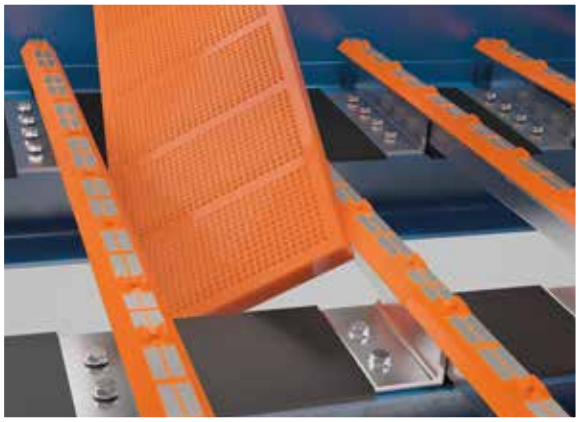
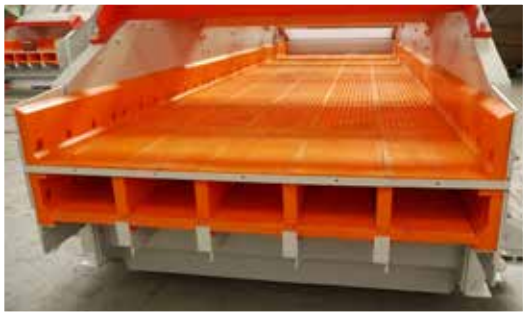
Polyurethane Screens





STEINHAUS modular screens - the originals

- MLock
- UNI2000
- KOMBIPLAST®

STEINHAUS

Polyurethane screens

The STEINHAUS GmbH - Innovation through tradition

STEINHAUS GmbH is a dynamic, well-established medium-sized company based in the Ruhr area, which has been in existence for over 100 years.

Efficient production methods, modern production facilities, in-house product developments and a strong sales team in the office and in the field with a large number of domestic and foreign affiliated companies guarantee reliable quality products and competent technical support for our customers in all regions of the world.

Our product range includes steel, rubber and plastic screen bases, wire conveyor belts, OPTIMA welded slotted screens and industrial filters, as well as LuCoTec air spring systems.

Back in 1968, STEINHAUS GmbH produced the world's first industrially manufactured polyurethane screen board.

This was followed in 1976 by Kombiplast, the world's first modular screen lining, which is now regarded as a pioneer for all modern modular screens. UNI2000 followed in the as a UNI-versatile screening surface.

Just in time for the company's 100th anniversary in 2022, STEINHAUS GmbH presented another world first with MLock, the first magnet-based modular screen lining that is self-centering in all three dimensions.

Company founder Wilhelm Heinrich Steinhaus

Administration building in Mülheim an der Ruhr

Production halls in Leverkusen

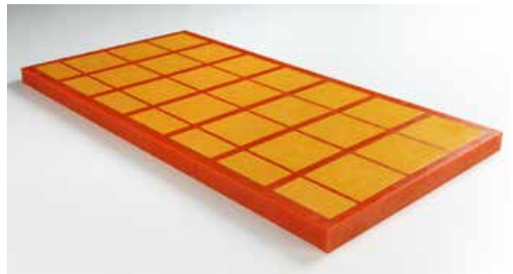
Production - Moulding a plastic screen

Production ready for dispatch

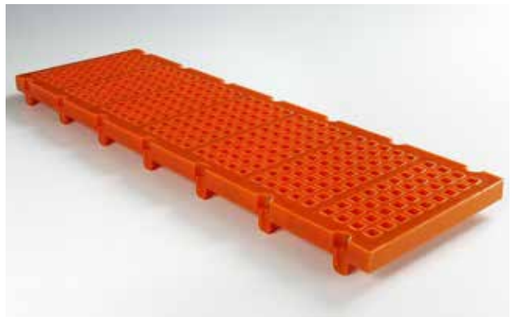
Screen designs

Screen designs

Tensioning screens

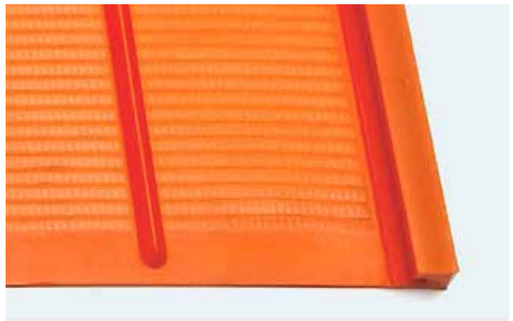


Flat screens



KOMBIPLAST® modular screen

UNI 2000 modular screen



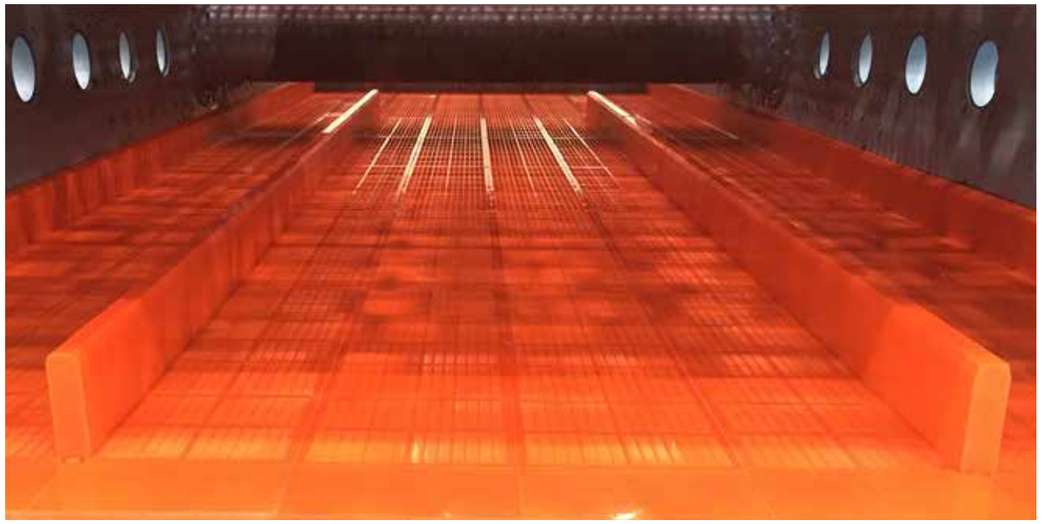
Tensioned fine screens

MLock - the innovative modular screening surface

Screen mats for flip-flow screening machines

Flat screen with replaceable baffle plates

System sieve trays



Efficient assembly

The quick installation and removal of our handy screen components reduces downtimes and means that only the actually worn out part of a screen cover needs to be replaced.
Choose the optimum system for you from the fastening systems we have developed.

Application-specific series

The requirements for a screen panel differ considerably depending on the application. If you need an extremely large screening surface, choose our HE (High Efficiency) series.
The RG (Regular) series is standard, while our LL (Longlife) series is exceptionally robust. We offer the optimized screens for every application, while different series are often combined on one screening machine.

Highly wear-resistant

Steinhaus only uses polyurethanes from brand manufacturers with the best possible wear properties. The sophisticated production process enables precise and economical manufacturing.

Available hole widths

Several hundred different hole widths in various hole shapes are available for polyurethane screens.
We can currently produce slotted perforations from 0.1 x 5.6 mm to 15 x 110 mm and square perforations from 0.8 mm to 150 mm.

Available material hardness

Depending on the material to be screened and the parameters of the screening machine, softer screens help to reliably prevent clogging.
For this purpose, we offer our polyurethanes in the following degrees of hardness in the hole area 45, 65 or 85 Shore A.

Noise-damping

The sound-reducing properties of polyurethane reduce noise emissions. This makes it easier to fulfil environmental and occupational safety requirements.

Temperature resistance

Polyurethanes can usually be used up to a temperature of approx. 80°C. We offer special products that can be used up to a screening temperature of 120°C and even up to 160°C.

System sieve trays

Flutter screens

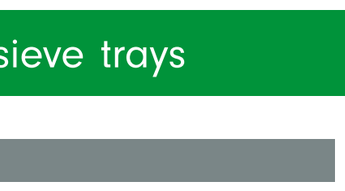
For products that are very difficult to seperate, we recommend our polyurethane flutter sieves. A thin elastic sieve mat is attached to a frame in such a way that it can swing freely. This prevents clogging products from sticking to the screen.

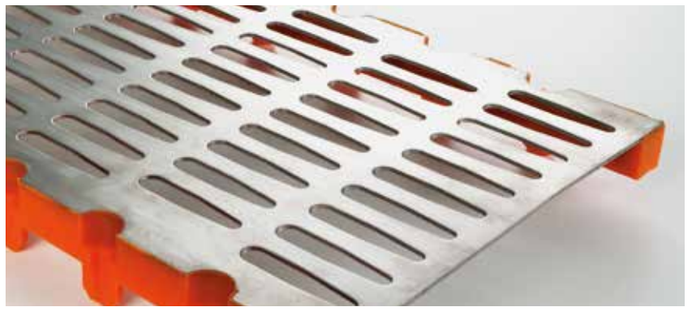
TeePee

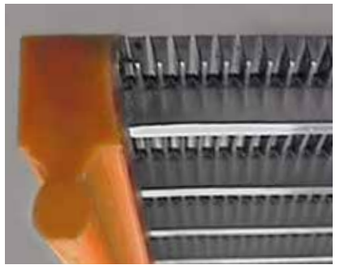
Our TeePee screens dewater in the third dimension. TeePee screens have a considerably larger open screen surface. The tips protrude into the dewatered material, which massively improves the dewatering behaviour of products with poor drainage properties in particular.

Hybrid screens made of steel

Wear-resistant perforated plates, welded wedge wire screens, wire mesh, harp screens, press welded grids or even bar grids - we can design any screen as a modular screen. Thanks to the standardised system dimensions, all screen types can be combined with each other as required.



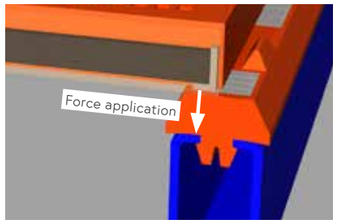


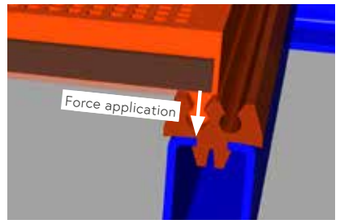


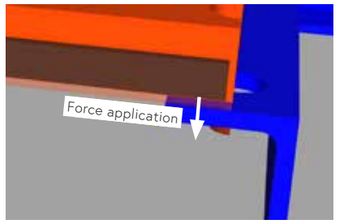
Modular screens

Special features of all STEINHAUS modular screens

In all Steinhaus systems, the reinforcing bars run right up to the edge of the screen components. This provides excellent force transmission into the substructure of the screening machine. The reinforcing bars do not work their way down through the screening surface, even under heavy loads.

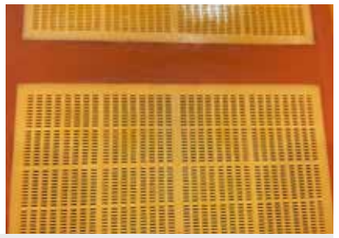






Special designs

Special screens with an extremely large open sieve surface for all our screen.
Hole widths between 0.4mm and 1.2mm offer an incredible open screen area of 11 to 18% (based on a 300x1000mm system component).

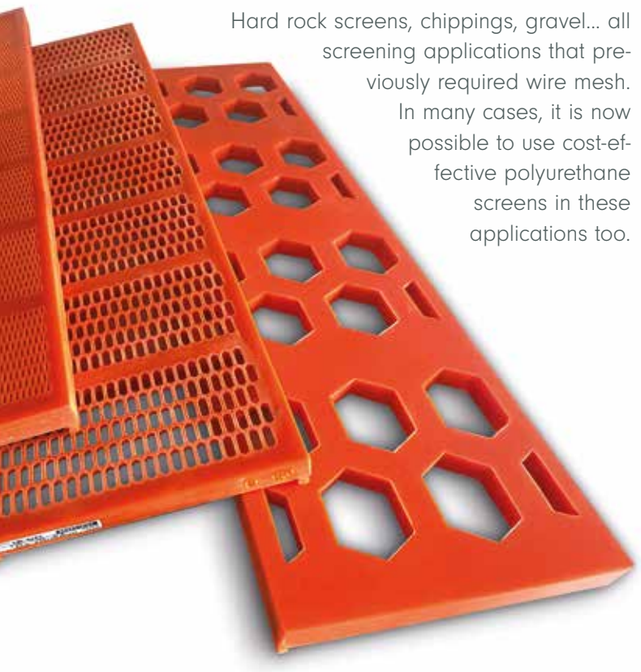


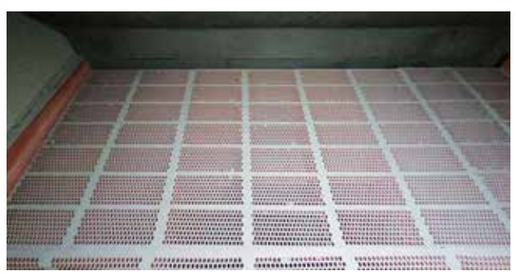
High-performance screens for classic screening machines with fine hole sizes

Screens for hard stone - especially HexSlot®

Hard rock screens, chippings, gravel... all screening applications that previously required wire mesh.
In many cases, it is now possible to use cost-effective polyurethane screens in these applications too.

We offer screen components in special designs for this purpose; our "HexSlot®" series is particularly suitable here.
The shape of the screen apertures reduces the number of pegging, offers an extremely large open screen surface and is also characterized by a very low contact resistance. The new type of highly efficient screen for dry screening.

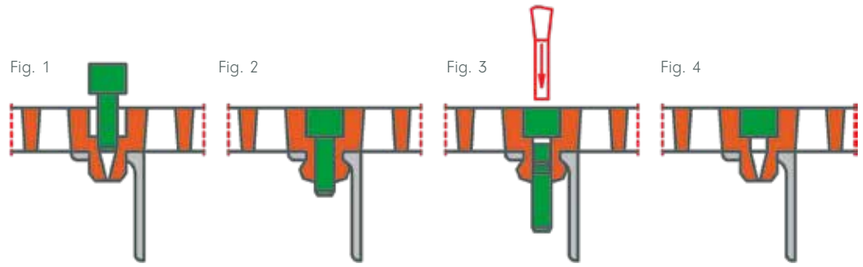




KOMBIPLAST® Modular screens

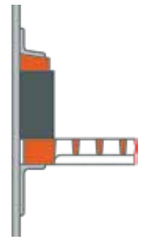
KOMBIPLAST® - The classic

KOMBIPLAST® is our proven modular screen mesh, which has been in use since 1976 and is attached to the screening machine with a spreader anchor system without an adapter strip. The components are inserted into the substructure without any effort. The fastening pins are then hammered in, connecting the screen mesh to the screening machine in a vibration-proof manner. To remove a screen mesh, the inner part of the fixing pin can be knocked out with a punch. The expansion anchor is now released and the screen mesh can be removed effortlessly.



Side fastening / side wear protection

The sides are fixed in the classic way with wedge mouldings and wedges. Alternatively, narrow edge strips can also be fitted using the plug-in system, in which case the wedge strips do not need to be removed to change the screens.



Substructure

An L-profile is used as the substructure, which is drilled every 150 mm (or every 75 mm for particularly heavy applications).

Advantages and possibilities

In the grid dimension of the half-anchors, baffle strips or spacer pins can simply be used instead of the fixing pins. With an anchor spacing of 75 mm, even perforated sheets with a sheet thickness of 15 mm can be securely fastened.
The screens can be stacked securely in the warehouse to save space.

MLock - The Innovation

„STEINHAUS MLock“, the world's first magnet-based, centering modular screen covering in all three dimensions:

- Easy installation of screen components in hard-to-reach places
- Short downtimes thanks to quick component changes
- Reduced risk of accidents
- EN 1009-4 compliant screening machines despite screen deck spacing < 550mm
- Further compact 3 - deck screening machines
- No unnecessarily large systems in terms of process technology and therefore no excessive investment, maintenance and energy costs

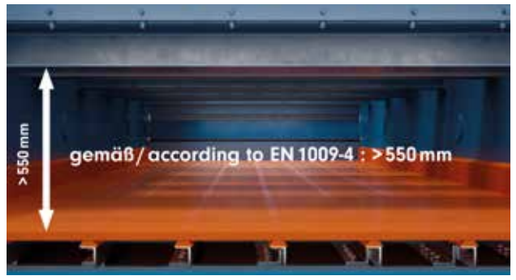
STEINHAUS MLock - Installation principle

The screen lining is simply guided to the desired position for installation.

The strong magnetic force automatically pulls the screen lining along the positioning cams to the correct position. This allows the screen lining to be installed without effort, even in hard-to-reach places.

Inspection of the screen deck is not necessary when installing from below, so the requirements of EN 1009-4 do not apply.

STEINHAUS MLock - Assembly - Video

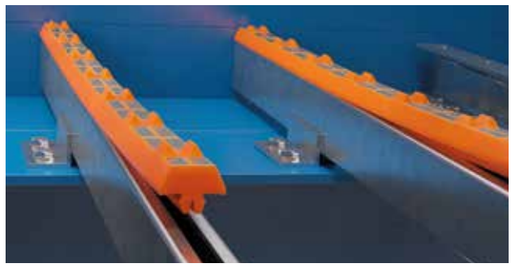


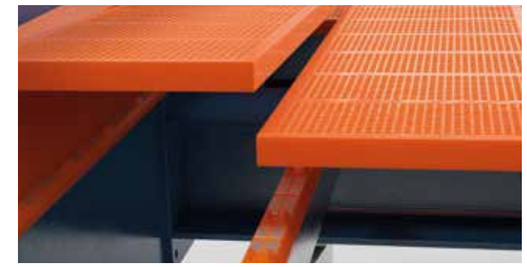
STEINHAUS MLock

STEINHAUS MLock - Side mounting

As with our other systems, the sides can be fixed using wedges or screws. We adapt to your installation situation. If possible, we recommend the installation of our screwed side rail with integrated STEINHAUS MLock adapter.

This side rail does not have to be dismantled to change the screen components, which significantly reduces the installation time of the screens.





STEINHAUS MLock - Magnets

The valuable magnets, which are optimally protected against corrosion, are permanently installed in the adapter strip and do not need to be replaced with the screen lining. Wear or corrosion on the screening machine therefore have no influence on the attachment of the screen components. It is therefore also possible to convert older screening machines to MLock without any problems. The screen lining itself only contains the inexpensive metal counterpart.

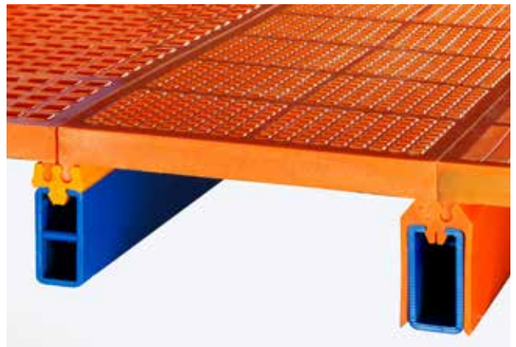
We have also thought about recycling the rare earths in the magnets. We take back the used magnets and send them for recycling.

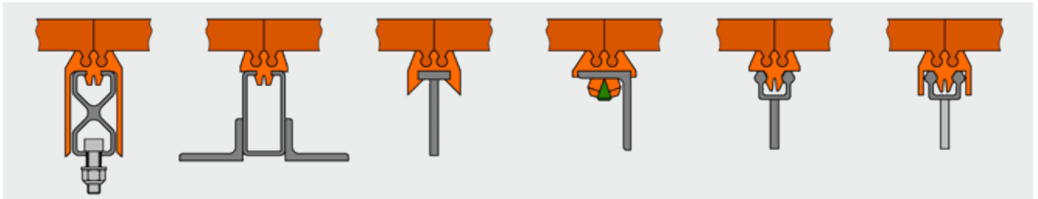
STEINHAUS MLock - Adapter bar

The adapter bars for "STEINHAUS MLock" are available for slotted hollow profiles, the slotted X-profile and for perforated angled longitudinal beams. The system is therefore suitable for all standard screening machines.

UNI 2000 "Our all-rounder"

Fastening is very simple using our tried and tested tongue and groove connection. The polyurethane adapter moulding protects the longitudinal beam from wear and shape the groove for holding the screen components. The matching polyurethane tongue is also moulded onto the screen components. The screens can be pressed into the adapter strips with little effort and thus firmly connect.



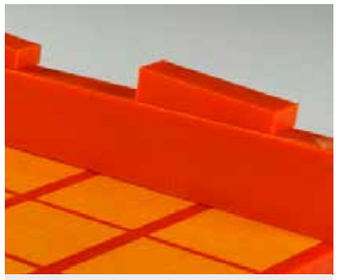


Substructure: UNI 2000 can be mounted on all standard side rail profiles (examples).

Side fastening / side wear protection

The optimum solution is to use our side wear protection strip with Jordahl profile and adapter:

- The screen lining can be installed and removed without dismounting the side rail
- No material can be conveyed over the end face and damage the screening machine
- The side moulding cannot detach from the side panel, thus preventing damage
- The screw connection of the side rail can be positioned individually thanks to the Jordahl profile
- No support and wedge angles are required on the screening machine



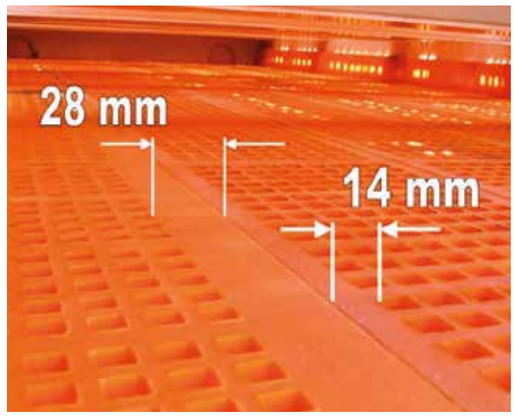
The traditional side fastening using wedge strips and wedges is also possible

It is also possible to fit side wear protection strips with drainage windows. This significantly improves the dewatering of fine, poorly draining sands.

UNI 2000 Modular screens

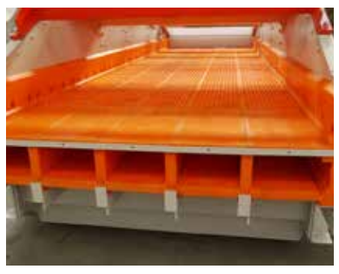
Advantages and possibilies

Due to the significantly narrower blind zone of the UNI 2000 and MLock, these systems offer a much larger open screening surface than all other commercially available system screens that use standard elongated bars.
It is therefore usually not necessary to offset the components.



It is possible to add an additional adapter strip directly into the top of the screen components. By installing an intermediate strip, an additional screen deck can then be retrofitted to the existing screen deck.

This saves installation space and costs when designing a new screening machine. Instead of an additional screen deck, baffle strips, for example, can also be installed in these adapters.



Delivery Program

Screen Panels

Screen panels made of polyurethane & steel
Steinhaus MLock
System screen modules
Wire mesh
Perforated plates

OPTIMA

Wedge wire panels
Plain sieve panels
Sieve bends
Slotted screen baskets
High precision filter tubes
Industrial filter media

Wire Mesh Conveyor Belts

Woven & braided wire mesh belts
Rolled baking oven belts (Z-belts)
CLEANBELT device for belt cleaning

LuCoTec Air Spring System

Air spring systems for screening machines & other vibrating machines

MULTOTEC - Process Equipment

Cyclones
Spirals
Slurry pumps

Contact us for **on-site consultation** by our experienced **field engineers.**

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