Product Solutions

Fenner®

Reliable | Trusted | Connected

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Fenner® Product Solutions - tried and trusted worldwide for over 150 years.

Dedicated to continual improvement for over 150 years, Fenner® has long been a trusted brand worldwide across a wide range of industry sectors and has a proven track record in supplying added-value problem solving products for power transmission applications.

TRANSMISSION BELTS | COUPLINGS | SHAFT FIXINGS | CHAINS | GEARBOXES | INVERTERS

More and more companies are finding that the synergies gained by purchasing the whole of their drive train from Fenner® makes commercial and engineering sense.

Drive Reliability

The investment in commercialising engineering best practice continues to make Fenner® power transmission products the sensible choice. They are renowned for delivering rugged dependable construction and efficient performance – every time. It's a range that helps you drive reliability across your site.

Trusted

The commitment to quality shows through in the details of each design and during the manufacturing process. Fenner® power transmission products will always go beyond the most exacting standards to perform with minimal intervention to give piece of mind at the lowest lifetime cost.

Connected

Fenner® power transmission products embrace the latest control and connectivity technologies and are IoT ready. Individual products can be connected together to form a complete drive then connect into your overall system with ease. They are simple to install, commission then operate as a standalone drive or as part of an integrated system.

One of Fenner®'s key objectives is to continually drive technology forward.

www.fptgroup.com

> Installation videos
> Installation and Maintenance Instructions
> Technical Data sheets

Quality Assurance

The Fenner® Quality Assurance Initiative forms the foundation on which our complete power transmission range is constructed.

It is a worldwide commitment to quality and a guarantee to our customers that the quality of the products we supply will always meet exacting, agreed and internationally recognised industry standards to ensure Fenner® products excel in today's demanding applications.

Product Development
At the core of the initiative is a continuous quest for improvements in product performance, reliability and safety.

Exacting Standards
Incorporating material testing, process control, as well as noise studies, vibration analysis and safety performance checks, our specified controls ensure that only the best is supplied.

Performance
FPT Quality Assurance Initiative was designed to ensure that the Fenner® products perform cost effectively, throughout their lifetime to deliver superb customer value underpinned by engineering excellence.

Heritage

Formed in 1861 by Joseph Henry Fenner manufacturing horsehair and leather belts, the brand has grown consistently to become one of the largest suppliers in the world. Synonymous with quality hard wearing products, a feature that remains a cornerstone of the brand today.

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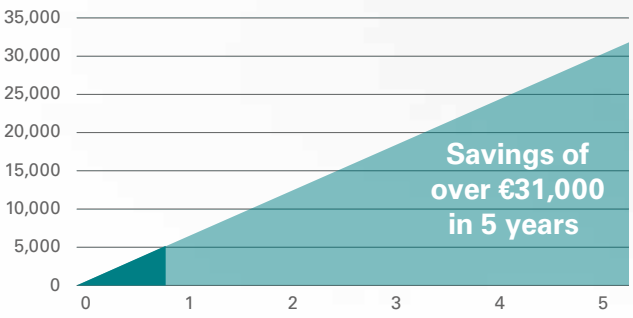
Fenner® Inverters

Fenner® inverters have been designed from first principles to deliver optimum cost savings with no loss of performance. These Inverters are very easy to install and commission and they run from the box in seconds. EMC filters are built in as standard.

Typical investment pay back in 8 months



Fenner® In Action: QD Flow Inverters

A leading plastics extrusion company contacted their local Fenner® Distributor to seek advice on potential energy savings. Following a visit by an approved technical engineer, it was quickly identified that substantial savings could be achieved by electrically controlling the pumps which fed water coolant to the extrusion machines.

The existing arrangement meant that the pump worked at full flow even if only one machine was working.

Each machine has its own isolator valve which was turned off if the machine wasn't working.

The suggested solution was a 18.5kW Fenner® inverter which controlled the flow of the pump on demand, instead of all the time. This resulted in a significant reduction in energy costs with a payback period of less than one year. The customer is now systematically installing Fenner® drives on all of their variable torque applications.

Attention to detail makes all the difference...

Because many inverters are placed in low light areas, the keypad is designed to feature OLED technology - making Fenner® inverters easier to read and easier to use.

IP55
IP66

+98%
Energy Efficient

QD:Evo

Easy To Use 0.37kW - 11.0kW

The Fenner® QD:Evo is a value packed basic drive ideally suited for low power applications that require 'best in class' purchase value. Operating from a small space-saving envelope the QD:Evo is fast to set up, simple to use and suitable for most applications.

- Easy to install
- Simple keypad control
- 50°C ambient rating for hot, tough applications
- Free lifetime technical support
- Energy optimising functionality
- IP66 outdoor version available

IP55
IP66

+98%
Energy Efficient

QD:Flow

Variable Torque 0.75kW - 200kW

The Fenner® QD:Flow is a robust, reliable, low cost solution for virtually all variable torque (HVAC) applications such as fans and pumps. Designed to maximise energy savings, it features an automatic energy optimiser function which reduces motor voltage to match the load.

- Features rapid start and fan control even when the fan is in motion
- Built-in master and slave function
- Features built-in Modbus RTU for easy connection to high level networks
- Unique Pump and HVAC specific features for precise control and integration
- Sensorless vector control for improved energy efficiency

IP55
IP66

+98%
Energy Efficient

QD:Neo

Constant Torque 0.75kW - 200kW

The Fenner® QD:Neo is the new generation of our High Performance Open Loop Vector inverter. Featuring an easy to use Permanent Magnet Motor control, ready for IE5 motors.

- Quick and simple installation
- Ultra quiet motor operation
- NFC and Bluetooth connectivity
- Easy to read TFT display
- Quick to commission
- 150% overload for 60 seconds
- Sensorless vector control for improved energy efficiency
- IP20/55/66 enclosures available

Q:Stick

For fast, accurate repeat programming

- Upload/download buttons allows for fast copying of parameters between drives
- Infra-red and bluetooth communications capability provides remote control convenience
- Can be programmed by PDA/smart phone

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Fenner® Geared Motors

Fenner® Geared Motors deliver the ultimate in flexibility. Customers can choose from IE3 and IE4. Special coatings are available for Food manufacturing, Water industry and many other markets.

The Fenner® range of gearboxes incorporates a number of design features including: Modular construction, highly efficient pre-reduction and standard mounting platforms, all of which deliver superb value for both individual drives and integrated systems.

Fenner® In Action: Series K

A geared motor driving a blender was leaking oil and running very noisily. As the blender could not be taken out of production, a replacement needed to be sourced as a matter of urgency.

The OEM quoted a 20 week delivery for a direct replacement at a cost of over £20k. Following discussion with their local Fenner® distributor and working alongside Fenner® technical specialists, a solution was engineered using a Fenner® Series K geared drive.

The units were specified as non-motorised, enabling the customer to use a wedge belt drive from the motor to reducer. This assists with the fitting of the unit, allowing site engineers to move the motor and gearbox as separate units if required. The motors supplied were IE3 premium efficiency, offering the customer additional savings over the previous unit.

The introduction of a Fenner® Series K bevel helical, IE3 premium efficiency motor and Fenner® Quattro PLUS wedge belt drive gave the customer a rugged, reliable solution in one brand.

Attention to detail makes all the difference...

Fenner® Geared Motors are "dry fit" across the range. The dry fit principle allows the user to disconnect the electric motor without oil spillage leaving the gearhead in place, if required, saving costly downtime.

Series K

Bevel Helical Range 0.18kW - 90kW

With high load carrying capabilities and increased efficiency over worm units, the right angled Series K range is proven to save energy and reduce running costs.

> Right angled
> Up to 12,300 Nm
> 8:1 to 7250:1 ratios
> Foot, flange or shaft mounting

Series M

Coaxial 0.18kW - 90kW

This coaxial gearbox is designed to be utilised in a wide variety of situations, combining high load carrying capacity with high efficiency and reliability.

> In-Line
> Up to 11,000Nm
> 5:1 to 11,000:1 ratios
> Foot or flange mounting

Cyclo

Cycloidial Range 0.12kW - 55kW

The revolutionary design offers smooth and silent operation and excellent resistance to overloads. Extremely high ratios can be achieved offering high efficiency in a very compact package.

> High overload capacity up to 500%
> Compact size and reduced noise level
> High reliability with 2 years warranty
> Exceptional life compared to other types of gearing

Series C

Helical Worm 0.18kW - 45kW

This helical worm gear unit to outperform any other Gearbox in terms of lowest cost/Nm. The Series C right angle range provides a highly efficient and compact solution.

> Right angled
> Up to 10,000Nm
> 8:1 to 13,500:1 ratios
> Foot, flange or shaft mounting

Series F

Parallel Shaft 0.18kW - 110kW

This range of parallel shaft mounted geared motors and speed reducers offers high efficiency and interchangeability with other leading brands.

> Parallel off-set
> Up to 16,500Nm
> 4.5:1 to 5,700:1 ratios
> Flange or shaft mounting

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Fenner® Geared Drives

Fenner® SMSR Power PLUS, the latest generation of the market leading shaft mounted drive with an extended range of ratios, increased power to weight ratio and up rated Taper-Grip™ rapid mounting/dismounting system.

Taper-Grip

The unique Taper-Grip bush locking system allows Fenner® SMSRs to be secured to the driven shaft overcoming mounting difficulties.

- Transmits 300% more torque
- Accommodates shaft tolerance to h11
- Resistant to fretting corrosion
- Allows easy removal of gear unit

Fenner® In Action: Series P

A UK based aggregates company identified an issue with their existing gearbox on the main field conveyor. With limited access to the plant and with the existing gearbox now obsolete an alternative solution was required that could be installed using the existing fixings and minimal modification to the plant.

With its modular construction and output torque ratings up to 900,000Nm the Fenner® Series P would provide an ideal solution to the customer's problem.

An engineered solution comprising Series P industrial reducer and FenaFlex™ coupling with coupling guard fitted to a bespoke base plate, the 'drop in' package solution was delivered to suit the customers' planned maintenance window.

Attention to detail makes all the difference...

The industry standard for more than 50 years, Fenner® geared drives have been developed with the user in mind. The SMSR with its unique Taper Grip output hub solution reduces fretting corrosion making removal issues a thing of the past.

Fenner® SMSR

Shaft Mounted Speed Reducer
0.25kW - 250kW

The Fenner® SMSR PowerPLUS offers a rugged design and a 50% increase in the power to weight ratio over the older versions. The PowerPLUS version is more compact for easier handling and features an increased range of bore sizes.

- Compact, rugged design
- Bore sizes ranging from 20mm to 190mm available
- Metric and imperial reducing bushes available
- Easy fit backstops available

50% Better, 100% Fenner® More compact, same reliability in the toughest of conditions

Series P

Bevel Helical 6.0kW to 4,500kW

The robust Series P gearboxes have a modular construction enabling short lead times. They are available in double, triple and quadruple reduction gear stages having a maximum output torque range of up to 900,000Nm.

- Parallel shaft helical gearboxes
- Right angle bevel-helical units
- Versatile mounting positions
- Motorised or reducer options
- Hollow bore or output shaft mounting
- Ratios up to 500:1

Series W

Worm Box 0.06kW - 15kW

A modern modular designed aluminium worm box available in a vast range of sizes and ratios for cost effective solutions.

- Dimensionally interchangeable with the market leaders
- Versatile mounting
- Excellent mechanical strength whilst being especially lightweight
- Accepts standard IEC electric motors

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Fenner® Transmission Belts: Friction

World renowned for their rugged construction and efficient performance, Fenner® friction belts have been tried, trusted and specified by many of the worlds largest industrial manufacturers for over 150 years. They won't let you down.

Fenner® In Action: Fenner® Ultra PLUS

Vee Belts offer a versatile and economical low maintenance drive which is standardised throughout the world. Fenner® Classic Vee Belts are fully approved to all international standards allowing for optimised drives for compact size and economy.

However did you know that the Fenner® range of Ultra PLUS wrapped wedge belts transmit significantly more power (30%) than the classical vee product and run in the same pulleys!

A well known aggregate production plant was encountering problems with a fan on their site. The maintenance team were replacing drive belts on a more and more frequent basis and the situation couldn't continue.

After a site visit, the customer was offered an alternative drive solution comprising of new pulleys and SPC4500 wedge belts. Due to the upgrade to wedge belts the customer was also able to reduce the number of drive belts from 12 to 8 which also gave the added benefit of less over hung load on the fan and motor bearings.

- Reduced energy consumption
- Power transmission significantly increased
- Increased drive performance

>98% Energy Efficient

Quattro PLUS CRE

Relative Power ϟ150

The Quattro PLUS CRE is a synthetic rubber EPDM heavy duty belt that transmits 26% more power and 15% longer life than the traditional CRE belts.

- Enhanced tooth profile improves flexibility, reduces bending resistance, efficiency and life
- Extended temperature range -40°C to +130°C
- Lower pre-tensioning force offers longer bearing life and extends maintenance periods between re-tensioning

>96% Energy Efficient

Ultra PLUS

Relative Power ϟ100

Ultra PLUS belts achieve economic performance by use of low elongation polyester cords and abrasion resistant impregnated jacket fabric.

- Accuracy and stability of length
- 'One Shot' tensioning - no matching
- Highest industry standards for static conductivity and non-ignition properties
- Heat and oil resistant

>97% Energy Efficient

Ultra PLUS CRE

Relative Power ϟ120

Ultra PLUS CRE excels in the high ratio applications used in today's compact drive envelopes, by combining flexibility with structural stability.

- Accuracy and stability of length
- 'One Shot' tensioning - no matching
- Special compounds used to improve flexibility and strength
- Higher running efficiency than wrapped belts

Polydrive PLUS

Multirib / Poly Vee Belt

Suitable for high belt speed applications and capable of operating on high ratio drive systems.

- Ideal solution for compact drive requirements
- Suitable for high speed operation (may require special pulleys depending on peripheral speed
- Suitable for reverse flexing and back idlers

Classic Vee Belt

Relative Power ϟ70

Ideal for high ratio or small pulley drives, the Fenner® Classic V belt has a specially treated jacket to give superior anti-static, heat and oil resistant properties.

- The original V belt
- Proven performance over several decades
- Huge range of sections and lengths

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Fenner® Transmission Belts: Synchronous

Designed to handle high speeds and demanding loads, Fenner®'s advanced synchronous belt technology provides maintenance-saving benefits and superior efficiency across a vast range of industrial applications and industries.

Fenner® In Action: Torque Drive PLUS 3

A large UK steel manufacturer was experiencing on-going problems with one of their drives. The chain drive on a conveyor belt which carries magnets above main coal/coke conveyor was failing prematurely on a regular basis.

Following an inspection, the customer was advised to change the drive from a chain solution - that requires lubrication and periodic maintenance - to a synchronous belt drive using Fenner® Torque Drive PLUS 3 (TDP3).

Fenner® TDP3 is more than capable of transmitting the torque required, and easily fits into the same space envelope as the chain drive, but removes the lubrication issues that were causing premature failures.

In addition, new guarding was added to the replacement drive to direct flow of any dust which may fall from the conveyor belt, to further increase the life, and prolong the efficiency of the new belt drive.

- Dramatically reduced drive maintenance
- Highly efficient drive - up to 96% efficient
- Dry solution, no oil anywhere near the conveyor

Torque Drive PLUS 3

Relative Power ϟ150

The state of the art Fenner® Torque Drive Plus 3 (TDP3) works with standard HTD pulleys to provide the ultimate combination of power capacity, low noise and high accuracy in a belt drive.

- The highest power rating in the range
- Enhanced compounding and glassfibre cord excel in highly dynamic applications
- Ultra compact and cost effective
- Polyamide facing layer reduces noise, extends life
- Quiet operation, even at high speeds

HTD Timing Belt

Fenner® HTD timing belts are the first generation of metric 'curvilinear' tooth form synchronous belts for 'High Torque Drives'.

With their associated Taper-Lock™ pulleys, they form cost-effective drives for medium duty applications.

- Cost effective drives for medium duty applications
- Curvilinear tooth improves stress distribution for higher tooth strength
- Offers a more compact drive than classical timing belts
- Full range of Taper Lock® pulleys in 5, 8 and 14mm pitch
- Fully approved by all international standards

Classic Timing Belt

Fenner® Classic Timing Belts are the original square toothed belts. In conjunction with their associated pulleys classical belts provide an economic solution for light drive applications.

- Classical profile imperial pitch belts
- Efficient and economical
- Fully approved by all international standards

PowerFlex Polyurethane Timing Belt

- Zinc coated steel cords for superb length stability and high breaking loads
- Low pre-tension requirement
- Available in open lengths

The Ultimate Flexibility:

Timing Belts Cut to Size

Fenner® Classical Timing, HTD and TDP3 belts cut to size.

In the UK and Germany, slab stock is held centrally and can be cut to any width to suit your requirements.

This stock, along with standard single belt stock gives the ultimate in flexibility allowing the supply of synchronous belts same day or on a breakdown basis if required.

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Fenner® Pulleys & Accessories

Fenner® pulleys are manufactured from high grade iron using the Taper Lock® fixing system for ultimate versatility.

Available with pilot bore fixings or using the Taper Lock® shaft fixing system for ultimate versatility. Fenner® friction pulleys provide a high grade of accuracy.

> Manufactured to ISO standards
> Surface treated to reduce corrosion
> Specials available

The Fenner S.C.I.E.N.C.E. Explained

With Fenner® it's all about the **S.C.I.E.N.C.E.** - **S**elect **C**orrectly, **I**nstall **E**ffectively, **N**ever **C**ompromise **E**fficiency, if you adhere to these simple rules you can be confident that your drive selection will achieve optimum efficiency, full operating life and provide reliable performance.

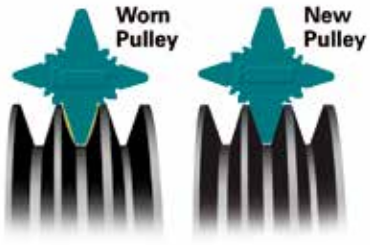
Select Correctly
A correctly selected drive for your application will ensure the drive uses the fewest number of belts or the absolute minimum of belt width.

Install Effectively
Correct installation - once you have carefully selected your belt drive components - is paramount to the longevity and efficiency of your belt drive, by following the correct installation procedures to the letter and by using the right tools for the job, we can ensure the drive delivers its maximum rated power and efficiency.

Never Compromise Efficiency
Ensuring all your drives are an integral part of a planned maintenance schedule you can ensure the process up-time is at an absolute maximum and prolong the life of the drive.

Remember your drive stands or falls by the accuracy of its installation, so take the time to get this right and you will reap the rewards.

Use the S.C.I.E.N.C.E.



50% of new belts are fitted to worn pulleys - wasting energy and compromising the lifespan of new belts.

Replacing a worn belt but leaving a worn pulley in place will do little to restore the efficiency of a drive and the belt will have a far shorter life span that it should.

Friction Pulleys

- Dual duty grooves to ISO 4183, dual duty pulleys accept both wedge and vee belts
- High grade cast iron used for construction
- All pulleys are statically balanced
- Rim speeds of up to 40m/s possible*
- Special designs available

Pulley Groove Gauge

50% of new belts are fitted to worn pulleys - which can waste up to 10% of your energy input. The Fenner® groove gauge can quickly help you assess the health of your pulleys.

- Quick, simple visual inspection tool
- Highlights pulley inefficiency due to wear

Drive Alignment Laser

The Fenner® Drive Alignment Laser is the perfect tool for pulley and sprocket alignment. Applied magnetically in just a few seconds, the laser line projects onto targets allowing rapid adjustment for perfect alignment.

- Reduces wear on belts, pulleys, chain, sprockets
- Increases drive efficiency for larger energy savings
- Quick and easy to use, producing accurate results
- Shows parallel and angular misalignment
- Suitable for both vertical and horizontal mounted machines

Synchronous Pulleys

- Available in both classical timing and HTD profiles
- Meet ISO 13050 and IS5296 standards
- High grade cast iron used for construction
- Precision machined grooves protect and maximise belt life and reduce noise
- Rim speeds of up to 40m/s possible*

Belt Tension Indicator

Achieving optimum efficiency relies on meticulous drive design andcare during installation. A correctly tensioned drive avoids belt slippage that can decrease overall efficiency.

- Ensures belt drives are operating at the optimum efficiency
- Simple accurate belt tensioning

Belt Efficiency Kit

For quick and simple installation - order yours today!

* Please consult your local Fenner® stockist

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Fenner® Shaft Fixings

Fenner® shaft fixing solutions offer seamless installation and dependable operation. Each system is precision-engineered for rapid fitment, superior alignment, reducing downtime while enhancing overall performance.

Fenner® In Action: Taper Lock®

When manufacturing Fan and HVAC drives, the OEM has to take many potential issues into account during the design phase. These range from getting the maximum efficiency from the fan to reducing bearing vibrations and extending machine life.

It is not uncommon for these types of drive to run at 2 pole motor speeds and above so vibration and noise is high on the designer's trouble shooting list and when peripheral speeds of components begin to exceed 30m/s, balancing becomes a huge issue.

It is at this point the Fenner® range of Taper Lock® pulleys, weld on hubs and bolt on hubs really come into their own. Not only are all Fenner® pulleys statically balanced to G6.3 or better, they also utilise the Fenner four hole bush arrangement which ensures excellent assembly balance qualities and means the Fenner® products can run safely at peripheral speeds of up to 40m/s.

So whether you are using a belt drive or coupling to rotate the fan or the fan is secured to the fan shaft using Fenner® weld on or bolt on hubs, you can be sure of excellent balance quality and enhanced machine life when you specify Fenner® Taper Lock® products.

Attention to detail makes all the difference...

Because of the quality of the machining geometry, Fenner® Taper Lock® bushes can accept very large tolerances - +0.05 - -0.125mm.

Take a look at the Fenner® Taper Lock® Installation video:

Taper Lock®

Easy-on, easy-off

Machined to exacting tolerances in cast iron and steel, it is the most successful shaft fixing in the market place today. With a full range of both metric and imperial sizes as well as a full range of weld-on hubs, bolt-on hubs and hub adaptors.

> Ease of installation and removal
> Equivalent to a shrink-on fit on uniform load applications and thus eliminating the cost of a key
> No costly re-boring
> Range fits up to 125mm/5" shafts
> Special 4-hole feature for balanced assemblies
> Complete short reach range available, for compact lightweight assemblies

Adaptors

For use with parallel bore eliminating the cost of drilling, tapping and taper boring.

> Keyed version also available for heavy duty applications

Bolt-on hubs

A convenient means to secure fan rotors, steel pulleys, plate sprockets, impellers etc. to shaft.

> Welding not necessary

Weld-on Hubs

Manufactured from steel to provide convenient means to secure fan rotors, steel pulleys, plate sprockets, impellers etc. to a shaft.

> Shouldered outer diameter allows for easy location

Trantorque GTR

Trantorque GTR keyless bushing is the ideal solution for high power or critical timing applications. It offers a mechanical shrink-fit eliminating the problems of fretting corrosion, backlash and key wallowing.

> Locks and unlocks with the twist of just one nut

> Precise radial and axial adjustment on shaft. Ideal for timing components
> Trantorque GTR is "self-centering" unlike other cone clamping units.
> Repair of damaged keyways, Just slip Trantorque GTR over the damaged keyway to effect repair
> Eliminates keyways thereby reducing shaft costs

FenLock

FenLock cone-clamping elements provide a wide range of keyless shaft/hub fixing assemblies offering simple installation, increased shaft strength and high torque transmission capacity.

> Eliminates the cost and complexity of keyways.

> Extensive bore range from 20mm up to 900mm
> Allows for axial and angular adjustment of mounted components
> Excels at high torque transmission and reversing applications

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Fenner® Chain Drives

Roller chain technology has evolved over the centuries. During this time new design features and production processes have been introduced.

Fenner® In Action: Fenner® PLUS Chain

A well-known brewery in Lisbon was experiencing frequent chain failures on their conveyor system, so they turned to their Fenner® partner in Portugal to find a more reliable, robust solution.

The conveyor transports hops, malt, grain, and other ingredients on a challenging incline from an upper-level storage silo down to fermentation vessels in the basement. Upon thorough on-site inspection, Fenner® PLUS simplex chain was recommended as the ideal solution.

Fenner® PLUS chains incorporate robust, heat-treated components designed to deliver superior wear resistance and minimal stretch, making them especially suitable for demanding applications. By fitting Fenner® PLUS chain, the brewery gained a more dependable drive, reducing the risk of breakdowns and the associated downtime.

Since installation, the conveyor has run smoothly, allowing for longer intervals between routine maintenance and lowering overall costs. The brewery's engineers praise both the enhanced durability and the Easy Pin Extraction (EPX) feature, which simplifies chain installation and further supports efficient operations.

Attention to detail makes all the difference...

Progressive punching for holes and sideplates guarantees pitch accuracy and enables easy hand tool extraction.

Fenner® PLUS

High Performance Chain

Fenner® PLUS chain builds on the heritage and engineering experience of the existing Fenner® product range by optimising the benefits of performance enhancing features which work together to give Fenner® PLUS chain the optimum combination of tensile strength, wear resistance and fatigue life.

- Enhanced performance in hostile environments
- Solid rollers manufactured to achieve extremely high surface hardness
- Shot peened plates for increased fatigue resistance and extended chain life
- All Fenner® PLUS chain plates are progressively punched to give excellent accuracy of both diameter and pitch

Fenner® Classic Chain

Power Transmission Link Chain

Fenner® standard chain provides a cost effective solution for fit and forget reliability for everyday applications. Easy to fit and replace, our robust and long lasting chain consistently outperforms others time after time.

- Shot peening of roller and side plates gives increased fatigue resistance
- High waisted side plates increase effective cross section improving fatigue strength
- Case hardened pins extend wear life
- Solid rollers evenly distribute load and increase wear life
- Seam orientated bushes ensure that seams are positioned away from critical bearing areas preloaded to bed-in all component parts
- Stainless steel product available from stock

Sprockets

Fenner® sprockets are available with either Taper Lock® or pilot bored fixings and are precision manufactured from fine grade cast iron. Sprockets are available in simplex, duplex and triplex forms for sizes 05B to 20B.

- Fully machined carbon steel or high grade, close grain grey iron is used for construction
- Strict manufacturing tolerances match sprocket profiles to ISO R606 chain standards for a rolling action which significantly reduces sprocket tooth wear
- Sprockets are surface treated to reduce corrosion
- Short-reach bushes on selected sizes - compact hubs Induction hardened teeth on Taper Lock® sprockets

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Fenner® Couplings

Fenner® couplings are the vital link between motor and machine. Engineered for versatility and durability, they help extend service life and improve overall system performance by absorbing shock loads and misalignment while offering a secure connection and allowing for easy drive separation for maintenance.

Fenner® In Action: Fenaflex™

When a large paper and board customer needed a Fenaflex™ coupling to work with engine/pump sets that used 3-cylinder engines with an SAE 6.1/2 flywheel, there was a small problem - it wasn't a standard Fenner® product because the smallest Fenaflex™ coupling was designed to fit an SAE 7.1/2 flywheel.

It wasn't a problem for long. A special variant was designed with a sufficiently large driven side to accommodate the power of the engine.

Ensuring that the dynamic torsional stiffness was correct, involved some innovative thinking by the Design Engineers and Material Specialists to develop the perfect Fenaflex™ solution.

The rubber element moulds and metal part tooling were specified and put into production extremely quickly - and the customer has been using the resulting product exclusively.

Attention to detail makes all the difference...

Avoid the need to remove the driven machine or prime mover when carrying out maintenance by using our specially designed spacer version.

Fenaflex™

Tyre Couplings

Fenaflex™ are highly elastic, lubrication-free solutions, tolerating large misalignment, offering quick installation and inspection, and providing excellent shock absorption with reducing vibrational and torsional oscillations.

- Misalignment capability, 4° angular, up to 6mm parallel and 8mm axial
- Internal load carrying cords are wound in both directions, so there is no problem on reversing drives
- Simple visual inspection to aid maintenance

Take a look at the Fenaflex™ installation videos for all three variants:

Fenaflex™ Flywheel Variant

For standard SAE flywheel fixings and elements. Available in different dynamic stiffness's to accommodate a wide range of engine and driven machine parameters.

FenaFlex™ Pump Spacer Variant

To allow disassembly of pump shaft without disturbing the prime mover, minimising downtime.

Jaw Couplings

Absorbing incidental misalignment, shock loads and small amplitude vibrations, Fenner® Jaw couplings offer a low cost flexible solution for most applications.

- Ease of alignment Fail-safe shaft connection
- Range of element materials available including nitrile, urethane and hytrel
- Pump spacer variant available
- Design powers up to 42.2kW available at 1440rpm

Rigid Couplings

Taper Lock® rigid couplings provide a convenient method of rigidly connecting the ends of shafts. Taper Lock® bushes permit easier and quicker fixing to the shafts with the firmness of a shrunk-on-fit.

- Taper Lock® fixing as standard
- Peripheral speeds of up to 33m/s available
- Vertical assemblies possible in FF design

HRC Couplings

Quick and easy installation using Taper Lock® bushes, and offering quick alignment, the semi-elastic general purpose HRC coupling is ideal for use with electric motors.

- Ease of alignment and fitting using straight edge and machined outside diameters
- Fail-safe design due to interacting dog design
- Accommodates incidental misalignment
- Standard and FRAS elements
- Flywheel fixing and Pilot bore designs available

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Reliable, Trusted Connected

Tomorrow's Solutions Today

Fenner® products continue to deliver innovative improvements in product performance, reliability and safety. When used together as part of a drive package, the resultant gains in lifetime cost-effectiveness are complemented by a reduction in maintenance, simplified installation and through Fenner®'s advanced engineering design.

Typical Fan Application

Today: Old Installation

37kW motor IE1 90% efficiency at 75% load

Classical Vee Belt 93% efficiency

Total running cost: **£68,960.57**
Total CO_2: **56,528.36Kg**

Tomorrow: The Fenner® Solution

37kW motor IE4 95.2% efficiency

Fenner® Quattro Plus CRE Belt 98% efficiency

Total running cost: **£61,867.60**
Total CO_2: **50,714.11Kg**

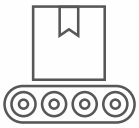
Annual running cost saving: **£7,092.97**
Lifetime running cost saving: **£105,944.54**
Annual CO_2 saving: **5,814.25kg**
Lifetime CO_2 saving: **87,213.73k**
Upgrade cost £2,318.08* - payback within 4 months

Typical Conveyor Application

Today: Old Installation

11kW motor IE1 87.6% efficiency at 75% load

Single Worm Gearbox 78% efficiency



Total running cost: **£25,114.16**
Total CO_2: **20,586.58kg**

Tomorrow: The Fenner® Solution

11kW motor IE4 93% efficiency at 75% load

Direct coupled dry fit (risk and pollution reduction

Fenner® helical bevel gear unit 97% efficiency

Total running cost: **£19,022.28**
Total CO_2: **15,592.94kg**

Annual running cost saving: **£6,091.87**
Lifetime running cost saving: **£91,378.11**
Annual CO_2 saving: **4,993.63kg**
Lifetime CO_2 saving: **74,904,46kg**
Upgrade cost £8,780.00 - payback within 17 months

*This doesn't include ongoing costs to change the belts and pulleys over lifetime

Industry - Tried and Tested

With a valued heritage stretching back over 150 years, Fenner® Power Transmission products continue to be recognised worldwide for their ability to deliver a dependable combination of exacting specification, rugged construction and efficient performance.

This commitment to quality, backed by extensive product development and innovation has seen Fenner® grow into a mature brand with true global reach across six contintents.

United Kingdom

One of the worlds leading mobile heat exchanger manufacturers looked to Fenner® Ultra PLUS wedge belt products when they experienced inconsistency in belt lengths on radiator fan drives. This inconsistency propagates uneven load sharing by the belts on the drive and leads to premature failure. As the units are located all over the world and can be in inaccessible hostile environments, this situation was not acceptable. The Fenner® products specified are precision built to the exacting standards ISO4184 - DIN7753 - BS3790 - RMAIP22 and are also static conductive to IS1813. The problem has not occurred since the change to the Fenner® products.

Germany

An OEM in Bonn has introduced a new range of extruding machines, during the trials, the sourced SPB wedge belts were squealing and smoking during start up mode. Installing Fenner® Quattro Plus wedge belts solved the problem. Not only does the enhanced power rating of the Quattro Plus range enable smooth operation of their extruding machines, energy is also conserved thanks to the high efficiency (96%) of these belts.

Portugal

A Portugese agricultural OEM has been converted from using traditional bore and keywayed pulleys to the Fenner® Taper Lock® Bush system. The OEM is delighted by the cost and energy saving as the entire boring and keywaying operation is now not necessary, also by the ease of fitting our system in his factory.

South Africa

Fenner has had a presence in S.A. since 1928 and is a household name in the mining industry with a 60%+ share of the drive belt market. The introduction of Fenner® Vee and Wedge belts into mines across Africa has resulted in a significant reduction in maintenance costs and down-time. This is due to the superior tensioning ability of these belts that eliminate belt slip.

Singapore

The FenaFlex™ ™ tyre coupling is widely recognised as the product of choice for pump applications. The highly torsionally elastic tyre element is flexible enough to accept large misalignment capacity in all planes combined with excellent shock absorbing properties. The spacer design variant allows driven machine or prime mover maintenance without disturbing either.

United Arab Emirates

In challenging climates leading HVAC OEM's in the UAE depend on Fenner® wedge belts. The increased service life and reliable performance provided by Fenner® drives has extended maintenance routines from 12 to 24 months.

Australia

One of the most demanding and harsh environments for drive products on the planet has to be in open cast mines and quarries in Australia. By utilising the very latest in material technology (Aramid fibre cords, fibre reinforced polychloroprene rubber and asymmetric weave high grade polyester jacket) and state of the art production techniques we were able to develop a solution to satisfy these very demanding applications. The Fenner® UP150 belt is now solving customer's problems worldwide and reducing downtime to an absolute minimum thus producing real tangible cost savings.

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