



ANDRITZ

MGINEERED SUCCESS

# Screen Booster basket upgrade

The Screen Booster basket upgrade to Bar-Tec UTwist is one module of Screen Booster and a smart solution to boost your screen and maximize your profits.

### **Screen Booster SMART SOLUTIONS**

Introducing Screen Booster - the modular upgrade solution for optimum screening performance. Boost your screen and maximize your profits. With a perfectly running screening room, you can save a lot of money through reduced fiber losses, lower maintenance requirements, improved screening efficiency, and savings in energy costs. With decades of experience in the development of our own screens, as well as the optimizations of thousands of competitor screens, ANDRITZ has developed the Screen Booster concept to realize the full potential of your screen - no matter the make or model.

## **Bar-Tec UTwist**

In a traditional basket design with a given slot width, the manufacturer must find a compromise between screening efficiency and capacity with a profile height that is uniform over the entire basket height. With the Bar–Tec UTwist, ANDRITZ offers the first and only screen basket that perfectly balances screening efficiency, capacity, and runnability. A minimum profile height close to the feed end provides a greater reduction of impurities and as a result, higher screening efficiency. By twisting the bars towards the reject area we are able to raise the profile height, reducing thickening and minimizing the risk of plugging.

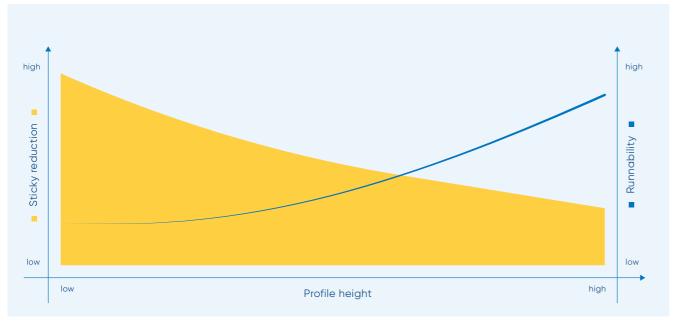
# REALIZE THE FULL POTENTIAL OF YOUR SCREEN AND PROFIT DIRECTLY FROM

- Greater reduction of impurities
- → Improved quality
- Higher capacity
- Reduced thickeningTailor-made solutions



# Finding the balance between efficiency and runnability

The main goal in the screening process is to efficiently remove debris, including stickies, shives, and other contaminants, from the stock. However, there are other factors to consider, such as targeted capacity, reject rate, energy efficiency, and runnability.



Effect of the profile height on sticky reduction and on runnability

## THE SCREENING PRINCIPLE

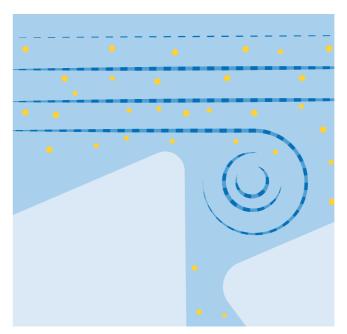
Since screening efficiency and runnability are contradictory objectives, this points to the inherent compromise in basket specification; setting the wire profile height low enough to ensure good efficiency (high accept quality with minimal contaminants), yet high enough to produce enough turbulence on the basket surface to maintain throughput and high runnability.

A further challenge is being able to operate with changing process conditions as we move from the feed to the reject zone of the screen basket.

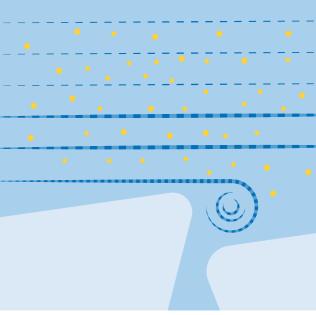
The ANDRITZ UTwist adaptable screening profile wire allows a mill to have it all.

# Why profile height matters

The design of the wire in a slotted screen basket has a major effect on both screening capacity and accept quality. The profile height is determined by adjusting the angle of the wires, and this affects the turbulence on the basket surface.



High profile: Reduced reject thickening and high runnability



Low profile: High screening efficiency

# CHANGING THE PROFILE HEIGHT IS THE KEY

The profile height is determined by adjusting the angle of the screen bars to one another. Turbulence has a crucial effect on the behavior of the fiber suspension.

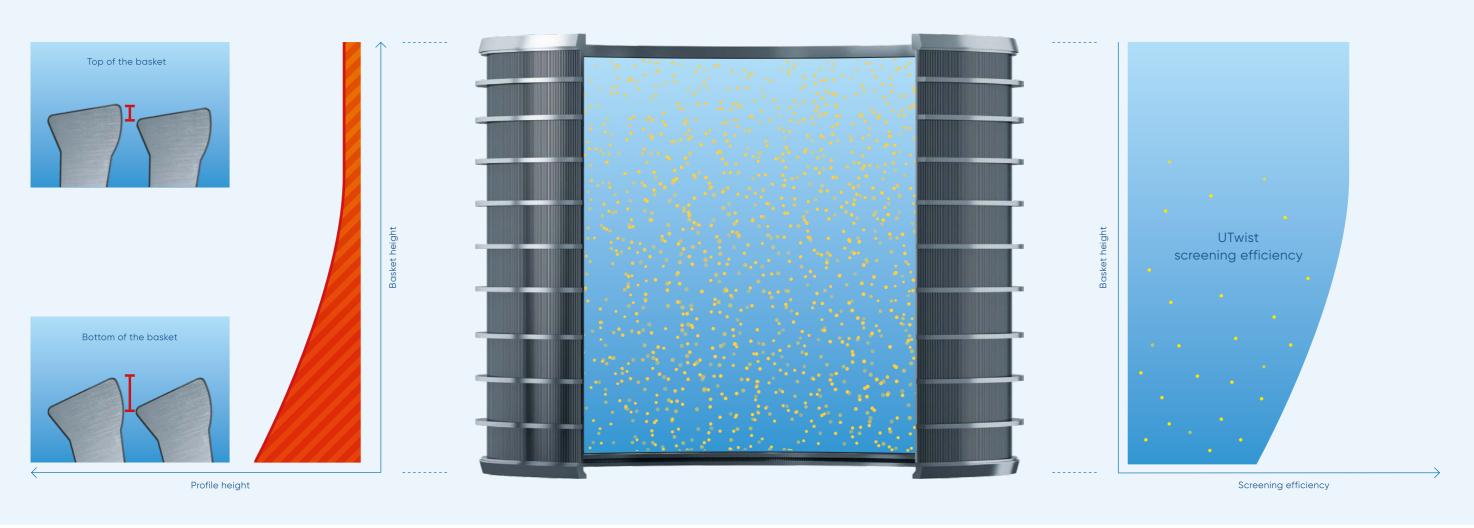
## HIGH PROFILE HEIGHT

Raising the profile height increases turbulence on the basket surface, which is beneficial for stock fluidization and increased throughput. Higher turbulence also prevents too much fiber mat build-up on the basket surface, which could lead to plugging. However, if the turbulence is too strong, more contaminants will pass through the basket, thus reducing the accept quality.

## LOW PROFILE HEIGHT

On the other hand, a low profile height improves screening efficiency, but lowers the throughput of the screen. It also contributes towards greater reject thickening, especially at the reject end of the screen, which again may jeopardize runnability.

# Realizing the full potential with Bar-Tec UTwist



UTwist bars with adaptive profile

GEOMETRY AND ADAPTIVITY

Bar-Tec UTwist provides a wire with adaptable profile that ensures the lowest possible profile height at any vertical position of the basket. The ability to adjust the profile height along the basket is unique, enabling low profiles close to the feeding zone to increase screening efficiency and then a higher profile in the subsequent zone to avoid critical thickening.

The patented profile geometry allows tilting of the wire without this having an impact on the slot width. This is not possible with any other profile wire.

# **FEATURES**

- Twisted profile wires for optimum profile height
- · Constant slot width
- Lowest possible profile height throughout the basket
- Increasing profile height at the reject end to reduce thickening and avoid plugging

Stickies retention inside the basket

Impact of UTwist bars on screening efficiency

"Having the perfect profile height throughout the basket will raise performance to a new level."

# KEITH MEYER

Global Product Manager Screening





# **AUGMENTED REALITY CONTENT**

To view videos in a more direct and lively way, augmented reality has been added to some parts of this brochure. Download our ANDRITZ AR APP on our website or in the AppStore/PlayStore!

SCAN THE MARKED PAGES AND EXPERIENCE THE ENHANCED CONTENT.

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