

POWER TRANSMISSION PULP & PAPER



SPECIALISTS FOR PULP & PAPER

"Top performance even under pressure."

Norbert, 42, foreman

OPTIBELT SUCCESS STORY LOWER COSTS THANKS TO optibelt RED POWER



IN WORLDWIDE USE

As an effective partner in the print and paper industry, OPTIBELT has the ideal drive solution to meet even the most demanding requirements. This means that every processing step - from cutting and folding through to material transport - runs smoothly and with absolute precision. Additional factors that find approval with customers and users alike include exemplary efficiency and minimised maintenance costs. This is why **OPTIBELT's sustainable premium products** can be found in use around the globe.

The Canadian company Domtar specialises in the production of pulp and paper and had been plaqued by problems with a powerful grinding mill used for grinding waste wood. The belts, made by another manufacturer, were slipping and causing damage to the bearings of the mill on a regular basis. OPTIBELT designed a completely new drive solution for Domtar, using four high performance optibelt BLUE POWER kraftbands, and set up the system with high precision using the optibelt TT OPTICAL frequency tension tester. The mill now runs smoothly with no breakdowns.

OPTIBELT SUCCESS STORY PERFECT SERVICE FROM OPTIBELT



Bio-Pappel is the leading manufacturer and producer of sustainable packaging, newsprint and fine papers in Mexico and Latin America. Previously, the vacuum pumps used in the company's paper mills had caused ongoing problems due the standard belts wearing out after eight to ten months. This led Bio-Pappel to switch to optibelt RED POWER maintenance-free, high performance wedge belts, which delivered a service life of at least 24 months. As a result of this switch, the company now makes an annual saving of around 6.000 US dollars.

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FAST & PRECISE It's not just the result that counts.

In the printing and paper industry there are many different and sophisticated manufacturing and finishing processes, which all impose exacting demands on the machinery. Precision, durability, reliability and optimal power transmission are decisive criteria that the relevant drive systems are expected to meet throughout the entire production chain. OPTIBELT's high performance belts provide sustainable solutions to these challenges.



1. PULPER (PULP PRODUCTION) Pulp and waste paper are mixed with water and broken down into separate fibres.







3. DRYING Heated hollow cylinders dry the paper.



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5. SMOOTHING Steel rollers smooth the paper ready for further processing.



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7. WINDING ONTO ROLLS The paper web is wound onto a tambour in various widths.





9. OFFSET PRINTING Requires reliable machinery that runs particularly smoothly.

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2. SHEET FORMATION The fibres become matted into a paper web on a vibrating screen.





4. PRESS Water is then carefully removed from the wet paper web.





The properties of the paper are

6. FINISHING

chemically tuned.

8. REEL STAND A powerful drive system ensures a quick and flexible output.





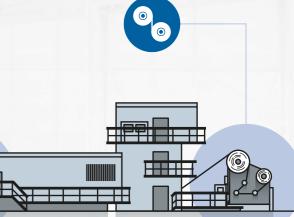
11. PLOTTER A precise control mechanism ensures excellent results.







10. WINDING MACHINE The drive and mechanical equipment is subjected to enormous tensile forces.







12. DIGITAL PRINTING Precise paper feed at high speeds is imperative.





optibelt OMEGA HP

HIGH PERFORMANCE TIMING BELTS

| TIMING BELT PULLEYS | |
|----------------------------|-------|
| optibelt OMEGA | 102 |
| timing belts run in | YG (O |
| standard HTD and RPP pulle | ys 🕓 |

HIGH PERFORMANCE WEDGE BELTS

optibelt SK S=C Plus

HIGH PERFORMANCE WEDGE BELTS

V-GROOVED PULLEYS

special pulleys on request

all standard pulleys,

optibelt RED POWER 3 S=C Plus

| DIMENSIONS | | | |
|------------|---------------|--|--|
| 2M HP | 74–1224 mm | | |
| 3M HP | 111 – 1569 mm | | |
| 5M HP | 180-2525 mm | | |
| 8M HP | 288-3600 mm | | |
| 14M HP | 966-4578 mm | | |
| | | | |

Other profiles + dimensions on request

DIMENSIONS

SPA

SPB

3V/9N

SPZ 1202-3550 mm

SPC 2000-10000 mm

Other profiles + dimensions on request

DIMENSIONS

SPZ 487-3550 mm

SPA 732-4500 mm

SPB 1250-8000 mm

3V/9N 25-140 inches

Other profiles + dimensions on request

SPC 2000-12500 mm

 $1207 - 4000 \, \text{mm}$

1250-8000 mm

47.5 – 140 inches

ADVANTAGES AND CHARACTERISTICS • alass cord

- high performance timing belt for extremely large loads at high rotational speeds
- shear-resistant fabric with minimised wear and friction
- up to 2 times the power transmission capability of the optibelt OMEGA standard version

ADVANTAGES AND CHARACTERISTICS

• up to 50% higher performance than

optibelt SK, making it possible to

ADVANTAGES AND CHARACTERISTICS

• transmits more power than the classic

V-belts with comparable top width

specially developed with general

machine construction in mind

• maintenance-free polyester cord

• core with transverse fibres

use smaller drives

• polyester cord

• suitable for back-bend idlers

ntenance

free

optibelt DELTA CHAIN Carbon

HIGH PERFORMANCE TIMING BELTS



pulleys and comparable competitive pulleys with CTD and PC profiles. Other profiles + dimensions on request

optibelt OMEGA **TIMING BELTS**



optibelt OMEGA timing belts run in standard HTD and RPP pulleys

DIMENSIONS 2M 74-1224 mm 3M 111-1863 mm 5M 120-2525 mm 8M 288-4400 mm 14M 966-4578 mm

Other profiles + dimensions on request

optibelt OMEGA HL

HIGH PERFORMANCE TIMING BELTS



14M HL 966-4578 mm

TIMING BELT PULLEYS optibelt OMEGA timing belts run in standard HTD and RPP pulleys

Other profiles + dimensions on request

optibelt **RB RIBBED BELTS**

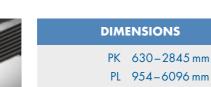
V-GROOVED PULLEYS

special pulleys on request

all standard pulleys,



RIBBED BELT PULLEYS standard range, special pulleys on request



- polyester cord
- high belt speeds are possible
- suitable for back-bend idlers
- PK, PL profiles also available with aramid cord
- DPK profile available

Other profiles + dimensions on request

ADVANTAGES AND CHARACTERISTICS

optibelt OMEGA double-sided **TIMING BELTS**



optibelt OMEGA timing belts run in standard HTD and RPP pulleys

Other profiles + dimensions on request



DIMENSIONS 8M HL 288-3600 mm

DIMENSIONS

8MDC 640-1792 mm

- Runs in optibelt ZRS DC timing belt

ADVANTAGES AND CHARACTERISTICS

- one of the strongest timing belts on the market
- carbon cord

CARBON

TECHNOLOGY

- alternative for chains and gear transmissions
- excellent resistance to oil and chemicals

ADVANTAGES AND CHARACTERISTICS

- rubber timing belt with optibelt OMEGA profile
- glass cord
- low noise
- efficiency of up to 98%
- suitable for power transmission with slow and fast running drive systems with no high impact loading



DIMENSIONS

D8M 1120-3600 mm

ADVANTAGES AND CHARACTERISTICS

- reinforced glass cord
- optimised absorption of shock loading
- highly resistant to dynamic loading
- very low elongation
- up to 15% more power than optibelt OMEGA HP

ADVANTAGES AND CHARACTERISTICS

- timing belt with optibelt OMEGA profile
- glass cord
- low noise
- efficiency of up to 98%
- suitable for power transmission with slow and fast running drive systems with no high impact loading

THE OPTIBELT TEAM FOR DEVELOPMENT, APPLICATIONS AND SERVICE



SOFTWARE TOOLS AND SPECIALIST CONSULTING

OPTIBELT's free CAP software allows users to quickly and easily calculate their specific drives. For more complex drive systems, CAP Professional gives users the ability to perform detailed variable calculations. CAP's efficiency calculator will also compare available drives with those already optimised.

OPTIBELT application engineers are always available to provide advice to customer's operations around the world. They can assist in optimising the drives for entire plant operations.



SERVICE SUPPORT

To make sure that all machines run reliably, OPTIBELT also offers personal support in drive assembly, maintenance and service on site around the world. OPTIBELT's broad range of tools, measuring devices and service tools allow for easy drive optimisation, maintenance and repair.



OPTIBELT CUSTOM PRODUCTS

OPTIBELT offers custom high performance products for all applications: Customised products are designed to precisely meet customer's drive application requirements. OPTIBELT engineers develop tailored drive solutions for superior efficiency and safety.

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