

Science of Seed Processing



OPTIMUM 220 SERIES SCREEN GRADERS

SCREEN GRADER OPTIMUM 220 SERIES

Saat Technologe is more than the equipment we produce. We are professionals who thrive on building creative solutions to bring your vision to life. We've been doing it since 2008. We combine the right technology with the right team to bring it all together. Our purpose is your success. You can feel confident because you have an expert at your

side – helping you grow into the future.

To find the right cleaning process for your business, you need a partner who understands your challenges and offers expert support. Saat Technologe has been helping customers succeed for more than 15 years. With a wide range of accurate and effective Super Fine cleaners for grain, seed, feed and food, you can feel confident with an expert at your side to help you grow into the future.

Saat Technologe is one of the world's leading supplier of Seed processing solutions. Based on in-house technology and experience, we have the capability to carry out the full design and supply of turnkey seed processing projects. You can count on our experts throughout the entire process. When designing process plants and solutions, we use our knowhow to ensure that all parts of a plant work together seamlessly and that daily operations and subsequent maintenance run as smoothly as possible. Robust project management supports the assurance of safety that lies in our products and project execution. From the placement of your order to the end of your warranty, you have an experienced and dedicated senior project team at your side.

Gentle handling of products is key to meet your expectations for quality and hit your operational goals. Saat Technologe's equipment is specifically designed to respect your harvest and increase your production efficiency, with the ultimate goal to prepare your product for better storage.

Saat Technologe has a complete line-up of precise cleaners to remove impurities. The gentle cleaning process helps maintain seed quality and germination potential by minimizing damaged seeds. Our experts work with you to understand your business and make sure you have the right systems for your production. Saat Technologe 's Optimum series pre-cleaners, cleaners, and graders are easy to use and efficient to improve your productivity and profitability

Saat Technologe's **Optimum** Screen Graders are designed to calibrate seeds, like grains, maize, oil seeds, legumes and similar. Saat Technologe's Optimum grader is designed for dried and fine cleaned maize, pulses, coffee beans, sunflower seeds, and similar products. Flat reciprocating screens send undersized, oversized, immature and damaged seeds to a different channel. So, only useable seeds keep moving through the production process. The Optimum grader can receive different moistures or densities, but it is important that products are dried and fine cleaned before entering the system.

OPTIMUM 220 SERIES SCREEN GRADER FEATURES

1. Full-width Vibratory

- has stepless adjustment of the feed rate by an inverter.
- separate control panel ensures a uniform flow over the entire width of the sieve
- is self-cleaning
- improves the air cleaning considerably as the product hits the pre-suction area uniformly
- is careful to leguminous seeds, beet seeds etc.
- ensures optimal capacity utilisation of the machine
- has no down time due to choked up inlet
- requires no cleaning in connection with changing products

2. Change of Product Flow

-makes many different product flows possible according to the capacity, product, number of fractions etc.

- -by means of six different diagrams in the cleaner ensures excellent purity and minimum waste
- is easily done by changing the size of the sieves and the position of the outlet trays

4.Perforated Screens

- are available with round and long holes from 0,3 to 25,0mm

- are also available as wire mesh screens are also available as screen plates with very little tolerance which ensures a minimum cleaning loss.

- Are available in a standard size of: 800 mm (L) x 1250 mm (B) = 1 m

5.Screenshoes of Birch Plywood

-are moisture and insect-resistant

-are constructed with replaceable wear plates and sieve runners in exposed areas

- have a long lifetime because the birch plywood easily tolerates the vibrations of the screen shoes -give less resonance owing to the birch plywood and thus a

better working environment is obtained

6. Balanced Eccentric System

- is fitted with counter weights ensuring steady running
- -involving minimum stress on buildings and steel structures
- -is fitted with "heavy duty" bearings

-ensures maximum utilisation of the cleaning effect of the sieves owing to accurately attuned stroke and RPM **7** Ball Box

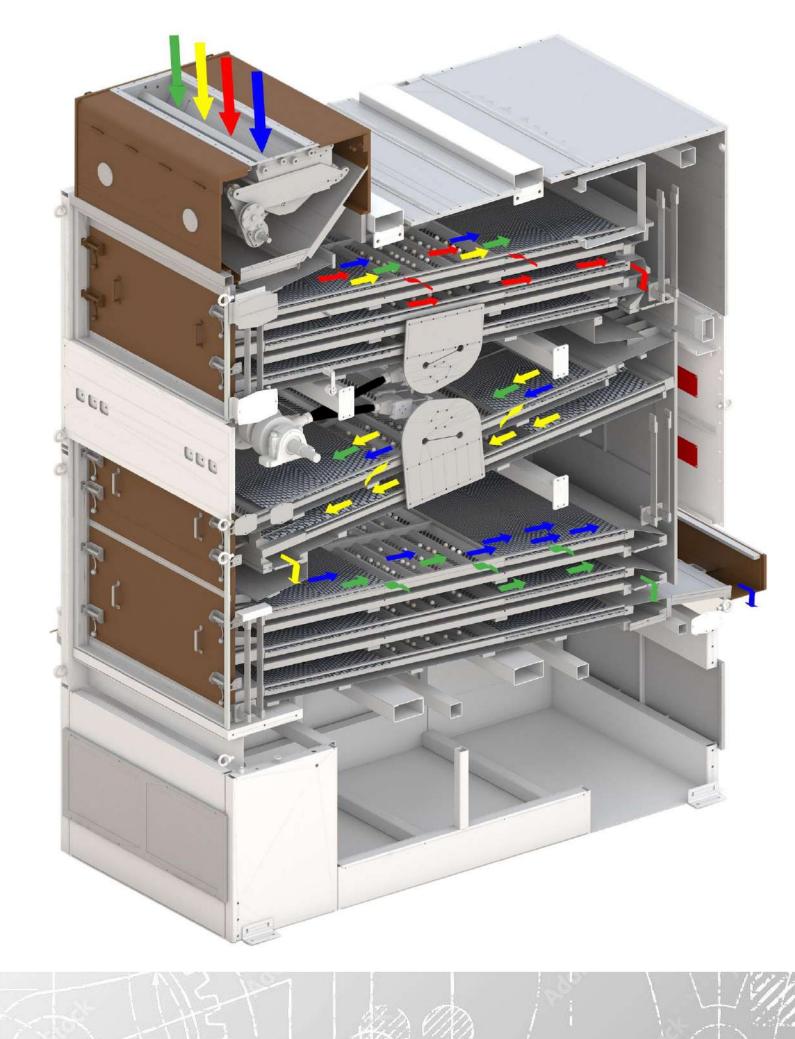
7.Ball Box

- ensures efficient cleaning of sieves by means of rubber balls

- can maintain the cleaning effect at extremely low temperatures as the rubber balls are cast in a very suitable material

- is cast solid so that it prevents stuck seeds etc.(self-cleaning)

- is separately mounted in the screen shoes which ensures a quick change of sieves without removing the ball boxes



Optional Accessories.

• **Inlet hopper** & buffer bins. Help ensure an even distribution of product along the full width of the cleaner. Buffer bin capacity up to 2.5 m3 can be supported by the cleaner frame. Additional capacity is available with extra support.

· Fans. Several different aspiration systems are available.

• **Spouting**. Connect with other equipment in the plant. Optimum's outlets interconnect using **Saat Technologe's** Spout system.

 \cdot **Stand**. Ensure a solid foundation for installation and appropriate space for conveyors. A stand can help ensuring the space needed to install conveyors for waste and clean product. Standard heights are available and stands can be customized to fit your requirements.

• **Platform**. Give your team safe access to all necessary areas of the cleaner and reduce service, maintenance and screen change time. Platforms can be customized.

OPTIMUM 220 SERIES

SCREEN GRADER CAPACITY CHART

OPTIMUM MODEL NO			222	224	225	226	227	228
Materials	Bulk density t/m³	Moisture content %	Capacity t/h	Capacity t/h	Capacity t/h	Capacity t/h	Capacity t/h	Capacity t/h
Barley	0.68	14	1.5	3	5	7	10	15
Coffee, green	0.65	14	0.8-1.6	1.5-2.5	2-3.5	3-6	3-7	6-12
Maize	0.71	14	1-2	1.5-4	2-5	3-6	4-8	8-12
Oats	0.51	14	1	2	3	5	7	10
Peas, common	0.7	14	1-2	2-4	3-5	4-6	5-7	8-12
Rice, white	0.75	14	2	3	4	7	7	8-12
Rye	0.69	14	1.5	3	5	5	10	15
Ryegrass	0.3	14	0.4	1	a1.6	ି2.2	3	4
Sorghum	0.64	14	1.5	3	5	7	10	15
Soybeans	0.72	14	1-2	2-4	3-5	4-6	5-7	8-12
Sunflower	0.4	7–9	0.5-1.5	1,2-3	1.5-2	1.5-3	2-3	2.5-4
Wheat	0.76	14	1.5	3	5	7	10	15

Note: Capacities may vary for different impurity and moisture contents. See Technical Data Sheets for each model for further details.

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Saat Technologe S.R.L. | Bucharest Tower Center, 22nd Floor 15-17 Ion Mihalache Blvd. Sector 1, Bucharest 011-171 | ROMANIA | +40 744 578 303| info@saattechnologe.com