



Slurrification unit

IHC Mining has developed a skid mounted Dry Mining Slurrification Unit (DMSU) to screen, slurrify and pump a range of mineral deposits using lower-impact mining techniques.

The DMSU is intended to uplift, screen and slurrify mineral sands or alluvial sands deposits. Alternatively, the unit can be used to uplift, disintegrate and slurrify dry tailings materials, in the reclamation of tailings deposits.

It has a production range of up to 1,500tph throughput. Offering a high volume, with superior reliability and mobile slurrification solution, the DMSU can be readily customised to suit a client's mineral body and throughput expectations.

Advantages

- ✓ reduced water and power consumption, increasing ROM delivery efficiency and sustainability
- ✓ suitable for high throughput applications
- ✓ skid mounted, allowing for ease of plant relocation
- ✓ flexible skid configurations and multiple material feed points to optimise operations.

Optimal design - stable yet easy to relocate

The skid base frames are specifically designed for operating on unconsolidated sand surfaces, with buffer blocks to shunt the skids into position.

The bottom of the frames prevent the skids from ploughing or digging into the soil, and from completely filling up with soil in case of a puncture. They can reduce bearing pressure on the soil to below 50kPa.

All of the skids are modules, designed to be easily transported.

Reduced energy and water consumption

All oversized material is removed from the product prior to conveying it to the processing plant. As no oversized material is conveyed, energy and water consumption is reduced, contributing to sustainable mining objectives.

In addition, the oversize material can immediately be used for rehabilitation of the mine site, reducing the overall effort in transportation.

Operational efficiency

The DMSU is supplied with instrumentation and a control system to monitor and control the DMSU efficiently. The production throughput of the DMSU is continuously calculated and logged for performance management, mine planning and system optimisation.

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The equipment

ROM skid

Front End Loaders (FEL) will supply the Run of Mine (ROM) skid with the mined material. An inclined static grizzly screens out all tramp material, while the rest of the material pass through and collects in the ROM hopper. A belt feeder withdraws the material from the ROM hopper and deposits it at a controlled rate onto the feed skid.

Feed skid

The feed skid receives material from the ROM skid and conveys it to the slurry skid. The inclination of the feed skid conveyor can be reduced from 16° to 7° to lower the COG for safe and easy relocation around the mining site.

Slurry skid

Material is received from the feed skid and screened to the client's process requirements. Jetting nozzles slurrify the screened product to the optimal slurry density for hydraulic transportation via the slurry pump to the processing plant, thereby minimising the overall water and power consumption.

Oversize skid

Oversize material is received from the slurry skid, conveyed and discharged onto the stockpile of oversize material. The inclination of the oversize skid conveyor can be reduced from 16° to 7° to lower the COG for safe and easy relocation around the mining site.

Power skid

The power skid contains electrical and electronic equipment to power, monitor and control all the DMSU equipment. Termination panels on all the skids and lugged cables allow the operators to easily disconnect and reconnect the skids. The power skid also communicates all critical process variables and receives remote input from the client's central control room.



ROM skid



Feed skid



Slurry skid



Oversize skid

Want to know what the opportunities are for your operation?

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