

EQUIPMENT



BELT FILTER PRESS

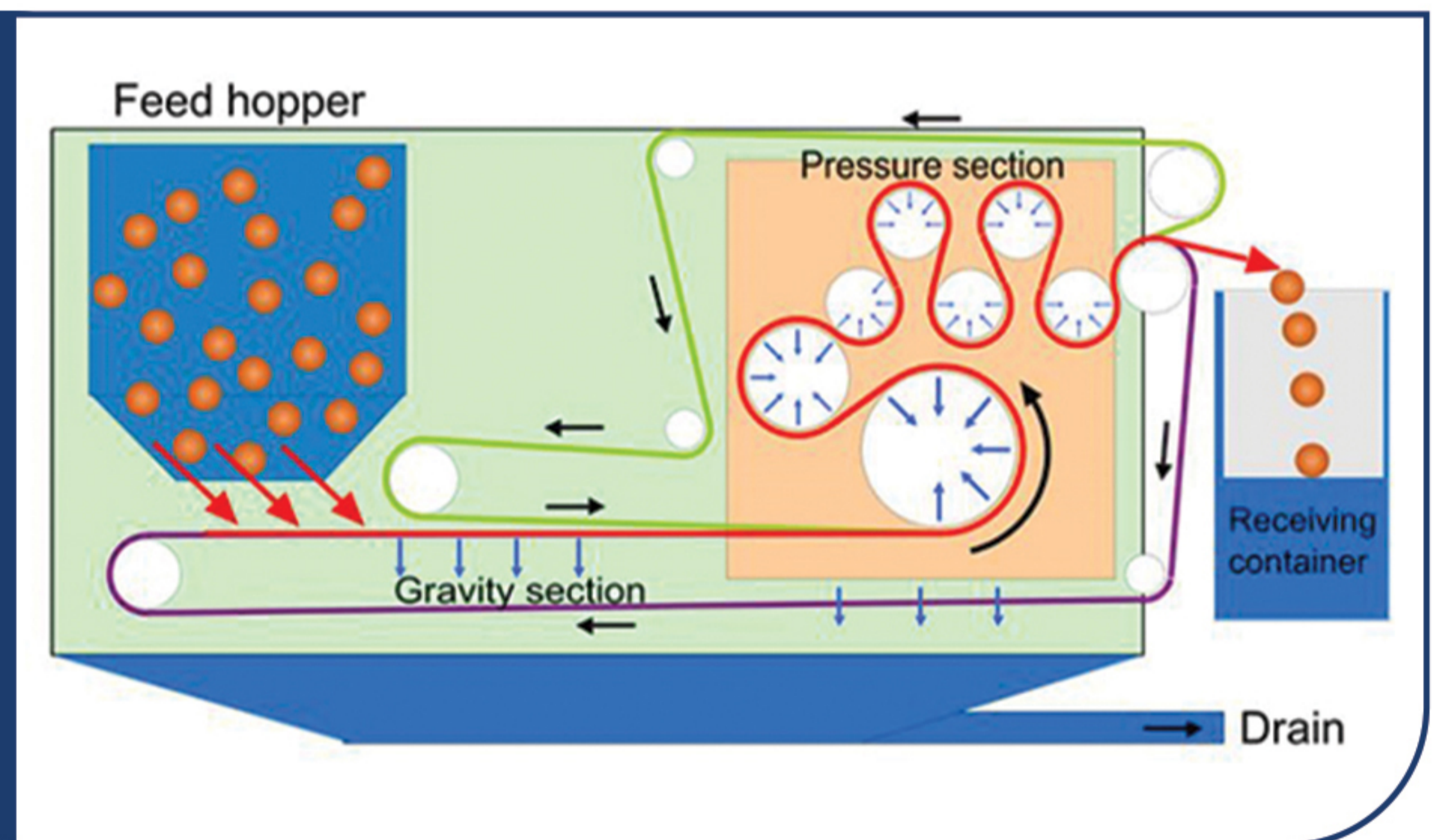
BELT FILTER PRESS

- **High-Efficiency Sludge Dewatering:** Combines gravity drainage and progressive pressure zones to achieve effective water removal and produce a stable, low-moisture filter cake.
- **Continuous & Automated Operation:** Operates as a continuous process, ensuring consistent performance with minimal operator intervention.
- **Reduced Disposal Costs:** Significantly lowers sludge volume, reducing transport, handling, and disposal expenses.
- **Energy-Efficient Performance:** Low-speed operation and optimised system design minimise power consumption while maintaining high efficiency.
- **Reliable & Stable Operation:** Pneumatic belt tensioning and controlled pressure zones ensure smooth, stable performance under varying conditions.
- **Low Noise & Easy Maintenance:** Designed with durable components and low-speed operation for reduced noise levels and simplified maintenance.



Working Principle

The Belt Filter Press operates through a continuous multi-stage dewatering process combining gravity, shear, and mechanical pressure. Conditioned sludge is first fed onto a moving filter belt, where free water is removed in the gravity drainage zone. The sludge then passes through a wedge zone, where it is gently compressed between two belts to prepare for further dewatering. In the pressure zone, the sludge is subjected to increasing mechanical pressure as it passes through a series of rollers. This progressively squeezes out additional water, forming a dewatered filter cake. The final cake is discharged for disposal or further processing, while filtrate is collected and returned to the treatment system.



Features

Standard Features

- Stainless steel construction (SS304/SS316) for corrosion resistance and long service life
- Dual permeable filter belts for continuous solid-liquid separation
- Multi-stage dewatering zones (gravity, wedge, and pressure zones) for optimised performance
- Pneumatic belt tensioning and tracking system for stable operation
- High-quality filter belts with extended service life
- Roller system designed for progressive pressure and efficient dewatering
- Integrated filtrate collection system for clean operation
- Low-speed operation for reduced noise and energy consumption
- Safety sensors and emergency stop system for operational safety
- User-friendly design for easy operation and maintenance

Options & Accessories

- Polymer dosing system for improved sludge conditioning
- Variable speed drive for process optimisation
- Belt washing system with high-pressure spray nozzles
- Automated control panel with PLC integration
- Customised belt width and machine capacity for project-specific requirements




Specifications and Parameters

Model	AQT-500	AQT-1000A	AQT-1500A	AQT-1500B	AQT-2000A	AQT-2000B	AQT-2500A	AQT-2500B	AQT-3000
Output Moisture Content (%)	70-80								
Polymer Dosing Rate (%)	1.8-2.4								
Dried Sludge Capacity (kg/h)	100-120	200-203	300-360		400-460		470-550		600-700
Belt Speed (m/min)	1.57-5.51	1.04-4.5							
Main Motor Power (kW)	0.75	1.1					1.5		
Mixing Motor Power (kW)	0.25	0.25	0.37		0.55				
Effective Belt Width (mm)	500	1000	1500	1500	2000	2000	2500	2500	3000
Water Consumption (m ³ /h)	6.2	11.2	16	17.6	20.8	22.4	24.1	25.2	28.8

WASTEWATER, CLEAN-GAS & ENVIRONMENTAL SOLUTIONS



 +61 (2) 40923110

 5 Moorak St
Taringa QLD 4068
Australia

 AQUIPTEC.COM.AU

 INFO@AQUIPTEC.COM.AU