

POWER TRANSMISSION

Product Guide



///iMOTION

WHO WE ARE.

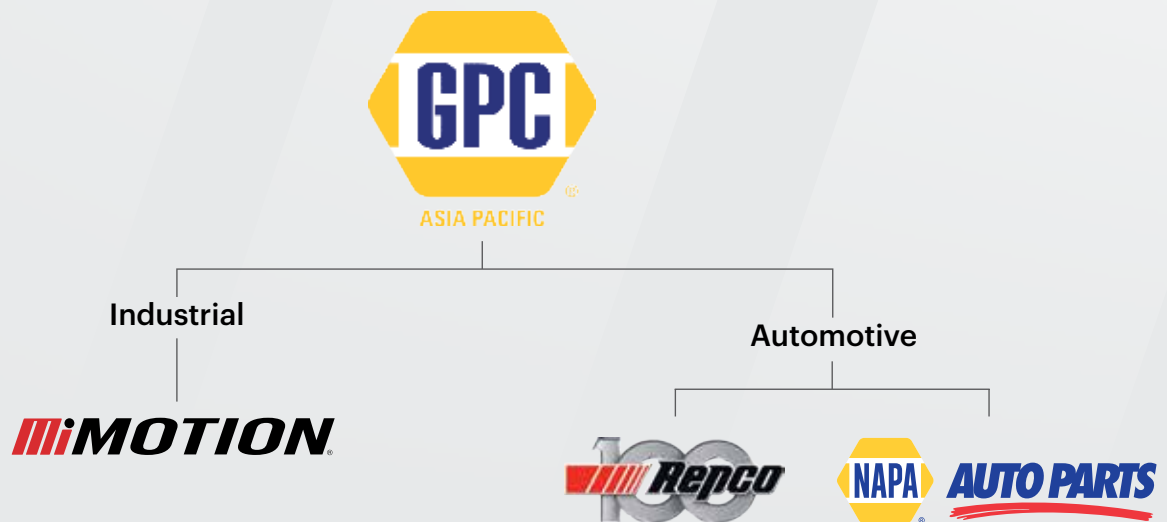
Motion delivers a world-class customer-first approach to everything we do. This has firmly established our business as the leader in the market, providing excellence and expertise in industrial products, solutions and services.

For more than 100 years we have been a feature in the New Zealand industrial landscape giving customers unmatched products and service through an integrated network of branches, workshops and service centres.

We have an ongoing commitment to invest in our people, facilities, IT and systems to ensure we can continue to offer a broad ranging and premium level of engineering design, servicing and turnkey projects to our customers across New Zealand.

We are committed and proud to keep our customers in motion, every day of the year.

“ WE KEEP THE WORLD MOVING ”



INDUSTRIAL POWER TRANSMISSION SPECIALISTS

Motion provides the broadest selection of power transmission products and leading brands, backed by technical support from qualified application engineers with extensive experience in both new designs and replacement of all power transmission components. While this brochure highlights a variety

of key brands and products, it does not encompass our full range. Motion specializes in identifying and sourcing hard-to-find brands and parts. Please contact us for assistance with any specific requirements.

CONTENTS

BELTS, CHAIN, COUPLINGS & PULLEYS	FENNER	4
COUPLINGS, GEARBOXES & MOTORS	FENNER	5
INDUSTRIAL BELTS	GATES	6
INDUSTRIAL BELTS	GATES	7
INDUSTRIAL BELTS	GATES	8
INDUSTRIAL SPROCKETS	GATES	9
INDUSTRIAL SPROCKETS	GATES	10
INDUSTRIAL TOOLS	GATES	11
BELTS & O-RINGS	FENNER DRIVES	12
SHAFT COUPLINGS, BACKSTOPS & GUARDS	REXNORD, FALK	13
SHAFT COUPLINGS & UNIVERSAL JOINTS	MARTIN, TIMKEN, CURTIS, MAINA, REFLEX	14
BRAKES, TORQUE LIMITERS, COUPLINGS & ELECTROMAGNETIC CLUTCHES	MAYR	15
SHAFT – HUB LOCKING DEVICES	MAV, TOLLOK, TRANTORQUE	16
FLUID COUPLINGS & BRAKES	TRANSFLUID	17
CLUTCH, BRAKES, TORQUE LIMITERS & BACKSTOPS	TWIFLEX, WICHITA, STIEBER, FORMSPRAG, AUTOGUARD	18
CLUTCH, BRAKES & SHAFT COUPLINGS	EATON, VULKAN	19
CHAIN & TENSIONER DEVICES	ROSTA, CAN-AM, REXNORD, EWART, JOHN KING, ZMC	20
ROLLER CHAIN & SPECIALTY CHAINS	RENOLD	21
DRIVESHAFT & COMPONENTS	HARDY SPICER	22
ELECTRIC MOTORS	TECO	23
VARIABLE SPEED DRIVES (VSD/VVVF)	TECO	24
GEARED MOTORS, GEARBOXES & PLANETARY UNITS	BONFIGLIOLI	25
GEARED MOTORS, GEARBOXES & VARIABLE SPEED DRIVES (VSD'S)	BONFIGLIOLI	26
GEARED MOTORS, VARIABLE SPEED DRIVES, COUPLINGS & MOTORS	SUMITOMO, INVERTEK, SEISA	27
GEARED MOTORS, VARIABLE SPEED DRIVES, COUPLINGS & MOTORS	SUMITOMO, INVERTEK, SEISA	28
GEARED MOTORS, SHAFT MOUNT GEARBOXES & SHAFT COUPLING	DODGE	29
MOBILE FINAL DRIVES, SLEW DRIVES & UNDERCARRIAGE COMPONENTS	O&K	30
AG CENTRE PIVOT IRRIGATION GEARED MOTORS & WHEEL- END DRIVES	COMMINIS	31

BELTS, CHAIN, COUPLINGS & PULLEYS

**V BELTS**

- 'PB®' (Precision Build) technology
- Accuracy and stability of length
- 'One Shot' tensioning - no matching necessary
- Meets highest industry standards for static conductivity and nonignition properties
- Heat and oil resistant
- ISO & RMA sections

**FRICTION AND SYNCHRONOUS PULLEYS**

- Friction pulleys incorporate dual duty design grooves (ISO 4183) for both V and wedge belts
- Statically balanced to exceed grade G 6.3 (ISO 1940)
- Synchronous pulleys available in both classical Timing and HTD profiles
- Blackened to reduce corrosion

**ULTRA PLUS BELTS**

- Heavy Duty industrial belts delivering maximum performance and cost benefits. Utilising low elongation polyester cords and abrasion resistant fabric jacket.
- PB® (Precision Build) technology, eliminating the need for matching
- ISO & RMA sections

**LAWN & GARDEN BELTS**

- Latest generation Heavy Duty lawn & garden belts to suit a large range or equipment
- Full A & B section belts utilizing reverse wrapped, dry fabric cover, aramids cords and fiber loaded rubber.
- Suitable for multi pulley drives with back idlers
- Impact resistant and suitable for clutching applications

**SPROCKETS AND PLATEWHEELS**

- Manufactured to exacting specifications
- Fully machined 0.45% carbon steel (C45) or high grade, close grain grey iron (GG25)
- Sprocket profiles matched to ISO R606 chain standards for a rolling action which significantly reduces sprocket tooth wear
- Sprockets are blackened to reduce corrosion
- Short-reach bushes on selected sizes - compact hubs

**TAPER LOCK BUSHES**

- Ease of installation and removal
- Equivalent to a shrink-on fit on uniform load applications, eliminating the cost of a key
- Standard range fits up to 125mm/5" shafts
- Special 4-hole feature for balanced assemblies
- Complete short reach range available, for compact lightweight assemblies
- High grade, close grain iron (GG25) material

**STANDARD CHAIN**

- Shot peening of roller and side plates gives increased fatigue resistance
- Ball swaged side plate holes improve finish and combat fatigue failure
- Deep waisted side plates increase effective cross section lowering fatigue
- Case hardened pins extend wear life
- Solid rollers evenly distribute load and increase wear life

GEARBOXES, MOTORS & COUPLINGS

Fenner®

**JAW COUPLINGS**

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

**FENAFLEX™ TYRE COUPLINGS**

- Large 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.
- Tyres are available in standard and FRAS. (Fire Resistant Anti Static) construction.
- Simple visual inspection to aid maintenance.
- Taper Lock® and pilot bore flanges.

**FENNER CURVED TOOTH GEAR COUPLINGS**

Fenner® Curved Tooth Flexible Gear Couplings are the result of many years of experience in the field of Mechanical Power Transmission. These Gear Couplings are distinguished by their mechanical flexibility and compensation of Angular, Parallel and Axial misalignments of the connected shafts. They are made for extensive use in Metal Rolling Mills, Paper Machinery, Cranes, Dredgers, Rubber and Plastic Industries, Cement Plants, Conveyors, Elevators, Compressors, Fans and Blowers, Screens, and other general industries.

**FENNER SMSR POWERPLUS**

SMSR PowerPlus offers a rugged design and a 50% increase in the power to weight ratio over older versions.

- 13 sizes in the range.
- Torque capacity up to 45,000Nm.
- Three standard bore options.
- Bore sizes range from 20mm to 190mm.
- Taper-Grip bush for easy removal and fitting.
- Ratios up to 200:1 with simple belt drive.

**HRC COUPLINGS**

- Offers the simplest, most straightforward fitting available.
- Ease of alignment and fitting using straight edge and machined outside diameters.
- Fail-safe design due to interacting dog design.
- Accommodates incidental misalignment.
- Exceptional performance at low cost.
- Power ratings are matched to standard motor sizes.

**FENNER GRID COUPLINGS**

Fenner® Grid Couplings are shaft-to-shaft couplings that are of compact size yet can handle torque capacity due to their high strength hardened alloy steel construction. The tapered grids are designed with a trapezoidal cross section and are tempered for spring hardness. Through a high-precision operation called shot peening, the surface molecules are compressed by high-velocity steel micro beads. The compression of the molecules results in dramatic increase in strength rating and provides reserve strength for a longer part life.

**FENNER SERIES FEN WORMBOX**

A modern modular designed aluminium wormbox available in a vast range of sizes and ratios for dependable cost-effective solutions. The unit uses a patented modular lightweight aluminium gear case, which combines rigidity with strength to ensure a long reliable working life.

- Range 0.6kW – 15kW
- Dimensionally interchangeable with the market leaders
- Versatile mounting
- Excellent mechanical strength whilst being especially lightweight
- Accepts standard IEC motors
- Built to order

INDUSTRIAL BELTS

**PREDATOR™ BELTS**

Predator™ belts are the most robust V-belts ever designed. Developed for the toughest applications and environments, Predator™ V-belts prey on maintenance and devour downtime. The best V-belt solution to belt drive problems available today. Aramid cords easily handle shock loads and excellent for clutching applications.

Predator™ Singles available in:

- Classical section AP, BP, CP
- RMA narrow section 5VP, 8VP
- ISO narrow section SPB-P and SPC-P

Predator™ Powerbands available in:

- Classical section BP and CP
- RMA narrow section 3VP, 5VP and 8VP
- ISO narrow section SPB-P and SPC-P

**SUPER HC™ V-BELTS**

Super HC™ solve issues with Classical section V-belt drives not coping or have been under designed. Also notched, raw edge V-belts that are failing due to dirty operating environments.

- Up to 300% capacity increase over classical belts
- Flex-bonded tensile cords for stretch resistance
- Flex-weave cover protects against debris and flex fatigue
- Fibre loaded rubber compound for stability
- Static conductive to ISO 1813 and IP3-3
- Match free to Gates UNISET & V80 matching systems

Also available in PowerBand™.

**HI-POWER™ II V-BELTS**

Featuring a composite, multi-purpose construction, these belts resist oil and heat, ozone, sunlight, weather, and aging.

Suitable for all industrial applications, including v-flat drives.

Also available in PowerBand™ and Dubl-V configurations.

**QUAD-POWER® 4 BELTS**

Constructed with the most advanced technology available today. Gates® new generation of EPDM belts are designed for longer service life eliminating costly downtime for re-tensioning, repair and replacement.

- Raw edge cogged construction
- Temp range -50°C – +130° C
- Fibre loaded EPDM compound withstands heat, ozone, sunlight & better cord support
- Up to 50% higher power rating compared to wrapped belts
- Increased efficiency by 3% over wrapped belts
- Reduce drive maintenance
- Match free to Uniset & V80 matching system

**TRI-POWER™ V-BELTS**

Suitable for applications with extreme heat, pulleys too small for wrapped v-belts and in tight spaces.

- Exclusive EPDM rubber compound
- Temperature Rating of -57°C to +121°C
- 15% capacity increase over wrapped belts
- Increase efficiency up to 3%
- Fibre loaded rubber compound for stability
- Notched design reduces belt stress
- Static Conductive to IP3-3
- Match free to Gates V80 matching system

**BLADERUNNER™ BELTS**

Gates® premium BladeRunner™ belts provide exact OE fit, construction and performance when installed on leading lawn, garden and outdoor power equipment.

- Aramid tensile cord & robust cord packs provide greater shock load resistance for engaging deck drives
- Dual layer fabric wrap for abrasion resistance and longer life

**POWERATED™ BELTS**

PoweRated® belts are suitable for outdoor power equipment, appliances and industrial applications where FHP belts are typically used.

- Bareback construction for smooth clutching on shock loaded, backside-idler driven equipment
- Aramid Tensile Cords combine limited stretch with extraordinary strength and durability
- Meets RMA oil and heat resistant standards

INDUSTRIAL BELTS

**POLYFLEX™ BELTS**

Applications include machine tools, computer peripherals, medical equipment, library equipment, small appliances, blower drives and woodworking machines.

- High Modulus Polyurethane compound resists fatigue, wear, ozone, and most environmental conditions.
- Precise casting method eliminates layers and overlaps for smooth running and low vibration.
- Ribbed backing provides greater lateral stability and relieves bending stress.
- Working temperature range: -54°C to +85°C

**POLY CHAIN® GT® CARBON™ BELTS**

The maintenance-free alternative to roller chain drives. No more re-tensioning or messy oil baths for maximum uptime.

- Maintenance free drive
- Outlasts roller chain 4-to-1
- Accommodates the use of backside idlers
- No lubrication required
- Stainless steel sprockets and taper-locks
- Available for washdown applications
- 400% greater capacity than HTD belts

**POLY CHAIN® CARBON™ VOLT™ BELTS**

Poly Chain® Carbon™ Volt™ belts deliver unmatched antistatic performance and meets ISO 9563 standards from start to finish.

- Static conductive version (meets ISO9563)
- Same high capacity as standard construction Gates Poly Chain® GT® Carbon™ Belts
- Ideal for hazardous environments (e.g. oil & gas, flour and sugar plants)

**POWERGRIP™ GT4™ BELTS**

Engineered with the latest in advanced technology and materials science expertise, Gates® PowerGrip™ GT4™ delivers the highest power-carrying capacity of any belt in its class. Utilising all-new advanced materials, Gates designed a belt with increased chemical resistance and larger temperature range capability.

- Higher power-carrying capacity giving you the option to use a narrow belt
- No lubrication and no re-tensioning eliminates maintenance costs throughout the life of the belt
- Larger temperature range capability (-40° - +120°)
- Improves Ergonomics — less weight reduces fatigue and strain during installation
- Environmentally Friendly — made without harmful chlorinated compounds

**AGRI – POWERBAND™ BELTS**

PowerBand V-belt allows multiple belts to function as a single unit, with even load distribution and each strand fitting securely in the sheave groove. It is made of rubber materials for resistance to weathering, oils, water, and some solvents. It has a flex-weave cover for flexibility and strength, and its cords are strongly bonded to the body of the belt for equal load distribution and reducing bending stress without deterioration of the cord.

- Shock load resistant
- High performance density
- Smooth clutching
- Stable, smooth running pattern
- Enhanced peak load absorption
- Withstand debris, punctures and slippage
- Improved back idler durability
- Modern EE-TECH rubber material: high temperature resistance up to +130°C
- Resists elongation High abrasion resistance
- Agri-grade flex weave

**POWERGRIP™ BELTS**

Gates classical synchronous PowerGrip™ belt offers a maintenance free and economical alternative to conventional drives like chains and gears.

- Power transmission of up to 150kW and speeds of up to 10,000 rpm
- Peripheral speed up to 80 m/s
- Positive slip-proof engagement.
- Constant angular velocity
- Efficiencies up to 99%.
- Maintenance free.
- Wide range of load capacities and speed ratios
- Back idlers can be used

INDUSTRIAL BELTS

**POWERGRIP™ HTD™ BELTS**

PowerGrip™ HTD™ belts have a larger, more robust tooth profile for increased capacity, as compared to timing belts.

- Fiberglass tensile cord provides high strength, excellent flex life, and high resistance to elongation
- Neoprene body provides protection against grime, grease, oil, and moisture
- Nylon tooth facing provides a durable wear surface for long service life
- Thirty percent increase in horsepower ratings, as compared to traditional timing belts
- Eliminates lubrication and re-tensioning to reduce maintenance and labor required on drives

**AGRI - VARIATOR BELTS**

Specially constructed with high-modulus and fibre-loaded stock, AGRI variator belts offer stability and flexibility at the same time. As a result, you can expect higher load carrying capacity and prolonged belt life.

- High temperature resistance
- Withstand posi-torque variator side wall forces
- Handles high linear speed
- Maintains threshing RPM for efficient grain rentability
- Gets the harvest done
- Oil and heat resistant
- Maximised belt life
- OE performance
- Improved threshing performance
- Modern EE-Tech rubber material: high temperature resistance up to +130°C

**AGRI - V-BELTS**

Gates engineers our OE-exact banded, bandless, V-belt systems to perfectly match the construction of your original equipment farming machinery, like combine harvesters, forage harvesters, flail mowers.

- Reliable power transmission
- High bending flexibility
- Smooth running characteristics
- High abrasion resistance
- Agri-grade flex weave
- Great flexibility - low stretch
- Engineered for use with backidlers
- Suited for twisted belt drives (90° or 180°)
- Great length stability

**AGRI - DOUBLE V-BELTS**

Using flex-bonded tensile cords, which are highly resistant to flexing forces, and a protective Flex-Weave™ cover. It is the ideal solution for "serpentine" drives (drives with counter rotating shafts) where power is transmitted from both the top and the bottom of the belts.

- Suited for serpentine drives
- Shock load resistant
- Improved bending flexibility
- Smooth running characteristics
- Transmit power on both sides
- High length stability

SPROCKETS

**POLY CHAIN® GT® SPROCKETS**

For use with Poly Chain® GT® synchronous belts.

- Full split in bushing allows easy installation and removal
- Precise sprocket design produces positive, press fit to shaft
- Smaller, narrower sprockets save shaft space, keep the load closer to bearing and extend life of reducer
- Poly Chain® GT® sprockets keep overhung load below manufacturers recommendation
- Sprockets are precision manufactured

**POWERGRIP™ GT™ SPROCKETS**

For use with PowerGrip™ and PowerGrip™ GT4™ belts.

- Full split in bushing allows easy installation and removal
- Precise sprocket design produces positive, press fit to shaft
- Smaller, narrower sprockets save shaft space, keep the load closer to bearing and extend life of reducer
- Precision manufactured and static balanced

**POWERGRIP™ HTD™ SPROCKETS**

For use with PowerGrip™ HTD™ belts.

- Full split in bushing allows easy installation and removal
- Precise sprocket design produces positive, press fit to shaft
- Precision manufactured and static balanced to eliminate sprocket wobble

**TAPER-LOCK® BUSHINGS**

Stainless steel bushings are ideal for the food and beverage market or where non-corrosive sprockets are needed to prevent rust.

- Bushings are made to precise tolerances
- Popular bore sizes are available
- Stainless steel bushings are corrosion resistant, preventing rust build up and increasing product life
- Precision manufactured and static balanced

**IDLER BRACKETS**

Idler Brackets are the ideal solution when dealing with drives with a fixed centre distance. Often used when converting fixed centre distance roller chain drives with Poly Chain® GT™ Carbon™ belt drives. Belt drives with fixed shafts or limited adjustment, require an alternative way to tension the belts(s). Gates idler brackets can be used to tension a belt from the inside or backside using the appropriate attachments (idler sprockets, flat idler pulleys or idler bushings).

**IDLER SPROCKETS**

These idlers are the ideal solution when converting fixed centre distance roller chain drives with Poly Chain® GT™ Carbon™ belts. Idlers can be used to take up extra belt length and provide adjustment for tensioning belt drives. Idler pulleys and sprockets can alter belt paths and clear obstructions.

**FLAT IDLER PULLEYS**

Flat Idler Pulleys are the ideal solution when dealing with drives with a fixed centre distance. Often used when converting fixed centre distance roller chain drives with Poly Chain® GT™ Carbon™ belt drives. Idlers can be used to take up extra belt length and provide adjustment for tensioning belt drives. Idler pulleys and sprockets can alter belt paths and clear obstructions.

**IDLER BUSHINGS**

These idlers are the ideal solution for any fixed centre distance drives or multi-pulley drives requiring free-spinning pulleys or sprockets. Gates® idler bushings allow for standard V-belt pulleys or synchronous belt sprockets to be converted into a free-spinning idler. Available in a few Taper-Lock® and QD bush sizes.

SPROCKETS



EXTENDED LENGTH BELT CLAMPING PLATES

Use with Synchronous long-length belting including Poly Chain® GT® Carbon™, PowerGrip™ GT2™, PowerGrip™ Timing, and HTD.

- Clamping Plates allow maximum clamping strength for long-length belting used in linear drives
- Clamping Plates are aluminum
- Bolts are included



MADE-TO-ORDER METAL PRODUCTS

Gates® specialise in providing prototype and production sprockets to meet your design expectations.

- All Gates® synchronous profiles and pitches, plain or profiled idlers
- Bores - plain, straight, tapered, splined or any special bore. Manufactured to accept Taper-Lock®, Ringfeder*, QD, Torque Tamer, Trantorque* or other special bushings
- Styles - bar stock, idlers, ringfeder* connections, torque tamers, custom configurations, special hubs and more
- Materials - aluminium, steel, ductile, cast iron, phenolic, stainless steel or plastics
- Finishes - hard coat, food grade, zinc, black anodise, painted, custom plating or any special coatings
- Other services - sub-assemblies, press bearings, sprocket/bushing balancing and index marking
- Processes - hob cutting, shaper cutting, die casting and moulding
- Sprockets for all synchronous pitches and profiles, V-pulleys, Micro-V® Pulleys, Polyflex™ pulleys available on request

TOOLS

**PT MAINTENANCE KITS**

Optimum belt drive performance is not achieved via guess work, you need the right tools for the job. Gates® maintenance tool kits allow any belt drive to be accurately installed and maintained.

**EZ ALIGN™ LASER ALIGNMENT TOOL**

With the Gates® EZ Align™ precision laser alignment device you can align all of your industrial belt drives quickly and easily with just one tool.

**550C SONIC TENSION METER**

Do you need to establish a specific drive belt tension for your machine applications? Then reach for the Gates® 550C sonic tension meter and determine the degree of loads and tension of your belt installations immediately and with utmost precision.

- Suited for multi-ribbed, V and synchronous belts
- Measuring accuracy: +/- 1%
- Double display possible (Newton and/or Hz)
- Auto shutdown after 5 min of inactivity
- CE approved – RoHS compatible
- Auto gain control
- Compact model: 160 mm x 26 mm x 59 mm (H x D x W)
- 40 storage registers
- OLED screen with optimised resolution

**THE BIRD™**

The BIRD™ has landed. Protect equipment operators against pinch points during belt installation and maintenance.

The Gates® Belt Installation + Rotation Device (BIRD™) minimises finger and hand injuries due to hands getting caught in pinch points during routine installation and maintenance. While a drive is shut down and locked out, the BIRD™ safely facilitates a rotational inspection of a drive.

**DESIGNPOWER™ SOFTWARE**

Quickly, easily, and accurately design industrial synchronous or V-belt drive systems that fit your specific design parameters, so you can determine every potential belt drive solution for your specific application without wasting any time or money. Our professional-grade design software allows you to print, email, or create PDFs of your design specifications from within the software, with automatic translations to service your global markets.

In addition to designing belt drives, Design Flex Pro can be used to:

- Determine proper belt installation tension
- Calculate belt pull
- Determine the belt power transmission capacity
- Estimate the energy savings of a synchronous belt drive compared to a V-belt drive
- Estimate the cost savings of replacing roller chain with a Poly Chain® GT® belt drive



EAGLE POLYURETHANE BELTING AND O RINGS

From light, medium, or heavy duty conveying to custom profiles, Fenner Drives has the right product for your application.

- A wide variety of non-reinforced and reinforced polyurethane belting, non-reinforced quick-connect belting, polyester belting, reinforced can cable, co-extruded belting, and SuperGrip Top belting.



POWERTWIST PLUS LINK BELTING

- Made to any length in seconds
- Available in standard and double sections
- Highly resistant to heat, water, oil, chemicals etc
- Use with Fenner® ISO standard Taper Lock™ pulleys, optionally with RMA pulleys
- Easy to install, rivet-less construction, no tools necessary
- Standard or optional soft back, for conveying applications



NU-T-LINK V-BELTS

- Highly resistant to extremes of temperature (-40° to +100°C)
- Highly resistant to abrasive materials
- Highly resistant to water, steam, oil and many chemicals
- Link construction enables belts to be fitted easily and quickly, even on drives with limited access - belts can be joined around shafts without dismantling the drive
- Can be made to length on site by adding or removing links
- Minimal stretch means minimum maintenance
- Reduced vibration and belt noise

POWERTWIST WEDGE BELT

PowerTwist Wedge Belts are a long-lasting, easy to install upgrade to rubber wedge belts. They combine the performance of rubber with additional cost-saving benefits:

- Easy to use twist-lock design is made to length by hand, great for captive and fixed centre drive
- High resistance to abrasion and shock loads, and unaffected by oil, grease, water, and extreme temperatures -40 °C to +116 °C (-40 °F to +240 °F)
- Less money tied up in spare endless belts; always have the right belt on hand

SHAFT COUPLINGS, BACKSTOPS & GUARDS & INDUSTRIAL HEAVY GEAR UNITS

**FALK STEELFLEX®
GRID COUPLINGS**

General purpose couplings requiring no periodic maintenance when lubricated with FALK supplied Long Term Grease (LTG) at installation.

- Torque ratings up to 932,000Nm.
- 5 year warranty.

**REX® THOMAS®
DISC COUPLINGS**

A practical alternative to lubricated and elastomer couplings.

- No lubrication.
- No wearing parts.
- No backlash - torsionally rigid.
- Comprehensive range of types and sizes.
- Torque ratings up to 320,920Nm.

**REX® VIVA™**

The Rex Viva coupling is a unique general purpose coupling ideal for use in industrial applications.

- No lubrication.
- No wearing parts.
- Polyurethane membrane.
- Torsionally flexible.
- Adjustable to meet ISO, DIN and ANSI shaft spacing specifications to 300mm BSE.
- Taper bush hub to shaft fitting or straight bore available.
- Torque ratings up to 6,270Nm.

**REXNORD OMEGA ES**

- Split-in-half flex element for simplified assembly.
- Torsionally soft flex element cushions shock loads.
- Interchangeable hubs allow for reduced inventory.
- No lubrication - no wearing parts.
- Adjustable to meet ISO, DIN & ANSI shaft spacing.
- Torque ratings to 4,460Nm.
- Available with taper bush hub to shaft fitting or straight bore.

**FALK LIFELIGN®
GEAR COUPLINGS**

The low-cost, longer lasting answer to both small and large capacity coupling requirements.

- Triple-crowned for maximum capacity.
- Larger bores and higher power ratings.
- 20 types and 28 sizes.
- Torque ratings up to 8,190,000Nm.

**FALK WRAPFLEX® ELASTOMER
COUPLINGS**

- Non-lubricated, simple to install.
- Maximum operational flexibility.
- Effectively dampens shock loads.
- Easily accommodates misalignment.
- Available in 3 types and 9 sizes.
- Torque ratings up to 15,800Nm.

**FALK ORANGE PEEL GUARDS**

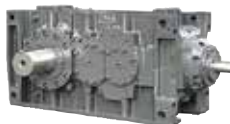
The practical protective coupling guard.

- Meets OSHA, ASME and ANSI job-site safety requirements.
- "Trim and Fit" to suit your coupling profile.
- Polyethylene and metal types.
- Available in 6 types - MCG, CCG, CFCG, SCG, VCG and LSG.
- Low initial cost, low lifetime cost.
- 3 year heavy duty warranty.

**FALK QUADRIVE®**

Helical Shaft-Mounted Drives "Easiest on, easiest off... guaranteed" TA Taper bushing design ensures ease of drive removal and prevents damage to both drive and/or driven equipment.

- Torque ratings up to 36,547Nm.
- Power ratings up to 224kW.
- 3 year heavy duty warranty.

**FALK V-CLASS™**

When uptime matters, trust the Falk V-Class™

- Power range 11 - 7457kW.
- Torque range up to 341,000Nm.
- Ratio ranges parallel shaft - double reduction 5.0 - 28.0.
- Triple reduction ratio 28.0 - 160.0.
- Right angle - double reduction 6.3 - 12.5.
- Triple reduction ratio 12.5 - 124.0.
- Available with hollow, taper bush or solid output shaft.

**FALK TRU-HOLD® BACKSTOPS**

For virtually any applications where materials need to be moved up steep grades.

- Single, tandem or multiple units.
- Torque ratings from 4,068Nm up to 1,012,847Nm.
- Over-running speeds from 1 to 2,800rpm.

SHAFT COUPLINGS & UNIVERSAL JOINTS

*Martin***TIMKEN****MOTION REFLEX****ROLLER CHAIN COUPLINGS**

- These low cost roller chain couplings are supplied complete with covers to ensure maximum service life.
- Torque ratings in excess of torque normally transmitted by shafting - within coupling bore range
- Stock range will accommodate shaft sizes from 10mm to 100mm
- Larger sizes on request

**CONE-RING COUPLINGS**

Cone-Ring couplings are a cost effective solution, with three basic types covering a wide range of possible applications.

- Complete absence of moving parts excepting 'Cone-Rings'
- Replacement Cone-Rings are inexpensive
- Requires no lubrication
- Ability to absorb momentary overload
- Freedom of axial movement without loading the driving or driven components

**MAINA GEAR COUPLINGS**

For over sixty years MAINA has been manufacturing gear couplings of all types and dimensions:

- Standard couplings type go a
- Large-size couplings type go b
- Couplings for special applications type g20, g35 and g60
- Gear couplings for hoist barrels type GTS

**MAINA GEAR SPINDLES**

For over forty years, Maina has been manufacturing gear spindles for steel and metal rolling mills.

- These remarkable-dimension gear couplings, with fixed or telescopic intermediate shaft, can transmit high torques, with working angles reaching up to 3°.

**TIMKEN QUICK-FLEX COUPLINGS**

- A Quick-Flex coupling, consisting of two coupling hubs, elastomeric insert and cover, offers advantages not offered by other coupling designs such as jaw, grid, gear, chain, tire or disc couplings
- Quick-Flex couplings are direct replacements for virtually all comparably sized couplings in use
- Quick-Flex couplings require no lubrication and are easy to install and maintain

**REFLEX E TYPE COUPLINGS**

- Three-piece elastomeric shaft coupling designed to suit common electric motor ratings
- Fail-safe design
- Accommodates shaft sizes from 10mm to 70mm
- Hubs supplied blank, ready for machining

**REFLEX P TYPE COUPLINGS**

- Reflex P type high torque pin & bush coupling
- High torque ratings with unique and patented pin design
- Fail-safe design
- Accommodates shaft sizes from 40mm to 140mm
- Hubs supplied as RSB, ready for machining

**CURTIS UNIVERSAL JOINTS**

The universal solution for design engineers

- 12 sizes
- Single and double joints
- Solid and bored hubs
- Outside diameters 9.5mm to 101.6mm



INDUSTRIAL BRAKES

mayr® power transmission designs and manufactures industrial brakes that are used wherever hazards and accidents need to be prevented: on production lines, in machine halls, in robotics and many other branches of industry. Spring-applied safety brakes from mayr® ensure reliable and safe stopping of your machines and systems.



SUPPLY & MONITORING COMPONENTS

The supply and monitoring modules from mayr® power transmission harmonise perfectly with the ROBA-stop® safety brakes. They are ideal for supplying your safety brakes with DC voltage and for monitoring the switching status, even sensorless depending on the solution.



SHAFT COUPLINGS

Mechanical devices designed to accurately and precisely connect shafts or langes to transmit torque from the driving to the driven sides of a system.

For reliable, backlash-free transmission of torque and compensation of misalignment, you can trust in high-quality shaft couplings designed and manufactured by the world market leader mayr® power transmission.



ELEVATOR & STAGE BRAKES

Noise-damped lift and platform brakes from mayr® ensure reliable protection. Whisper-quiet elevator brakes, tried and tested a thousand times over, guarantee the safety of passengers at all times. Stage brakes from mayr® ensure uninterrupted enjoyment of the arts on the world's major theatre and opera stages.



TORQUE LIMITERS

Load-separating, torque-limiting safety clutches protect rotary movements. Once the preset torque is reached, the clutches separate the drive and output. The torque transmission is interrupted mechanically, extremely quickly and with virtually no residual torque (if a ball-detent limiter is used). If the torque transmission is to be completely interrupted in the event of an overload, a load-separating torque limiter is the right choice. Load-holding torque limiters are suitable as safety clutches if the torque is to be limited but not interrupted in the event of an overload.



ELECTROMAGNETIC CLUTCHES

The ROBATIC® is an energized-to-engage, electromagnetic pole face clutch: By applying DC voltage, the output shaft is frictionally connected to the drive element and the rotary movement is transmitted. In de-energized condition, the output shaft and drive element are separated from each other.

SHAFT – HUB LOCKING DEVICES

**STANDARD SERIES MAV2005 / TLK200**

- Medium capacity
- Not self-centring, not self-locking (self releasing)
- Fixed axial hub position during tightening
- Two thrust rings with double taper design
- Tolerances: h7-h11; hub bore tolerance H7-H11
- Shaft and hub bore surface finish $Ra < 3.2 \mu m$
- To suit shaft sizes 18mm to 1000mm

**STANDARD SERIES MAV4061 / TLK450**

- High capacity
- Self-centering, self locking
- Two thrust rings with single taper design
- Tolerances: h8; hub bore H8
- Shaft and hub bore surface finish $Ra < 3.2 \mu m$
- To suit shaft sizes 70mm to 600mm

**SHAFT-HUB CONNECTIONS**

The economical and safe alternative to splined, keyed and shrink connection.

- Available in self-centring, non-self centring and self-locking types
- Standard sizes to suit shaft sizes from 14mm to 1000mm
- Imperial sizes available

**STANDARD SERIES MAV5061 / TLK110"**

- Medium to high torque capacity
- Very low surface pressure allowing for smaller hub diameters
- Self-centring (self-aligning)
- Suits shaft sizes from 6mm to 130mm
- No axial hub movement during mounting
- Tolerances: Shaft h8, Hub H8

**STANDARD SERIES MAV1061 / TLK133**

- Shaft-hub locking device medium capacity
- Single taper design, self-centring, self-locking
- Fixed hub position during tightening
- Tolerances: Shaft h8; hub bore H8
- Shaft and hub bore surface finish $Ra < 3.2 \mu m$
- To suit shaft sizes 14mm to 400mm

**TRANTORQUE GTR KEYLESS BUSHING**

- 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 - requires no location diameter in components to retain concentricity
- Repair of damaged keyways - just slip Trantorque GTR over the damaged keyway to effect repair
- Eliminates keyways thereby reducing shaft costs
- Allows smaller shaft as the keyway does not weaken the shaft. Paint finish is RAL 5010 blue epoxy-polyester

**ETP LOCKING BUSHES**

- ETP locking elements use hydraulic fluid enclosed in a double-walled bush to create a friction fit connection between shaft and hub for backlash-free torque transmission.
- Compact mounting dimensions
- High level of concentricity and suitable for high-speed operation
- Quick and easy Installation and removal

FLUID COUPLINGS & BRAKES

TRANSFLUID
 trasmissioni industriali
**K-CK-CCK FLUID COUPLINGS**

The K series is a constant filling type.

- Smooth starting
- High efficiency
- Power ratings up to 2300 Kw
- Available with single and/or double delayed fill chamber

**KX FLUID COUPLINGS**

The KX series is a fluid coupling with special patented oil circuit.

- Designed to start up high inertia machines driven by electric motors
- Power ratings up to 810 kW at 1500 rpm
- Suitable for use underground

**KSL VARIABLE FILL FLUID COUPLINGS**

The KSL variable fill fluid coupling is designed to overcome difficulties experienced during 'start up' and speed variation.

- Power ratings up to 3300 kW at 1500 rpm
- Soft controlled starting
- Accurate speed variation
- High efficiency

**KPTO VARIABLE FILL FLUID COUPLINGS**

The KPT is a variable fill fluid coupling enclosed into a casing connected to a Diesel engine by means of a SAE housing.

- Suitable for powers up to 1000 kW at 1800 rpm
- Smooth start up, no belt slip
- Shock and overload protection
- High radial load capacity
- Unloaded engine warm up

**OIL ACTUATED POWER TAKE OFF**

HFO clutches have been developed by Transfluid to meet the growing demand for power take offs.

- Power ratings up to 1600 kW
- Speeds up to 2700 rpm
- High torque capacity
- Compact design
- SAE standard interface
- Simplified disc replacement
- CI housing that provides for easy engine installation

**TF DISC BRAKE**

Disc brakes are electro-hydraulic operated negative type. The brake is actuated by means of a spring that, through a suitable system of levers, transmits its amplified force through braking pads to the braking disc.

- Braking capacity up to 19000 Nm with a 1250 mm disc diameter.
- Zinc coated steel frame
- Stainless steel pins
- Asbestos free lining pads, glued to easy-to-replace plates.
- Braking torque scale indicator
- Protection to IP56

**TF DRUM BRAKE**

Drum brakes are electro-hydraulic operated negative type. The brake is actuated by means of a spring that, through a system of levers, transmits its amplified force through braking pads to the braking drum.

- Braking capacity up to 7800 Nm with a 630 mm diameter drum
- Welded steel frame in accordance to DIN 15435
- Manganese phosphate pins
- Light alloy shoes with asbestos free lining glued braking pads
- Braking torque scale indicator
- Protection to IP56

CLUTCH, BRAKE, TORQUE LIMITERS & BACKSTOPS

**TWIFLEX MX DISC BRAKE CALIPER RANGE**

The MX/SMX calipers may be used with any of the Twiflex series of thrusters and feature a patented link mechanism to ensure uniform pad wear.

- Available in four sizes to suit discs 12.7mm, 25.4mm, 30mm & 40mm
- Braking torque up to 5000 Nm depending on thruster size and capacity
- Pneumatically applied – spring released
- Can be applied mechanically with lever or hand operated

**TWIFLEX VKSD DISC BRAKE CALIPER RANGE**

The VKSD disc brake caliper is comprised of two halves, or spring modules, and is suitable for use with a minimum disc thickness of 20mm.

- Spring applied – Hydraulically Released
- Braking force dependant on size range from 28kN to 119kN
- Supplied with asbestos free brake pads
- Minimum recommended disc diameter is 1000mm

**WICHITA PNEUMATIC CLUTCHES AND BRAKES**

Providing the high speed acceleration essential in modern process equipment.

- Slip torque ratings from 72Nm to 1,204,000Nm
- Bore capacities from pilot bore to 430mm
- Comprehensive range of types available

**FORMSPRAG CLUTCH**

General overrunning Clutches

Available in several self-contained standard bearing configurations for overrunning, backstopping and indexing applications. Torque range from 2Nm to 36,600Nm. Overrunning speeds from 0 to 15,000 RPM

**STIEBER RSCI**

Type RSCI is a centrifugal lift off sprag type freewheel with the inner race rotating. It is a non-self-supported type used as a backstop directly mounted to a gearbox housing or motor

**AUTOGARD TORQUE LIMITERS**

Autogard torque limiters offer repeatable, accurate, consistent disengagement across a wide range torque capacity and in various configurations.

- Adjustability with complete disengagement featuring quick and easy resetting.
- Available to suit shaft to shaft, pulley, chain drive and cardan shaft applications.
- Torque settings from minimal to over 1,000,000Nm

**WICHITA BALL MILL CLUTCHES**

Ideal for jogging and inching applications, these clutches are specifically designed to provide quick, smooth starts with limited current surge for heavy duty grinding mills

**STIEBER CLUTCH CSK**

Type CSK is a sprag type freewheel integrated into a 62 series ball bearing (except sizes 8 and 40). It is bearing supported and is delivered greased for life.

BRAKES & SHAFT COUPLINGS

VULKAN
 DRIVE TECH

EATON
Powering Business Worldwide

VULKAN FLEXOMAX GH SPACER COUPLING

- Radially removable spacer for moving drive/driven end independently
- Removable spacer allows element change in situ
- Cast iron hub, rubber element
- Standard Spacers of:
 - » 100mm
 - » 140mm
 - » 180mm
 - » 250mm
- Nominal Torque ratings 36Nm – 11,700Nm
- Bores up to 150mm


VULKAN FLEXOMAX GBN COUPLING

- Elastic Element in compression
- 16 sizes
- Torque capacity – 3,600 Nm to 644,000 Nm
- Bore sizing from 15 mm up to 600 mm
- Easy & fast installation & replacement
- No special maintenance
- No rotational slip of the coupling, thanks to jaws design
- **Torque dense – low speed coupling**


VULKAN FLEXOMAX GSND COUPLING

- Elastic Element in compression
- 14 sizes
- Torque capacity - 300Nm – 20,025Nm
- Bore sizing from 10 mm up to 200 mm
- Easy & fast installation & replacement of element in situ
- No special maintenance
- No rotational slip of the coupling, thanks to jaws design


VULKAN ELECTRO HYDRAULIC BRAKES

- Failsafe brake
- Service Application
- On-Off Type
- 0,4 sec. Applying time
- Automatic wear pads compensation system
- Worn out pads signal
- Disc or Drum Design available
- No Power Pack required


VULKAN FLUID COUPLING

- Constant fill
- Delay chamber
- Extended delay chamber
- Steel construction
- Variable speed scoop control
- Industry standard dimensions available


VULKAN ELECTRO MAGNETIC BRAKES

- Failsafe brake
- Service & Emergency application
- On-Off Type
- 0,2 sec. Applying time
- Automatic wear pads compensation system
- Worn out pads signal
- Disc or Drum Design Available


EATON AIR COOLED DISC CLUTCHES AND BRAKES

- Type DBA – disc style brakes are springapplied and air or hydraulically released
- Torque capacities up to 43,050 Nm
- Type DBBS – disc style brakes are springapplied and air or hydraulically released
- Torque capacities up to 630,282 Nm
- Type FHB – spring applied, pressure released, disc style brakes develop equal torque in either direction of rotation
- Torque capacities up to 48,918 Nm


EATON CONSTRUCTING TYPE CLUTCHES AND BRAKES

- Type CB – element assemblies for both clutches and brakes in general power transmission service
- Torque capacities up to 131,000 Nm
- Type VC – element assemblies are designed and built for severe clutching and braking applications
- Torque capacities up to 1,567,000 Nm

CHAIN & TENSIONER DEVICES

**ROSTA TENSIONER DEVICES**

- The unique ROSTA multi-purpose rubber suspension elements are designed to provide ultimate versatility - to push, pull or tension
- Considerably extend the service life of your chain drives
- Combine functions of spring, damper and bearing - in one unit
- Can be used for angles or oscillation of up to $\pm 30^\circ$

**ZMC**

ZMC has strong reputation in the conveyor chain industry offering a combination of manufacturing experience and expertise. The brand is recognised as one of the most advanced conveyor chain producers in the world.

**WELDED STEEL CHAINS**

Available with fully heat treated and/or induction hardened parts.

- Long service-life chains
- Minimum maintenance, reduced downtime

RANGE INCLUDES:

- Mill chain
- Drag chain
- Sharp top chain
- Power transmission chain
- Long link chain
- Malleable and combination chain

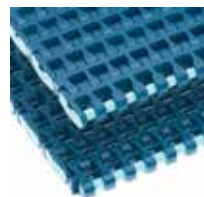
Wide range of attachments available for specific applications

**REXNORD TABLETOP CHAINS**

- A large selection of straight running and side-flexing chains are designed to convey flawlessly even in demanding environments
- Metal or thermoplastic chains are perfect for high strength and high speed applications
- Narrow widths are ideal for multiple strand and variable speed conveyors
- Chains with low backline pressure rollers minimize product damage
- Several chain series couple traditional top plates with roller base chains for increased strength & precision

**HEAVY DUTY DRIVE CHAIN**

- Ideal for slow – moderate speed, high load drives, and provides resistance to shock load
- Outstanding wear resistance and strength
- Excellent fatigue resistance for longer chain life

**REXNORD MATTOP CHAINS**

- Available in assembled-to-width and molded-to-width configurations, engineered to satisfy a wide range of conveyor applications for virtually any product size
- Pins extend the full width of the chain to ensure maximum strength and provide smoother conveying surfaces
- Smaller pitch chains minimize the size of dead plates when transferring products overhead or tail shafts reducing chordal action, helping to eliminate container tipping and jam-ups at transfer point

**CC600 CASE CONVEYOR CHAIN**

- Plastic and malleable iron crate conveyor chain
- Lugs, pushers, closed top styles also available

Stocked and assembled in NZ

ROLLER CHAIN

RENOLD
 Superior Chain Technology
**RENOLD SYNERGY**

- High performance
- Superior wear life
- Outstanding fatigue resistance
- Renold brand for pitches greater than 1.5"

**RENOLD SOVEREIGN**

- Abrasion resistance chain
- Ideal for dusty, gritty applications
- Reduced pin wear
- Extended life

**RENOLD SYNO**

- Maintenance free
- Self-lubricating chain
- Food industry-approved lubricant

**RENOLD STAINLESS STEEL**

- Corrosion resistant
- Designed for acidic/alkaline conditions
- Ideal for wet environments
- Food processing applications

**RENOLD HYDRO-SERVICE**

- Superior corrosion resistant coating
- Alternative choice to stainless steel chain
- Will not chip or peel
- Hexavalent chrome-free

**RENOLD KLIK-TOP**

- Easy to install polymer blocks
- Suitable for use in hygiene sensitive areas
- Food industry approved
- Ideal for conveying items, eg: glass, wood, packaging

**RENOLD A&S**

- All purpose chain
- Affordable reliability
- Wide waist plate / wedge rivet

**RENOLD SD**

- Economy chain
- Dependable performance for an economy chain
- Split bush / solid roller / wedge rivet

**ADAPTED TRANSMISSION CHAINS (ATC)**

- Any type of attachment including specials
- Various types of base chains
- Large assembly facility and design engineers in Melbourne
- Fast response time

**RENOLD SPROCKETS**

- Wide range of standard and special sprockets
- Manufacturing plants and Design Engineers in Melbourne and Auckland
- Wide range of taper lock bushes

**RENOLD ROLL-RING**

- Revolutionary chain tensioner
- Installed in seconds and self adjusting
- Maintenance free
- Also acts as noise dampener

**RENOLD SMARTLINK**

- Load monitoring technology
- Technical reports & data logging

DRIVESHAFT & COMPONENTS

**COMPLETE DRIVESHAFTS**

The Hardy Spicer range of complete driveshafts are manufactured and balanced, ready for various applications in automotive, mining and transport industries.

- Complete automotive driveshafts for most makes and models including; Ford, Holden, Toyota, Nissan, Honda, Mazda, Audi, BMW, Mercedes Benz, Volvo, VW and many more
- OEM quality driveshaft assemblies for mining vehicles including Caterpillar, Komatsu, Volvo Construction Equipment, Sandvik, Atlas Copco, Hyundai and many more
- On-Highway transport driveshafts for Volvo, Mack, Iveco, Mercedes, Scania and Isuzu. Other makes also available

Custom-built shaft, complete driveshafts can be manufactured to OEM specifications to suit your needs.

**INDUSTRIAL DRIVESHAFTS**

The Hardy Spicer range of industrial heavy duty driveshafts and parts are suitable for the steel, construction, railway, marine and paper industries.

- General industrial applications
- Custom designs for special applications
- Torque range from 195 Nm to 16,300,000 Nm
- Flange sizes 58mm to 1,200 mm

**DRIVESHAFT COMPONENTS**

Our Service Centres specialise in driveshaft manufacture, repair and balancing. Service Centres carry a wide variety of driveshaft components to manufacture or repair any driveshaft.

- Universal joints
- Centre support bearings
- Flange yokes
- Slip yokes and spline sets
- Weld yokes
- Transmission and Pinion yokes and flanges
- Components to suit automotive, 4WD, agricultural, industrial, mining, earth moving, transport & marine industries

**CENTRE SUPPORT BEARINGS**

The Hardy Spicer range of driveshaft centre support bearings is continuously expanding. Industries include automotive, 4WD, transport, industrial and mining, all with an extensive listing of makes and models.

- Specific make and model applications
- Fluted and solid rubber cushions

Correct fitment for your application available.

**UNIVERSAL JOINTS**

The Hardy Spicer's performance range of universal joints are designed to meet today's tough conditions in all industries and markets.

- Precision ground caps
- Hardened alloy steel for long life durability
- Longer needle rollers for better load distribution
- Triple lips seals to stop water and contaminants
- Teflon thrust pads to prevent metal on metal contact
- Re-lube series for heavy duty service
- Maintenance free option with solid cross for extra strength

**PROPELLER SHAFT CV JOINTS AND COUPLINGS**

Main driveshafts in automotive and 4WDs operate at higher speeds than front wheel drive CV shafts. Hardy Spicer has a continuously expanding range of CV Joints, boots and Flexible couplings to suit high speed propeller shaft applications.

- Flexible disc drive couplings
- Propeller shaft CV Joints
- Weld in propeller shaft CV Joint stub ends
- High speed boot kits
- Applications to suit Automotive, 4WD and Industrial

**MAX-ALLOY**

Light Weight. Economical cost, reliable, functional and versatile.

- 415 Volt 3-Phase 50 Hz
- Aluminium frame motor
- Available in frame sizes D56-D160, 0.18kW to 18.5kW
- Multi-mount construction 0.75kW and larger
- Squirrel cage rotor
- MEPS efficiency
- Top mount terminal box
- Mutlimount 0.75kW and larger
- Class F insulation
- Protection to IP55
- Teal Green in colour

**TECO MAX E3 PREMIUM SEVERE DUTY**

The heavy duty machine, superior features and performance for all industries.

- 415 Volt 3-Phase 50 Hz
- TECO renowned grease relief system
- Suitable for 55°C ambient at rated output
- Cast Iron frame motor
- Available in frame sizes D71-D355, 0.18kW to 185kW
- Integral foot design with side mount terminal box
- Squirrel cage rotor
- High efficiency
- Side mounted terminal box
- Class F insulation
- Service factor 1.15
- Protection to IP66
- TECO blue in colour
- Also available as Exe (Zone 1 gases) and ExnA (Zone 22 Gases)

**TECO MAX E3 MINING**

The ultimate machine, with the features and performance desired by the worlds top mining enterprises.

- 415 Volt 3-Phase 50 Hz
- TECO renowned grease relief system
- Suitable for 60°C ambient at rated output
- High efficiency
- Cast iron frame motor
- Available in frame sizes D71-D355, 0.18kW to 450kW
- Integral foot design with side mount terminal box
- Squirrel cage rotor
- High efficiency
- Side mounted terminal box
- Class H insulation
- Service factor 1.2
- Protection to IP66
- X15 orange paint finish
- Also available as Exe (Zone 1 gases), ExnA (Zone 22 gases) and ExtD Zone 21 & 22 (dusts)

**TECO TE3**

Three phase induction motors are a range of high quality, totally enclosed fan cooled.

- (TEFC), Squirrel Cage Induction motors, designed, manufactured and tested to the latest
- International and Australian Standards (eff3)
- From 0.75kW to 315kW with either IP55 or IP66 protection
- Cast Iron frame with TOP Mount terminal Box

VARIABLE SPEED DRIVES (VSD/VVVF)

TECO

**F510 SERIES - FAN & PUMP DRIVE**

Experience the future of intelligent motor control, while reducing energy consumption and optimising system performance.

Features

- Advanced Network functions for Building Automation
- Automatic Energy Saving Function
- Ultra Low Motor Noise using Soft PWM Technology
- Fire Override Mode
- Pump Cascade Control Card for up to 8 Pumps
- Built-In Multi Pump Control Mode
- Blockage Detection, Sleep Mode
- Dry Pump Protection
- Alphanumeric LCD Keypad Standard
- LCD Keypad Standard
- RTC Function / Simple PLC / PTC Motor temperature detector input
- Built-In Filter up to and including 45kW thereafter available with optional external filter
- 0.75kW to 600kW output range

Benefits

- Centralising control and monitoring of your systems, streamlining operations and boosting efficiency
- Reducing energy consumption and operating costs without compromising productivity
- Efficient control of up to 8 pumps resulting in energy efficiency gains and system optimization
- Simplifying management of multiple pumps ensuring reliability and ease of operation
- User-friendly interface ensuring smooth operations and reducing downtime
- Enhancing customization and motor protection ensuring optimal motor protection
- Reducing electromagnetic interference maintaining a clean electrical environment for uninterrupted operations.

**A510S SERIES - ADVANCED CURRENT VECTOR CONTROL DRIVE**

The sustainable and cost-effective solution for improving energy efficiency, extending motor lifespan, and enhancing operational reliability.

Features

- Seven control modes integrated in one drive
- 200% 0.5Hz starting torque
- Four quadrant control, speed, torque and position control modes
- Built in modbus RTU via RJ45 port
- PTC Thermistor Input
- Dual rating for normal and heavy duty loads
- PLC and PID functions as standard
- Fire override mode

Benefits

- Improving energy efficiency, resulting in cost savings and reducing consumption
- Extending motor lifespan and enhancing operational reliability, reducing wear and tear
- Prioritising reliability for consistent performance and minimizing downtime
- Precise motion control for increasing flexibility and optimising motor performance
- Reducing maintenance and easy integration into existing systems
- Optimising motor performance and system efficiency, delivering energy savings.

**E510S SERIES - GENERAL VECTOR CONTROL DRIVE**

Versatile and reliable drive, providing customers with precise control, enhanced safety, ease of use, and tailored functionality to meet their specific application needs.

Features

- V/F Control, Vector Control
- High IP rating with built-in isolator without the need for an enclosure solution
- Starting Torque 150% /3Hz (V/F), 150% /1Hz (Vector)
- Fire Override Mode / Safety Stop
- IP20 Enclosure
- Built-In Modbus RTU via RJ45 port
- PLC & PID functions as standard
- Parameter Lock Function prevents unauthorised access
- LCD keypad
- 0.75-2.2kW 1-Ph Input and 3-Ph Output
- Built-in potentiometer for varying motor speed
- Multi-pump feature as required by Pump OEMs.

Benefits

- Choosing the control method that best suits the application requirements, ensuring optimal motor performance and efficiency
- Bypassing normal control signals and operate at maximum speed during fire emergencies, ensuring swift evacuation. Additionally, provide immediate motor shutdown when necessary
- Providing protection against solid objects and ensuring safe and reliable operation in various industrial environments
- Allowing seamless integration into automation systems and enabling convenient monitoring and control of the drive.

GEARED MOTORS, GEARBOXES & PLANETARY UNITS

**VF/W - UNIVERSAL WORM GEAR MOTOR**

Absolute flexibility is given by the wide choice of several mounting options, shaft configurations and motor interface, all offered as standard.

- Torque range: 13Nm - 7.100Nm.
- Mechanical rating (n1= 1400 min-1): 0.04 - 75kW.
- Gear ratios: 7 - 10000.

**A - HELICAL BEVEL GEAR MOTOR**

The A Helical bevel gear motor series is the first product to prove equally good in regard to efficiency and versatility within a highly competitive context, both performance and price-wise.

- Torque range: 100Nm - 14.000Nm.
- Mechanical rating (n1= 1400 min-1): 0.22 - 150kW.
- Gear ratios: 5.4 - 1715.

**F - SHAFT MOUNTED GEAR MOTOR**

Lightweight and performing, an F unit is the dependable drive for all material handling applications.

- Torque range: 140Nm - 14.000Nm.
- Mechanical rating (n1= 1400 min-1): 0.17 - 125kW.
- Gear ratios: 6.4 - 2099.

**C - HELICAL GEAR MOTOR**

Top torque density, product variety, extremely wide speed choice, great compactness and price effectiveness make the C series the unparalleled line of helical gear motors and speed reducers.

- Torque range: 45Nm - 12.000Nm.
- Mechanical rating (n1= 1400 min-1): 0.08kW - 213kW.
- Gear ratios: 2.6 - 1481.

**BE - HIGH EFFICIENCY IE2 AC MOTORS & BX - PREMIUM EFFICIENCY IE3 AC MOTORS**

The IEC BE (eff2) & BX (eff3) motors comply with IEC 60034-1-2-2007 & IEC 60034-30-1 standards from the International Electrotechnical Commission.

- Power range (4 pole): 0.75kW - 22.0kW
- Frame sizes: 80B - 180L
- Number of poles: 2, 4, 6
- Mounting options: Foot B3, Flange B5 and B14

**300 - PLANETARY GEAR MOTOR**

Compact, and yet extremely powerful, are the units of the 300 Planetary gear motor series. Their planetary drive train makes them the ideal choice for all the severe duty applications where shock loadings and impacts are more the rule than the exception.

- Torque range: 1000 - 1287000Nm.
- Mechanical rating (n1= 1400 min-1): up to 450kW.
- Gear ratios: 3.4 - 5234.

**V - MECHANICAL VARIABLE SPEED DRIVE**

The renovated V-Mechanical variable speed drive series features a brand new speed setting mechanism that optimizes the operation, extending the lifetime of the core parts, and allowing the speed variator to run cooler and smoother than ever before.

- Max. to min. speed setting: 5.2 times, ∞ reduction through a differential unit.
- Mechanical rating (n1= 1400 min-1): 0.18kW - 9.2kW.
- Additional helical reduction: iN = 2.5 - 6.3.

**RAN - BEVEL GEARS**

The units of the RAN - Bevel gears series are designed to fit the purpose of transmission laid out in right angle setting. Easy to fit and almost maintenance-free.

- Torque range: 3Nm - 3.000Nm.
- Mechanical rating (n1= 1400 min-1): 0.15kW - 91kW.
- Gear ratios: 1.0 - 7.4.
- Shaft arrangement: single or double shaft projection.

GEARED MOTORS, GEARBOXES & VARIABLE SPEED DRIVES (VSD'S)

**TA SERIES - SHAFT MOUNTED REDUCER**

The TA series - Shaft mounted reducer has long established itself in the industry until becoming a best seller for the quarry and mine applications where absolute reliability and low maintenance are key factors.

- Torque range: 150Nm - 16.000Nm.
- Mechanical rating ($n_1 = 1400 \text{ min}^{-1}$): 1.1kW - 156kW.
- Gear ratios: 5.0 - 31.5.
- Output: keyed hollow shaft.

**S2U - PLUG & PLAY FREQUENCY INVERTER**

Intuitive and simple but powerful and effective. Also available in our extensive range is SYN10, Active, Agile, Active Cube and ACU8.

- Power range (S2U 230): 0.25 - 3.0kW 1-Phase 200 - 240V / 50 - 60Hz (+10, -15%).
- Type of control: V/F control with automatic torque compensation function.
- Overload capacity: 150% for 60s.
- Switching frequency: 1-16kHz.
- Enclosure: IP20.
- EMC filter: standard integrated A class filter.

**VF-EP/W-EP - GEAR MOTOR FOR HOSTILE ENVIRONMENTS**

Wormgears and motors are also available in the enhanced protection "EP" configuration (gear motor for hostile environments), featuring food grade specifications and extra corrosion protection.

- Stainless steel hollow shaft.
- Stainless steel mounting hardware and tag.
- Oil seals loaded with stainless steel spring.
- Sealed gearcase (unvented).
- Unused tapped holes closed with button plugs.
- Four draining holes on motor DE and NDE shield.
- Motor protection IP 56.

**3/H SERIES - COMBINED GEARBOXES**

Bonfiglioli's 3/H gearboxes combine the high technology, performance and efficiency of planetary gearboxes with the robustness, quality and reliability of bevel helical gearboxes.

Numerous combinations cover a wide range of applications and offer:

- Gear ratios from 1:100 to 1:1000.
- Rated power up to 980kW.
- Reference torque up to 1200kNm.

**BONFIGLIOLI HDP - PARALLEL SHAFT GEARBOX**

Torque ratings consistently high, gear ratios in close progression, numerous mounting options along with compact dimensions will ease the engineering of any application.

- Torque range: 5000 - 210000Nm.
- Gear ratios: 7:1 - 500.
- Mounting: foot, flange, shaft mounting.

**BONFIGLIOLI HDO - BEVEL HELICAL GEAR REDUCER**

The new bevel helical gear reducer series optimises superior performance with compact dimensions and flexibility.

- Torque range: 28200 - 210000Nm.
- Gear ratios: 5.6 - 400.
- Mounting: foot, flange & shaft mounting.

GEARED MOTORS, VARIABLE SPEED DRIVES, COUPLINGS & MOTORS

**CYCLO® 6000 GEARMOTOR**

- Our best-selling gearmotor with high strength and reliability, thanks to its unique Cyclo® mechanism.
- With its long history and delivery record, it has become synonymous with the term speed reducer.
- Unique Cyclo® mechanism results in high durability and extended operating life.
- Wide variety of products available that take advantage of this technology.
- Select the best product to meet your needs from a wide range of capacities and reduction ratios.

**CYCLO® BEVEL BUDDYBOX® 4 SERIES GEARMOTOR**

- Right Angle Spiral Bevel Gearmotors with Cyclo® Input
- Robust, state-of-the-art, spiral bevel gearmotors.
- All-Steel Internal Components
- Highly Efficient
- Standard Ductile Iron Housing
- Integrated Cycloidal Technology
- Maintenance Free Options Available

**HYPONIC® GEARMOTOR**

- Right angle shaft gearmotor, with a motor range of 1/8 to 15 HP
- Maintenance-free grease lubrication eliminates oil changes
- A wide range of choices (1/8 to 15 HP) to accommodate all types of uses.
- Modular design allows for multiple gearheads and motor combinations for increased service factor.
- A variety of industry packages and options are available, including grease lubrication, antibacterial coating, waterproofing, and low-temperature requirements.

**PARAMAX® 9000 SERIES REDUCER**

- Featuring a compact design and optimized supply chain for fast delivery while maintaining high quality.
- Highly functional reducer available in 26 sizes with a wide range of options.
- Features high dedendum strength. Reducer with high load capacity, capable of withstanding strong impact loads.
- Newly designed cooling fan and cover.
- Housing structure can be mounted in any orientation: horizontal, vertical, or upright.

**HANSEN P4 MULTISTAGE - HORIZONTAL**

- Dedicated Gearbox series to measure all horizontal applications
- Specific horizontal housing - available in 19 sizes from 6 to 1100 kNm output Torque.
- Parallel and right Angle - 2/3/4 stage gearboxes with a wide range of reduction ratios.
- Service friendly with split plane, inspection cover and maintenance-free sealing system.
- Reliable product series allowing flexible customization and options upon request.
- Powerful Hansen P4 gear geometry for low noise and vibration levels

**HELICAL SHAFT MOUNT (HSM)**

- Helical Shaft-Mounted Speed Reducer (HSM) is one of the most popular products in our portfolio.
- Sumitomo Helical Shaft Mount (HSM)
- Keyless Taper-Grip® Bushing
- 25-Degrees Pressure-Angled Gears
- Integrated BackStop Option
- Heavy Duty Roller Bearings for Maximum Strength and Extended Life
- Available with CEMA Screw-Conveyor Drive Option



INVERTER OPTIDRIVE E3

- High performance variable frequency drive for permanent magnet and standard induction motors
- The all-new Optidrive E3 provides unrivalled simplicity of installation, connection and commissioning
- Precise and reliable control for IE2, IE3, IE4 motors
- Up to 175% overload capacity
- Operates in ambient temperature of up to 50°C without derating (for IP20)
- Single phase motor control for up to 1.1kW PSC & shaded-pole motors



SEISA GC COUPLING

- Gear coupling that automatically compensates for eccentricity and deflection angle
- Compensates for eccentricity and deflection angle between the shafts, and transmits the torque smoothly from the driving side.
- Misalignment between the shafts is corrected by the crowning gear, ensuring superior wear resistance and rigidity.
- The center and housing are separated, making assembly and disassembly easy, and the unit lightweight and compact.
- As no misalignment will occur in the rotation angle between the two shafts from a coupling deflection, torque is reliably transmitted.



INDUCTION MOTORS

- Induction motors are the workhorses of the industrial world. Built with a straightforward design that minimizes wear and tear, they're perfect for high-demand applications that require a robust, cost-effective solution.
- Induction Motor IE3 Asynchronous Motor
- Rugged. Reliable. Ready for Anything.
- This motor reduces energy consumption while providing high torque, smooth operation, and low maintenance.

Why Choose Sumitomo Induction Motors?

- Cost-Effective Performance: High output without the high price tag.
- Simpler Design: Fewer components mean less maintenance and downtime.
- Durable Build: Handles tough environments like heat, dust, and long operating hours.
- Our induction motors are built to last, offering performance you can rely on day in and day out.

GEARED MOTORS, GEARBOXES & SHAFT COUPLING

**DODGE RAPTOR FLEXIBLE COUPLING**

- Natural rubber elastomeric element
- Patented WingLock™ element design
- Longer element life
- Improved vibration and shock damping
- Minimized loads on connected equipment
- Industry leading misalignment capabilities
- Easiest installation of any tire coupling
- Industry leading 5-year warranty
- Close-coupled and spacer designs
- 15 sizes (E2-E140)
- Interchangeable with competitive split-tire elastomeric couplings

**DODGE MTA (MOTORISED TORQUE ARM) REDUCER**

- Heavy-duty right angle gear reducer
- Compact solution for tight spaces
- Tapered roller bearings to withstand shock load applications
- Premium heavy duty seals to protect internal components
- 3 piece coupling design to easily assembly and disassemble motor from gear reducer
- Patented twin-tapered bushings for easy installation and removal
- Screw conveyor packages available
- Multiple breather accessories to extend operating life
- Available in 7 case sizes up to 75 kW
- ATEX certified

**DODGE TAIL (TORQUE ARM) REDUCER**

- Belt driven gear reducer launched in 1949
- Dodge Torque-Arm II introduced in 2000
- Heavy duty tapered roller bearings to withstand shock loads
- Harsh duty seals provide wear resistance to extend operating life
- Patented twin-tapered bushings for easy installation and removal
- Screw conveyor packages available
- Multiple breather accessories to extend operating life
- 12 gear reducer case sizes up to 300kW
- ATEX certified

**DODGE HEAVY DUTY DRUM & WING PULLEYS**

Pulleys can be provided with high quality lagging designed to ensure maximum belt and pulley life in tough applications.

- XT hub style bushings with 9.5 degree taper angle for easy-on, easy-off
- High strength submerged arc or gas-metal arc welds and Vulcanized SBR lagging
- Cold formed crowned not

**DODGE COMPLETE PACKAGE**

- Belt Guarding – Allows for multiple height adjustments, featuring a lift off cover construction.
- Motor Mount – Provides stable mounting between motor & reducer to minimise overhung loads & withstands heavy shock loading.
- Twin Taper Bushing – Ease on – easy off assembly providing reliable support on both sides of the reducer. Available with short shaft bushings when replacing single bush reducers.
- Backstop - Safety feature that prevents reverse rotation when the system stops. Compatible with standard EP lubricants without the need for external lubricant.
- Tie Rod Kit – Provides a safety link between the reducer and the structure.
- Hydra-lock Breather – Especially effective in humid or dusty environments. This optional breather's check valve system prevents the effects of ambient conditions and improves maintenance practices.
- Screw Conveyor Package – DODGE's TAIL & MTA units utilise a CEMA screw conveyor adapter. It is available with multiple diameter driveshafts to match CEMS screw dimensions.

MOBILE FINAL DRIVES, SLEW DRIVES & UNDERCARRIAGE COMPONENTS



Motion's product range now covers direct replacement parts for Terex, Bucyrus and Caterpillar shovel loaders and buckets within the mining industry.

**F SERIES**

The F Series is perfectly suited to any crawler and milling machine. Thanks to compact, rugged design, high torque and load capabilities, these solutions are the best possible option for these machines. All units are available with a fail-safe parking brake and for most cartridge type fixed or variable systems. Different disengagement systems are available on demand for all the sizes.

**S SERIES**

The Bonfiglioli S Series provides the safest and most effective solution for cranes, excavators and forestry machines. Its compact design allows it to perfectly fit cranes, excavators and special equipment where installation space is limited.

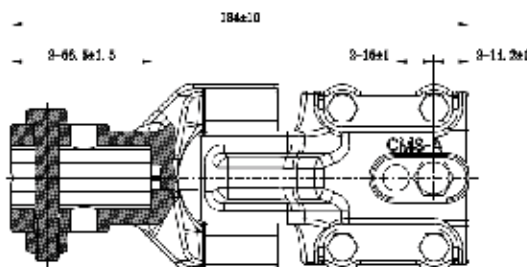
**FA SERIES**

Dual stage planetary drive units with integrated pulley support, designed for cold planers, milling machines, and surface mining machines with engine power from 80 to 1200kW and different rotor widths. The offset input option ensures higher machine productivity due to the increased cutting depth. The shiftable 2 speed solution allows two possible cutting speeds with huge benefits in terms of machine performance.

CENTRE PIVOT DRIVES

**MI-LFNG SERIES CENTRAL DRIVE GEARED MOTOR**

The MI-LFNG series three-phase synchronous thermal protection motor inherits the advanced concepts of international efficient motor design and manufacturing. Combining long term technology and experience in developing motors, adopting new technologies, materials, and processes to develop a new and upgraded product. The New MI-LFNG Central Drive is known for its outstanding performance, high efficiency, energy conservation and durability.

FLEXIBLE COUPLING - LZQ SERIES**STANDARD WHEEL DRIVE GEARBOX**

Superior Engineering & Feature

- Filled with Premium Extreme Pressure GL5 Gear Oil
- Cartridge Input/Output Seals
- External Seal Protectors for input and Output Seals
- External Seal Protectors for Input and Output Seals
- Dual Ended Input Shaft with a Hub Cap for the Unused End
- Universal (13-Bolt) Mounting

**UNIVERSAL WHEEL DRIVE GEARBOX**

Superior Engineering & Feature

- Vented, External Expansion Chamber with Rubber Diaphragm
- Filled with Premium Extreme Pressure GL5 Gear Oil
- Cartridge Input/Output Seals
- Dual Ended Input Shaft with a Hub Cap for the Unused End
- Universal (11/13-Bolt) Mounting

**SUPER WHEEL DRIVE GEARBOX**

Superior Engineering & Feature

- Vented, External Expansion Chamber with Rubber Diaphragm
- Filled with Premium Extreme Pressure GL5 Gear Oil
- Cartridge Input/Output Seals
- Dual Ended Input Shaft with a Hub Cap For the Unused End
- Universal (13-Bolt) Mounting

**UNIVERSAL WHEEL DRIVE GEARBOX**

Superior Engineering & Feature

- Vented, External Expansion Chamber with Rubber Diaphragm
- Filled with Premium Extreme Pressure GL5 Gear Oil
- Cartridge Input/Output Seals
- Dual Ended Input Shaft with a Hub Cap for the Unused End
- Universal (13-Bolt) Mounting

**SABRE AG GEARBOXES**

Agricultural gearboxes including slasher gearboxes and parts to suit various applications.

- Standard Slasher gearboxes from 30HP to 100HP
- 4 Way Slasher T-Box 90HP @1000rpm
- Compact bevel right angular gearboxes from 3HP to 100HP
- Compact speed multiplier gearboxes
- Slasher kits available (Includes gearbox, PTO shaft, clutch and implement guard)
- Spare parts available

iMOTION®



Delivering a world-class customer-first approach providing excellence and expertise in industrial products, solutions and services.



Find a location near you!

Scan the QR Code to find out more
or visit [Motion.co.nz](https://www.motion.co.nz)

SAECOWilson
Bearings | Power Transmission | Engineering Supplies

SiL SEAL
INNOVATIONS

**Bay
Engineers
Supplies**

HCD
Flow Technology

HOSE
SUPPLIES

C&T
CONVEYOR & TRANSMISSION