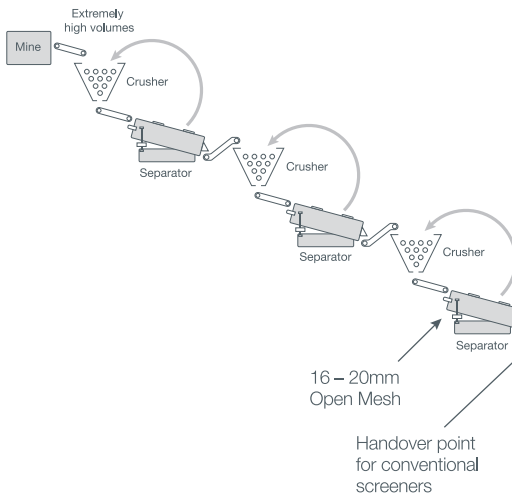


Metal and Poly Metal Ore Beneficiation Process

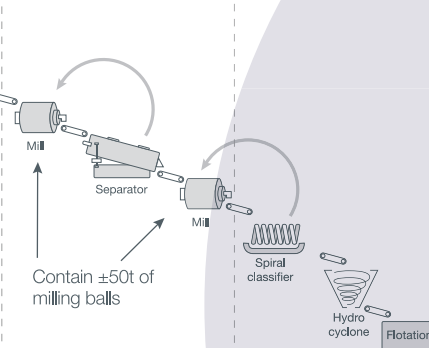


Dry Grinding Process



Wet Milling Process

- Wet milling process accounts for $\pm 51\%$ of all running costs of beneficiation process (internal estimate)
- Of this, 85-87% is apportioned to the cost of electricity
- Therefore the electrical costs of the Wet Milling process account for $\pm 45\%$ of the entire running costs of the beneficiation plant.

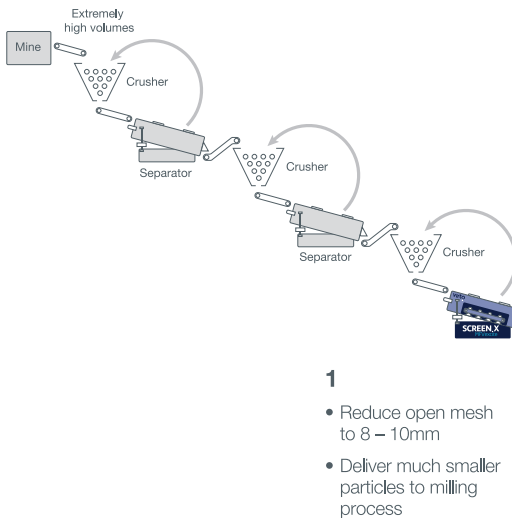


Ore beneficiation is at the heart of modern mining processes. The energy consumed by beneficiation plants is significant and Virto estimates that the electricity consumed by the Wet Milling Process accounts for up to 45% of the total running costs of a beneficiation plant.

Our equipment can be used in three key areas:

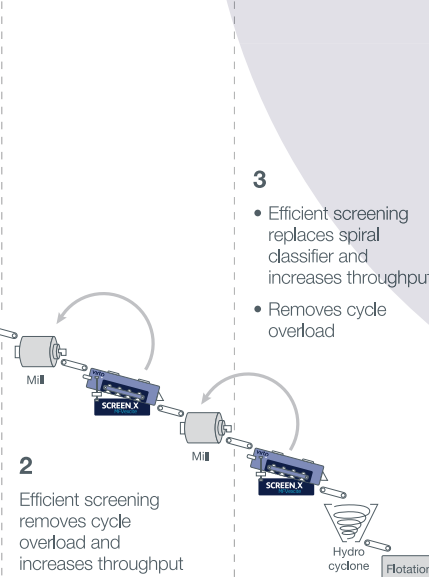
- 1 Virto Equipment's ScreenX, using its proprietary MFVexcite technology, is able to screen at levels of separation previously unachievable by conventional screening equipment. In particular, the ability to reduce the hand over point from the Dry Grinding to Wet Milling Process from 16 – 20mm to 8 – 10mm will produce an overall reduction in the electricity consumed by the plant.
- 2 Virto Equipment's ScreenX machines are extremely efficient at screening material of this nature and produces substantial throughput gains in the process by reducing the cycle overload.
- 3 Virto Equipment's ScreenX effectively replaces less efficient technology such as spiral classifiers improving effective separation results from 70% in the case of a spiral classifier to 96% with a ScreenX device.

Dry Grinding Process



- 1
 - Reduce open mesh to 8 – 10mm
 - Deliver much smaller particles to milling process

Wet Milling Process



- 3
 - Efficient screening replaces spiral classifier and increases throughput
 - Removes cycle overload

- 2
 - Efficient screening removes cycle overload and increases throughput

4 Es	Result
Efficiency	The shift from expensive milling to dry grinding delivers higher throughput.
Economy	Significant cost savings from reduction in energy required. Estimated to be as much as 20-45% of the electrical costs of the entire process and 10-18% of all the running costs of the beneficiation plant.
Energy	The energy savings in electricity consumption are significant. These could possibly be linked to Carbon Credit schemes due to reduction in consumption of non-renewable energy.
Environment	The effectiveness of the beneficiation process is significantly increased, which in turn reduces the amount of waste products and should be in tail dumps.