

# PAPER MILL INDUSTRIAL MACHINERY



**INDUSTRIAL DESIGN  
AND MANUFACTURING**

## **FOURDRINIERS**

FRONT LIFT

C-FRAME

TELESCOPING BEAM

FOURDRINIER RETROFIT

## **CYLINDER FORMER**

**NONWOVENS WET AND DRY LAID**

**HEADBOX REFURBISHMENT AND EVALUATION**



# FORMING SECTIONS

## CUSTOMIZE

We have the ability to custom design forming equipment, including engineering and analysis of the components such as the front lift and telescoping beam.

By identifying issues in your formation and drainage process, we can help achieve increased and efficient production. This can be realized through analysis of equipment, process flow, and process environment.



Our fourdriniers have been applied to various types of paper grades including towel, fine, and specialty grades. With each customer's unique application, we are able to create versatile designs to meet needs while maintaining cost-efficiency realized through a deep understanding of the fabrication process.



TELESCOPING BEAM DESIGN





**ENTIRE SECTION**  
**MARKING PRESS**  
**NONWOVEN PRESS**  
**YANKEE PRESS**  
**SIZE PRESS**  
**SMOOTHING PRESS**  
**SUCTION DRUM PRESS**  
**LONG NIP PRESS**  
**SUCTION PRESS**



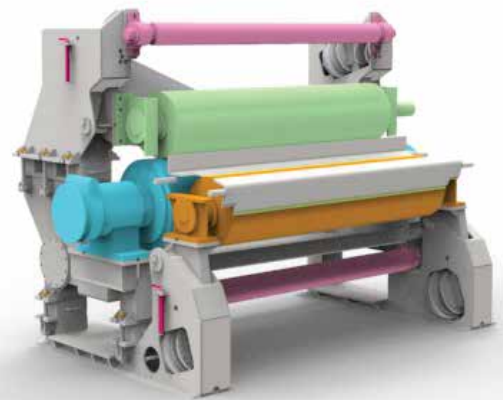
# PRESSING SECTIONS

## OPERATING EFFICIENCY

We will assist you with selecting equipment to maximize your press section efficiency. If your facility has spatial restrictions, we can custom size equipment to fit your facility or adjacent equipment requirements.

We supply a total pressing program by blending other components such as drives, vacuum systems, roll covers, doctors, and showers to complete the scope of the project.

The pressing portion of papermaking is an effective place to increase production. Our in-house engineering team will design and build your press equipment to help you improve your pressing process.



304 S/S COMBI PRESS SECTION



PRESS SECTION FRAMING ASSEMBLY

**OPEN FRAME DESIGN**  
**CLOSED FRAME DESIGN**  
**DRYER CYLINDERS**  
**DOUBLE-TIER DRYER**  
**SINGLE-TIER DRYER**  
**YANKEE DRYER**



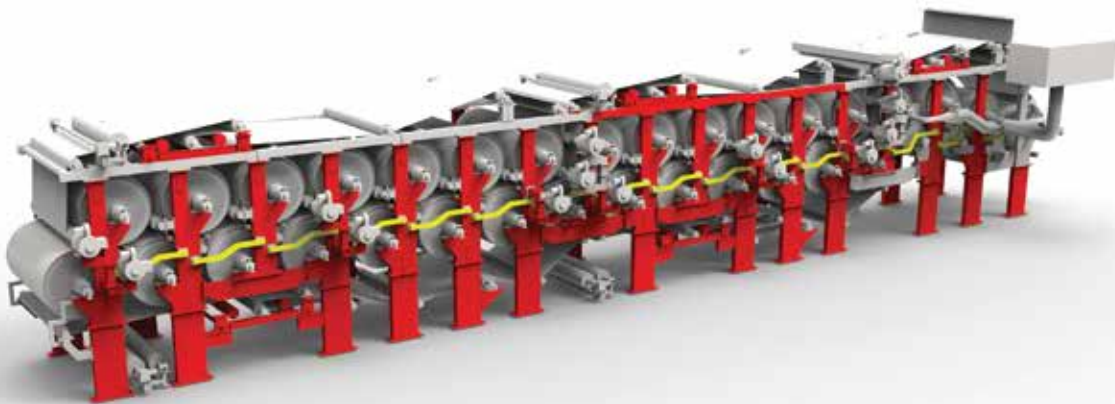


# DRYING SECTIONS

## OPTIMIZE

For dryer operation we offer machine evaluations, open and closed framing, dryer cylinders, and complete dryer section designs. With each project we take-on, our focus is on delivering maintenance efficiency and improving sheet moisture profile. We also offer felting equipment and silent drive systems for your dryer equipment.

We integrate different cylinder configurations and roll quantities to increase machine and maintenance efficiency. Roll handling, drive systems, doctoring, steam syphons, felting and threading components, and our patented TL™ Rolls are all incorporated to produce a complete drying system.



## SOLUTIONS

By trusting us with your dryer section needs, you get the benefit of proprietary engineering designs to optimize dryer footprint and modernize your paper mill.



## **CALENDERING**

MULTI-ROLL CALENDER

TWO-ROLL CALENDER

SUPER CALENDER

OPEN-SIDE CALENDER

MODULAR CALENDER

HEATED CALENDER ROLLS

## **REELING**

HORIZONTAL TRACK REELS

UNWIND SYSTEMS

WINDER REBUILDS

REEL SPOOL STARTERS





# FINISHING SECTIONS

## IMPROVE

To start an evaluation of your finishing system, we'll evaluate your current calendering process to help you determine what equipment best suits your machine. Open-side frame designs are available for increased roll access with modular designs for expansion flexibility. Improve your sheet finish, paper smoothness properties, and printability with our calendering equipment. For superior paper profile, we provide hot calendering equipment.



## REBUILD

Our reels offer sheet transfer reliability and high-speed winding. Our equipment upgrades will provide you with quality parent rolls and an increase in the number of output winder sets. We'll evaluate your system and recommend unique equipment rebuilds and enhancements for your mill to improve reeling quality.

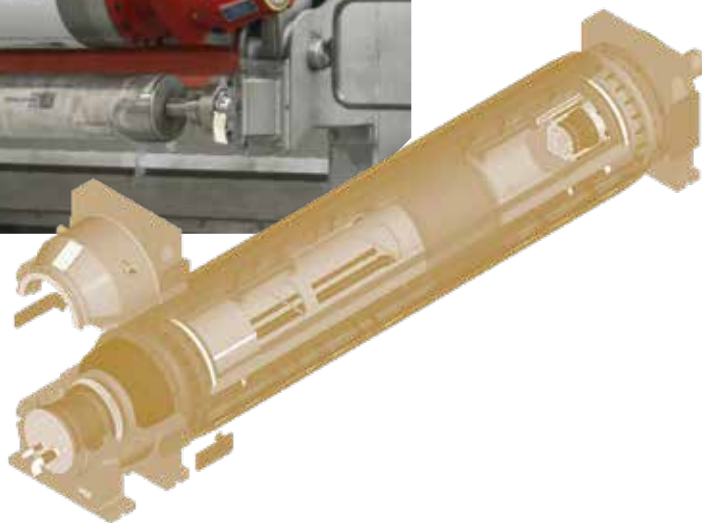
Our unwinding equipment can enhance any papermaking operation with consistent tension control, side-shifting, and skew features. We can help improve your tension control with our variable pressure design and rewinder upgrades.

## COMPONENT OPTIONS

PATENTED TL™ ROLLS  
WIRE TENSIONERS  
SUCTION ROLLS  
FABRIC GUIDING SYSTEMS  
ROLL DOCTORS  
FELT STRETCHERS  
WET END TAIL CUTTERS  
SOLE PLATES  
MACHINE SURVEYS  
ROLL DOLLIES  
FLUMES AND SILOS  
STORAGE TANKS



SUCTION ROLL DESIGN AND MANUFACTURING



# COMPONENT OPTIONS

## TL™ ROLLS

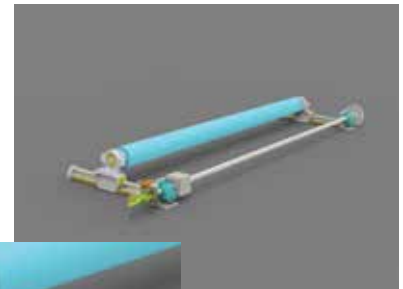
Our patented TL™ Roll has removable and interchangeable journals, yet maintains its balance and TIR quality specification. The journals can be changed while the roll is still in the machine.



TL™ ROLL

## FELT STRETCHERS

The standard felt stretcher design features a constant tension design that utilizes weights or air cylinders to provide proper tension in pounds per linear inch (PLI). Weights can be manually adjusted (see the illustration) to meet the needs of the production line. The front and rear saddles are connected with a cross shaft to keep the system in line.



FELT STRETCHER

## SUCTION ROLLS

We have been manufacturing suction rolls for over 50 years for the paper industry. Throughout R-V's history, accounting for the experience of acquired company LG Industries, we have designed and manufactured nearly 300 suction rolls and overhauled hundreds more. R-V manufactures rolls for all positions, namely couch, drum, pick-up, pressure, and press section rolls.



## ROLL DESIGN CALCULATIONS

Creating the best roll for your production process is crucial to maximizing your process operations. To get the optimally designed roll, contact our team to calculate the design specifications for your specific machine. Our calculation program captures all of the relevant information and automatically generates roll specifications, which significantly reduces human error found in a manual calculation process.



**ROLL REPAIRS**  
**ROLL GRINDING**  
**BALANCING**  
**SUCTION ROLL OVERHAULS**  
**OPTICAL ALIGNMENT**  
**REEL SPOOL OVERHAULS**  
**INSTALLATION AND FIELD SERVICE**

**ROLL OVERHAUL PROCESS**



**OVERHAUL NEEDED**



**DISASSEMBLY**



**REFURBISH**



**ASSEMBLE AND SHIP**

# EQUIPMENT SERVICES

## EXPERIENCE

We offer a wide range of paper machinery services from balancing and optical alignment to plain roll evaluation and roll repairs. As a certified ASME Pressure Vessel Manufacturer, we deliver trusted dryer cylinder certifications. Our quality is exemplified by 450 certified weld procedures.

Our history extends many years, as the LG Industries brand was acquired by R-V in 2001. Between LG and R-V, we have completed hundreds of suction roll overhauls for mills across the United States.

## SUCTION ROLL OVERHAULS

Our suction roll overhauls have a proven track record for reliability and performance. We offer overhaul services for rolls manufactured by R-V, LG, or other manufacturers.

Our suction roll overhaul program is a comprehensive process that includes disassembly, inspection, engineering recommendations, repairs, reassembly, quality control, and trucking/logistics. We work hard to provide quality service and dependability.



BEFORE AND AFTER OVERHAUL



## **PARTNERSHIP PROMISE**

That's our philosophy. When you select R-V Industries as your vendor of choice, you can be assured that we'll work with you every step of the way to develop efficient equipment solutions that best suit your application. By partnering our knowledge and experience with your specifications, we can custom design and manufacture quality new and rebuild equipment to improve your performance.

Choosing R-V Industries also ensures you of sole-source reliability.

Our project history includes a complete paper machine with 138" face width, 2,500 fpm machine speed, and multiple presses topping out at 2,000 PLI (shown below). You'll feel confident about the quality of our workmanship, demonstrated by 450 certified weld procedures and ASME Section VIII weld talent. Despite large company engineering and manufacturing resources, we'll provide the personalized attention of a small business.

That's the R-V Industries' partnership promise.

## **YOUR PARTNER IN PAPERMAKING®**





# PROJECT SCOPES OF MANY TYPES

## MATERIAL TYPES: PAPER AND NONWOVENS

Our machine design and manufacturing experience extends beyond paper media to the nonwoven industry. In the paper media industry, our experience extends from forming to finishing, demonstrated by the complete paper machine shown below. In nonwovens, we have provided forming and press equipment sections while working under and maintaining customer privacy for the remaining steps of the nonwoven production process.

## SCOPE TYPES

Our sales and engineering team handles projects of many sizes, from complete paper machines to product and component replacements. To improve process efficiencies without significant capital expenditure, our repair and overhaul services extend the life cycle of existing components and equipment.



ROLL DOCTOR



AUTO GUIDE



TL™ ROLL



FELT STRETCHER





**R-V INDUSTRIES HEADQUARTERS IN HONEY BROOK, PA**

**R-V INDUSTRIES, INC.**  
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