

## POWER TRANSMISSION PULP & PAPER



# SPECIALISTS

#### "Top performance even under pressure."

Norbert, 42, foreman

#### 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.

# FOR PULP & PAPER

#### OPTIBELT SUCCESS STORY LOWER COSTS THANKS TO optibelt RED POWER



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.

The Canadian company Domtar specialises in the production of pulp and paper and had been plagued 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



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



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



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





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





#### **2. SHEET FORMATION**

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





#### 4. DRYING Heated hollow cylinders dry the paper.



**6. FINISHING** The properties of the paper are chemically tuned.



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.



**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.





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



#### 8. REEL STAND

A powerful drive system ensures a quick and flexible output.





#### **11. PLOTTER**

A precise control mechanism ensures excellent results.



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



#### optibelt OMEGA HP

#### HIGH PERFORMANCE TIMING BELTS



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

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

#### ADVANTAGES AND CHARACTERISTICS

• glass cord

maintenance-

free

- 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

#### optibelt RED POWER 3 S=C Plus

#### HIGH PERFORMANCE WEDGE BELTS



V-GROOVED PULLEYS all standard pulleys, special pulleys on request



DIMENSIONS		
SPZ	1202-3550 mm	
SPA	1207-4000 mm	
SPB	1250-8000 mm	
SPC	2000-10000 mm	
3V/9N	47.5 – 140 inches	

Other profiles + dimensions on request

#### **ADVANTAGES AND CHARACTERISTICS**

- maintenance-free polyester cord
- core with transverse fibres
- suitable for back-bend idlers
- up to 50% higher performance than **optibelt SK**, making it possible to use smaller drives

#### optibelt SK S=C Plus

#### HIGH PERFORMANCE WEDGE BELTS



V-GROOVED PULLEYS all standard pulleys, special pulleys on request

DIM	ENSIONS
SPZ	487-3550 mm
SPA	732-4500 mm
SPB	1250-8000 mm
SPC	2000-12500 mm
3V/9N	25 – 140 inches

Other profiles + dimensions on request

#### ADVANTAGES AND CHARACTERISTICS

- polyester cord
- specially developed with general machine construction in mind
- transmits more power than the classic V-belts with comparable top width

#### optibelt RB RIBBED BELTS



**RIBBED BELT PULLEYS** standard range, special pulleys on request



DIMENSIONS			
PK	630-2845 mm		
Ы	054 (00)		

PL 954-6096 mm

#### high belt speeds are possible suitable for back-bend idlers

• polyester cord

• PK, PL profiles also available with aramid cord

**ADVANTAGES AND CHARACTERISTICS** 

• DPK profile available

Other profiles + dimensions on request

#### optibelt DELTA CHAIN Carbon

#### HIGH PERFORMANCE TIMING BELTS



TIMING BELT PULLEYS DC all standard pulleys, special pulleys on request



#### DIMENSIONS

8MDC 640-1792 mm

Runs in optibelt ZRS DC timing belt pulleys and comparable competitive pulleys with CTD and PC profiles.

Other profiles + dimensions on request

#### **ADVANTAGES AND CHARACTERISTICS**

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

CARBON

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

#### optibelt OMEGA

#### **TIMING BELTS**



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

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

Other profiles + dimensions on request

#### **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

#### optibelt OMEGA HL

#### HIGH PERFORMANCE TIMING BELTS



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

DIMENSIONS		
8M	HL	288–3600 mm
1/1	н	966 - 1578  mm

Other profiles + dimensions on request

#### 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

optibelt OMEGA double-sided

#### TIMING BELTS



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



DIMENSIONS

Other profiles + dimensions on request

D8M 1120-3600 mm

#### **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.

#### **Optibelt GmbH**

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