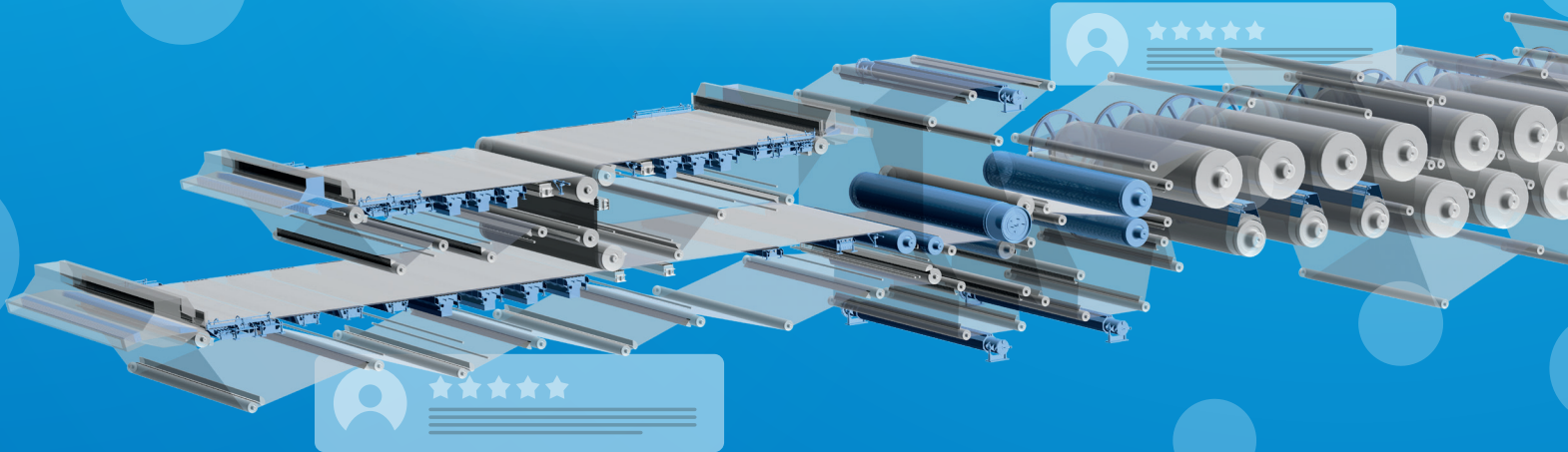


WE MOVE PAPER.  
WE MOVE YOU.



Reference catalog





# Together we create the paper of tomorrow.

## Immerse yourself in the world of product applications from Röchling Industrial Oepping.

In this reference catalog we present a selection of best practice examples of our products in the Paper industry. This catalog shows you how diverse and innovative our solutions are used in various applications. Be inspired and discover the possibilities that our products offer to optimize your processes and increase your efficiency.



## Content

<b>PE-PI</b>   Robalit-61 suction box cover for chemi-washer	5
<b>ROBASEAL</b>   Smartseal incl. Smartroll-Box	6
<b>PE-PI</b>   Robadur-OS Smartcover	7
<b>ROBASERV</b>   Grinding truck and service operation	8
<b>ROBACERAM</b>   Robaceram PX	9
<b>ROBACOAT</b>   Metering Rod Beds	10
<b>ROBASTEEL</b>   Steel Boxes for conversion project	11
<b>SMARTTABLE</b>   Conversion project	12
<b>ROBACLEAN</b>   Robaclean TCI33	13

Together with our customers,  
we develop solutions to increase efficiency  
and quality, reduce costs and improve  
operational reliability.

PIO-  
NEERING

GLOBAL  
LEADER

INTER-  
NATIONALITY

STABILITY &  
QUALITY

As the market leader for premium functional parts in the international Paper Industry, we are driven to **increase the performance** of our customers' paper and pulp machines. Together with our industry partners, we develop solutions for increased efficiency and quality, cost savings and operational reliability. We strive to be a global pioneer and role model for sustainability and environmental protection. That is driving us to constantly develop our products with intelligent solutions, digitalization and a great deal of common sense.

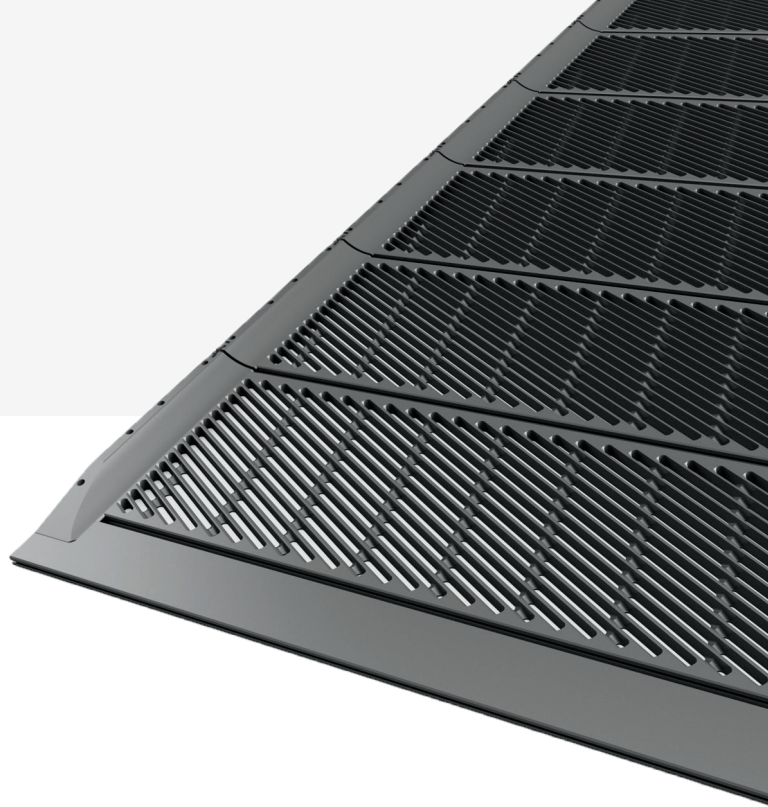


PE-PI

## ROBALIT-61 SUCTION BOX COVER FOR CHEMI-WASHER

### Customer:

European pulp-producer



### Problem definition

The original ROBADUR covers had been in use for almost 30 years. Although they showed only moderate mechanical wear, they were already very sharp-edged. This was the main reason that led to a significant reduction in wire lifetime.

In addition, the design of the original covers was also not optimal in terms of wire wear and further intensified this effect.

#### Wire life before conversion:

135-190 days

#### Wire costs:

5.000 € per piece

#### Installed at this time:

ROBADUR coverings with long-slot design

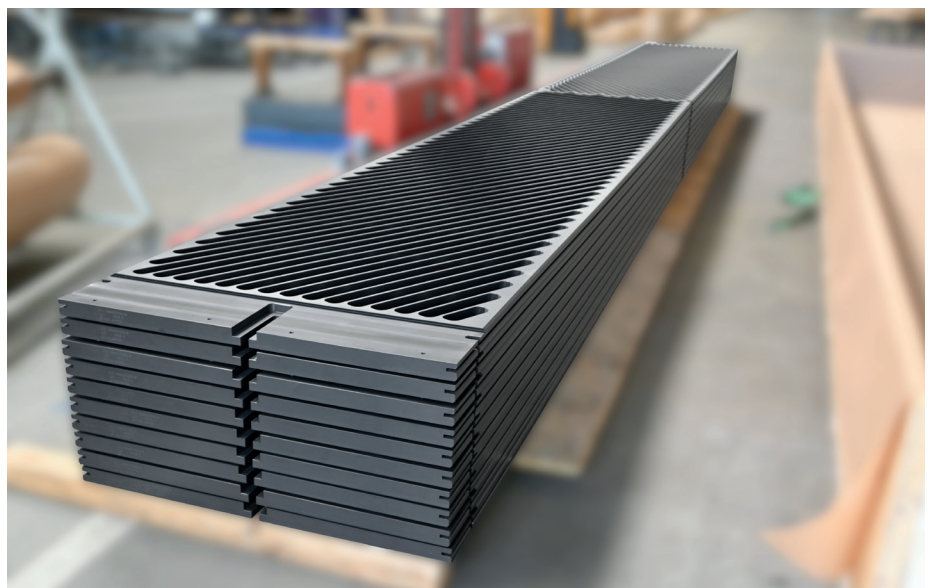
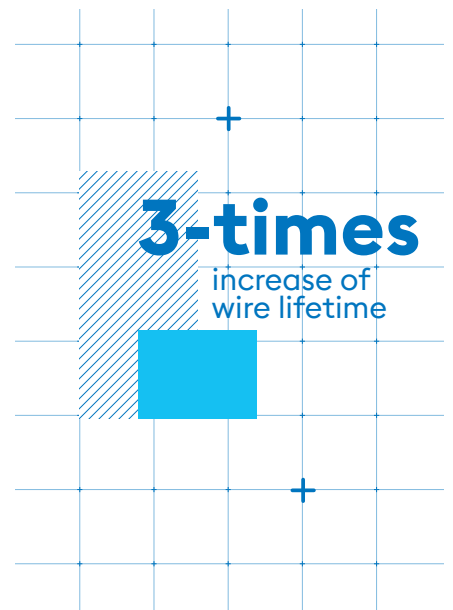


### Our solution

Röchling Industrial Oepping installed a new set of covers made of ROBALIT-61 material, which contains special lubricants that ensure better gliding properties. This has a positive effect on the lifetime of the wire and energy consumption. The covers were replaced with a herringbone pattern, which reduces the risk of high wire wear due to sharp edges (better support).

#### The effect:

Overall, the new installation has increased the wire lifetime to a year.

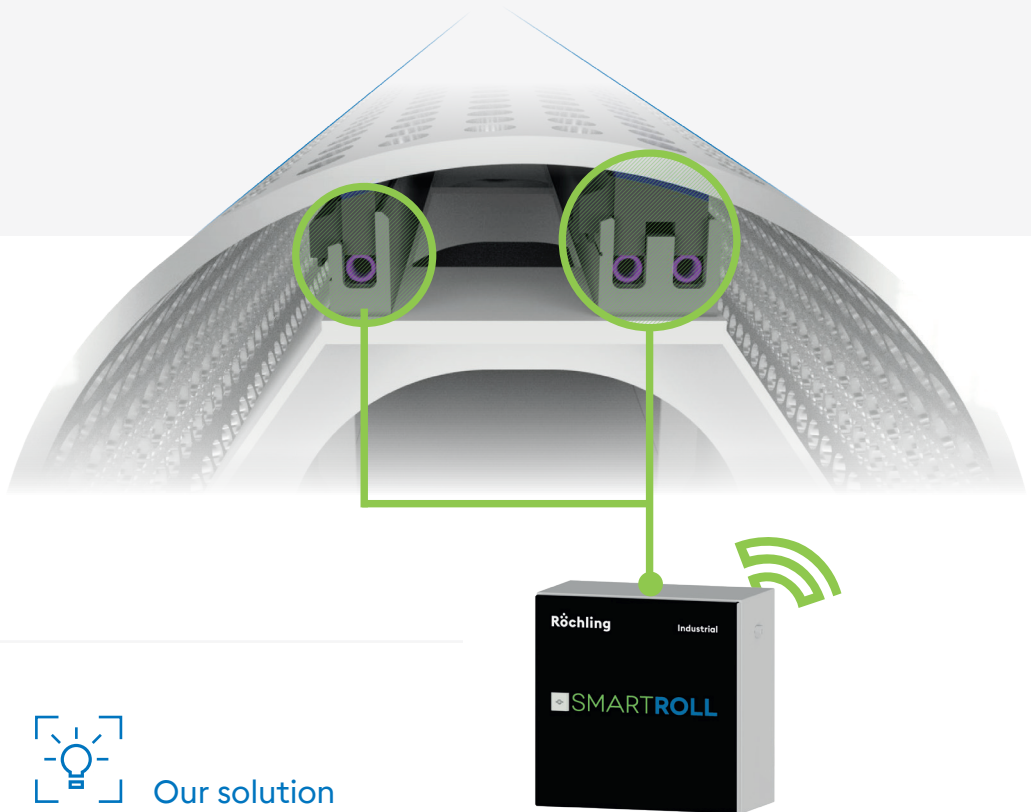


# ROBASEAL

## SMARTSEAL INCL. SMARTROLL-BOX

### Customer:

Heinzel Paper Laakirchen



### Problem definition

The operating status of the sealing strips was not known and there was no way of optimizing the process parameters or detecting the state of wear.

Preventive maintenance was necessary to avoid damage. The amount of lubrication water was generously dosed to prevent the sealing strip from overheating.

### Installed at this time:

Conventional ROBASEAL-A sealing strips



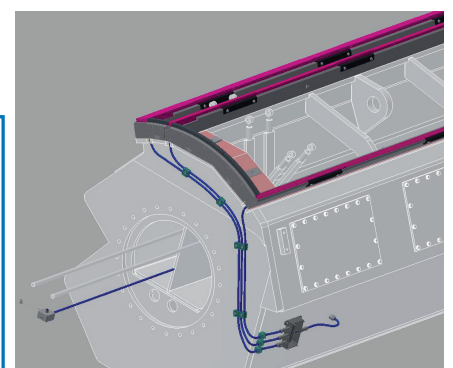
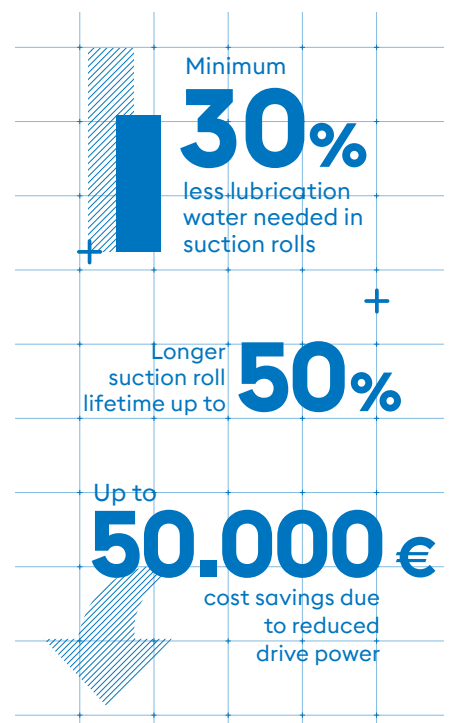
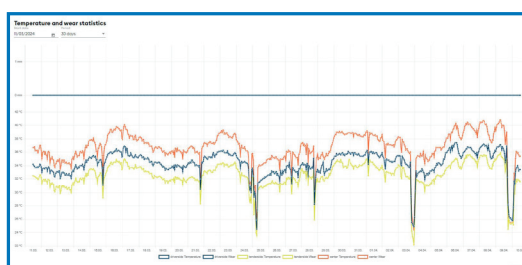
### Our solution

ROBASEAL-A sealing strips equipped with our smart electronics. This enables the wear condition to be recognized and the surface temperatures to be measured over the entire lifetime of the sealing strip.

The measured values are now transmitted via SMARTBOX to the Röchling PORTUS platform, where the actual condition of the sealing strip can be checked and monitored at any time. In addition, warning thresholds have been set up which immediately inform a specified email distribution list when predefined limit values are reached.

### The effect:

As the surface temperature is now known thanks to the smart electronics, the amount of lubricating water can be significantly reduced (reduction in the amount of water until the surface temperature rises). In addition, any maintenance work can be better planned by knowing the wear condition.



PE-PI

## ROBADUR-OS SMARTCOVER

### Customer:

Pulp producer in Belgium



### Problem definition

The cover is used on a pulp dryer and is installed directly under a steam blow box. In the past, the customer had struggled with irregular signs of wear. It was not 100% clear what exactly caused this issue, but it was most likely due to different temperatures. In some cases, the wear on the cover reached critical levels, which in the worst case could damage the wire.

### Installed at this time:

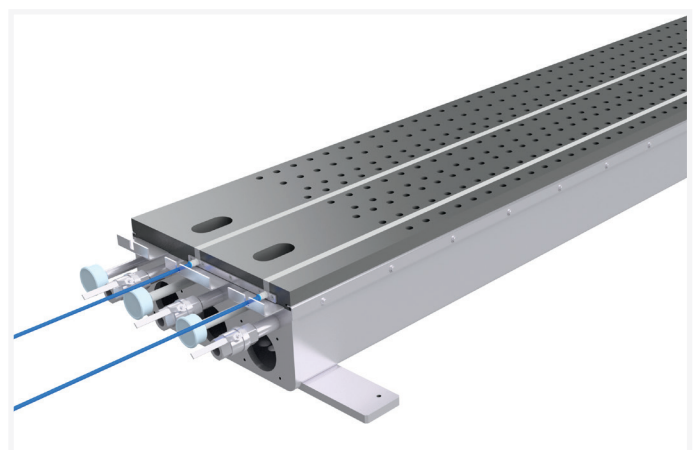
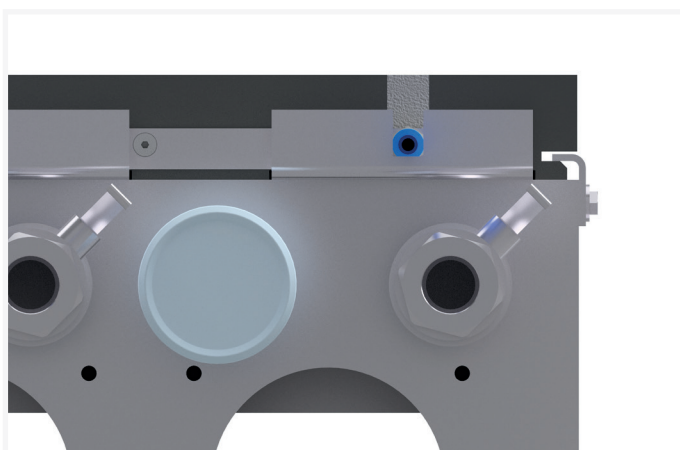
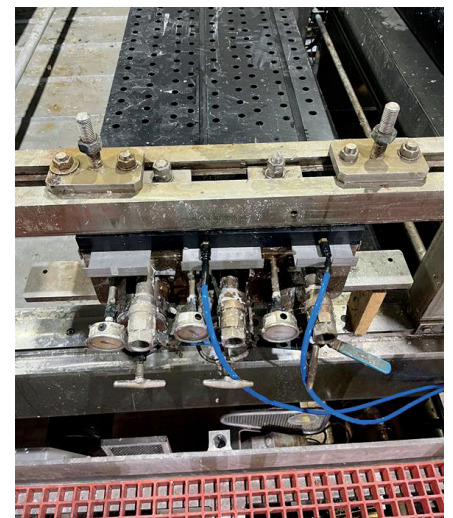
Ordinary  
ROBADUR-OS cover



### Our solution

The cover was equipped with various sensors: On the one hand, several sensors for monitoring the temperature to check whether different temperature values have a negative effect on the service life of the covering. On the other hand, a wear sensor was also integrated, which monitors the wear over the entire wire width and sounds an alarm before a critical level is reached.

The new wear sensor informs before a critical wear level is reached, so there is still enough time to change the cover before damage occurs.



# ROBASERV

## GRINDING TRUCK AND SERVICE OPERATION



### Customer:

MONDI SWIECIE in Poland



### Problem definition

The customer does not have any spare parts available, so grinding must be carried out on site.

### Installed at this time:

66 IBS, 28 Johnson, 7 Corbellini,  
5 Röchling Industrial Oepping-foils  
were ground



### Our solution

Disassembly, assembly and grinding work was carried out on the PM1, PM2, PM3, PM4 and PM7 machines. A total of 12 covers and 27 foils were replaced.

Seven Röchling technicians were at the machines for thirteen days. The ROBASERV grinding truck worked for a total of around 200 hours - exactly 100 foils and one cover were ground. The technicians worked a total of 447 hours on the machines.

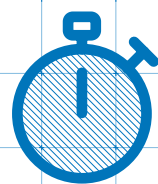
### The effect:

A ceramic surface as good as new, resulting in better dewatering and less wire wear. This can also have a positive effect on the cross profile.

**100** Foils and  
one cover were ground



**447** work hours on  
the machines

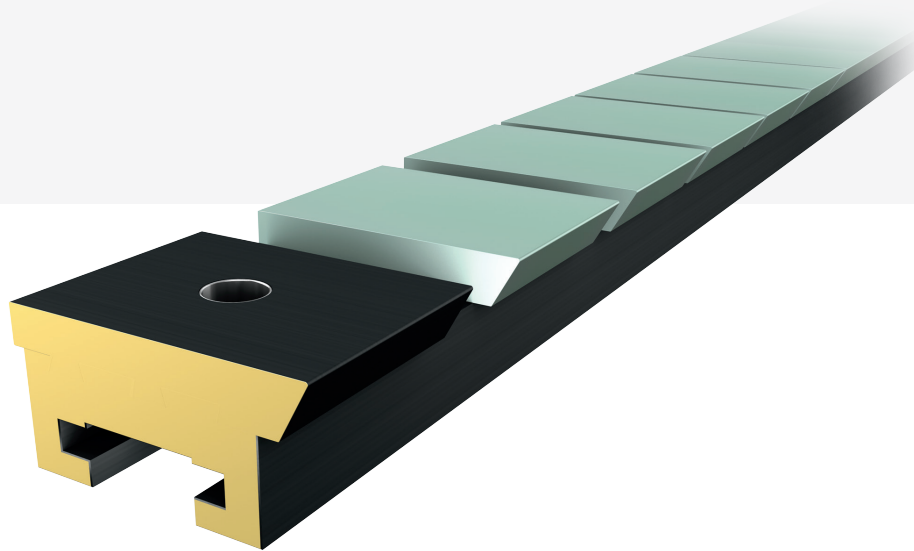


**5** MACHINES  
were serviced



# ROBACERAM

## ROBACERAM PX



### Customer:

Major Testliner Producer in Poland



### Problem definition

The customer's aim was to reduce the drive power and save energy.

#### Installed at this time:

ROBACERAM SIN Ceramic

#### The challenge:

To actually prove the energy savings on the basis of tangible values.



### Our solution

The complete machine was converted from SIN to PX for all positions and the vacuum values were adjusted.

#### The effect:

Despite the increase in vacuum on the wire section of 9 %, the drive power was reduced by 24 %.

Thanks to the reduced friction, the machine can be operated with significantly less drive power. In addition, the installed parts achieve a longer service life due to the reduced surface roughness. Maximum thermal shock resistance of 700°C ensures maximum process reliability.

## LONGER SERVICE LIFE

due to lower friction



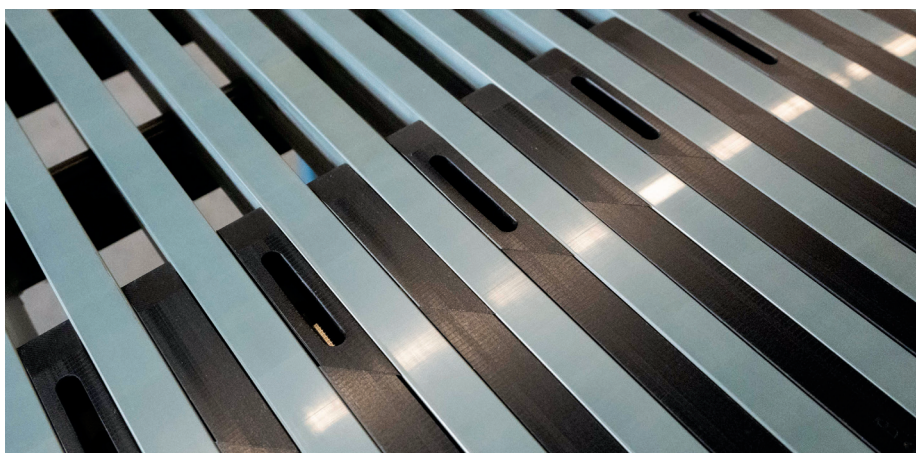
**13 %**  
energy saving

+

Reduction in drive power by

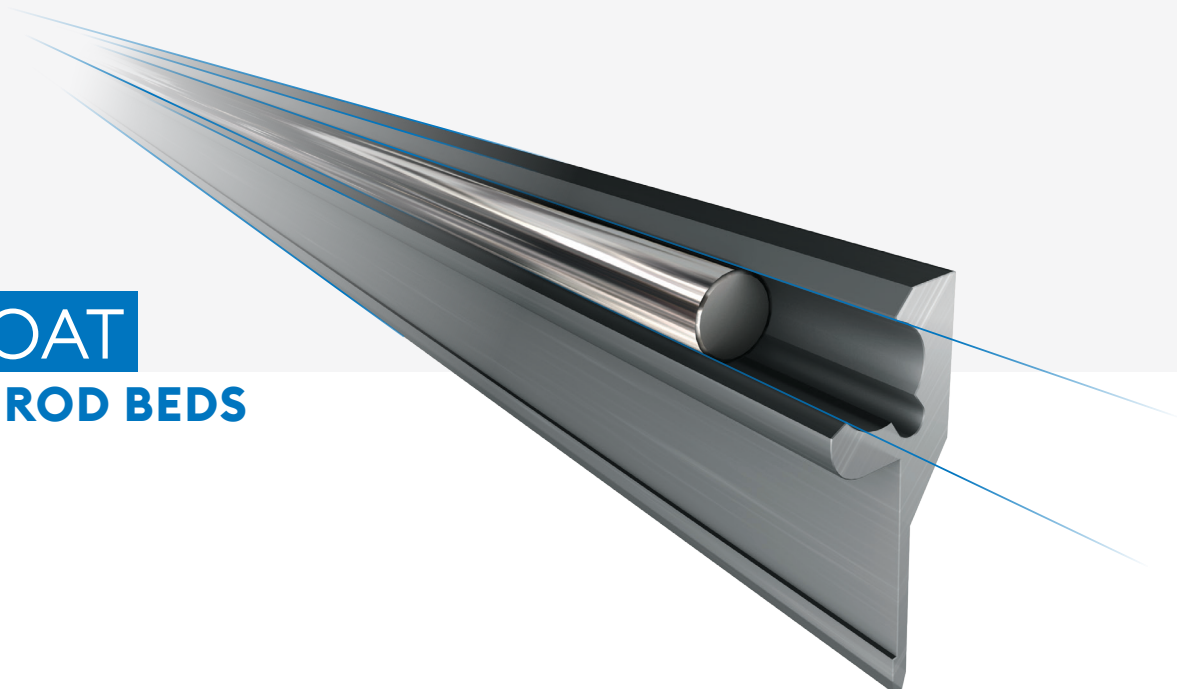
**24 %**

+



# ROBACOAT

## METERING ROD BEDS



### Customer:

Mondi Ruzomberok PM17



### Problem definition

After many years of using our rod beds without any problems, the rod suddenly kept jumping out of the bed.

#### Installed at this time:

ROBACOAT SpeedRod-M rod bed in standard geometry.

#### The challenge:

The challenge was to find the cause of the problem, which could not be determined on the machine side. Another challenge was to design the wrap angle in such a way that the rod sits more firmly in the bed, but installation can still be guaranteed without a great deal of effort.

It was clear, that the problem was coming from some tricky machine-settings, but it was very difficult to find out.



### Our solution

Thanks to our unique manufacturing capabilities, we were able to redesign the rod bed so that the rod was held more firmly and continuously in the rod bed. We have thus eliminated the problem of metering rods jumping out.

#### The effect:

Simple solution without additional costs, avoiding damage to the paper machine as well as saving time in the recurring rectification of the problem (rod always had to be re-installed in the bed).

### CUSTOMER FEEDBACK



With the knowledge of Röchling Industrial Oeppling, the problems on the PM17, where rods were jumping out of the bed, could be solved. The problem was solved by changing the design of the rod bed. I am absolutely convinced of the fast and perfect solution provided by Röchling Industrial Oeppling.

**Radoslav Poprac**

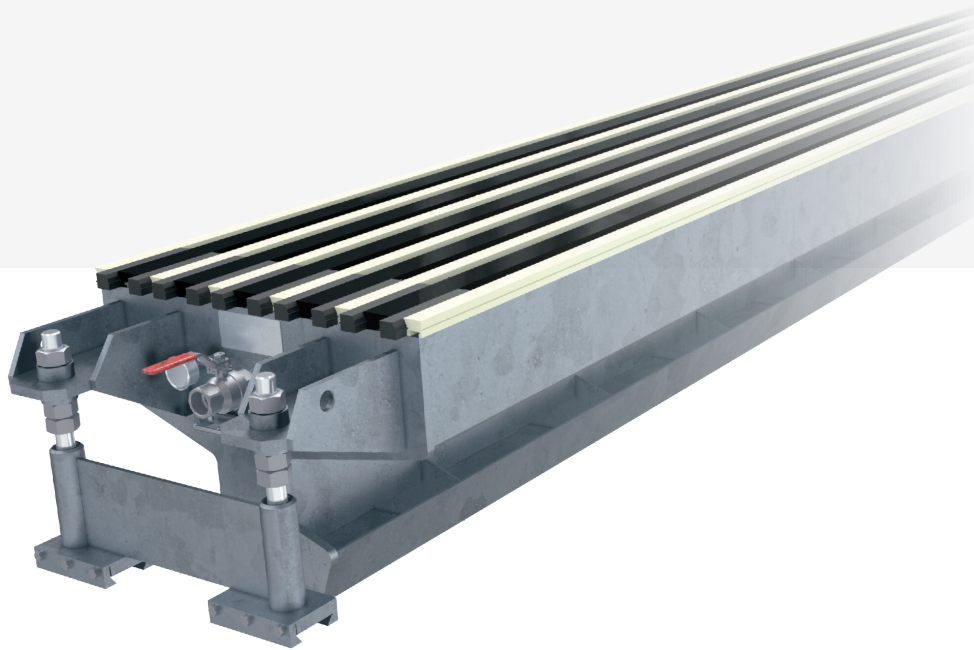
Production Manager PM17



# ROBASTEEL

## STEEL BOXES FOR CONVERSION PROJECT

Customer:  
OEM project



### Problem definition

Conversion project due to the removal of a top wire former.

#### Installed at this time:

Top wire formers were replaced by dewatering boxes.

#### The challenge:

The realization had to take place quickly.



### Our solution

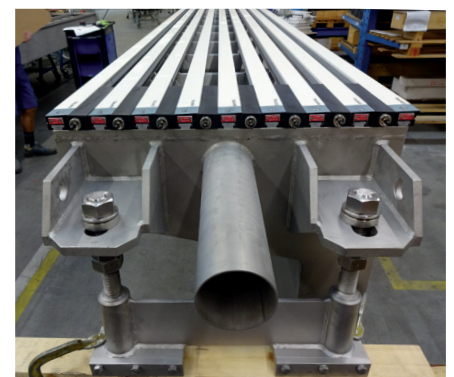
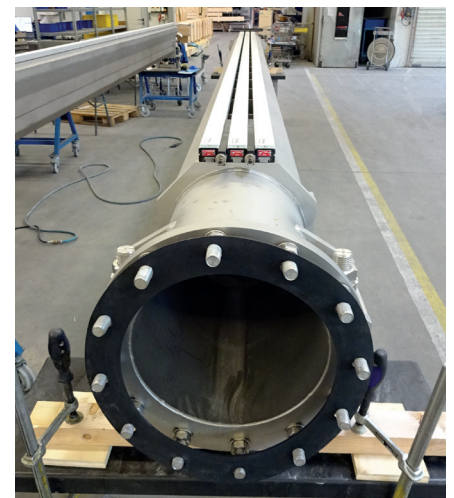
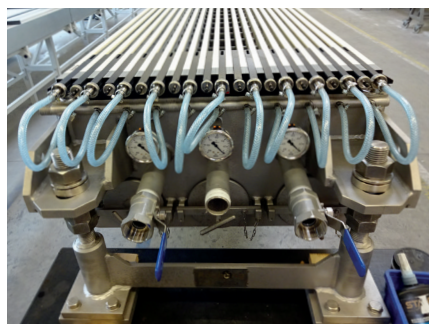
We were asked to design the wire section by a mechanical engineer. He wanted to replace the existing top wire former with conventional boxes.

We created a simulation of the dewatering system and then supplied a new vacufoil box, three double-chamber wet suction boxes and a new Trivac box including separator.

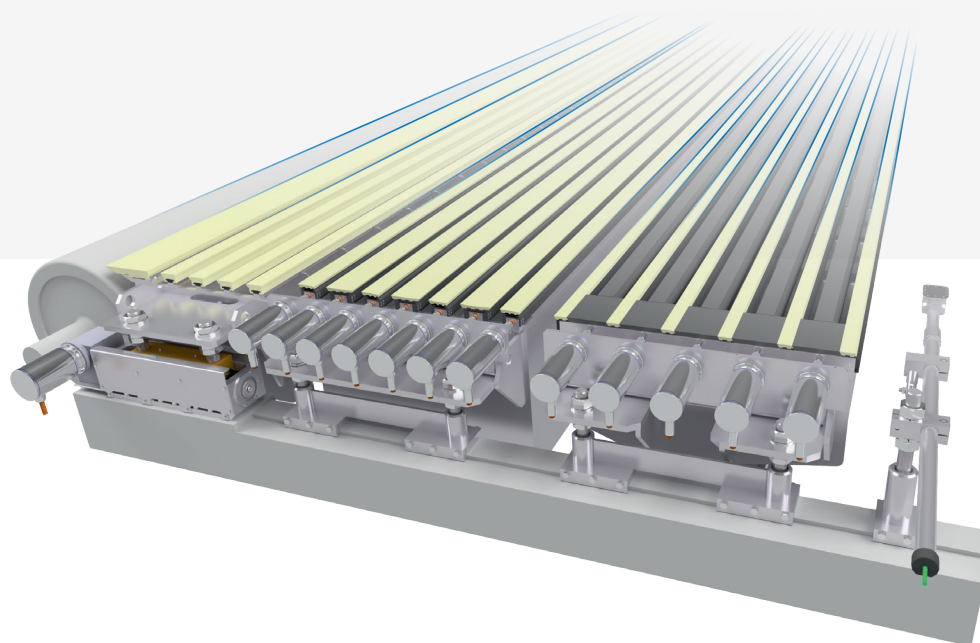
For the conversion of the press section, we also supplied four uhle boxes and two transfer boxes.

#### The effect:

Better paper quality thanks to the replacement of the top wire former



# SMARTTABLE CONVERSION PROJECT



## Customer:

Cartonneries de Gondardennes



## Problem definition

Customer wanted better strength and formation quality results

### Installed at this time:

A conventional wire section was installed.

### The challenge:

Tight conditions



## Our solution

We installed a complete SMARTTABLE. This included two adjustable forming board boxes, three hydrofoil boxes to hold Smart hydrofoils and activity-foils, two formation boxes to hold Smart formationfoils and a Trivac box.

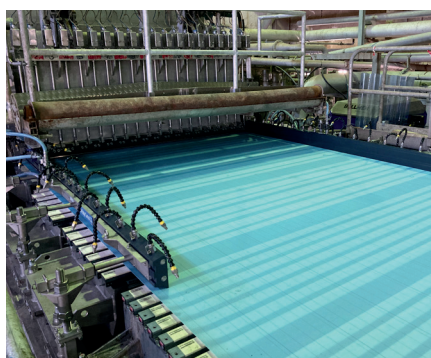
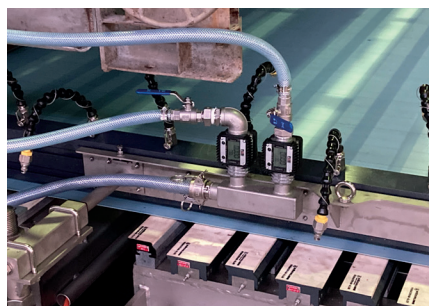
We have also redesigned the entire vacuum pipework and integrated our SMARTVALVES.

The project also included SMARTTABLE automation with our own software.

Using 3D scanning and detailed measurements, it was possible to design the new boxes so that they fitted into the existing space. The entire pipe-work for the vacuum valves was redesigned.

### The effect:

Savings on strength-enhancing chemicals, formation improvement of 12 %, strength increase due to the conversion and increase in dry content.



**12 %**  
formation  
improvement

# ROBACLEAN

## ROBACLEAN TC133



### Customer:

Dunafin Dunaújváros



### Problem definition

The biggest problem was the service life of the original cleaners. Stock preparation and the paper machine had to be stopped two to three times a week because a cleaner had broken.

### Installed at this time:

Gray injection molding material



### Our solution

With the ROBACLEAN TC133, the customer no longer had to shut down the system unplanned. Installation was just as easy as installing the original product.

During operation, planned shutdowns are now only carried out at two-monthly intervals to check the system.

### CUSTOMER FEEDBACK



We used to change the cleaners a lot, but the biggest problem in many cases was that they didn't last between scheduled maintenance shutdowns. Now they last 3-4 such periods, you just have to check the wear and see which one needs to be replaced. We also saved money on the cleaners by changing them less often, BUT the biggest saving was not having to stop the PM several times a week unscheduled to change the cleaners!

significant  
**REDUCTION**  
of downtime

significant  
**SAVINGS**  
by avoiding unplanned  
downtime





Take a look into the future  
of the Paper Industry!

Röchling Industrial Oepping GmbH & Co. KG  
Röchlingstraße 1 | 4151 Oepping/AUSTRIA  
P +43 (0)7289 4611-0 | F +43 (0)7289 4611-9900 | [robaproducts@roechling.com](mailto:robaproducts@roechling.com)  
[roechling.com/oepping](http://roechling.com/oepping)