

INDUSTRIAL

Beattys

# POWERING GLOBAL INDUSTRY WITH OPTIMAL PERFORMANCE.

# BEATTYS END TO END SOLUTION.

### **1. ASSESS** Beattys will scope out the project,

identifying any critical parameters and challenges that we need to overcome to ensure we deliver a premium product.



### **2. DESIGN** Our team of technical engineers will

then design a custom solution using state of the art CAD systems and technical expertise to ensure that our solution will meet all the clients needs.



### **3. MANUFACTURE** Throughout our driveshaft

manufacturing process, you can be guaranteed the highest level of engineering excellence and commitment to quality.



### **4. BALANCE** All driveshafts are then balanced in

one of our four, multi plane balancing machines. We spot-weld any weights to reduce stress on driveshaft tube. Beattys also offers balancing services for other industrial rotating equipment.



5. **REVIEW** Once a driveshaft has been balanced and painted it goes through a series of rigorous inspections and quality control measures to ensure the products we deliver will fit our commitment to premium quality.





BEATTYS DESIGN AND MANUFACTURING TEAM EXCEL THROUGH THEIR SYSTEMATIC APPROACH COMPLEMENTED BY QUALITY COMPONENTRY AND WORKMANSHIP.





# PREMIUM DRIVESHAFT SOLUTIONS.

Sliding spline assemblies have heavy-duty housings and an integral seal system that protects from contamination and wear.

European involute style splines that are larger in diameter with finer tolerances and less clearance result in quieter operation, increased capacity and longer service life. Rilsan<sup>®</sup> coated splines reduce axial load and provide electrical isolation between shaft ends.

> High grade tubing increasing the resistance to high shock loadings.

OUR SERVICES YOU CAN COUNT ON.

\*

DESIGNED & MANUFACTURED



MANUFACTURE.

Throughout our driveshaft manufacturing process, you can be guaranteed the highest level of engineering excellence and commitment to quality.



**REPAIR.** Beattys have the skills and componentry to repair all driveshafts. Our large capacity allows us to complete urgent jobs with minimal operational down time.



# High grade two pack paint to prevent corrosion in harsh environments.

Premium automated welds allow for deep penetration and precise control while keeping consistency to a maximum. Thrust washers helps universal joints run cooler and minimises noise and vibrations from clearance.

Completely sealed for life universal joints to keep maintenance to a minimum and ensure the engine room is kept clean.

All driveshafts are balanced to ISO 1940 standard and balance weights are spot welded to prevent fracturing and stress on the driveshaft tube. Custom made flanges to suit any application.



#### Beattys can modify all types of driveshafts whether it be shortening, lengthening or changing drive ends. All modifications are designed to meet OEM specification.



With schedualed inspections and routine maintenance our clients have been able to reduce plant downtime and emergancy repairs.



#### At Beattys we use eight industrial balancing machines to provide accurate readings by carrying out a simultaneous 4-plane balance at speeds of up to 5000 rpm.



# SHORT COUPLED SHAFTS.

Sealed or greasable universal joint options.

Greasable splines for easy maintenance and extended life span.

Ideal for small industrial applications like wood planers.

Stocked models for common applications.

Custom designed and manufactured flanges to suit any drive system, gearbox or coupling.

Sliding coated involute spline assemblies have heavy-duty housings and an integral seal system that protects from contamination and wear.

Custom designed yokes to suit specialty high torque and angle applications.

Balanced to ISO 1940 standard with balance weights spot welded to prevent fracturing and stress on the driveshaft.

Completely sealed universal joints to keep maintenance to a minimum and ensure the engine room is kept clean.

DISTANCES FROM 100MM WITHOUT ANY COMPROMISE IN PERFORMANCE OR DURABILITY.







## UNIVERSAL JOINTS.

Large diameter journals with up to 35% higher torque capacity.

Triple lip seals for maximum retention of grease and keeping contaminants out.

Thrust washers eliminate metal to metal contact preventing wear and reducing vibrations.

Joint body forged from 18NiCrMo5 steel and then machined, hardened and ground.

Sealed for life joints reduce maintenance and ensure engine room cleanliness.

Twin rows of rollers capable of handling more torque.

### PREMIUM SPLINES.

### So Sh Sh Sh Sh Cla in wi en ff de wi

SAE SPLINE

Screw on seal.

Shorter square cut male splines require more clearance and can result in noisy driveshafts with vibrations when the engine is idling.

If the seal is breached, debris comes in contact with spline immediately.

#### **DIN SPLINE**

Large diameter involute splines have fine clearance tolerance reducing noise and vibrations.

Longer splines with 100% engagement across the complete slip.

Rilsan<sup>®</sup> coated splines reduce axial load and provide electrical isolation between shaft ends.

Superior seal system prevents grease escaping and guarantees no debris can affect the performance and wear of the spline.



Different rubber inserts

avialable on some models

stiffness to any application.

to perfect the torsional

# LAYRUB COUPLINGS.

A metal housing and high grade rubber inserts mean we can rate our layrub couplings up to 5,000 rpm for high speed applications.

A robust design with a metal housing extends the service life while ensuring maximum performance.

Rubber inserts are designed to handle initial startup shock load.

Best suited to low angle applications below 3°.

Available with complete shaft and sliding spline assembly.

With the system being fully self supported at all rpm ranges, the need for a centre support or other supports is removed.





# PRECISION COUPLINGS.

Double joint options for high Over 150 different angle situations up to 50°. styles and sizes available. Models rated from 3.5Nm to 720Nm. Solid or pre-machined options available. Tight tolerances reduce wear, noise and results in a longer service life. Compact design compared to traditional driveshaft alternatives. Available with precision sliding splines for applications with variable lengths. Rubber boot kits available for protection from abrasive materials.

### 3 DIFFERENT STYLES.



**Hardened Bush.** With joint extremely tight tolerances and a proven hardening process, these joints are built to perform 24/7 giving the operator peace of mind.



**Needle Roller.** By adding needle rollers to the joints, the couplings expected life can be increased by up to 500% in demanding applications.



Stainless Steel. Extened the life of the driveline in corrosive applications by opting for a full stainless steel precision coupling.



### TORSIONAL COUPLINGS. ABSORB SHOCK LOAD AND DAMPEN TORSIONAL VIBRATIONS.

- Low torsional stiffness providing low stiffness at low torque which shifts the torsional resonance below idle speed.
- Extremely robust and fail-safe design with rubber rollers subjected only to compressive stress.

Absorb engine and

gearbox vibrations.

Compact design and build makes for easy handling, installation and servicing.

- Allows for softer engine mounts which further reduces vibrations and noise
- Smooth operation and reliable transmission over the entire power range.
- Fail-safe design with rubber rollers yields smooth operation and reliable transmission.

Extremely robust and fail-safe design with rubber rollers subjected only to compressive stress.

Custom options as short as 12mm available for situations where there is very limited space.

Ability to add a heavy duty outer support bearing to remove all thrust off the driveshaft and other components.

Highly flexible coupling with progressive characteristic.

Compatible with all standard flywheel connections and custom flanges can be designed and manufactured according to specifications. Smooth operation and reliable transmission over the entire power range with minimal energy loss.

Slight stiffness at lower speeds and a moderately increased stiffness at rising torques.











Optimal Performance Whatever the Challenge

0800 800 852 beattys.com enquiries@beattys.com









