

Röchling

Röchling Industrial Oepping

Saving resources with no effort.



“

We strive to improve our customers' performance and develop solutions for greater efficiency and quality, cost savings, and operational reliability.

”



Industrial

Topics of today

01

ROBALIT
Wire Edge
Control

02

ROBACERAM PX
ceramic

03

SMARTTABLE

04

ROBACOAT
Rodbeds

01

ROBALIT

Wire edge control

Common wire edge limitation systems

Typical problems



Paper breaks due to reduced strength at the paper edge or contamination



Wear parts on the existing limiting system



Undefined, diluted edge area

-
Fiber loss and contamination due to poor sealing to the wire



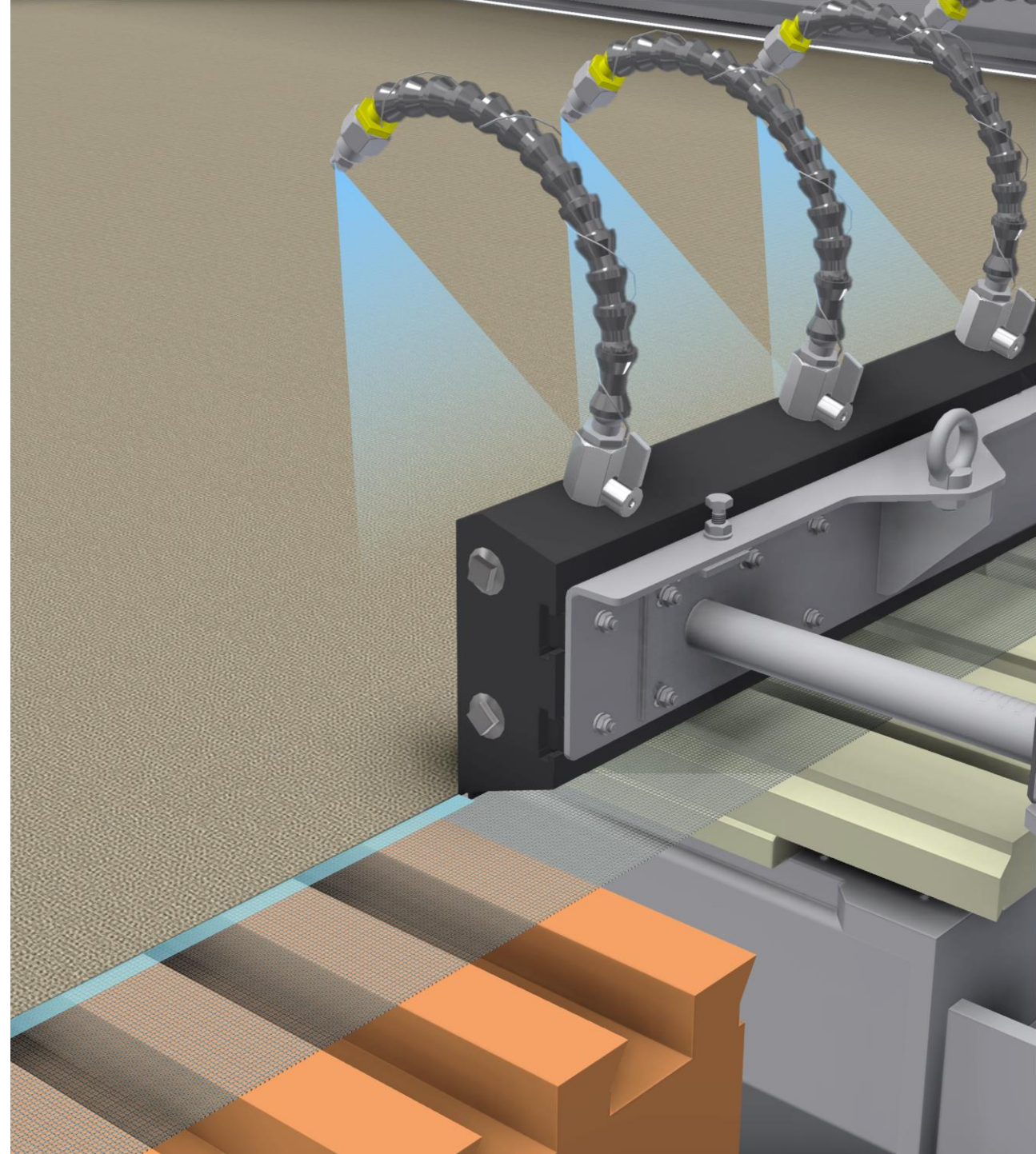
Wave formation in the sheet edge

ROBALIT Wire edge control

The Solution

- No wear → sealing with water film
- Increased strength in the edge area
- Up to 87% reduced fiber loss
- Up to 35% less paper breaks
- Maximum flexibility through segmented hoses
- Easy wire change due to special stainless-steel stands

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ROBALIT Wire edge control

Success story



1.000 m/min



White Top Testliner 125-200 g/m²



Wire Width 4.450mm



ROBALIT Wire edge control

Success story

Fiber drag caused material deposits to build up directly on the wire edges.



This had a direct impact on machine operation



Causing paper breaks and downtime

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Before



After

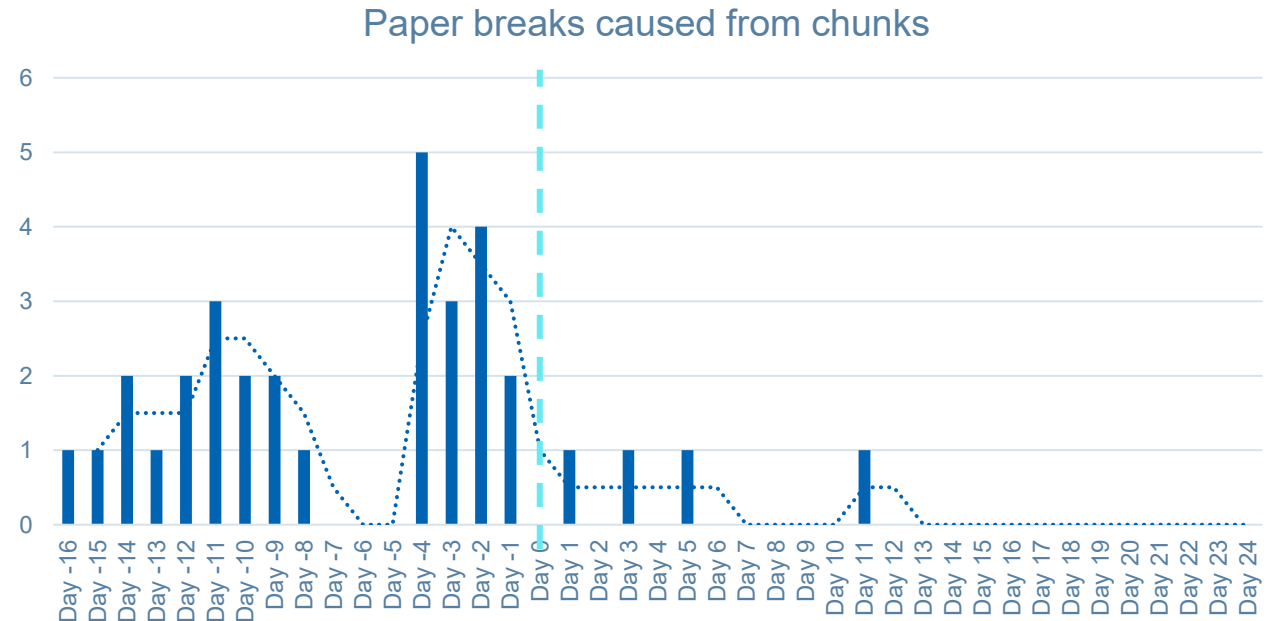


ROBALIT Wire edge control

Success story

On average two paper breaks per day caused by chunks could be saved.

- 2 paper breaks per day
- 30 Minutes per break
- 6.000€ loss per hour



Considering a downtime of 30 minutes per breaks and 6.000€ per hour, the daily saving was 6.000€ in average. The ROI of this system was less than one week.

02

ROBACERAM PX

ROBACERAM PX

Premium ceramic

- ➔ **Highest thermal shock resistance**
 ΔT of 700 °K
- ➔ **Lowest brittleness**
highest fracture toughness
- ➔ **Lowest thermal conductivity**
only 20 % of SiC-ceramic

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ROBACERAM PX

Premium ceramic



Longer fabric lifetime

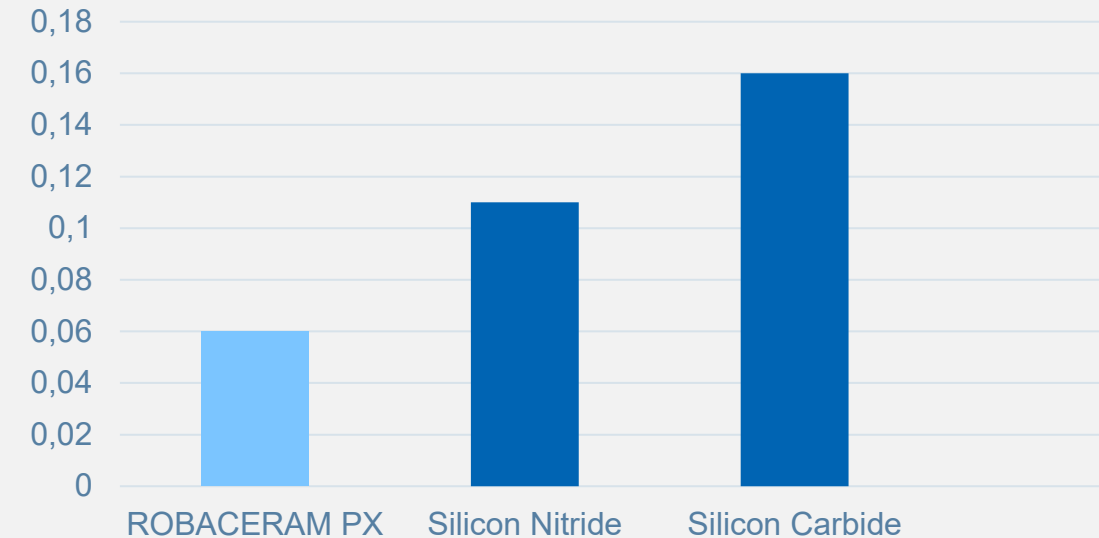
ROBACERAM-PX achieves the best surface values of all ceramic qualities.



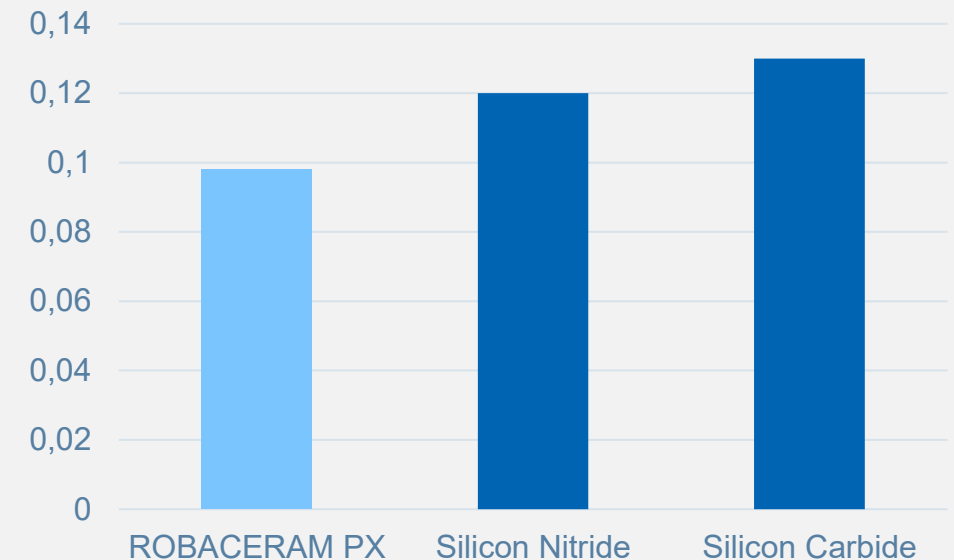
Energy saving up to 20 %

Due to lowest coefficient of friction

Surface Roughness



Coefficient of friction



ROBACERAM PX

Success story



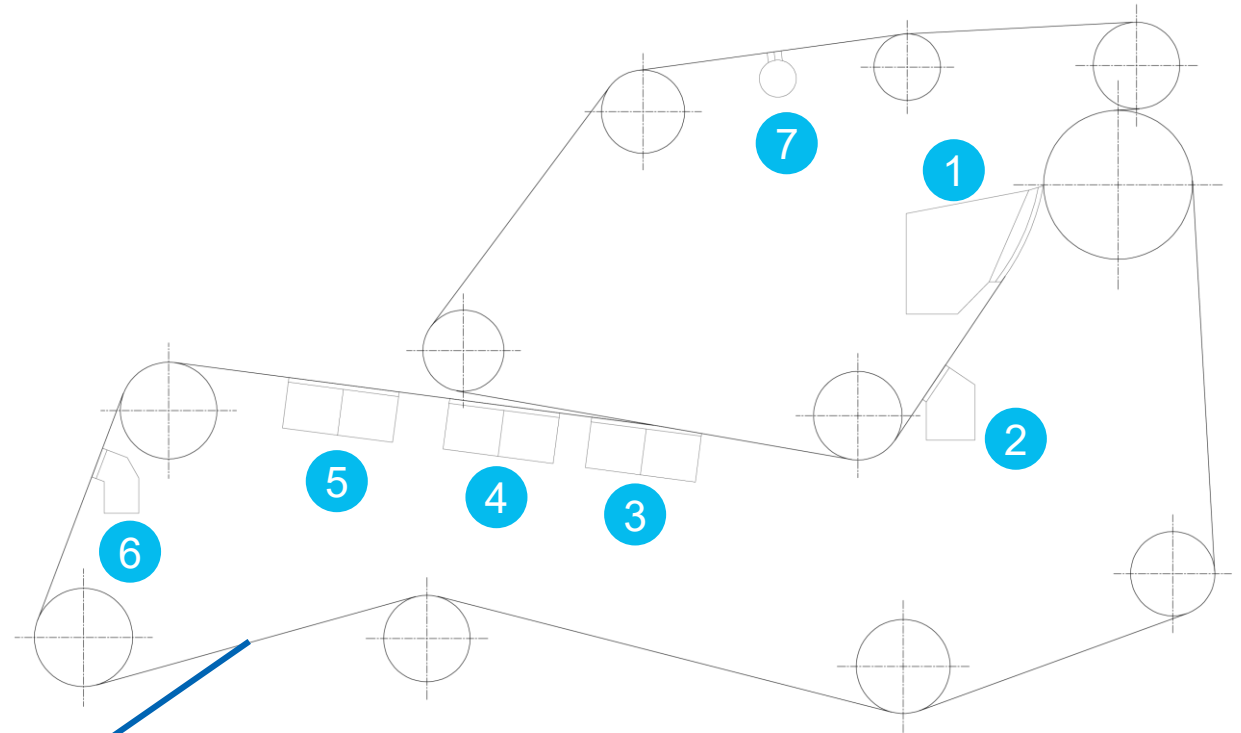
1.300 m/min



Containerboard 100 g/m²



Drive load 3600kW



Scope of Rebuild

Replacement of all elements in wire section –
change from ROBACERAM SIN to ROBACERAM PX

Rebuild of the conventional uhle box strip design to
ROBACERAM SL200B PressSaver suction box covers with
perforated full ceramic surface

ROBACERAM PX

Success story

Reduction of drive load of 463 kW

330 days of production

0,10€ per kWh Energy price

$463\text{kW} \times 24 \text{ h} \times 330\text{d} \times 0,1\text{€/kWh} = 366.690 \text{ €}$ annual saving potential



ROI
< 5 months

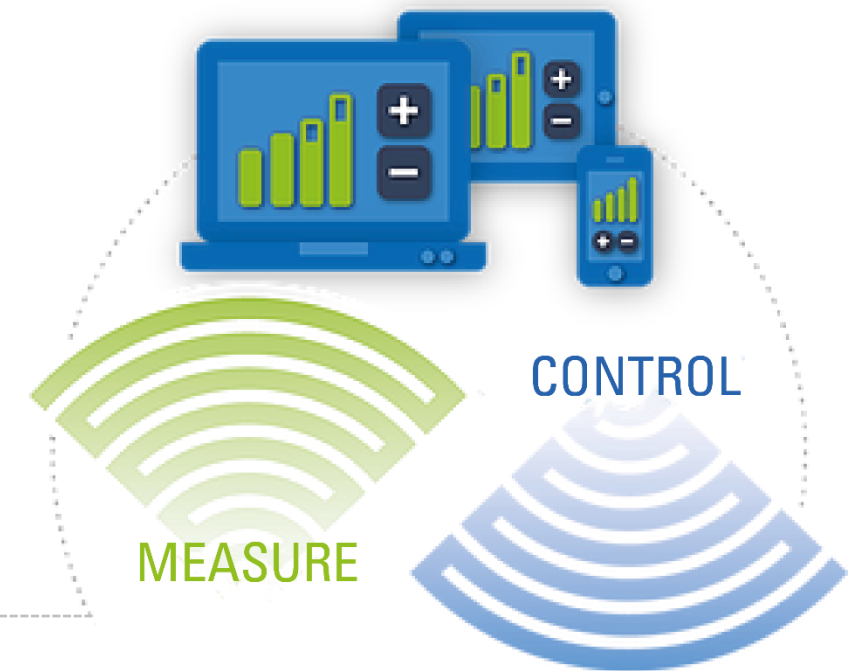
03

SMARTTABLE

SmartTable

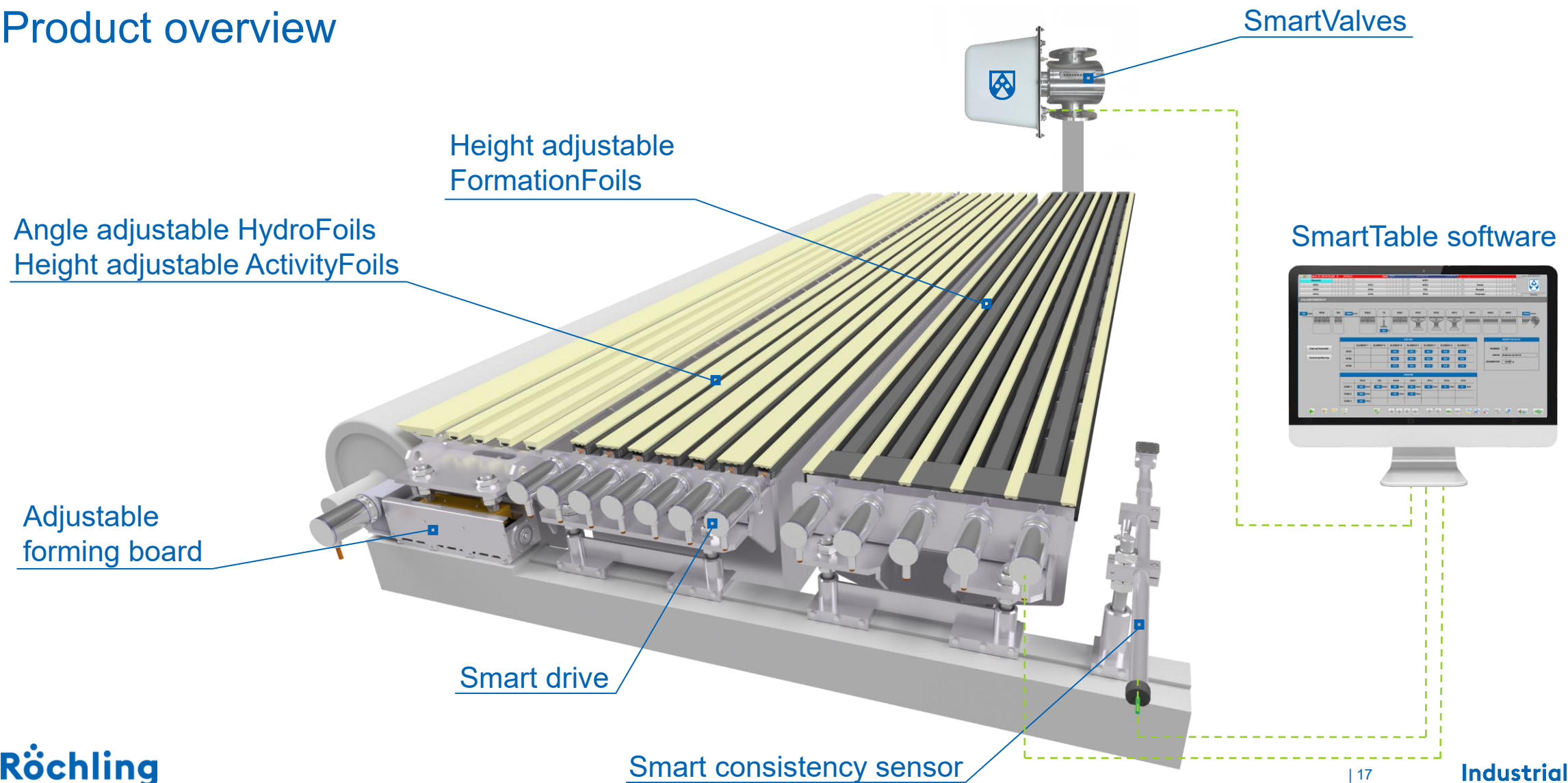
Product overview

- Adjustment possibilities to optimize the setup of the wire table
- Best paper quality for every paper grade
- Information about current conditions
- Cost savings
- Production increase



SmartTable

Product overview



SmartTable

Success story

 750 m/min

 Testliner, Kraftliner 90 - 200 g/m²

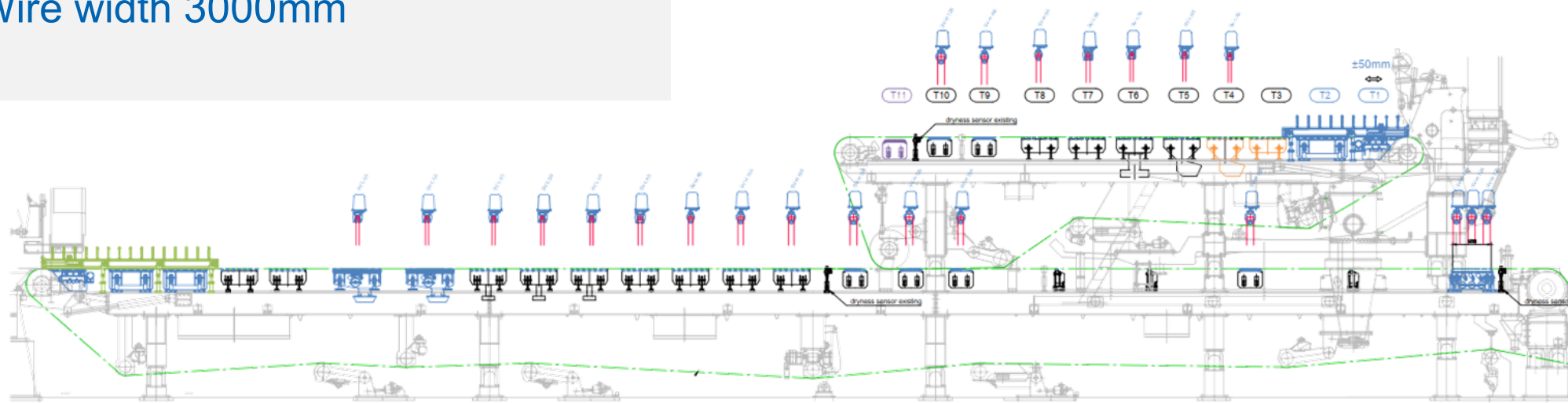
 Wire width 3000mm

+34%

Formation
improvement

+22%

SCT improvement



SmartTable

Success story

Scope of supply:

- Automated SmartTable with SmartTable software
- 8 new ROBASTEEL steel structures with Smartfoils
- 2 new Smart forming board boxes
- 34 Smart drives
- 3D scan of complete wire section
- Complete vacuum system engineering
- ROBALIT Wire edge control systems

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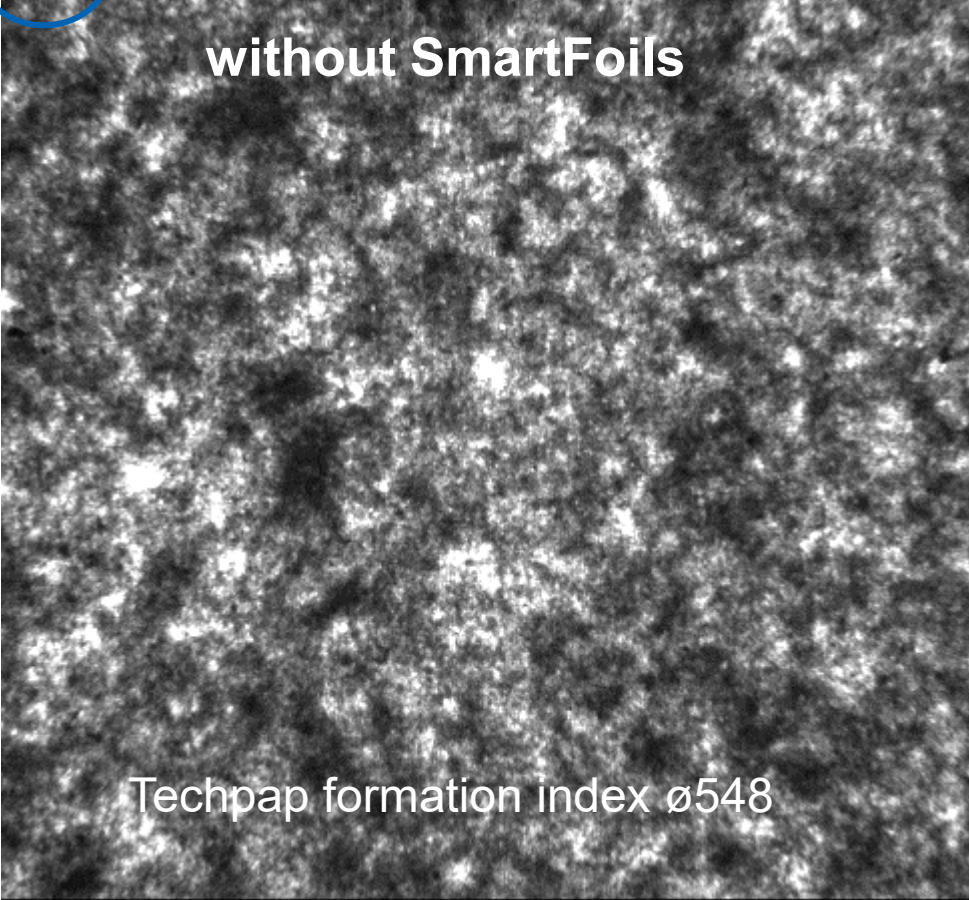


SmartTable

Success story

Index	1	2	3	6	10	16	Lx	Ly	Theta
545.7	168.9	88.2	125.3	57.6	38.0	67.7	5.4	5.4	36.0

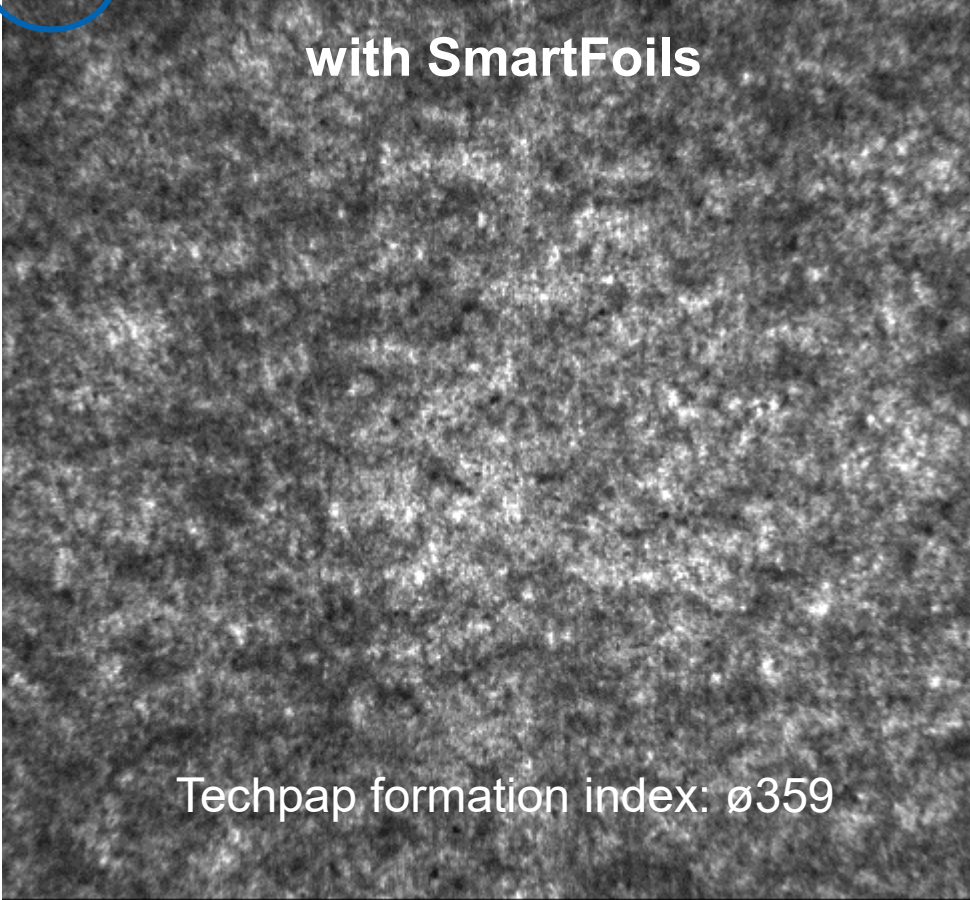
without SmartFoil



Techpap formation index ø548

Index	1	2	3	6	10	16	Lx	Ly	Theta
357.7	31.7	83.3	100.8	18.5	21.6	1.9	5.8	4.3	4.4

with SmartFoil



Techpap formation index: ø359

04

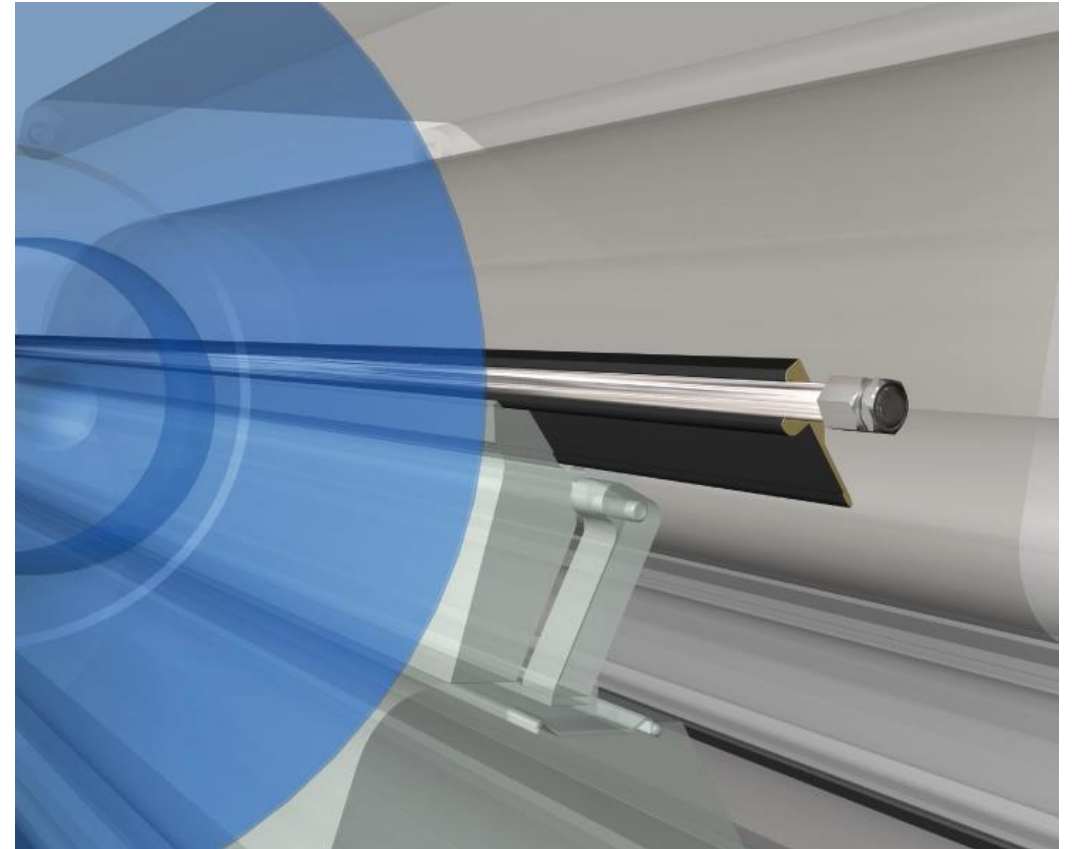
ROBACOAT

ROBACOAT

Product overview

In the area of coating units and film presses, the components used are expected to be extremely reliable. The material qualities of the ROBACOAT-B and ROBACOAT-PB doctor beds stand for maximum safety and efficiency.

- Long-term sinter pressed materials
- Special selected additives
- Reduced coefficient of friction
- Maximum lifetime of rod and bed



ROBACOAT

Success story



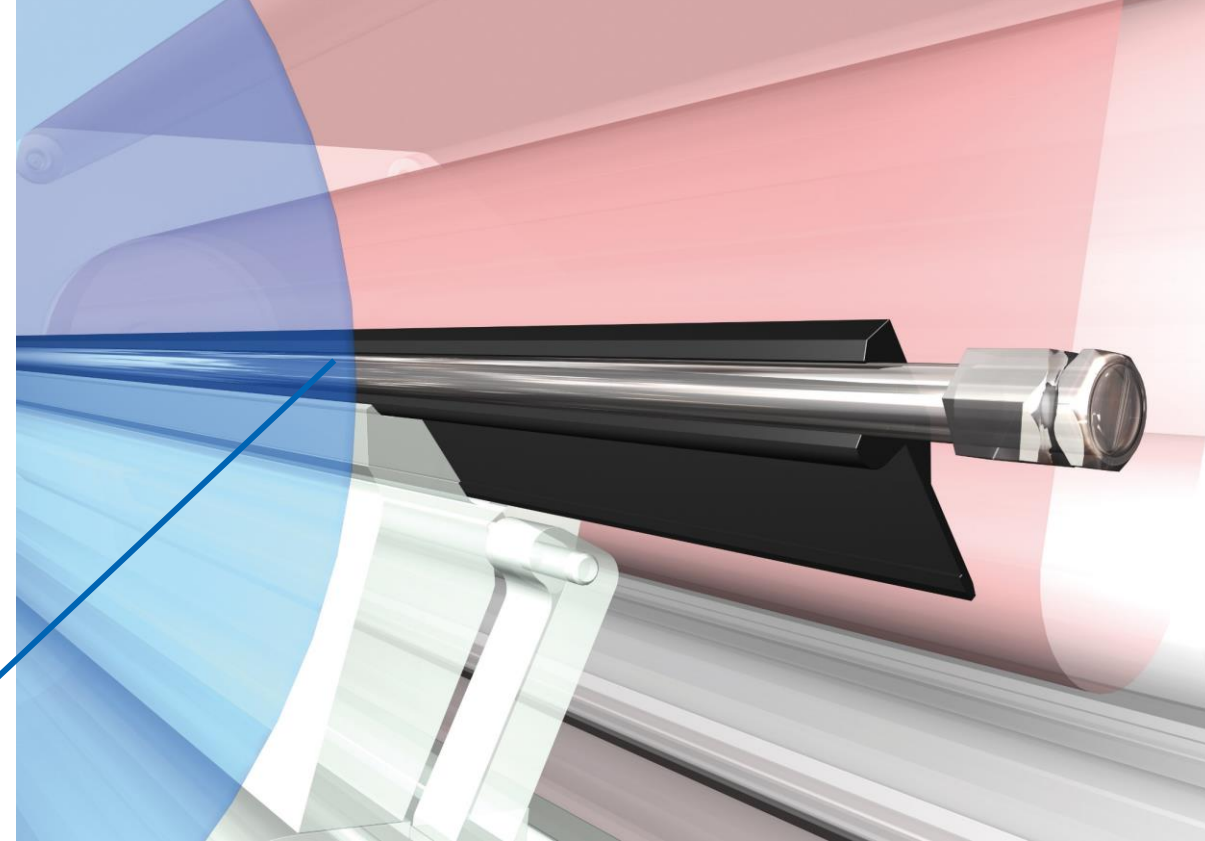
1.300 m/min



Containerboard 100 g/m²



Wire width ~8000mm



residual moisture increased before the film press and reducing the starch concentration from 14-15% to around 9-12%.

Based on this, a reduction of the starch consumption of 1,59 tons per day was realized. Considering 340€ per ton, this led to starch savings of up to 190.000€ per year.

SUMMARY

Summary

Products from Röchling Industrial Oepping are the right choice for

- ➔ saving energy by reduction of drive load
- ➔ saving water
- ➔ reducing paper breaks
- ➔ reducing starch consumption
- ➔ increasing paper properties

“Saving resources is no effort“

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