



UNIVERSITY OF  
NEWCASTLE



# VIPER FILTRATION

Advanced Dewatering for Fine Ores and Tailings

**VIPER Filtration is a step-change dewatering system developed by the University of Newcastle and Jord International. By applying compaction and vibration to the filter cake, VIPER removes up to 25% more moisture, increases throughput by up to 60%, and delivers these gains at up to 70% lower upfront cost when compared with traditional filter press systems. The result is a drier, easier-to-handle material, improving conveying, transport, storage, and dry stacking while supporting better water recovery and reuse.**

## PARTNERSHIP CAPABILITIES

- **Filtration Innovation:** High-efficiency dewatering systems to enhance fine particle separation and moisture reduction
- **Water Recovery:** Increasing process water recovery for reuse, reducing freshwater demand and improving circuit efficiency
- **Mineral Recovery:** Facilitating cake washing to extract critical minerals more efficiently
- **Tailings Management:** Solutions engineered to produce drier, stackable tailings, reducing reliance on conventional tailings dams

## PROVEN IMPACT

- **Operational Efficiency:** Increased throughput, drier material and lower cost
- **Environmental Protection:** Increased water recovery, and safer disposal of tailings
- **Technology Adoption:** Deployed across multiple mining sites, including iron ore, gold and lithium.

## CLEANER MINING OPERATIONS

VIPER's filtration system was installed at a landmark iron ore site. This 22 MTPA facility is exceeding the performance of the Filter Press alternative and is doing so at 30% of the cost.



## CONTACT US:

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