ActionLaser
LASER PERFORATED FILTER SCREENS

LASER SCREENS

AVAILABLE WORLDWIDE

Industrial Chemicals

EPS, Resins & Plastics

Pigments & Powders

Water Treatment

Mineral & Petrochemical

Sugar Processing

Plastic Recycling

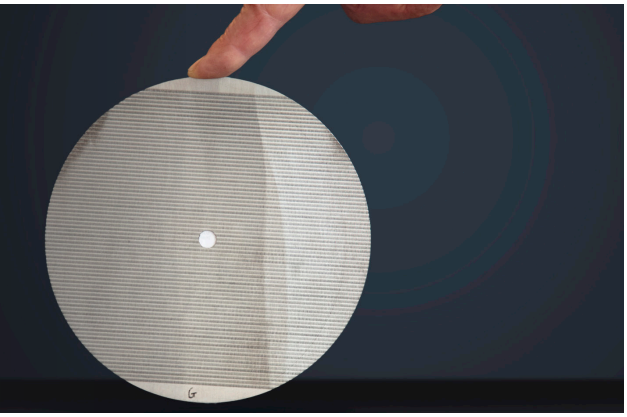
Food & Beverage

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.

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.

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

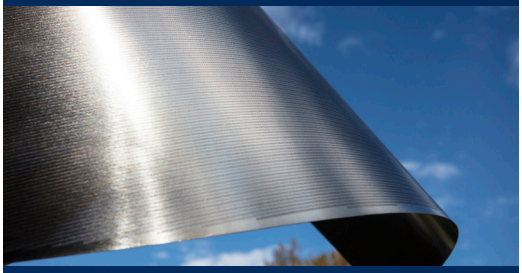
LaserScreens can be shaped into cones, arcs or tubes as well as flat screens that can be made into any shape. Many applications benefit from the inclusion of LaserScreens.

Plastic Recycling Industry

ActionLaser MeltFilter™

ActionLaser laser drilling technology was first introduced to the plastics industry in the early 1990's. Our expertise has been shared to the industry to improve the filtration, life, and performance of continuous melt filtration applications.

Today, we continue to invest in development keeping us at the leading edge of this technology.



Petrochemical and Chemical

ActionLaser's robust LaserScreens are designed to deal with harsh environments in the petrochemical, oil, gas and chemical industries, optimising filtration performance and operational life span of the filter or screen. Often used for separation, screening, filtration or used in chemical centrifuges and self-cleaning filtration applications, the screens offer inert properties critical to some operations.

Easy integration

LaserScreens are easily integrated into most systems designed as required with unperforated margins to facilitate welding into cylinders or onto other fabricated equipment or plates. LaserScreens can be produced in a range of aperture sizes, material thicknesses and steels. They are designed to reduce clogging and optimise productivity as well as operational life.

Improvement in throughput means optimal productivity

Greater lifespan means a reduction in operating costs

Industrial chemicals, EPS Beads, Resin and Plastic

Actionlaser's robust chemically inert LaserScreen products are found in a wide range of applications within the chemicals, plastics, paints and pigments, dyestuffs, inks, cosmetics and pharmaceuticals industries – supporting process separation, purification and concentration processes.

Meeting the Application - Grinding, Separation and filtration

Grinding, Separation and filtration exist in various applications within the chemicals, resins, plastics and paints & pigments industries.

Different particle shapes, particle sizes and size distributions require specific screen aperture sizes and percentage open area to achieve optimum levels of liquid removal, solid recovery and residual solids moisture. Sizing of materials is also important in various operations within these industries.

We supply LaserScreens in specialised materials, as are frequently required for the EPS, resin, plastics, chemical and allied industries. LaserScreens endure the harshest conditions with integrity, resisting corrosion, abrasion and extreme temperatures to maximise effectiveness and lifetime, and to minimise downtime.

LaserScreens can be designed with unperforated regions, as required to facilitate CIP (clean-in-place) operation.

EPS bead drying

EPS beads – expandable polystyrene, widely used for protective packaging and insulation products. The drying stage is critical in the manufacture of EPS beads, to ensure product quality and yield. EPS bead Manufacturers employ our efficient, high-quality replacement screens in their micro-pellet dryers.

Through close collaboration with our long-term clients, we have refined our screens' materials, shape and perforations to optimise bead dryness vs throughput, facilitate installation, extend lifespan and prevent bead leakage. Our lightweight, flexible and robust products will maximise dryer performance and yield.

Adapting to your requirements, we can provide screens for a range of drying machines. Typically, the screen thickness is nominally from 0.5mm to 0.7mm with a tapered slot/round hole width from 130µm to 300µm, and Percentage Open Area from 14% to 25%.

To eliminate time-consuming application of sealant, we developed silicone rubber adhesive tape to create a positive seal around the screen and eliminate bead leakage. ActionLaser silicone tape sticks strongly, moulds to fill gaps completely, resists chemical and mechanical wear, does not stain the beads, and rebounds to shape when cleaned screens are refitted.

Water

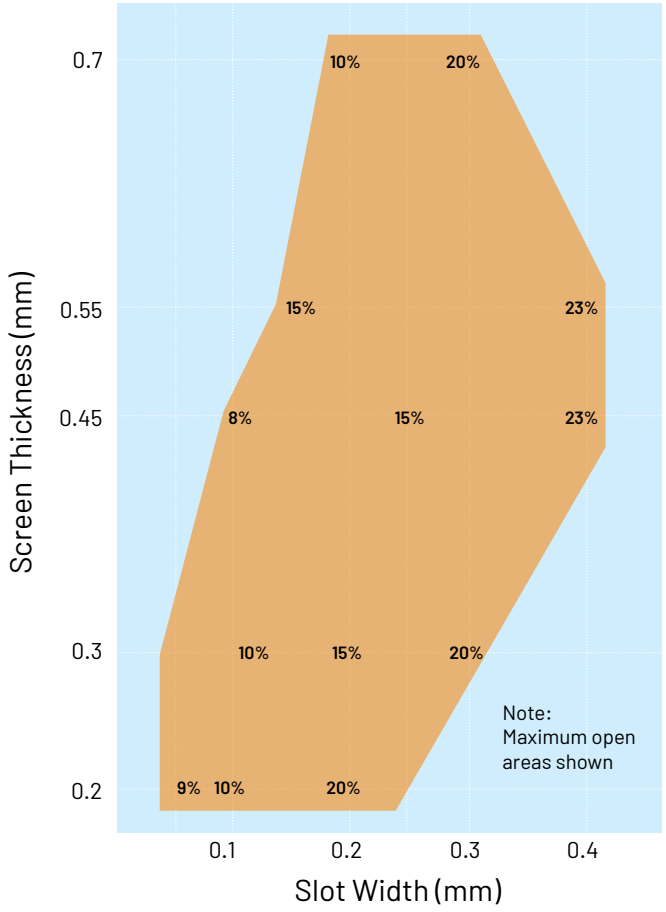
Water recycling and 'polishing' of water in energy plant applications benefit from LaserScreens that have close tolerances on hole dimensions, high open area, low pressure drop, and high strength characteristics.

LaserScreens are also used in dewatering of source materials, effluents and slurries.

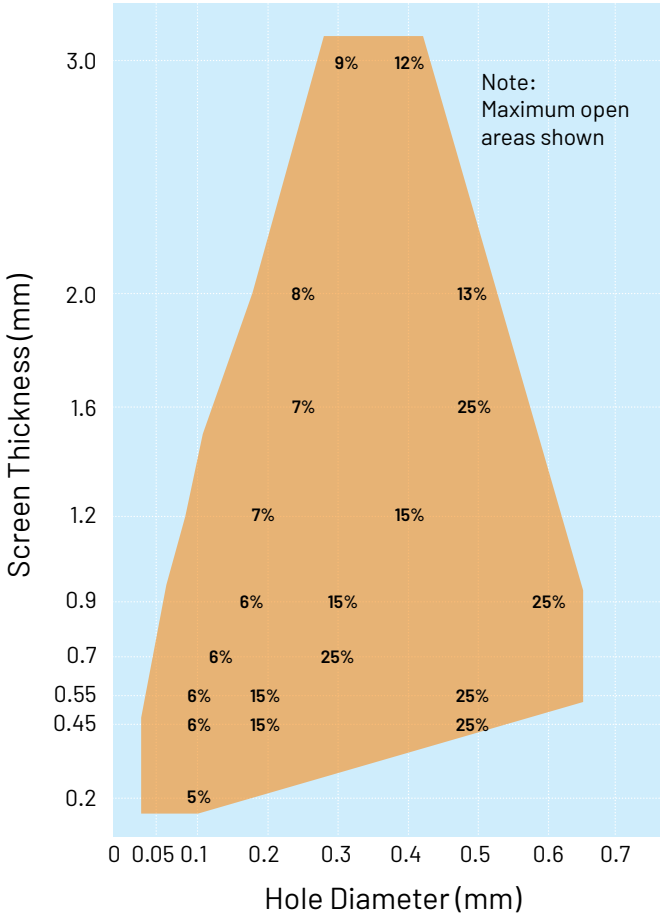
STANDARD LaserScreen Perforations

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.

ActionLaser
LASER PERFORATED FILTER SCREENS

Quality System
Quality Endorsed Company
ISO 9001:2000 Lic. No. 13360 Standards Australia

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