

maskin mekano

**ECO1**

CONTAINER MOBILE SCREENING PLANT



# Small in Size, Big in Performance

As an entrepreneur in today's circular economy, you have the chance to broaden your services and manage your materials in a smarter way. There is no faster way to increase the value of a material than by sorting it. With your own screening plant that is mobile, cost-efficient, and easy to start up, you can boost your profitability while becoming a key player in building a more sustainable world.

ECO1 is, of course, electrically powered—but with the optional built-in diesel generator, you can be self-sufficient even in remote locations without grid access. This allows you to always choose the most efficient energy source for each job site.

ECO1 may be the smallest screening plant in the Maskin Mekano line-up, but it holds the same robust core components: a powerful screen, a reliable feeder, sturdy foldable conveyors, a hook-lift chassis, and rubber wheels for towing.

ECO1 is designed for flexibility, ease of use, and performance—empowering you to take on sorting jobs wherever they arise, without compromising on quality or sustainability.



1



1.2 x 2.2



8 500  
KG



Hook lift



7 kW / 2.2 l/h



3 minutes







## Reliable feeder

The feed unit consists of a heavy-duty hopper and a powerful belt feeder providing an even and easily adjusted feeding speed. The hopper has a generous size for such a compact machine. The speed and the tipping of the reject grid is controlled via remote control. The distance between the reject grid bars is adjustable but is as standard 180 mm.

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 ECO1 is equipped with Maskin Mekano's proven screen STE 1-26. 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 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 and recycling materials in the form of bricks, concrete and asphalt. 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 two hydraulically folded on-board conveyors. All drive drums are rubberized for safe operation even in less favourable weather conditions.

## Operation on mains

The ECO1 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 to 12 A, which

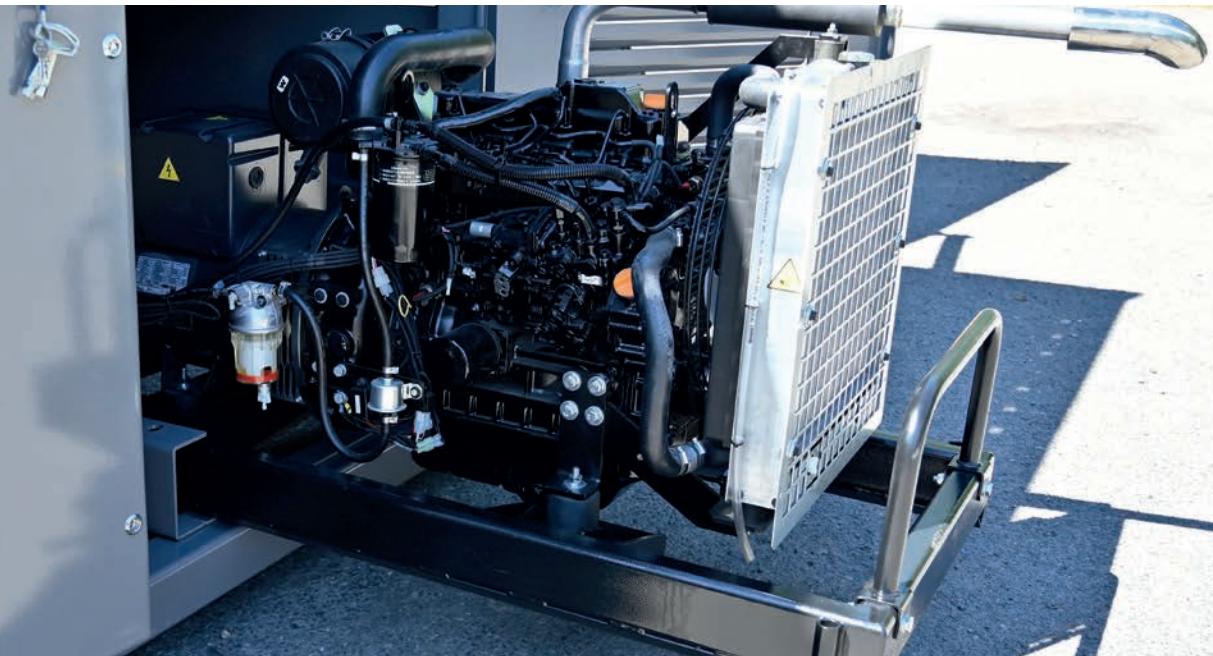
corresponds to an electricity consumption of approx. 7 kW.

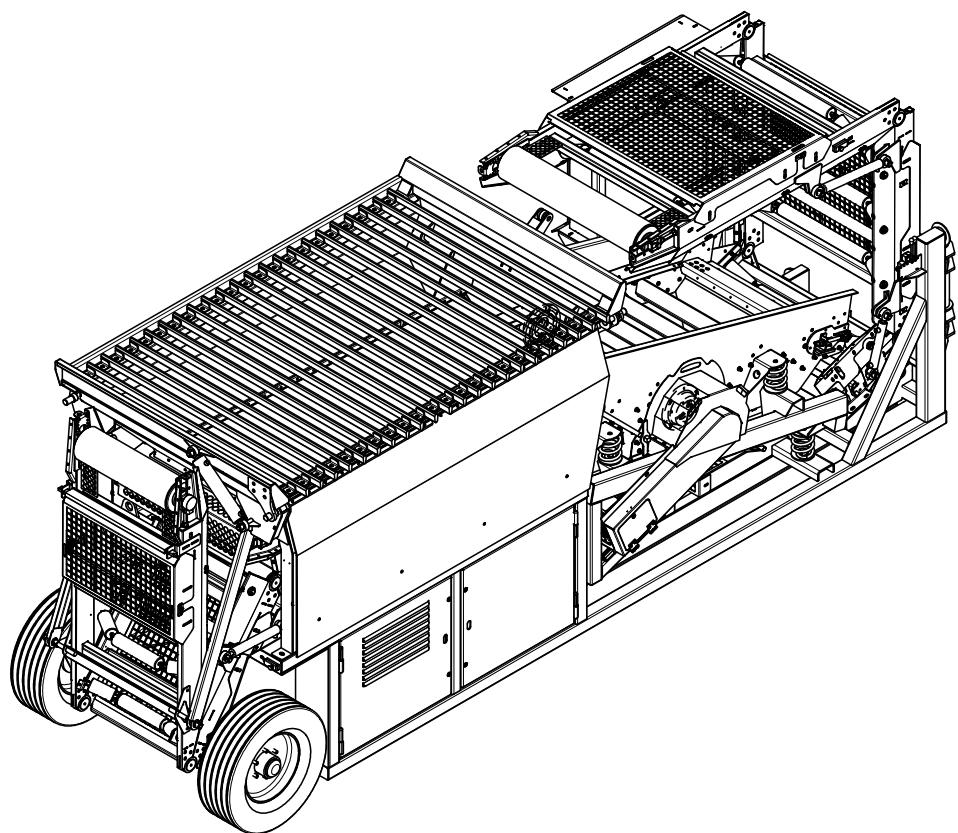
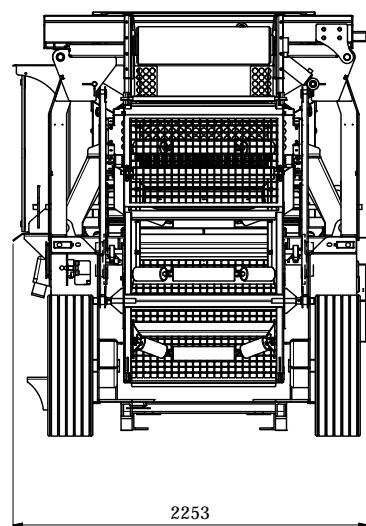
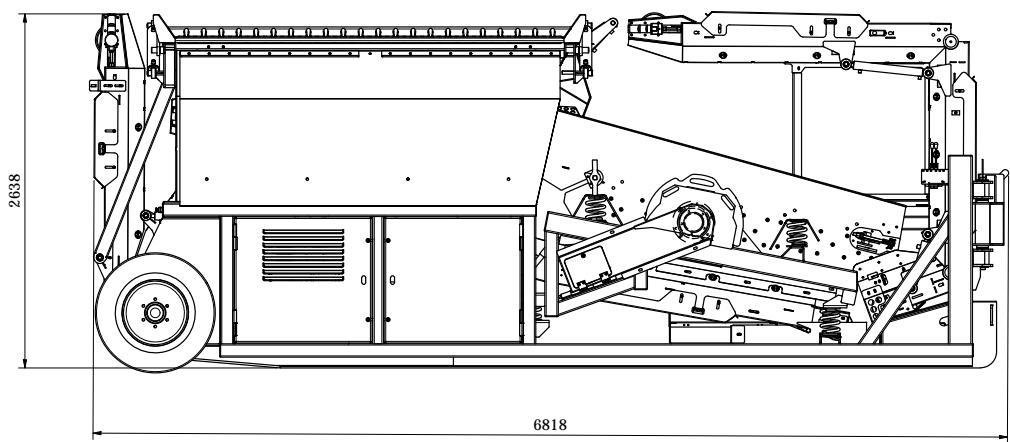
## Diesel-electric operation

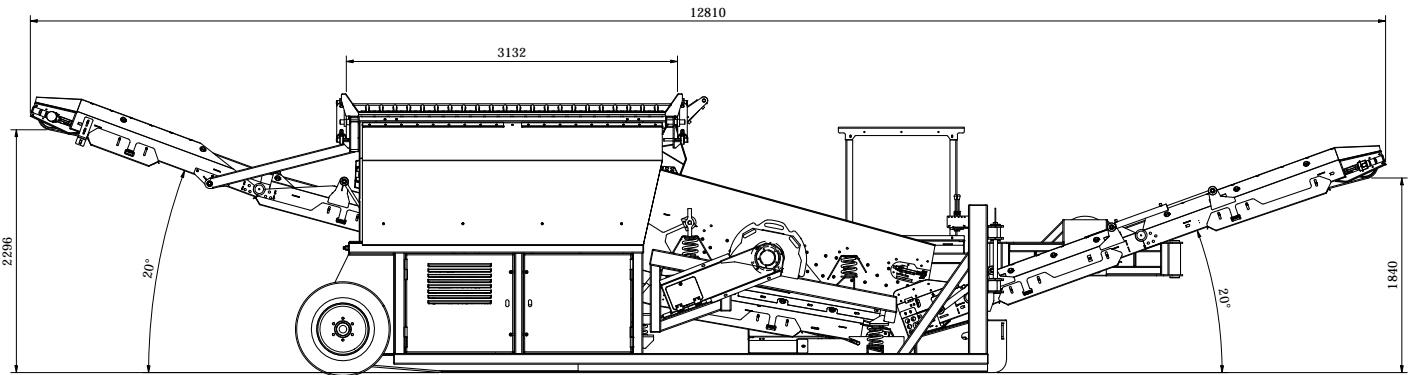
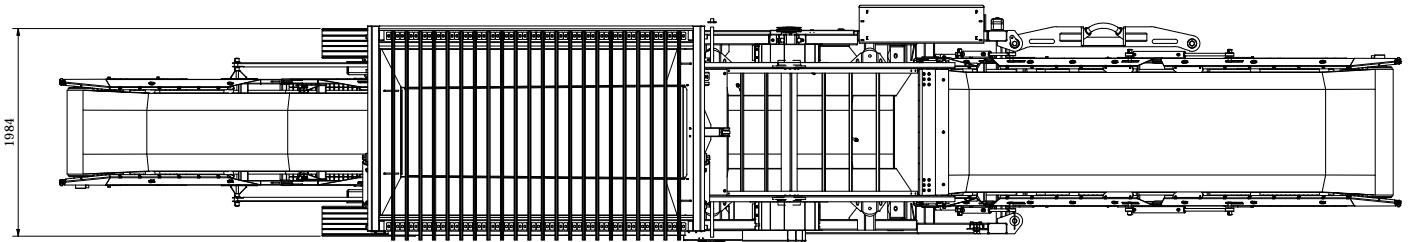
A step V diesel engine optimised for 1500 rpm is optional and mounted on a sliding frame for maximum accessibility. It runs quietly and economically. Diesel consumption is low at just 2.2 l/h, which translates into CO<sub>2</sub> emissions of about 6,6 kg/h.

## 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 screen deck is end tensioned and fastened by 2 bolts only. It is possible to perform the swap as a single operator and after a few times it takes no more than 5 minutes.

### 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 3.1 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 of 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. The ECO1 is ideal for those who want to use it in many different applications.

### 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 ECO1 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 ECO1 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?

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

### What is the fuel consumption?

The ECO1 has a fuel consumption of only 2.2 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 ECO1 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 ECO1

Transport Length	6.8 m
Transport Width	2.25 m
Transport Height	2.7 m
Machine Weight	approx. 8.5 tons, depending on equipment
Screenbox	STE 1-26 Screening surface 1.2 x 2.2 m on one deck Single axle mechanically controlled with 12 mm stroke 11° incline Motor 4.0 kW, 400 V
Beltfeeder	Width 1000 mm Effect 2 x 2.2 kW Hopper volume 2.35 m <sup>3</sup>
Oversize conveyor	Belt width 1200 mm Length 4.7 m Drummotor 3.0 kW Height under the drum drive 1.85 m
Fines conveyor	Belt width 800 mm Length 8.4 m Drummotor 4.0 kW Height under the drum drive 2.3 m
Hydraulic equipment	Hydraulic aggregate for setup of machine, control of material flow hatch and tipping of reject grid. Motor 4.0 kW
Electric equipment	Electrical distribution box mounted on the machine. Transformer for control current. Emergency stop on the conveyors.
Driving package	Dieselmotor EU stage V, 1500 RPM. Generator 20 kVA/50 Hz
Wheel- and towing device	Mounted on a hook-lift chassis

The family owned business Maskin Mekano is based in Jönköping in the South of Sweden. Maskin Mekano was founded in 1956 and has delivered high quality equipment to the screening, crushing and contracting industries ever since. Maskin Mekano is the Swedish market leader in mobile screening due to the unique screen (which combines high capacity and high accuracy because of the aggressive stroke) and renown for robust, reliable and user friendly machines. All Maskin Mekano screening plants are fully electric. Spare parts are stocked in Jönköping.

Our policy is one of continuous improvement and we reserve the right to change the detailed specification of our products at



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