

Using Derrick® vibrating screens to protect concentrate pressure filters

- Remove trash and debris from concentrate
- Negligible maintenance
- Protection for high pressure feed pumps

Background

Many flotation plants are adopting pressure filtration for their concentrate products. Pressure filtration has some distinct advantages such as higher capacities and drier products. However, feeding a pressure filter has certain requirements such as higher feed pressure and low tolerance for debris.

Solution

Derrick® has provided large-volume applications in the concentrate industry with trash screens for many years. By successfully removing trash from the process stream, non-blinding Polyweb® screen technology developed by Derrick has facilitated trouble-free operation and helped plants focus on producing concentrates, not rebuilding expensive pumps.

The linear motion employed in Derrick vibratory screening equipment helps to convey the trash and debris off the screen surface and into collection bins. Alternative screens not employing this technology become blinded or clogged, sending valuable concentrate into the trash collection bins. An additional reprocessing step, resulting in extra work, is then required to remove the concentrate from the trash.

In addition to linear motion screening equipment, Derrick offers inlet manifolds that can feed the screening equipment from multiple sources such as thickener underflow, floor sump, and filter bypass lines.



Derrick Linear Motion Machine



Linear motion conveys trash and debris off screen surface and into collection bins

Derrick machines are designed to accept standard DIN/ANSI flanges or Victaulic® connections. This makes the installation easily adaptable to almost any operation.

The light weight and negligible dynamic load of Derrick vibrating screens permits accommodation by most existing structures without expensive engineering and structural analysis.

Derrick has many models to choose from to meet the needs of most applications, depending on total volumetric flowrates and desired screen openings.

Conclusion

Derrick vibrating screen machines can screen high density concentrates and remove trash and other debris from the process stream. Preventing these materials from entering high pressure pumps and filters keeps operations running smoothly and efficiently.



Derrick machines are easily adaptable to almost any operation

For more information, please contact your local Derrick sales representative.

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