

Centrifuges



AURY
AURY Australia Pty. Ltd.



About Aury Australia

Aury Australia is committed to providing world-class screening and vibrating equipment solutions and services. Backed by a team of industry professionals, we pride ourselves on being the leading mineral process equipment and service provider with a global footprint in Australia, Asia, North America and Africa. As an organisation, Aury prioritises advanced technology, practical output and customer satisfaction to deliver the best possible service to our clients.

Product Overview: Centrifuges

Aury Australia manufactures Coarse and Fine Coal Centrifuges to the Coal Industry. These centrifuges are suitable for small granularity coal drainage. Designed with finite element analysis for the vibrating system and key components, the Aury centrifuge quality, performance, ease of operation and maintenance, high drainage efficiency and low power consumption have seen the rapid growth of installations of these products globally. This brochure outlines our WSL Series and ML Series Centrifuges.



WSL Series Centrifuges

The Aury horizontal vibrating centrifuge (WSL Series) is suitable for small granularity coal drainage. It is easy to operate and maintain, has a high level of drainage efficiency, low power consumption and few wear parts.

Characteristics

- ✓ Structure of feed end and discharge end ensures high handling capacity and smooth operation
- ✓ Rubber spring, new frame structure and two-stage vibration ensures high stiffness and stability
- ✓ Unique mechanical and electrical integration control system ensures ease of operation and maintenance



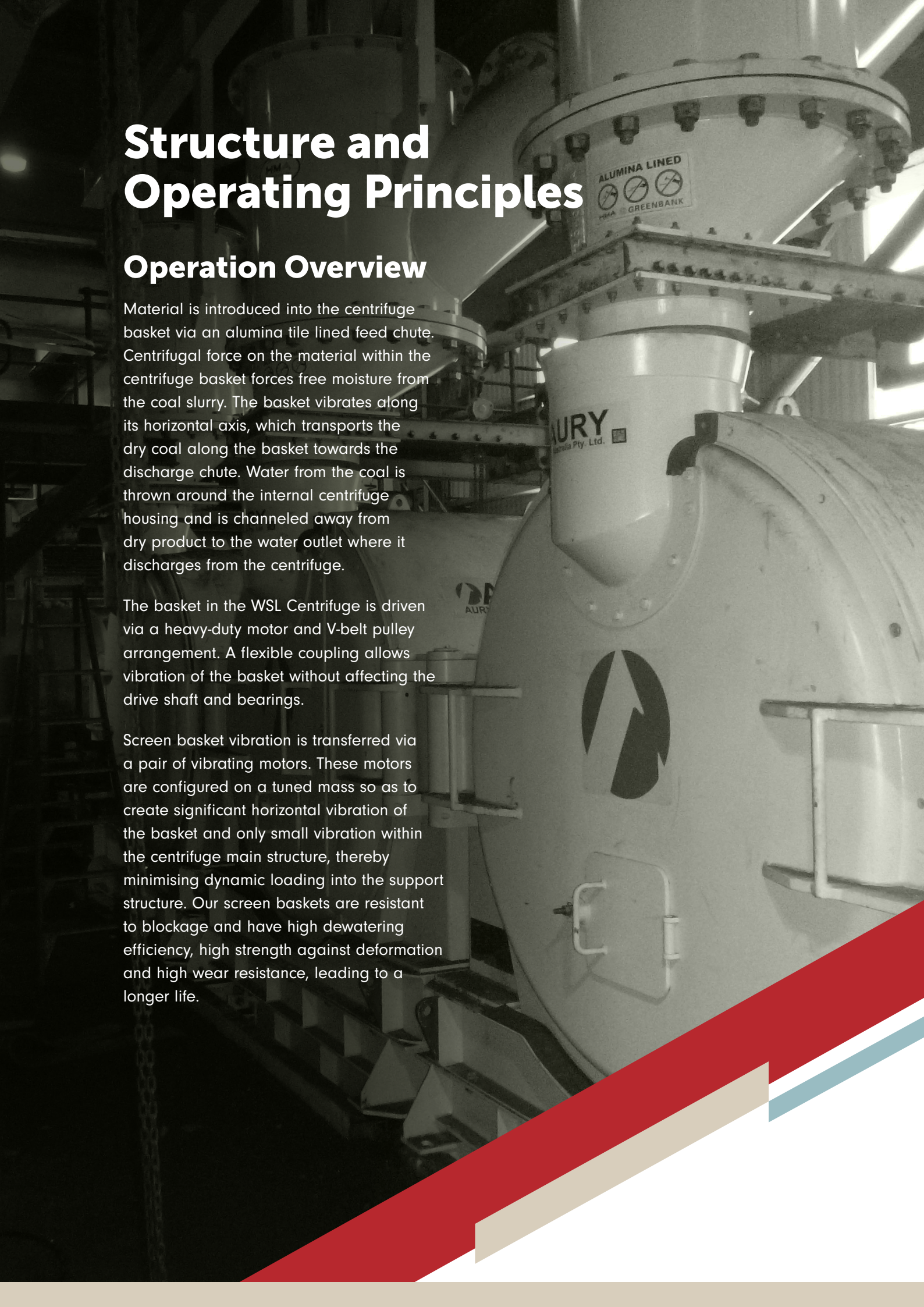
Structure and Operating Principles

Operation Overview

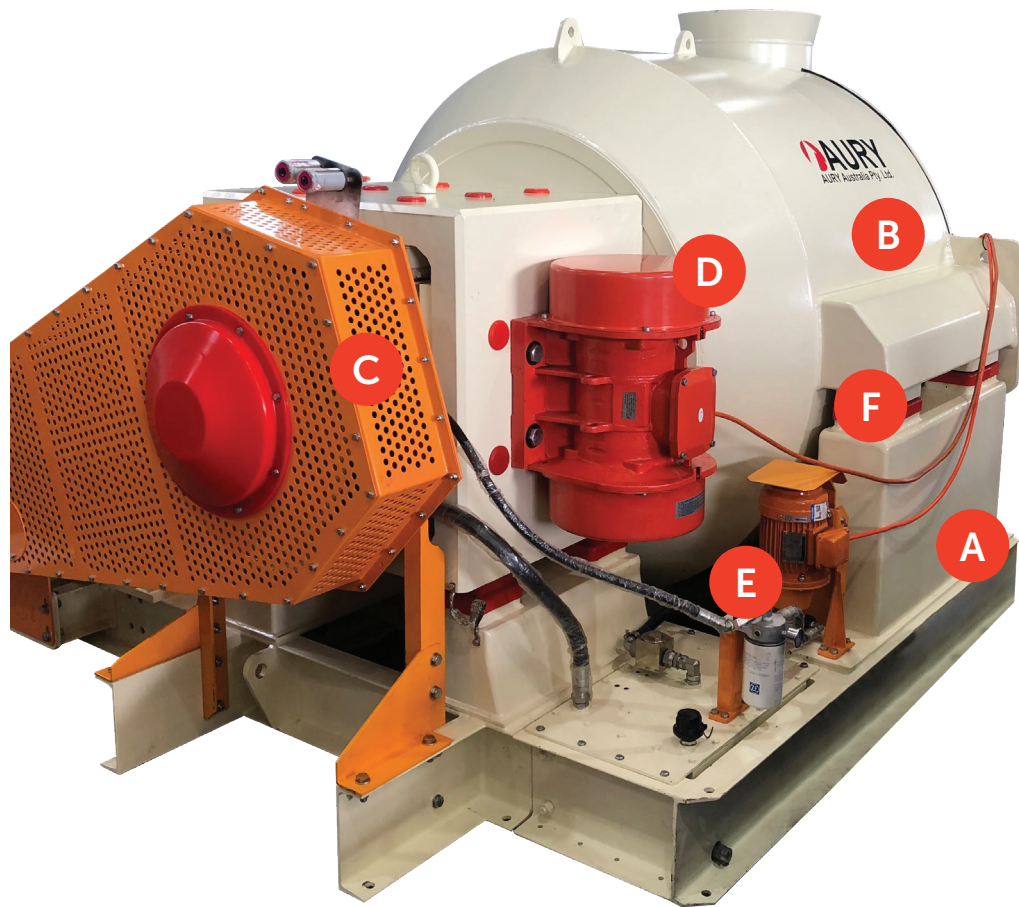
Material is introduced into the centrifuge basket via an alumina tile lined feed chute. Centrifugal force on the material within the centrifuge basket forces free moisture from the coal slurry. The basket vibrates along its horizontal axis, which transports the dry coal along the basket towards the discharge chute. Water from the coal is thrown around the internal centrifuge housing and is channeled away from dry product to the water outlet where it discharges from the centrifuge.

The basket in the WSL Centrifuge is driven via a heavy-duty motor and V-belt pulley arrangement. A flexible coupling allows vibration of the basket without affecting the drive shaft and bearings.

Screen basket vibration is transferred via a pair of vibrating motors. These motors are configured on a tuned mass so as to create significant horizontal vibration of the basket and only small vibration within the centrifuge main structure, thereby minimising dynamic loading into the support structure. Our screen baskets are resistant to blockage and have high dewatering efficiency, high strength against deformation and high wear resistance, leading to a longer life.



WSL Series Centrifuges



A Base Support: Base Support is a welded structure. Assembly base support can be configured on the Left Hand or Right Hand side according to the client's requirements.

B Centrifuge Body: The Centrifuge Body includes a feed tube, discharge tube and housing. The Centrifuge Body structure has full penetration welded and NDT tested prior to annealing, abrasive blasting and painting. All wearing surfaces are high alumina tile lined for extended service life. All rotating shafts are CNC machined to high tolerances and inspected prior to assembly.

C Drive System: The Drive System is made up of the main motor, motor base support, V-belt and pulley. The basket in the WSL Centrifuge is also driven via a motor, V-belt and belt pulley.

D Vibration System: Screen basket vibration is transferred via a pair of vibrating motors on the centrifuge body. These motors are configured on a tuned mass so as to create significant horizontal vibration of the basket and only small vibration within the centrifuge main structure, thereby minimizing dynamic loading into the support structure.

E Lubrication System: The centrifuge utilises a positive oil pump lubrication system ensuring reliable and cool operation at all times.

F Cushion System: The cushion systems between the centrifuge body and mounting base increase shock absorption, therefore reducing vibration and dynamic load on the base support.

ML Series Centrifuge

The AURY ML Series Centrifuge is suitable for 0.15-3mm small granularity coal drainage. It is easy to operate and maintain, has high drainage efficiency and a compact structure.

Structure and Operating Principles

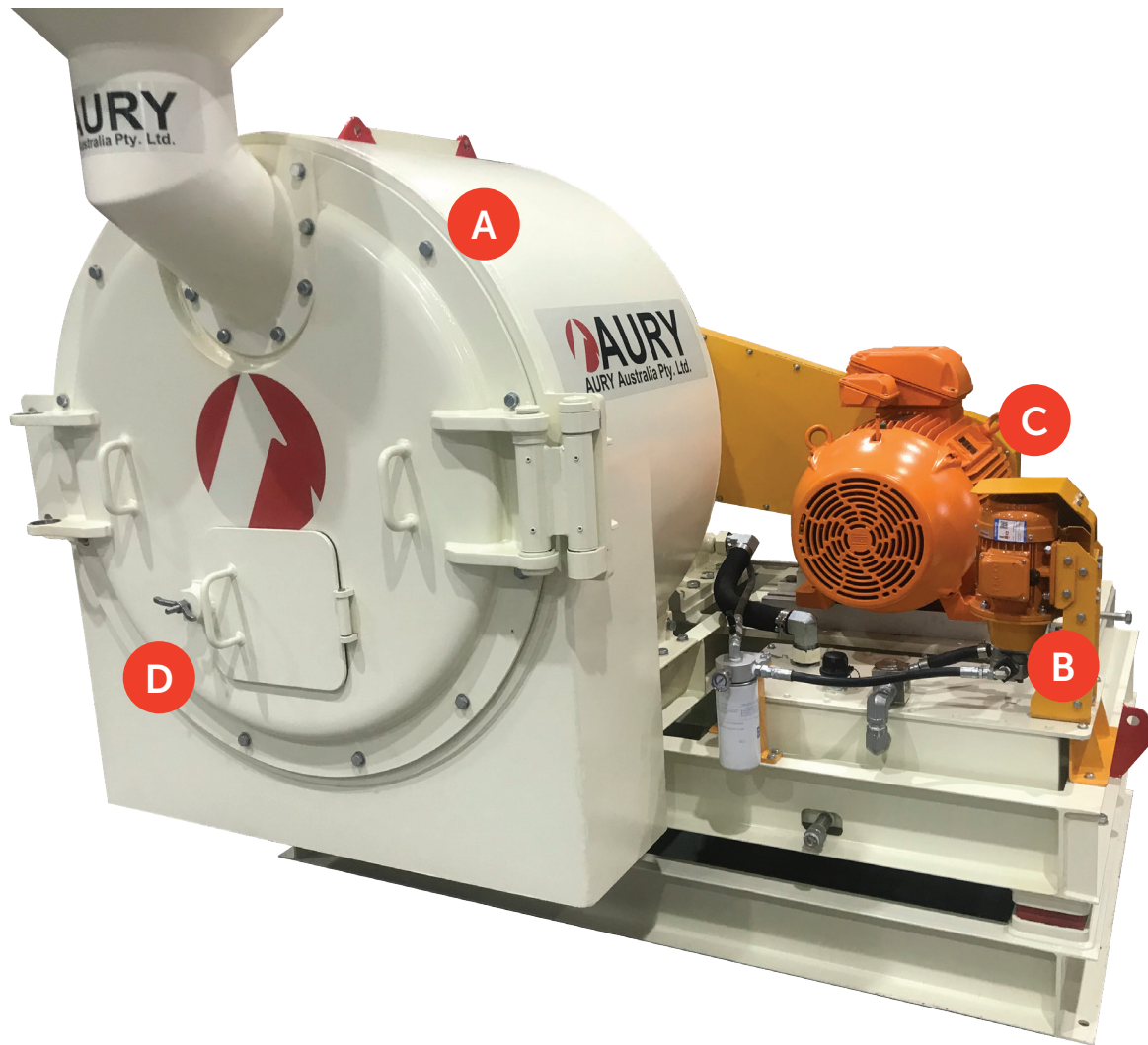
The ML Series fine coal centrifuge features a horizontal design with a rotating scroll within the centrifuge basket. Feed slurry is fed into the rotating basket via a tile lined feed chute.

Centrifugal forces within the rotating basket dewater the fine coal slurry, while the scroll rotates at a slower speed within the basket and scrapes the dewatered fine coal from the basket and into the discharge port of the centrifuge.

Water from the coal is thrown around the internal centrifuge housing and is channeled away from dry product to the water outlet where it is discharged from the centrifuge.

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ML Series Centrifuges



Components - ML Series Centrifuge

A Centrifuge Body: The body includes a feed tube, discharge tube and housing. The inner wall of the body is lined with high density alumina tiles to reduce wear and extend the machine's service life.

B Lubrication System: The lubrication device includes an oil pump motor, oil pump, strong magnetic filter, sensitive filter, pressure meter, oil tank, oil pipe, breather and seals.

C Drive System: The main centrifuge drive motor drives the input shaft and hollow shaft transmission through differential gearing, resulting in high-speed rotation of the centrifuge screen basket, and providing a differential in rotating speed of the scroll.

D Screen Basket: A stainless steel slotted screen basket is assembled with a bracket on the hollow shaft.



Get in Touch

Looking to get in touch? Aury Australia head office is based in Rutherford, which is part of the prosperous Hunter Region of New South Wales, Australia.

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