



Fig. 1: New threading conveyor PrevoThread C.

**Successful start-up of the new threading systems**

## **Prevo – the new threading process technology**

**With the Prevo product line for threading solutions, Voith has fully integrated the know-how behind the former Fibron technology and adapted and developed the product range to meet customer needs. Due to a close cooperation between the Paper Technology Center (PTC) in Heidenheim (Germany) and the experts from Krefeld (Germany), a new product portfolio has been developed that covers every threading process in paper and board machines.**

The product transfer from Vancouver to Krefeld has been successfully accomplished. Further research and development work has led to advanced and optimized design of all threading products. The threading components are now manufactured, assembled and tested in Krefeld and delivered to customers around the world. An assembly shop was opened for this purpose and the production has started in December 2007. All key components are available on stock in order to realize short delivery times. In addition, new developments and customized solutions can be tested in the PTC.

**Prevo product family**

As part of the product revision, a new naming structure has been defined (Fig. 2). It is divided into three levels:

product family (Prevo), function level (Fig. 3) and product level. Thus, the threading products are now uniformly and universally named.

**Vacuum technology**

One highlight of the new PrevoThread C threading conveyor is the creation of vacuum with Venturi amplifiers. The Venturi amplifiers create a high vacuum along the entire length of the threading conveyor at a comparably low air consumption, which can be switched off immediately. By dividing the threading area into individual vacuum zones, the maximum vacuum is achieved as soon as one zone is covered by paper. The first zone is equipped with 4 Venturi amplifiers (Fig. 1) and generates a particularly high vacuum, thus immediately stabilizing the incoming tail.

Each additional zone of the conveyor then independently fixes the tail with maximum vacuum.

- Optimum vacuum distribution for the threading process
- Significantly reduced air consumption
- Wear-free Venturi amplifier
- Significantly lower noise emission in comparison to previous vacuum sources

**First successful projects**

- PM speed:** 1,000 m/min
- Product:** Liner and fluting
- Basis weight:** from 90 to 220 g/m<sup>2</sup>

The first order came from Kappa Smurfit Roermond, Netherlands. The threading system to the Speed-Sizer has been upgraded in the Voith PM 3 from 1969. The new Prevo system threads the tail without any problems.

<b>Prevo</b>				Product family
<b>Cut</b>	<b>Lift</b>	<b>Thread</b>	<b>Rope</b>	Function level
RR	FT	C	S1-120	Product level
TR	FTE	LT	S65-90	
DC	MD	SF	H5-200	
etc.	etc.	etc.	etc.	
Example: Before: FlipTray Current: PrevoLift FT				

Fig. 2: New naming structure for threading systems at Voith.

<b>Function level</b>	
<b>PrevoCut</b>	Cutting the tail
<b>PrevoLift</b>	Lifting the tail
<b>PrevoThread</b>	Threading the tail
<b>PrevoRope</b>	Rope system components

Fig. 3: Elements of the function level.

**PM speed:** 950 m/min  
(in future 1,250 m/min)  
**Product:** Base paper for coated  
wood-free printing paper  
**Basis weight:** from 48 to 90 g/m<sup>2</sup>

Another order came from a customer in Germany. The threading systems in the SpeedSizer and End Section were equipped with the latest threading solutions in order to be able to thread through these difficult sections faster and more safely. The following products were used:

- 4 PrevoThread C (Conveyor)
- 2 PrevoLift FT (FlipTray)
- 2 PrevoCut STC (SingleWaterTailCutter)

The system of the new Prevo threading products achieved outstanding results.

**PM speed:** 1,750 m/min  
**Product:** Newsprint  
**Basis weight:** 48 g/m<sup>2</sup>

At UPM-Kymmene in Steyrermühl, Austria, a wet-end threading conveyor (PrevoThread CP) was installed between the 3rd and 4th press on the PM 4 by the customer for the first time in August 2007. The quote from Dr. Marco Lesiak, production manager on the PM 4, speaks for itself: “With the PrevoThread CW, we were able to reduce our threading times in the press section significantly. Our experience so far has far exceeded our expectations. We are absolutely thrilled with the results.”

A high cost-effectiveness for paper production is provided by the fast and reliable transfer of the paper after a machine stop or sheet break. With the Prevo product family, Voith is offering a reliable transfer concept with preci-

sely balanced components. Prevo products provide the optimum solution for lifting, cutting and threading the tail for all paper grades in any position in the paper machine. All future orders and rebuilds in existing paper machines will be equipped with the new Prevo systems.

**Infobox: Prevo product family benefits**

- Fast and safe threading systems
- Stable tail guidance
- Continuous threading processes

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Fig. 4: Prevo threading solution on the PM in the SpeedSizer section (left: operating position; right: successful hit).