AUSTRALIAN CONVEYOR ENGINEERING

CONCEIVE | CONSTRUCT | CONTROL | CONVEY

# ENGINEERED PULLEYS

Detailed Pulley Design

Computer Modelling

Quality Assurance

Finite Element Analysis

Manufacturing Capabilities
- Up to 2.4m diameter
- Shaft size to 700mm
- Up to 62mm shell thickness

>3MW Powers

## Pulleys manufactured by ACE are designed using sophisticated computer modelling based on the steady state and transient loads for the conveyor.

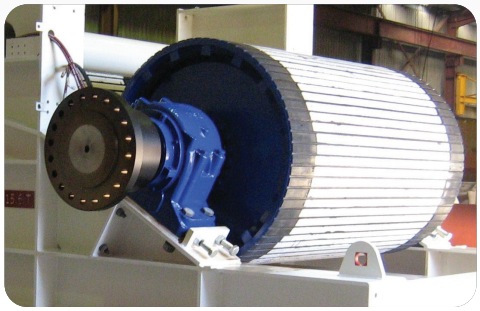
Each engineered class pulley is designed and manufactured to individual customer requirements, ensuring optimum performance on site. Finite element analysis is used to determine stresses and deflections in highly loaded pulleys.

All pulleys are manufactured from high quality materials that meet our internal stringent quality requirements. The material standards utilised are as follows:

Shafts: K1045 and 4140, complying with AS1442
Shell: Hot rolled plate, complying with AS3678
Pulley bodies are thermally stress relieved prior to machining

Pulleys can be lagged with 12 to 28mm thick FRAS/natural grade lagging with diamond grooving. A range of ceramic lagging with various percentage coverage is also available in both FRAS and natural grade. Bonding of the lagging to the pulley shell is by chemical cure, giving adhesions beyond 9kN/m.

Comprehensive manufacturing records are maintained for each pulley under our quality system, and catalogued by individual serial number.



## TECHNICAL DETALS

All testing is performed by our own laboratory. Tests include:

Ultrasonic testing of all drives and long welds to AS2207 and agreed AS1554 acceptance level.
Ultrasonic test of finished shell thickness to AS2452.
Ultrasonic testing of shaft to AS1065.
Ultrasonic testing of end disc material over 50 mm to AS1710.

Other in house testing available includes:

Magnetic Particle Inspection to AS1171
Dye Penetrant Inspection to AS2062
Pulley lagging adhesion & hardness to AS1683
Paint Dry Film Thickness Inspection to AS1580

Static Balancing of the pulley is included as standard.

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