

***DRIVE TECHNOLOGY***

***WILHELM HERM. MÜLLER***

Development. Service. Partnership.

[www.whm.net](http://www.whm.net)





# Full Service: Extensive Product Range

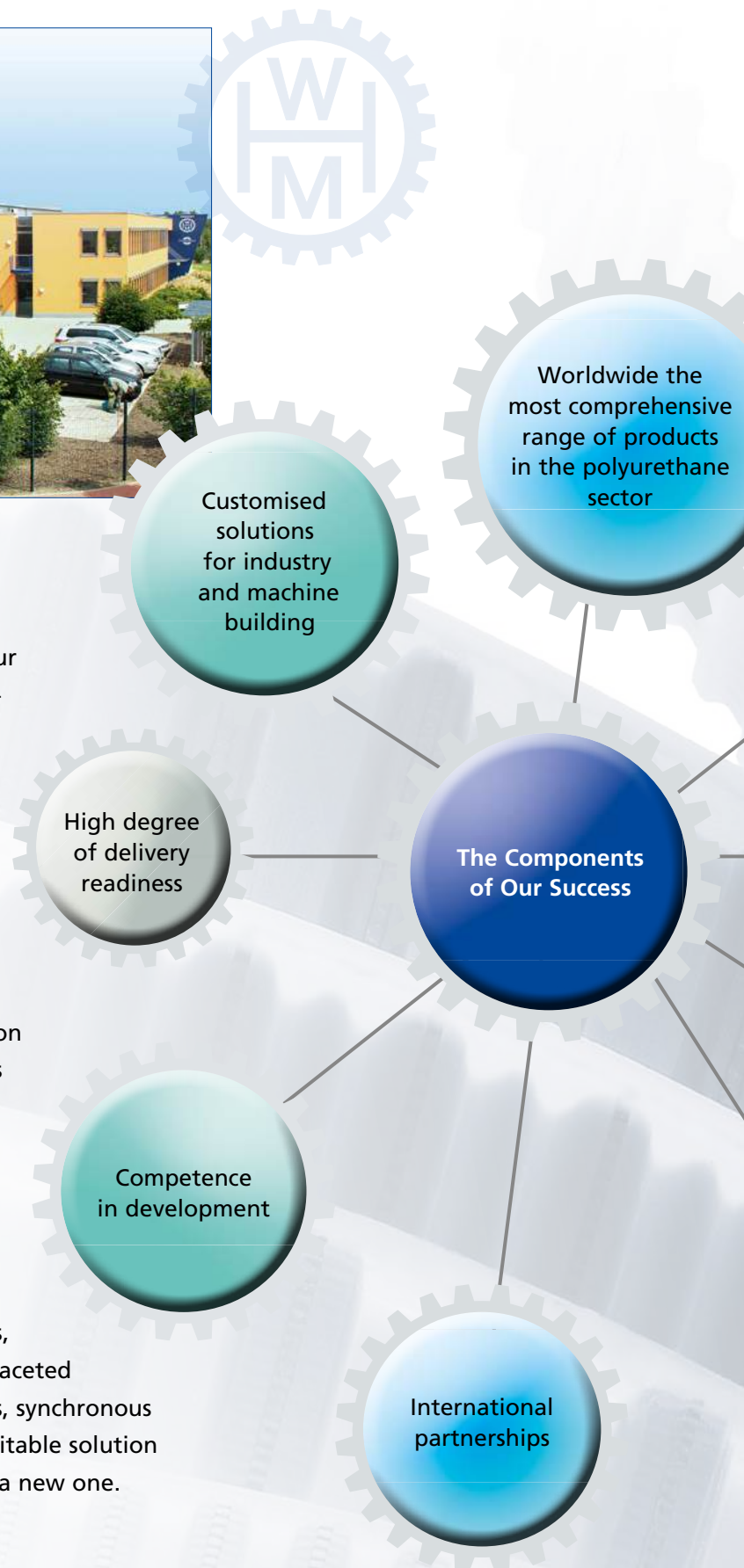


## Solutions for a World in Motion

For more than 60 years we have provided our customers with drive solutions using innovative products. Our know-how, developed over several decades, combined with modern production processes and personalised support, makes us a much sought-after partner in the machine building industry.

At our location in Garbsen near Hanover we have roughly 100 employees constantly on the move for you. Creating custom solutions together, in dialogue with you. We provide individualised advice and planning. In this way we develop unique concepts for your projects and realise them quickly and reliably.

Be it polyurethane or elastomer timing belts, V-belts, flat or round belts – with our multifaceted product range of belt types, belt dimensions, synchronous pulleys and accessories, we always have a suitable solution on hand. And if we don't, we simply create a new one.





High inventory  
availability

Innovative  
strength

Quality  
management  
in accordance  
with ISO 9000  
et seq.

Fast on-site  
service

## High Quality – International Network

You can count on valuable expertise, with which we tailor solutions precisely to your specific application. And you will experience a level of cooperation that opens up unimagined new possibilities.

You will benefit from our highly efficient network of manufacturers and distributors, which guarantees worldwide availability of our product range.

Furthermore, regular qualification programmes and training courses for our employees ensure a consistently high level of quality of our products and services. We orient ourselves toward international standards and, together with you, set the standard for the technology of tomorrow.



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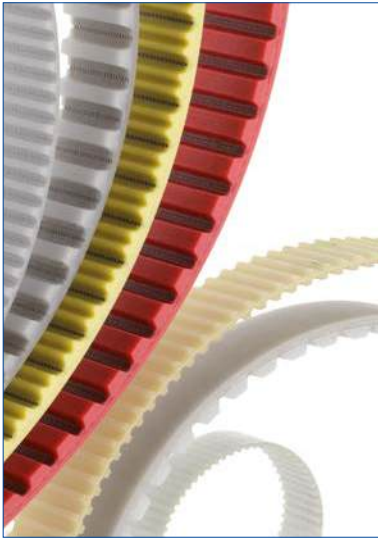
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## Strong Brands, Endless Possibilities

With brand name premium timing belts from CONTI® SYNCHROFLEX, BRECO® und BRECOFLEX®



we offer polyurethane timing belt technology of the highest calibre. The extensive selection of belt types, belt dimensions, synchronous pulleys and components opens up a virtually unlimited range of applications for the designer:

- in drive technology through maximum power transmission,
- in linear technology through mobility and precision,
- in conveyance technology through reliability and strength.

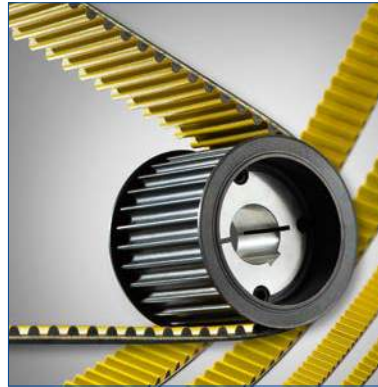
## The Best Driving Force: Inventive Genius

The Mulco Group, which we co-founded and with which we have been cooperating since 1951, is comprised of leading European manufacturers and distribution companies of drive systems with polyurethane timing belts. Together with the partners of Mulco Europe EWIV we have significantly advanced polyurethane timing belt technology over the last decades.





# Polyurethane Timing Belts



## **CONTI® SYNCHROFLEX.** High Performance. Abrasion Resistant. Maintenance-Free.

Even in the basic version, this drive belt demonstrates its full capabilities. The basis for this is the outstanding union of wear-resistant polyurethane and high-tensile steel cord tension members. The belt profile ATP in the GEN III version is especially well-suited for the transmission of higher-than-average driving forces. CONTI® SYNCHROFLEX polyurethane timing belts possess a very high tooth shear strength.



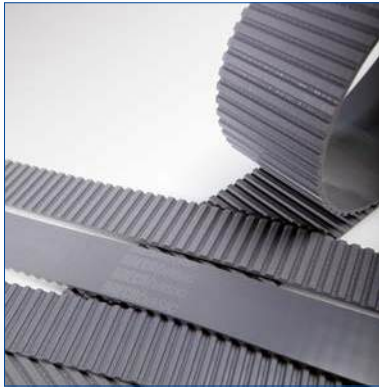
## **CONTI® SYNCHROCHAIN.** Dynamic. Precise. Sturdy.

High tear strength combined with extraordinary tensile force – these properties make CONTI® SYNCHROCHAIN one of the most powerful timing belts in the world. The typical CTD profile in the CTD C 8M or CTD C 14M versions allows for use in extreme applications even with high torques. Moreover, this timing belt allows reverse bending during multi-pulley operation and is thus predestined for drives of the highest performance class.



## **BRECO®/BRECOFLEX®.** Positioning Accuracy. Maintains Angular Accuracy. Low Noise.

With a T or AT profile, steel tension members and a 20 % increased tooth shear strength, BRECOFLEX® polyurethane timing belts ensure exceptional transmission accuracy and stand for optimum running smoothness at high power density. They can be manufactured with gradations from tooth to tooth in lengths from 720 mm to 20,000 mm. Special profiles (e. g. ATP), self-guiding profiles (e. g. BAT/BATK, SFAT, TK/ATK) and double toothed systems reinforce the positive properties and expand the application possibilities. Polyurethane special materials and special tension members complete the range. BRECO® timing belts come standard in open lengths and, upon request, can also be supplied welded endless with no length limit.



## **BRECObasic®.** Simple. Effective. Safe.

As an affordably priced brand name product for simple applications, BRECObasic® proves its strengths in both linear technology and conveyance technology. It can be used everywhere that exceptional timing belt quality is required, without the need for special belt properties such as restricted tolerances, special resistances or further processing options for the timing belt itself.



## **BRECOprotect®.** Corrosion-Resistant. FDA Compliant. Blue.

BRECOprotect® is the perfect choice for meeting the strict requirements involved in contact with foodstuffs. The product range with the characteristic blue colour meets the conformity criteria of FDA regulations CFR § 177, the European Directives (EC) 1935/2004, (EU) No. 10/2011 and the EC Directives 90/128/CEE and 96/11/CE. For this reason, this timing belt is also suitable for moist environments and for contact with sensitive products – since it is especially easy to clean due to the non-existent winding nose.



## **BRECOgreen.** Sustainable. Environmentally Sound. Green.

With a content of 37 % renewable raw materials, this „green“ timing belt has intelligently optimised its use of materials. The Advantage: In terms of material strength and service life, BRECOgreen demonstrates the same performance as timing belts made from mineral oil-based thermoplastic polyurethane.



# Polyurethane Timing Belts



## Precise Transmission for Linear Drives

Polyurethane timing belts with steel tension members have become indispensable to modern linear technology. In conjunction with their components they represent a reasonably priced assembly part for highly dynamic motion processes with medium-sized and large travelling distances. BRECO® and CONTI® SYNCHRODRIVE polyurethane timing belts have proven themselves in linear drives due to excellent positioning accuracy and a high degree of repeatability. Fabric coatings, polyurethane special materials, special tension members and double toothed systems expand the range of applications for the user to virtually unlimited.

### BRECO® Open Length Belting

BRECO® open length belting is supplied in the standard version in white polyurethane with steel tension members.

#### Available profile types:

- imperial profiles XL, L, H, XH
- metric standard profiles T, AT
- positioning accuracy profile ATL
- self-guiding profiles TK/ATK, SFAT, BAT/BATK

### CONTI® SYNCHRODRIVE

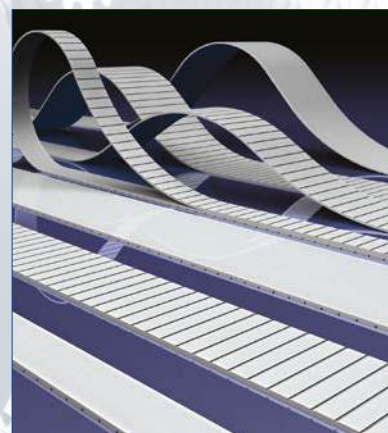
CONTI® SYNCHRODRIVE open length belting comes in the standard version made of black polyurethane with steel tension members.

#### Available profile types:

- imperial profiles XL, L and H
- metric HTD profiles 3M, 5M, 8M, 14M
- STD profiles S 3M, S 5M, S 8M

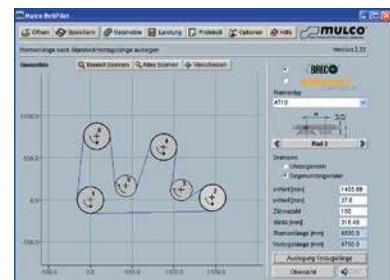
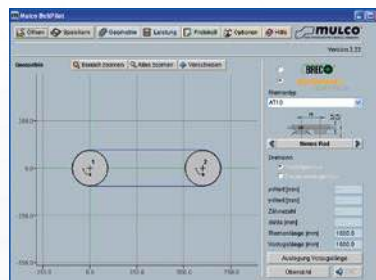
### Flat Belts

The high performance flat belts BRECO®/BRECOFLEX® F and CONTI® POLYFLAT are well-suited for linear movements with winding function and linear load movements without the use of force via rotation.



## The "Mulco Belt Pilot" Online Design Software. Customised. Interactive. Free of Charge.

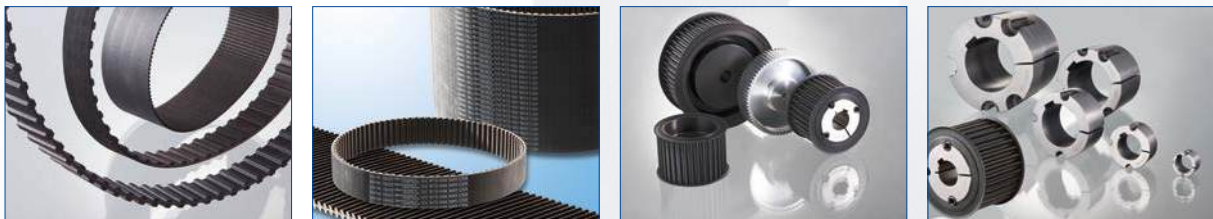
With the design software "Mulco belt pilot" you can comfortably develop customised design solutions for drives with CONTI® SYNCHROFLEX and BRECO®/BRECOFLEX® polyurethane timing belts. Mulco belt-pilot provides all design-relevant product information, a calculation program and the possibility of CAD downloads.



**Request the know-how of our experts for all your detailed questions regarding applications!**

## Top Performance During Power Peaks

We supply high quality elastomer timing belts made of various materials in single or double toothed versions and as open length belting. Our product range comprises standard as well as high performance timing belts for high speed drives, which also can withstand high torque loads.



The wide selection of belt profiles and pitches provides you with versatile possibilities for use in a wide variety of industries and applications. In addition, you have access to a range of components precisely coordinated to

the timing belts, including toothed pulleys, taper tension bushes and clamping plates. This ensures the full functionality of the drive unit.

With us, you have access to the entire product range from ContiTech. Thanks to intelligent logistics, we guarantee a high degree of availability. Make use of our advice service for your customised application!

## Close Cooperation. Form-Locking Drive.

We are a charter member of power-drive-motion (p-d-m), a distribution group for the use of elastomer timing belts in drive technology. In this group, six specialised companies have joined forces to pool their experience with applications using elastomer timing belts.



## Product Range Elastomer Timing Belts

| Profile             | Pitch | Standard Profile |                | High Performance Profile |     |         |                |
|---------------------|-------|------------------|----------------|--------------------------|-----|---------|----------------|
|                     |       | single toothed   | double toothed | single toothed           |     |         | double toothed |
|                     |       |                  |                | CXP                      | CXA | EXTREME | CXP            |
| HTD                 | 3M    | x                |                | x                        |     |         |                |
|                     | 5M    | x                | x              | x                        |     |         | x              |
|                     | 8M    | x                | x              | x                        | x   | x       | x              |
|                     | 14M   | x                | x              | x                        | x   | x       | x              |
| STD                 | S 2M  | x                |                |                          |     |         |                |
|                     | S 3M  | x                |                |                          |     |         |                |
|                     | S 5M  | x                |                |                          |     |         |                |
|                     | S 8M  | x                | x              | x                        | x   | x       | x              |
|                     | S 14M | x                |                | x                        |     |         |                |
| CTD                 | C 8M  |                  |                | x                        | x   | x       |                |
|                     | C 14M |                  |                | x                        | x   | x       |                |
| Trapezoidal profile | MXL   | x                |                |                          |     |         |                |
|                     | XL    | x                | x              |                          |     |         |                |
|                     | L     | x                | x              |                          |     |         |                |
|                     | H     | x                | x              |                          |     |         |                |
|                     | XH    | x                |                |                          |     |         |                |
|                     | XXH   | x                |                |                          |     |         |                |

### Neoprene Open Length Belting

|    |    |     |      |      |
|----|----|-----|------|------|
| 5M | 8M | 14M | S 5M | S 8M |
|----|----|-----|------|------|

### Silicone-free

|    |     |
|----|-----|
| 8M | 14M |
|----|-----|

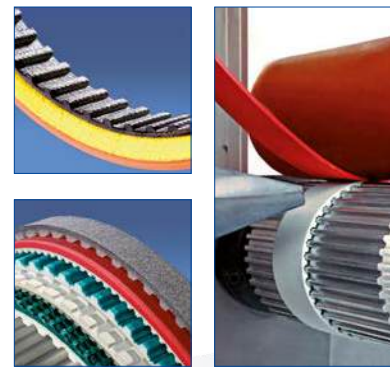
## Individual Solutions

Whether soft, hard, elastic, low noise, and with low or high friction – we coat elastomer timing belts, polyurethane timing belts and V-belts for a wide variety of applications. With our know-how, we ensure that each timing belt receives the desired pre-defined properties. Because only then does it achieve its optimum drive performance for each application.

In addition to standard coatings such as e. g. Linatex, PVC and polyurethane foil, there are many other types of coatings available with special properties:

- non-stick
- cut resistant
- temperature resistant
- antistatic
- noise reducing
- suitable for contact with foodstuffs

Special coatings and colours are also available. One of our special achievements is a natural rubber coating with no joint.



## Conveyor System Drives with Coated Polyurethane Timing Belts

In conveyance technology polyurethane timing belts are provided with coatings, in order to

- increase the friction coefficient and thus improve the grip on the conveyed materials,
- reduce the friction coefficient, e. g. for use in accumulating conveyors,
- protect the timing belt from mechanical damage.

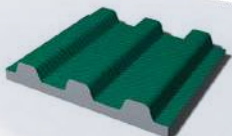
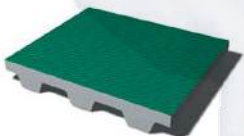
For this reason, the properties which are essential to choosing the correct coating material are the friction coefficient, the wear resistance and the chemical resistance.

| Property/Material | Friction Coefficient/Grip | Wear Resistance | Chemical Resistance |
|-------------------|---------------------------|-----------------|---------------------|
| PUR               | ○                         | +               | ○                   |
| Rubber            | +                         | –               | –                   |
| PVC               | ○                         | ○               | +                   |

To increase the effect of the force-locking coating, we offer profiled coatings for virtually every material, which improve the gripping effect.

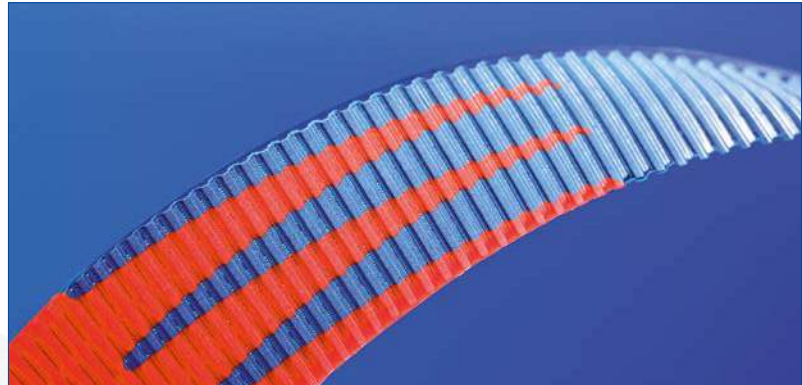
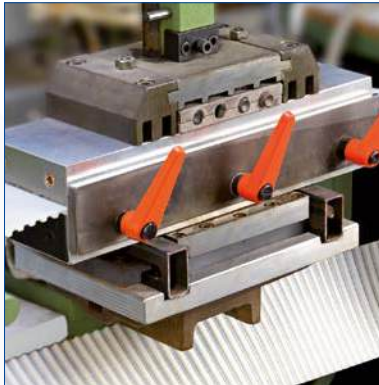
## Coating Materials

|                         |                        |                            |
|-------------------------|------------------------|----------------------------|
| Celloflex               | PAR                    | PVC herringbone            |
| Chrom leather           | PAZ                    | PVC Minigrip               |
| Correx                  | PAZ-PAR                | PVC white                  |
| FG 385                  | Polythane D 15         | RP 400                     |
| HV1-Film                | Polyurethane version T | Supergrip green/blue/black |
| Linatex/Linard/Linaplus | Porol                  | Sylomer                    |
| Linatrile               | PU yellow              | TT 60                      |
| NBR                     | PUR 385                | Viton                      |
| NP 385                  | PVC blue               |                            |

|                                                                                                           |                                                                                                                                                   |                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>PAZ</b></p>      | <p>Material Designation:</p> <p>Colour:</p> <p>Temperature Resistance:</p> <p>Resistances:</p> <p>Characteristics:</p> <p>Application Fields:</p> | <p>polyamide</p> <p>green</p> <p>–20 °C to +50 °C</p> <p>resistant against simple oils and greases</p> <p>low friction coefficient</p> <p>with use of support rails</p>                                       |
| <p><b>PAR</b></p>      | <p>Material Designation:</p> <p>Colour:</p> <p>Temperature Resistance:</p> <p>Resistances:</p> <p>Characteristics:</p> <p>Application Fields:</p> | <p>polyamide</p> <p>green</p> <p>–20 °C to +50 °C</p> <p>resistant against simple oils and greases</p> <p>low friction coefficient</p> <p>light weight accumulating conveyors</p>                             |
| <p><b>PAZ-PAR</b></p>  | <p>Material designation:</p> <p>Colour:</p> <p>Temperature Resistance:</p> <p>Resistances:</p> <p>Characteristics:</p> <p>Application Fields:</p> | <p>polyamide</p> <p>green</p> <p>–20 °C to +50 °C</p> <p>resistant against simple oils and greases</p> <p>low friction coefficient</p> <p>reinforced conveyor timing belts used as accumulating conveyors</p> |



# Customised Belts



## Polyurethane Timing Belts Made to Measure

We join polyurethane timing belts as well as polyurethane round belts and V-belts into endless belts using powerful belt welding systems. In addition, it is possible to bring these – respective of customer specifications – to the desired fixed length.

## TSG – The Practical Polyurethane Timing Belt Welder

Even polyurethane timing belts need to be replaced occasionally. With the portable welding device TSG, WHM offers customers the on-site solution for timing belt replacement in difficult to access drive units. The TSG consists of a control and a welding unit with changeable welding plates. It is easy to operate, and it offers the possibility of welding polyurethane timing belts on-site or at the machine without costly dismantling of the machine itself.

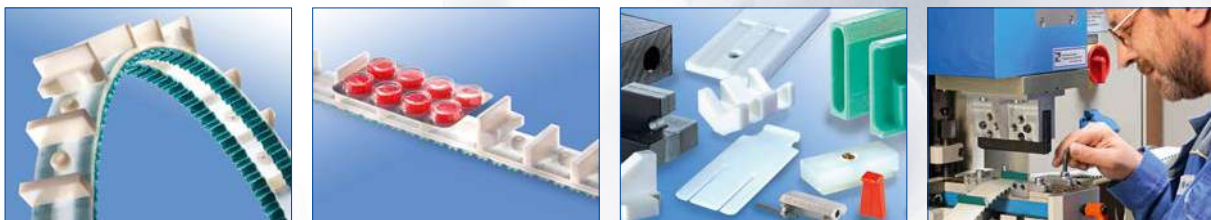
### The Advantages

- Suitable for all belt profiles
- Short machine down times
- High heating capacity
- Welding time including cool-down phase only approx. 30 minutes
- Air cooling, no water connection required
- Flexible due to long connection cables



## Solutions with Profiles

Flighted timing belts provide a form-locking grip on the conveyed materials. Trouble-free functionality and long service life of the flighted belt are only ensured when there is a secure connection between the flight and the back of the timing belt. We ensure this secure connection by using modern production processes in our own production plant and by relying on our decades of experience in timing belt finishing.

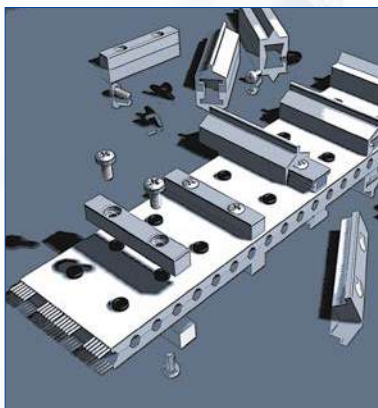


Our range of available flights currently encompasses over 3,000 injection moulds, which cover a huge variety of welded-on profiles. Individualised welded-on profiles can also be manufactured out of sheet material (pre-fabricated PUR sheets), through mechanical processing or through customer-specific moulds (injection moulds).

In addition to welding flights by hand, we also use an innovative friction welding process. This ensures the best possible bond between the flight and the belt. Profiles can also be bonded with adhesive.

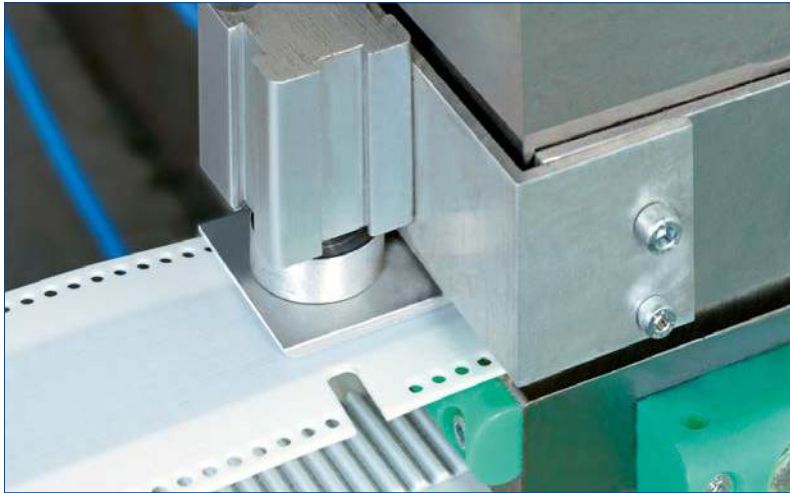
Finally, mechanical bonding is also possible by using inserts on the flights. In this way, for example, workpiece mounts can be affixed for high-precision positioning of the conveyed parts.

## Mechanically Joined Flights are Flexible



The BRECO® ATN conveyor belt is equipped with an interchangeable flight fastener in the belt tooth. The profile can thus be quickly mounted and exchanged. In this way, a single conveyor system can be used to convey various items simply by outfitting the same timing belt with

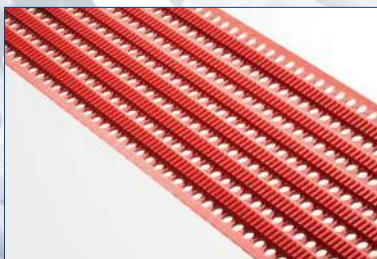
different flights. Moreover, we offer high-tensile flight joints, which can also withstand greater loads. For small timing belt pitches we also have a diverse selection of tried and trusted joints available.



## Profiles Made to Measure

The application fields for timing belts can be greatly extended with subsequent mechanical processing. Sanding the belt back ensures, for instance, that quiet running is considerably improved. Also, coatings can be mechanically processed again, which allows the timing belt to be even better adapted to special applications. We use special machining processes to manufacture high quality suction timing belts.

Milling, sanding and punching of timing belts takes place at our production plant. Almost any belt width and shape can be milled, sanded and punched with the tightest possible tolerances. Many years of experience, qualified personnel and optimised production methods as well as special machinery ensure optimum product quality.



### Belt Milling

- Contour milling
- Tooth removal
- Longitudinal and cross milling of belt backs/belt coating
- Special milling

### Belt Sanding

- Surface sanding
- Edge sanding
- Custom sanding of belt backs
- Contour sanding of coatings
- Longitudinal and cross sanding

### Belt Punching

- Round holes
- Square, oval or customised apertures

## Perfectly Interlocked

Timing belts develop their full potential only in precise interaction with their connecting components. For this reason, we have carefully coordinated our assortment of synchronous pulleys with the complete timing belt product range.

For Timing Belts

- BRECO®/BRECOFLEX®,
- CONTI® SYNCHROBELT,
- CONTI® SYNCHROCHAIN,
- CONTI® SYNCHRODRIVE,
- CONTI® SYNCHROFLEX



we supply synchronous pulleys from a partner network, which has specialised in the most challenging drives using these timing belts. Thus, we ensure that you receive synchronous pulleys optimally manufactured for your drive or conveyance task.

From in stock products to custom produced special pulleys, we provide dependable quality. Every size, every material, every surface process and special processing is possible. For special applications, synchronous pulleys are available, upon request, conforming to the requirements of the RoHS directive 2002/95/EC for the restriction of the use of hazardous substances.



### Range of Stock for Standard Profiles (with pre-drilled holes)

Synchronous pulleys can be produced according to your drawing, in graduated quantities from single-item production to series production. Finalisation and installation with additional standard parts and structural elements are also possible.

| Imperial code: | MXL  | XL  | L    | H                              | XH (also with tension bushes) |
|----------------|------|-----|------|--------------------------------|-------------------------------|
| metric         | K1.5 | T2  | T2.5 | T5                             | T10                           |
| metric         | AT3  | AT5 | AT10 | ATP10                          | ATP15                         |
| HTD            | 3M   | 5M  | 8M   | 14M (also with tension bushes) |                               |

Additional profiles upon request.

## The Right Tension in Every Dimension

We supply tension rollers in all sizes and versions, coordinated for use with our extensive range of timing belts.

We have special tension rollers for use with polyurethane timing belt drives with BRECO®/BRECOFLEX® and CONTI® SYNCHROFLEX. These are distinguished by a rigid, vibration-resistant load bearing design and are over-mounted on the machine side. The eccentric fitting results in an easy adjustment of the belt pre-tension force.

The MULCO tension rollers are fitted with high quality grooved ball bearings. The first filling of the bearings consists of a high-performance lithium soap grease to ensure a long service life. For mounting on machine side, cheese-head screws can be used in accordance with DIN 6912.



Our Standard Range Comprises:

- Smooth tension rollers
- Toothed tension rollers for belt profiles T, AT, BAT, BATK
- Available with or without flanged pulleys
- Diameter range: Ø 28 mm–180 mm
- Face spanner, model 40 758 (for installation or fastening of tension rollers)

**Special sizes and tension roller versions with flanged pulleys on request.**

## Clamping Plates

Clamping plates are often used in linear technology, when one or both belt ends need to be affixed to the housing.

Our delivery range includes clamping plates

- with or without drill holes
- for standard and special profiles, among others, T, AT, ATS, BAT, BATK, imperial size profiles, HTD profiles
- for belt widths from 10 mm to 85 mm



## Tension Plates

Whereas clamping plates only permit fastening of the belt ends, tension plates additionally ensure the setting of the pre-tension force by means of a tension screw.

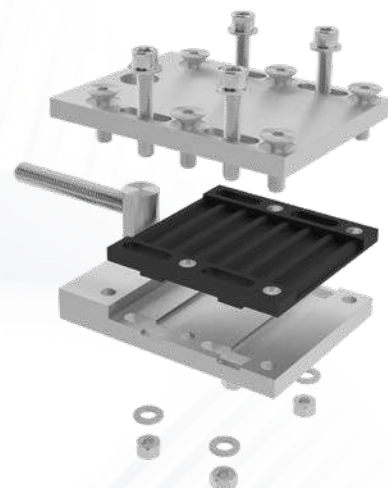
## Tension Plate System BRECO®-fix

BRECO®-fix is a complete system. It consists respectively of base plate, toothed insert, top plate, tensioning unit and standard part accessories. Thus, the time-consuming assembly and adjustment of the structural elements with one another can be omitted.

BRECO®-fix is available in various versions. In this way, it is optimally adjusted to individual belt types and belt widths and especially to the individual load intensity.

### The tension plate system is available

- in pitches of 5 mm, 10 mm, 15 mm and 20 mm
- for the profiles T, AT, BATK, ATL, ATS
- for belt widths from 25 mm to 150 mm



## On Track in Every Situation

Support rails are used as reinforcement and guide elements for conveyor belts in conveying systems. They are suitable for use with standard timing belts, but also for timing belts with special, e. g. self-guiding profiles.

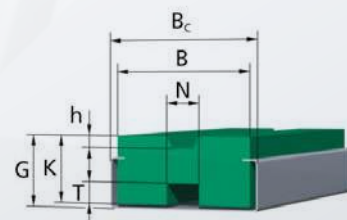
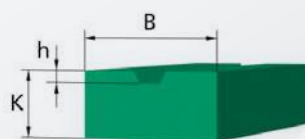
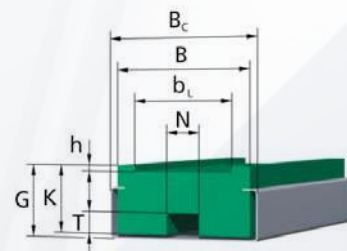
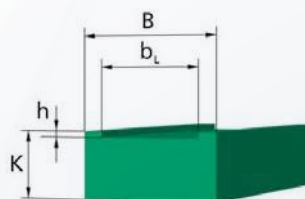
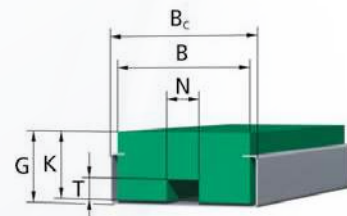
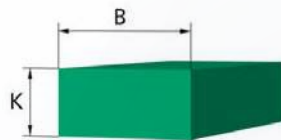
The support rails in our product range are made of polyethylene with a low friction coefficient ( $\mu \approx 0,3$ ) between polyurethane timing belts and rails. The linear length expansion is 0.2 mm/1 °C temperature difference over 1,000 mm of length.



All support rails in our product range are available with C profiles made of zinc-plated sheet steel for simple installation or without C profiles for individualised mounting.

### Product Range

- Support rail G, GC without lateral guides.  
Preferred where no strong lateral forces act on the conveyor belt.
- Support rails F, FC with lateral guides (heights: 2 mm, 4 mm or 7 mm).  
Preferred when the conveyor belt must be guided against lateral influences.
- Version K, KC with V-guide (V-notch: 6 mm or 13 mm).  
For polyurethane timing belts with self-guiding profiles.



## The Correct Pre-Tension – Security for Your Drive

Upon commissioning/start-up or during maintenance of a timing belt drive it is extremely important to set or check for the correct pre-tension. It is dependent upon the geometry and the load of the belt drive and must take place on-site.

The intrinsic frequency of a vibrating belt span can be measured by means of Mulco pre-tension measuring devices. This intrinsic frequency is in direct relationship to the belt tension, so that the respective pre-tensioning force on the span can be calculated from the frequency measured.

Correct pre-tensioning ensures low stress on the bearings, optimum belt run and thus, a long drive service life. Furthermore, the noise level is reduced and with wide belts the non-parallelism of the axes is balanced.

### Product Range

- BRECO® TSM alpha 1  
measuring range 5–500 Hz,  
optical sensor with one-sided belt detection,  
timing belts, flat belts
- CLAVIS  
measuring range  
30–600 Hz/10–300 Hz,  
acoustic measuring  
method, timing belts,  
flat belts, V-belts
- CONTI® VSM-1  
measuring range 10–500 Hz,  
optical sensor, timing belts,  
V-ribbed belts, V-belts
- CONTI® VSM-3  
measuring range 5–500 Hz,  
optical sensor, timing belts,  
V-ribbed belts, V-belts.  
Compact construction for  
drives with little available  
space
- SM 5  
measuring range 7–450 Hz,  
optical sensor, timing belts,  
flat belts, V-belts

Available from stock/Subject to prior sale.



## Premium Quality V-Belts

We offer a wide range of V-belts for industrial applications. This range covers virtually all applications, regardless whether it is for initial equipping of a new system or the spare parts supply for existing drives.

Our cooperation with renowned manufacturers provides you with quick availability of the required V-belts. When selecting our partners, we place great importance on

modern production techniques, strict quality controls as well as product optimisation and further development. In this way we are able to guarantee flawless, dependable and long-lasting products for our customers.

We stockpile standard elements on site at our warehouse for on-call delivery. Special productions of all types are also available.

### Product Range

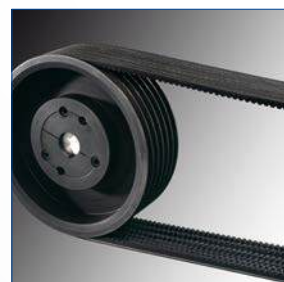
- Wrapped normal and narrow V-belts
- Raw edge, moulded toothed V-belts
- Wide V-belts
- V-ribbed belts
- Banded V-belts
- Wide angle belts
- Conveyor V-belts
- Link V-belts
- Double V-belts
- Special productions

The V-belts are also available in electrically conductive versions in accordance with DIN ISO 1813.



## V-Belt Pulleys Made to Measure Upon Request

We supply V-belt pulleys in pre-drilled or finish drilled versions, as taper pulley with bush or as special production according to your unique requirements. Upon request, V-belt pulleys can also be dynamically balanced. This takes place on our own balancing machines up to quality grade Q 2.5.



## Accessories

Taper tension bushes and welded hubs (model WH, steel), screw-on hubs (model SM, material GG25) and taper spacer sleeves complete the range for V-belt pulleys.

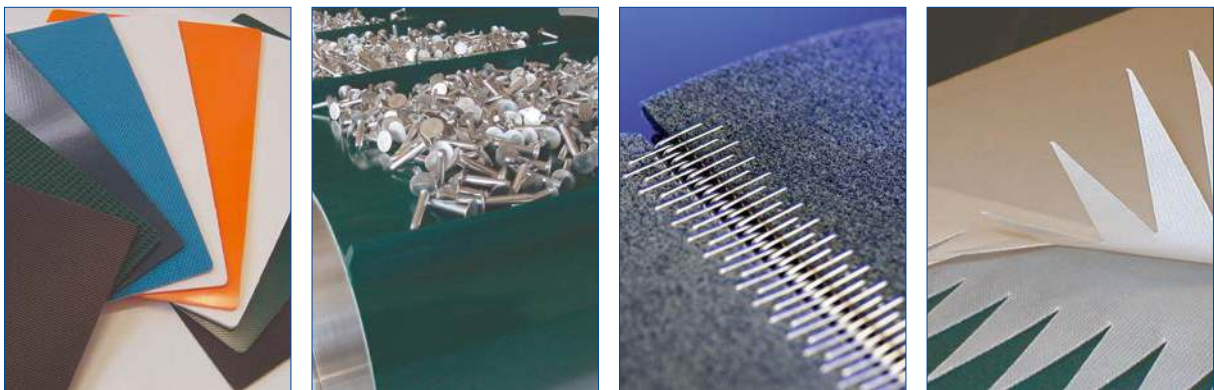


For air conditioning & ventilating applications (fans) motor tensioning slides are available in various motor sizes (installation size 63–250) and material versions (a.o. zinc-plated steel, stainless steel, KTL-coated).

## Versatile Applications, Different Versions

Our product range comprises drive solutions for most widely known areas of application, from stock items in standard dimensions up to special belts in accordance with your individualised specifications.

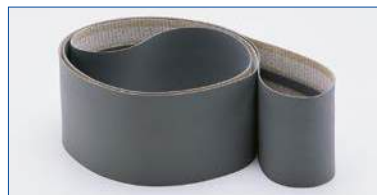
Also encompassed in our product range are endless woven belts without joins as well as open length belting, which we can mechanically join for endless belting as the customer wishes.



### **Flat belts and conveyor belts in our selection are distinguished by, among others, the following properties:**

- The design made of polyamide tension members and rubber, PVC or polyurethane coating provides outstanding damping properties, high running stability and simple installation.
- For low noise running (e. g. in logistics applications) the belts can be equipped on the running side with noise-reducing fabric.
- With the same surface and wrapping thickness on both sides, flat belt pulleys can also be driven with the front side of the belt as well as with the back side (valid only for endless produced flat belts).

- Various types of end joints ensure trouble-free use on many conveyor belt systems. Dependent upon the application, tapered joints or V-joints, single or multiple finger joints and mechanical anchoring joints (e. g. alligator joint) are used.
- Endless woven flat belts are available in all familiar and new, individualised special formats. Neoprene, polyurethane or silicone are used as coating materials. Equipped with cut-outs for conveyor bags, guide wedges, punched holes or intake openings, they can also be used as conveyor belts, drive belts or suction belts.



## Flat Belt Pulleys

We offer flat belt pulleys made of metal or plastic in pre-drilled or finish drilled versions as well as in taper tension bush versions. Upon request we are happy to produce to your special needs.

### Available Dimensions:

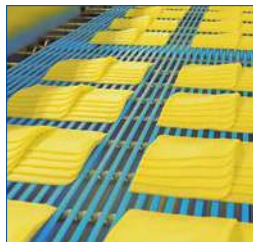
- We supply flat belts in all sizes up to a length of 60 m and a width from 4 mm–2,000 mm. Special lengths upon request.
- Endless woven belts are available in lengths from 200 mm–5,000 mm and widths up to 600 mm.

## Dependable Multi-Talents

Due to their excellent wear and abrasion resistance, round and V-belts made of polyurethane are ideally suited for a broad spectrum of applications in the most diverse branches of industry. These belts demonstrate a high degree of tensile strength, resistance and insensitivity against oils, greases, dirt and many chemicals. Due to their outstanding material properties they are flexible in use and can be welded directly at the machine on site using simple devices. This saves time and money – since users are spared the time-intensive and costly dismantling of the system as well as long downtimes.



For the increased requirements in the foodstuffs industry we offer FDA/EC/BfR (Federal Institute for Risk Assessment) compliant belts. These distinguish themselves due to their excellent hydrolysis and microbe resistance as well as a particularly long service life in wet areas.



An extensive selection with welding tools and accessories complete our product range. As an example, the patented friction welding device RS02: the ideal solution for perfect welding of polyurethane profiles in a matter of seconds.



### Material Properties:

- Weldable open length belting
- Temperature resistant between  $-30\text{ }^{\circ}\text{C}$  and  $+80\text{ }^{\circ}\text{C}$  (dynamic)
- High rebound resilience, low permanent expansion
- High static friction coefficient and thus good skid resistance even with changing load
- Quiet, cushioned running, optimum adaptability
- Drive and redirection via belt back
- Profiles of the same base material are weldable with one another

# Polyurethane Round Belts/V-Belts



## Range Overview – Belts

| Profile                                            | Dia-<br>meter<br>mm                    | PU 60 A<br>(approx. 65°<br>Shore A) | PU 65 A<br>(approx. 72°<br>Shore A) | PU 70 A<br>(approx. 76°<br>Shore A) | PU 75 A<br>(approx. 80°<br>Shore A) | PU 80 A<br>(approx. 84°<br>Shore A) | PU 85 A<br>(approx. 88°<br>Shore A) | PU 90 A<br>(approx. 92°<br>Shore A) | PU 95 D<br>(approx. 98°<br>Shore A) | TPE 40 D<br>(approx. 92°<br>Shore A) | TPE 55 D<br>(approx. 100°<br>Shore A) | TPE 63 D<br>(approx. >100°<br>Shore A) |
|----------------------------------------------------|----------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|----------------------------------------|
| Round timing belt<br>smooth/matt                   | 2–20                                   |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Round timing belt<br>rough                         | 2–20                                   |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Round timing belt<br>smooth/matt with TM           | 6–20                                   |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Round timing belt<br>rough with TM                 | 6–20                                   |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Hollow round<br>timing belt smooth                 | 4.8–15                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Twisted round<br>timing belt                       |                                        |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Hollow round<br>timing belt rough                  | 4.8–15                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| V-belt smooth/<br>matt                             | 6 x 4 (Y)–<br>32 x 20 (D)              |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| V-belt with TM                                     | 8 x 5 (M)–<br>32 x 20 (D)              |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Supergrip                                          |                                        |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Parallel V-belt                                    | 21 x 8<br>24 x 6.8<br>30 x 8           |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Parallel V-belt<br>with TM                         | 30 x 8<br>30 x 11                      |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Ridge-top V-belt                                   | (A, B, C)                              |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Ridge-top V-belt<br>with TM                        | (B, C)                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| V-belt with<br>convex surface                      | 8 x 5.5/6.5<br>17 x 11.3               |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Special V-belt<br>with taper                       | 17 x 11.4                              |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| U-profile,<br>square profile                       | 18 x 11.8<br>11.8 x 11.8               |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| T-profile                                          | 10 x 4.5<br>15 x 5<br>20 x 8<br>25 x 5 |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Prism V-belt<br>"Combelt"                          |                                        |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| 3 groove<br>V-profile                              | 17 x 11 (B)<br>22 x 14 (C)             |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Homogeneous<br>flat belt                           | Width: 700<br>Thickness:<br>1.6–3.0    |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Flat belt                                          | Width: 140<br>Thickness:<br>1.0–5.0    |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Welded-on pro-<br>file, belt edge                  | 6 x 4 (Y)–<br>22 x 14 (C)              |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| cleats<br>PU80A = flat base<br>PU90A = narrow base | 20–60                                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |
| Corrugated edges                                   | 20–120                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                      |                                       |                                        |

Tension members (ZT) available in polyester, aramid fibre and glass fibre PU. Steel tension members upon request.



# Chains and Chain Sprockets

## Product Range Chains

We supply chain drives for the most varied fields of application:

- Roller chains, single, double, triple in accordance with DIN 8187 and DIN 8188
- Chains with attachment plates
- Bush conveyor chains
- Conveyor chains
- Flyer chains
- Maintenance-free chains
- Stainless chains
- Plate chains in accordance with DIN 8182
- Hollow-pin chains
- Heat resistant chains
- Special chains made from hardened high-alloy steel
- Special chains according to sketch

## Chain sprockets

Regardless whether standard chain sprockets or special productions – from us you will receive the ideal chain sprockets for your application:

- Chain sprockets in pre-drilled or finish drilled versions
- Chain sprocket pulleys
- Taper chain sprockets
- Chain sprockets made of steel, cast steel and other materials up to a size of 3,500 mm
- Chain sprockets made from stainless steel
- Special chain sprockets according to sketch (steel, cast steel, stainless steel and other materials)



## Well-Mounted, Quiet Running

From miniature ball bearings with 1 mm drill hole diameter up to large size bearings with over 2,000 mm diameter, we keep all common versions on hand for you.



We offer you roller bearings with standard dimensions as well as drawing bearings with special dimensions. Moreover, we have plastic housed ball bearings with VA inserts e. g. for applications involving foodstuffs.

Respective of requirements we supply premium brands such as SKF, FAG and INA. For secondary intended uses we also have reasonably priced roller bearings available.

Do you have a "problematic" bearing with long delivery times? With our extensive selection and a worldwide network of partners you will certainly find your ideal solution with us.

**If you are looking for a suitable ball bearing for your application, give us a call.**

**We would be glad to give you a suitable quote.**

### Product Range

- Grooved ball bearings
- Single thrust ball bearings
- Four point bearings
- Angular contact ball bearings
- Spindle ball bearings
- Self-aligning ball bearings
- Axial deep grooved ball bearings
- Tapered roller bearings
- Self-aligning roller bearings
- Spherical roller bearings
- Cylindrical roller bearings
- Needle roller bearings
- Supporting rollers
- Cam rollers
- Housed bearing unit
- Bearing housing
- Bearings with imperial dimensions
- Pivoting bearings and joint heads



# Our Range of Services

## DRIVE TECHNOLOGY

- Polyurethane timing belt drives
- Special timing belts
- Elastomer timing belts
- Components
- Round and flat belt drives
- V-belt drives
- Roller bearings
- Chains and chain sprockets
- Motor tensioning slides

## PLASTICS TECHNOLOGY

- Milled parts
- Turned parts
- Acrylic glass machining
- Semi-finished products
- Cutting service
- Assembly groups
- Design service

## RUBBER TECHNOLOGY

- Moulded parts and profiles
- Punched parts and water jet cutting technology
- Suspension technology
- Hose technology
- Assembly groups
- Design service

## PRODUCTION

- Belt customising
- Belt finishing
- Conveyor belt production
- Timing belt pulleys and accessories
- V-ribbed belt pulleys
- CNC turning
- CNC milling
- Mechanical processing

## Any questions?

**We would be happy to receive  
your call, fax, or e-mail.**

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e-mail: [info@whm.net](mailto:info@whm.net)

### **Our Range of Services:**

- **Drive technology**
- **Plastics technology**
- **Rubber technology**
- **Production**
- **Technical consultation**
- **Design service**

# **WILHELM HERM. MÜLLER**

**Development. Service. Partnership.**

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