Sorting of Bulk Solids
MSort

With MSort it is possible to sort all bulk goods that are clearly classified, based on colour or material composition. Worldwide they are the sorters that offer the highest performance, and they are highly efficient. The various types of MSort machines separate materials from the size of a pin head to the size of a soccer ball.

MSort sorting system has proven itself since 1996 on the world market for:

- Glass recycling
- Industrial minerals
- Salt
- Plastic flakes and granulate
- Many other materials

Motivation

Knowing your process in all details is the basis of our team to design and manufacture the right machine and system for your application.

We do not sell machines, but solutions.

We can support you in designing the process with the target efficiency, performance and output leading to amazingly short return-on-investment times.

We want you to be successful and will contribute to your objectives.

Our motto: “Nothing is impossible” is true not only for our MSort system, but also for all services related to it.

Thanks to our experience in sorting and screening technology, our comprehensive service options, and skilled personal advice, we are the right partner for long-term customer relationships based on trust.

Screening and sorting of PET flakes
Sorting of limestone by MSort mobile

Sorting of recycling glass
Material input
2 Distribution and transportation
3 Acceleration and isolation
4 Scanning of the material by various optical systems
5 Evaluation by means of fast parallel processing technology
6 Separation by means of exact compressed air impulses
7 Discharge of the separated product streams
8 Network connection
Material Recognition

Requirements, which up to the present could not be fulfilled, can now be solved using the newest hardware and software. The MSort sorting system offers the following possibilities:

Real Colours and Brightness

Recognition with various camera types and different forms of lighting in the range of the visible spectrum.

Material compositions

X-ray transmission is used to detect differences in atomic density of materials.

Particle Size

Analysis or sorting according to the particle size of large material flows.

Particle Shape

Sorting according to freely selectable length/width ratio.

Metal Sensor Technology

Inductive recognition of non-ferrous and ferrous metals to a very high sensitivity.

Multisensor Technology

Special tasks which require the use of more than one sensor. Using MogensenSort, various systems can be combined together, e.g.:

- Camera inspection on both sides
- Combination of inductive metal recognition with camera system

Sorting of minerals – view into the separation box
### MSort AF and AK
- Fine sorting from 1 mm, with the highest accuracy (type AK)
- Sorting dry bulk material in grain sizes ranging between 2-30 mm
- Sorting of glass, PET, minerals, sea and rock salt by colour
- With all-metal detection, optional

### MSort AL
- Sorting of dry bulk in grain sizes ranging between 8-60 mm, performance up to 50 t/h
- Sorting of flat glass and bottle glass in colours and CSP, performance up to 30 t/h

### MSort AX
- Sorting of damp, contaminated recycling glass, grain sizes ranging between 6-60 mm
- CSP and sorting of colours, performance up to 25 t/h
- Optional metal detectors

### MSort AP
- Sorting of bulk material in grain sizes ranging between 10-50 mm
- Sorting of minerals in colours, performance up to 40 t/h

### MSort AS und AT
- Sorting of bulk material in grain sizes ranging between 15-80 mm
- Sorting of minerals in colours, performance up to 120 t/h
- Designed for rugged conditions in recycling and mining
- Double-sided viewing and higher efficiency (type AT)

### MSort AG and AH
- Sorting of bulk material in grain sizes ranging between 80-250 mm
- Sorting of minerals in colours, performance up to 300 t/h
- Designed for rugged conditions in recycling and mining
- Double-sided viewing for higher efficiency (type AH)
MSort AQ

- Sorting of bulk material in grain sizes ranging between 10-40 mm
- Material detection by X-ray transmission method
- Sorting of lead crystal and glass ceramic, performance up to 25 t/h

MSort Mobil

- Installation of all optical MSort machines into a semi-mobile custom-designed container
- Turn-key sorting container solutions

Capacity Data

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Particle range typical/mm</th>
<th>Sorting capacity t/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSort AK*</td>
<td>1 – 10</td>
<td>max. 6</td>
</tr>
<tr>
<td>MSort AF*</td>
<td>4 – 30</td>
<td>max. 15</td>
</tr>
<tr>
<td>MSort AL*</td>
<td>8 – 60</td>
<td>max. 50</td>
</tr>
<tr>
<td>MSort AX</td>
<td>6 – 60</td>
<td>max. 25</td>
</tr>
<tr>
<td>MSort AP</td>
<td>10 – 50</td>
<td>max. 40</td>
</tr>
<tr>
<td>MSort AS/AT**</td>
<td>15 – 80</td>
<td>max. 120</td>
</tr>
<tr>
<td>MSort AG/AH**</td>
<td>80 – 250</td>
<td>max. 300</td>
</tr>
<tr>
<td>MSort AQ</td>
<td>10 – 40</td>
<td>max. 25</td>
</tr>
</tbody>
</table>

* Only for sorting dry bulk goods.

** These MSort machines are equipped with a second camera in order to analyze the material from two sides.
Our Service and Support Package

As a Mogensen customer you not only benefit from the technical advantages of our high-quality screening and sorting machines, you also profit from our outstanding service quality. Maintenance, service, or required repairs are executed professionally and quickly, worldwide.

Our service personnel are quickly on site to avoid down-times. Mogensen has a spare parts concept that meets your particular requirements and an extensive inventory of spare parts and wear parts in original quality. Thus Mogensen offers security for your machines. Spare parts delivery is possible throughout Europe within 24 hours, and worldwide within 48 hours.

From initial contact up to After Sales Service:

Enquiry
- Visit on the customer’s premises
- Discussion about the envisioned project

Trials in the Mogensen test center
- Carrying out sorting trials in the Mogensen test center using test machines of many different types

Planning
- Development of tailor-made sorting and screening concepts in collaboration with our customers

Manufacture
- Manufactured to industrial quality
- Availability for operation up to 8,000 working hours per year
- User-friendly operating interface
- Robust high-capacity industrial computer

Service
- Commissioning and after sales service by our highly qualified multilingual service personnel
- Training on your premises or at Mogensen head office
- Telephone hotline
- Remote maintenance and program optimisation via Internet connection

Pilot trials on your premises
- Trial machines available on rental basis

Control Unit

Neatly constructed, easy to use and rapid access to all program settings via touch screen and slider.
State-of-art Test Center

In July 2012, Mogensen opened a new test facility for sorting trials. For material preparation prior to sorting, a newly constructed test center for screening trials is also available.

A specialized team of Mogensen engineers conduct extensive trials with customer material on original machines. In this regard, five different optical sorting machines are available; these machines can be set up for the customer’s specific task. Trials in the size range of 1-100 mm can be executed under realistic process conditions.
Plant Realisation

- Conception
- Basic engineering
- Detail engineering
- Delivery
- Erection
- Start-up
- After Sales
- Optimization
- From upgrade solutions to turn-key projects
- We co-operate with your approved partners
- Cost-effective, fast solutions
Glass recycling plant
### Input material
- Recycling glass
- Limestone
- Talc
- Rock salt
- PET flakes

### Accept stream
- Pure white glass
- White filler
- White talc
- Pure white rock salt
- White and transparent flakes

### Rejection stream
- Off shades and KSP
- Coloured impurities
- Coloured impurities
- Black impurities
- Coloured flakes and metal particles