

# Transferbelts – no longer a niche product

Jochen Pirig, Strategic Product Manager Belting, Heimbach GmbH

## INTRODUCTION:

More than two decades ago, an entirely new technology was introduced to the paper industry, and a whole new range of possibilities was opened up: For the first time, the paper web could be transferred from the press into the dryer section in a continuous closed draw. Heimbach was the first supplier to bring a complete polyurethane-coated transferbelt to the market. In the meantime, the Webmover family has grown significantly and now offers solutions for almost every paper grade.

Forming fabrics, press felts and shoe press belts are directly involved in the removal of water from the stock suspension and the paper or board that is formed from it. Dryer fabrics, in turn, help transfer heat from the drying cylinders to the paper web. They then guide the web through the dryer section and onto the reel.

Common to all these fabrics are pre-determined paths for the water or steam to be removed. In the case of forming/dryer fabrics and press felts, this is done via the material itself, while in the case of shoe press belts drainage channels in the form of grooves do the work. Since smooth surfaces do not reate any storage volume, they are now rarely encountered.

### Central control function

As the name implies, a transferbelt conveys the paper web, via closed draws, from the press section into the dryer section. The belt is impermeable to water and as such makes no active contribution to dewatering. Due to its specialised surface properties the still damp and relatively unstable sheet structure is, as a first step, directed to the outside of the transfer belt on leaving the press section.

Because there is sufficient adhesion, the sheet is transported along. No wrinkling, no edge curl. The next step is the dryer section, where vacuum loaded rolls remove the web from the transferbelt in a closed draw.

In short: to ensure trouble-free operation of a press section with transfer belt, two criteria are of the utmost importance. Firstly, the web must adhere sufficiently to the belt surface, yet still be easy to release. Secondly, it is essential that these “tack and release” properties are consistently maintained during economic downtimes.

### A milestone for the industry

In 2006, Heimbach became the first supplier worldwide to offer a unique product: Webmover, a complete polyurethane coated transferbelt. One of the developer’s main declared goals was to allow production speeds to be increased, and at the same time to increase the service life of the closed draw transporter. While at the time this applied to modern newsprint and other graphic paper press technology, today the established machinery builders appreciate the many advantages of transferbelts for other grades too.

### New designs for new requirements

Something is happening. Tissue manufacturers are now using transferbelts in order to integrate free-standing shoe presses to gain higher dry content. Producers of speciality and lightweight packaging papers are also turning to transferbelt positions in the search for greater productivity. So it is only natural that Heimbach has moved to tailor the proven features and benefits of Webmover to cover these areas of application.

Today, the product range goes way beyond the standard. The Webmover.HD variant (for Heavy Duty) is used on positions that are subject to high mechanical loads. With Webmover.Nonstick, belt surfaces can be conditioned much more effectively, and Webmover.T is the go-to design for tissue applications.

## Our top 10 lifetimes achieved

Running Time	Machine Speed	Paper Grade
777	800	Packaging
638	800	Packaging
621	900	Graphic
541	1800	Graphic
401	900	Graphic
394	1300	Speciality
393	1400	Graphic
381	1200	Graphic
377	1600	Graphic
359	1150	Packaging

**Perfect fit**

We see ourselves as problem solvers and have developed the tool that keeps the surface of the Webmover “in good shape”. Our two cleaning doctors types form the ideal combination of belt and doctor blade. Webdoc.regular is perfect for continual use and for positions that suffer from moderate contamination. Webdoc.coarse provides reliable relief for applications with more stubborn cleaning problems.

**Figure 1: Webdoc (regular) and Webdoc (coarse) cleaning doctors**



**Figure 2: Webmover inspection**



**Figure 3 & 4 Webmover in operation**

**We are pleased with the latest feedback from the Chinese market:**

Webmover ran on PM7 at our customer Shandong Chenming Mill9 for almost 300 days and gave a very good performance over the entire lifetime. This is already the second transferbelt with such a long service life on this high-speed machine.

In early September, Webmover was installed at Sun Paper Yanzhou PM39. This machine produces wood-free, uncoated papers at a reel speed of over 1600 m/min.

A nice success on this important reference machine. Continuing the valued partnership with Sun Paper Group, the flagship machine Sun Guangxi Beihai PM1 started in September. Webmover was installed for the start-up, which our local staff reported went extremely smoothly. The Sun Guangxi Beihai PM1 is an 11.25 m wide, wood-free, uncoated machine that runs at speeds of up to 1800 m/min.

