Never a problem, always a...



# **CHALLENGE**





#### Challenge Engineering Pedigree

The Challenge brand represents more than three decades of development, manufacture and refinement of the most comprehensive range of quality power transmission and engineered products available from any single source.

Challenge's global network of Regional Distribution Centers act as master importers; supplying Trade and OEMs with quality products on a wholesale-distribution basis. End users are served by their local sub distributor.

Quality, value and service are the foundations of the Challenge group; we have unparalleled expertise in the manufacture and distribution of engineering products complying with all international standards, tolerances and technical requirements.

All Challenge manufacturing facilities are staffed by experienced engineers who are also able to offer custom made machine parts, ranging from raw castings to the finished product.

Our products are branded and bar coded using the latest technology for ease of replacement, order, stock and dispatch.

So don't forget; Never a problem, always a... **[CHALLENGE]** 





Challenge's extensive range of Roller, Leaf, Timber, Agricultural and Conveyor chains not only offer all the manufacturing refinements and life optimising characteristics that today's engineers and designers expect; they do so without compromise in value or quality.

A full range of attachments are also available as are many types of specially designed chain to suit customer's specific requirements (e.g. sugar, cement, palm oil, bulk material handling etc).

One of our strongest innovations is our range of both transmission and conveyor chain featuring spin riveted pins.

This makes the Challenge chain range the ideal choice for any new build or replacement application.





#### Sprockets /////

Sprockets are manufactured to the same exacting standards as Challenge chain. The range includes both taper bore and pilot bore sprockets in simplex, duplex and triplex. Double simplex sprockets are also available.

Challenge offers all standard sprockets ex-stock including BS and ANSI sprockets, plate wheels and idler sprockets.

Special sprockets are manufactured to order according to customer requirements.



# Belts ////

All belts feature international labeling and fully comply with ISO, BS, DIN and other international standards. The extensive Challenge range of quality belts include our:

- Classical V-Belts (Z, A, B, C, D)
- Classical CRE V-Belts (AX, BX)
- Wedge Belts (SPZ, SPA, SPB, SPC, SPP)
- CRE Wedge Belts (SPAX, SPBX, SPCX)
- Narrow V belts (3V, 5V, 8V)
- Classical Timing Belts including sleeves (XL, L, H, XH)
- Curved Tooth Timing Belts including sleeves (HTD in 3M, 5M, 8M and 14M)
- Other belts to suit agricultural and automotive applications are available to special order







### Pulleys ////

The Challenge range of 'V' pulleys are produced with taper bore configuration and conform to ISO 4183. Pulleys are produced from phosphated GG25 grade cast iron and are balanced to Q6.3 or better.

Challenge also manufacture taper bore and pilot bore classical and HTD timing pulleys to the same demanding specifications.







#### Taper Bushes & Hubs

For torque transmission you need the maximum contact area. Challenge's high machining tolerances deliver just that, with over 500 metric and imperial bore sizes of taper bush available and manufactured from close grain cast iron.

To complement our range of shaft fixings, Challenge also manufacture precision machined low carbon steel Weld-on-Hubs, as well as phosphated Bolt-on-Hubs in GG22 Cast iron, plus a broad range of keyed and keyless adaptors, ideal for our pilot bored components.



#### Cone Clamping Elements

Challenge Shaftlock keyless shaft fixings come in a wide range of size and configurations and are simple to install and uninstall.

Challenge Shaftlock is a premium grade locking assembly with high machining tolerances and surface finishes resulting in high torque ratings.







#### Shaft Mounted Speed Reducers (SMSR)

The workhorse on many conveyors, Challenge's range of metric SMSRs and imperial TXT units are fully interchangeable with other manufacturers and are supplied complete with a torque arm. The Metric SMSR is available with the Grip-Loc hub system or standard output hubs with reducing bushes. The TXT unit is available with a full range of imperial output hub bushings. Backstops for both units are available and sold separately.

Consistent quality and close tolerances are guaranteed by Challenge's production line manufacturing and all units are fully traceable via a unique serial number. Challenge gearboxes are test run for 30 minutes before final quality control and drained of oil before shipment.



## Torque Limiters

The torque limiter range from Challenge will save money in damage and downtime, with its zero manual re-setting and simple installation, this unit works with our plate wheels, sprockets, gears, pulleys, couplings etc.



#### **Shaft Couplings**

Challenge shaft couplings are suitable for use in a wide range of applications.

The range encompasses FFX tyre coupling, HRC, Jaw and Chain shaft couplings as well as our NPX, RPX and CNM couplings which match industry standards.

Whether you need to absorb shock from a crusher or drive a smooth running generator, Challenge has a suitable coupling for your application.

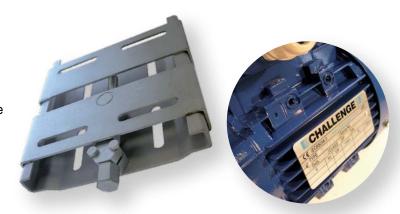




# **Motor Mounts**

Manufactured from galvanized steel, Challenge motor mounts maintain your motor's alignment and drive tension, whilst reducing vibration and noise.

They are easily adjustable and available in five motor frame sizes covering 63 to 180.



#### **Electric Motors**

The Challenge range of three phase electric motors comply with IEC 60034 standards and are available in IE1, IE2 and IE3 efficiencies. The motors are ( ) approved having fan cooled, high grade cast aluminium alloy squirrel caged construction, incorporating engineering grade plastic terminal boxes.

All motors have multi-mount feet and thus can achieve numerous mounting positions.



#### Worm Gear Units

Challenge offer a range of worm gear units with aluminium alloy cases.

This extremely versatile unit can be offered with output shafts, electric motors, input flanges, torque arms with many different configurations to fulfil most application criteria. The sizes match industry standards.



#### Bearings

Our ever increasing range of bearings include metric 1600, 6000, 6200, 6300 and 6800/6900 series, and R series imperial bearings.

All our roller bearings are shielded for longer life and ease of maintenance.

We also stock a popular range of metric and imperial taper roller bearings and spherical roller bearings.



#### Bearing Units

Challenge Triple Seal Pillow blocks, 2 and 4 hole flange units and take-up units all have triple lipped seals fitted as standard. These triple seals ensure the longevity of these bearing units and make them ideal for high dust environments such as in agriculture, mining and quarrying applications. Additional options include: pressed steel housings, plastic housings + stainless steel housings + inserts.



#### Agri Range

Challenge AGRI range consists of three main groups of products, exactingly engineered to suit the demands of agricultural applications.





Challenge AGRI Chain – These chains for agricultural machinery are fully interchangeable with major machinery manufacturers and are aimed at the replacement market. Incorporating the most advanced heat treatment processes and a special lubricant, these chains are engineered specifically to cope with the conditions persistent in agricultural applications.

Challenge AGRI Bearings – This expanding range consists mainly of industry standard bearing units with double lipped seals and wheel bearing kits for specific machines. These industry standard bearings are manufactured using Chromium bearing steels and filled with proprietary lithium based grease.





Challenge AGRI Belts – This range of high quality fan and drive belts for agricultural machinery are produced to the same exacting specification as our standard range of V and Wedge belts. Top quality together with excellent stock availability and reasonable pricing mean that these popular belts are quickly becoming the standard for agricultural users around the world.

#### Challenge Technical Catalogue

The ISSUE6 Challenge Power Transmission Technical Catalogue covers our entire range of products in our 430 page publication. Contact your local Challenge Sales office for your copy now.



#### 18 production plants, more than 60 sales offices and over 2400 people



# The Challenge global network here to support you

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