

# TEFCO ENGINEERING PTY LIMITED

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## CONVEYOR PULLEY CAPABILITY PULLEY MANUFACTURING PLANT



**End Disc Turning** – Done in house on either of 3 CNC lathes to 2500mm diam or our CNC 1250mm swing vertical lathe giving a combined capacity of more than 50 end discs a day.



**Shell Rolling** – Subcontracted off premises to any of three qualified rolling contractors with a combined capacity of at least 12 shells a day.  
A Tefco inspector measures the shell diameter and ovality at the contractor's premises before they are shipped back to us. Weld procedures & welders are qualified and documented to AS1554.1 or 5 and all welds are ultrasonically tested to AS2207 level 2 before shipment back to Tefco.

*Manufacturers of quality engineered components for Industry using the latest CNC machining technology*

**End Disc to Shell internal welding** – Done in house to our qualified and confidential weld procedure on special automated rigs. These operate 2 shifts a day allowing us to produce up to 12 bodies a day depending on size. 1000mm diam bodies up to 3 tonnes are done on rig one and larger bodies are done on rig 2 - 20Tonne set.



**End Disc to Shell external welding** – Done in house to our qualified and confidential weld procedure on either of our 2 automated Submerged Arc rigs which operate 2 shifts a day, presently doing up to 12 bodies a day. Maximum body mass is 20 Tonnes.



**Stress Relieving** - Done in house in our computerised gas fired stress relieving oven with internal dimensions of 4200 x 2600 x 2600.



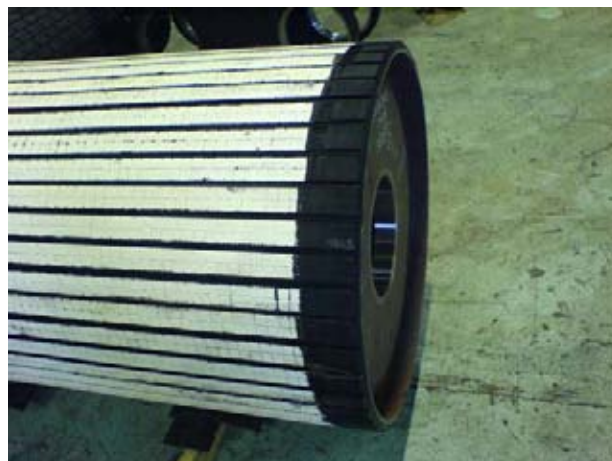
**Body Boring** – Done in house on our Union Horizontal borer or our Eumach FBE4000 or Eumach FBE3000 both of which have fully programmable heads to rough out bores and face each end under program before fine boring with special preset boring bars. Presently operating 2 shifts a day. We can bore at least 15 bodies a day.



**Body Turning** – Done in house on either our largest Kinwa CNC lathe (pictured below) with 1980 diameter body capacity x 4000 long x 13Tonne body mass or on either of our 2 larger manual lathes which can produce quantities well in excess of whatever bodies are bored in a day.



**Ceramic or Rubber Lagging** – Done in house and we presently lag 2 shifts a day which provides enough capacity to lag whatever bodies we can turn.



**Polyurethane Lagging** – Our subcontractor shot blasts the turned body OD and shell overhang to class 2.5, then fits a steel mould around the bodies and pours the hot cast degassed polyurethane into the mould before hot curing in their 3 ovens. After curing the poly which is moulded oversize is turned to the nominated diameter and lagging thickness and grooved if required.

A swatch is poured and cured with each pulley and tested to confirm conformance to the specified hardness, tensile strength and elongation.

**Shaft turning** – Done in house on 4 CNC lathes which can turn shafts to 750 diam and up to 6000 long. We can produce enough machined shafts for 15 medium sized pulleys a day.

The Ajax CNC lathe has a 360mm diam hollow bore with milling & drilling capability for complex shaft end details. Our L & L CNC lathe is 5.2Mtrs between centres with a permanent auto hydraulic steady to improve surface finish. Our extreme duty Kinwa CNC lathe installed in January 2009 is suitable for 17Tonne shafts up to 6Mtrs long and also has a milling attachment.

The largest Kinwa CNC lathe has a 2500 swing x 4000 between centres with a 370 diam hollow spindle bore and also uses the same milling attachment as our other Kinwa.



**Shotblasting** - Done in house in our new specially designed environmentally friendly shotblasting room with dust collection and shot reclamation system operating 2 shifts a day, which can support whatever we produce.

**Assembly & Balancing** - Our assembly area is set up with 6 assembly bays, one balancing bay & one coupling fitting and measurement bay where we have assembled and balanced as many as 12 pulleys in a day. Balancing is done to our work instruction TWI-10, which conforms to ISO1940.1 explaining technique used and location of balance weights and method of attachment.



**Painting** - We paint to any system required in house on both shifts in our 8m x 4m atmosphere and temperature controlled spray booth, which can support whatever we produce.

**Packing & Despatch** - We produce special steel stillages to transport the pulleys which allow either forklift or crane handling and incorporate bearing lock points to prevent brinelling during transport. These stillages remain the property of Tefco and were practical we reclaim them at our cost to use again providing further savings to our customers.



### Materials Handling

All of the above is supported by a range of 6 overhead cranes that can lift up to 20Tonnes in a bay and a number of forklifts up to 16 Tonne capacity.