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We use our expertise in drive solutions to move our customers forward. In an environment which is more demanding than ever before on drives, motors and engines. Not just in terms of energy efficiency, service life and emissions of pollutants and noise, but also in minimising the cost of installation and maintenance.

The Power Transmission Group is a development partner and manufacturer of everything from power transmission belts and matched components right up to complete belt drive systems. Our products and systems deliver proven performance in the automotive industry and many other industries – through their quality and innovation. Two factors that we ensure not least by means of our unique know-how in rubber and plastics.

We develop and manufacture in line with market demands and operate in numerous industries – with committed staff in Europe, North and South America and Asia. In Europe we are now the market leader in timing belts and multiple V-ribbed belts. We have established our position as a series or sole supplier in key technological fields. We are also a reliable partner, achieving constant growth, in the automotive after-market and in our industrial outlets on a global scale.

Both, now and in the future our aim is to let our actions do the talking and to create social and economic benefits for our customers. That continues to be our driving force.

Konrad Müller
Head of Business Unit
ContiTech Power Transmission Group
Energy driving us forward

Managing goals together

Development and growth require mobility which drives, manages and moves, both in day-to-day vehicular mobility and in industrial processes. While faced with ever new requirements on engines, motors, machines and systems. We’re fully geared up to face such challenges. With advanced drive solutions based on rubber and plastics which transmit power safely, conveniently and efficiently, while protecting the environment at the same time.
System for movement
Energy driving us forward
Material combinations that meet all requirements: based on rubber and plastics.

Rubber and plastics constantly yield surprisingly varied properties and new applications. Our developers relish the challenge to their creativity to make more of these materials. Their commitment leads them to seek out and follow new routes to offer our customers power transmission belts which meet the high technical requirements relating to material and design.

Whether a power transmission belt has exactly the properties required depends to a large extent on the selection and compounding of the right materials and their combination with other materials. Some 2,000 formulations are available for an optimum material compound: it may be extremely hard but may also be particularly elastic and flexible. It is resistant to very high temperatures, but also to very low ones. It withstands aggressive media or mechanical stresses.

In combination with other materials, such as strength members made of metal or glass cord, we manufacture power transmission belts with defined properties, tailored to the particular application. We are using the options offered by nanotechnology to design specific improvements to these properties or discover new ones. Our goal is to research into and refine developments of materials and compounds. They are fundamental to our future belt technology.

Unleashing power. Achieving top performance. Working with materials gives us the energy that inspires everything we do.
Complete with a wide range of properties.
For demanding drives.

Drive components are constantly exposed to extreme loads and are intended to last for the lifetime of the engine or motor. The location in which they are installed exposes them to peak temperatures of up to 140°C. This calls for materials with extreme thermal stability. In a collaborative action with the polymer industry, ContiTech has developed a high-performance elastomer for temperatures ranges from –30°C to 140°C. This ensures reliable long-term drive operations in heavy-duty timing belts for vehicle engines. Another example is the CONTI SYNCHROFORCE® EXTREME. Although originally designed for industrial drives with high peak loads, this timing belt also performs excellently on rear-wheel drives of motorcycles, thanks to its stretch resistance and ultimate tensile strength.

The high flexibility and counter-bending performance of CONTI-V MULTIRIB® multiple V-ribbed belts make them particularly attractive. They reduce vibrations and noise and optimise the performance of compact serpentine drives but also very small machine tools.

CONTI® GREEN RUNNER: This timing belt is used for camshaft timing using oval sprocket technology, a system which reduces the belt forces occurring. On the one hand, this lowers component loads and cuts belt noise while, on the other hand, the width of the timing belt can be reduced to match that of a chain, thereby saving space. Another advantage over chain drives: lower frictional losses and therefore lower CO₂ emissions by the engine.
The CONTI SYNCHROFORCE® EXTREME timing belt is a special development for industrial applications in which high acceleration forces and high shock loads occur. This particularly powerful material combination features an extremely high stretch resistance and ultimate tensile strength. And these properties then also permit completely different applications, e.g. for the rear-wheel drive of motorcycles. It is an excellent alternative to chain or shaft drives, as it is significantly lighter and highly responsive.

**IN FOCUS**

**CONTI POLYFLAT® PU flat belt:** This PU flat belt is used in a wide range of applications, e.g. carwashes, forklift trucks and other lifting systems, but also in lifts, for example in the world’s tallest building, the Burj Tower in Dubai. Its special material combination consists of 12 extremely high-tensile steel cables wrapped in a special polyurethane layer. It is only 3 mm thick, but holds a weight corresponding to three compact cars.

**CONTI® UNIPOWER TOUGH GRIP:** This multiple V-ribbed belt is used to drive ancillary components in engines. It reduces noise emissions and has an extremely long service life. This is ensured by the innovative surface coating on the underside with its impregnation to prevent slip and wear. It is highly abrasion-resistant and offers extreme dynamic stability.
Managing goals together
Winning belt designs: in drive solutions for automotive and industrial applications.

Mobility and industrial functionality call for drive solutions of high technological and environmental quality. We face up to such challenges on a daily basis. Together with our customers we pursue goals, identify solutions and take responsibility. In the automotive, mechanical and plant engineering sectors.

In the automotive industry we integrate ourselves efficiently in the customer’s process chains via key account management, resident engineering and simultaneous engineering. This enables us to design developments more effectively, shorten the time to market even for complex drive solutions or initiate new developments.

We resolve the varied requirements of industrial applications using near-market industry management. Our customers benefit from a wide product portfolio which precisely meets their needs. But also from the experience gained in the development-intensive automotive sector which is then incorporated in our application-specific drive solutions.

All this means that we can supply the optimum power transmission belt for almost any drive specifically, quickly and flexibly. V-belts, multiple V-ribbed belts, timing belts and PU flat belts: our R&D department aims to use new materials technology and design ideas to develop innovative drive solutions and to constantly upgrade proven power transmission belts.
Aiming for operational reliability. With perfect belts in compact drives.

Whether intended for high-performance vehicle engines or high- or low-speed drives in industrial machines, our power transmission belts always meet the specifications relating to long service life, energy efficiency, cost-effectiveness, noise and weight reduction. For example, we have developed a variable speed belt for the main drive on scooters and micro cars with variator drives. This transmits the power from the engine to the rear axle almost without loss, even at high transmission ratios.

We were very closely involved in the development of a multiple V-ribbed belt for driving washing machine drums. Thanks to its special materials technology, it is elastic and adapts perfectly to the particular drive geometry. It can be fitted on drives with fixed centres, maintains the necessary belt tension and operates extremely quietly. Another example is a particularly high-performing automotive timing belt for driving injection pumps in common-rail engines. It remains fully functional over its entire lifetime of 300,000 km, withstands peak loads of up to 3,000 N and reduces CO₂ emissions thanks to its low friction losses.

Tough: CONTI SYNCHROTWIN® for drives running in the same or opposite directions

This double-sided timing belt is suitable for industrial drives running in the same or opposite directions. It reliably maintains a constant length, and its teeth have an extremely high resistance to deformation. Even the standard version of this double-sided timing belt allows particularly economical, synchronous power transmission on both sides. The heavy-duty version permits the direction of rotation to be reversed, even at high speeds and torques. The reason for this is that the elastomer is reinforced with aramid fibres.
Heavy-duty V-belt for the automotive industry and the mechanical and plant engineering sector. Seen here on a textile machine drive.

Multiple V-ribbed belt for compact drive designs in the mechanical and plant engineering sector, in the white goods industry or, as here, for driving ancillary components in vehicle engines.

Timing belt for a wide range of applications in industrial machines or in engines – as here, in a camshaft timing gear.

Timing belt for high-torque, high-speed drives in industrial applications or, as here, in a kart.

PU flat belt for a variety of applications, e.g. in drives in car washes, forklift trucks, lifts or, as here, in an elevating platform application.
System for movement
Perfect teamwork. Operating hand-in-hand. A formation which creates confidence and certainty.

High performance and a long service life, on the one hand, with lower emissions, noise and weight, on the other. Drive solutions have to be implemented in very tight spaces, yet meet all these requirements. Our engineers and application technicians think holistically and develop with systems in mind: for compact drive designs and complex belt drive systems.

We’re on call when new generations of engines or motors require innovative power transmission belts or when high functionality and efficiency are needed for a wide range of industrial applications. Our automotive customers rely on our experienced key account management and resident engineering staff. When developing belt drives for camshafts and ancillary components we use the strengths of our partners for drive components and engine elements. In this way we can ensure that take-up and deflection pulleys, sprockets and power transmission belts are optimally matched to each other: in engines for cars, trucks and buses.

Broad-based research and development
We pit our comprehensive R&D capability against the demands for ever more compact, convenient and environment-friendly drive solutions. ContiTech Power Transmission Group’s international R&D centres in Germany, the UK and Korea pool the necessary resources in the shortest possible way. The direct access to Continental Corporation’s central R&D services extends our R&D base, particularly on issues relating to environmentally compatible materials, material properties and component performance. But production processes and test/analysis methods are also covered. Our R&D work is focused not just on the factors of durability and operation of drives, but also on optimising lifecycle costs and energy efficiency.
Quiet and extremely durable. The CONTI® UNIPOWER TOUGH GRIP multiple V-ribbed belt is used to drive ancillary components in cars. It really shows what it can do when used as a drive belt for belt-driven starter generators (BSG). These electrical machines reduce fuel consumption by five to ten per cent in stop-start driving. This means that CO₂ emissions can also be significantly reduced in stop-and-go traffic. If the BSG is to function optimally, it requires a belt that is tough yet flexible and can transmit forces reliably and quietly throughout its life. The CONTI® UNIPOWER TOUGH GRIP can do all this thanks to its aramid tension members and the new surface technology on its underside.

Environment-friendly: the CONTI® UNIPOWER TOUGH GRIP in belt-driven starter generators (BSG)

• Heavy-duty timing belts transmit rotary movements synchronously at high speed in printing machines.

• Specially wrapped V-belts ensure smooth clutch operations in ride-on lawn mowers.
We offer a wide spectrum of high-quality solutions for common vehicle or industrial applications: for driving, controlling and moving. • In vehicle engines, timing belts control the camshafts and drive injection pumps. Multiple V-ribbed belts drive ancillary components. • In car front axles rubber timing belts drive power steering systems.

Our power transmission belts are used almost universally in industry. • Raw-edge V-belts are used to provide reliable drives in the general engineering sector. • Multiple V-ribbed belts permit belt speeds of up to 60 m/s in machine and power tools. • Polyurethane timing belts move, convey and position items synchronously and precisely in conveying systems, linear transfer technology and portal robotic systems. • We ensure reliable drives even in unusual configurations – rotated, offset, inclined, in tiny spaces: for example in seat back adjustment units. Our drive solutions embody the know-how that we have acquired across a range of segments and industries, know-how that is continually expanding and that we use for the benefit of our customers.

• Dry-running hybrid rings allow the fuel consumption of continuously variable transmissions to be reduced.

A permanent presence. With the right power transmission belts for a wide range of industries.

- Lifts and escalators
- Cars / trucks / buses
- Printing machines
- Garden machinery
- Compressors
- Agricultural machinery
- Textile machinery
- Door and gate drives
- White goods industry
The vulcanisation process is computer-controlled. Every coil is heated in an appropriate vulcanisation mould, depending on its size. Fully automatic slitting machines cut the vulcanised coil into individual belts. The specific cutting parameters are computer-controlled.

During coiling of the tension members, an automatic laying unit ensures precise strand tension and consistent strand spacing.
We have process, quality and environmental management systems in place to respond to the stringent requirements demanded of us as an international supplier in the automotive, machinery and plant sectors. Each of our product and system developments is accompanied by comprehensive test procedures which ensure the required high level of functionality and quality. In doing so, we always address the performance of the total system. Numerous dynamometers and a wealth of laboratory and test facilities, such as the company’s own Contidrom test track, are available for this purpose. This permits us to test our power transmission belts under almost authentic conditions. Process-controlled manufacturing cells and the high level of automation along the entire production chain enable the flexibility of just-in-time production. By automating, interlinking and monitoring different work stages such as “coiling”, “application of the rubber plate” and “vulcanisation” we can guarantee reproducibly high quality in series production and achieve shorter throughput times. When coiling the tension members, for example, electronically controlled finishing machines are used which permanently compare target and actual performance. In our testing and production procedures we employ high standards which often exceed specified requirements. Certifications and awards from our customers are evidence of the high standards we expect of product and production quality.

We stand for assured quality.
With rigorous testing and manufacturing practices.

Driven by nature:
the CONTI-V® PIONEER for drives in machines and systems

In the CONTI-V® PIONEER ContiTech has succeeded in manufacturing the first wrapped V-belt made largely of renewable raw materials which meets the conductivity requirements to ISO 1813 even without any carbon black content. The use of chemical constituents was largely avoided during development, with raw materials such as vegetable oils or cotton being used instead. Apart from its environmental benefits, the CONTI-V® PIONEER offers all the same performance features as ContiTech’s V-belts to date: high strength and stability, low elongation, optimum power application and high operational reliability mean that the CONTI-V® PIONEER can be used in a wide variety of machines and systems.
Our leading position in the automotive OEM market is the platform for our international automotive aftermarket operations. These mirror the high product and system quality of OEM products, backed up by first-class customer service. In Germany we are the no. 1 with a market share in excess of 50%, while in Europe and the rest of the world we are among the top three suppliers.

Original quality – the best replacement.
We supply drive components in OEM quality for the automotive aftermarket.
IN FOCUS

Worldwide availability
The demand for drive components is growing worldwide. The flexible sales organisation and product range which we have put in place mean that we are able to service over 95% of all vehicles on the aftermarket. We act quickly and can provide new products within a very short time of OE uptake. We regularly update our product range and invest in achieving international market access.

Comprehensive service range
We actively support trade outlets and garages: from a technical hotline to high-quality training courses and to sales aids for the point-of-sale. The interactive searchable catalogue enables users, for example, to find the right power transmission belt quickly and easily. Special brochures give practical tips. Measuring equipment and special tools enable our power transmission belts and kits to be fitted inexpensively and reliably.
Your wish is our command – whether you are an OEM or a trade outlet

Every production operation needs reliable drives. The more efficiently they work, the better. Our new developments and our wide and mature range of power transmission belts enable us to meet the needs of a large number of industries. For OEMs and trade outlets. We ensure that our products are available worldwide: via trade outlets, qualified distributors and our own sales departments.

Partner to our customers

No matter what type of power transmission belt the customer requests from us – V-belts, timing belts or multiple V-ribbed belts, for compact or linear drives: with over 10,000 belt sizes and types we can equip or optimise almost any drive with the appropriate belt. Our dealer structure, with more than 120 warehouses in Europe, ensures efficient distribution. We support our dealers and distributors and develop their skills by means of product training sessions and courses on drive systems.
Efficient: CONTI® SUITE – the design package for trade outlets and industry

The choice of the right drive in the right size is just as important as the optimum power transmission belt. Over- and undersized drives are not cost-effective and suffer from reduced service lives. Thanks to its parameter-oriented functional algorithm the CONTI® SUITE software package always guarantees the greatest possible efficiency when it comes to belt selection. ContiTech has developed the DRIVE ALIVE module for the simple, optimum design of drives with more than two pulleys and tension take-ups. The multi-pulley module takes account of the belt load when using up to ten individual pulleys. Individual drive parameters are fully user-definable in the software, with the result that alternative solutions and requirements can be directly tested.

Trade outlets and industry use and value our professional service, for example the CONTI® SUITE software package for optimum power transmission belt design. Or the CONTI® VSM series of fully electronic tension gauges for the accurate testing of belt drives.
Internationality

Planned growth, with shared market opportunities

Operating in immediate proximity to the customer is part of our strategy. We plan our growth by committing strongly to new sites if this is a sensible move strategically or technologically. Our networking of contacts both in-house and with our suppliers, customers and partners enables us to identify tomorrow’s requirements at an early stage. We have the technological and economic know-how to accelerate developments, to achieve rapid series maturity with our products and to ensure their market availability. Our employees are our key resource. Their training and development is one of the crucial factors for a successful future. We foster the exchange of knowledge within the Group, the ContiTech Division and Continental Corporation. On an international scale too – as a welcome source of new perspectives and ideas.

Close to the customer: decentralisation strategy

The internationalisation of the ContiTech Power Transmission Group is an ongoing process, e.g. the integration of the Danish Roulunds Rubber Group. The production sites and sales offices acquired in this way have enabled us to further strengthen our market presence in Asia and parts of Europe, bringing us even closer to our customers now. Roulunds manufactures and sells power transmission belts, specialising in V-belts. The Roulunds range ideally complements the Power Transmission Group’s portfolio, e.g. power transmission belts for agricultural machinery.
ROFLEX-GARDEN™ – V-belts for garden and park maintenance equipment, such as ride-on mowers and rotovators.
Ensuring excellent prospects for the future

When our customers put their trust in us, it increases our responsibility to meet our goals together. As a sought-after development partner and supplier, we initiate lasting trends with our materials technology and design innovations for belt drives: for more efficient mobility, greater safety and comfort, enhanced consideration for the environment and a higher level of industrial functionality.

ContiTech Power Transmission Group is part of ContiTech AG, which employs over 21,000 staff on 85 sites in 26 countries. With R&D centres, manufacturing facilities and sales offices in a total of 21 countries, we, the Power Transmission Group, can be found wherever our customers need us and concentrate our know-how in four market segments.
The ContiTech division of the Continental Corporation is a development partner and original equipment supplier to numerous industries for high-quality functional parts, components and systems. With its know-how in rubber and plastics technology, ContiTech contributes significantly to industrial progress and mobility that is safe, comfortable and eco-friendly.