

# Flowsheet improvements for the real world



**JAMESON** 30  
CELL YEARS

**ISAMILL**™ 25  
YEARS

**JAMESON**  
CONCENTRATOR

**ALBION**  
PROCESS™

GLENCORE TECHNOLOGY

A GLENORE COMPANY

# Jameson Concentrator delivers more concentrate from less footprint, less capital and operating cost, using less energy

“ The Jameson Concentrator will reduce the flotation machines in Ozernoye from 63 to just 19, or by about two thirds. But it'll process the same 875 tph. This combination of performance and efficiency is important to us and to the mining future, considering the depletion of the mineral resource base.”

– Alexandr Kanarskiy  
*Chief Metallurgist, Ozernoye*

# Jameson Concentrator at a glance

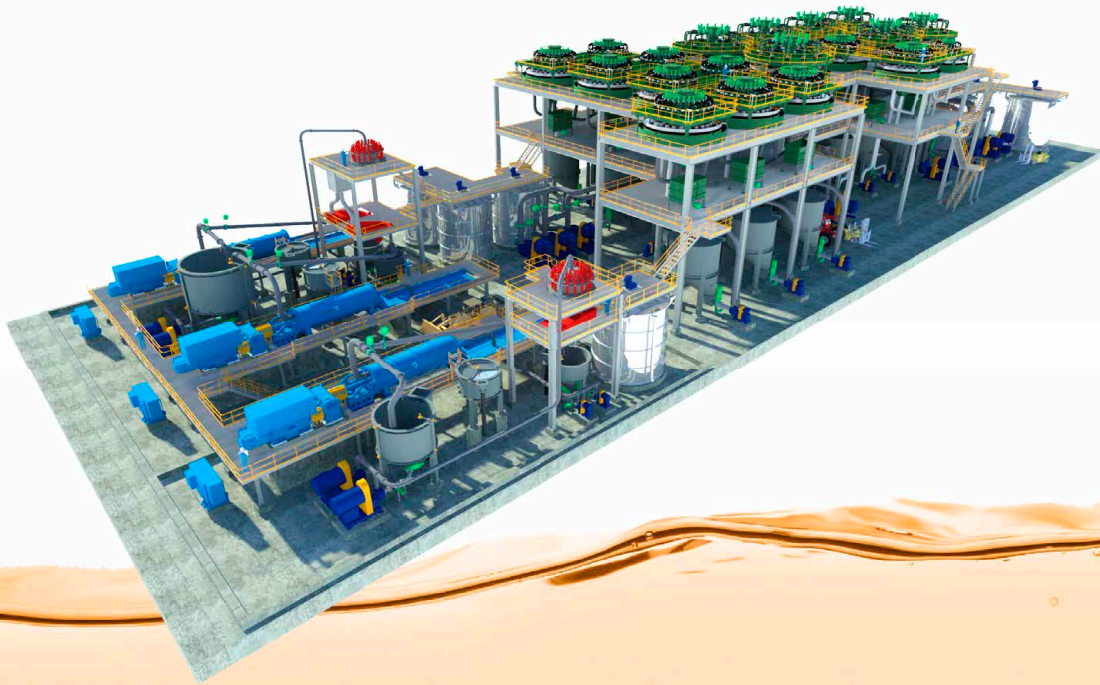
- Processes the same throughput for a smaller footprint
- Treats lower grade and complex ores cheaper and more efficiently
- Significantly smaller CapEx and OpEx and energy costs
- Less downtime, less maintenance
- Easily constructed by an EPCM to go-live quickly

**JAMESON**  
CONCENTRATOR

For more:

[glencoretechnology@glencore.com.au](mailto:glencoretechnology@glencore.com.au)

Tel +61 7 3833 8500



# Jameson Concentrator is the most efficient concentrator in the world – it delivers full-circuit capabilities from the most compact, simple and reliable flotation technology

Because mines increasingly have to go deeper, and into lower grade and more complex ores, operations need more efficient concentrators. The Jameson Concentrator takes new generation Jameson Cell and IsaMill™ technology to deliver a complete concentrator plant in the smallest footprint in the industry.

The Jameson Concentrator helps you solve the conflict between higher performance expectations and lower quality of ore bodies.

The Jameson Concentrator combines various configurations of Jameson Cell, modified and proven to process even larger volumes, and can add new generation small-footprint IsaMill™ technology where greater and precise liberation is needed.

The concentrator can process the same or greater throughputs with less equipment and less energy input – while producing exceptional metallurgical performance even from challenging orebodies.

This state-of-the-art full circuit concentrator is based on industry learnings from over 133 IsaMill™ and 431 Jameson Cell installations across 30 years.

## The Jameson Concentrator offers the following game changing benefits:

- Low profile, small footprint plant layout
- Up to 60% footprint reduction for significant CAPEX savings
- From 30–60% of the energy of a conventional flotation circuit
- Significant reduction in moving parts and subsequent operating costs
- Faster, easier and cheaper maintenance, more availability
- Cell by-pass ability meaning high circuit availability
- No agitators, rotors or blowers in flotation and highly efficient grinding results in significantly lower power consumption
- Significantly greater and faster returns for treating lower grade ores and higher throughputs
- Circuit and equipment operational simplicity for consistently high performance
- Our flotation and milling technologies can be configured flexibly by an EPCM to deliver a custom concentrator from proven technology.



# How Jameson Concentrator's core technologies work to deliver more for less

## Jameson Cell

- High intensity, efficient flotation.
- Maximised metallurgical performance – demonstrated recovery increases of up to 6%.
- Quick & efficient particle-bubble Interaction – no short-circuiting.
- Reduction in residence time.
- Integrated wash water – upgrade equivalent to three stages of mechanical cell cleaning.
- Produce high grade concentrates.
- Proven performance across a wide range of size fractions, including coarse and ultra-fines.
- Scale-up directly 1:1 from lab-scale float results with high accuracy.
- Widely used across coal, precious and base metals, potash, and oil sands.

## IsaMill™

- High energy efficiency grinding.
- Tight product size distributions.
- Enabling technology for any ores with F80 of up to 400µm and delivering a P80 down to 5µm
- Downstream processing benefits from using inert media.
- Grinding media only 10–70% of the cost versus vertical-style high SG mill media.
- Allows smaller, more efficient, higher grade/recovery circuits.
- Low profile meaning easier and safer operation and maintenance.

## Product Range Development

- Recent release of additional models to both the IsaMill™ and Jameson Cell technologies.
- Expansion of range covers higher throughput requirements as new or existing mines treat lower grade – higher volume deposits.
- Products offered from single unit optimisation/expansion/ debottlenecking projects for existing sites through to full circuit solutions.

## Examples

- **Philex operation, 1996.** Ten Jameson Cells replaced 50 conventional cells to treat 900 tph of copper and gold and saw up to a 4% increase in recovery.
- **Hubay's New Britannia operation** is currently completing an installation that sees four Jameson Cells replace the planned 11 conventional cells. Commissioning Q3 2021. EPCM is AECOM.
- **Ozernoye operation** has gone into execution with 19 Jameson Cells replacing what would have been 63 tank cells. Three new M20,000 IsaMill™ with 5 MW motors will deliver greater liberation. The footprint reduction is over 50%. Commissioning Q4 2022. EPCM is Engineering Dobersek.

## Customisable flowsheets deployable by EPCMs

- Jameson Cell and IsaMill™ are highly customisable to suit any flowsheet requirement of a concentrator.
- The two technologies can be adapted by an operation or EPCM to suit the particular needs of the flowsheet.
- Models and in-depth specifications can be made available to EPCMs after an on-boarding program.
- Glencore Technology works with EPCMs on every continent to deliver an operation exactly what it needs.



Scan for more information

[glencoretechnology.com](http://glencoretechnology.com)

### Follow us

[in linkedin.com/company/glencoretechnology](https://www.linkedin.com/company/glencoretechnology)

[🐦 @GlencoreTech](https://twitter.com/GlencoreTech)

[f facebook.com/Expertise.in.Technology](https://www.facebook.com/Expertise.in.Technology)

### Glencore Technology

Glencore Technology develops innovative products that help mining operations extract more from their flowsheet. ISASMELT™, IsaKidd™, IsaMill™, Jameson Cell and Albion Process™ have been developed in the real world and proven in more than 500 operations across every continent.

Many of our technologies have been developed and proven at our own sites, like ISASMELT™ and IsaMill™, which were pioneered by Mount Isa Mines and helped revolutionise mining and smelting processes all over the world.

Our approach is premised on a technology partnership to provide a full product and service offering, including process flow design, engineering, equipment supply, commissioning and operational expertise, and ongoing process and maintenance support.

### Glencore

Glencore is one of the world's largest global diversified natural resource companies and a major producer and marketer of more than 90 commodities. The Group's operations comprise around 150 mining and metallurgical sites, oil production assets and agricultural facilities. With a strong footprint in both established and emerging regions for natural resources, Glencore's industrial and marketing activities are supported by a global network of more than 90 offices located in over 50 countries.

Glencore's customers are industrial consumers, such as those in the automotive, steel, power generation, oil and food processing sectors. We also provide financing, logistics and other services to producers and consumers of commodities. Glencore's companies employ around 146,000 people, including contractors.

Glencore is proud to be a member of the Voluntary Principles on Security and Human Rights and the International Council on Mining and Metals. We are an active participant in the Extractive Industries Transparency Initiative.

### CONTACT

#### Glencore Technology Pty Limited

ABN 65 118 727 870

Level 29, 180 Ann Street  
Brisbane QLD 4000  
Australia

T. +61 7 3833 8500

E. [glencoretechnology@glencore.com.au](mailto:glencoretechnology@glencore.com.au)

Chile · T. +56 2 2342 9078

Vancouver · T. +1 604 601 2070

South Africa · T. +27 11 772 0555

A GLENCORE COMPANY