

Food & Beverage

Plastic Recycling

Sugar Processing

Water Treatment

Mineral & Petrochemical

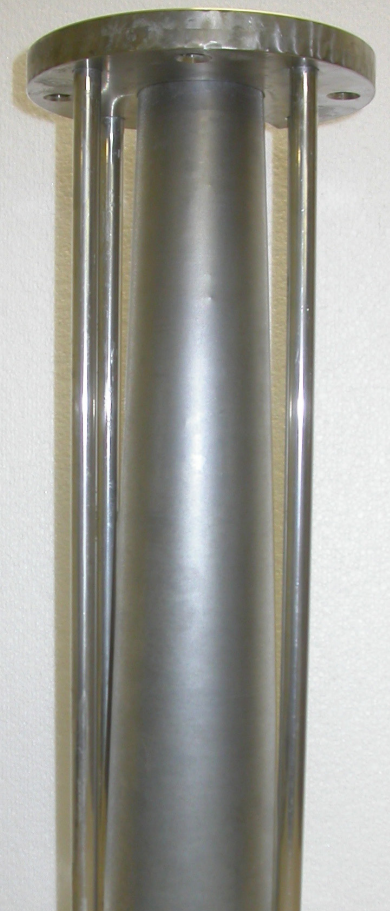
Industrial Chemicals

EPS, Resins & Plastics

Pigments & Powders

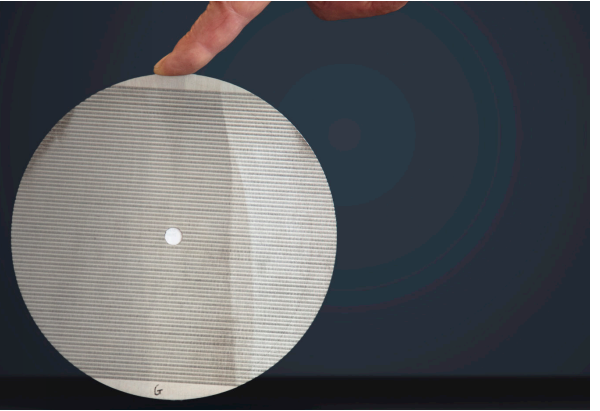
Centrifuge Applications

- + High performance laser-drilled products
- + World leader in stainless steel filter screens and tubes
- + Custom laser perforations for end-users and OEMs



ActionLaser has unique capabilities using patented processes to produce finely perforated sheet and tubular products.

These include high performance, laser-drilled stainless steel screens (LaserScreens), sieves, aerators, support grids and a wide range of other products.



ActionLaser screens and filters are widely used in centrifuges and self cleaning filtration systems. Robust and hard wearing, optimising the life of the screens.

GET MORE FOR YOUR BOTTOM LINE

ACTIONLASER

ActionLaser pioneered and commercialised laser drilling technology to improve yield, quality and productivity in the sugar processing industry.

Laser drilling was developed in the late 1980's by Australia's CSIRO (Commonwealth Scientific and Industrial Research Organisation), a global leader in technology development. Initially developed at the request of the Australian sugar industry.

ActionLaser continues to push boundaries in development of filtration and separation applications by introducing this technology to many industries, including water, foods, mineral processing, aerospace, chemical, plastic recycling and more.

Applications

ActionLaser LaserScreens are widely used in equipment from centrifuges to self cleaning screens to water treatment, chemical and mineral processing and even aerospace. In fact wherever filtration and separation applications exist a LaserScreen can be used, bringing the benefits of an extended life of a consumable component, ease of cleaning and maintenance as well as improving productivity (flow or yield) and lower operating costs.

Shapes and designs

LaserScreens can be shaped into cones, arcs or tubes as well as flat screens that can be made into any shape. Many applications benefit from the inclusion of LaserScreens.

LASERSCREENS

Laser drilling technology can be used for various metals and ceramics. Stainless steel is often used and can be unchromed or hard chrome plated.

Characteristics of LaserScreens include hole or slot dimension (down to 0.03mm) in thin materials. These offer improved productivity and greater wear resistance that delivers a longer life (up to 9 times) thus resulting in less downtime. This reduces maintenance requirements and operating costs.

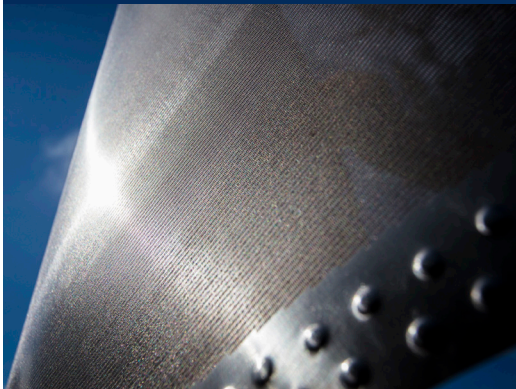
We offer greater flexibility in screen shape and design. Perforated area can be up to 2 metres in length and the design can include both perforated and unperforated regions.





Tofu extractor

Introduced over 20 years ago for leading manufacturers in Korea and Taiwan, the screens are now used across Asia, Australasia and North America in cylindrical and conical screen tofu extraction machines.



Clean-In-Place

Applications in the food and beverage industries using CIP (Clean-In-Place) technologies require smooth surfaces and joins. LaserScreens can be provided with unperforated borders or regions to facilitate CIP operation.

Working to improve food quality and yield

The above applications result from close collaboration with customers over many years, working to achieve the best quality and efficiency outcomes for customers' products and businesses.



Improvement in throughput means optimal productivity

Greater lifespan means a reduction in operating costs

Hygiene

From tofu to tomato paste, mustard to milk sugar, we have world-leading expertise in micro-perforated stainless steel LaserScreen filters for a wide range of machines used in food, beverage and specialty food chemical applications.

To prevent blinding, clogging and wear, we create precisely tapered, laser-drilled holes or slots in hygienic, high-grade, stainless steel. Optional chrome coating offers even greater durability. LaserScreens can be provided with unperforated borders or regions to facilitate CIP (clean-in-place) operation.

Designed for the Application - Grinding, Separation, filtration and aeration

Grinding, Separation and filtration exist in various applications within the food, food chemicals and beverage segments.

Different particle shapes, sizes and size distributions require specific screen aperture sizes and percentage open area to achieve optimum levels of liquid removal, solids recovery and residual solids moisture.

Sizing of materials is also important in various food, and food chemicals.

Europe's largest MSG (monosodium glutamate) factory converted to LaserScreens designed and manufactured to achieve optimum crystal recovery in the MSG process.

Mustard seed grinding applications use LaserScreens to produce the finest mustards due to screen parameters. LaserScreens are used by leading machine manufacturers as well, offering benefits of use in their mustard grinding machines.

Tomato paste quality and consistency benefit from LaserScreens used in their production.

Fruit juice and lactose screens deal with acidic and aggressive chemicals as well as pulp and impurities that generally shorten screen life. LaserScreens reduce maintenance costs and down time whilst improving productivity and product quality.

Yeast Aeration Tubes were developed for improved aeration during production leading to better, more consistent final yeast product. The yeast aeration tubes deliver optimal air flowrate and distribution in large yeast growth reactors.

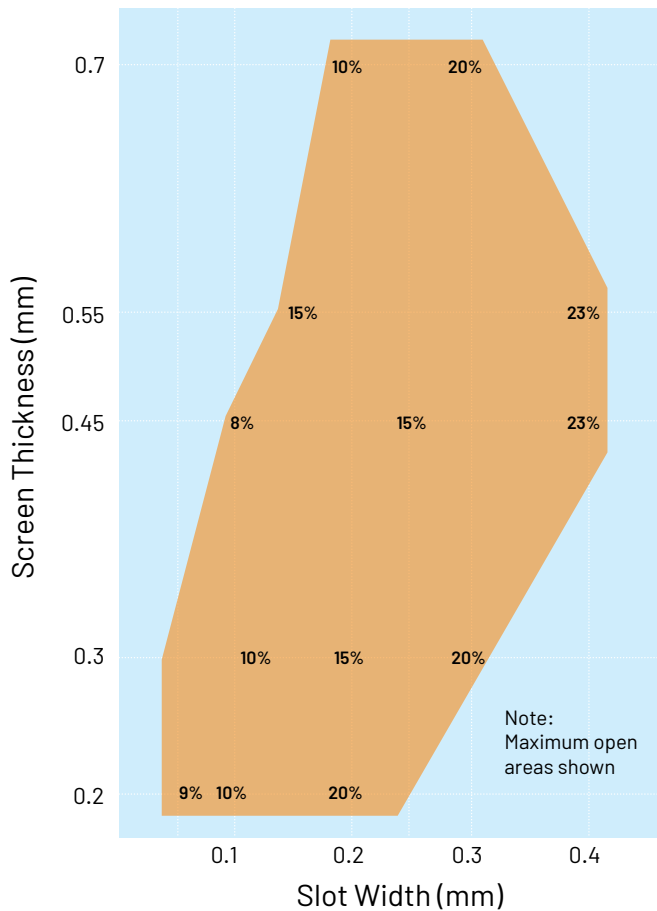
Betaine is a high-value chemical, extracted from the molasses of beet sugar factories. ActionLaser worked with European and US manufacturers over several years to establish the LaserScreen parameters required to optimise recovery of betaine crystals, in the specialised batch centrifuge process.



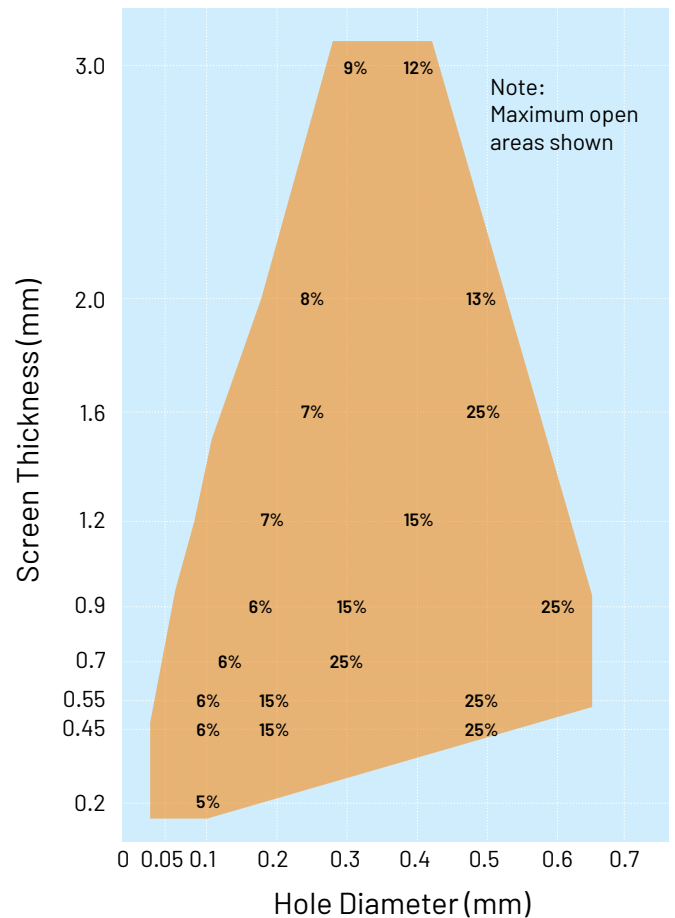
STANDARD LaserScreen Perforations

More information on request

LASER-DRILLED SLOTS



LASER-DRILLED CIRCULAR HOLES



GENERAL

Materials: Stainless steel, non ferrous metals, hard coated metals, tool steel, ceramics.

Aspect ratio: Commonly from 1:1 up to 1:15+ (deeper than wide). Application Dependent.

Working Footprint: Sheet size max. 1000 x 2000 mm; Perforation max 800 x 2000mm; Tubes Ø to 200 mm.



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