Elastomer technology for press fabrics
PeakElement

Improved press fabric performance
PeakElement Technology is a specially developed elastomeric material which, when integrated into a press fabric, reduces the start-up period while additionally maintaining steady-state performance throughout its operational life. Its versatility is unique and it is a perfect solution for increasing dewatering performance in the press section of your paper machine.

Voith once again adds a pioneering development to press fabric performance by engineering an elastomeric component which alters the compressibility and resiliency of the felt structure. PeakElement Technology reacts immediately to the pressure in the nip to compress the felt structure and allows it to reach optimum mid nip saturation nearly instantaneously.

Due to the resiliency of the material, the deformation is not permanent and the caliper recovery commences directly after the peak pressure in the nip is reached. This allows the felt to remain in optimum condition.

Excellent customer experience
+ Higher production
+ Improved machine efficiency
+ Energy savings
Making more paper sooner

A standard press fabric must overcome a break-in period before the paper machine can reach its expected operation levels. The felt will become saturated during a compression phase to reach an optimum hydraulic pressure in the press nip to create effective dewatering. As PeakElement compresses up to 15% more than standard fabrics under the same loading, the felt will reach the optimum functional saturation in a much shorter time. A shorter break-in time means that higher production levels can be achieved.

Resiliency for dewatering performance

Resiliency plays a major role for maintaining steady-state performance. Normally as a felt is compressed, the functional void volume reduces, and therefore, over time, so does operational performance. PeakElements’ elastomeric material is designed counteract this effect as it does not permanently deform and it helps maintain a consistent pore volume density even under load.

Depending on the felt construction, the compressibility of PeakElement can reduce the void volume up to 21% more compared to the same design without it. A lower void volume can sometimes restrict water flow due to increased flow resistance. With PeakElement, the water flow is not restricted even though the void volume is lower, which means higher water removal and respectively higher sheet dryness is possible.

Commercial results are proven

PeakElement installations on commercial paper machines have proven that additional positive impacts on machine performance can be achieved. Besides a fast start-up, customers have converted to PeakElement due to higher production, higher operational efficiency and lower steam usage.

Available for all Voith manufactured press fabric designs and all paper grades!