



HIGH-RATE THICKENING

Efficiency Redefined

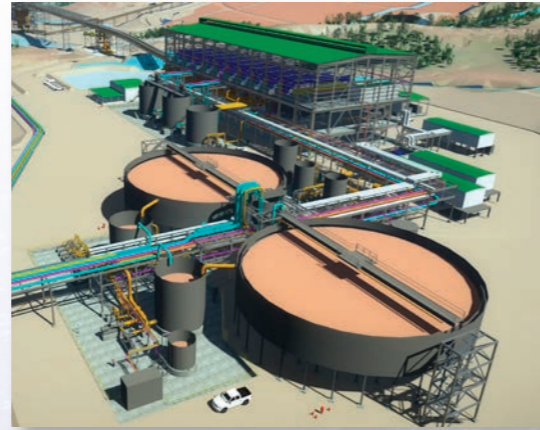


Maximise Performance, Minimise Costs, Improve Operations

High-Rate Thickeners are engineered to optimise solid-liquid separation in industrial processes. They are designed for superior efficiency and reduced operating costs. **PEQON's** high-rate thickeners deliver outstanding performance in mining, minerals processing and other applications.

Our Key Features

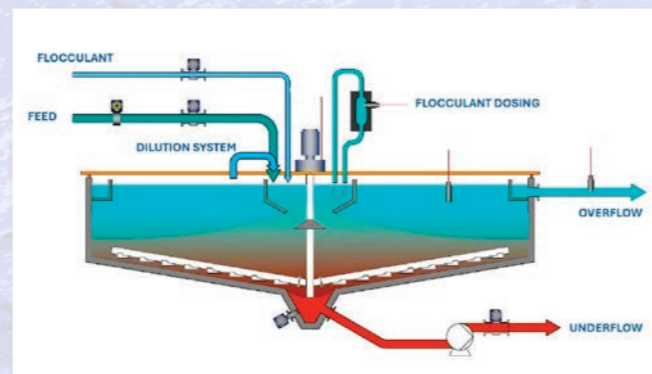
- **Advanced Design:** Compact footprint and robust construction, suitable for high-capacity operations.
- **Bolted Tank:** Reduces site installation time.
- **High Throughput:** Processes large volumes of slurry quickly with consistent results.
- **Efficient Solids Recovery:** Maximises underflow density thus reducing the volume of waste.
- **Automated Control Systems:** Smart control for continuous monitoring and easy adjustments.
- **Dilution System:** Using dilution of the incoming feed for optimal conditions within the feedwell.
- **EvoFlow Core® Feedwell:** Dissipates incoming slurry energy, optimises flocculant mixing, eliminates back mixing and gives an optimal slurry velocity profile for hydraulic loading.



High-Rate Thickener in operation as part of a turnkey tailings dewatering application.

Our Advantages:

- **Space-Saving Design:** Smaller footprint reduces installation and site preparation costs.
- **Low Operational Costs:** Reduced energy consumption and maintenance requirements.
- **Improved Water Recovery:** Enhances water recycling, lowering overall consumption and environmental impact.
- **Versatile Applications:** Suitable for a wide range of industries including mining, chemical processing and water treatment.



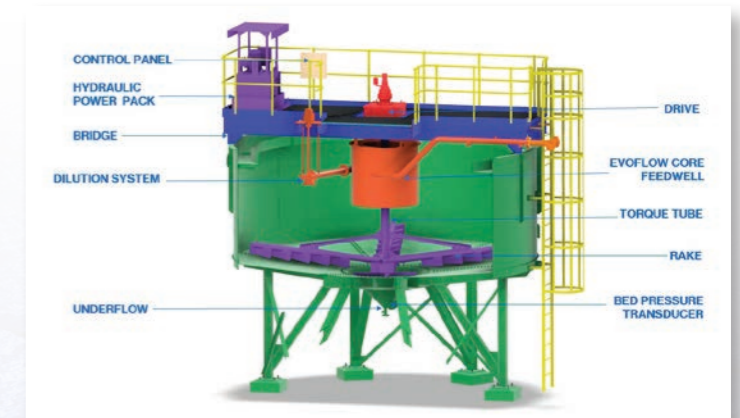
Flow diagram for High-Rate Thickener operation.

Our Benefits:

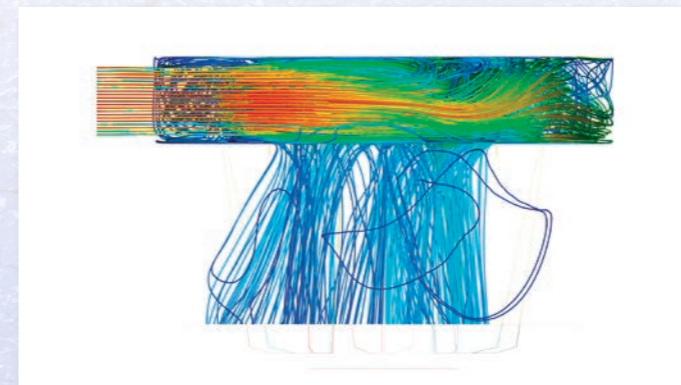
- **Productivity:** Achieves faster processing times with reliable performance.
- **Cost Efficiency:** Lower energy and operational costs which leads to significant long-term savings.
- **Sustainable Operations:** Environmentally friendly solution with improved water management.
- **Ease of Use:** User-friendly interface and automated controls makes the operation simple and efficient.

Operating & Performance Highlights:

- **High Solids Capacity:** Effectively handles high solids loading with consistent thickening performance.
- **Optimal Flocculation:** Our smart feedwell ensures uniform flocculation and no back mixing.
- **Low Maintenance:** Minimal moving parts and wear components reduce downtime and maintenance.
- **Flexible Operation:** Easily adjustable for varying feed conditions and throughput requirements.



Inside view of the High-Rate Thickener showing the feedwell, rake mechanism and dilution system



A CFD profile of **PEQON's EvoFlow® Core Feedwell** applied in high-rate thickening. The slurry transition from the inlet is smooth and controlled with a stable hydraulic and velocity profile.

Typical Sizing of a High-Rate Thickener

Parameter	Value
Material Type (typical)	Tailings
P ₈₀ (microns)	<75
Solid Flux (t/m ² .hr)	0.64
Solid SG	2.8

Parameter	Value
% Feed Solids	25
THK Diameter (m) calculated	10
Dry Solids (tph)	50
Dilution required (m ³ /hr) *	200

*Optimal feedwell dilution = 12.5% solids.



Join the revolution and experience unparalleled thickening efficiency,
reduced operating costs and minimised environmental impact.

Contact us today to learn more about how our **High-Rate Thickeners** and
EvoFlow Core® Feedwell can transform your thickener application.



-  Fourways Golf Park, Augusta House,
Roos Street, Fourways, Sandton
-  info@peqon.co.za
-  www.peqonseparation.com