# MSizer The new dimension of screening.

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# Economical. Efficient. Environmentally Friendly.

With the new MSizer, the MOGENSEN pushes bulk material screening into a new era.

The MSizer models are based on the same Sizer principle developed and proven by Fredrik Mogensen more than five de- cades ago. They combine state-of-the-art technology with decades of extensive knowledge and expertise.

The result is an even more accurate screening process with increased throughput in a smaller footprint.









# The New Sizer Generation

For the development of the new MSizer, the latest develop- ment methods have been used to optimize the design. A complete finite element analysis of all structural obstacles was simulated with virtual prototypes and thoroughly test- ed while under continuous operation.

As a result, the new MSizer is the new Sizer generation that drastically minimizes the risk of failure, ensuring safe and trouble-free production in all areas of operation.

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### STRONG PERFORMANCE

Increased material throughput with small space requirement. High process flexibility and reliability. High grading quality for excellent process results.

HIGH EFFICIENCY, SIGNIFICANTLY REDUCED OPERATING COSTS

Reduced energy consumption. Reduced total cost of owndership (TCO). Long-term investment security through high durability.

## MAXIMUM FLEXIBILITY

Customized to specific requirements. Extensive accessory. Standar- dized transport dimension. Optimized hexagonal outlet hoods.

MAXIMUM PLANT AVAILABILITY Low clogging risk through Sizer principle. High lifetime of the screen coverings. Long-term testing under maximum load. Maximum operational safety by FEM-optimized, heavy-duty construction.

### EASY TO INSTALL AND MAINTAIN

Simple screen replacement requiring only one person. EasyMount with non-confusable assembly coding – quick change of attached components such as motors. Fail-safe plug interface for motor connection.

# Functionality

The MSizer family is the most powerful and versatile classi- fier machine according to the Sizer principle. The machine combines economic and operating efficiency benefiting from a new screen deck concept with a modified angle of inclination of the screens. The one to six screen decks of the MSizer considerably reduce screen replacement times thanks to the fast screen changing mechanism.

The MSizer extend screen decks move in a linear oscilla- tion pattern and in the newly designed MSizer compact the screen deck movement is elliptic. Both with the precisely adapted oscillation and elliptic range, the fine grain of the feed material quickly flows, almost vertically downwards, while the coarse grains are efficiently screened from the material stream. Clogging is effectively eliminated with a significantly increased throughput.

Unlike conventional flat screens, the mesh sizes of the MSizer are designed to be larger due to the optimized screen inclination which promotes superior grading quality. The increased mesh size – compared to the separating cut – counteracts the formation of material layers and clogging, leading to a significantly higher throughput and service life of the screen linings.

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## Conventional Screening Technology



# MSizer Family: The New Dimension of Screening





# **Product Overview**

The MSizer can be used in almost all industrial sectors. Decades of Sizer experience, in combination with the new features of the MSizer, ensure a long service life and a long- term confidence in your investment.

All MSizer series are available with a new machine control. The MSizer additionally has integrated fail-safe vibration monitoring which drastically minimizes the risk of failure and ensures safe and durable operation.

#### The Correct Size for Your Application

The machine size depends on the type of infeed material, the desired grain sizes and the process-related feed rate. Each machine is customized to specific requirements, ap- plications and production environment. Thus the design of the inlets and outlets allow for a flexible configuration. Due to the multi-deck design, the machine sizes are significantly smaller than with conventional screening machines.

		MSizer compact	MSizer extend	MSizer giant
Туре		short deck sizer	long deck sizer	long deck sizer
Number of screen decks		1-4	2-6	2-6
Effective screen length	m	1.3	2.4	3.35
Screen deck width	m	0.5-2	1-3	3
Number of motors		1 vibration motor	2 vibration motors or exciters	2 vibration motors or exciters
Movement		elliptical	linear	linear



#### Machine Volume and Grain Sizes

Overview of how the different models in the MSizer family overlap. The information in the visualization is based on a machine width of 1 m for the MSizer compact and the MSizer extend as well as a machine width of 3 m for the MSizer giant



MSizer compact	MSizer extend	MSizer giant	
	Feed pellets 2-8 mm	12-80 tph	
	Minerals 0.2-10 mm	5-450 tph	
	Mining 5-150 mm 50	0-1,200 tph	
	Sugar	10-100 tph	

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## MSizer compact



The MSizer compact is driven by a single vibrator result- ing in the typical elliptical motion pattern that counteracts blinding of the screens and loosens and stratifies the feed material. This secures an efficient material spread. Thus the MSizer compact achieves a throughput of over 40 t/h e.g. for feed screening. It is often used in the feed and food industry, but is also regularly used successfully for other in- dustrial applications.



## Options

- ATEX version Use in a potentially explosive plant environment
  - Industrial or stainless steel
  - Motor and brake control system
  - Electronic machine monitoring system
  - Integrated material distribution system
    - Mechanical screen cleaning system
    - Pneumatic screen cleaning system
    - Screen tension monitoring system
    - Electrical screen deck heating system



## MSizer extend



The long deck classifier machine MSizer extend is a com- pletely optimized development of the Mogensen Sizer, which has been used successfully worldwide for decades. MSizers can be used in almost all industrial sectors. Depending on the screen structure, fines of 200 micrometers and coarse products up to 40 millimeters can be processed. The machine is characterized by high performance and enormous flexibility. Thanks to the new screen deck concept and the changed inclination angles of the screens, the MSizer combines highest operating efficiency, as well as robust and compact design with significantly reduced operating costs. The MSizer extend convinces with up to 20 % reduced energy consumption compared to previous machines.

## Options

- ATEX version Use in a potentially explosive plant environment
  - Industrial or stainless steel
  - Motor and brake control system
  - Electronic machine monitoring system
  - Integrated material distribution system
    - Mechanical screen cleaning system
    - Pneumatic screen cleaning system
    - Screen tension monitoring system
    - Electrical screen deck heating system
      - Replacement wear protection
      - Vibration dampening system





## **MSizer** giant



The new MSizer giant offers an average throughput in- crease of up to 35 % compared to the MSizer extend. With a throughput of over 80 t/h, e.g. when screening granulat- ed sugar, the MSizer giant becomes the largest sizer in the world. Thus, the MSizer giant is suitable for all applications that require extra volume, such as sugar or building ma- terials. The MSizer giant makes it possible to reduce the number of sizers or conventional screening machines in large production plants and with it effectively reduce the investment costs in infrastructure and maintenance.



## Options

- ATEX version Use in a potentially explosive plant environment
  - Industrial or stainless steel
  - Motor and brake control system
  - Electronic machine monitoring system
  - Integrated material distribution system
    - Mechanical screen cleaning system
    - Pneumatic screen cleaning system
    - Screen tension monitoring system
    - Electrical screen deck heating system
      - Replacement wear protection
      - Vibration dampening system



## Unlimited Application Range

Stones & soil	Metallurgy	Foodstuffs	Fodder	Chemicals
sand gravel chalk basalt limestone	iron ore nickel ore manganese aluminum oxide fly ash	sugar cocoa beans milk powder flour from fish and meat tobacco salt	animal feed grain handling mineral handling security screening	fertilizer titanium dioxide zinc sulfate cupric sulfate
Mining	Ceramics	Waste/recycling	Wood/particle boards	Others
coal coke anthracite	bentonite silicium carbide	glass organic residual waste plastic granules	wood shavings wood flour sawdust	plastics pharma biofuels/pellets and many other solid bulk materials





# TESTING FACILITY Where Innovation and Real Life Intersect

The MOGENSEN Test Facility is where advanced technology meets practical application. Here, our customers experience first-hand how our advanced equipment handles different materials and delivers consistent, streamlined results. This space, equipped with the latest technology and operated by professional technicians, demonstrates the capabilities of our machines and reflects our commitment to quality and continuous technological advancement, ensuring that every solution far exceeds the requirements of the real world landscapes.







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