

EQUIPMENT



DECANTER CENTRIFUGE

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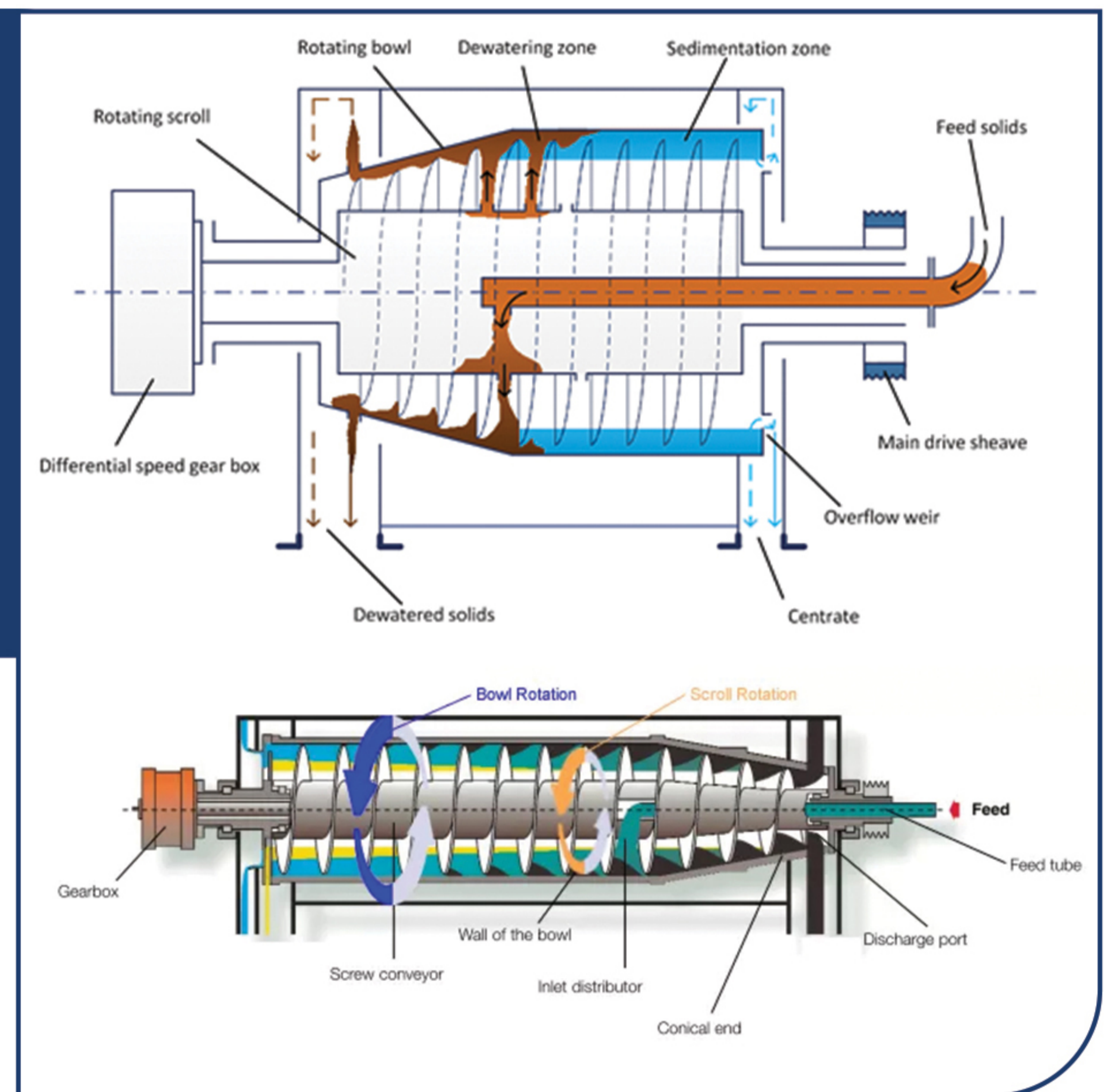
- **High-Efficiency Fine Solid Removal:** Effectively removes ultra-fine particles from slurry while maintaining the required drilling fluid properties for stable operation.
- **Superior Separation Performance:** Designed for on-site treatment, eliminating the need for extensive sewer networks and enabling flexible installation in remote or space-limited areas.
- **Extended Fluid Lifecycle:** Enhances reuse of drilling fluid by reducing contamination, helping to extend fluid life and maintain consistent process conditions.
- **Reduced Operating Costs:** Minimises waste generation and reduces the need for fluid replacement, lowering overall operational and disposal costs.
- **Energy-Efficient Operation:** High-speed centrifuge design delivers efficient separation with optimised energy consumption and reduced vibration levels.
- **Flexible System Integration:** Designed for easy integration into existing solids control and mud recovery systems with minimal modification.
- **Customised Performance Optimisation:** Operating parameters such as speed, torque, and bowl configuration can be adjusted to suit specific project requirements and slurry conditions.



Working Principle

The Decanter Centrifuge operates based on sedimentation under high centrifugal force. The slurry is fed into a rapidly rotating horizontal bowl, where centrifugal force causes denser solid particles to move outward and form a compact layer along the inner wall of the bowl. At the same time, the lighter liquid phase forms an inner layer and flows towards the liquid discharge outlet.

A screw conveyor (scroll), rotating at a slightly different speed from the bowl, continuously transports the settled solids towards the conical end of the centrifuge for discharge. The clarified liquid is discharged separately, allowing continuous separation and dewatering of the slurry.



Features

Standard Features

- High-speed rotating bowl for efficient centrifugal separation
- Screw conveyor (scroll) for continuous solids discharge
- Differential speed control between bowl and scroll
- Continuous operation for stable and reliable performance
- Enclosed design for clean and safe operation
- Wear-resistant components for extended service life
- Compact structure for easy installation and integration

Options & Accessories


- Variable frequency drive (VFD) for speed control
- Different bowl sizes and configurations
- Advanced control systems and monitoring sensors
- Chemical dosing system for enhanced separation performance

Specifications and Parameters

Model	AQT-LW450x850	AQT-LW600x1019D	AQT-LW700x1200D	AQT-LW450BSx1250D	AQT-LW450BPx1250	AQT-GLW600BPx1200D	AQT-LW450x1000D	AQT-LW355x1250D	AQT-LW455x1250D
	Middle-speed	Middle-speed	Middle-speed	High-speed variable frequency	High-speed variable frequency	High-speed variable frequency	Middle-speed	High-speed	High-speed
Drum diameter	450mm	600mm	700mm	450mm	450mm	600mm	450mm	355mm	455mm
Drum Length	850mm	1019mm	1200mm	1250mm	1250mm	1500mm	1000mm	1250mm	1250mm
Drum Speed/rpm	1480rpm	1500rpm	1480rpm	2000-2800rpm	0-2800rpm	0-2600rpm	2000rpm	2600rpm	2800rpm
Main Motor Power	22kw-IV class	45kw-IV class	55kw-IV class	45kw-IV class	45kw-IV class	55kw-IV class	30kw-IV class	37kw-IV class	37kw-IV class
Back Motor power	5.5kw-IV class	7.5kw-IV class	22kw-IV class	11kw-IV class	11kw-IV class	11kw-IV class	7.5kw-IV class	11kw-IV class	11kw-IV class
Max treating capacity	40m ³ /h	60m ³ /h	90m ³ /h	60m ³ /h	60m ³ /h	90m ³ /h	50m ³ /h	50m ³ /h	50m ³ /h
Min Separation point	5-7um	3-7um	5-7um	3-7um	2-5um	2-5um	2-5um	2-5um	2-5um
Separation factor	548G	750G	852G	1690G	1960G	2253G	1000G	1333G	1982G
Dimension	2350x1480x1550mm	2900x1600x1950mm	3100x1700x1980	3100x1620x1890mm	2350x1480x1710mm	3200x1600x1750	2450x1600x1650mm	2900x1500x1650mm	2900x1500x1650
Weight	3000kg	3650kg	4300KG	3500kg	4000kg	4500KG	3000kg	2950kg	2950KG

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