ActionLaser
LASER PERFORATED FILTER SCREENS

LASER SCREENS

AVAILABLE WORLDWIDE

Sugar Processing

Plastic Recycling

Food & Beverage

Water Treatment

Mineral & Petrochemical

Industrial Chemicals

EPS, Resins & Plastics

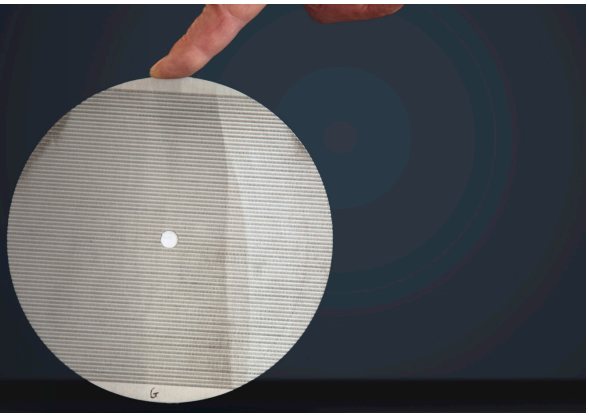
Pigments & Powders

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.

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.

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.

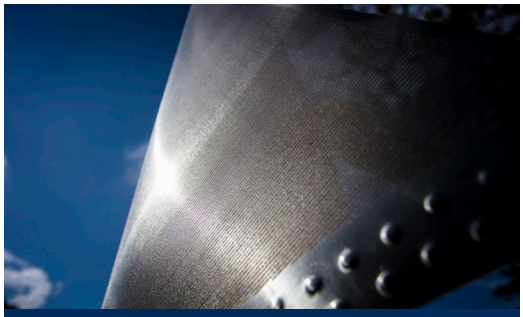
ActionLaser continues to push boundaries in development of filtration and separation applications by introducing this technology to many industries, including water, foods, mineral processing, aerospace, chemical, plastic recycling and more.

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.



Boost Revenue

ActionLaser has supplied high-quality screens for the sugar industry since 1988. We've earned the loyalty of our clients with long-life replacement LaserScreens that maximise efficiency and sugar yield to boost revenue.

High Performance

LaserScreen slot perforations have very sharp, hardened working edges and high relief angles to achieve high separation efficiencies and prevent clogging. LaserScreens have close tolerances on slot width to prevent loss of smaller sugar crystals and a very smooth working face to aid flow.

Jigger Tubes

SRI Jigger Tubes, uniquely designed to prevent blockage. ActionLaser's SRI Jigger Tubes can be retrofitted to Imost any Vacuum or Batch Pan to boost efficiency. ActionLaser teamed up with the Australian Sugar Research Institute (now Sugar Research International) to perfect a jigger tube design that prevents backflow of massecuite and minimises maintenance. It increases circulation and heat transfer in vacuum or batch pans, reducing batch cycle times, encrustation and energy use.

Improvement in throughput means optimal productivity

Greater lifespan means a reduction in operating costs

Improve sugar yield. Reduce downtime and maintenance costs.

ActionLaser LaserScreens were developed in co-operation with the Australian sugar industry to provide a superior working screen for the low-grade centrifugal machines. LaserScreens deliver longer service life, increased sugar recovery and decreased molasses purity rise across the machine.

Crystal loss happens when working screens distort across the wires of the backing screens, causing a widening and spreading of slots in the working screen. The shorter slot length and higher tensile strength and stiffness of ActionLaser's stainless steel LaserScreens prevent such widening, minimising crystal loss.

Additionally, the superior bond of chrome to stainless steel prevents chrome layer delamination experienced with softer substrates, maximising screen service life.

Optimal Recovery

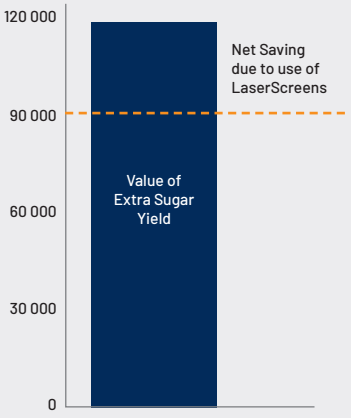
Low grade continuous centrifugal stations are one of the main areas of sugar loss in the manufacturing process. Losses are exacerbated when using screens with soft substrate materials, due to premature distortion of slots and fast wear. Slot distortion is the main reason for loss of crystal to the molasses.

Versatile

Apart from use in low grade centrifugal applications, LaserScreens are deployed in high grade continuous centrifugal operations due to their impressive durability and longevity.

Laser screens are well suited to both cane and beet processing, reducing costs, optimising productivity and yields.

Saving due to use of LaserScreens over a single season.

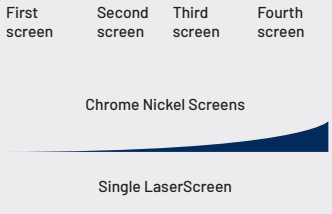


Example Basis: 9.600 tpd (cane) capacity, 0.75 of a unit final molasses purity reduction due to LaserScreens, US$700 / tonne sugar price.

Betaine

Betaine is a high-value chemical, extracted from the molasses of beet sugar factories. LaserScreen applications were developed with European and US manufacturers to optimise recovery of betaine crystals, in the specialised batch centrifuge process.

Comparison of final molasses purities.



Period of installed screen

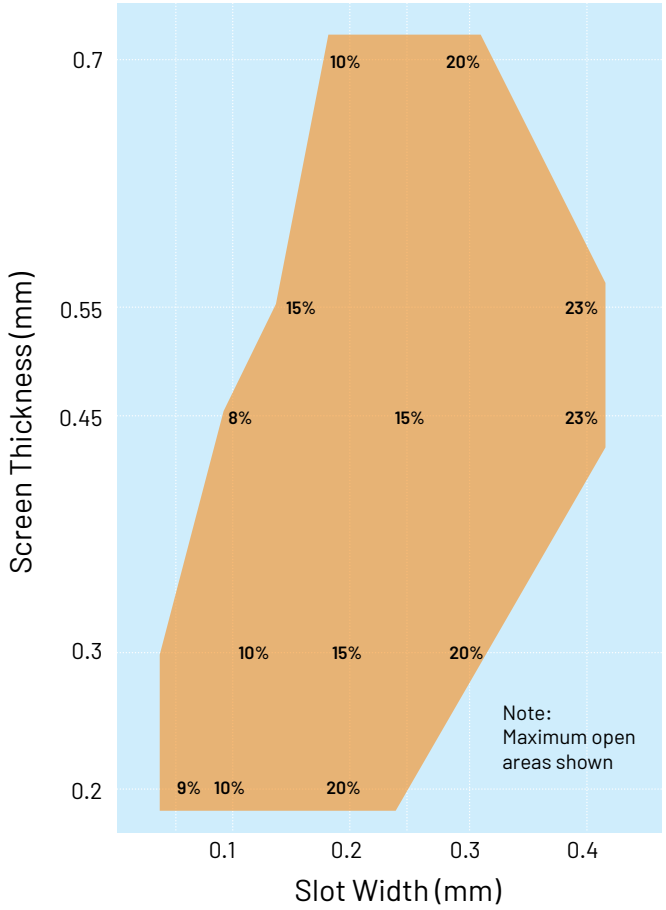
More for the money

LaserScreens offer much greater longevity in terms of absolute hours of operation and tonnes of sugar processed per screen life. LaserScreen service life is up to four times that of screens with soft substrate, the result being less down time, optimal production, and yield recovery.

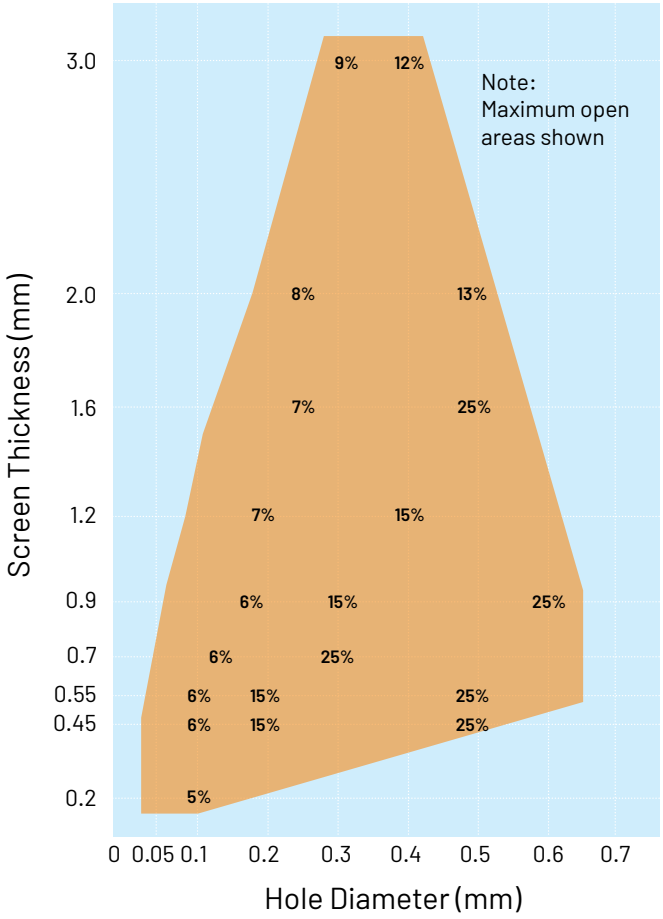
STANDARD LaserScreen Perforations

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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