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WSL Series

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WSL Series Production Introduce

The AURY AURST horizontal vibrating centrifuge (WSL series) suitable for small granularity coal drainage. Apply finite element analysis for vibrating system and key parts of WSL series centrifuge. The centrifuge quality and performance of products have reached the top level in the world.

Easy to operate and maintain, high drainage efficiency , low power consumption, few wear parts.

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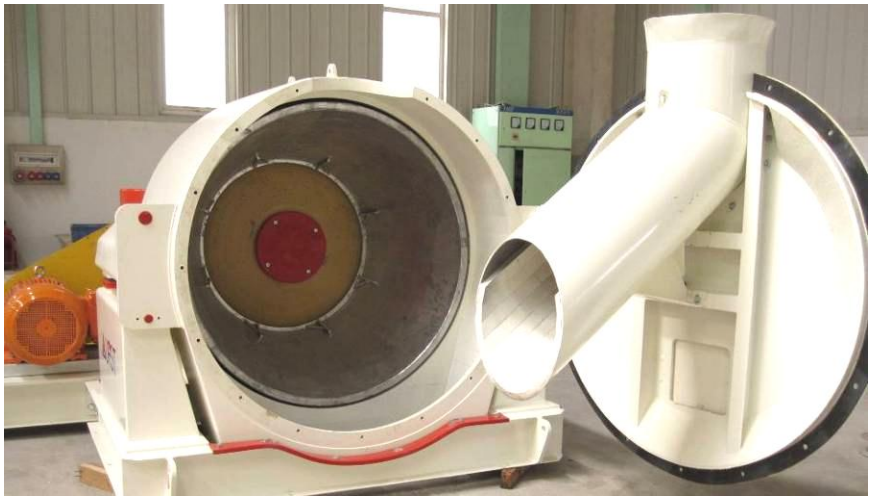
1. Characteristics

- Apply new type structure of feed end and discharge end to ensure high handling capacity and smooth operation;
- Apply rubber spring, new frame structure and two stage vibration to ensure high stiffness and stability.
- Apply mechanical and electrical integration control system, easy to operation and maintenance.



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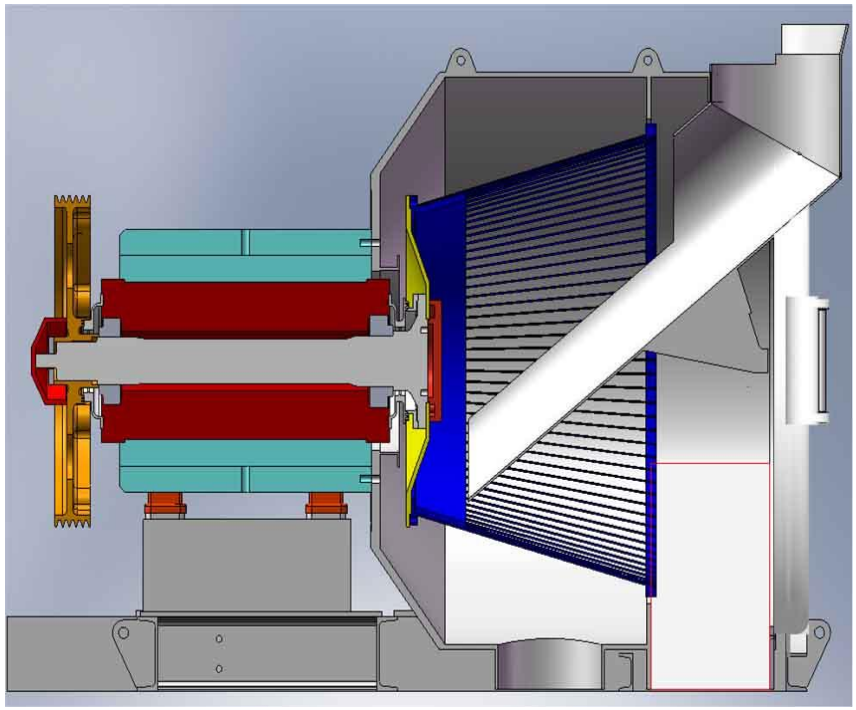
2. Structure and Operating Principle

The feed material is introduced into the centrifuge basket via a alumina tile lined feed chute. Centrifugal force on the material within the centrifuge basket forces free moisture from the coal slurry. The basket is vibrated along its horizontal axis which transports the dry coal along the basket towards the discharge chute where it is discharged. 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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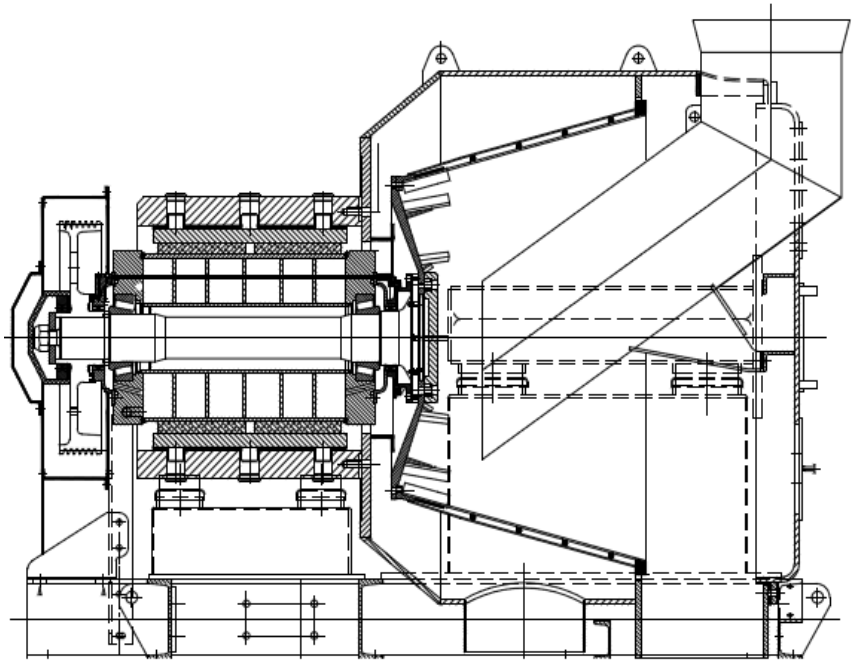
2. Structure and Operating Principle

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 effecting the drive shaft and bearings.

Screen basket vibration is effected 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 minimizing dynamic loading into the support structure.



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2. Structure and Operating Principle

- A. Base Support
- B. Centrifuge Body
- C. Drive System
- D. Vibration System
- E. Lubrication System
- F. Cushion System

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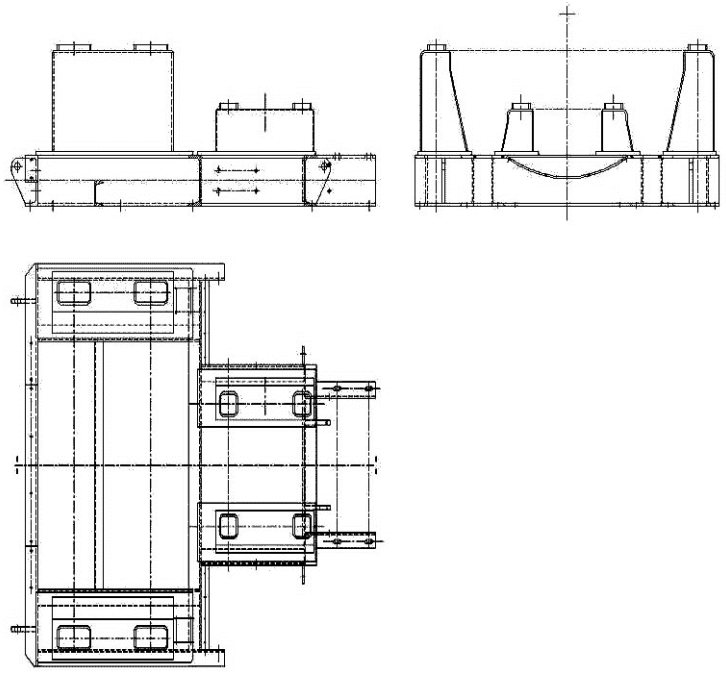
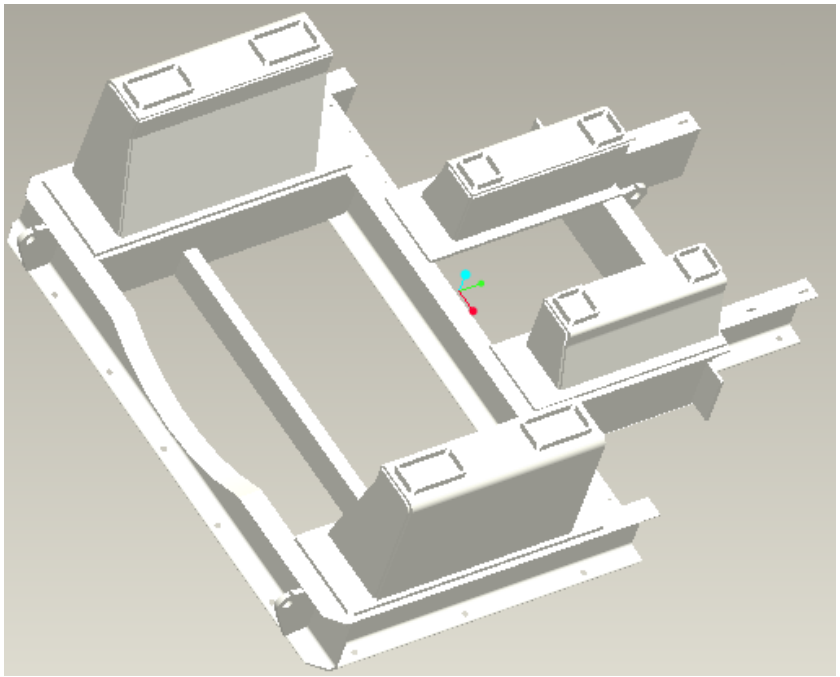
2. Structure and Operating Principle

A. Base Support

Base Support is welding structure. Assembly base support on LH or RH side of centrifuge according to the client requirements.





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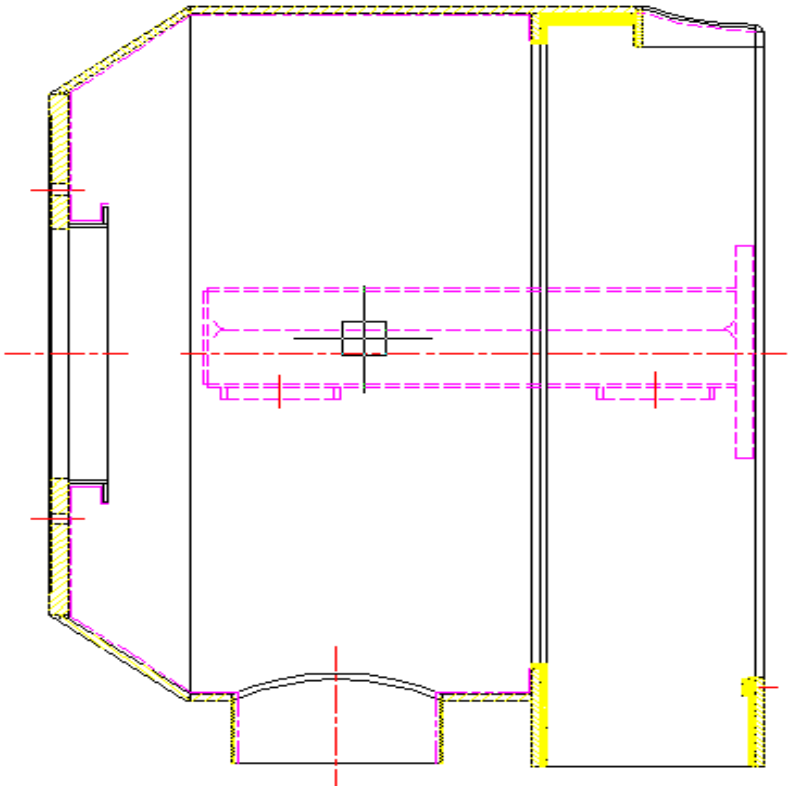
2. Structure and Operating Principle

B. Centrifuge Body

Centrifuge body include feed tube, discharge tube and housing. The centrifuge body structure is 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 machines to high tolerances and inspected prior to assembly.



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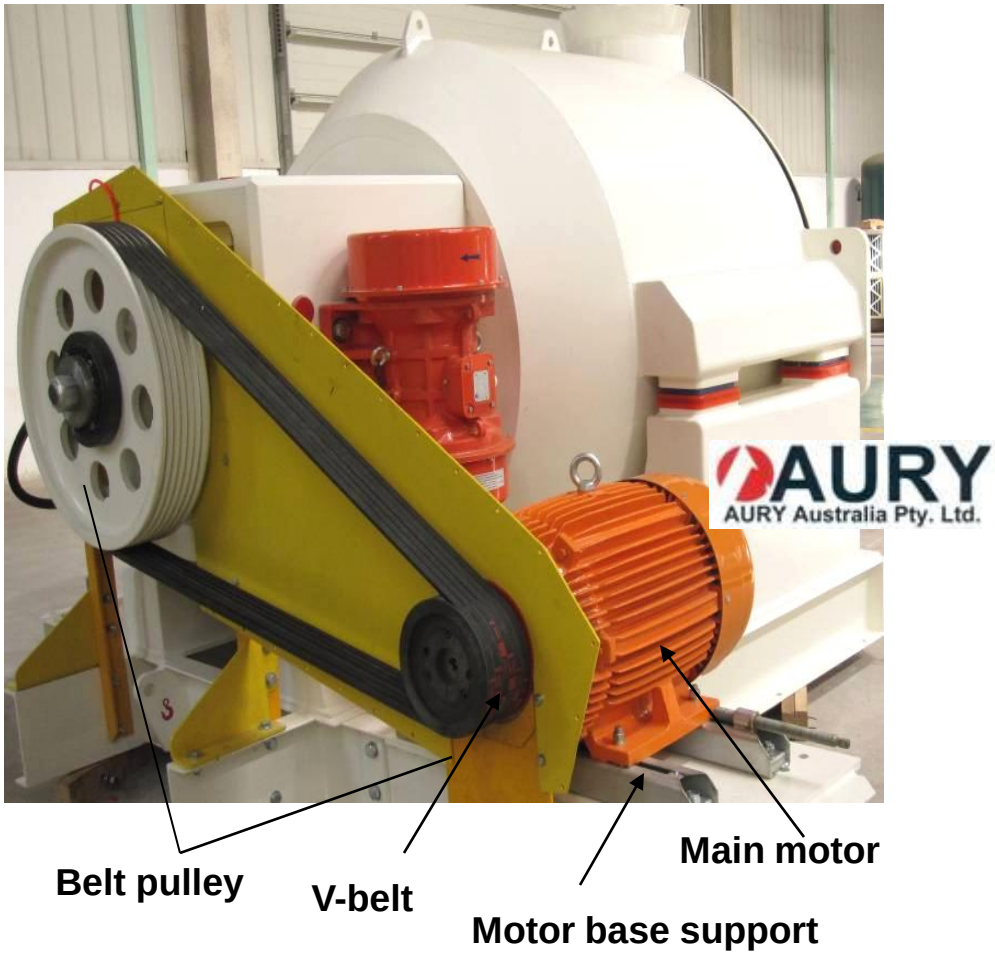
2. Structure and Operating Principle

C. Drive System

Drive System is made up of main motor, Motor base support, V-belt and pulley.

The basket in the WSL centrifuge is driven via a motor, V-belt and belt pulley. Water from the coal is thrown around the internal centrifuge housing.



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2. Structure and Operating Principle

D. Vibration System

Screen basket vibration is effected via a pair of vibrating motors on the centrifuge body.

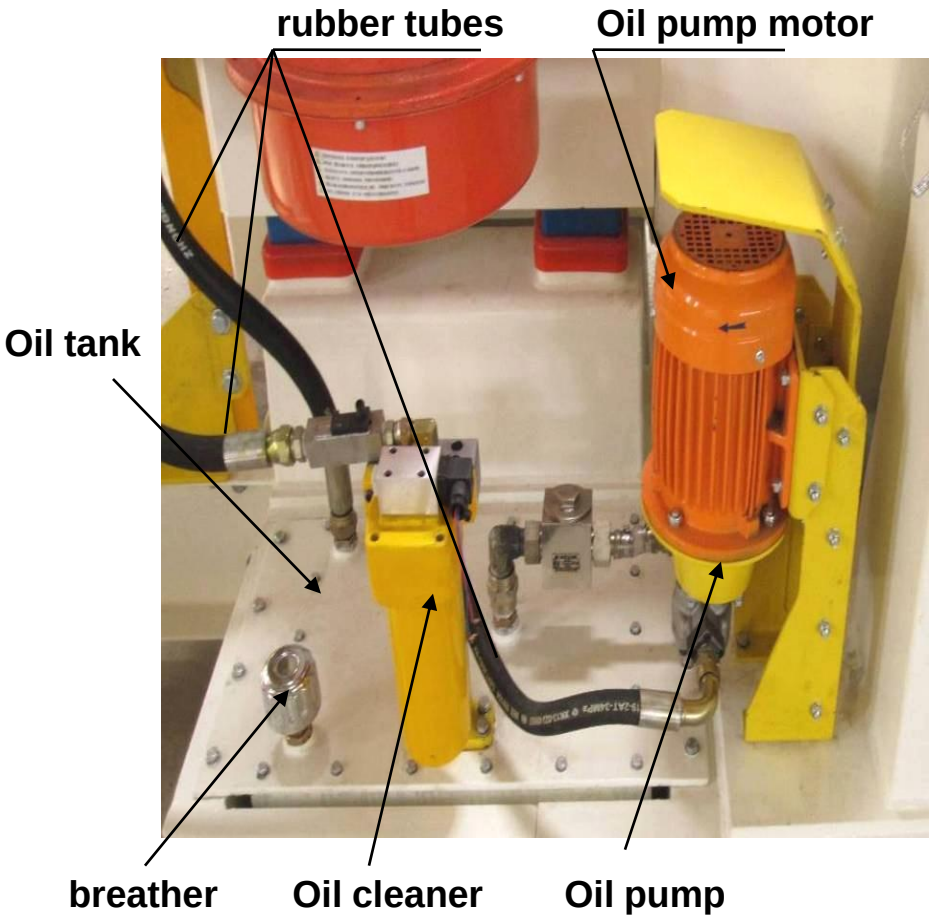
These motors are configured on a tuned mass so as to create significant horizontal vibration of the basket and only small vibration within the centrifuge main structure, thereby minimizing dynamic loading into the support structure.

2. Structure and Operating Principle

E. Lubrication System

Drive System is made up of oil tank, breather, oil cleaner, oil pump, oil pump motor and rubber tubes.

The centrifuge utilizes a positive oil pump Lubrication system ensuring reliable and cool operation at all times.



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2. Structure and Operating Principle

F. Cushion System

Adopt cushion system between centrifuge body and mounting base for shock absorption. Reduce vibrating and dynamic load on base support.

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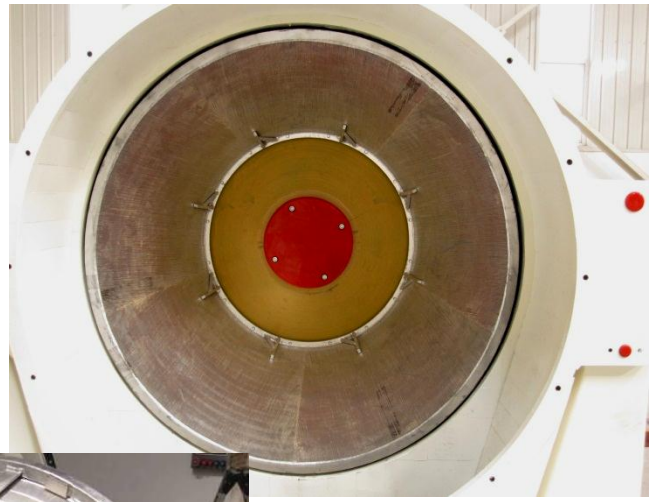
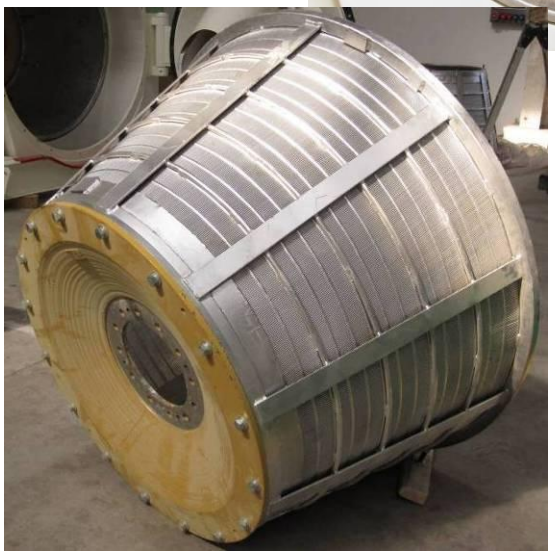
2. Structure and Operating Principle

Screen basket

Screen basket is made in Tianjin Wei De Mine Equipment Co .,Ltd. The structure of screen has independent intellectual property, its technical skill has occupied domestic leading level. High percentage of opening, resistance to block, high dewatering efficiency, high strength against deformation, high wear resistance , longer life, convenient for disassemble and assembly.





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3. Technical Details

Model	capacity（t/h）	（mm） Feed material particle size	（%） Typical Product moisture content	(mm) Basket diameter	(mm) Basket aperture	（kw） drive motor	（kw） vibrating motor	（kw） oil pump motor	A X B XC（mm） dimensions	（t） weight
WSL1100	120	0-50	8	1100	0.4	30	3.0*2	0.75	2481*2792*1864	7.1
WSL1200	150	0-50	8	1200	0.4	30	3.0*2	0.75	2481*2817*1864	7.3
WSL1300	200	0-50	8	1300	0.4	37	3.0*2	0.75	2722*2944*2011	8.2
WSL1400	250	0-50	8	1400	0.4	45	3.0*2	0.75	2722*2944*2011	8.5
WSL1500	300	0-50	8	1500	0.4	55	5.8*2	0.75	3208*3235*2231	10.8

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ML Series

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ML Series Production Introduce

The AURY AURST ML series centrifuge suitable for 0.15-3mm small granularity coal drainage.

Easy to operate and maintain, high drainage efficiency and Brief structure.

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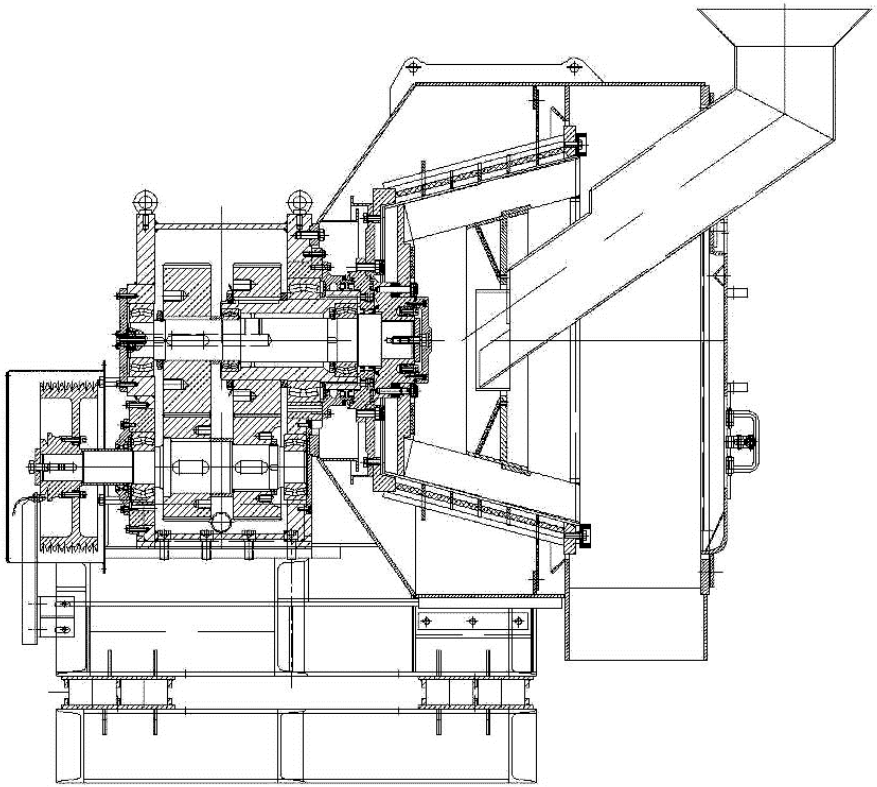
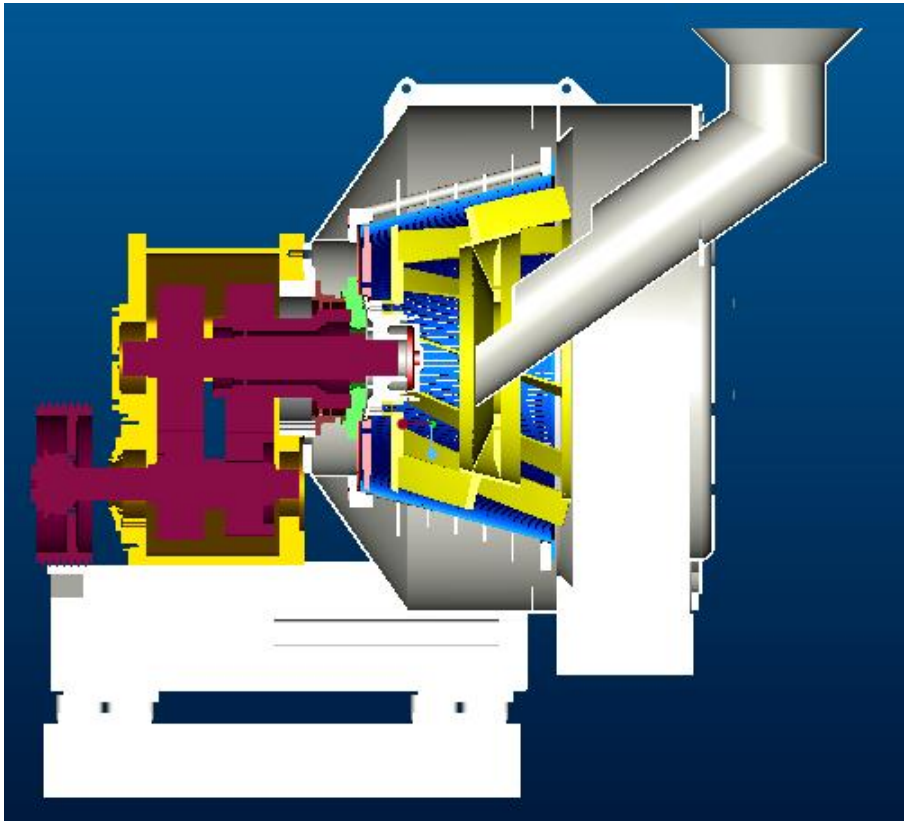
1. Structure and Operating Principle





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1. Structure and Operating Principle

The AURST ML series fine coal centrifuge is 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 dewaters the fine coal slurry, while the scroll which rotates at a slower speed within the basket 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.

1. Structure and Operating Principle

A. Fixed part
B. Rotation part
C. Screen basket
D. Lubrication System
E. Electronic control equipment
F. Overload clutch

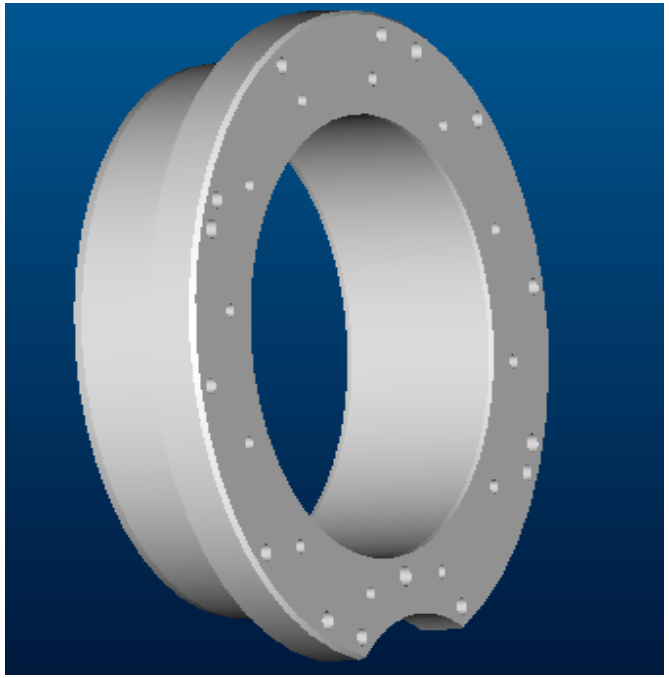
1. Structure and Operating Principle

A. Fixed part

Fixed part include base support, supporting seat, transmission seat, shaft seat, Centrifuge body, cushion device and Lubrication device.

- Shaft seat

Shaft seat of hollow shaft which is fixed on transmission seat.



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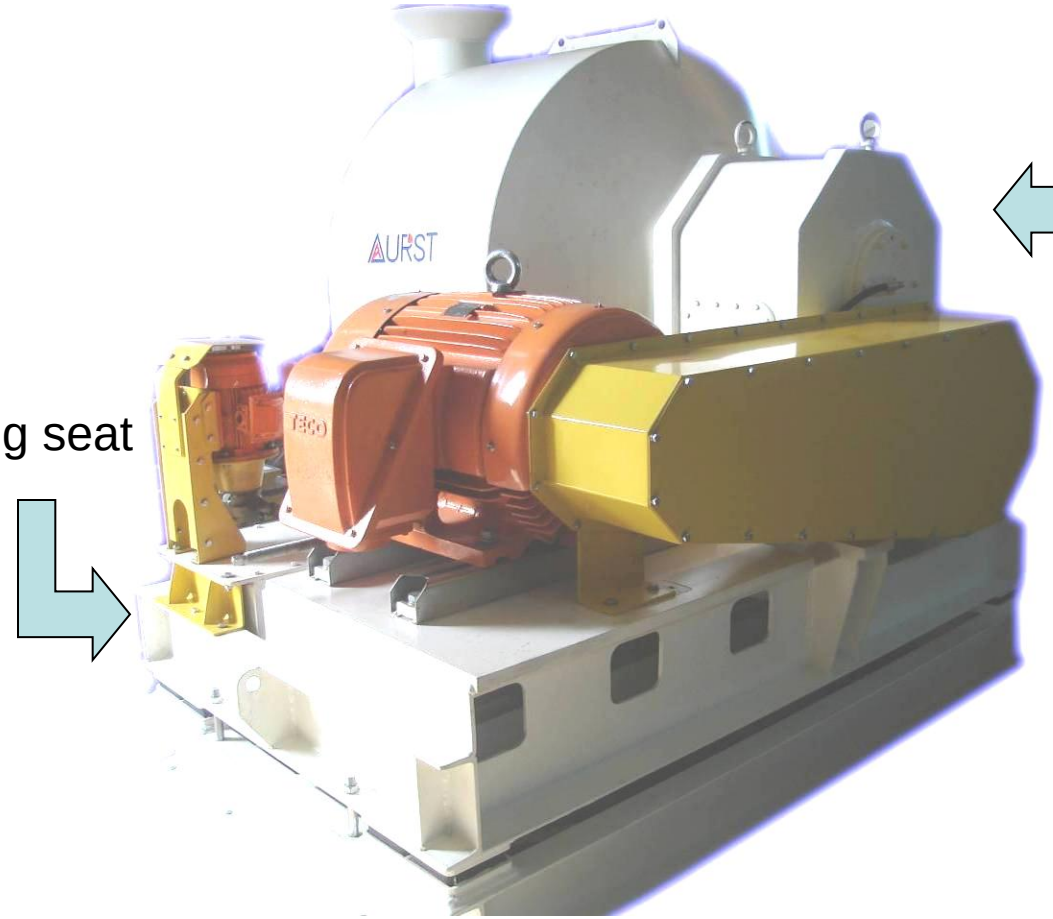
1. Structure and Operating Principle

- supporting seat



- Transmission seat

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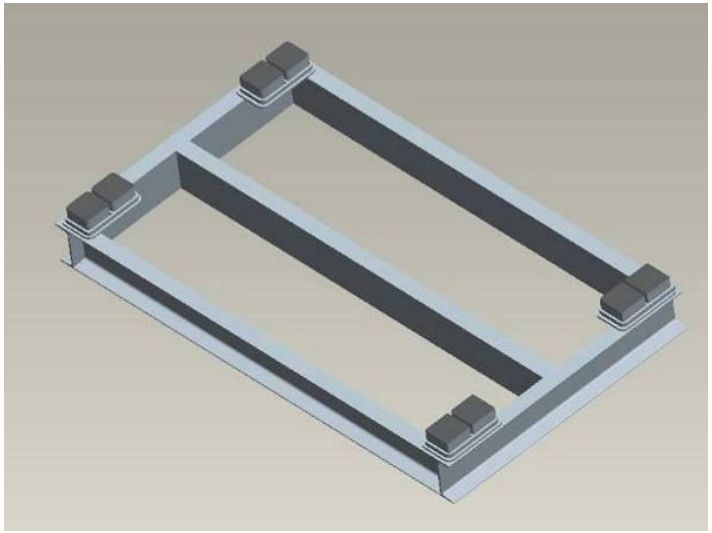
1. Structure and Operating Principle



- Base support

  Base support which is connect centrifuge with foundation.

- Cushion system

  Apply rubber cushion lumps to reduce vibration and noise.

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1. Structure and Operating Principle

- Centrifuge body

  Centrifuge body include feed tube, discharge tube and housing.The Inner wall of ML Centrifuge body covered with high density Alumina wear tiles to reduce wear and extend machine service life.

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1. Structure and Operating Principle

- Lubrication device

  Lubrication device include oil pump motor, oil pump, strong magnetic filter, accurate filter , pressure meter, oil tank, oil pipe, allotter, breather, seals and so on.

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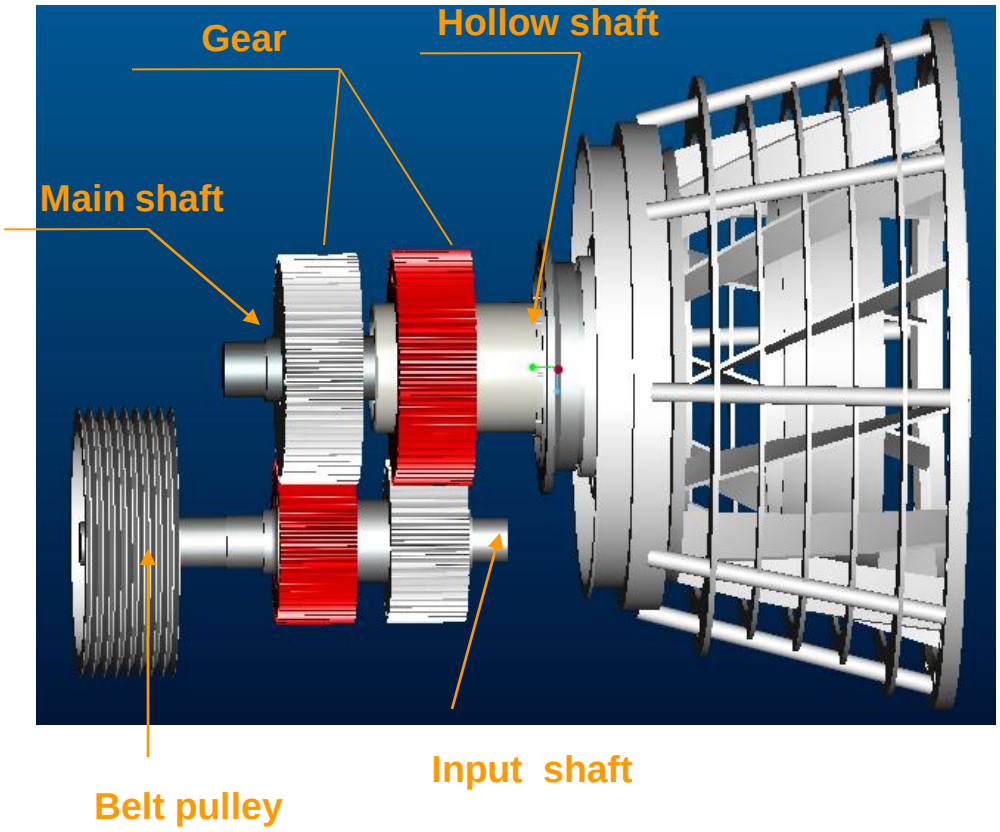
1. Structure and Operating Principle

B. Rotation part

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.



1. Structure and Operating Principle

C. Screen basket

Stainless steel slotted screen basket is assembled on bracket which is on the hollow shaft.

1. Structure and Operating Principle

D. Lubrication System

The lubrication system which locate in one side of centrifuge.

Lubrication oil is stocked in oil tank which is pumped through a strong magnetic filter, then via a fine conventional oil filter, through an oil flow meter to the internal centrifuge bearings. Oil then flows back to the oil holding tank to again be recycled through the machine.

Use dipstick to measure oil lever after machine stop for half an hour.

There is pressure switch in lubrication System to ensure enough lubrication oil flows.

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1. Structure and Operating Principle

E. Electronic control equipment

Rotation motor and lubrication motor are T.E.F.C type.

F. Overload clutch

Overload clutch use for protection of scraper blade. Main motor will be stopped when mechine overload.

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2. Technical Details

Model	capacity（t/h）	particle size（mm）	Typical finished product moisture content %	Basket diameter (mm）	Basket aperture (mm)	drive motor（kw）	oil pump motor（kw）	A X B XC dimensions（mm）	weight（t）
ML900	40-45	0.15-0.6	15-24	900	0.35	55	0.75	2332*2459*2097	4.0
	50-60	0.15-1.0							
	60-70	0.5-3.0							
ML1000	50-55	0.15-0.6	15-24	1000	0.35	75	0.75	2332*24592097	4.2
	60-70	0.15-1.0							
	75-85	0.5-3.0							
ML1200	60-75	0.15-0.6	15-24	1200	0.35	75	0.75	2432*2559*2347	4.6

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The Condition of Field Use