

# impressive

ISSUE SEPTEMBER 2013

## The impact of felt conditioning on the production process

Interviewing Thomas Fischer.

## OXA: outstanding life-time

Providing reliability, flexibility and speed with the successful SECOPLAN family.

*primoselect.*

## You choose, together we select

There is certainly a large choice of forming fabrics available for your paper machine today. But do you know a fabric which employs **completely novel binding technology**? A fabric which offers you **maximum flexibility** for the production of all paper

grades? A fabric that is both very **low in caliper and yet extremely robust**?

You do now: **PRIMOSELECT** – The next generation of Forming Fabrics.

**Find out more on page 07.**



The image features the word 'OXXA' in large, bold, red 3D block letters. The letters are set against a vast, golden desert landscape with rolling sand dunes under a clear blue sky. In the distance, two camels are visible on the dunes, one on the left and one on the right, adding a sense of scale and location to the scene.

OXXA

secoplan Dryer Fabrics –  
reliable, efficient & customised

Heimbach – wherever paper is made



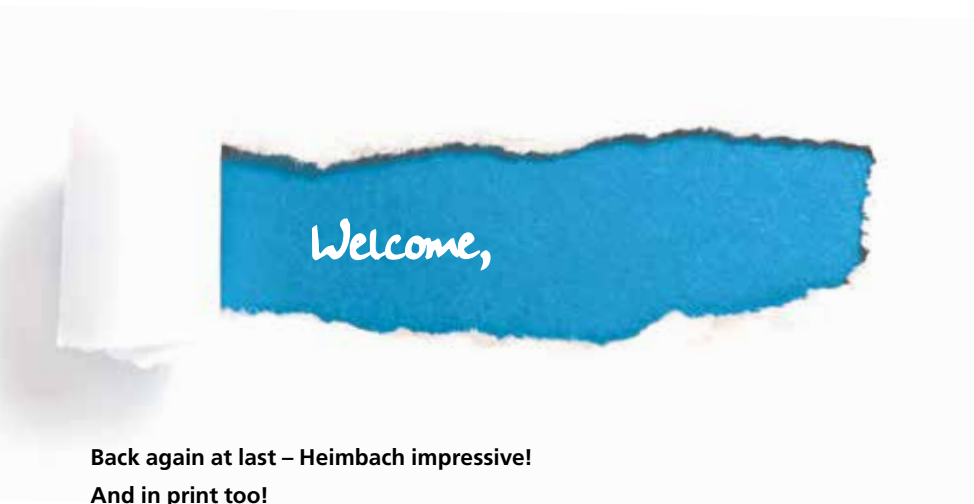
## 05 OXA-Dryer Fabrics – safe, stable, resistant

Providing reliability, flexibility and speed with the successful SECOPLAN family.



## 10 Felt Conditioning – Potential Cost Savings

Efficient felt conditioning is essential for successful papermaking.



We are very happy to be able to present our regular newsletter printed also on paper again from this issue forward. It is most important to us as partners of the paper industry to use the material which is at the core of your, and our, every effort, day in day out. This is why you, our esteemed reader, will be offered news from the world of paper and from Heimbach several times a year in tangible form – and no longer just electronically – from now on.

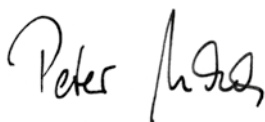
In this issue you can read how Heimbach optimises your paper production – with **PRIMOSELECT**, the revolutionary forming fabric, offering a wide range of benefits. Find out about the positives of effective **Fabric Conditioning** and the potential cost savings involved.

And we introduce you to the **OXA Dryer Fabrics** from our SECOPLAN family: Dryer Fabrics with the “Zip Effect”.

We are looking forward to hearing from you with either queries or suggestions! Just send an e-mail to [info@heimbach.de](mailto:info@heimbach.de) – and your Heimbach specialist will get in touch.

May I now wish you an entertaining and informative time reading our newsletter!

With kind regards



Managing Director

*secoplan.*

## OXA-Dryer Fabrics – safe, stable, resistant

*By the time the sheet reaches the dryer section, many of the crucial factors that impact upon paper quality and process efficiency have already been addressed. However: the final reckoning is always made at the end and the last few metres will determine the overall outcome.*

### **OXA: and the Dryer Section works**

Compared to more conventional fabrics, the high performance dryer fabrics of the new OXA generation stand out due to their **high contact area**, which is made up of a multitude of small contact points arranged at close proximity to each other. These fabrics contain flat monofilaments, that increase the contact area and therefore guarantee a steady and clean run. As a unique feature **even the weft is integrated into the contact area!**

The seams in all OXA fabrics meet the highest requirements: they are stable, do not mark

the sheet and can be closed very easily. The weave structure guarantees optimum stability: irrespective of low stretch tolerances and high speeds with high vacuum values – OXA-fabrics run smoothly and are dimensionally stable.

### **OXA: outstanding fabric life time**

Apart from energy efficiency and high productivity, long life times are crucial when deciding to go for OXA dryer fabrics: twister free or well protected seams (depending on the design) ensure a long lifetime; **seam wear is either eliminated** or, at worst, minimised. The surface structure of OXA designs lends itself to easy cleaning, with resulting benefits of reduced downtime and water consumption. During tail cutting, the ratio between yarn diameter and water jet ensures a **significantly reduced load on the monofilaments**. Finally, the stable cross direction structure leads to lower 2-Sigma

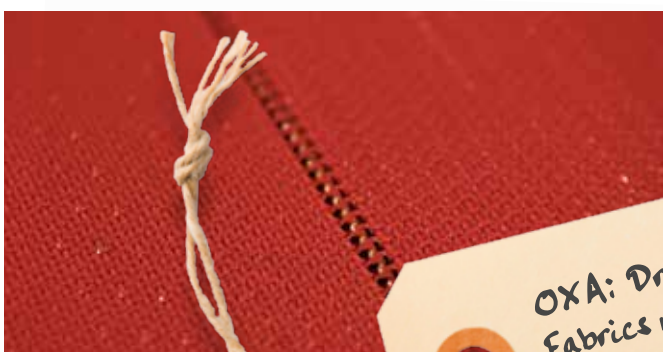
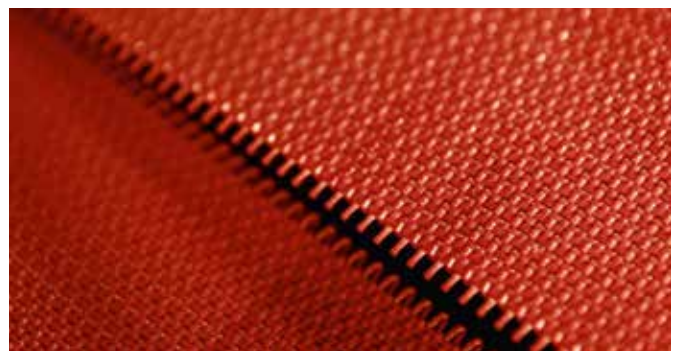
moisture values and reduced moisture peaks. All the above give you every reason to keep OXA fabrics on the machine for as long as possible.

### **OXA: “Zipper Effect” for fast closing**

There is another striking argument for the OXA series. The fabrics can be equipped with pin or spiral seam. If you go for the pin seam, you will get to know the **“Zipper Effect”**. Similar to a zipper all loops fit into each other! As a result of that the fabric can always be **closed in an extraordinarily safe and easy way, which saves time and effort and reduces shut downs** at the same time. Furthermore, the especially low air permeability differences between seam area and the fabric itself ensure marking free results.

### **OXA – for a simply more efficient drying process!**

*In OXA Dryer Fabrics with pin seam all loops fit into each other similar to a zipper– for fast and safe closing of the seam!*



OXA: Dryer Fabrics with “Zipper Effect”.

## Did You Know?

In comparison with other modern multi-layer forming fabrics, dryness is improved by an average 1% after the forming section when using PRIMOSELECT. An example of this is shown for the production of newsprint on a Voith Duoformer TCv, running at speeds of around 1,900 m/min.



### **Your choice entirely!**

When running PRIMOSELECT YOU can set the priorities for your own paper production process! Whether dryness, reduced energy consumption, runability or efficiency – your specific requirements drive the choices of your individual design and the final properties of the PRIMOSELECT fabric you are going to run.



*primoselect.*

## The Most Advanced Forming Fabric Available

*The research has been done and first trials performed, so now we present to you; PRIMOSELECT – The new standard for the future of Forming Fabrics!*

PRIMOSELECT has a unique patent-pending construction with an innovative weave pattern incorporating **a unique binding structure** – With this, Heimbach is able to improve on the technical qualities of the current SSB, with significant benefits to you the papermaker. The novel structure creates an open fabric with exceptionally high drainage capacity and the finest of calipers, with designs starting at 0.50 mm, the new standard!

### **Your Production – Your Choice**

Due to its special properties, PRIMOSELECT will open up an **unequaled range of options** to you. Whatever paper grade you are producing, whatever the specific requirements of your forming section: PRIMOSELECT will apply itself – **you just decide the benefit you need**. For example:

**Higher dryness, reduced energy consumption, improved productivity or better runability.**

Let's look at the last aspect in closer detail:

### **Focus on fabric efficiency**

If there is no requirement for the thinnest possible forming fabric, you can choose a lower degree of caliper reduction allowing larger diameter wearing yarns to be used, resulting in better fabric lifetime, improving the overall efficiency. With this larger wearing yarn, fabric **stiffness and stability are maintained on a high level**. So benefits all round!

The revolutionary binding structure of the fabric also effectively **removes the possibility of internal wearing** – a common problem in SSB's currently. This is achieved by removing the places in the fabric structure where yarns rub against each other, something not seen since the move away from Double Layer designs.

As you can see – PRIMOSELECT puts you in charge. If you too would like to set-up/equip your forming section for the future, our specialists will be happy to assess and advise.

**PRIMOSELECT – much more than just an SSB Forming Fabric!**

*\* Patent pending!*





## Felt Conditioning – necessary and critical!

*The conditioning of the felt plays a very important role within the paper making process. Each paper maker needs to condition the felts in the press section – but which conditioning is the right one? What needs special attention? Thomas Fischer, Manager of Heimbach TASK-Force gives the following insight:*

*Thomas Fischer being interviewed on the relevant aspects of felt conditioning – and explaining why it is highly significant for increased felt lifetimes.*



### **impressive**

*Herr Fischer, what is TASK-Force and what is their brief and level of expertise?*

### **Thomas Fischer**

TASK-Force is a dedicated department within Heimbach which is made up of technical specialists. Our main objective is to advise and support customers in all machine related technical issues in order to promote an optimised set up of the paper machine which will result in faster, more efficient and profitable production.



Thomas Fischer, Manager of Heimbach-TASK-Force, advises customers in all technical aspects of felt conditioning – This plays an important part in paper production.

„Our main objective is to advise and support customers in all machine related technical issues in order to promote an optimised set up of the paper machine which will result in faster, more efficient and profitable production.“

#### **impressive**

*And you also advise on the subject of felt conditioning?*

#### **Thomas Fischer**

Indeed! A lot of customers approach us on this subject because the conditioning of felts in particular requires a well-defined area of expertise. Many different machine components have to be taken into consideration. With each paper machine and therefore each press section being set up differently, each customer requires and receives highly individualised advice.

#### **impressive**

*Which machine components in particular?*

#### **Thomas Fischer**

We make for instance a detailed assessment of the oscillating showers, assess the

traverse of the high pressure showers or the low pressure showers. These are all machine parts involved in cleaning the felt during the production process (continuous conditioning). Conditioning in this context means looking in detail at matters such as: Is the water quality good enough? Is the water temperature the right one for the cleaning process? Is the correct water pressure being applied to the felt? Is there the correct distance between nozzle and felt? It is equally important to assess the speed of the high pressure shower oscillation.

After the assessment each customer receives a recommendation with guidance on how to establish the best possible conditioning regime during the whole life time of the felt.

#### **impressive**

*And what about an interruption in the cleaning process?*

#### **Thomas Fischer**

There are numerous other aspects to consider when the paper maker has to stop the machine in order to clean with chemicals (e.g. during the production of packaging grades), such as: Which chemicals clean most efficiently during which kind of production run? How do certain chemical substances need to be handled? How to comply with rules about environmental and other safety issues? We will give the customer general recommendations which can quite often result in a significantly increased life time of the felt.

#### **impressive**

*Any specific practical tip for our readers?*

#### **Thomas Fischer**

Yes, my tip is 'Nip', or rather Nip Dewatering. Depending on the kind of paper machine and on the paper grade produced it is beneficial for the whole production to have the dewatering of the sheet and the conditioning of the felt to take place in the press nip. Firstly, the higher pressure in the nip allows an increase in the dry content of the sheet. Secondly, energy can be saved because there is no need to slow down the felt with the UHLE box. And thirdly, the cleaning of the felt will be significantly more effective, because the nip makes a hundred times more energy available than the UHLE box.

#### **impressive**

*So this is how the team members of TASK-Force contribute towards making optimum use of the life time of a felt?*

#### **Thomas Fischer**

Yes, this is exactly how we understand our role: as experts, who are there on call at any time, to advise on establishing optimum production parameters. Less wear on material, cost savings, increased effectiveness – practical benefits for each and every customer!



*Felts are as individual as your paper machine. Correct conditioning of your press felts increases productivity and reduces costs!*



## Felt Conditioning – Potential Cost Savings

*Precision felt conditioning is one of the essential contributors to successful paper production. Setting up the conditioning of the felts in the press section to the exact requirements of the paper machine will not only increase the life time of the press felts, but will also lead to significant cost savings. The following case studies support this:*

In our first case study, one of Heimbach's customers was able to achieve a proven annual **cost saving of more than EUR 200,000** on a Metso SymPress which was run at a speed of 1.200 m/min. Being in a

position to change over to nip dewatering and, in conjunction with that, switching off the UHLE Box, allowed a significant reduction of the costs of vacuum pump energy. However, we can go one better! Highly trained and experienced members of the Heimbach TASK-Force managed to achieve **savings of more than EUR 4 Mio./year** in another example.

Altogether five UHLE Boxes could be switched off on a customer's Metso paper machine (speed: 1,400 m/min). The vacuum pumps for the UHLE Boxes had been using 3,312 MWh of energy each, which was then no longer required. This significant

financial benefit was brought about in conjunction with other cost savings (most of all less water and less felt wear) and better overall performance (increased drainage, faster start up, improved couch solid ratios, less steam)

Apart from economic considerations – Nip dewatering also increases the lifetime of felts in the press section.

**Would you like an assessment of what is possible? How you can make similar savings? Our TASK-Force is there for you with advice and practical know how! Just call: + 49 24 21 / 8 02-0!**

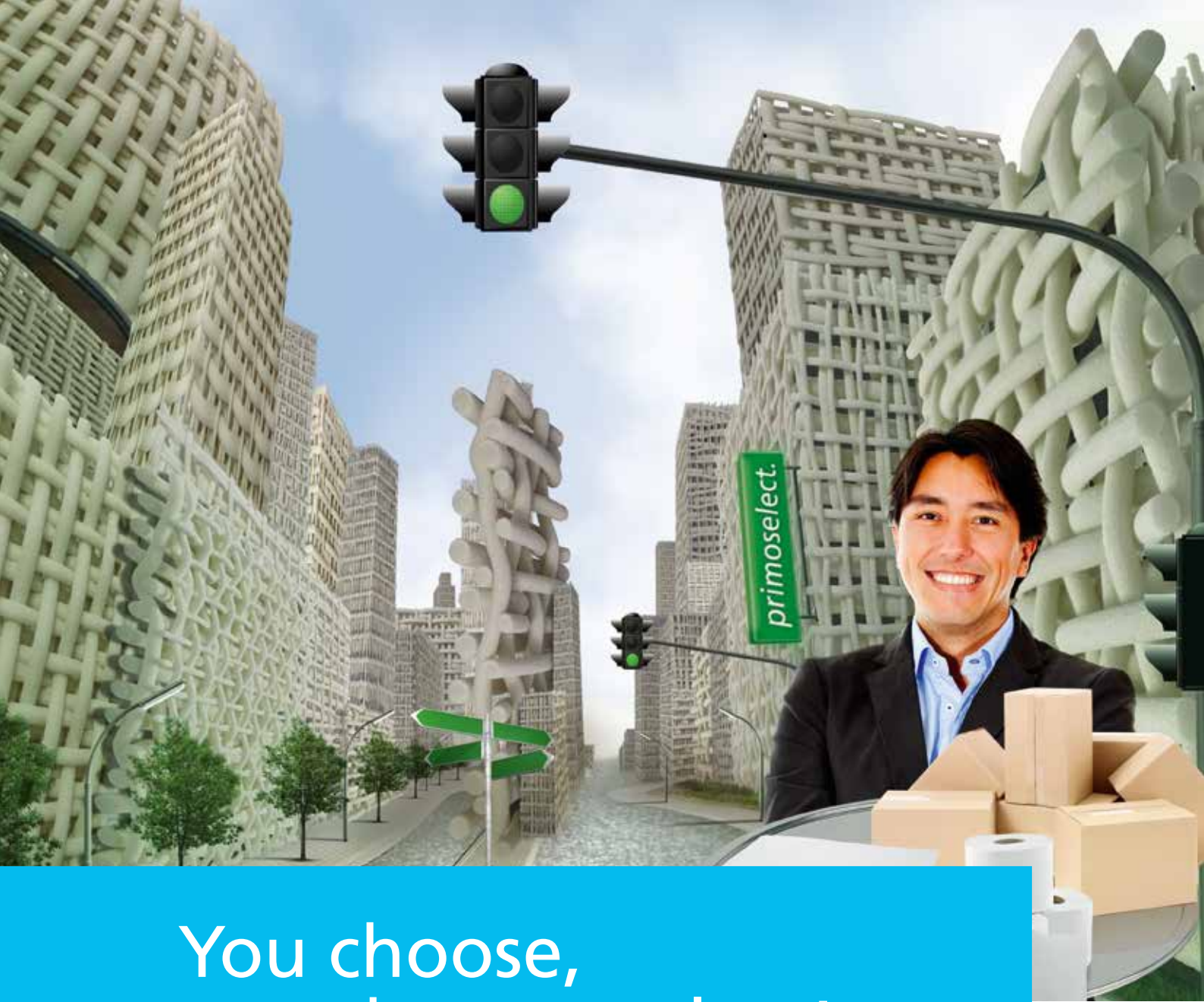


## Stability in the working life: 360 years – a good reason for celebration!

*LTR: Lambert Mohren, Hartmut Gasper, Christel Stick, Hans Prinz, Klaus Huneke (Managing Director),  
Hubert Hammerath, Renate Menzel, Reiner Hilgers, Thomas Bretschneider, Jürgen Wölk.*

Nowadays you very often read or hear:  
‘No-one is spending their whole working life  
with only one company’. We can say: ‘Em-  
ployees still do so!’ and we are pleased to  
congratulate nine of our employees on their  
40 years anniversary with Heimbach which  
they celebrated in August 2013.  
Heimbach – a byword for stability!





You choose,  
together we select!

*primoselect.*

The next generation of Forming Fabrics: very low in caliper and yet extremely robust with a completely novel binding technology. PRIMOSELECT offers you maximum flexibility perfectly suited to your requirements – whatever paper grade you are producing!

Heimbach – wherever paper is made

