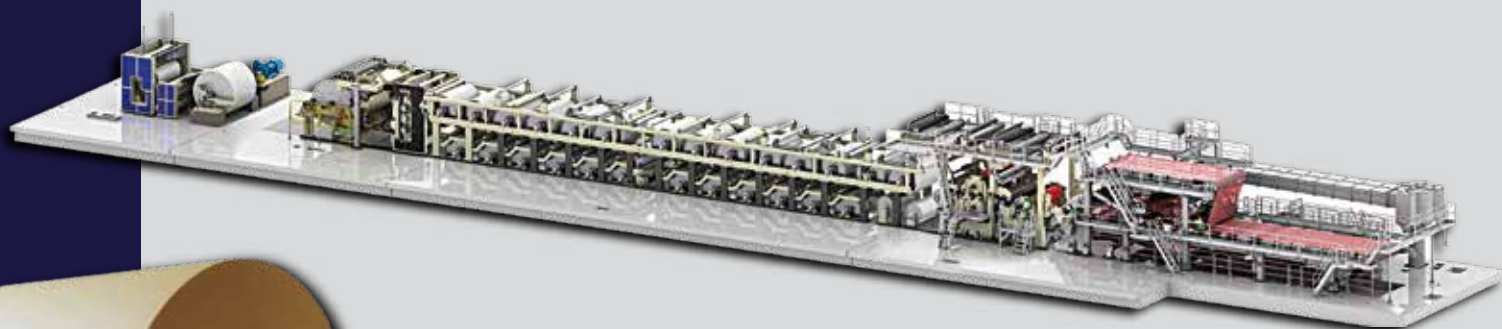


HERGEN

News

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Packaging paper and board line



SMART SHOE
Shoe Press



MG dryers with
Ø7320 mm (24 ft) and
DOUBLE WIDTH

excel

Our new
rewinder line



Headboxes

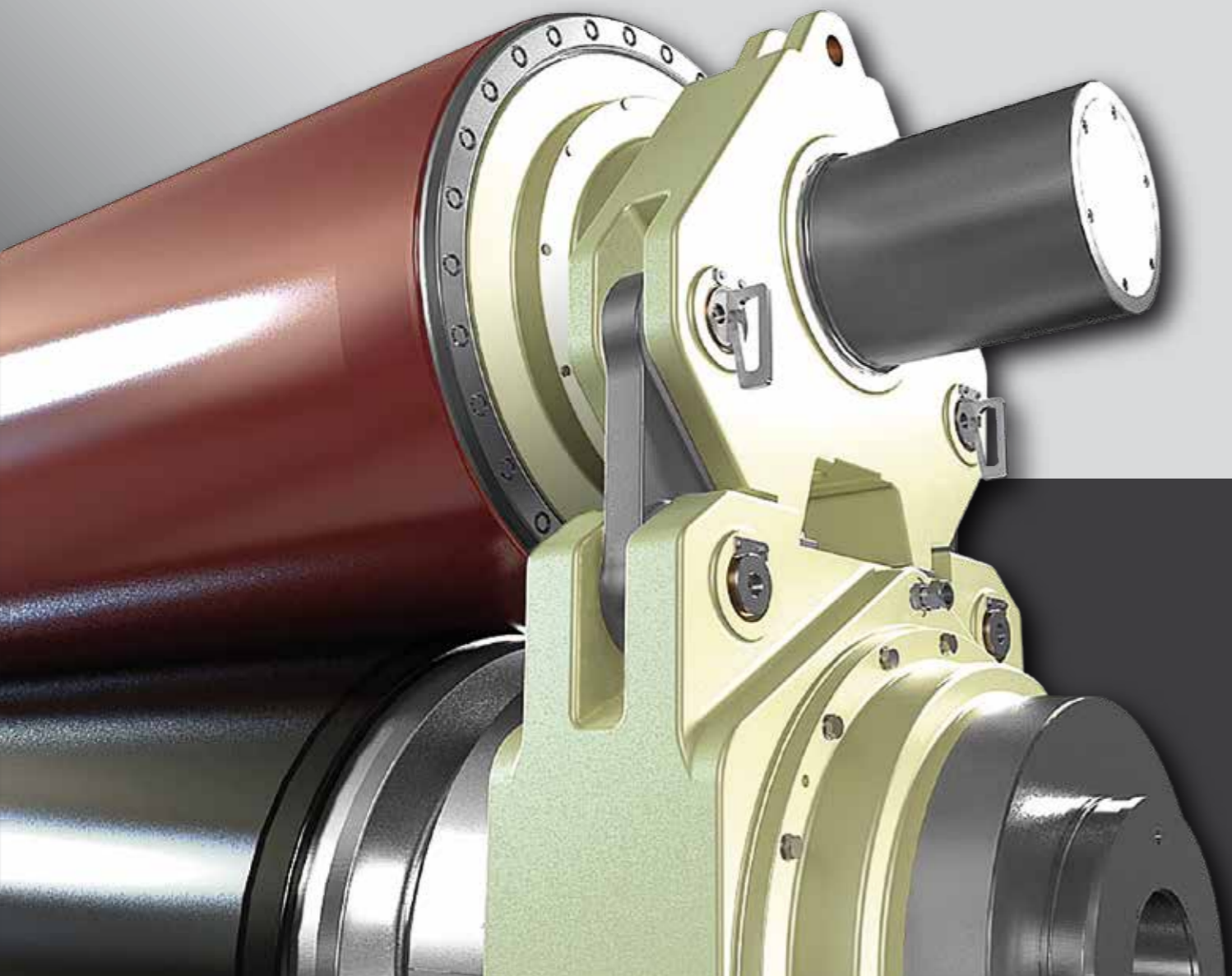
SMART SIZER

Starch applicator heads

and more...

SMART

SHOE



An economic and modern
Shoe Press
concept



Hergen's Shoe Press



SMART

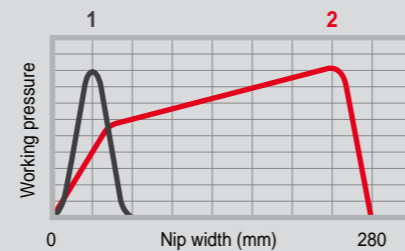
Now at your fingertips the latest technology to save energy, increase production and improve the quality of paper

Aiming to meet a growing need in the paper industry, Hergen has developed the **SMART SHOE**, a modern shoe press concept, simple and robust.

The **SMART SHOE** achieves a high pressure pulse, this fact along with the progressive pressure curve enable a high dewatering level without damaging the paper sheet structure.

Design parameters	Press Roll (1)	SMART SHOE (2)
Nip width (mm)	40 - 70	250 - 280
Working pressure (kN/m)	150 - 450	1000 - 1300
Press pressure pulse (psi.s)	2 - 5	10 - 21

Comparison table: Press Roll x Smart Shoe

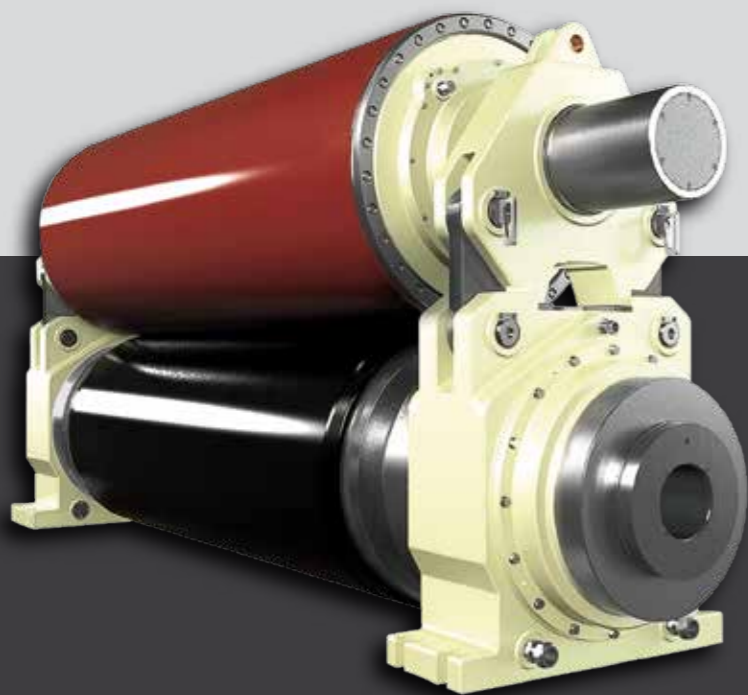


Main features

- Ø Shoe Roll: 1250 mm
- Ø Counter Roll: 1200 mm
- nip width: 280 mm
- nip load: up to 1300 kN/m
- paper width: up to 5000 mm
- it features an exclusive blanket displacement system
- loading system with multiple hydraulic cylinders in line

Benefits

- production increase
- lower steam consumption
- improvement of paper web physical tests
- more uniform moisture profile
- compact design, making easier its installation on existing machines
- the Smart Shoe is fully automated, which makes its operation simple and safe
- Counter Roll without compensation system, resulting in a more economical design and reducing the maintenance need

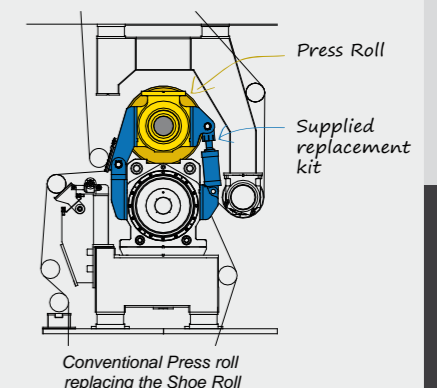
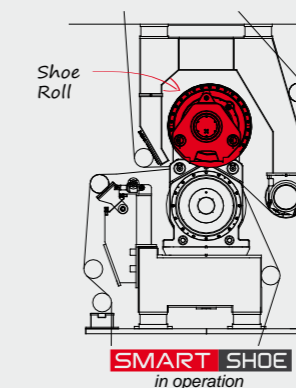


INOVATION

Shoe Roll replacement by a Conventional Press Roll

In case of long term shoe roll removal for maintenance, it is possible to replace the shoe roll by a conventional press roll and keep machine running, reducing the investment on spare parts.

For such operation, it is only necessary to assemble the supplied brackets, with no changes of existing parts.



Learn more: watch the video about the project on our website



Fábrica de Papel e Papelão Nossa Sra. da Penha S/A - MP 1



Sopasta S/A Indústria e Comércio - MP 1

Primary Headbox

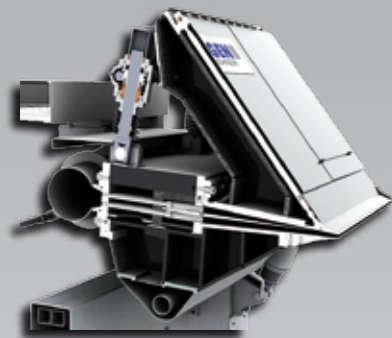
Our headboxes are well known in the market by your quality and efficiency. With the experience we acquired through years of market, we have developed a new Headbox generation: the **INOVAFLOW** concept.

These headboxes are built under a very strict quality control and features all required resources for an excellent performance.

They can be supplied with automatic slice control for CD basis weight profile adjustment through QCS signal.

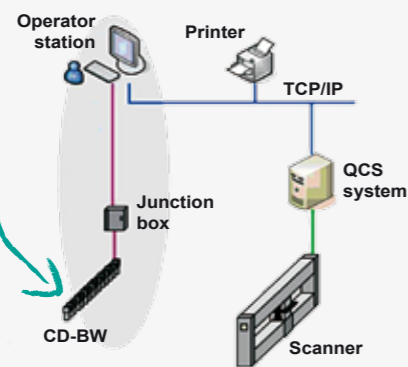
The convergence chamber features flow sheets, and the apron lip opening is motorized, it also can be controlled by an electronic positioning transmitter.

The **INOVAFLOW** headboxes can be supplied with vertical or horizontal pulsation attenuator and all of them feature easy access for maintenance and cleaning.



CD basis weight profile automatic control

The basis weight automatic control is done through QCS signal



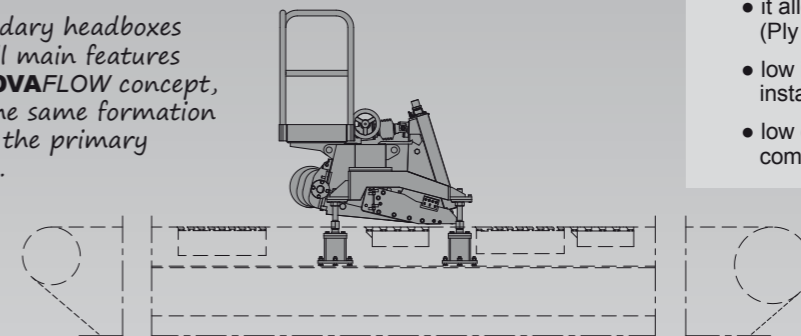
Secondary Headbox

The secondary headboxes are an excellent alternative for those that want apply a second paper layer without investments on a top former.

Our secondary headboxes present all main features of the **INOVAFLOW** concept, keeping the same formation quality of the primary headboxes.

Secondary Headbox additional benefits

- it allows high inter layer adhesion (Ply Bond)
- low investment, if compared to the installation of a top former
- low energy consumption, when compared to a top former

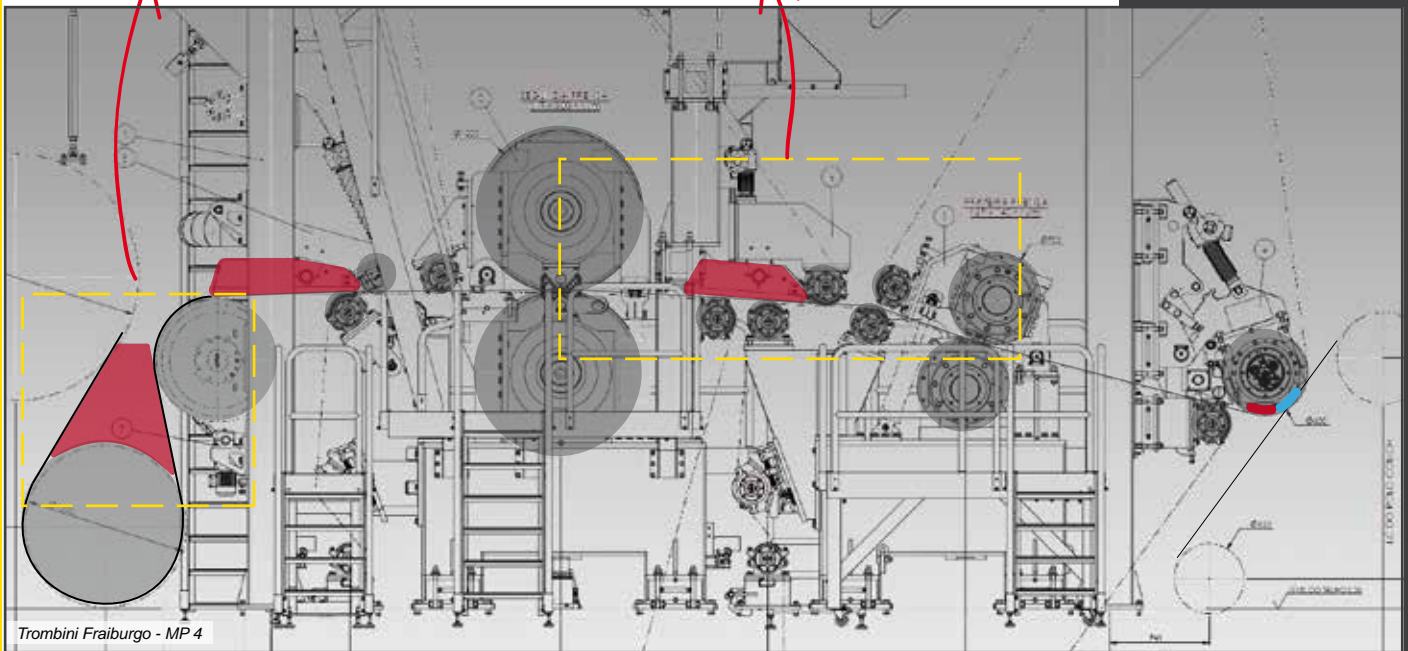
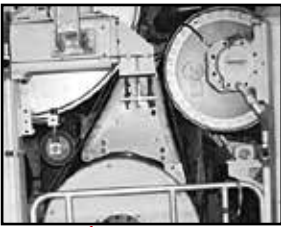


Secondary headbox installed on an existing fourdrinier

INOVAFLOW Benefits

- smart design of the stock distribution system, which allows the flow optimization
- compact design, easy to be installed on existing machines
- CD profile uniformity
- excellent formation quality
- automatic CD basis weight profile control (optional)





Press section **web transfer** system

Increased safety and improved machine operation

We design and build the complete web transfer system that creates a close draw from fourdrinier to drying section.

Our team is trained to perform the field survey and adjust our design to each case particular need.

■ **Benefits**

- increase operator's safety
- improves machine runnability, reducing production lost due to paper brakes
- reduce paper losses
- improve machine efficiency
- improvement of paper web physical tests due to the reduction of speed difference between Fourdrinier/press section and drying section beginning

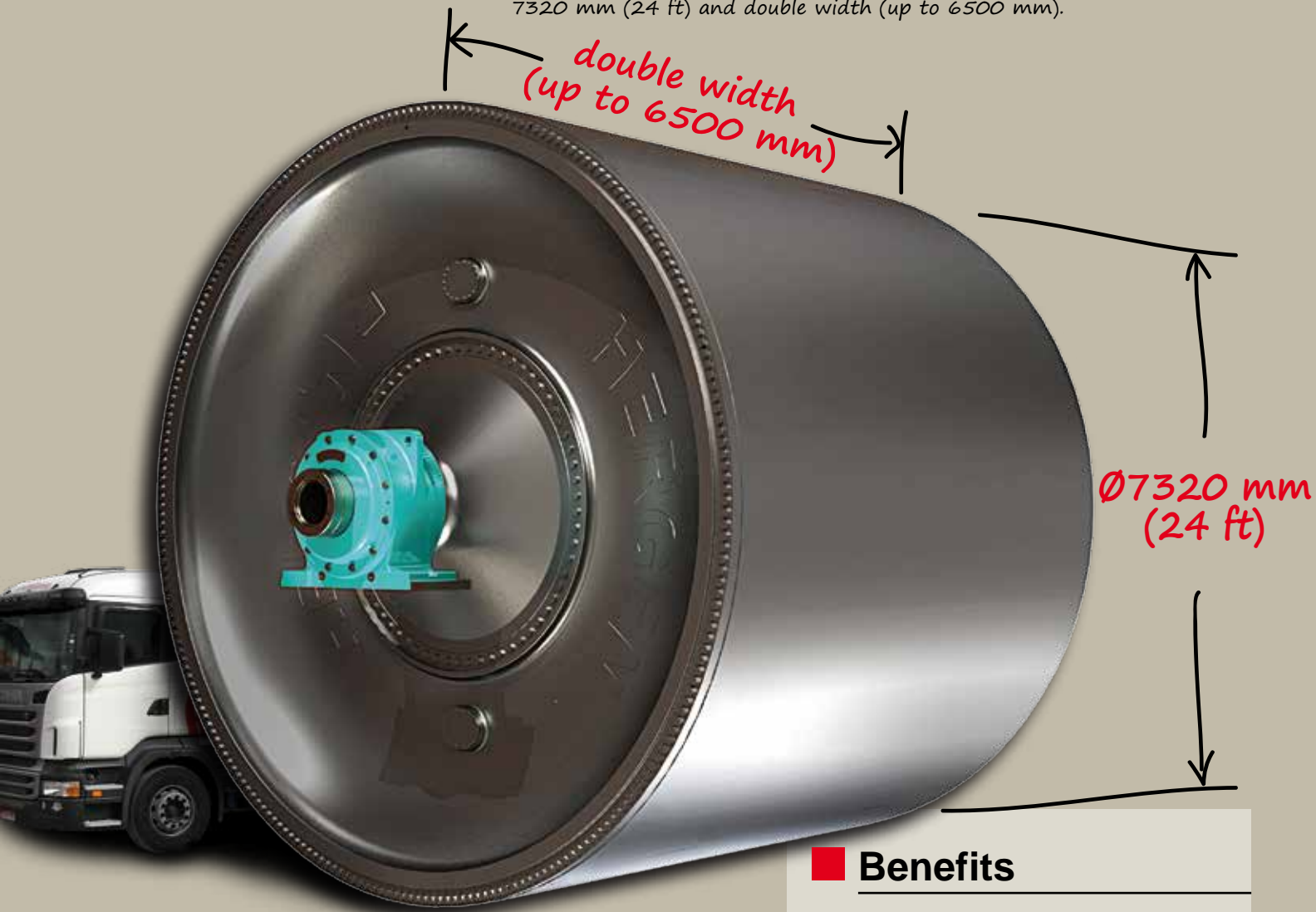
DOUBLE WIDTH

MG Dryer

Expansion of manufacturing line

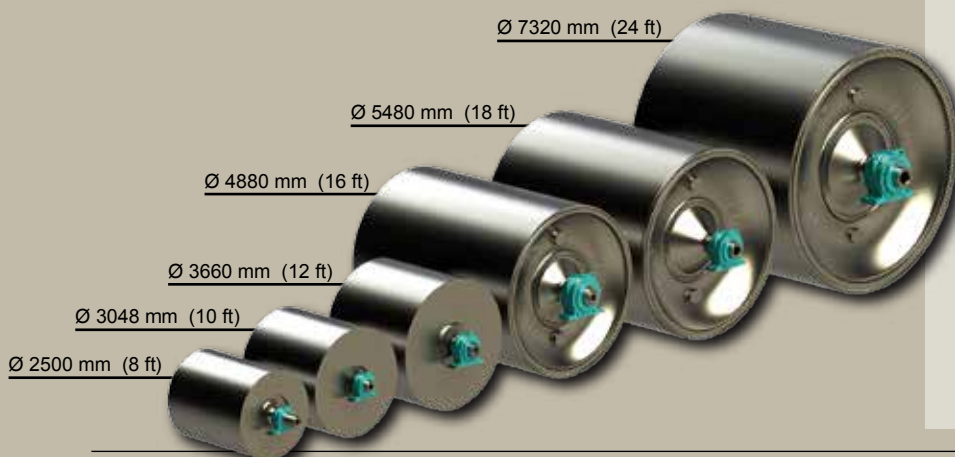
Hergen, for several years have been manufacturing a variety of Yankee dryers, whether they are cast iron, steel, with bolted heads, welded heads, with ribbed or plain inner surface.

Aiming to further expand our line in this segment, we began a major expansion in our factory and we will soon be able to produce cylinders with diameters up to 7320 mm (24 ft) and double width (up to 6500 mm).



Benefits

- safety and reliability: the dryer is totally built in steel, eliminating any explosion risk
- production increase: heat transfer up to 35% higher than the one of a conventional cast iron dryer, resulting on a higher evaporation rate of paper web
- excellent temperature profile
- the steel Yankee dryers can be built with any required diameter
- easy transport: the journals can be transported disassembled, reducing the maximum height of the equipment





Celulose Irani - working speed: 950 m/min

Steel Dryer Cylinders

Proven stability and safety at high speeds

The use of high strength carbon steel, with its ductile nature, allows cylinders with a thinner wall body that results on:

- higher heat transfer to paper web;
- higher evaporation rate per contact area;
- possibility to reduce the number of dryers, guide rolls, frames, etc, for the same drying capacity;
- ZERO risk of explosion.

Furthermore, our modern manufacturing process grant to our dryers optimal mechanical characteristics.



Benefits

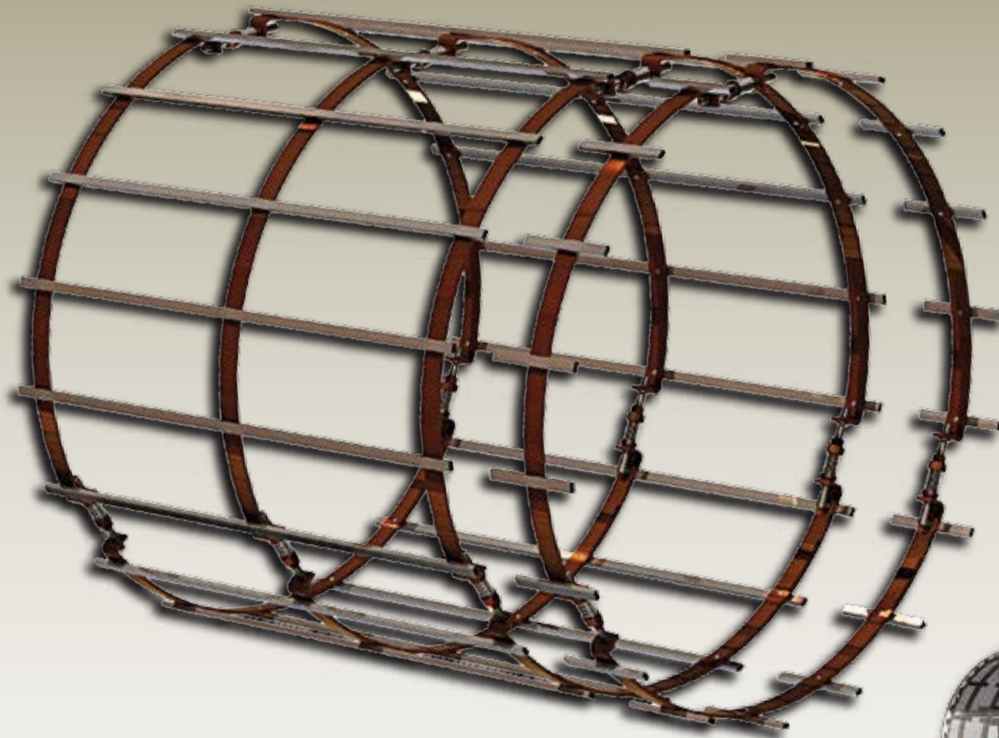
- higher heat transfer
- excellent geometric precision, which guarantees the machine runnability
- stiff and stable construction, that allows them to work at high speed (1000 m/min or even more)

Manufacturing capabilities:

Diameters: 1000, 1200, 1300, 1500 e 1816 mm
 Maximum working pressure: 13 bar
 Maximum overall length: 10.300 mm
 Maximum weight: 30.000 kg



Trombini Fraiburgo - MP 4



Turbulence bars for drying cylinders

More efficiency for drying cylinders

The turbulence bar target is to break the condensate film at dryer internal surface, thus increasing the convection between condensate and dryer.

The system is design on a way that its installation on an existing dryer is fast and simple.



Turbulence bars installed on a drying cylinder

■ Benefits

- increase of drying capacity
- improvement of drying/moisture profile
- easy to install
- low cost



SMART SIZER

for starch application

The starch application with quality, at high speeds and with energy savings

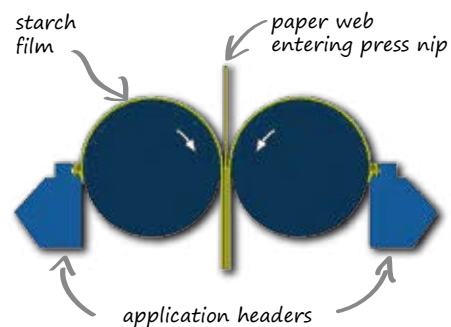
We have developed a starch application press that features a proven excellent and operational efficiency. Furthermore the film press concept eliminates the inherent limitations of the conventional size press application.

A starch layer is applied over the applicator rolls. When the paper web passes through the nip between application rolls the starch is transferred to it.

The application is done by two independent headers, which are fully automated, making their operation extremely simple.

Benefits

- fiber savings
- energy savings on post drying section, due to less water addition to paper web
- starch application with solid content up to 14%
- better control over the amount of starch applied to paper web
- the application is totally independent on each side of paper web, allowing different applications (quantity and media) per side
- it is applicable for medium and high speed paper machines



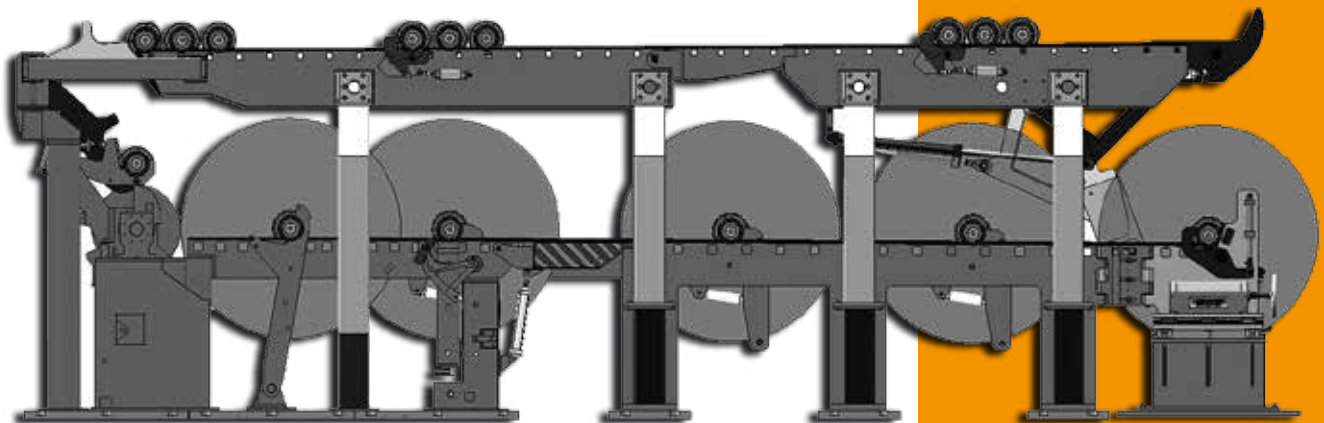
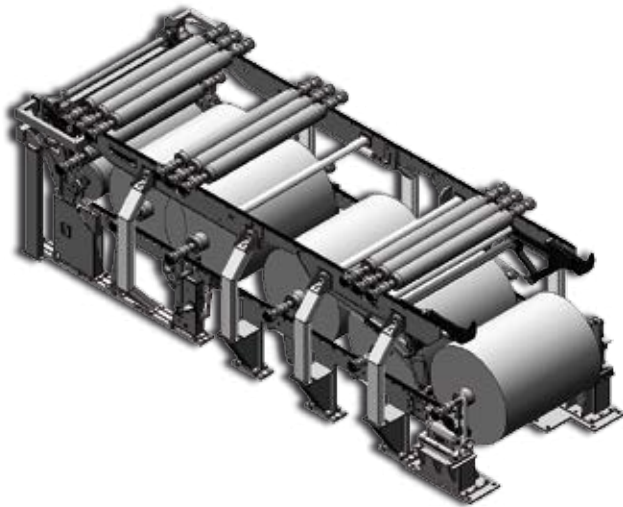
Reel spool automatic feeder and return system

Resources optimization and safety increase

We design and build the complete system for paper reels of any brand and model, customizing the system to each case particular need.

Its main benefit is the safety. The manual process of reel spool movement during each jumbo roll change is completely eliminated. There is no accident risk as the fall of reel spools during this process.

Furthermore, it eliminates the use of the crane to move the reel spools.



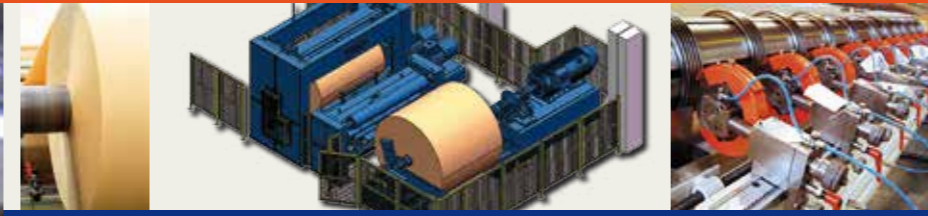
Jaepel Papéis e Embalagens S/A - MP 1

Benefits

- operational safety: all reel spool movement is made automatically, avoiding accidents
- the use of the mill crane is not required
- labor optimization: it eliminates plenty of operations at the end of each jumbo roll



Winder Excel 2.5 - Trombini Fraiburgo MP4



Winders

High quality parent rolls built quickly with safety

We have developed a new winder line to meet all market needs.

Our winders feature modern design and stiff construction will all required technology to produce high quality parent rolls.

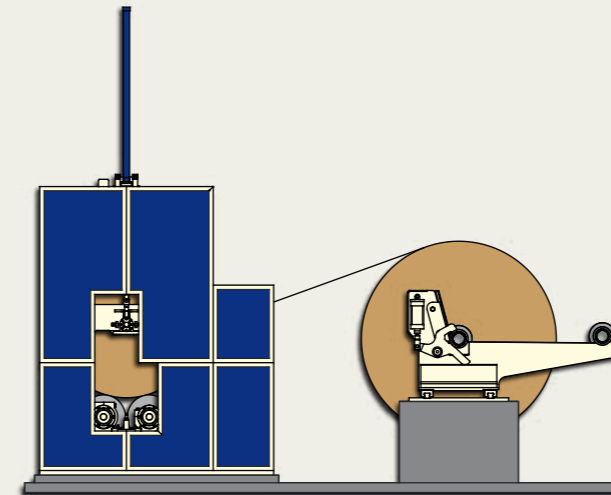
They are equipped with all required devices to guarantee the operators safety.

Benefits

- operators safety
- fully automatic
- regenerative brake
- automatic introduction of paper web

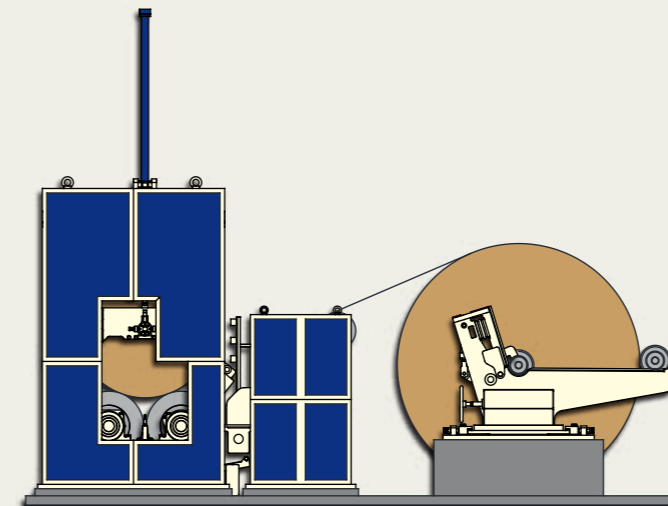


Winder Excel 1.5
Sopasta S/A Ind. e Comércio - MP 1



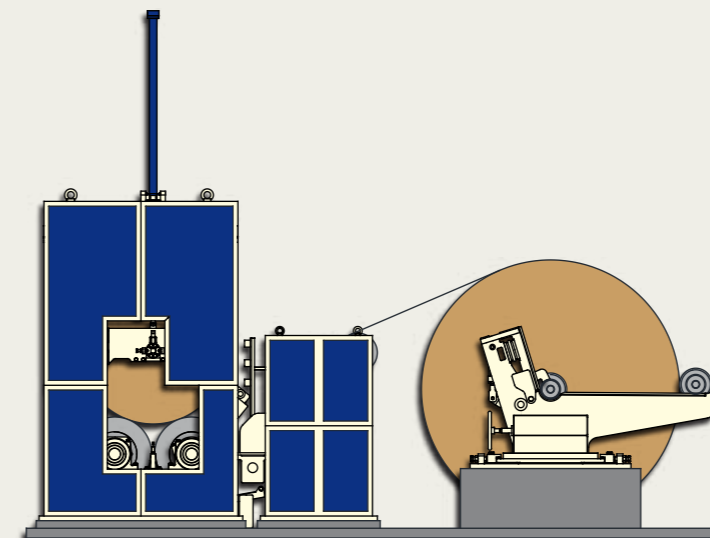
excel 1.5

Working speed: up to 1500 m/min
Paper width: up to 3600 mm



excel 2.0

Working speed: up to 2000 m/min
Paper width: up to 5200 mm



excel 2.5

Working speed: up to 2500 m/min
Paper width: up to 5200 mm



Trombini Fraiburgo - MP 4

Hoods

High standard open canopy and closed hoods

We design, build and install complete machine hoods with ductwork, fans and heat exchangers.

We also supply hood extensions and/or existing hood rebuilds.

Benefits

- energy savings
- production increase
- paper path protection against dripping during cold days



Hergen's hood interior - Trombini Fraiburgo - MP 4



Trombini Fraiburgo - MP 4

Walkways and ladders

Increased safety and improved machine operation

Totally manufactured in anodized aluminum, with special profiles that ensure its stiffness and finishing.

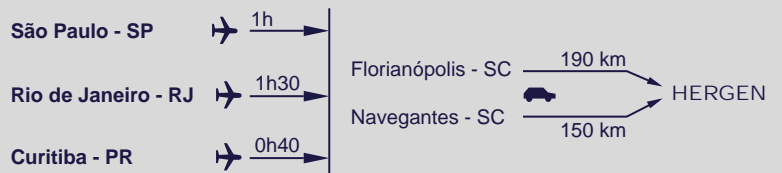
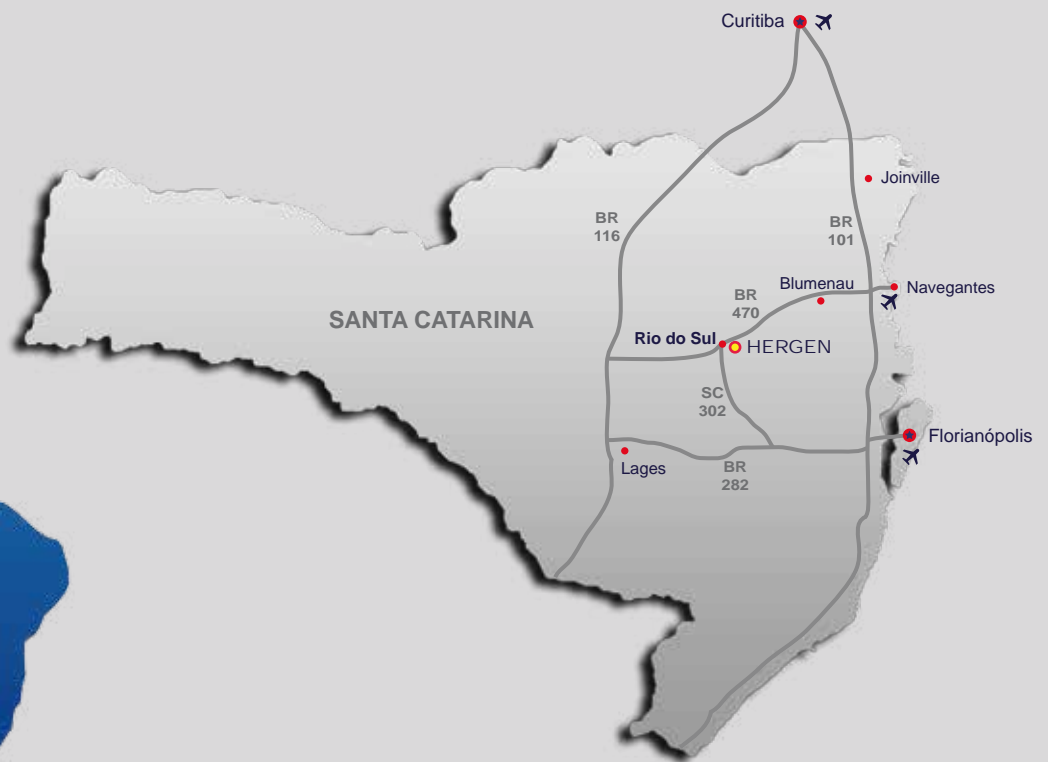
We supply walkways and ladders for existing machines.

They are designed in accordance to safety standards.



Benefits

- safety for machine operators
- quick and safe access to all machine sections
- customized design for existing machines



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