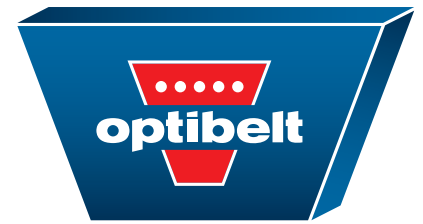
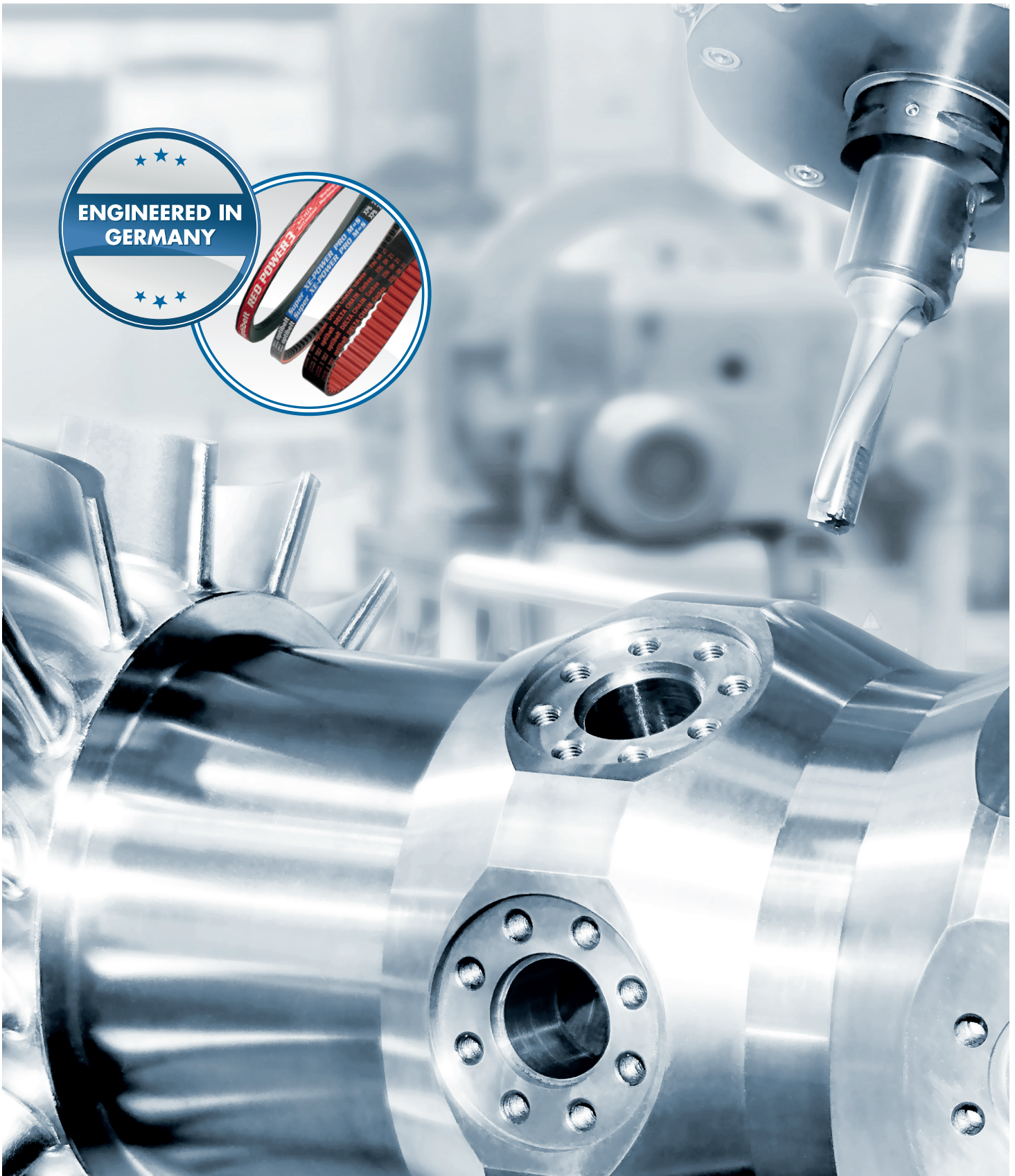




# Optibelt Hihnat 2021



# POWER TRANSMISSION COMPACT CATALOGUE





A man with a beard and brown hair, wearing a blue and black plaid shirt over a bright yellow high-visibility vest with reflective silver stripes. He has a red neck guard around his neck and is holding a clipboard with a pen in his right hand and a pair of black work gloves in his left hand. He is standing in a large, modern industrial building with a high ceiling and a grid of skylights. The background is slightly blurred, showing the structure of the building.

## Maintenance-free

Norbert, 42, foreman

Since 1948, the Optibelt company has been manufacturing a wide variety of drive belts, drawing on more than a century of experience of working with rubber. Constant investments in materials research and production technology as well as growing knowledge of the constraints associated with the various fields of application have led to the further development of the belt into a high-tech drive element, which has allowed the performance limits of the machines to be pushed further and further.

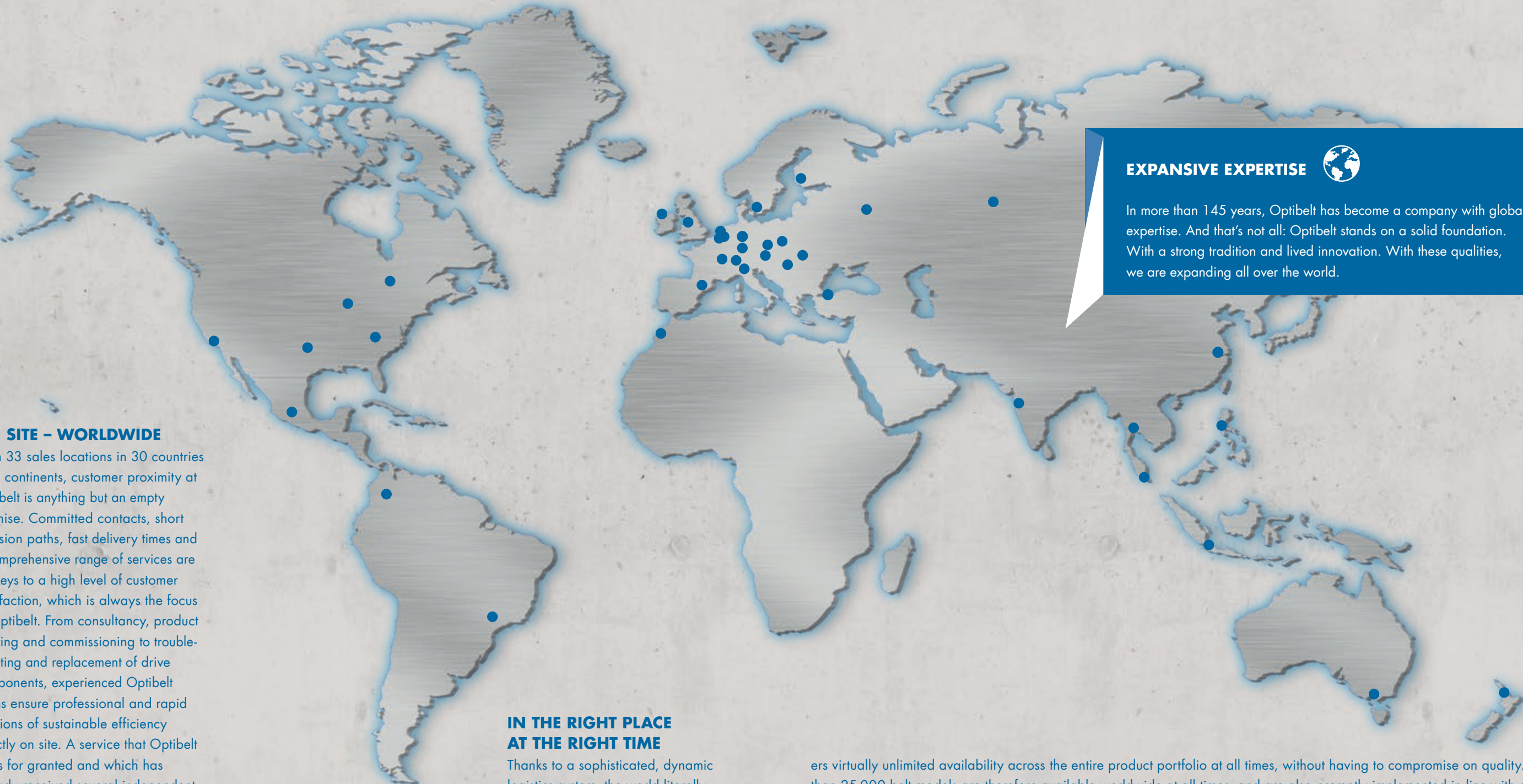


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8 PRODUCTION SITES IN 6 COUNTRIES33 SALES LOCATIONS IN 30 COUNTRIES 26 LOGISTICS CENTRES IN 20 COUNTRIES

ONE WORLD – ONE QUALITY

Optibelt stands internationally for excellent brand quality. To ensure that the label "Made by Optibelt" always meets the same high standard around the globe, the Arntz Optibelt Group has 8 production sites in 6 countries, all of which are equally committed to a demanding quality management system. In order to ensure that there are no deviations in product properties and quality, the same binding guidelines apply to all locations with regard to the manufacturing processes and the quality specifications for the selection and processing of the corresponding raw materials. This means that every single customer worldwide can rely on the outstanding Optibelt quality across all industries.



ON SITE – WORLDWIDE

With 33 sales locations in 30 countries on 6 continents, customer proximity at Optibelt is anything but an empty promise. Committed contacts, short decision paths, fast delivery times and a comprehensive range of services are the keys to a high level of customer satisfaction, which is always the focus at Optibelt. From consultancy, product briefing and commissioning to troubleshooting and replacement of drive components, experienced Optibelt teams ensure professional and rapid solutions of sustainable efficiency directly on site. A service that Optibelt takes for granted and which has already received several independent awards.

IN THE RIGHT PLACE AT THE RIGHT TIME

Thanks to a sophisticated, dynamic logistics system, the world literally becomes a village for Optibelt. With 26 logistics centres in 20 countries, the Arntz Optibelt Group offers its custom-

ers virtually unlimited availability across the entire product portfolio at all times, without having to compromise on quality. More than 25,000 belt models are therefore available worldwide at all times, and are also promptly implemented in line with customer requirements and costs. Speed, flexibility and product diversity are therefore not mutually exclusive, which only underlines Optibelt's high status as a globally sought-after partner for innovative drive solutions.

EXPANSIVE EXPERTISE



In more than 145 years, Optibelt has become a company with global expertise. And that's not all: Optibelt stands on a solid foundation. With a strong tradition and lived innovation. With these qualities, we are expanding all over the world.



# THE WORLD IS IN MOTION. WE ARE THE DRIVE!

The requirements for Optibelt products are as varied as the industries in which they are used. From robust kraftbands for agricultural machinery to high performance V-belts used in road construction and precise timing belts for the textile industry – Optibelt products are at home in many different industries and endure extreme conditions.

Wherever dust, heat, cold, abrasive chemicals or extremely high speeds put the material to the test, Optibelt shows its strengths. Wherever smooth, low vibration running is called for in spite of high speeds, Optibelt ensures lossless operation. Wherever extreme tensile forces or strong friction have to be defied, Optibelt delivers untiring performance. Whether enormous and powerful or delicate and precise.



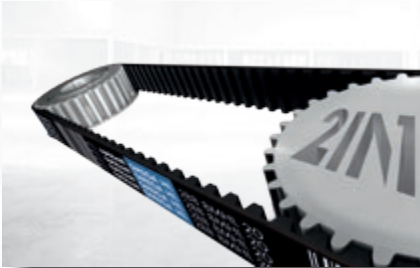
### LOGISTICS AND SERVICES

Page 4 and 5



### RAW EDGE V-BELTS AND KRAFTBANDS

Page 24 to 29



### OMEGA 2iN1

Page 38 and 39



### METAL

Page 68 to 75



### WRAPPED V-BELTS AND KRAFTBANDS

Page 8 to 23



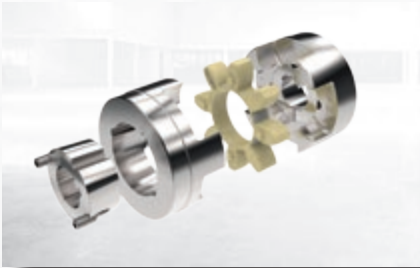
### RIBBED BELTS

Page 30 to 33



### POLYURETHANE TIMING BELTS

Page 50 to 57



### COUPLINGS

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### PERFORMANCE COMPARISON FRICTIONAL

Page 10 and 11



### RUBBER TIMING BELTS

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### SPECIAL BELTS

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### SERVICE TOOLS

Page 80 to 85



### S=C Plus

Page 18 and 19



### PERFORMANCE COMPARISON FORM-FIT

Page 36 and 37



### SPECIAL BELTS

Page 63 to 67



# WRAPPED V-BELTS AND KRAFTBANDS

## optibelt **RED POWER 3** – MAINTENANCE-FREE HIGH PERFORMANCE

Wrapped V-belts consist of a rubber core, tension cord, rubber top surface and an enveloping fabric wrap. The wrapping is particularly gentle on the flanks of the belt pulleys. The design of the tension cords determines the performance and ease of maintenance of the drive. The **optibelt RED POWER 3**, for example, uses a transverse fibre blend that can withstand high dynamic loads. Flexibility, abrasion resistance and bending flexibility included.



Maintenance-free



S=C Plus set-constant,  
always at the nominal  
dimension



Powerful



Use in drive designs



97 % efficiency



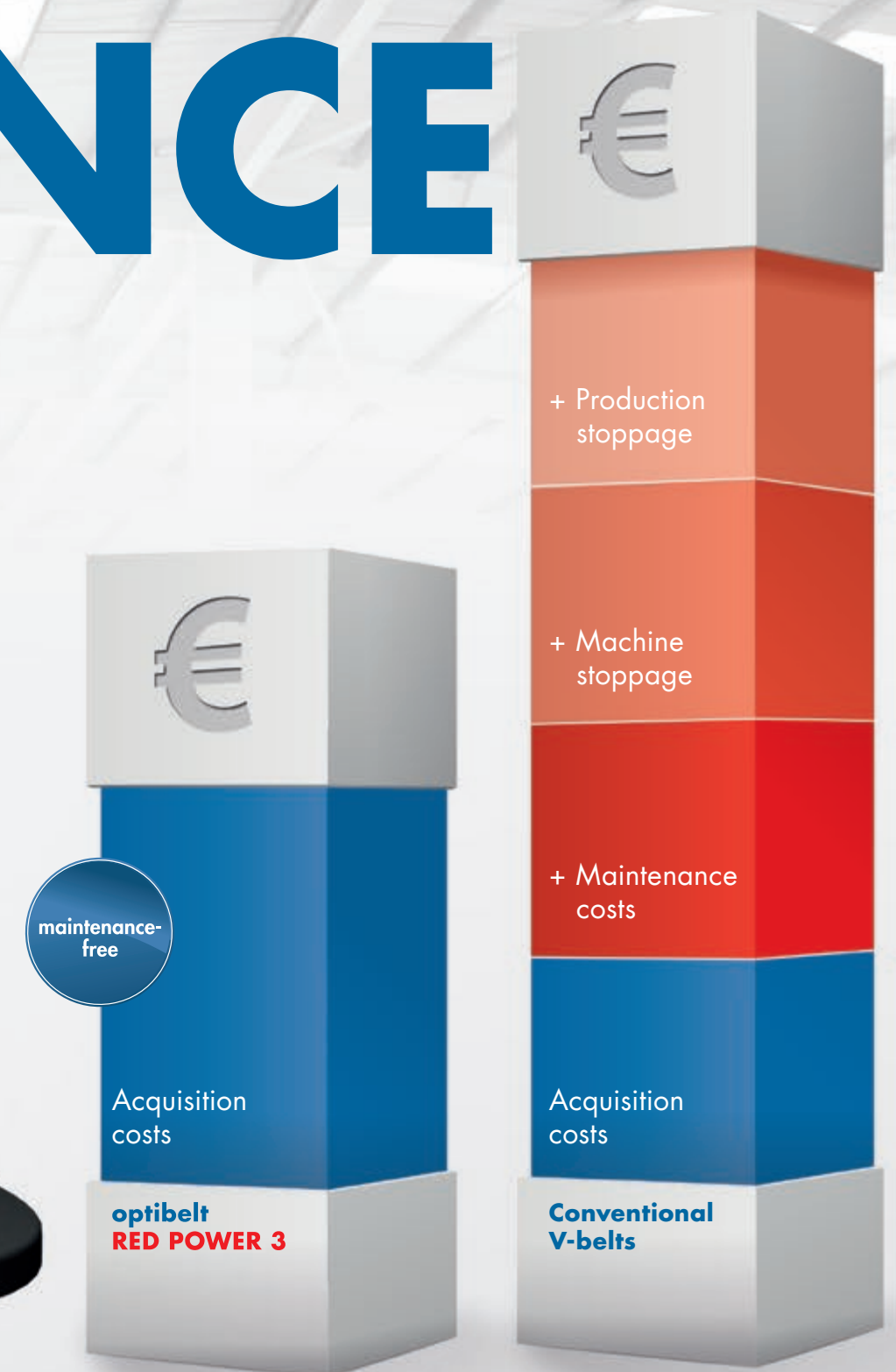
# PERFORMANCE

## FOR EVERY REQUIREMENT

**SPECIALLY DEVELOPED FOR HEAVY-DUTY APPLICATIONS IN MECHANICAL ENGINEERING, THE COMMERCIALLY AVAILABLE NARROW V-BELTS AND **optibelt RED POWER 3** PROVIDE POWERFUL DRIVE SOLUTIONS FOR EVERY REQUIREMENT.**

Both belts operate at a constant rate with an efficiency of almost 97 percent, while commercially available V-belts only achieve a maximum of 94 percent. Smooth power transmission results in more power, while at the same time, using less energy. In addition, the commercially available narrow V-belt offers a favourable price-performance ratio with considerably reduced follow-up costs due to extended maintenance intervals compared to commercially available V-belts.

The **optibelt RED POWER 3** requires a higher initial investment, but is maintenance-free and especially the best choice when high performance is required with a slim design. Since it achieves up to 50 percent higher performance compared to standard V-belts, **optibelt RED POWER 3** belts achieve the same power peaks in identical drive situations without any loss using fewer belts overall. This results in sustainable overall savings in terms of materials and maintenance.



Made in  
Germany

**optibelt**

**RED POWER 3**

S=C Plus  
SET CONSTANT



# optibelt RED POWER 3 S=C Plus

## HIGH PERFORMANCE WEDGE BELTS



Maintenance-free **optibelt RED POWER 3** V-belts and kraftbands have an up to 50 % higher power transmission capacity compared to wedge belts in their standard technical design. Thanks to lower maintenance costs and a reduced demand for replacements due to fewer belts and smaller pulleys, up to 35 % cost savings are possible. This means that up to 18 % of the costs can be saved even for new acquisitions. Additional cost savings result from the space-saving design as well as minimised shafts and bearings.

### Advantages and Characteristics

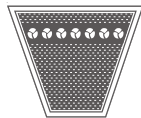
- maintenance-free; optimum tension over the entire lifetime
- new version: more compact, affordable structure compared to drives with conventional wedge belts
- S=C Plus, always the right length for sets without measuring
- up to 97 % efficiency
- suitable for back bend idlers
- problem solver: much longer service life and clearly reduced maintenance requirement when used in overloaded existing drives
- temperature-resistant from -30 °C to +100 °C
- meets ISO 1813 anti-static requirements

### Profiles and Belt Length Ranges

|     |                 |
|-----|-----------------|
| SPZ | 1202 – 3550 mm  |
| SPA | 1207 – 4000 mm  |
| SPB | 1250 – 8000 mm  |
| SPC | 2000 – 10000 mm |
| 3V  | 47.5 – 140 in / |
| 9N  | 1206 – 3556 mm  |
| 5V  | 53 – 315 in /   |
| 15N | 1346 – 8001 mm  |
| 8V  | 100 – 475 in /  |
| 25N | 2540 – 12065 mm |

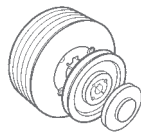
Other profiles and lengths on request

optibelt RED POWER 3 S=C Plus in cross section



### optibelt KS V-GROOVED PULLEYS

for cylindrical bore or for **optibelt TB** taper bushings, special pulleys on request



# optibelt RED POWER 3 Classic S=C Plus

## CLASSIC HIGH-PERFORMANCE V-BELTS



optibelt **RED POWER 3 Classic S=C Plus** has a classic belt section and replaces standard technical models of classic belts in existing drives.

These belt profiles allow a flatter design compared to wedge belts, making smaller pulley diameters possible despite an identical upper width. The minimum pulley diameters are correspondingly smaller.

**Optibelt RED POWER 3 Classic** belts meet the well-known close S=C Plus nominal length tolerances and so are always the right length for sets without re-measuring.

### Applications

As a classic among V-belts, **optibelt RED POWER 3 Classic** is used in many general mechanical engineering applications, mainly in existing drives in America and Asia. Classic belt sections are still very common there.

### Advantages and characteristics

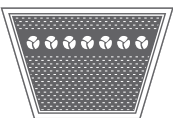
- S=C Plus, always the right length for sets without measuring
- Maintenance-free, optimum tension over the entire lifespan
- Meets ISO 1813 anti-static requirements
- Allows smaller pulley diameters than with wedge belts
- Up to 20% higher performance than in technical standard version

### Sections and belt length ranges

- A 52 – 120 in
- B 52 – 148 in

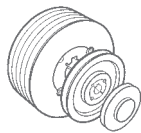
Other sizes available on request

optibelt RED POWER 3 Classic S=C Plus in cross section



### optibelt KS V-GROOVED PULLEYS

for cylindrical bore or for **optibelt TB** taper bushes, special pulleys on request





# optibelt BLUE POWER

## HIGH PERFORMANCE WEDGE BELTS



The new **optibelt BLUE POWER** high performance wrapped wedge belt has a high-strength aramid cord, and is suitable as an individual belt, in a set or as a kraftband and is particularly suited for large, heavily loaded drives.

The **optibelt BLUE POWER** wedge belt has about twice the capacity of a wedge belt in the standard technical design. This translates to up to 100% extra performance.

If several wedge belts are used next to each other, they must be ordered as a set.

### Advantages and Characteristics

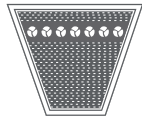
- new version:  
ultra-compact, ultra cost-efficient design possible compared to drives with wrapped wedge belts
- problem solver:  
much longer lifetime and reduced maintenance when used in existing overloaded systems
- suitable for back bend idlers
- powerful:  
approx. 100% higher performance compared to standard wedge belt
- suitable for extremely heavily loaded drives
- temperature-resistant  
from -30 °C to +100 °C
- meets ISO 1813 anti-static requirements
- increased chemical resistance

### Profiles and Belt Length Ranges

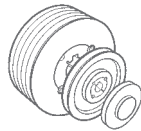
|     |                |
|-----|----------------|
| SPB | 1500 – 8000 mm |
| SPC | 2000 – 9000 mm |
| 8V  | 160 – 355 in / |
| 25N | 4064 – 9017 mm |

Other profiles and lengths on request

optibelt BLUE POWER  
in cross section



**optibelt KS  
V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request



# optibelt SK S=C Plus

## WEDGE BELTS



The **optibelt SK** wrapped wedge belt was developed particularly with mechanical engineering in mind, where it replaces the classic V-belt. It transmits some 50% more power in comparison and so makes it possible to use more compact and lower-priced drives as a result when making new acquisitions.

Existing drives, such as B/17, with a classic section can be replaced with the SPB wedge belt section. In order to do so, it is essential to take account of the minimum pulley diameter required for wedge belts, which is greater than for classic V-belts, despite its identical width, due to the increased thickness of the wedge belt. It is also necessary to use suitable pulleys for wedge belts.

The wrapped wedge belt has the same outstanding attributes of the Optibelt **S=C Plus**, with an efficiency of nearly 97%, and is always the right length for sets without measuring.

### Advantages and Characteristics

- high efficiency
- considerable energy-saving
- excellent running properties
- superior price-performance ratio
- low maintenance costs
- S=C Plus, always the right length for sets without measuring

### Profiles and Belt Length Ranges

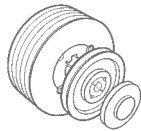
|     |                  |
|-----|------------------|
| SPZ | 487 – 3550 mm    |
| SPA | 732 – 4500 mm    |
| SPB | 1250 – 8000 mm   |
| SPC | 2000 – 12 500 mm |
| 3V  | 25 – 140 in /    |
| 9N  | 635 – 3556 mm    |
| 5V  | 53 – 355 in /    |
| 15N | 1346 – 9017 mm   |
| 8V  | 100 – 500 in /   |
| 25N | 2540 – 12 700 mm |

Other lengths on request

optibelt SK S=C Plus  
in cross section



**optibelt KS  
V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request





# optibelt VB S=C Plus

## CLASSIC V-BELTS



Due to its versatile applications, the **optibelt VB** is the classic model among drive belts. The qualities of this product really come into their own with difficult drives in agricultural machines just as with unusual drive solutions, such as V-flat drives in mechanical engineering.

**optibelt VB** classic V-belts are **S=C Plus** and are always the right length for sets without measuring.

### Advantages and Characteristics

- excellent operating reliability
- up to 97 % efficiency
- optimum operating features
- uniform power transmission
- abrasion-resistant cover fabric
- many special designs
- for universal application

### Profiles and Belt Length Ranges

|      |                  |
|------|------------------|
| 5    | 200 – 610 mm     |
| Y/6  | 295 – 865 mm     |
| 8    | 335 – 1270 mm    |
| Z/10 | 312 – 2522 mm    |
| A/13 | 437 – 5030 mm    |
| B/17 | 610 – 7140 mm    |
| 20   | 950 – 6050 mm    |
| C/22 | 1148 – 8058 mm   |
| 25   | 1460 – 9060 mm   |
| D/32 | 2075 – 11 275 mm |
| E/40 | 3080 – 12 580 mm |

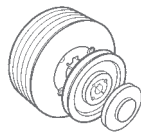
Other lengths on request



optibelt VB S=C Plus  
in cross section

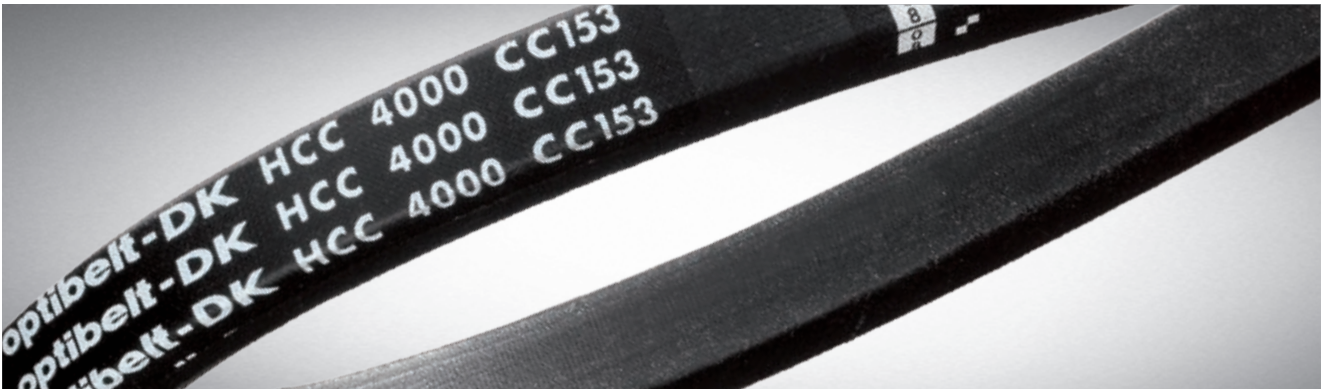


**optibelt KS**  
**V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request



# optibelt DK

## DOUBLE SECTION V-BELTS



Due to the tensile cord situated in the centre of the belt section, **optibelt DK** double section V-belts are extremely flexible and low-stretch.

They are therefore particularly suitable for use where two-way bending occurs.

**optibelt DK** double section V-belts are used if several pulleys are located on one level and the direction of rotation of one or several driven pulleys is to be changed without crossing the belt. The **optibelt DK** double section V-belt is ideally suited for use in typical serpentine designs.

Special versions with different belt structures are possible. Double section V-belts are mainly used for agricultural machinery. They are increasingly used, however, in mechanical engineering.

### Advantages and Characteristics

- flexible and low-stretch design
- excellent running properties
- outstanding flexibility
- low-stretch characteristics
- high level of performance

### Profiles and Belt Length Ranges

|          |                |
|----------|----------------|
| AA / HAA | 2000 – 3920 mm |
| BB / HBB | 1980 – 5639 mm |
| CC / HCC | 2280 – 5750 mm |
| DD / HDD | on request     |
| 22 x 22  | 5180 – 6270 mm |
| 25 x 22  | on request     |

Further dimensions available on request

optibelt DK  
in cross section



**optibelt KS**  
**V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request



# MINIMUM TOLERANCE. MAXIMUM EFFECT.

- **SAVING: SAVES COSTS FOR ARTICLE MAINTENANCE AND STORAGE**
- **WITHOUT EXTRA SET IDENTIFICATION: ONE BELT FOR EACH POSITION**
- **SET CONSTANT: CAN BE USED IN A SET WITHOUT ADDITIONAL MEASUREMENT**



The norm is not enough for us. Because precision is in demand in our business. This is the only way our customers can count on the best. This is why our **S=C Plus** V-belts are closer to the nominal size than standards such as DIN and ISO specify. You cannot buy our **S=C Plus** V-belts as a set. They do not have a set ID. Thanks to the closest tolerances to the nominal dimension, each belt fits anywhere in the set without any additional measurement.



optibelt **SK** S=C Plus



optibelt **VB** S=C Plus



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

**S=C Plus:** Due to very close tolerances to the nominal size, our set constant V-belts can be used anywhere without being measured. This is quality made by Optibelt.

### THE OPTIBELT

#### **S=C Plus** STANDARD

from  $\pm 2$  mm (depending on length)



### THE PERMITTED

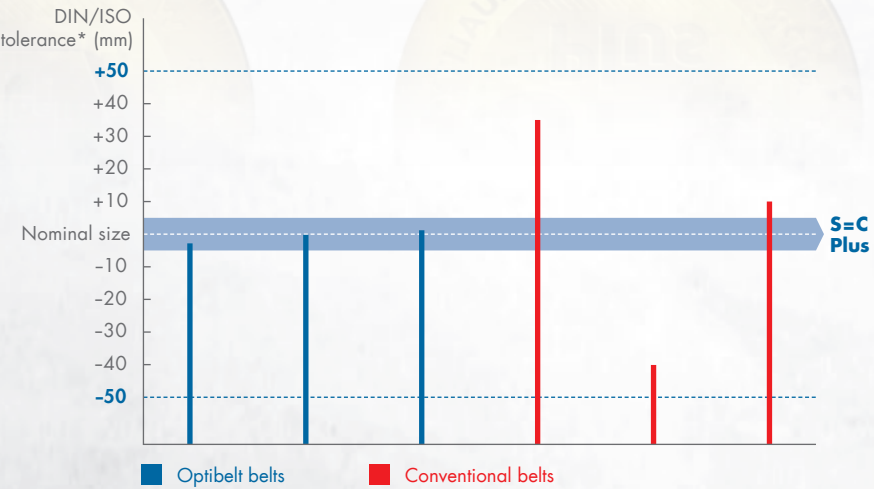
#### DIN/ISO TOLERANCE

$\pm 10\%$ \*



### THE DIAGRAM SHOWS:

Our belt sizes are closer to the nominal size than all others. The belt dimensions of our competitors are also within the standard range, but our **S=C Plus** V-belts are even closer to the nominal length than the standard specifies for belt sets in multi-groove drives. They have a constant length. It's the one that it says on it. And that is why we called it **S=C Plus**: Set = Constant. Our guarantee for the lowest tolerances.



\* at nominal size 5,000 mm

Example: \* Nominal size: 5,000 mm, S=C Plus:  $\pm 2$  mm, DIN/ISO:  $\pm 50$  mm, standard for multi-groove drives:  $\pm 6$  mm



# optibelt KB RED POWER 3

## HIGH PERFORMANCE KRAFTBANDS



Maintenance-free **optibelt RED POWER 3** V-belts and kraftbands achieve an up to 50% higher power transmission capacity compared to wedge belts in standard technical design. Thanks to lower maintenance costs and a reduced demand for replacements due to fewer belts and smaller pulleys, up to 35% cost savings are possible. This means that up to 18% of the costs can be saved even for new acquisitions. Additional cost savings are due to the space-saving design as well as minimised shafts and bearings.

The tension cord consists of a special polyester cord. Thanks to special treatment of the tension cord, the **optibelt RED POWER 3** high performance wedge belt is very low-stretch and maintenance-free so that re-tensioning is not necessary. The transverse fibre blend above and below the tension cord provides especially high dimensional stability. The abrasion-resistant special wrapping fabric improves the flexibility compared to wedge belts in technical standard design.



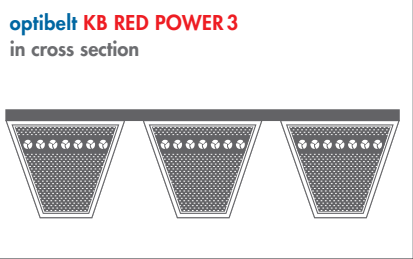
### Advantages and Characteristics

- single belt characteristics
- low-vibration operation
- V-grooved / flat pulley drives
- coupling drives
- conveying jobs

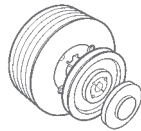
### Profiles and Belt Length Ranges

|        |                 |
|--------|-----------------|
| SPB KB | 2000 – 8000 mm  |
| SPC KB | 3000 – 10000 mm |
| 3V KB  | 50 – 140 in /   |
| 9J     | 1270 – 3556 mm  |
| 5V KB  | 56 – 315 in /   |
| 15J    | 1422 – 8001 mm  |
| 8V KB  | 100 – 475 in /  |
| 25J    | 2540 – 12065 mm |

Other profiles and lengths on request



**optibelt KS V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB taper bushings**,  
special pulleys on request



# optibelt KB BLUE POWER

## HIGH PERFORMANCE KRAFTBANDS

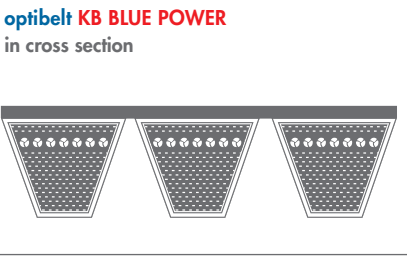


**optibelt KB BLUE POWER** kraftbands are made of wrapped **optibelt BLUE POWER** high performance wedge belts which are joined together by a highly wear-resistant top surface. This compact drive product is the preferred choice for handling extreme shock loads, large centre distances and vertical shafts.

Depending on the application, up to five ribs may be used per kraftband. If several kraftbands are used next to each other, they must be ordered as a set.

### Advantages and Characteristics

- new version:  
ultra-compact, ultra cost-efficient design possible compared to drives with wrapped wedge belts
- problem solver:  
much longer lifetime and reduced maintenance when used in existing overloaded systems
- suitable for back bend idlers
- powerful:  
approx. 100% higher performance compared to **optibelt KB SK** kraftbands
- increased chemical resistance
- suitable for extremely heavily loaded drives
- temperature-resistant  
from -30 °C to +100 °C
- meets ISO 1813 anti-static requirements
- single belt characteristics
- low-vibration operation
- V-grooved / flat pulley drives
- coupling drives
- conveying jobs

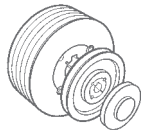


### Profiles and Belt Length Ranges

|        |                 |
|--------|-----------------|
| SPB KB | 1200 – 4750 mm  |
| SPC KB | 1200 – 5600 mm  |
| 5V KB  | 80 – 315 in /   |
| 15J    | 2032 – 8001 mm  |
| 8V KB  | 100 – 475 in /  |
| 25J    | 2540 – 12065 mm |

Other lengths on request

**optibelt KS V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB taper bushings**,  
special pulleys on request





# optibelt KB SK

## KRAFTBANDS WITH WEDGE BELTS



**optibelt KB SK** kraftbands consist of single high-quality wrapped belts which are joined together with a top surface. Depending on the application, up to five wedge belts may be used per kraftband.

In special cases, kraftbands with more than five V-belts can be supplied. If several kraftbands are used next to each other, they must be ordered as a set.

**optibelt KB SK** kraftbands are used above all with extreme shock loads or large centre distances in combination with small pulley diameters and with vertical axes.

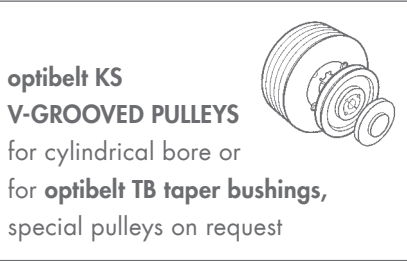
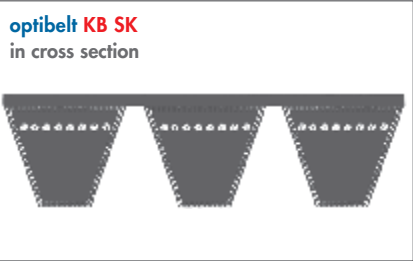
### Advantages and Characteristics

- single belt characteristics
- low-vibration operation
- V-grooved / flat pulley drives
- coupling drives
- conveying jobs

### Profiles and Belt Length Ranges

|          |                  |
|----------|------------------|
| SPZ      | 1250 – 3550 mm   |
| SPA      | 1250 – 4500 mm   |
| SPB      | 2000 – 8000 mm   |
| SPC      | 3000 – 12 500 mm |
| 3V / 9J  | 50 – 140 in      |
| 5V / 15J | 56 – 355 in      |
| 8V / 25J | 100 – 475 in     |

Other dimensions on request



# optibelt KB VB

## KRAFTBANDS WITH CLASSIC V-BELTS



**optibelt KB VB** kraftbands consist of single high-quality wrapped belts which are joined together with a top surface. Depending on the application, up to five classic V-belts may be used per kraftband.

In special cases, kraftbands with more than five V-belts can be supplied. If several kraftbands are used next to each other, they must be ordered as a set.

**optibelt KB VB** kraftbands are used above all with extreme shock loads or large centre distances in combination with small pulley diameters and with vertical shafts.

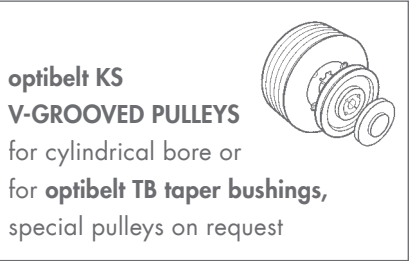
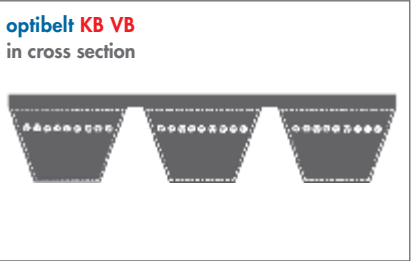
### Advantages and Characteristics

- single belt characteristics
- low-vibration operation
- V-grooved / flat pulley drives
- coupling drives
- conveying jobs

### Profiles and Belt Length Ranges

|      |                  |
|------|------------------|
| A KB | 1200 – 4750 mm   |
| B KB | 1200 – 5600 mm   |
| C KB | 2286 – 6300 mm   |
| D KB | 2500 – 17 780 mm |
| E KB | 3000 – 12 500 mm |

Other dimensions on request

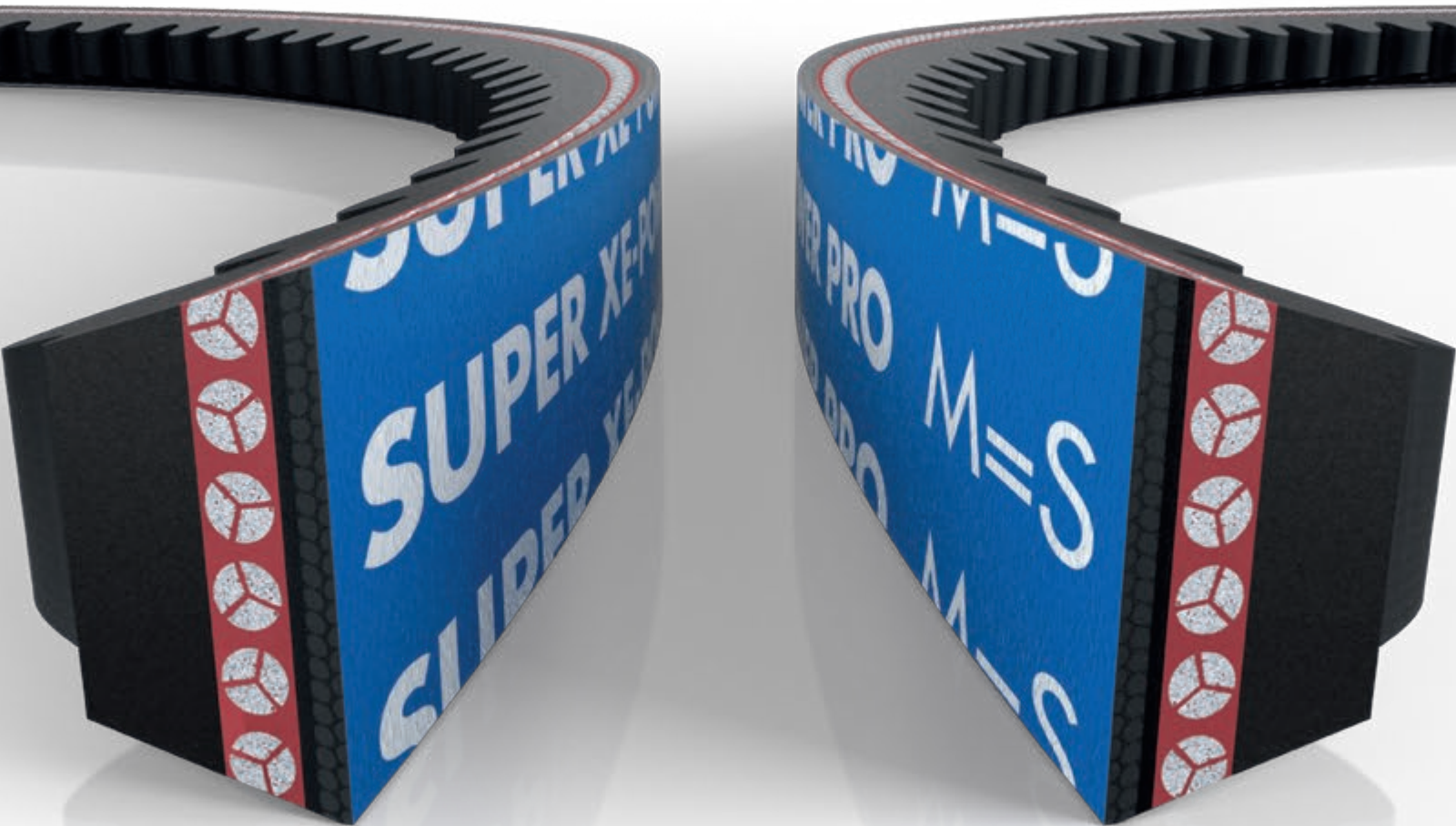




# THE NEXT GENERATION

The maintenance-free **optibelt SUPER XE-POWER PRO M=S** is one of the best performing drive belts on the market. The innovative design of this open-flank V-belt opens up new scope in the design of frictional drives, even on the smallest pulley diameters, in extreme temperature ranges and at maximum speeds.

| PROFILES                                 |
|--|
| XPZ; XPA; XPB; XPC;<br>3VX/9NX; 5VX/15NX |
| 587 – 3550 mm                            |





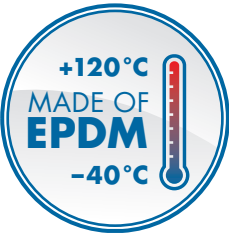
# optibelt SUPER XE-POWER PRO M=S

## HIGH PERFORMANCE WEDGE BELTS



Continuous further development of the manufacturing process, improved materials, a low-stretch polyester tensile member and optimised serration form the basis of this new generation of belts.

The **optibelt SUPER XE-POWER PRO M=S** makes complex drive solutions possible in all areas of mechanical engineering under the most difficult conditions and extreme operational demands.



### Advantages and Characteristics

- belt made of EPDM
- temperature-resistant from -40 °C to +120 °C
- red cushion compound for optimised bonding of the tension cord
- maintenance-free
- suitable for back bend idlers
- high power transmission with up to 20% higher efficiency compared to standard V-belts
- M=S is always the right length for sets without measuring
- efficiency-optimised
- optimised, exceptionally smooth running properties
- static conductive; meets ISO 1813 antistatic requirements
- ATEX and RoHS compliant

### Profiles and Belt Length Ranges

|     |                |
|-----|----------------|
| XPZ | 587 – 3550 mm  |
| XPA | 707 – 3550 mm  |
| XPB | 1250 – 3550 mm |
| XPC | 2000 – 3550 mm |

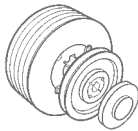
|          |             |
|----------|-------------|
| 3VX/9NX  | 25 – 140 in |
| 5VX/15NX | 50 – 140 in |

Other sizes available on request

optibelt SUPER XE-POWER PRO M=S  
in cross section



**optibelt KS**  
**V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request



# optibelt SUPER X-POWER M=S

## HIGH PERFORMANCE WEDGE BELTS



The set-constant **optibelt SUPER X-POWER M=S** V-belt is raw edge and moulded cogged. The belt is suitable for its reliability, durability and efficiency for demanding, multi-grooved drives.

Due to their identical length, the belts are always the right length for sets without measuring and are designed for extremely high loads.

### Advantages and Characteristics

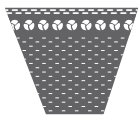
- high performance, raw edge, moulded cogged
- up to 15% higher performance
- extremely low-stretch
- extended maintenance intervals
- optimised running characteristics
- excellent resistance to oil and heat
- M=S set-constant; is always the right length for sets without measuring
- energy and weight saving
- meets ISO 1813 anti-static requirements

### Profiles and Belt Length Ranges

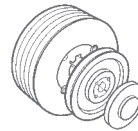
|      |                |
|------|----------------|
| XPZ  | 587 – 3550 mm  |
| XPA  | 707 – 3550 mm  |
| XPB  | 1250 – 3550 mm |
| XPC  | 2000 – 3550 mm |
| 3VX  | 25 – 140 in /  |
| 9NX  | 635 – 3556 mm  |
| 5VX  | 50 – 140 in /  |
| 15NX | 1270 – 3556 mm |

Other dimensions on request

optibelt SUPER X-POWER M=S  
in cross section



**optibelt KS**  
**V-GROOVED PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushings,  
special pulleys on request





# optibelt SUPER KBX-POWER

## HIGH PERFORMANCE KRAFTBANDS



optibelt SUPER KBX-POWER kraftbands consist of optibelt SUPER X-POWER V-belts which are joined together with a highly wear-resistant top surface.

These kraftbands display considerably improved tension behaviour compared to conventional raw edge kraftbands. Depending on the application, up to five ribs may be used per kraftband. If several kraftbands are used next to each other, they must be ordered as a set.

optibelt SUPER KBX-POWER kraftbands are recommended for use with extreme impact loads, vertically running axes, large centre distances and many other special tasks in the field of mechanical and vehicle engineering. The power ratings correspond to the profiles of optibelt SUPER X-POWER V-belts.

### Advantages and Characteristics

- compact drive solutions
- increased power transmission capacity
- low-stretch / low maintenance
- optimised running characteristics
- small pulley diameter / large belt span

#### Kraftbands

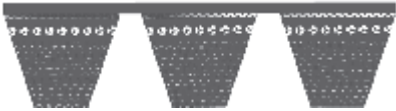
- single belt characteristics
- low-vibration operation
- V-grooved / flat pulley drives
- coupling drives
- conveying jobs

### Profiles and Belt Length Ranges

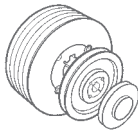
|        |                |
|--------|----------------|
| 3VX KB | 50 – 140 in /  |
| 9JX    | 1270 – 3556 mm |
| 5VX KB | 50 – 140 in /  |
| 15JX   | 1270 – 3556 mm |

Other dimensions on request

optibelt SUPER KBX-POWER  
in cross section

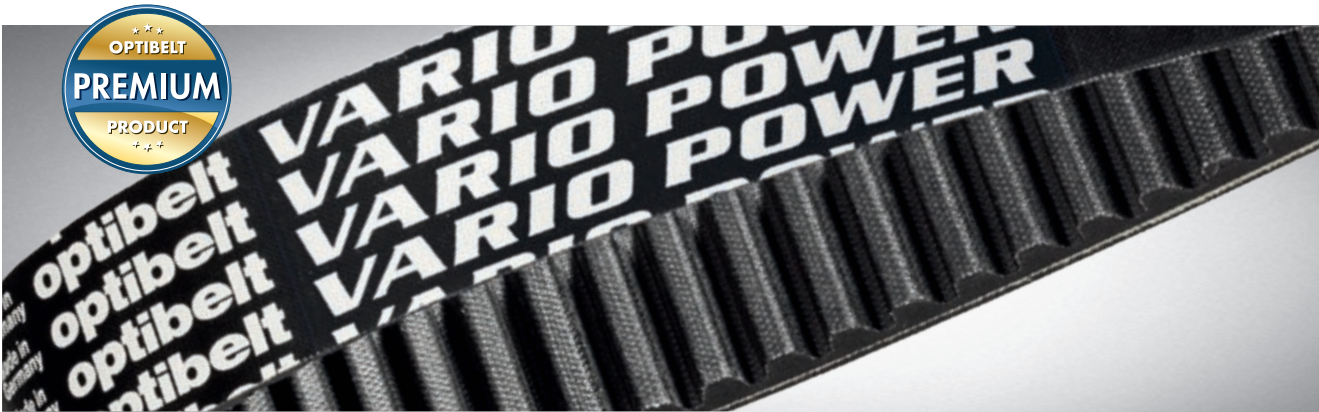


optibelt KS  
V-GROOVED PULLEYS  
for cylindrical bore or  
for optibelt TB taper bushings,  
special pulleys on request



# optibelt VARIO POWER

## VARIABLE SPEED BELTS



The base compound consists of a poly-chloroprene rubber compound with fibres inlaid transversely to the running direction. The high-quality and extremely low-stretch polyester or aramid tension cord is embedded in a cushion compound. It is reinforced with a fabric outer surface, and the transverse fibres incorporated provide transverse rigidity without sacrificing flexibility.

optibelt VARIO POWER variable speed belts are the preferred choice for infinitely variable speed control. The special belt structure allows high dynamic loads, superior power transmission capability and good control characteristics.

Also available as a double-sided belt.

### Advantages and Characteristics

- high power transmission
- long service life
- smooth running even at high speeds
- high flexibility
- optimised heat dissipation

### Profiles and Belt Length Ranges

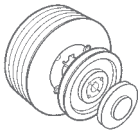
|                |                 |                                |
|----------------|-----------------|--------------------------------|
| Width:         | from 10 to      | ~85 mm                         |
| Height:        | from 5 to       | ~30 mm                         |
| Inside length: | from 550 to     | ~3500 mm                       |
| Angles:        | from 22° to 42° | can be manufactured on request |

Other dimensions on request

optibelt VARIO POWER  
in cross section



optibelt KS  
V-GROOVED PULLEYS  
for cylindrical bore or  
for optibelt TB taper bushings,  
variator pulleys on request





# RIBBED BELTS

## optibelt **RB** – FLEXIBLE SERVICE PROVIDER

The ribbed belt combines the high flexibility of the flat belt with the high performance of the V-belt. The wear-resistant rubber compound ensures smooth running, maximum oil and heat resistance and a long service life.



Very good dynamic power transmission capability



High performance



Low vibration, low noise



Withstands shock loads and short-term overload



High belt speeds are possible



Use with deflection pulleys is possible



# optibelt RB

## RIBBED BELTS



The **optibelt RB** ribbed belt combines the high flexibility of flat belts with the high performance of V-belts. The V-shaped parallel ribs are made from a wear-resistant rubber compound. The high strength tension cord is designed for the many applications of the ribbed belt.

It is embedded in a rubber adhesive mixture and covers the entire width of the ribbed belt. Fibre-reinforced, wear-resistant rubber compounds ensure quiet operation, oil and heat resistance and a long belt life.

The small minimum pulley diameters meet the requirements of drives with high speed ratios as well as the demands of slow running drives.

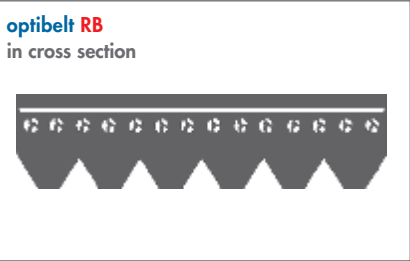
**Advantages and Characteristics**

- very good dynamic power transmission capability
- good coefficient of friction and high performance
- low vibration and noise
- withstands shock loads and short-term overload
- high belt speeds are possible
- can be used with back bend idlers, e.g. in serpentine drives

**Profiles and Belt Length Ranges**

|    |                 |
|----|-----------------|
| PH | 698 – 2155 mm   |
| PJ | 280 – 2489 mm   |
| PK | 630 – 2845 mm   |
| PL | 954 – 6096 mm   |
| PM | 2286 – 15266 mm |

Other dimensions on request

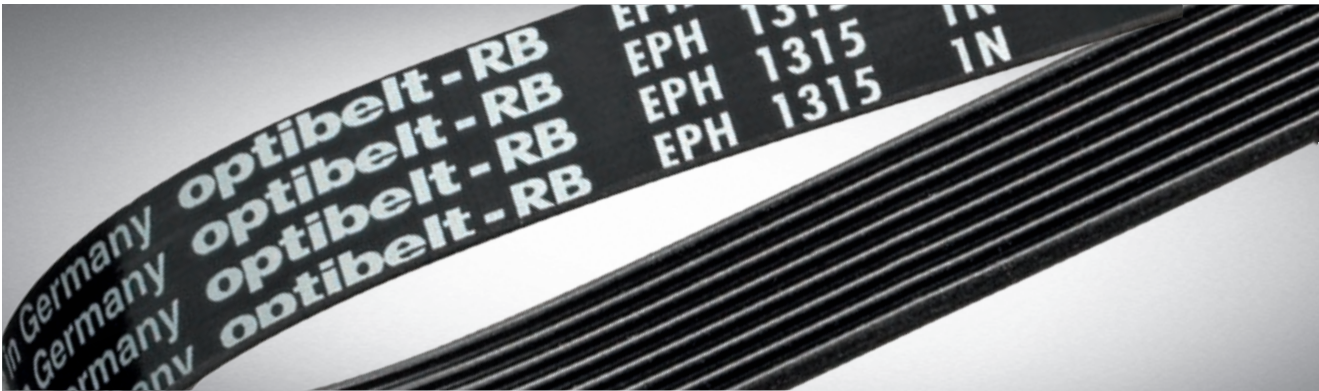


**RIBBED BELT PULLEYS**

all standard pulleys,  
special pulleys on request

# optibelt ERB

## ELASTIC RIBBED BELTS



Elastic ribbed belt profiles EPH and EPJ consist of a superstructure, an elastic tension cord and a base compound.

The superstructure is made from a fibre-reinforced rubber mixture. The fibres are laid perpendicular to the direction of belt travel and stabilise the belt during dynamic operation.

The tension cord is a high modulus polyamide material embedded in a rubber compound and covers the entire width of the ribbed belt. The rib compound is characterised by high wear resistance and damping properties.

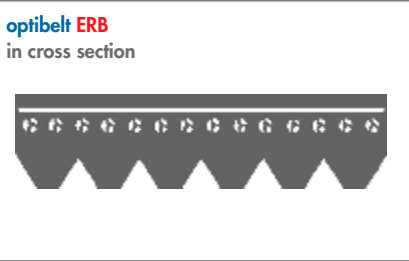
**Advantages and Characteristics**

- assembly is possible on fixed centres with no need for adjustment for belt tensioning
- easy assembly on the production line
- only one belt length may be usable for different drive configurations
- good shock load resistance due to high elasticity of belt
- maintenance-free
- easy assembly in service areas

**Profiles and Belt Length Ranges**

|     |               |
|-----|---------------|
| EPH | 698 – 2155 mm |
| EPJ | 280 – 2489 mm |

Other sizes available on request



**RIBBED BELT PULLEYS**

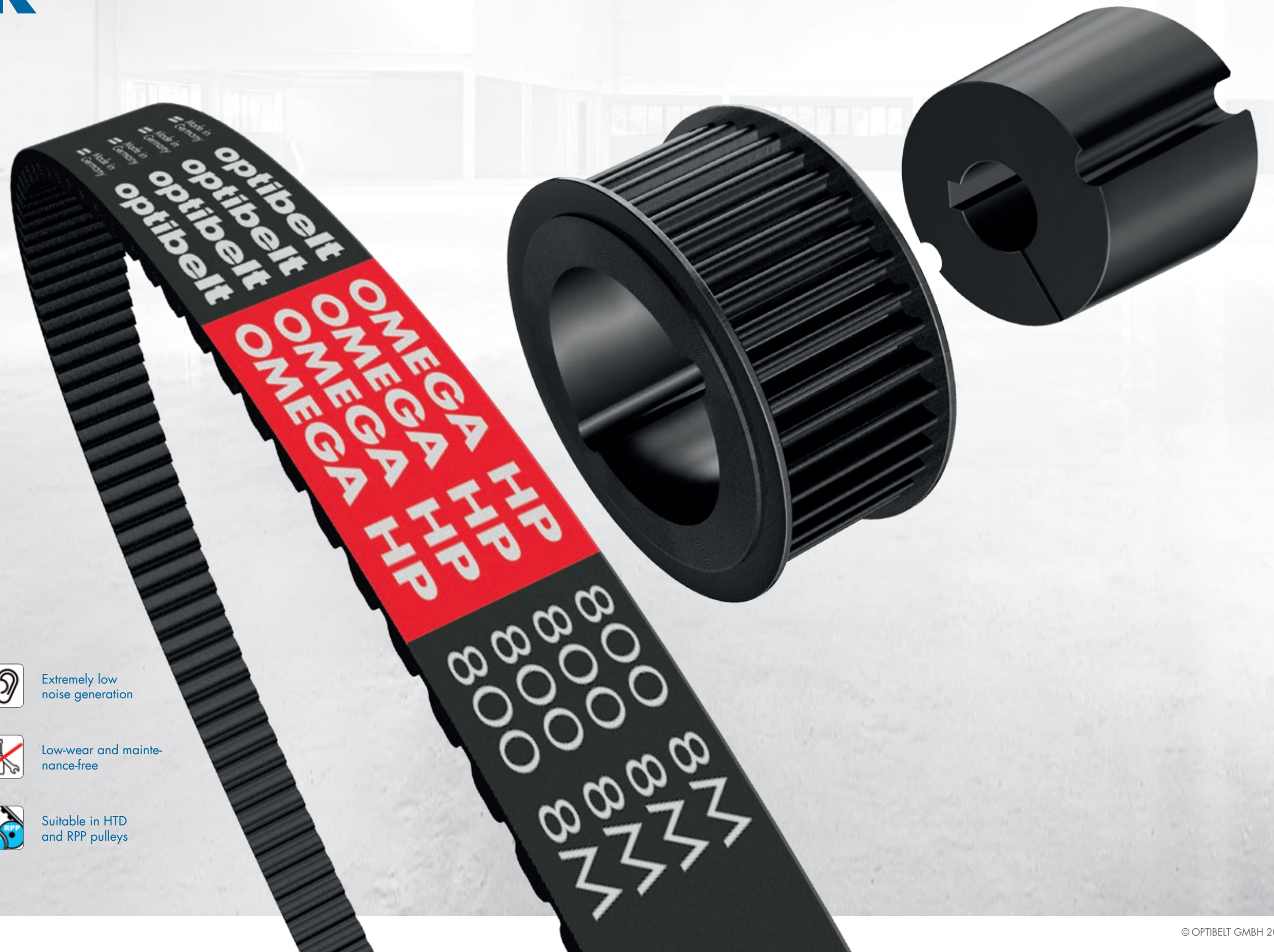
standard range,  
special pulleys on request



# TIMING BELTS RUBBER

optibelt **OMEGA** – POWERFUL AND UNIVERSAL

High performance timing belt for extreme loads and synchronous power transmission



Temperature-resistant:  
-30 °C to +100 °C



Extremely low  
noise generation



Up to 2 times  
power transmission\*



Low-wear and mainte-  
nance-free



Up to 18 times longer  
service life\*



Suitable in HTD  
and RPP pulleys

\* compared to standard timing belts



# MASTERY OF THE DRIVE

TIMING BELTS OF THE **optibelt OMEGA** SERIES ARE OPTIMISED FOR USE IN SYNCHRONOUS POWER AND POSITIONING DRIVES.

Since their geometry has been matched to the common rounded pulleys, they are not only universally applicable, but also work maintenance-free without speed loss and with a constant transmission ratio, while at the same time running very quietly. While the **optibelt OMEGA** standard belt meets medium power requirements for slow and fast running drives, the **optibelt OMEGA HP** is the best choice for extremely heavily loaded, fast running drives. It is not only narrower, which reduces the bearing load and further reduces material costs for the drive implementation, but also achieves a performance level that is up to 150 percent higher than that of a standard belt in a direct comparison with it.





# OMEGA 2IN1

## PERFECT FIT WITH HTD AND RPP


**OPTIMAL COMPATIBILITY**

The enhanced profile of the **optibelt OMEGA 2in1** fits perfectly with HTD and RPP drive pulleys with 3, 5, 8 and 14 mm gaps. The **optibelt OMEGA 2in1** is the logical further development of round and curved tooth profiles. With an efficiency of 98 %, the **optibelt OMEGA 2in1** combines maximum economy with optimum power transmission. Its special profile is compatible with HTD and RPP drive pulleys. That is: One drive belt covers both pulley types perfectly – without any double stockholding. And thanks to the special tooth profile, it is audibly quieter than other timing belts.

**THE PROFILE MAKES THE DIFFERENCE**

Thanks to the special tooth form of the **optibelt OMEGA 2in1**, air can escape laterally from the drive pulleys. Contact with the drive pulley is virtually frictionless and noiseless.





Reduced noise level due to special Omega tooth shape



Efficiency up to 98 %




Temperature-resistant:  
-30 °C to +100 °C



Maintenance-free



For use in HTD  
and RPP pulleys

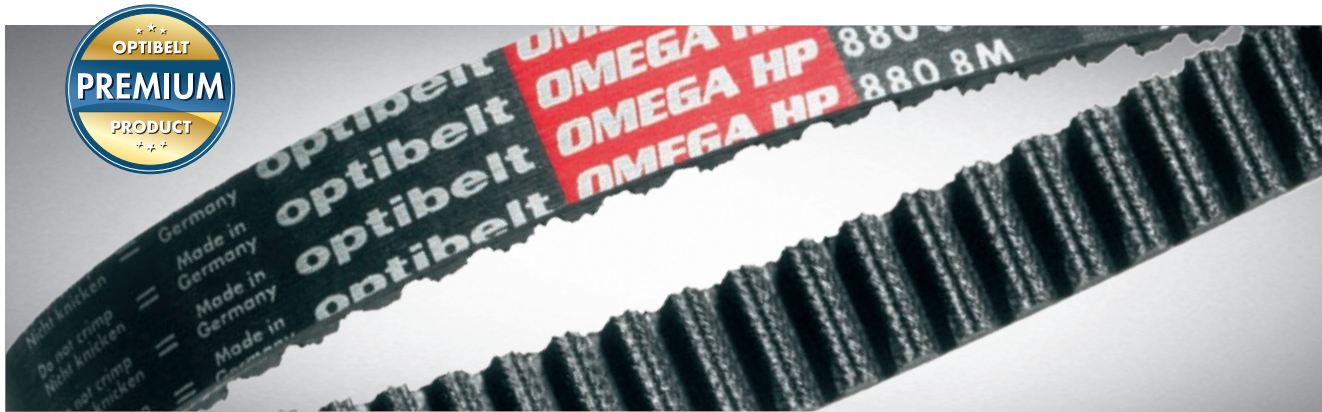


No double stockholding



optibelt **OMEGA HP**

HIGH PERFORMANCE CHLOROPRENE TIMING BELTS



The **optibelt OMEGA HP** high performance timing belt was especially developed for heavily loaded, high speed drives. Improved materials and highly developed process engineering form the basis for this very high performance level.

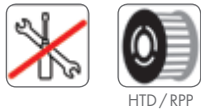
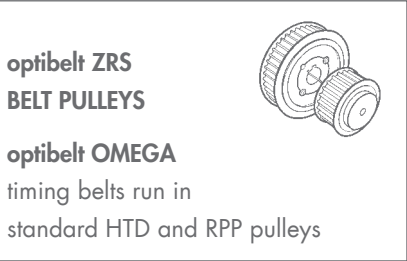
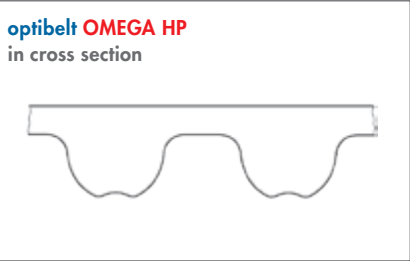
For every power transmission requirement there is an appropriate belt section. Faster, stronger, more compact – that’s how the **optibelt OMEGA HP** presents itself. A timing belt to meet the highest demands.

Advantages and Characteristics

- glass cord
- suitable for low and high speed, high dynamic load drives
- shear-resistant fabric with minimised wear and friction
- up to 2 times the power transmission capacity of the **optibelt OMEGA** standard

Profiles and Belt Length Ranges

|  |                |
|--|----------------|
| 2M HP                                    | 74 – 1224 mm   |
| 3M HP                                    | 111 – 1692 mm  |
| 5M HP                                    | 180 – 2525 mm  |
| 8M HP                                    | 288 – 3600 mm  |
| 14M HP                                   | 966 – 4578 mm  |
| D8M HP                                   | 1120 – 3600 mm |
| Other profiles and dimensions on request |                |



optibelt **OMEGA HL**

HIGH PERFORMANCE CHLOROPRENE TIMING BELTS



On drives with a low belt speed, **optibelt OMEGA HL** timing belts surpass the capacity of **optibelt OMEGA HP** by up to 15 %. In addition, the design was optimised so that the **optibelt OMEGA HL** is much more suitable for shock loaded drives with fluctuating loads.

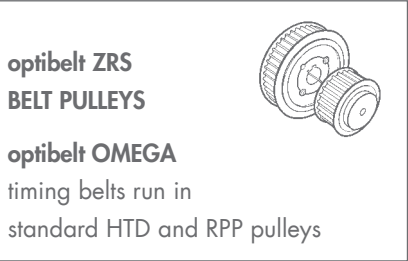
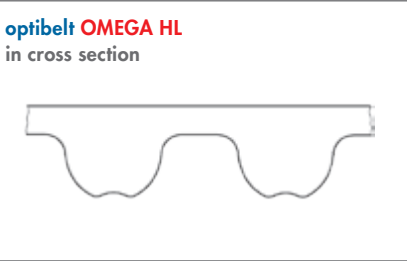
When used for new drive designs in these types of application, the **optibelt OMEGA HL** achieves the highest possible functional reliability in combination with optimum efficiency.

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**

Profiles and Belt Length Ranges

|  |               |
|--|---------------|
| 8M HL                                    | 288 – 3600 mm |
| 14M HL                                   | 966 – 4578 mm |
| Other profiles and dimensions on request |               |





# optibelt OMEGA

## CHLOROPRENE TIMING BELTS



The **optibelt OMEGA** timing belt has the same performance level as the established **optibelt HTD** timing belt and supersedes it. The **optibelt OMEGA** is best for medium performance drives in all speed ranges without heavy shock loading.

Double-sided timing belts for drives with reversible speed can be delivered with HTD profiles.

**optibelt OMEGA** timing belts set standards for synchronous power transmission and positioning drives.

### Advantages and Characteristics

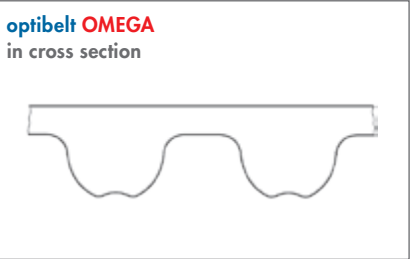
- glass cord
- synchronous speed
- highest precision
- perceptibly lower noise level due to the **optibelt OMEGA** tooth profile
- maintenance-free
- temperature-resistant from -30 °C to +100 °C
- up to 98 % efficiency

### Profiles and Belt Length Ranges

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

D8M 1120 – 3600 mm

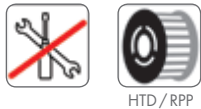
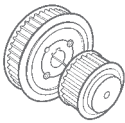
Other profiles and dimensions on request



### optibelt ZRS TIMING BELT PULLEYS

#### optibelt OMEGA

timing belts run in standard HTD and RPP pulleys



# optibelt OMEGA FAN POWER

## HIGH PERFORMANCE CHLOROPRENE TIMING BELTS



The requirements placed upon fan drives in the oil industry are high. The following product characteristics are expected: long service life, maintenance-free, high level of power transmission and anti-static behaviour in accordance with ISO 9563, non-sensitive to external influences such as temperature fluctuations and moisture.

The special tooth form and the use of particularly resistant materials ensure that **optibelt OMEGA FAN POWER** fulfills these fan drive requirements without compromise.

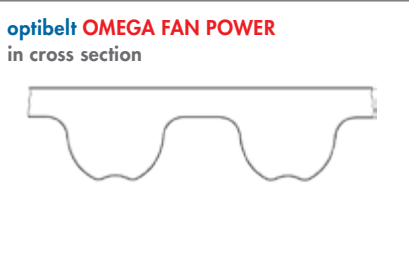
### Advantages and Characteristics

- glass cord
- anti-static in accordance with ISO 9563
- optimised for low tooth meshing wear
- long service life
- maintenance-free
- high efficiency
- constant flow of air thanks to synchronous operation
- resistant to external influences such as variations in temperature and moisture

### Profiles and Belt Length Ranges

- |        |                |
|--------|----------------|
| 8M FP  | 960 – 3048 mm  |
| 14M FP | 1400 – 4578 mm |

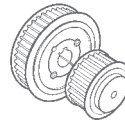
Other dimensions on request



### optibelt ZRS TIMING BELT PULLEYS

#### optibelt OMEGA

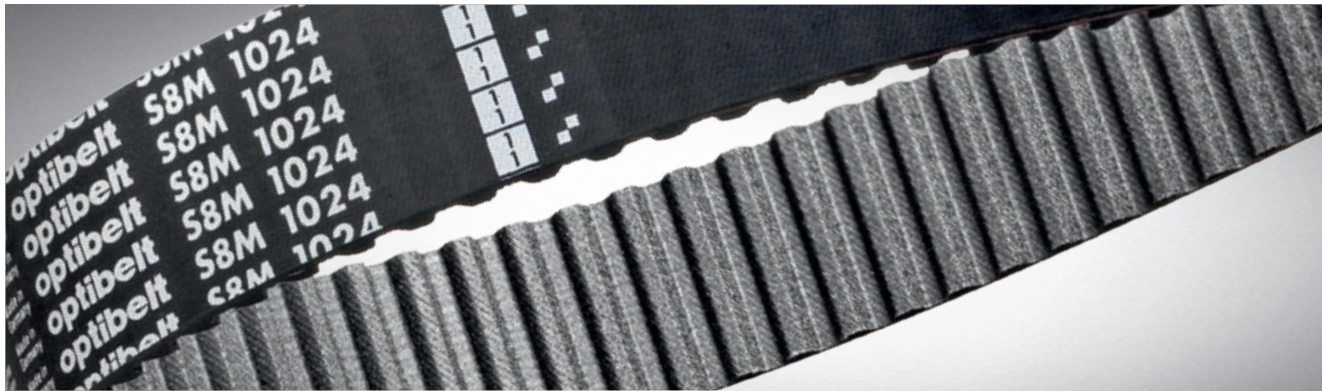
timing belts run in standard HTD and RPP pulleys





# optibelt STD

## CHLOROPRENE TIMING BELTS



optibelt STD timing belts have semi-circular teeth for special shear strength.

The timing belt tooth geometry combined with the belt structure leads to even load distribution and optimised engagement of the timing belt pulleys.

optibelt STD also available in HP or HL quality.

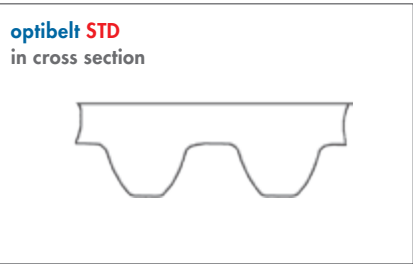
**Advantages and Characteristics**

- for existing drives with STD profile
- noise level comparable to **optibelt OMEGA** profile
- interchangeability of the belt for existing pulleys
- for universal application
- ability to run in existing pulleys without loss of performance
- maintenance-free
- temperature-resistant from -30 °C to +100 °C

**Profiles and Belt Length Ranges**

|      |                |
|------|----------------|
| S3M  | 120 – 633 mm   |
| S5M  | 255 – 2000 mm  |
| S8M  | 440 – 3200 mm  |
| S14M | 1400 – 5012 mm |

Profiles and dimensions on request

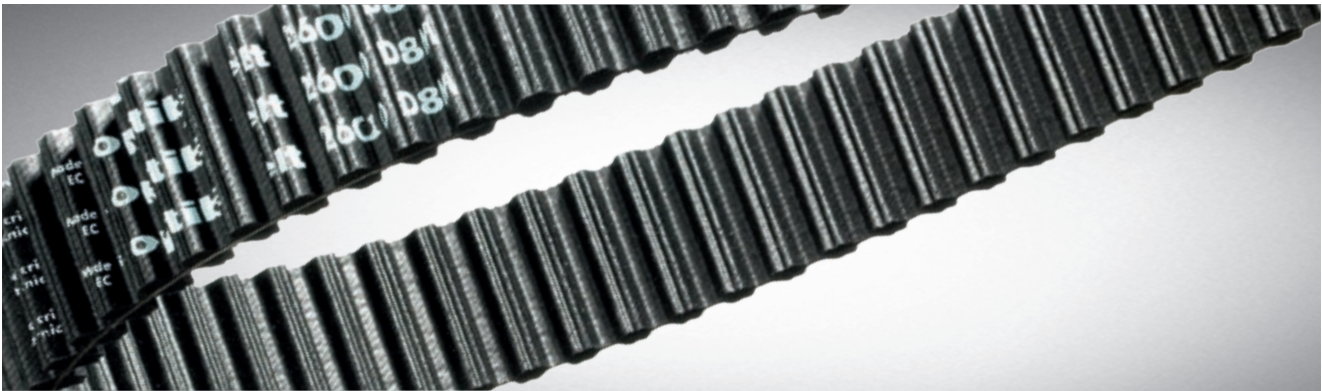


**optibelt ZRS**  
**TIMING BELT PULLEYS**

standard STD timing belt pulleys

# optibelt OMEGA double-sided

## TIMING BELTS MADE OF CHLOROPRENE



The double-sided **optibelt OMEGA** belt replaces the double-sided **optibelt HTD** timing belt and delivers high performance levels.

The **optibelt OMEGA** timing belt meets today average power requirements for slow to fast running drives without special shock loading.

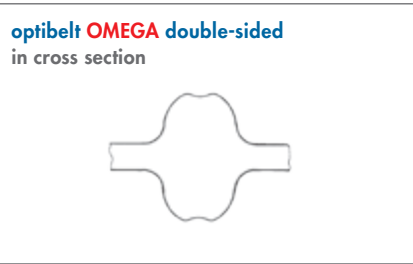
**Advantages and Characteristics**

- high precision, synchronous running
- reduced noise levels
- maintenance-free
- up to 98 % efficiency

**Profiles and Belt Length Ranges**

|      |                |
|------|----------------|
| D2M  | on request     |
| D3M  | on request     |
| D5M  | 1000 – 2525 mm |
| D8M  | 1000 – 3280 mm |
| D14M | 1000 – 3150 mm |

Further dimensions available on request



**TIMING BELT PULLEYS**  
**optibelt OMEGA**

timing belts run in standard HTD and RPP pulleys





# optibelt OMEGA HP double-sided

## HIGH PERFORMANCE CHLOROPRENE TIMING BELTS



The double-toothed **optibelt OMEGA HP** high performance timing belt was especially developed for heavily loaded, high speed drives.

Improved materials and highly developed process engineering are the basis for this very high performance level.

In contrast to double-sided **optibelt OMEGA** timing belts, the **optibelt OMEGA HP** with improved performance achieves clear cost savings in new designs of multi-pulley drives due to significantly smaller **optibelt ZRS** timing belt pulleys.

In the case of existing, but overloaded multi-pulley drives with RPP, HTD or **optibelt OMEGA** timing belts of basic design, **optibelt OMEGA HP** high performance timing belts are also suitable as problem-solvers that have the potential to greatly increase short operating times.

Faster, stronger, more compact – that is how the new double-sided **optibelt OMEGA HP** presents itself.

A timing belt to meet the highest demands.



### Advantages and Characteristics

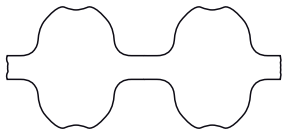
- suitable for low and high speed, dynamically heavily loaded drives with speed reversion
- approximately double the power transfer compared to **optibelt OMEGA** timing belts in the basic design
- broad application spectrum
- for HTD and RPP timing belt pulleys

### Profiles and Belt Length Ranges

8M FP      1120 – 3600 mm

Other sizes available on request

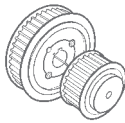
optibelt OMEGA HP double-sided in cross section



### optibelt ZRS TIMING BELT PULLEYS

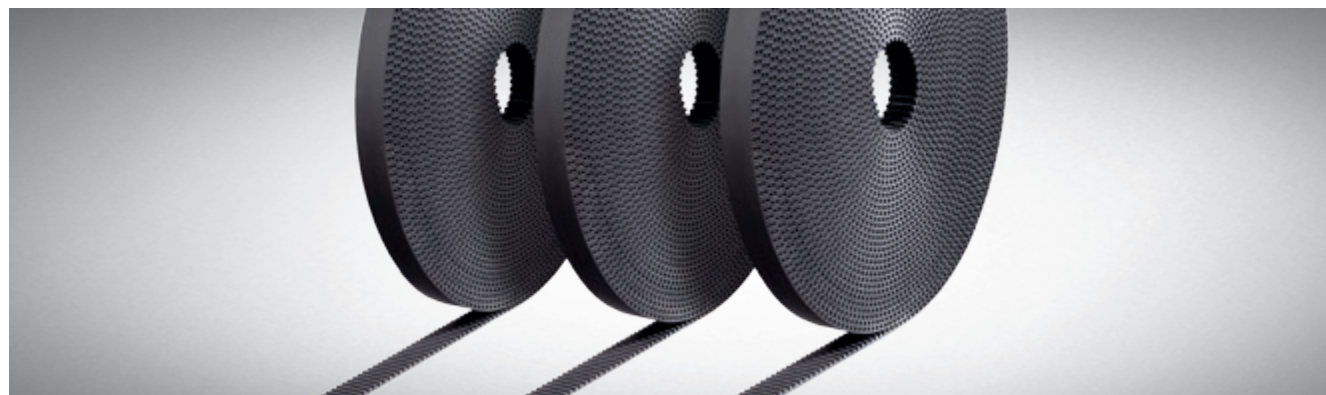
#### optibelt OMEGA

timing belts run in standard HTD and RPP pulleys



# optibelt OMEGA HP LINEAR

## OPEN-ENDED HIGH PERFORMANCE TIMING BELTS



**optibelt OMEGA HP LINEAR** timing belts made of chloroprene are open-ended timing belts with glass cord made from spiral cut coils.

### Advantages and Characteristics

- high tensile strength
- low stretch
- high positioning accuracy
- maintenance-free

### Sections and Belt Length Ranges

3M HP    6 – 15 mm  
5M HP    10 – 25 mm  
8M HP    10 – 30 mm

Standard roll length 30 m

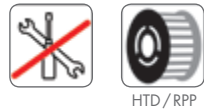
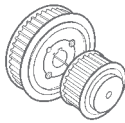
optibelt OMEGA HP LINEAR in cross section



### TIMING BELT PULLEYS

#### optibelt OMEGA

timing belts run in standard HTD and RPP pulleys





# optibelt OMEGA LINEAR

## TIMING BELTS



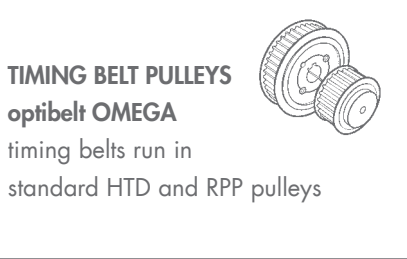
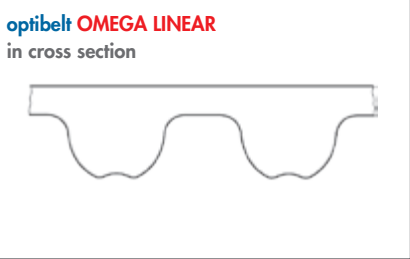
optibelt OMEGA LINEAR timing belts made of chloroprene with glass cord are open-ended timing belts made from spiral cut coils.

### Advantages and Characteristics

- high tensile strength
- low stretch
- high positioning accuracy
- maintenance-free

### Profiles and Belt Length Ranges

|    |            |
|----|------------|
| 3M | 9 mm       |
| 5M | 10 – 25 mm |
| 8M | 10 – 25 mm |



# optibelt STD LINEAR

## OPEN-ENDED HIGH PERFORMANCE TIMING BELTS



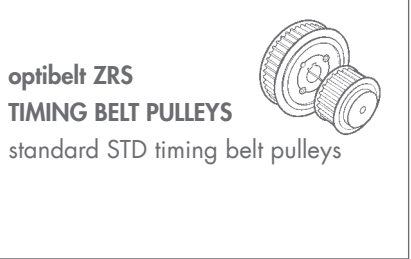
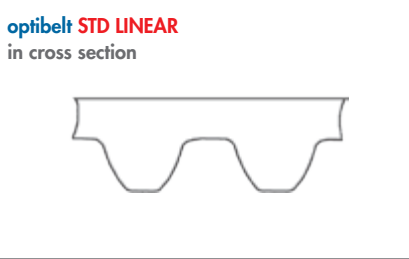
optibelt STD LINEAR timing belts made of chloroprene with glass cord are open-ended timing belts made from spiral cut coils.

### Advantages and Characteristics

- high tensile strength
- low stretch
- high positioning accuracy
- quieter than **optibelt HTD**, **optibelt ZR** and timing belts made of polyurethane
- maximum angular misalignment 0.67° (depending on width)
- maintenance-free
- for medium to high loading
- with reference to ISO 13050

### Profiles and Belt Length Ranges

|        |            |
|--------|------------|
| S5M HP | 10 – 25 mm |
| S8M HP | 10 – 25 mm |





# POLYURETHANE TIMING BELTS



GERMAN  
DESIGN  
AWARD  
2016

optibelt **DELTA CHAIN Carbon** – POWERFUL INNOVATION

Optibelt is setting new standards in drive technology with the **optibelt DELTA CHAIN Carbon** with exceptional tensile strength and durability. Designed for high torques, this innovative high performance timing belt with carbon cord delivers optimum performance even under extreme loads and is therefore an optimum alternative to drives with roller chains.



For drives with  
high torque



Innovative special fabric with  
optimised tooth form



Tear and impact-resistant  
for heavy-duty use



Double  
power transmission





# optibelt DELTA CHAIN Carbon

## HIGH PERFORMANCE POLYURETHANE TIMING BELTS



Highly dynamic, tough, tear-resistant, durable, and brand new:  
The **optibelt DELTA CHAIN** with carbon cord is the perfect alternative to drives with roller chains. Designed for high torque, it delivers the best performance values even under extreme conditions and high loads.

Our innovation studies showed in extensive tests that a performance increase of up to 100% over comparable high performance synchronous rubber belts is possible.



### Advantages and Characteristics

- optimised tooth form
- unmatched shock resistance
- temperature resistance
- double power transmission
- newly developed special fabric
- high reliability

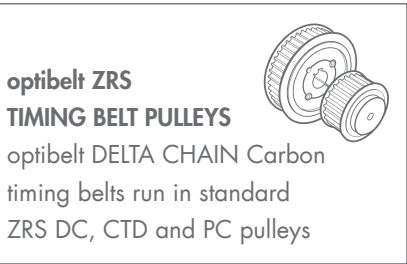
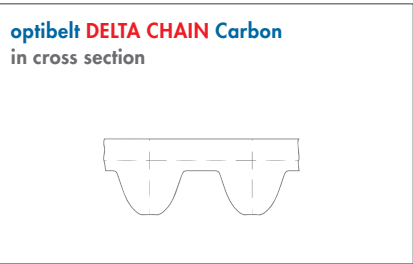
### A NEW MATERIAL GENERATION

- tear-resistant for heavy demand
- durable
- for drives with high torque

### Dimensions

|        |               |
|--------|---------------|
| 8M DC  | 640 – 4480 mm |
| 14M DC | on request    |

Other sizes available on request



# optibelt ALPHA POWER

## HIGH PERFORMANCE POLYURETHANE TIMING BELTS



The powerful **optibelt ALPHA POWER** timing belts are the result of consistent further development. The wide-ranging experience gained with ALPHA standard timing belts is now reflected in this belt generation. Made with a new, more resistant and more durable polyurethane compound, the performance of this generation is up to 30% higher than that of the previous standard belt.

By enabling a more compact drive design, the **optibelt ALPHA POWER** cuts costs, starting with the purchase costs for new belts and pulleys. The optimised interplay of the polyurethane and steel cord components guarantees the **optibelt ALPHA POWER** an extremely economical solution for a wide range of applications.

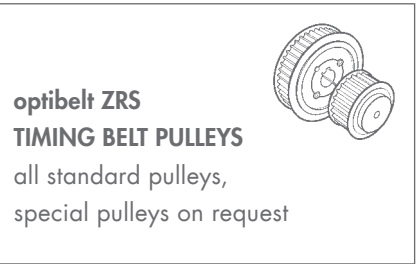
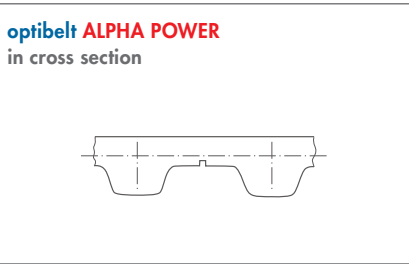
### Advantages and Characteristics

- higher power transfer – up to 30% in comparison with conventional standard polyurethane timing belts
- very accurate pitch and low tolerances
- strong attachment of polyurethane to tension cord
- variable position of the tolerance zone, for fixed centre distances, for example
- tension cords: steel, highly flexible steel, stainless steel

### Profiles and Belt Length Ranges

|      |                |
|------|----------------|
| T2.5 | 107.5 – 950 mm |
| T5   | 165 – 1440 mm  |
| T10  | 260 – 2250 mm  |
| AT5  | 200 – 1500 mm  |
| AT10 | 500 – 1940 mm  |
| DT5  | 300 – 1100 mm  |
| DT10 | 600 – 1880 mm  |

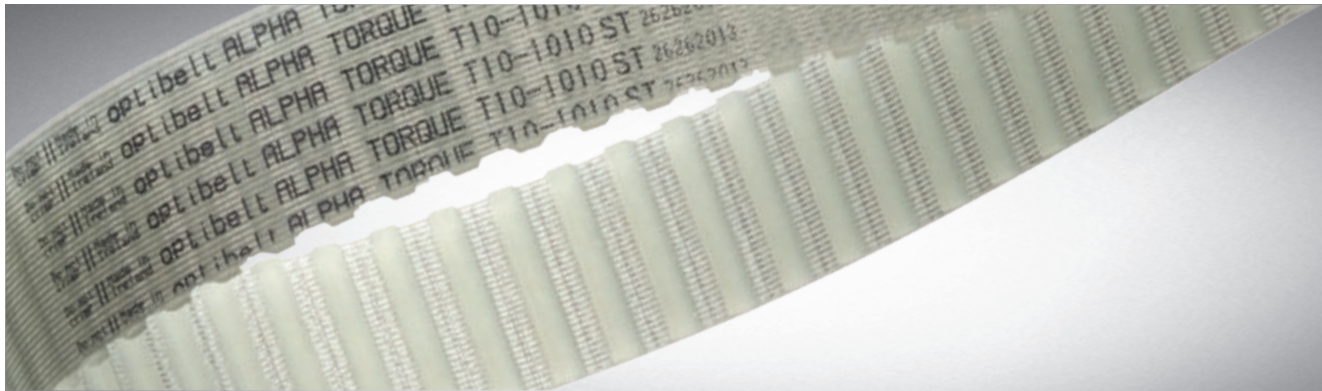
Other dimensions on request





# optibelt ALPHA TORQUE

## POLYURETHANE TIMING BELTS



The **optibelt ALPHA TORQUE** is extremely abrasion-resistant; oil resistance is a standard feature as well as some resistance to acids and alkaline solutions.

Low-stretch steel cords with high flexibility are used.

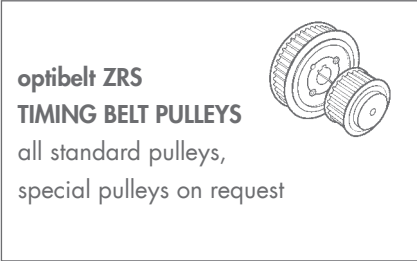
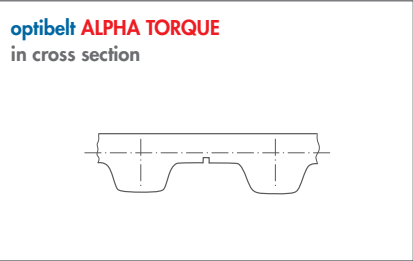
**Advantages and Characteristics**

- useful sleeve widths of up to 380 mm
- unlimited choice of colours on request
- position of tolerance field variable, e.g. for fixed drive centre distances
- tension cords: steel, highly flexible steel, stainless steel, aramid, polyester, Vectran®

**Profiles and Belt Length Ranges**

|      |                  |
|------|------------------|
| T2.5 | 107.5 – 950 mm   |
| T5   | 165 – 1440 mm    |
| T10  | 260 – 2250 mm    |
| AT5  | 200 – 1500 mm    |
| AT10 | 500 – 1940 mm    |
| DT5  | 300 – 1100 mm    |
| DT10 | 260 – 1880 mm    |
| MXL  | 2.40 – 32.00 in  |
| XL   | 6.00 – 67.00 in  |
| L    | 12.38 – 60.00 in |

Other sizes available on request



# optibelt ALPHA FLEX

## POLYURETHANE TIMING BELTS



The **optibelt ALPHA FLEX** timing belt is manufactured as an endless spirally-wound steel tension cord without any breaks in the tensile reinforcement. This ideal combination of extremely strong tension cords and the use of polyurethane makes these timing belts suitable for universal application in areas where high performance must be transmitted in systems with large centre distances.

The principal uses are drive systems requiring very long belts, such as very long conveyors, or in operational situations with demanding performance requirements.

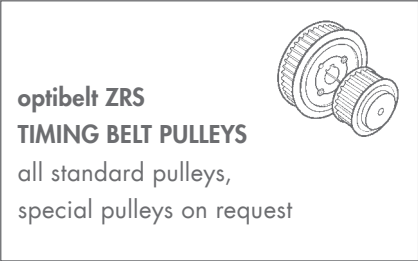
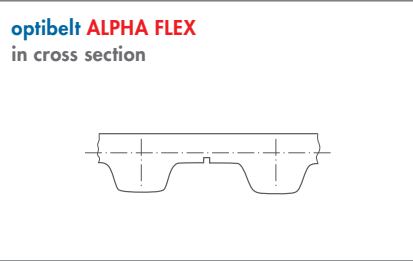
**Advantages and Characteristics**

- length range can be manufactured according to gradations in pitch
- production widths 100 mm and 150 mm
- optionally with polyamide fabric on the teeth
- direct welding on of cams and cleats possible
- with options of highly flexible or stainless steel tension cords
- available with S or Z cord twist
- double-sided profiles for DT5, DT10, DAT5, DAT10, D5M, D8M available

**Profiles and Belt Length Ranges**

|      |                  |
|------|------------------|
| 5    | 500 – 24 000 mm  |
| T10  | 1500 – 24 000 mm |
| T20  | 1500 – 24 000 mm |
| AT5  | 1500 – 24 000 mm |
| AT10 | 1500 – 24 000 mm |
| AT20 | 1500 – 24 000 mm |
| 5M   | 1500 – 24 000 mm |
| 8M   | 500 – 24 000 mm  |
| 14M  | 1500 – 24 000 mm |

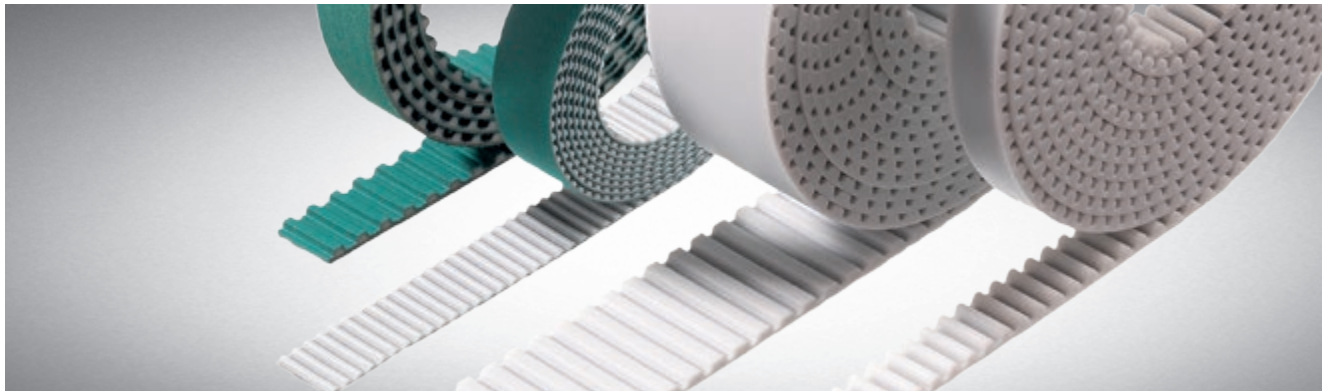
Length > 24 000 mm available on request





# optibelt ALPHA LINEAR

## POLYURETHANE TIMING BELTS



The **optibelt ALPHA LINEAR** timing belt is predominantly used in linear drive systems as a large-dimension open-ended belt. The aramid or steel tension cord has extremely low elasticity. The large range of profiles and lengths makes a host of drive solutions possible.

The thermoplastic polyurethane surface is ideal for applying various coatings and welding on cams and lugs. The main areas of application for the **optibelt ALPHA LINEAR** are found in the field of transport and conveyor technology as well as in the areas of processing and control technology.

**Advantages and Characteristics**

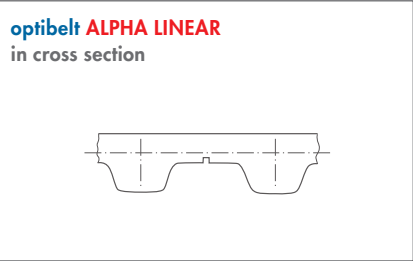
- high tensile strength with low elongation
- high-precision positioning
- tension cords: steel, highly flexible steel, stainless steel, aramid
- with options of reinforced belt back, T2, yellow PU foam and APL plus
- ATL version timing belts for linear drives
- polyamide fabric supports on tooth side and/or belt top surface available
- PU also available with FDA approval for food contact
- optional colours available

**Profiles**

XL; L; H; XH;  
T5; T10; T20;  
AT5; AT10; AT20;  
ATL5; ATL10; ATL20;  
5M; 8M; 14M; 14ML;  
F2; F2.5; F3; FL3

**Roll Length**

50 m or 100 m  
> 100 m available on request

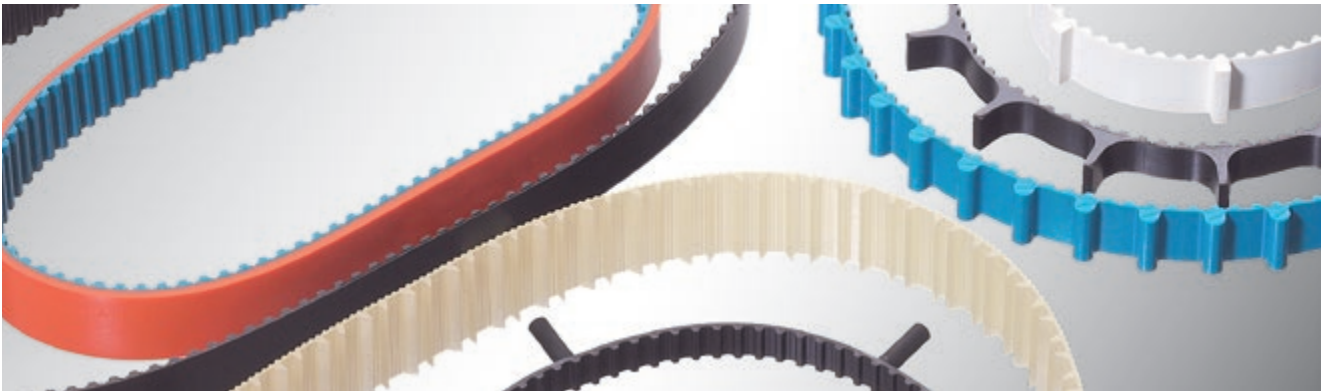


**optibelt ZRS**  
**TIMING BELT PULLEYS**

all standard pulleys,  
special pulleys on request

# optibelt ALPHA SRP

## TIMING BELTS



The **optibelt ALPHA SRP** timing belt with cast cleats and coatings is manufactured in a single production step and used in conveying systems.

The polyurethane is cast between the core mould and the special outer mould with correspondingly increased internal diameter or special outer moulds with the desired contour for the cleats.

By rotating the inner and outer moulds around the central axis, a Shore hardness that differs from that of the teeth can be cast using a centrifugal casting process.

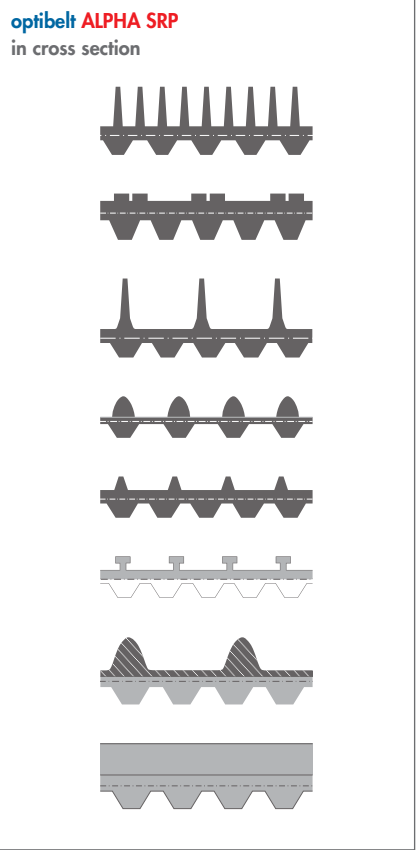
**Advantages and Characteristics**

- high number of cleats in a very small space
- strong connection between cleat and base belt
- coating with no butt joints, no binding in direction of travel
- production in moulds allows small, coated belts to be manufactured
- reproducible high precision
- strong connection between cleat/coating and base belt due to consistent cross-linking
- finely formed cleat geometry thanks to liquid cast polyurethane

**Dimensions**

T2.5; T5; T10; T20; AT5; AT10; AT20;  
MXL; XL; L

Other sizes available on request



**TIMING BELT PULLEYS**

all standard pulleys,  
special pulleys on request.



# SPECIAL BELTS

## optibelt **OPTIMAT** – THE SPECIALIST FOR PARTICULAR CASES

Special thermoplastic polyurethane belts have been developed in terms of their shape and further processing to make them suitable for special applications. Whether as round belts in open-ended metre ware, as flexible variants that can be made shorter or with special perforations: no conveying task is too complex for these specialists.



Particularly low elongation



Ideal for use in long conveyors

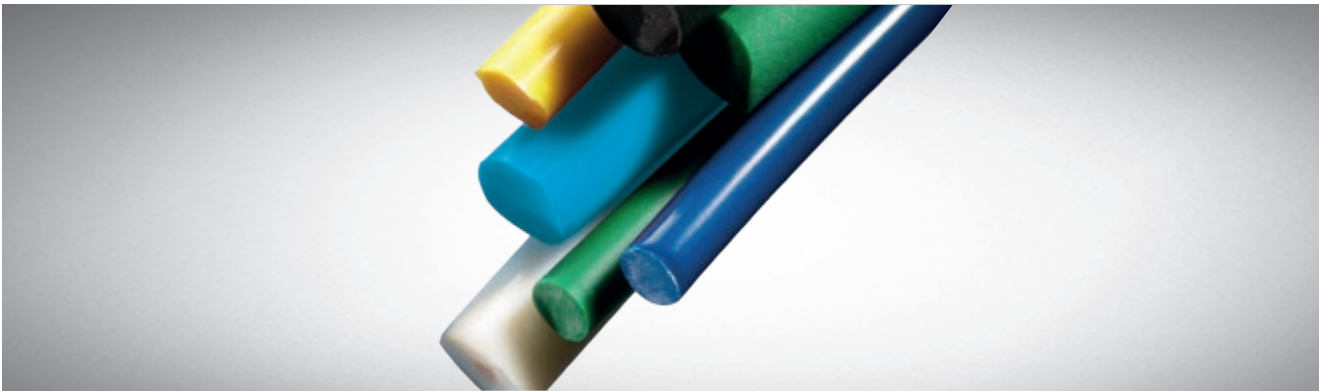


Available in different colour variations



optibelt **RR / RR Plus**

ROUND BELTS MADE OF THERMOPLASTIC POLYURETHANE



Optibelt round belts consist of high-quality materials, which are manufactured by special manufacturing processes as open-ended metre ware in different diameters.

The **optibelt RR Plus** version of the round belt additionally incorporates a polyester tension cord. The round section belts with tension cords are particularly low-stretch and therefore especially useful when used in long conveyors.

Advantages and Characteristics

- welding takes place on site. This also applies to the **optibelt RR Plus** version
- no disassembly of the drive/shafts
- quick rectification of breakdowns
- short downtimes
- easy to store (supplied in rolls)
- immediate availability
- wide variety of design options, since any length can be produced
- favourable coefficient of friction
- good slip resistance for conveying goods
- good abrasion and wear resistance
- high elasticity, good damping
- high tensile strength
- colour-fast
- resistant to greases, oils and numerous chemicals
- UV and ozone resistant
- the **optibelt RR Plus** version is particularly low-stretch

Roll Lengths

|    |       |     |       |
|----|-------|-----|-------|
| 2  | 200 m | 8*  | 100 m |
| 3  | 200 m | 10* | 100 m |
| 4  | 200 m | 12* | 50 m  |
| 5  | 200 m | 15* | 50 m  |
| 6* | 100 m | 18  | 30 m  |
| 7* | 100 m |     |       |

\* Also available with tension cord

optibelt **RR / RR Plus**  
in cross section

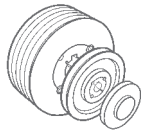


optibelt **RR**



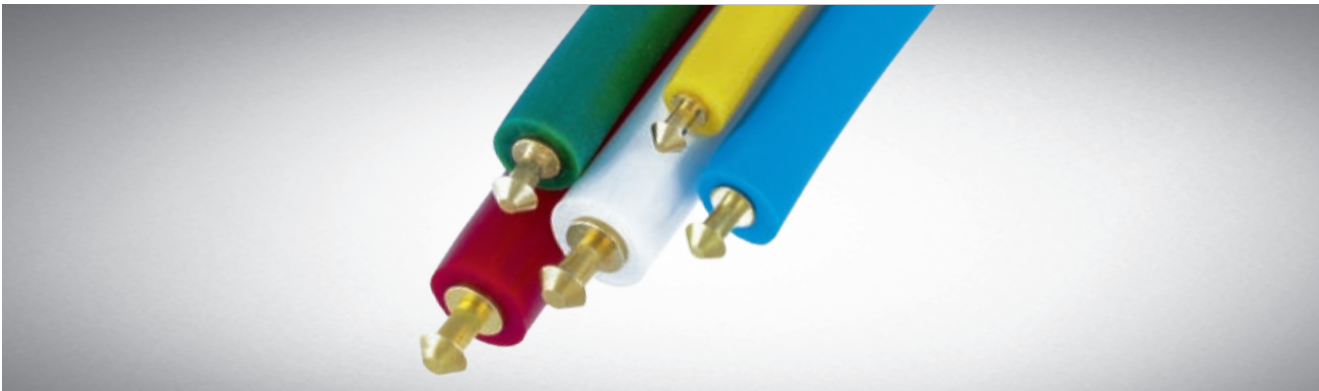
optibelt **RR Plus**

optibelt **KS**  
**V-GROOVE PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushes,  
special pulleys on request



optibelt **HRR**

ROUND BELTS MADE OF THERMOPLASTIC POLYURETHANE



Optibelt hollow round belts consist of high-quality materials, which are manufactured by special manufacturing processes as open-ended metre ware in different diameters.

**optibelt HRR** belts are particularly suitable for use in light drive systems and conveyor systems, especially for small pulley diameters.

Advantages and Characteristics

- for use with small pulley diameters (**75 SHORE A**)
- short downtimes
- for use with medium drives, for quick repairs (**85 SHORE A**)
- easy to store (supplied in rolls)
- immediate availability
- wide variety of design options, since any length can be produced
- favourable coefficient of friction
- good slip resistance for conveying goods
- good abrasion and wear resistance
- high elasticity, good damping
- high tensile strength
- colour-fast
- resistant to greases, oils and numerous chemicals
- UV and ozone resistant

| 75 SHORE A RED/SMOOTH |                      |
|-----------------------|----------------------|
| DIAMETER              | ROLL LENGTH ON SPOOL |
| 4.8 mm                | 200                  |
| 6.3 mm                | 100                  |
| 8.0 mm                | 100                  |
| 9.5 mm                | 100                  |

**Recomm. belt tension:**  
Welded 4...8 %  
Nipple connector\* max. 3...6 %

| 85 SHORE A GREEN/ROUGH |                      |
|------------------------|----------------------|
| DIAMETER               | ROLL LENGTH ON SPOOL |
| 4.8 mm                 | 200                  |
| 6.3 mm                 | 100                  |

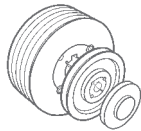
**Recomm. belt tension:**  
Welded 4...8 %  
Nipple connector\* max. 3...6 %

\* Nipple connector not included in scope of delivery. Please order separately.

optibelt **HRR**  
in cross section



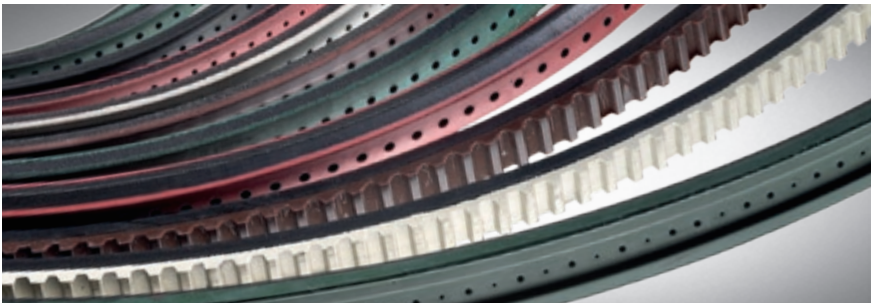
optibelt **KS**  
**V-GROOVE PULLEYS**  
for cylindrical bore or  
for **optibelt TB** taper bushes,  
special pulleys on request





# optibelt OPTIMAT OE / DK / FK / PKR

## OPEN-ENDED V-BELTS – PUNCHED



### optibelt OPTIMAT OE / DK / FK

**OPEN-ENDED V-BELTS**  
perforated, DIN 2216

- SPECIAL VERSION**
- available with black chloroprene cover belts
  - electrically conductive (on request)

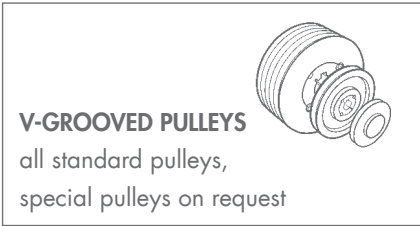
-  **OPTIMAT OE**  
V-belts,  
DIN 2216,  
perforated
-  **OPTIMAT DK**  
Double V-belts,  
perforated
-  **OPTIMAT FK**  
Conveyor belts,  
perforated



### optibelt OPTIMAT PKR

**OPEN-ENDED V-BELTS**  
DIN 2216 with top surface  
Profiles: Z/10, A/13, B/17, C/22, 25\*\*, D/32\*\*

\*Special versions are only available in fabrication lengths of 50 m +/- 10 %.  
\*\*The profile 25 and D/32 height of top surface is only available with 5 mm.



# BELTS MADE TO MEASURE

Where performance is required in combination with customer-specific drive solutions, Optibelt delivers masterly solutions.

"For optimum performance."  
Norbert, 42, foreman





# INDUSTRY-SPECIFIC DRIVE SOLUTIONS



## **optibelt GREEN GARDEN** FOR GARDEN APPLIANCES

Whether for coupling or uncoupling ride-on mowers or chopping and shredding garden waste:

The professional drive solutions from **optibelt GREEN GARDEN** ensure maximum power transmission.



## **optibelt CONVEYOR POWER** FOR ROLLER CONVEYOR BELTS

Developed specifically for the transport and logistics sector, the drive belts from the **optibelt CONVEYOR POWER** range are real all-rounders. Since they are specially designed for roller conveyor applications, they offer a maximum range of uses.



## **optibelt AGRO POWER** FOR AGRICULTURAL MACHINERY

**optibelt AGRO POWER** ensures a good power connection with high performance at the same time. The drive belts run with low vibration and noise, even at high belt speeds.



# CUSTOMISED DRIVE SOLUTIONS



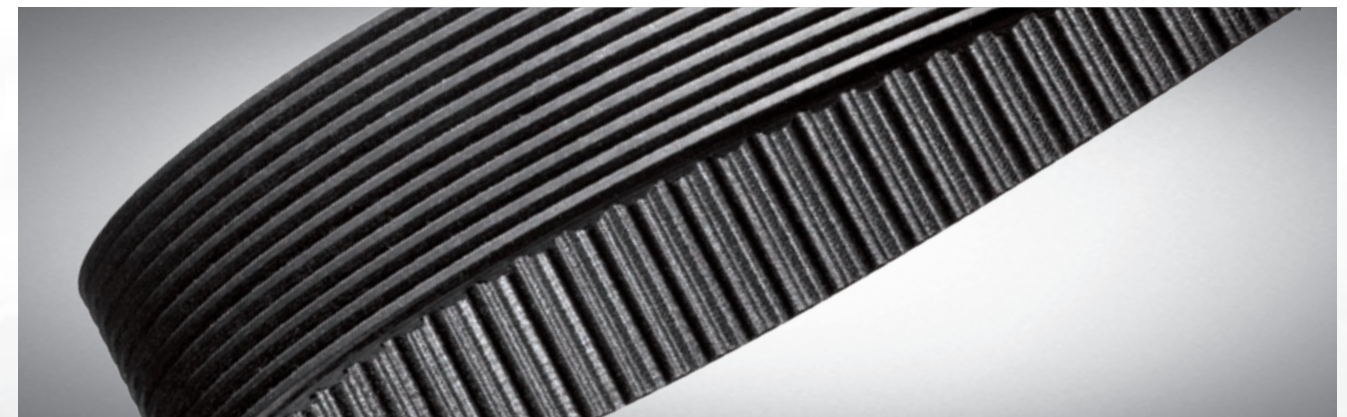
**optibelt OMEGA SPECIAL**  
FOR USE IN PRINTING MACHINES

This seamless silicone-coated special timing belt is manufactured in just one production process. It is perfect for critical applications in printing presses as it is highly temperature and UV resistant.



**optibelt ERB SPECIAL**  
FOR ESCALATORS AND WALKWAYS

This coated V-ribbed belt was developed in cooperation with a manufacturer of escalators and walkways. It moves the powerful drive of a moving staircase and guarantees smooth and almost noiseless practical use.



**optibelt OMEGA RB**  
FOR MILL DRIVES

This maintenance-free timing belt with additional PK V-ribbed belt on the rear side of the belt is the first choice for mill drives. It is extremely wear-resistant and is also suitable for mills in which the direction of the drive pulley on the rear can be reversed.



# METAL



## DRIVE PULLEYS

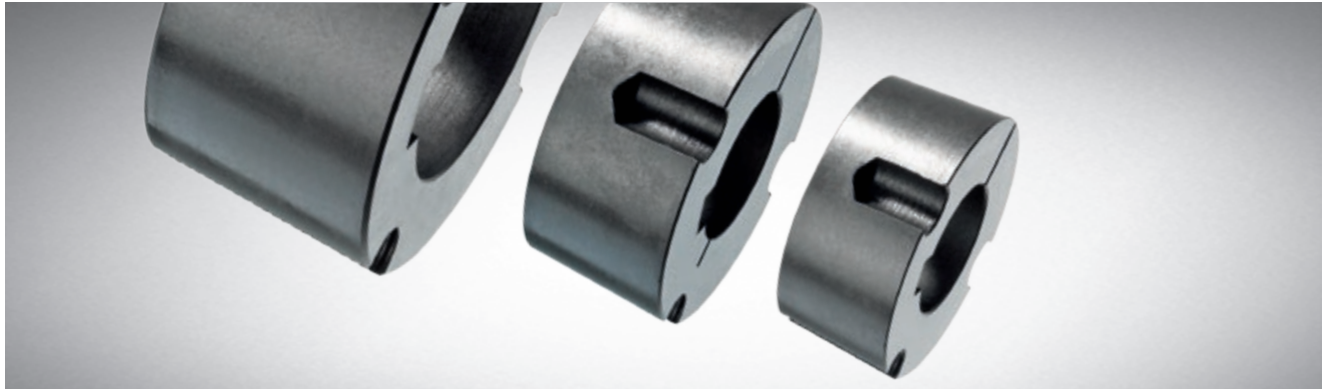
Drive pulleys for force-locking or form-fit connections in all common profiles and materials – V-grooved pulleys, V-ribbed pulleys, toothed pulleys and special pulleys for taper bushings and cylindrical bores







optibelt **TB**  
TAPER BUSHES



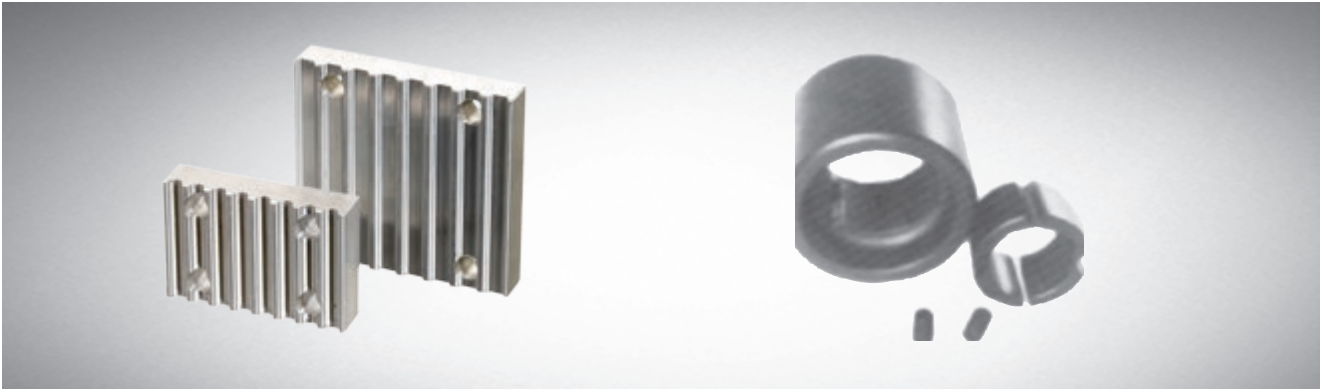
| DIMENSIONS   |               | 1310 | 14–35 mm | 3030 | 35– 75 mm |
|--------------|---------------|------|----------|------|-----------|
| TAPER BUSHES | BORE DIAMETER |      |          |      |           |
| 1008         | 10–25 mm      |      |          |      |           |
| 1108         | 10–28 mm      |      |          |      |           |
| 1210         | 11–32 mm      |      |          |      |           |
| 1215         | 11–32 mm      |      |          |      |           |
|              |               | 2012 | 14–50 mm | 4040 | 40–100 mm |
|              |               | 2517 | 16–60 mm | 4545 | 55–110 mm |
|              |               | 3020 | 25–75 mm | 5050 | 70–125 mm |

optibelt **CE**  
CLAMPING BUSHINGS



| DIMENSIONS  |               | CE05        | 20–200 mm | CE12 | 16– 60 mm |
|-------------|---------------|-------------|-----------|------|-----------|
| DESIGNATION | BORE DIAMETER |             |           |      |           |
| CE01        | 18–400 mm     |             |           |      |           |
| CE02 / CE03 | 6–100 mm      |             |           |      |           |
| CE04        | 20–180 mm     |             |           |      |           |
|             |               | CE06        | 20–180 mm | CE13 | 15– 70 mm |
|             |               | CE07        | 20–200 mm | CE14 | 24–260 mm |
|             |               | CE08        | 25–200 mm |      |           |
|             |               | CE09        | 45–100 mm |      |           |
|             |               | CE10 / CE11 | 14– 60 mm |      |           |

optibelt **METAL ACCESSORIES**



optibelt **CP**  
Clamping plates

optibelt **FS**  
Flat belt pulleys for taper bushes



# PRODUCT & PRODUCTION ASSORTMENT

WE PROVIDE CUSTOMISED DRIVE SOLUTIONS

## SPECIAL SOLUTIONS

In addition to a versatile standard product range, state-of-the-art CAD technology can also be used to meet special customer requirements with regard to tooth systems, such as ratchet and Hirth toothing, conical and elliptical toothing, combination toothing or elements such as multiple spline shafts and spline hubs.

### TRANSMISSIONS AND ASSEMBLIES



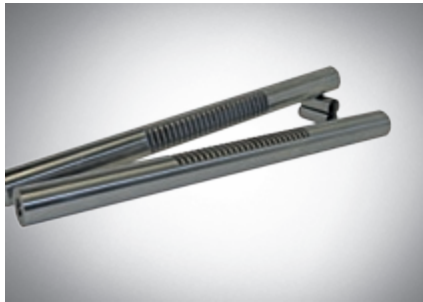
### SPUR GEARS AND HELICAL GEARS



### SPROCKETS



### RACKS



### WORMS AND WORM GEARS



### BEVEL GEARS



### SPUR GEARS AND HELICAL GEARS



### SPECIAL PULLEYS



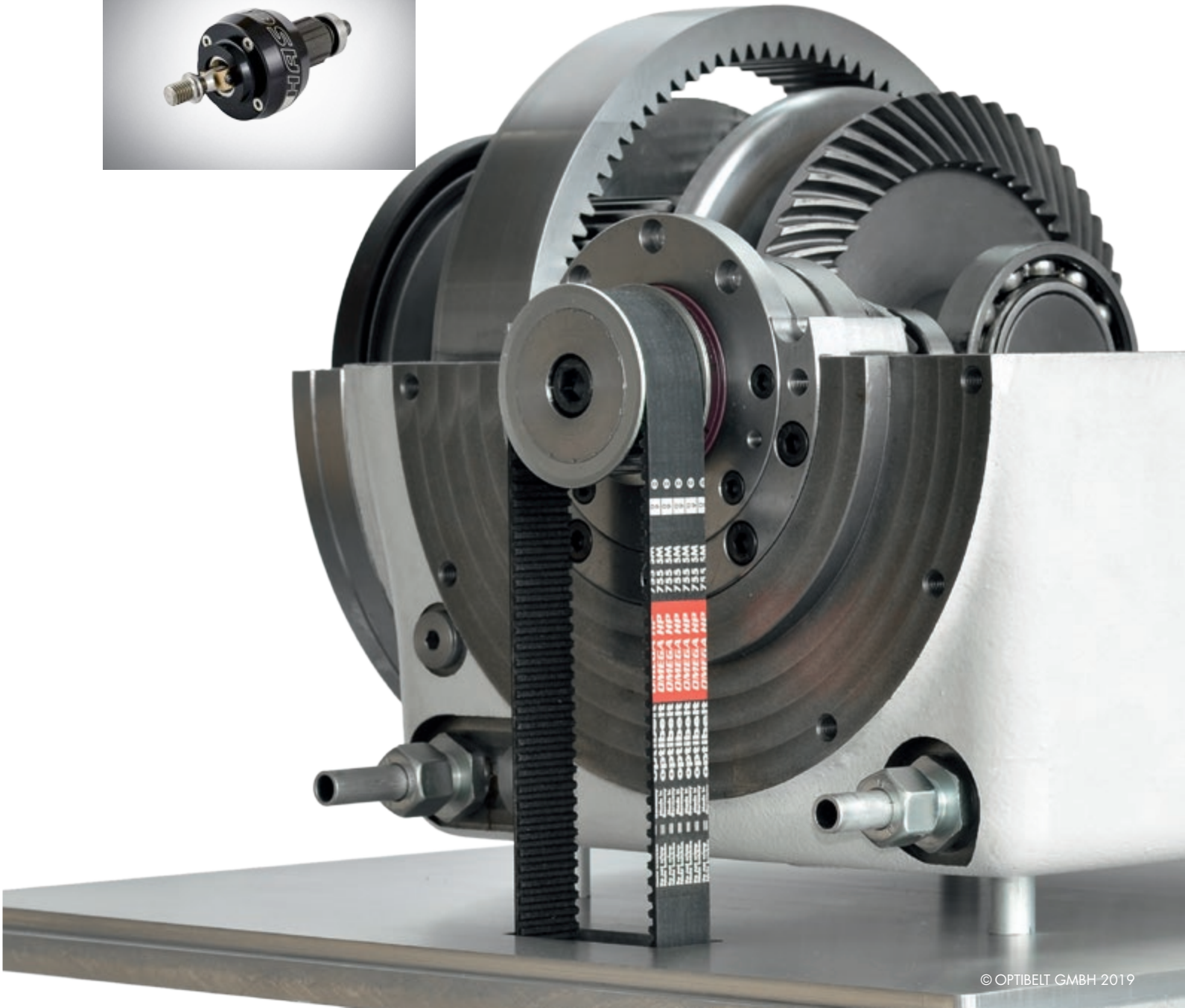
### SPECIAL TOOTH SYSTEMS



## MADE-TO-MEASURE DRIVE

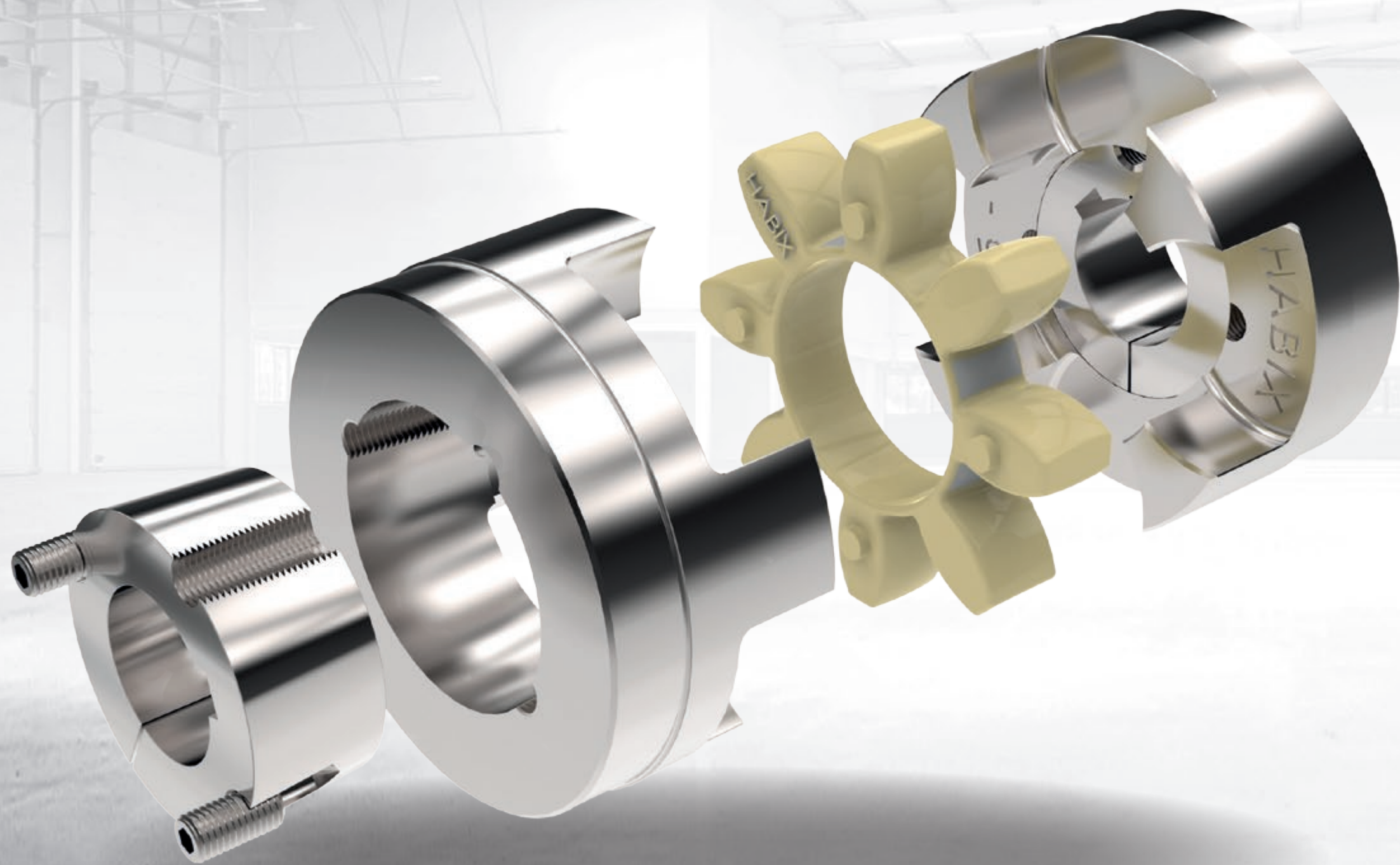
Whether complete assemblies and gears including maintenance-free belts or individual components such as toothed pulleys, gears and racks – in close contact with the customer, tailor-made individual solutions are created, even for complex applications – all from a single source.

### SPECIAL DRIVES





# COUPLINGS





# ELASTIC COUPLINGS

## HABIX



- Fail-safe plug-in/jaw coupling with flexible element (star)
- Types: HWN, HWT
- Sizes: 15 – 90
- Standard applications with normal requirements regarding torque and damping capabilities

## HADEFLEX



- Fail-safe plug-in/jaw coupling with flexible element (star)
- Types: XW (pre-drilled), TX (with taper bush), F
- Sizes: 24 – 260
- Standard applications with normal requirements regarding torque and damping capabilities

## HRC



- Fail-safe encapsulated plug-in/jaw coupling with flexible element (star)
- Sizes: 70 – 280
- Applications with increased requirements regarding torque and damping capabilities

## FLEX



- Highly flexible backlash-free tyre coupling
- Sizes: 40 – 250
- Applications with increased requirements for damping properties at low torques to be transmitted

## ORPEX



- Fail-safe pin coupling with flexible elements
- Sizes: 105 – 2000
- Applications with high requirements with regard to the torque to be transmitted and the damping characteristics

## PEX



- Fail-safe plug-in/jaw coupling with flexible elements
- Sizes: 58 – 250
- Applications with increased requirements regarding torque and damping capabilities

# RIGID COUPLINGS

## GEAR COUPLING GC



- Greased curved bevel gear coupling
- Sizes: 50 – 165
- Applications with highest to maximum requirements regarding transmitted torque

## CLAMP COUPLING



- Easy-to-assemble shaft connection
- Sizes: 10 – 180
- Simple and easy-to-assemble shaft connections with no specific requirements for damping capabilities

## FLANGE COUPLING



- Easy-to-assemble and particularly robust shaft connection
- Sizes: 25 – 500
- Simple, particularly robust and easy-to-assemble shaft connections with no specific requirements regarding damping capabilities

## CLAMP COUPLING



- Easy-to-assemble shaft connection
- Sizes: 10 – 220
- Simple and easy-to-assemble shaft connections with no specific requirements for damping capabilities
- Steel / stainless steel

## MINI COUPLING



- Slotted, backlash-free and very heat-resistant rigid clamp coupling
- Sizes: 16 – 80
- Applications with lower requirements with regard to the torque to be transmitted and the damping characteristics. Ideal for restricted installation spaces.



# SERVICE TOOLS





# SERVICE TOOLS

## optibelt SERVICE KIT

### SERVICE CASE

Cost-effective environmental protection and thus ways to reduce energy and costs can be achieved quickly and easily by simple means. The objective should be to operate existing power drives in a more cost-effective manner, and by implementing every suggestion to immediately have a positive impact on the environment. This increases the effective performance and makes the total cost of drives with Optibelt belts and pulleys understandable for everyone.

Implementing measures to reduce costs and energy can be done quickly and easily using simple means, such as technical devices. The wide range of Optibelt service options has been expanded a step further. The practical **optibelt SERVICE KIT** contains a number of technical devices that can be used to carry out a series of optimisations on existing drives.



### optibelt LASER POINTER II ALIGNMENT OF BELT DRIVES

The **optibelt LASER POINTER II** makes it easier to align belt drives. The belt pulleys are aligned with each other via the front or lateral faces. The **optibelt LASER POINTER II** is simple to handle and can be fixed in place in a matter of seconds. This is a practical aid for professional alignment of belt pulleys.



### optibelt NOTEBOX TENSION NOTEBOOK

The proven Optibelt “Tension Notes” stickers document the default values for the proper tensioning methods whenever required and so provide service technicians with reliable information in future without the need for a long search.



### optibelt SERVICE BOX FOR QUICK HELP ON SITE

The **optibelt SERVICE BOX** was designed as an on-site support for many fields of application. Drive centre distances, belt lengths and pulley diameters can be determined trouble-free with the flexible fabric measuring tape.



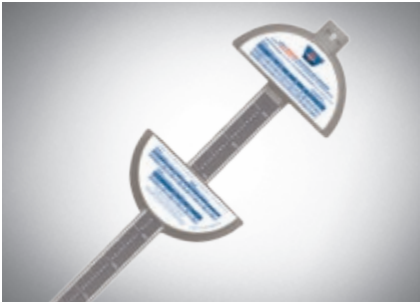
### optibelt TT / TT RFID / TT DATA FREQUENCY TENSION TESTER

The **optibelt TT** frequency tension tester is used to check the tension of drive belts by measuring their frequency of vibration. Due to its compact design, it offers universal application possibilities for drives in engineering, in the automotive industry and for many other technical applications. The **optibelt TT** is designed even for difficult-to-reach places, making it ideal for quickly and easily checking the tension of V-belts, ribbed belts and timing belts.





**optibelt**  
**MEASURING GAUGE**  
INNER LENGTH MEASURING  
GAUGE



The **optibelt MEASURING GAUGE** is the perfect aid for measuring inner lengths. The possible measuring range is between 500 and 3550 mm.

**optibelt**  
**OPTIKRIK 0, I, II, III**  
TENSION MEASURING DEVICE



Tension gauges check if the V-belt, the kraftband or the ribbed belt is running properly in your vehicle. The tension gauges are easy to use. Our field service team will be happy to assist you.

**optibelt**  
**V-BELTS AND PULLEY**  
**GROOVE TEMPLATE**



Valuable help for the measurement of V-belt and pulley groove profiles

**optibelt**  
**CUT II**  
BELT SLITTER



The **optibelt CUT II** belt splitter was specifically developed for modern storage for the technical trade.

**optibelt**  
**FRICTION WELDING TOOL**  
**RS02**  
SPLICING TOOL



For round, wedge and special profiles

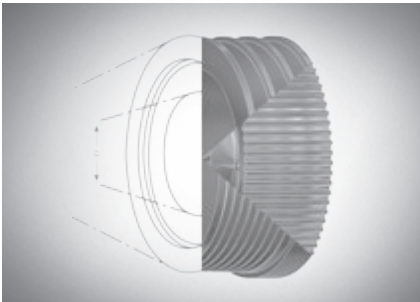
**optibelt**  
**BASIC AND**  
**PREMIUM CASE**  
SPLICING TOOL



These five-piece sets (including welding tool and guiding tongs) allow urethane belts to be welded quickly and easily. The basic equipment is suitable for occasional use, the premium equipment for daily use.

# OPTIBELT SOFTWARE

**optibelt CAD**  
PULLEYS AND BUSHES  
IN 2D/3D



Download CAD files for the standard product range of pulleys and bushes in 2D and 3D models

**optibelt CAP**  
MULTI-PULLEY  
TIMING BELT RANGE



With this software, the user can design simple 2-pulley drives or calculate the correct timing belt for complicated multi-pulley drives.

Those who do not yet own CAP software can register on the Optibelt website.



## NOTES

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### **Myynti**

|               |                       |                     |                  |
|---------------|-----------------------|---------------------|------------------|
| Vantaa        | Turku                 | Tampere             | Oulu             |
| Pyymosantie 4 | Polttolaitoksenkatu 5 | Lentokentänkatu 9 C | Revontie 2       |
| 01720 Vantaa  | 20380 Turku           | 33900 Tampere       | 90830 Haukipudas |

### **Huolto ja kokoonpano**

|               |                       |                               |
|---------------|-----------------------|-------------------------------|
| Vantaa        | Turku                 | Puh. 010 8345 500             |
| Pyymosantie 4 | Polttolaitoksenkatu 5 | power.hydraulics@masino.fi    |
| 01720 Vantaa  | 20380 Turku           | www.masino.fi/masino-konaflex |

Masino Group on yritysryhmä, joka tarjoaa voimansiirtoratkaisuja, hydraulikkaa ja suodatus-tekniikkaa, pumppuja, puhaltimia ja teollisuushuoltoa, putkistotuotteita, kiinnitystekniikkaa, hitsaustekniikkaa, juotostekniikkaa, kallionlujitustuotteita, betonikuituja sekä talotekniikan kiinnitys- ja asennustarvikkeita. Liikevaihtomme on noin 65 M€ ja henkilöstön määrä 160. Toimipisteemme sijaitsevat Vantaalla (2), Ylöjärvellä, Tampereella ja Turussa.