

Derrick® 32 and 44 Mesh Polyurethane Screen Surfaces Increase Production, Reduced Downtime at Frac Sand Plant

- Increased production by an additional 800 tons every 7 days
- Reduced machine downtime by more than 90%
- Screen life dramatically increased compared with wire screens

Background

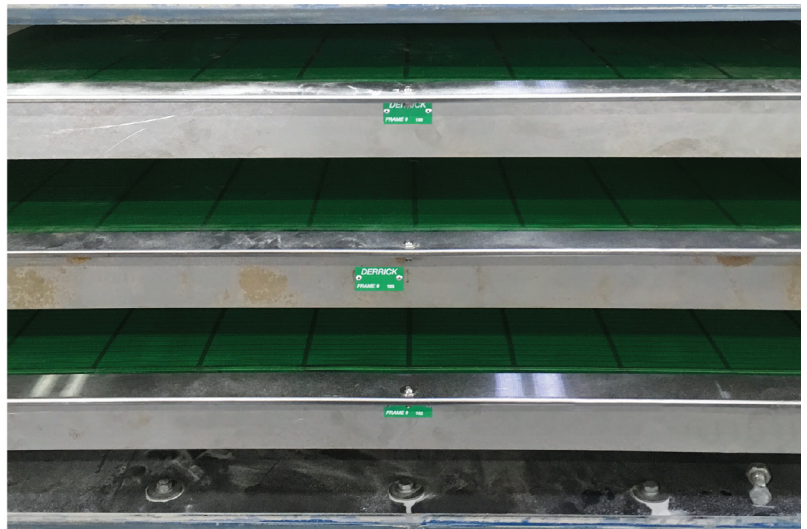
Using seven Rotex® Megatex™ XD Screeners fitted with conventional wire screens, a Sparta, Wisconsin USA plant was producing 400 TPH of 30-50 and 40-70 frac sand. To pre-empt screen failure and ensure a high quality in-spec product, the machines were shut down for routine replacement of the wire screens after each 9,850 tons of production. Screen replacement required 2 hours per machine every week consequently resulting in a loss of 57 TPH per machine at each screen change. For the seven machines, lost production due to screen changing totalled 800 tons per week!

Solution

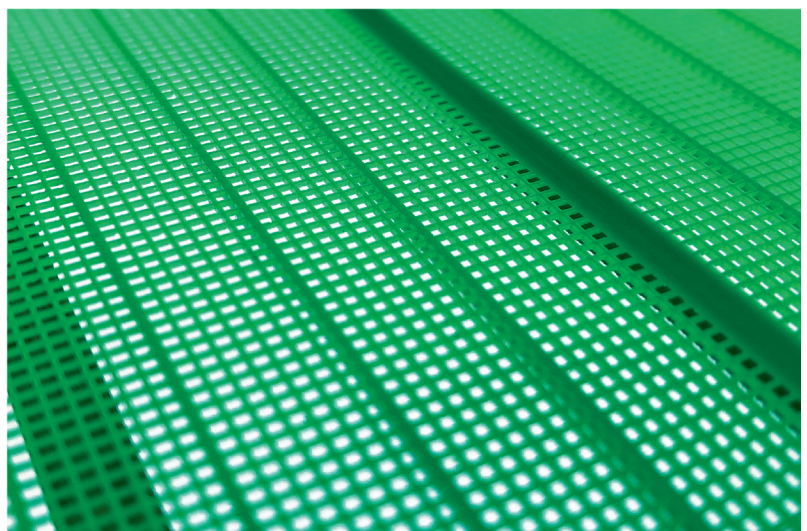
To solve the vexing production loss imposed by frequent replacement of the wire screens, the customer installed 32 mesh (650 micron) and 44 mesh (437 micron) Derrick polyurethane dry screening panels in its Rotex screeners. The change was completely transparent and seamless, requiring no modification of the Rotex machines.

Conclusion

Advanced Derrick polyurethane screens have dramatically increased production by eliminating the downtime penalty for periodic routine screen replacement. Since changing to the Derrick polyurethane screens nearly 90,000 tons of frac sand have been produced without having to replace any screens. In addition, by eliminating frequent screen replacement, employees' exposure to silica dust has been significantly reduced.



32 and 48 Mesh Polyurethane screens installed



Close-up of 32 Mesh (650 microns) Polyurethane screen panels

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

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