

# Velocity The high-performing press fabric with fast saturation



# Reliable press fabrics

The market demands for higher paper quality and output at lower costs are increasing. To reach these goals, achieving operational speeds faster with a smooth production is mandatory. The right choice of press fabric will contribute considerably to enhancing dewatering and maintaining efficiency.

Press fabrics must balance compaction resistance and compressibility to maintain void volume, enhance dewatering and avoid trapping contaminants. For this reason, Voith has developed Velocity, a high performing press fabric that maintains void volume and dewatering performance throughout its operational life. The secret to its success is a special yarn system.

# Yarn array and uniformity of layers

Thanks to the special yarn array, Velocity absorbs water faster than the standard yarn system. It provides a faster saturation of the fabric to reach efficient hydraulic nip pressure. The results are reduced break-in and increased nip dewatering.

The uniform non-woven yarn array provides a more even pressure distribution across the width of the fabric, increasing the water removal from the paper. The special yarn array has low compaction and therefore retains open flow channels through the fabric to maintain a certain degree of uhle box dewatering. This higher contact area and maintained void deliver a better paper sheet and higher dryness than conventional fabrics.

### Increased compressible void

To increase void volume while maintaining compressibility, the Vector module can also be introduced to the fabric structure. Vector is a non-woven, non-homogeneous three-dimensional base structure made of fine filaments. It provides additional void volume without the need for heavier woven structures. The result adds more void volume, and therefore a higher amount of water removal, without hindering the start-up behavior or compressibility.

#### Less contamination

Even though Velocity has smaller pores than conventional press fabrics, this generates higher pressure velocity. The higher velocity helps to flush away contamination. Thanks to the self-cleaning function of Velocity dirt trapping on the surface of fabric can be prevented from the beginning. Therefore negative effects of dirt on the paper quality could be eliminated and high quality paper produced.

# Benefits of Velocity at a glance

- Quick startup and fast saturation
- + Higher nip dewatering
- + Improved dryness
- + Longer steady-state performance
- + Modular concept

# Fields of application

Velocity is the perfect press fabric for graphic and tissue applications, along with select board and packaging positions. Improved sheet smoothness and higher dryness have been a result on tandem graphic machines. Drastically fast start-up witnessed on crescent former tissue machines without losing end of life performance. Improvements to board smoothness have been seen on white top liner. Voith offers three different types of Velocity. Thanks to the modular concept they can be customized to the individual requirements of the application.

Types	Velocity 2	Velocity 3*	Velocity 3**
Easy Cleaning	+++	+++	+++
Start-up	++++	++	+++
Nip dewatering	++++	+++	+++
Steady-state performance	+++	+++	+++
Resilience	++	+++	++++
Vobration damping	+	++	+++
Compaction resistance	++	++++	+++

<sup>\*</sup> Standard



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<sup>\*\*</sup> Vector inside