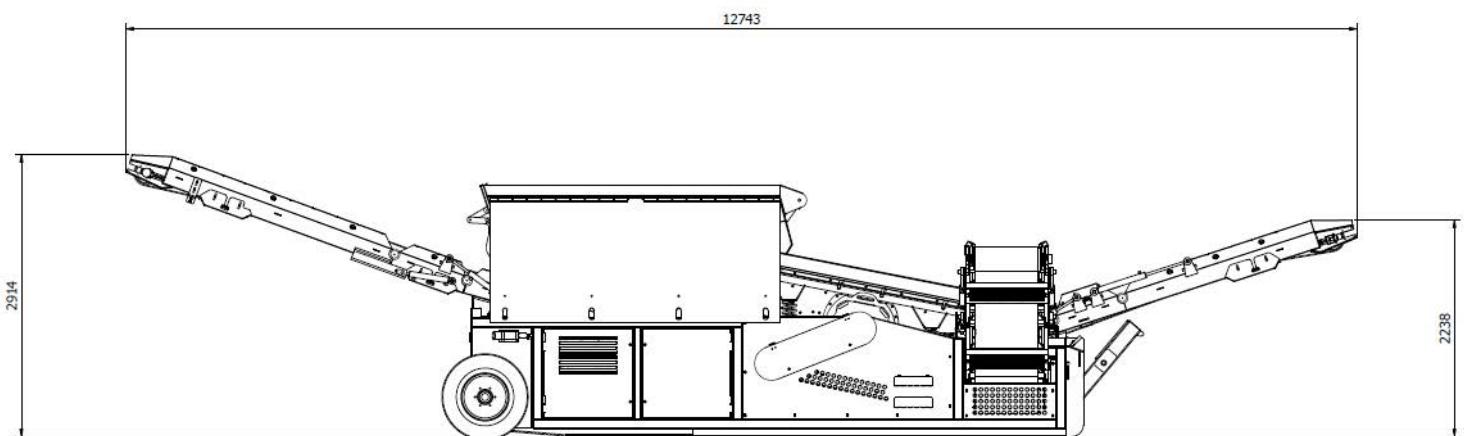
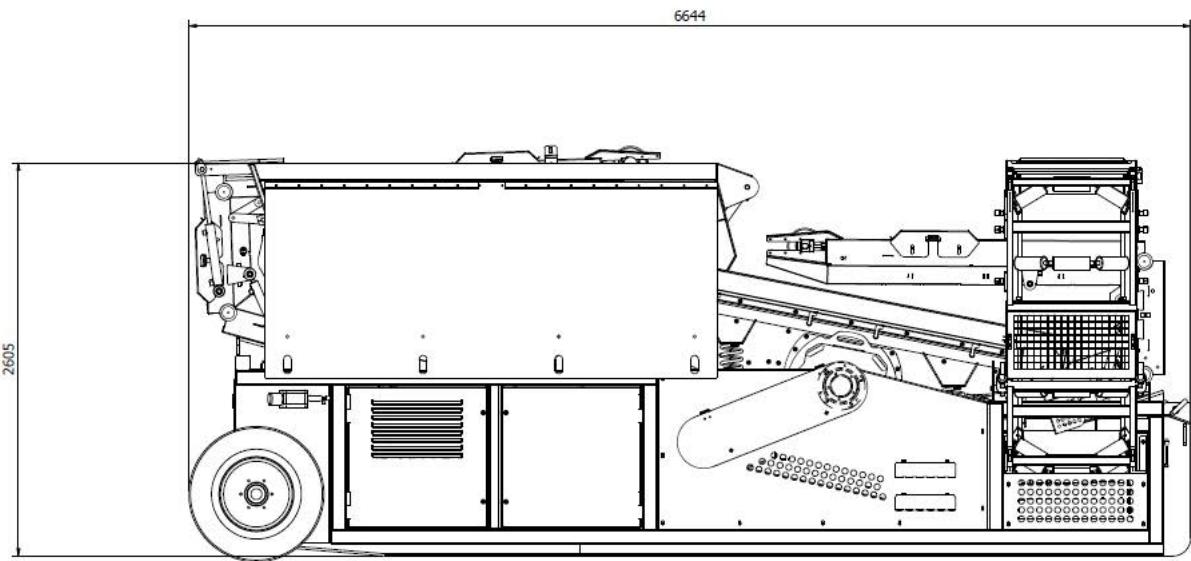
## Diesel-electric operation

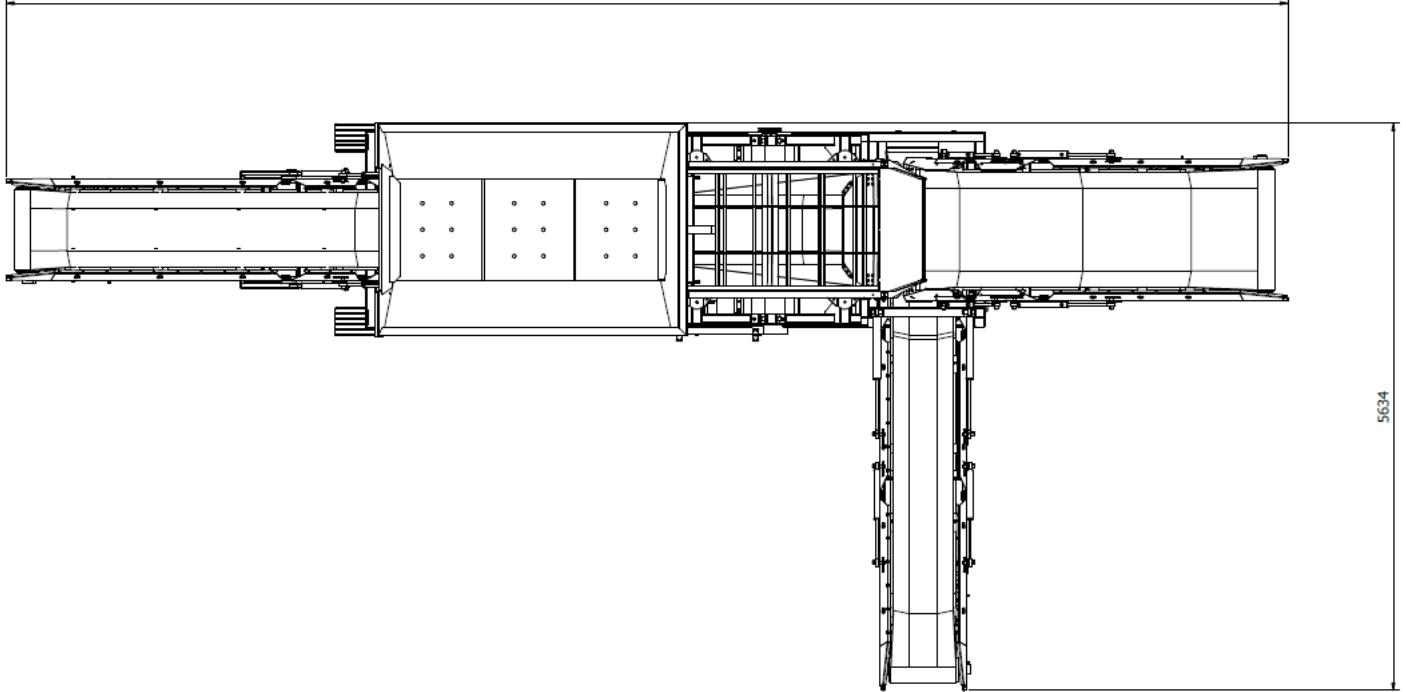
A step V diesel engine optimised for 1500 rpm is optional and mounted on a sliding frame for maximum accessibility. It runs quietly and economically. Diesel consumption is low at just 2.5 l/h, which translates into CO<sub>2</sub> emissions of about 7.5 kg/h. Noise levels from the machine vary according to the materials being sorted, but when empty the sound level is a class leading 72 dBA.

## Professional service

Maskin Mekano's machines are known for their operating reliability. 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 20 kVA generator. The rotation speed is 1500 rpm, so it is both quiet and economic. It is mounted on a sliding frame for a easy access.

### **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 nose of the screen is foldable for even better access of the lower deck. It is possible to perform the swap as a single operator and after a few times it takes no more than 15 minutes.

### **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 2.6 m and the reject grid is 3.0 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.

### **Is a vibrating feeder suitable when producing top soil?**

The vibrating feeder of the ECO2 is designed to handle even difficult material, as it operates with a more powerful movement and lower rotation speed than common vibrating feeders. The benefit of a vibrating feeder is the versatility, it can be used for almost any kind of material.

### **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 ECO2 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 ECO2 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?**

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

### **What is the fuel consumption?**

The ECO2 has a fuel consumption of only 2.5 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 3 minutes and ready for production in the same time.

### **And the capacity?**

The ECO2 is suitable for a vast range of recycled material such as asphalt, concrete, landfill and so on, but also for building material and scrap and of course traditional sorting tasks. The capacity when producing top soil is 30–150 tones/h, depending on how moist the material is. For other materials the capacity is usually between 100–200 tones/h.

## Technical Specification Maskin Mekano ECO2

<i>Transport Length</i>	6.6 m (21.8')
<i>Transport Width</i>	2.3 m (7.6')
<i>Transport Height</i>	2.6 m (8.6')
<i>Machine Weight</i>	approx. 10.0 tons, depending on equipment
<i>Screen box</i>	STE 2-26 E Screening surface 1.2 x 2.2 m on two decks (3.9' x 7.2') Single axle mechanically controlled with 12 mm stroke 11° incline Motor 4.0 kW, 400 V
<i>Vibrating feeder</i>	Width 1100 mm (3.6') Effect 2 x 2.5 kW Hopper volume 3 m <sup>3</sup>
<i>Oversize conveyor</i>	Belt width 1200 mm (3.9') Length 3.5 m (11.5') Drum motor 3.0 kW Height under the drum drive 2.0 m (6.6')
<i>Mid size conveyor</i>	Belt width 650 mm (2.1') Length 5.2 m (17') Drum motor 3.0 kW Height under the drum drive 1.8 m (5.9')
<i>Fines conveyor</i>	Belt width 800 mm (2.6') Length 8.5 m (27.8') Drum motor 4.0 kW Height under the drum drive 2.7 m (8.8')
<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 (option)</i>	Dieselmotor EU stage V, 1500 RPM. Generator 20 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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