





Jord's industry-proven Viper™ technology is the simplest solution for your dewatering system, providing **continuous**, **high reliability production** that works smarter, not harder. The heart of the solution is Jord's vacuum belt filter, enhanced by the addition of our patented Viper vibration system that generates game-changing performance.

Viper<sup>™</sup> leverages thixotropic properties, unlocking and releasing maximum water from the process, Viper<sup>™</sup> delivers;

- low moisture for direct deposition tailings or concentrate shipment.
- **high production rates** ensuring a small number of unit operations

Jord's expert team can support your project from start to finish, offering a full range of services, from conceptual test work and layouts to the final detailed design and delivery of your installed tailings or concentrate dewatering plant.

The performance enhancements that Viper™ brings to vacuum belt filtration make the range of applications now suitable for vacuum belt selection almost endless. The performance enhancements are achieved while retaining all the benefits belt filter technology has over alternative filtration solutions: reliability, scalability, and cost-effectiveness. Viper™ offers step-change reductions in CapEx and OpEx for the dewatering plant over the previous range of applicable systems.



**Talk to our team** about retrofitting our system to your existing horizontal belt filter installation.

Jord offers test work programs, including on-site piloting and flexible delivery options.





#### Lower capital investment by decreasing plant complexity

- High-capacity filtration with low CapEx construction costs reducing CapEx by +50%
- Scalable dewatering system for future plant expansions
- · Easily retrofitted into existing HVBF plants



#### **Built for Uptime**

- · Continuous operation for maximum production uptime
- · Minimal maintenance disruptions from filter cloth replacements
- Minimal wear and consumable parts yields low OpEx expenses reducing OpEx by 30% per annum vs competing options



#### Handles the most challenging materials

- Designed to process copper flotation tails, gold leach tails as well as a wide range of fine particle tailings materials
- Compensates for variable feed characteristics to maintain plant throughput
- · Reliable across a wide range of materials and commodities



### Reduce Environmental impact by Maximising moisture content reductions

- · Achieves consistently low cake moisture
- Helps you achieve water reuse and discharge standards
- Reduces reliance on ponds and external water sourcing



# **ENGINEERED FOR**THE TAILINGS CHALLENGE

Filtered tailings are increasingly recognised as a safer and more sustainable approach to mine waste management. Yet, high costs and scalability constraints have limited broader adoption.

Conventional pressure filtration systems, while effective, carry substantial capital and maintenance burdens. The Jord Viper™ offers a practical alternative — a low-pressure vacuum belt filter enhanced with Viper vibration technology. This design meets tailings dewatering performance targets while maintaining low infrastructure and operating costs.

With tightening regulations, increased water-recovery requirements, and growing pressure to reduce/eliminate tailings dams, efficient dewatering is essential. Viper™ goes beyond just tailings filtration, its purpose-built to manage

evolving tailings streams without disruption to your production via industry leading reliability and smart, controllable performance.

Modern miners are pushing boundaries, exploring large-scale tailings dewatering to unlock environmental and operational gains. Applications with variable mineralogy, fine particle distributions, or high-altitude operation often exceed the capabilities of traditional filtration technologies. By integrating the Viper™ into the process flow sheet, filtered tailings becomes a viable reality, allowing you to fulfil your strategic plant objectives.

Scan the QR code at the top of the page to access further technical details in our Viper tailings filtration case study



## **RELIABLE INTEGRATION**

Jord's value lies not only in the Viper technology. Jord are a full service solutions provider with demonstrated capability and experience delivering a wide range of process technologies in a variety of industries around the world.

Jord delivery capabilities extend from turn-key plants through process island solutions to core equipment supply. We specialise in modularisation for the core equipment as well as for balance of plant.



## **NO BUILDING** REQUIRED?

Contact Jord's team, who will ensure the optimum plant layout for your project.

#### **EASE OF ADOPTION**

Built upon the well-established vacuum belt filter technology with over 35 years of industry use, Viper is designed for minimal disruption and maximum compatibility.

Maintenance is simplified with features such as single filter cloths lasting 6–12 months, and system availability exceeding 90%.

Discharge from multiple units can be directed to a single overland conveyor, reducing complexity in plant layout and materials handling.

No covered building required (climate dependent), which can also eliminate any fixed cranage requirement. The system is well proven for operation and maintenance in harsh environments, outside and without cover.

With its cost-efficiency, scalability, and reliability, Viper™ Filtration represents a practical path forward for mining operations seeking to enhance tailings management.



## **TESTING CAPABILITIES**

Jord offers both Viper™ bench-scale and pilot-scale test systems for all stages of project development, from conceptual engineering studies through to detailed design. Bench-scale test equipment is located in strategic commercial laboratories, or can be easily transported for on-site testing.

The pilot-scale system is contained within a 40-foot shipping container for ease of transport and process integration to your operation. The pilot system is plug and play, including a fully functional Viper  $^{\text{\tiny M}}$  HBF plant with an integrated PLC system. The plant includes a feed tank, feed & filtrate pumps and a cake discharge bin.



# FLEXIBLE DELIVERY MODELS

Jord has over 50 years of experience in modular design, manufacture and installation of process plants. The business is supported by a well-established global network of fabrication alliances in strategic locations around the world.

We can deliver the Viper™ technology as equipment supply or as a full turn-key solution, depending on your requirements. The Viper™ components are designed to international engineering standards and produced in a clean and controlled workshop environment with Quality Assurance and Quality Control protocols in place.







