

Laminar design wedge wire

Valmet Screen Basket LD

The famous scientist and inventor Leonardo da Vinci studied flow dynamics more than 500 years ago. Our studies of flow dynamic in stock screening are based on the same enthusiasm and we are now proud to present a totally new type of screen basket, featuring the patented Valmet Screen Basket LD laminar design wedge wire.



The first screen basket for machine screening

The Screen Basket LD is the first screen basket designed specifically for machine screening applications and a member of the application-specific screen basket family. Screen Basket LD ensures targeted pulp quality and high screening capacity in all operating consistencies in machine screening.

Patented Laminar Design Wire

For new and existing screens Valmet has developed a new type of screen basket, made of a patented laminar design wedge wire called Screen Basket LD. The Screen Basket LD wire design is already proven technology used in many mills and fits all screen types.

It provides the smooth, backward-opening shape of the accept channel with gradually changing opening angle resulting in a nonturbulent and streamlined flow through the accept channel between the wires.

With Screen Basket LD wedge wires, the unfavorable backflow vorticity at the accept channel is remarkably reduced even at higher slot velocities.

Screen Basket LD baskets fit a wide range of screens from many different suppliers.

Benefits

- High capacity laminar design wedge wire saves pumping energy and improves screening efficiency
- Lower pressure drop and flow resistance through the slots results in increased capacity and savings in pumping energy
- Reduces the backflow vorticity in the accept channel right after the narrow slot, enabling outstanding runnability without fiber blockage or stringing
- Reduces fiber loss
- Improves screening efficiency

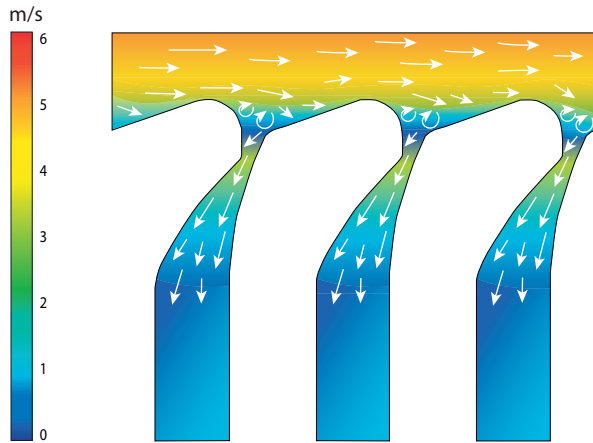


High screening capacity

The Screen Basket LD high open area, combined with the low flow resistance over the screen basket, provides high screening capacity. Numerous mill results confirm that screening capacity can be increased when flow resistance of the screen basket is reduced. The Screen Basket LD wire selection ensures a wide operating window in machine screening by offering solutions for various raw materials and end-products.

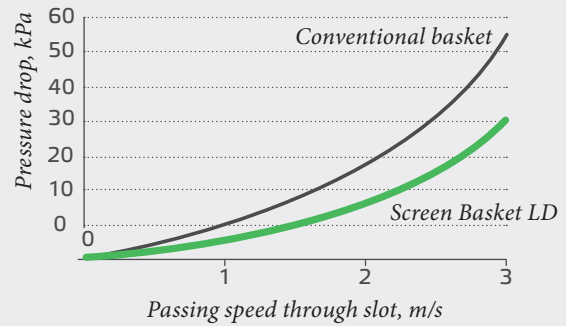
Highly efficient screening

Screen Basket LD deliver efficient screening in the important final cleaning stage in the approach flow systems and headbox dilution water applications. The smooth Screen Basket LD wire design provides a stringing-free operation with a non-turbulent, streamlined flow through the accept channel between two adjacent wires. Combined with the efficient removal of any remaining impurities in the paper, board or tissue machine, this increases the availability of the machine with fewer holes and breaks on the web. Optimized wire design also ensures that pressure drop over the screen basket is minimized. The smooth, electropolished surfaces of the basket further ensure minimal stringing and stapling of the fibers.



Optimized shape of the flow channel reduces flow resistance and increases capacity during production (forward flow) and cleaning (reverse flow).

35 % lower pressure drop



Savings in screening and maintenance costs

The optimized flow pattern in the accept channel of the new Screen Basket LD screen basket results in controlled thickening and a low reject rate, providing savings in the form of lower fiber loss. The basket's tested, durable design with robust wedge wires and the accuracy of the modern screen basket manufacturing technology extend the basket's service lifetime. Valmet's StockBoost for screening is a customized service concept offering products and services that keep screening equipment in top condition for maximum availability and productivity and ensure that the targeted end-product quality is achieved.

