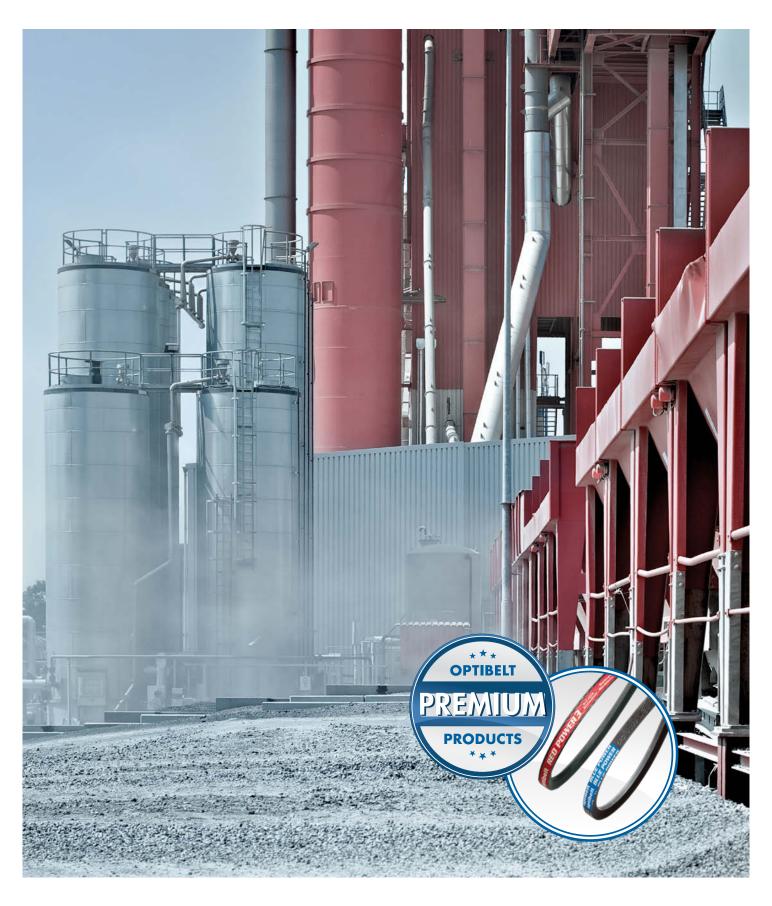


# POWER TRANSMISSION CEMENT



# SPECIALISTS

# "Optibelt is a strong ally to have."

Norbert, 42, foreman

#### **IN GLOBAL USE**

As a strong partner for the cement industry, Optibelt has the proper solution for every application. Customer drive solutions are engineered to meet the drive's specifications and to improve performance in the conditions required. The reliability of Optibelt's maintenance-free high performance belts has become the new world standard.

# FOR CEMENT

# OPTIBELT SUCCESS STORY CEMENTA AB - SWEDEN

In the small Swedish town of Slite, 90 km off the coast of the Baltic Sea, resides one of the largest rock crushing operations in Europe. This is where Cementa, a Heidelberg Cement subsidiary, is located.

The crushing system uses 68 **optibelt S=C Plus** 8V sections in lengths of 5230 to 13,280 mm. They ensure that Cementa can crush 2,000 tons of stones per hour.





### OPTIBELT SUCCESS STORY YAMAMA CEMENT -SAUDI ARABIA

Yamama Cement's crusher uses two sets of 20 8V 4250 belts. The standard belts used had a maximum life of only 6 months, before maintenance was needed, which shut down operations.

The switch to the high performance and maintenance-free **optibelt RED POWER** saved the company over \$ 5,114 USD annually.

# **A STRONG PARTNE** The cement industry demands strength an

#### **1. QUARRIES**

The raw materials (limestone, clay, sand and iron ore) are extracted from the quarry.

#### **3. RAW MILLS**

All raw materials are milled together, dried and worked into raw powder.

#### 2. HAMMER CRUSHER AND MOBILE CRUSHER

The raw material is broken up (limestone and marl crusher) to gravel and transported to the cement factory.





**4. ROTARY KILN** The raw powder is fired into bricks (at approximately 1450 °C).

# **RSHIP** d endurance.

Cement production is a complex and challenging process, that requires enormous amounts of energy and extremely strong machinery. Stone crushing creates large amounts of sand, dust and dirt that strains machinery and drives. High performance power transmission belts capable of withstanding these conditions are essential to reducing maintenance costs.



**5. COOLER** The bricks are cooled down to 200 °C.





**7. BALL MILLS** The granules are ground together with gypsum or anhydrate to create the final product: cement.



**6. HAMMER BRICK CRUSHER** 

The large bricks are broken up before being transported to a ball mill.



#### 8. CEMENT PACKAGING

The finished cement is prepared for shipping with the help of automatic packing and palletising machines.



## optibelt RED POWER 3 S=C Plus

#### HIGH PERFORMANCE WEDGE BELTS AND KRAFTBANDS



DIMENSIONS			
SPZ	1202-3550 mm		
SPA	1207-4000 mm		
SPB	1250-8000 mm		
SPC	2000-10000 mm		
3V/9N	47.5–140 inches		
5V/15N	53–315 inches		
8V/25N	100–475 inches		

Additional sizes available



#### V-GROOVED AND KRAFTBAND PULLEYS all standard pulleys, special pulleys on request



 DIMENSIONS

 SPB
 2000-8000 mm

 SPC
 3000-10000 mm

 3V/9J
 50-140 inches

 5V/15J
 56-315 inches

 8V/25J
 100-475 inches

The new generation of V-belts and kraftbands **optibelt RED POWER 3** delivers impressive results: Up to 50% greater power transmission capacity and cost savings of up to 35%. These performance improvements are the result of OPTIBELT's superior engineered materials and manufacturing processes.

maintenance-

free

#### ADVANTAGES AND CHARACTERISTICS

- up to 50% improved performance
- maintenance-free, keeps the belt tensioned throughout its lifespan
- also available as profile B

## optibelt BLUE POWER

#### HIGH PERFORMANCE WEDGE BELTS AND KRAFTBANDS

with aramid cord





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



Additional sizes available

DIMENSIONS		
SPB	2000-8000 mm	
SPC	3000-10000 mm	
5V/15J	80–315 inches	
8V/25J	100–475 inches	



#### **ADVANTAGES AND CHARACTERISTICS**

- the highest strength capacity offered for heavy industry use
- offers twice the power capacity of standard wedge belts
- temperature resistant up to 100°C (212°F) and increased resistance to chemicals



### optibelt SUPER X-POWER M=S

#### HIGH PERFORMANCE WEDGE BELTS



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



DIMENSIONS		
XPZ	587-3550 mm	
XPA	707-3550 mm	
XPB	1250-3550 mm	
XPC	2000-3550 mm	
3VX/9NX	25–140 inches	
5VX/15NX	50–140 inches	

DIMENSIONS

5 200-610 mm

8 335-1270 mm

Y/6 295-865 mm

Z/10 312-2522 mm

#### ADVANTAGES AND CHARACTERISTICS

- high performance, low-stretch cords reduce maintenance costs
- performs up to 15% better than standard cogged wedge belts
- excellent resistance to oil and heat
- M=S Matched Sets
- low maintenance

## optibelt VB S=C Plus

#### **CLASSIC V-BELTS**



Also available as kraftband

**V-GROOVED PULLEYS** 

all standard pulleys, special pulleys on request

	A/13	437-5030 mm
	B/17	610-7140 mm
	20	950-6050 mm
	C/22	1148-8058 mm
	25	1460-9060 mm
$\rightarrow$	D32	2075–11 275 mm
	E/40	3080-12580 mm

Additional sizes available



Classic **optibelt VB** feature S=C Plus length tolerances that are superior to industry accepted matched sets. They are an ideal solution for use on standard mechanical operations.

#### **ADVANTAGES AND CHARACTERISTICS**

- excellent operational reliability
- optimal running characteristics
- friction-resistant cover fabric
- available in a complete range of section sizes and lengths

## optibelt SK S=C Plus

HIGH PERFORMANCE WEDGE BELTS



Auch als Kraftband erhältlich



DIMENSIONS		
SPZ	487-3550 mm	
SPA	732-4500 mm	
SPB	1250-8000 mm	
SPC	2000-12500 mm	
3V/9N	25 – 140 inches	
5V/15N	53–355 inches	
8V/25N	100–500 inches	

Additional sizes available

The **optibelt SK** can transfer power at a rate of almost 97% efficiency. The S=C Plus tolerances ensure minimal installation maintenance.

#### **ADVANTAGES AND CHARACTERISTICS**

- manufactured to DIN/ISO/BS standards
- higher efficiency rate compared to other standard wedge belts

# 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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