



## Mineral & Petrochemical

Plastic Recycling

Sugar Processing

Water Treatment

Food & Beverage

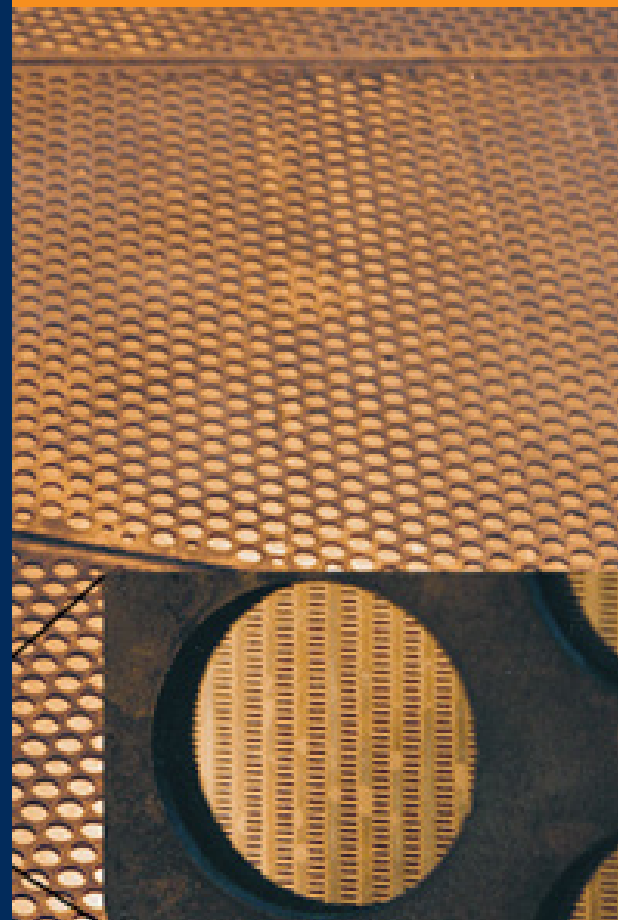
Industrial Chemicals

EPS, Resins & Plastics

Pigments & Powders

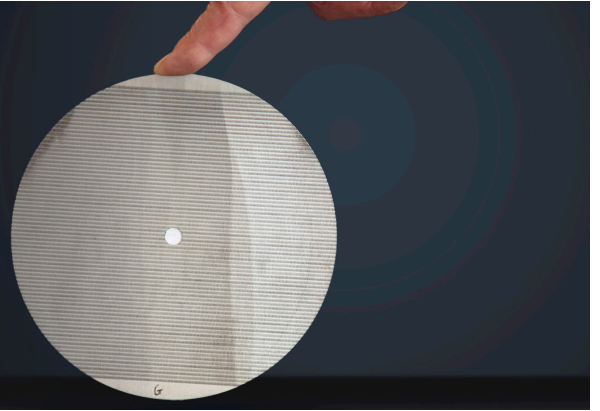
Centrifuge Applications

- + 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.





Pan filters  
Sieve bends  
Centrifuge screens  
General filter screens  
Air Slides

## A lower cost to moving bulk product

Many industries today use air and other media to improve ease in the transportation of bulk materials. Traditionally cloth filters are used, with high maintenance requirements for the replacement of cloth. Introduction of ActionLaser LaserScreens removes the need for frequent maintenance of cloth filters, improving air slide availability and increasing plant productivity.

## 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

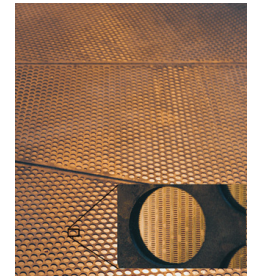
## High Quality Refining. Reduced Contamination.

ActionLaser perforated LaserScreen products support filtration, screening and separation needs in mining and refining processes – from minerals grading, to slurry and concentrate filtration.

## Increase productivity & Safety

Pan Filtration systems are used widely in mineral processing to wash and separate fine materials for example Alumina, Nickel, Cobalt, Iron Ore and other minerals as well as in dewatering applications.

Traditionally, these processes use cloth filters that typically are replaced every 6 to 8 weeks. Frequent filter changes lead to excessive plant downtime and increase the accident and injury risk to workers.



The replacement of cloth filters by LaserScreens assemblies increases the average life of a screen in a retrofitted pan filter to 4 years and 7 years for new plan filters.

## Gain high separation efficiency

Generally, very fine slots are used for the sizing, dewatering or concentration of mineral slurries. LaserScreen sieves and sieve bends deliver high separation efficiencies, higher throughput, and are less prone to blinding than conventional wedge wire screens.

## Going Green

The world searches for new 'greener' energy alternatives such as battery storage. Demand growth is exponential requiring many new mining operations to address the supply needs of minerals such as Lithium, Cobalt, Aluminium, Magnesium and Nickel.

New and alternative mining and mineral processes require equipment capable of more accurate particle sizing and improved separation of smaller particle sizes, even in abrasive and aggressive applications.

ActionLaser LaserScreens offer long life filters for processing of these minerals, developed for the specific filtration requirements of the application.

## Water

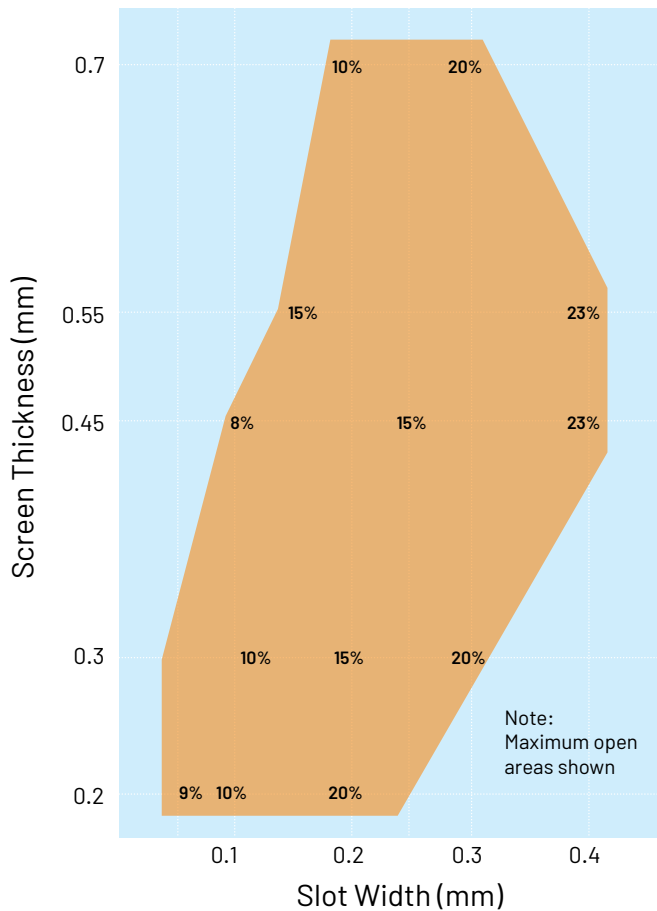
Water recycling and 'polishing' of water in energy plant applications benefit from LaserScreens that have close tolerances on hole dimensions, high open area, low pressure drop, and high strength characteristics.

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

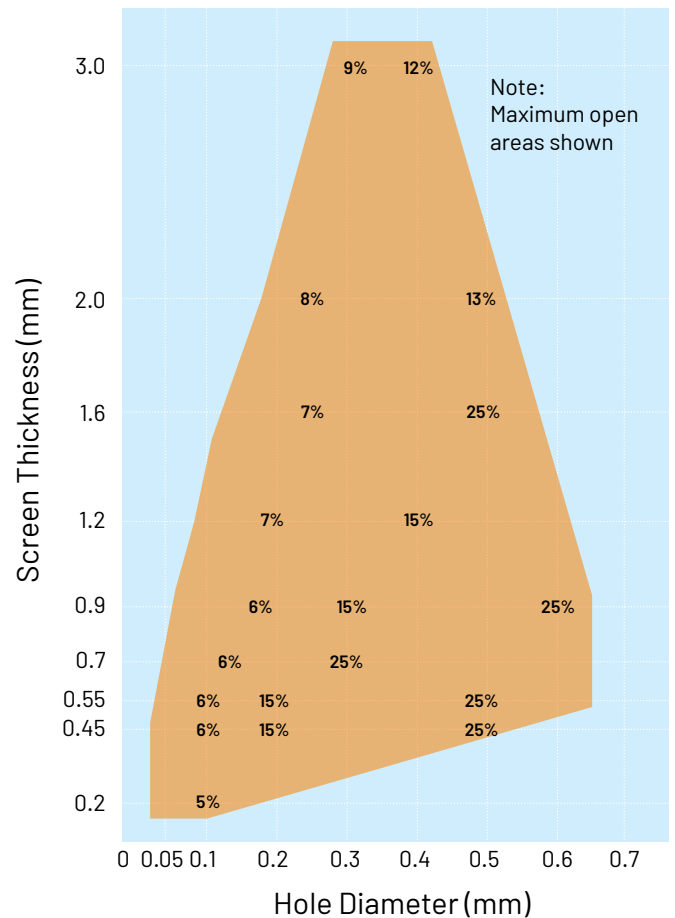
# STANDARD LaserScreen Perforations

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 Pty. Ltd.**

ABN 53 003 540 038

Unit 1, 32 Leighton Place, Hornsby, NSW 2077, Australia

PO Box 1926, Hornsby Westfield, NSW 1635 Australia

Tel: +(61-2)9476 3790

sales@actionlaser.com | actionlaser.com

