



LET'S ROLL!

ROLL COVERS AND SERVICES
FOR THE PAPER INDUSTRY

HANNECARD
YOUR ROLLER EXPERT

At Hannecard Group, you are guaranteed a top-notch service thanks to:

120 YEARS OF EXPERIENCE

TOP-QUALITY, HIGH-TECH PRODUCTS AND SERVICES

Hannecard boasts 120 years of experience and has become one of Europe's leading suppliers of rubber, polyurethane, composite and carbide coverings for rolls used in various industries, from paper to steel, plastic, wood, board, textile and food & beverage production. We also develop elastomer specialties (surface protection, moulded parts & extruded profiles) for a range of industrial applications.

SOLID EXPERT KNOW-HOW

AN EXPERIENCED TEAM

Our highly skilled and experienced team relies on extensive expertise and know-how, and is driven to get the most out of all our customers' requests, not only in Europe, but worldwide. Through excellent resources, modern equipment and an open-minded approach, our teams at our three laboratories develop new rubber, polyurethane, composite and carbide compounds to meet the fast-changing needs of our customers. A specialised team looks into the broader functioning of rolls, resulting in total-concept solutions that create value. We can produce any type of roll cover for all industries.

A RELIABLE PARTNER FROM A TO Z

AN EXTENSIVE NETWORK

Hannecard has multiple production units across Europe, as well as various joint ventures and licensees worldwide. All of our sites meet the same strict quality standards, ensuring a reliable partner is never far away.

WHO
WE
ARE



HANNECARD
YOUR ROLLER EXPERT

HANNECARD GROUP

FACTS & FIGURES

120
years of experience

21
production sites

1.000
employees

100.000
roll coverings a year

1.500
tonnes of covers a year

HANNECARD sites

- Ronse - BELGIUM
- La Flèche - FRANCE
- La Flèche - FRANCE (PAPER DIVISION)
- Dettwiller - FRANCE
- Bourgoin-Jallieu - FRANCE
- Cernay - FRANCE
- Krakow - POLAND
- Cherepovets - RUSSIA
- Kursk - RUSSIA (PAPER DIVISION)
- Barberton - USA

HANNECARD Joint Ventures

- GOMPLAST - Barcelona - SPAIN
- GOMPLAST - Changzhou - CHINA
- MHP - Erkrath - GERMANY
- HMSU Rollers Pvt Ltd - Ahmedabad, Gujarat - INDIA
- HMSU Rollers Pvt Ltd - Peelamedu, Coimbatore - INDIA
- TECNORULLI - Bologna - ITALY
- HANNECARD - Zaghouan - TUNISIA
- HANNECARD - Blida - ALGERIA
- HAMICO - Cosmopolis - BRASIL
- H&M ROLLERS - Cape Town - SOUTH AFRICA
- H&M ROLLERS - Vereeniging - SOUTH AFRICA
- H&M ROLLERS - Pietermaritzburg - SOUTH AFRICA

PRODUCTION SITES FOR THE PAPER INDUSTRY

- **Hannecard France:** production of up to 32 tonnes/12 metres (length) by 2.4 metres (diameter)
- **Hannecard Russia:** production of up to 25 tonnes/12 meter (length) by 2 metres (diameter)



FOCUS ON:

A customer-oriented approach

High-quality R&D thanks to our in-house lab

Innovative solutions and services

HANNECARD PAPER

A COMPLETE, CUSTOM SERVICE, FROM A TO Z

As a division of the Hannecard Group, we offer a complete service, from pulp production to converting, from **new rolls and roll repairs to roll coverings and technical support**. All backed by a strong global network and highly experienced teams.

You can count on us for **the sale and engineering of new rolls and repairs**, but also for the **development of custom cost-reduction oriented solutions**. A few examples? Nip profile optimisation, low-energy absorption covers and efficient dewatering solutions, such as the Surface Manager software, which allows you to optimize the cover surface design in order to lower the nip draining time. We can also perform a roll audit, both during operation and machine shutdown, provide any type of roll body and covers, and even assist you with your start-up. In a nutshell, Hannecard Paper is your trusted partner, from A to Z, for **TCO** (Total Cost of Ownership) solutions.

A CUSTOMER-ORIENTED APPROACH, INNOVATION AND QUALITY

Hannecard Paper can count on a highly specialised team of technical experts and collaborations with leading paper institutes. That allows us to offer a wide range of custom solutions and services, including the development of specific covers.

Innovation and quality lie at the heart of our activities. We constantly monitor technological developments to **improve the efficiency** of paper machines and to push the limits of our covers. Our in-house R&D laboratory is equipped to take charge of quality control during the production process. We also have the equipment and expertise required for the measurement of the dynamical, mechanical, thermal, tribological, chemical and surface properties of our covers. We can optimise cover bonding resistance in the nip vs. nip load, speed, temperature and chemicals, in both wet and dry environments. Last but not least, we comply with strict industry standards and regulations. We have ISO 9001 Quality certification, our compound measurement tolerances are in line with ISO 6123 standards and we respect the 'REACH' standards, i.e. the European Union Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals.

**NEW ROLLS
AND ROLL REPAIRS**

ROLL COVERINGS

TECHNICAL SUPPORT



OUR SERVICES



We offer a wide range of services for the paper industry, from the repair of used rolls to the replacement or delivery of new rolls, and the development of roll covers and coatings for all types of paper production.

Our priorities? Listening to our clients to find the solutions that best meet their needs and **optimise: maintenance costs, machine efficiency and paper quality.**

1 ROLL COVERING

- New covering or recovering, in any position of the paper mill, from pulp preparation to converting:
 - at our workshop: polyurethanes, composites, rubbers and carbides
 - on site: carbides
- Grinding (drilling and/or grooving)
 - at our workshop: all types of covers
 - on site: cylindrical grinding on metallic or carbide-covered rolls
- Inspection & expertise
- Repair & cleaning
- Optimisation

2 MECHANICAL ROLL SERVICES

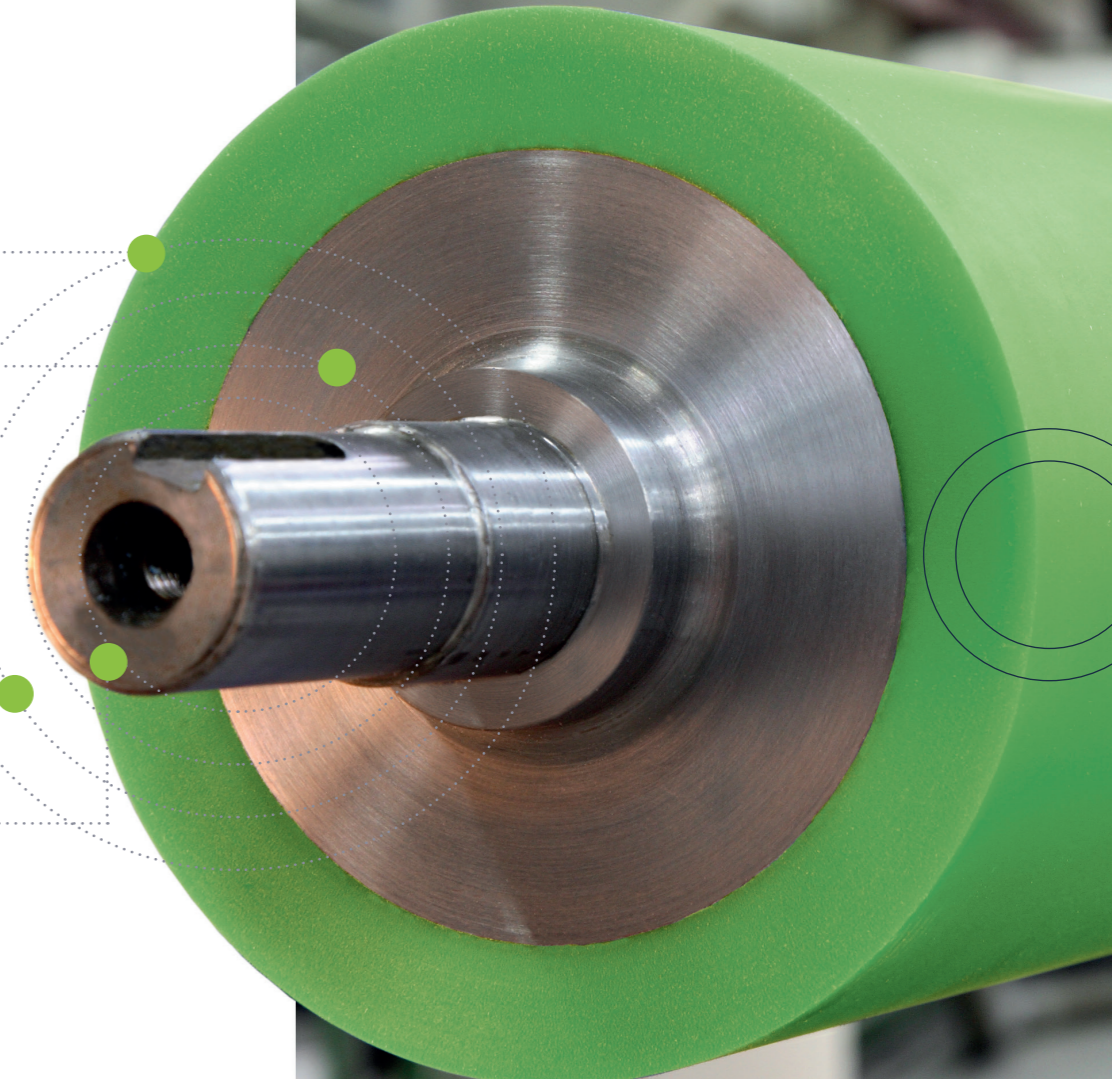
- Complete overhaul (including cleaning, washing and spare parts replacement according to the needs identified during disassembly & inspection) of:
 - suction press rolls, suction couch rolls
 - crown-controlled rolls such as Kusters, CCRolls and Nipco, including a test run with a hydraulic bench
- Journal replacement
- Bearing seat repairs
- Non-destructive tests (crack tests): upon request, we can conduct ultrasonic, magnetic particle and colour tests in order to check for cracks on rolls and journals, so as to limit the risk of major mechanical failures
- Dynamical balancing at machine speed
- Cleaning and Painting

3 ROLL BODIES

- New rolls (cores, shells)
- Inspection & expertise
- Repair & cleaning
- Optimisation

4 VARIOUS SERVICES

- Paper machine audit
- Rolls & doctoring inspections during machine shutdown
- Profile measurements
- Thermographic analysis
- Creation of roll drawings from 3D geometrical controls
- Chemical resistance optimisation
- Start-up assistance
- NIP optimisation: to verify the performance of the grinding profile, we can make nip impressions (static and dynamic) in machines and conduct a wear-profile analysis
- New transport boxes



*optimise:
maintenance costs
machine efficiency
paper quality*

OUR PRODUCTS

Hannecard has over a century of experience in a range of demanding industries & applications. We always strive to boost the eco-efficiency of our cover solutions and we are proud to say our products guarantee the lowest heat build-up and energy absorption in the nip.

1 HARD & SOFT POLYURETHANE COVERS



THE INDESTRUCTIBLE DAMPER

- Optimal resistance to hydrolysis, temperature and abrasion
- The ideal solution for the most demanding press-roll applications
- Fine-tuned surface design with possible combination of suction drilling, blind drilling and grooving
- Multilayer bonding system, with proven safety recorded in more than 200 applications
- Lowest energy and highest vibration absorption

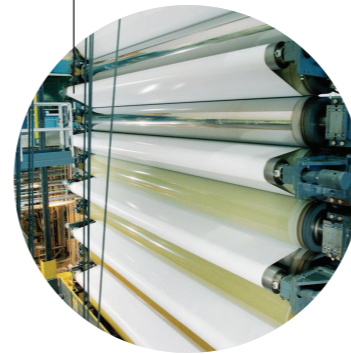
2 HARD & SOFT RUBBER COVERS



THE ALL-TERRAIN SPECIALIST

- We develop and mix our own formulations
- Internal rubber mixing unit set up and sized in order to ensure:
 - the best homogeneity for all our covers
 - a constant repeatability of our production
 - a controlled rubber quality dispatch to all our production sites worldwide
- Statistical analysis of all batches produced
- Predictive simulation software to ensure an optimal vulcanisation of the most complex rolls

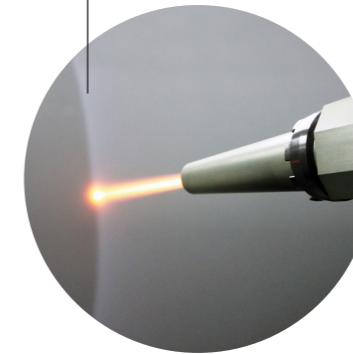
3 COMPOSITE COVERS



THE AVANT-GARDIST

- Optimal surface release behaviour
- Highest shock absorption and energy dissipation
- Best abrasion and barring resistance
- Outmost profile stability and surface doctorability
- Excellent geometrical stability in high-temperature environments

4 TUNGSTEN & CHROMIUM CARBIDE COVERS



THE SURFACE MASTER

- Outstanding level of quality and reliability based on technology from the aeronautic industry
- Best resistance against corrosion in aqueous & acid environments
- Optimum resistance against oxidation at high temperatures
- Resistance against abrasion, erosion, cavitation and fretting
- Depending on the requested coating characteristics, we provide different thermal spray coating technologies, including HVOF M3, HVOF and electric arc for the production of tungsten and chromium carbides, nickel chromium and different metal coatings
- The latest technology available on the market: HVOF M3 gun for carbide covers providing the highest performance & homogeneity, the lowest porosity level (<0.5 %) and the best adhesive strength on the metal core (> 70 MPa)
- Coatings can be applied on site or at our workshop

5 CLUPAK BLANKETS



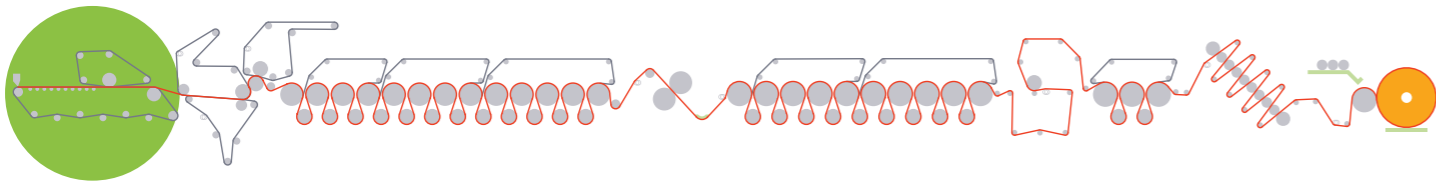
The '8000 series' rubber blankets, used in Clupak machine sections, allow for paper extensibility through elongation in the nip.

Characteristics:

- Superior crack resistance
- Excellent flexing & elongation characteristics
- Extended lifetime
- Optimal on-site grindability

*covers
top-notch
quality
guaranteed*

FORMING SECTION



BREAST ROLL, FORMING ROLL

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
Neostone	Rubber	●●○○	●●○○	●●○○	●●○○
Titan	Composite	●●●○	●●○○	●●●○	●●●○
Centaur	Composite	●●●○	●●●○	●●●○	●●●○
PikoChrome Plus	Chromium Carbide	●●●●	●●●●	●●●○	●●●●

WIRE ROLL, TABLE ROLL

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
Neostone	Rubber	●●○○	●●○○	●●○○	●●○○
Titan	Composite	●●●○	●●○○	●●●○	●●●○
Centaur	Composite	●●●○	●●●○	●●●○	●●●○
PikoChrome Plus	Chromium Carbide	●●●●	●●●●	●●●○	●●●●
PikoFlon NG	Tungsten carbide	●●●●	●●●●	●●●●	●●●●

SUCTION COUCH CYLINDER, MILLSPAUGH

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
HanneDrive	Rubber	●●○○	●●○○	●●●●	●●○○
FlexoDrive	Polyurethane	●●●○	●●●○	●●●○	●●●○
PikoDyson	Tungsten carbide	●●●●	●●●○	●●○○	●●●●

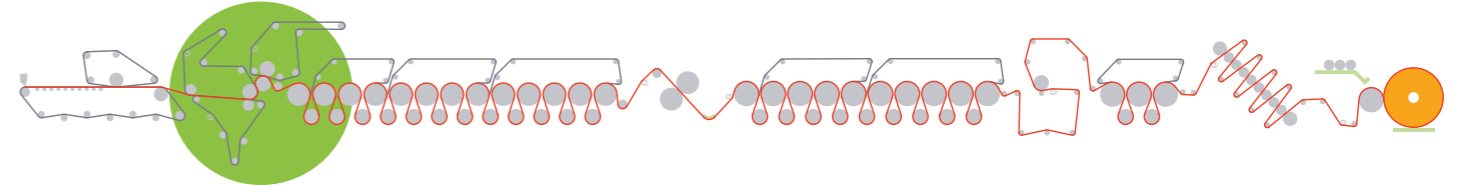
LUMPBREAKER

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
HanneLump	Rubber	●●●○	●●●○	●●●○	●●●○
HanneLump HT	Rubber	●●●○	●●●○	●●●●	●●●○

HELPER, WIRE DRIVING ROLL

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
HanneDrive	Rubber	●●○○	●●○○	●●●●	●●○○
FlexoDrive	Polyurethane	●●●○	●●●○	●●●○	●●●○

PRESS SECTION - 1 - in contact with paper



HARD PRESS ROLL, CENTER PRESS ROLL, HARD SMOOTHING PRESS

Quality	Compound	Abrasion resistance	Doctorability	Sheet release	Eco efficiency
HanneRock	Rubber	●●○○	●●○○	●●○○	●●○○
Sirius	Composite	●●●○	●●●○	●●●○	●●●○
Vega	Composite	●●●●	●●●●	●●●●	●●●○

SOFT PRESS ROLL

Quality	Compound	Abrasion resistance	Doctorability	Sheet release	Eco efficiency
HannePress Plus	Rubber	●●●○	●●●○	●●●○	●●●○

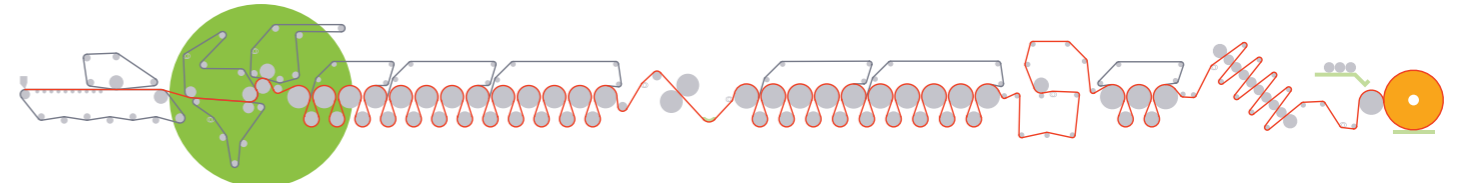
SOFT SMOOTHING PRESS

Quality	Compound	Abrasion resistance	Doctorability	Sheet release	Eco efficiency
HannePress	Rubber	●●●○	●●●○	●●●●	●●●○
Visiomat II	Composite	●●●●	●●●○	●●●●	●●●○

PAPER-TOUCHED ROLL, PAPER GUIDE ROLL

Quality	Compound	Abrasion resistance	Doctorability	Sheet release	Eco efficiency
Titan	Composite	●●●○	●●○○	●●○○	●●●○
Centaur	Composite	●●●○	●●●○	●●●○	●●●○
PikoFlon NG	Tungsten carbide	●●●●	●●●●	●●●●	●●●●

PRESS SECTION - 2 - in contact with felts



SUCTION PRESS ROLL, PICK UP PRESS ROLL

Quality	Compound	Abrasion resistance	Hardness stability	Dewatering efficiency	Vibration absorption	Eco efficiency
Alveomat	Rubber	●●●○	●●●○	●●○○	●●○○	●●○○
Flexolys	Polyurethane	●●●●	●●●●	●●●○	●●●○	●●●○
NeoFlex	Polyurethane	●●●●	●●●●	●●●●	●●●●	●●●●

PRESS ROLL (PLAIN, BLIND DRILLED AND/OR GROOVED)

Quality	Compound	Abrasion resistance	Hardness stability	Dewatering efficiency	Vibration absorption	Eco efficiency
HannePress	Rubber	●●●○	●●●○	●●○○	●●○○	●●○○
Flexolys	Polyurethane	●●●●	●●●●	●●●○	●●●○	●●●○
NeoFlex	Polyurethane	●●●●	●●●●	●●●●	●●●●	●●●○

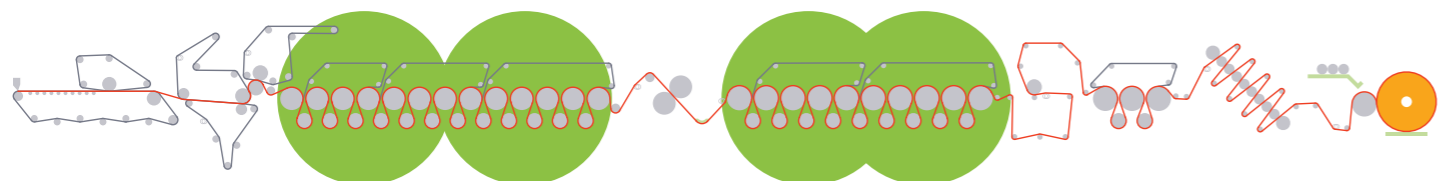
Roll covers overview

JUMBO PRESS ROLL (HLP, ENP)					
Quality	Compound	Abrasion resistance	Hardness stability	Dewatering efficiency	Eco efficiency
HannePress HP	Rubber	●●●○	●●●○	●●●○	●●●○

FELT ROLL, FELT GUIDE ROLL				
Quality	Compound	Abrasion resistance	Ageing resistance	Eco efficiency
Neostone	Rubber	●●○○	●●○○	●●○○
Titan	Composite	●●●○	●●○○	●●●○
Centaur	Composite	●●●○	●●○○	●●●○
PikoFlon NG	Tungsten carbide	●●●●	●●●●	●●●●

SPREADING FELT ROLL				
Quality	Compound	Abrasion resistance	Spreading effect	Eco efficiency
Neostone G	Rubber	●●●○	●●●●	●●●○
HanneSpread G	Rubber	●●●●	●●●○	●●●○

DRYING SECTION



DRYER CYLINDER, CAN DRYER					
Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Eco efficiency
CarburFlon	Tungsten carbide	●●●●	●●○○	●●●○	●●●●
CarburFlon NG	Tungsten carbide	●●●●	●●●●	●●●●	●●●●

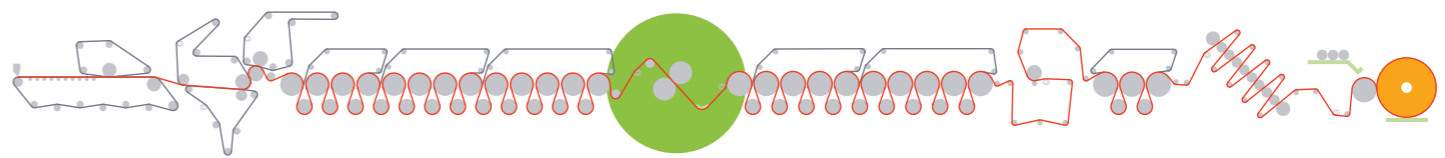
DRYING FELT ROLL, DRYING WIRE ROLL				
Quality	Compound	Abrasion resistance	Anti-adhesive surface	Eco efficiency
Titan	Composite	●●●○	●●○○	●●●○
Centaur	Composite	●●●●	●●○○	●●●○
PikoFlon (NG)	Tungsten carbide	●●●●	●●●●	●●●●

PAPER-TOUCHED ROLL, PAPER GUIDE ROLL						
Quality	Compound	Abrasion resistance	Anti-adhesive surface	Friction coefficient	Antistatic properties	Eco efficiency
Titan	Composite	●●●○	●●○○	●●●●	●○○○	●●●○
Titan AS II	Composite	●●●○	●●○○	●●●○	●●●●	●●●○
Centaur	Composite	●●●●	●●○○	●●●○	●○○○	●●●○
PikoFlon (NG)	Tungsten carbide	●●●●	●●●●	●●○○	●●○○	●●●●

VACROLL, DRYING FELT / WIRE SUCTION CYLINDER					
Quality	Compound	Abrasion resistance	Anti-adhesive surface	Corrosion resistance	Eco efficiency
PikoVac	Tungsten carbide	●●●●	●●●●	●●●●	●●●●

Roll covers overview

SIZING



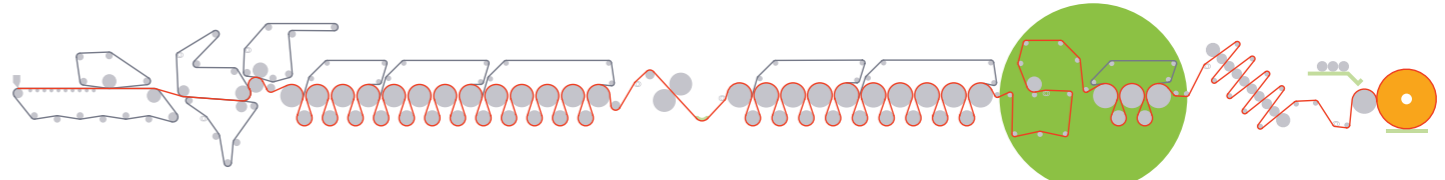
HARD SIZE PRESS				
Quality	Compound	Abrasion resistance	Hardness stability vs T°	Eco efficiency
HelioRock	Rubber	●●○○	●●○○	●●○○
Sirius SP	Composite	●●●●	●●●●	●●●●

SOFT SIZE PRESS				
Quality	Compound	Abrasion resistance	Hardness stability vs T°	Eco efficiency
TactilSize	Rubber	●●○○	●●○○	●●○○
TactilSize Plus	Rubber	●●●○	●●○○	●●○○
XperSize	Rubber	●●●●	●●○○	●●●●

FILM PRESS, SIZER PRESS ROLL						
Quality	Compound	Abrasion resistance	Ageing resistance	Vibration absorption	Film transfer	Eco efficiency
TactilSize Plus	Rubber	●●○○	●●○○	●●○○	●●○○	●●○○
XperSize	Rubber	●●○○	●●○○	●●○○	●●●●	●●●●
ExoSize	Polyurethane	●●●●	●●●●	●●●●	●●●●	●●●●

PAPER-TOUCHED ROLL, PAPER GUIDE ROLL					
Quality	Compound	Abrasion resistance	Anti-adhesive surface	Friction coefficient	Eco efficiency
Titan R	Composite	●●○○	●●○○	●●●●	●●○○
Centaur	Composite	●●○○	●●○○	●●○○	●●○○
PikoFlon NG	Tungsten carbide	●●●●	●●●●	●●○○	●●●●

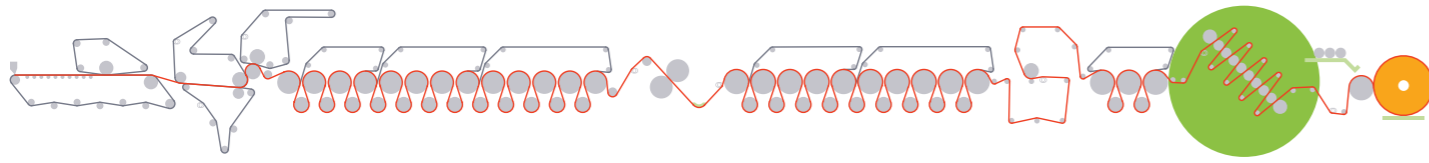
COATING



BACKING ROLL, APPLICATOR ROLL					
Quality	Compound	Abrasion resistance	Hardness stability	Ageing resistance	Eco efficiency
TactilCoat	Rubber	●●○○	●●●●	●●○○	●●○○
StarCoat	Rubber	●●○○	●●○○	●●○○	●●○○

SPLICING ROLL					
Quality	Compound	Abrasion resistance	Hardness stability	Ageing resistance	Eco efficiency
HanneDrum SR	Rubber	●●○○	●●○○	●●○○	●●○○

CALENDERING



SOFT CALENDER ROLL

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Impact resistance	Temperature resistance	Eco efficiency
Visiomat II	Rubber	●●○○	●●○○	●●○○	●●○○	●●○○	●●○○
Diamantal	Composite	●●●○	●●●○	●●●○	●●●○	●●●○	●●●●
Diamantal NG	Composite	●●●●	●●●●	●●●●	●●●●	●●●○	●●●●
Diamantal HT	Composite	●●●○	●●●●	●●●○	●●●○	●●●●	●●●●

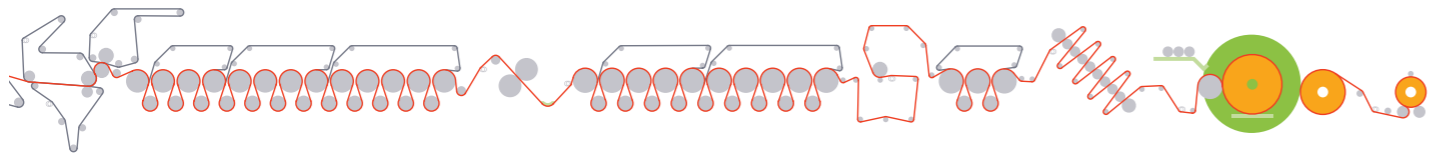
HARD CALENDER ROLL

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Doctorability	Impact resistance	Temperature resistance	Eco efficiency
PikoCal	Tungsten carbide	●●●○	●●●●	●●●○	●●●○	●●●●	●●●●
PikoCal Plus	Tungsten carbide	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●

MARKING PRESS (CIGARETTE PAPER)

Quality	Compound	Abrasion resistance	Anti-adhesive surface	Impact resistance	Temperature resistance	Eco efficiency
FlexoPrint	Polyurethane	●●●●	●●●○	●●●●	●●●○	●●●○

REELING



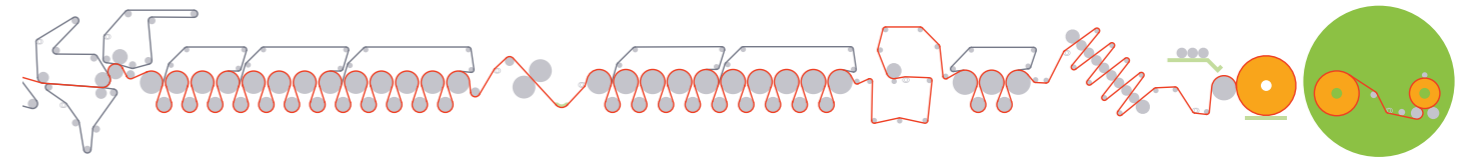
REEL SPOOL

Quality	Compound	Abrasion resistance	Impact resistance	Temperature resistance	Antistatic properties	Eco efficiency
Protectthane Plus	Polyurethane	●●●○	●●●●	●●●○	●●○○	●●●○
Protectthane Plus AS	Polyurethane	●●●○	●●●●	●●●○	●●●●	●●●○

REEL DRUM, POPE REEL

Quality	Compound	Abrasion resistance	Impact resistance	Temperature resistance	Eco efficiency
HanneDrum SR	Rubber	●●●○	●●○○	●●●○	●●●○
PikoReel	Tungsten carbide	●●●●	●●●●	●●●●	●●●●

WINDING



DRUM ROLL

Quality	Compound	Abrasion resistance	Impact resistance	Dampening efficiency	Friction coefficient	Friction coeff. stability	Eco efficiency
HannePrene AS	Rubber	●●○○	●●○○	●●○○	●●●○	●●○○	●●○○
Flexolys Foam	Polyurethane	●●●○	●●●○	●●●●	●●●●	●●●○	●●●○
PikoWind	Tungsten carbide	●●●●	●●●●	○○○○	●●●○	●●●●	●●●●

RIDER ROLL

Quality	Compound	Abrasion resistance	Impact resistance	Dampening efficiency	Friction coefficient	Friction coeff. stability	Eco efficiency
HanneRide	Rubber	●●●○	●●○○	●●○○	●●●○	●●○○	●●○○
Flexolys Foam	Polyurethane	●●●○	●●●○	●●●●	●●●●	●●●○	●●●○
PikoWind	Tungsten carbide	●●●●	●●●●	○○○○	●●●○	●●●●	●●●●

TISSUE



SUCTION PRESSURE ROLL

Quality	Compound	Abrasion resistance	Hardness stability	Dewatering efficiency	Vibration absorption	Eco efficiency
TissuPress	Rubber	●●○○	●○○○	●●○○	●●○○	●●○○
TissuStar	Rubber	●●●○	●●●○	●●●○	●●●○	●●●○
NeoFlex T	Polyurethane	●●●●	●●●●	●●●●	●●●●	●●●●

PRESSURE ROLL (PLAIN, BLIND DRILLED AND/OR GROOVED)

Quality	Compound	Abrasion resistance	Hardness stability	Dewatering efficiency	Vibration absorption	Eco efficiency
TissuPress	Rubber	●●○○	●○○○	●●○○	●●○○	●●○○
TissuStar	Rubber	●●●○	●●●○	●●●○	●●●○	●●●○
StarPress II	Rubber	●●●●	●●●○	●●●○	●●●○	●●●○
NeoFlex T	Polyurethane	●●●●	●●●●	●●●●	●●●●	●●●●

YANKEE CYLINDER WITH CYLINDRICAL PROFILE

Quality	Compound	Abrasion resistance	Doctorability	Heat Transfer	Creping process	Eco efficiency
PikoChrome	Chromium Carbide	●●●○	●●●○	●●●○	●●●○	●●●○
PikoChrome Plus	Chromium Carbide	●●●●	●●●●	●●●●	●●●●	●●●●

HANNECARD

PAPER DIVISION PLANTS

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