



VIPER

VIPER VACUUM FILTER QUESTIONNAIRE

July 2024



What is Viper technology?

Introducing vibration energy often induces liquefaction (release of water) and/or a thixotropic response (shear thinning). Performing filtration simultaneously delivers game-changing filtration performance.

This is the basis of Viper, the vibration enhanced vacuum belt filtration technology which can reduce cake moisture and increase production rates compared to conventional vacuum belt filtration.

The 3D model screenshot above illustrates a Jord Viper vacuum belt filter. Note the green Viper modules, these are the vibration components complementing the Jord OEM conventional vacuum belt filter.



Company _____
Contact Person _____
Title _____
Phone _____
Email _____

1. Project Details

Project Name _____
Project Description _____
Project Stage (concept/feas./FEED/firm) _____
Project Schedule _____
Project Location _____
Project Climate & Elevation _____

2. Slurry Details

Slurry description _____

Upstream process _____

Downstream process / handling _____

Production Capacity _____ (t/day) solids
_____ or (m³/h) slurry

Slurry dry solids content _____ (% w/w) or _____ (SG)

Specific gravity Solids _____
Liquid _____

Type of solids (mineralogy, shape, etc.) _____

Size of solids (PSD) P80 _____ %<20um _____ top size _____

Slurry temperature _____ (°C)

Chemical / Corrosive _____ (PH= _____)



3. Operation Conditions

Priority product / performance lowest cake moisture highest capacity max. valuable liquor recovery

Cake moisture required min. _____ (%) max. _____ (%)

Cake washing required yes no

Product to be washed out _____ Target efficiency: _____ (%)

Cake washing fluid _____

Filtering aid (e.g. flocculant) can be considered cannot be considered

4. Test Work Options

- bench scale (sample required 1-20kg dry solids)
- pilot scale, batch (500-1,000kg dry solids)
- pilot scale, continuous (0.5-5 tph dry solids)
- demonstration scale, continuous (5-50 tph dry solids)
- Customer's site Jord facility

5. Extra Data / Notes

(Existing filter, current performance data, test work results etc.)

Game-changing technology for large-scale filtered tailings

High capacity, 5,000 – 10,000 tpd per filter

Low moisture, 12-18% w/w (metallurgical basis)

Thixotropic materials, fines & clays a specialty

Continuous processing equipment

Operating references >60,000 tpd

Operating references at altitude (3,800 masl)

Simple, cost-effective plant design

No operator intervention for cake discharge



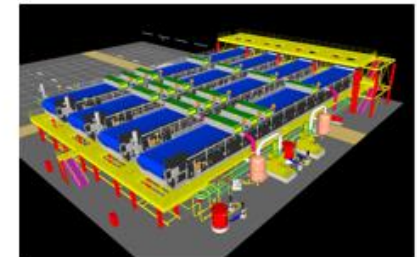
Uptake of Viper Filtration



How do I investigate Viper for my project?

Jord conduct laboratory and/or pilot testing to determine filter size/quantity and for performance guarantees.

Jord conduct desktop studies to generate project specific filtration plant design and costs.



Who are Jord?

Jord delivers performance, efficiency and sustainability to modern miners in the form of innovative minerals processing technologies.

Jord integrate our technology into complete plant or process systems that we design, supply and service.

In addition to Viper, consider:

NovaCell™, for coarse and fine particle flotation in one device. **NovaCell™** provides high recovery efficiencies for valuable particles and facilitates coarse waste rejection.

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