LAKOS® VS. Self-Cleaning Screens

Essentially, these devices are self-cleaning screens, relying also on the build-up of contaminant to further improve their ability to remove smaller particles. There are many moving parts involved in these units. The trigger to self-clean is a pressure differential sensor. Particles are trapped on the inside of the screen. When cleaning, rotating wands draw the contaminant off the inside of the screen surface.

Solids removal—Self-cleaning screens claim the ability to remove all types of contaminants. This one filter does it all mentality fails in practice, however, particularly when attempting to remove organic/floating debris. Simply, screen-type filters do not handle organic debris very well. Such contaminants become tightly lodged in the screen and can typically only be removed by excessive manual cleaning. Excessive solids concentrations threaten high backwashing frequency and reduced periods of full system flow.

Flow range—Standard models are available only up to about 4,000 U.S. gpm (900 m^3/hr.). Excessive manifolding at higher flow rates.

Pressure loss—Though Self-Cleaning Screens may operate initially (when clean) at a low pressure loss, the accumulation of material on the screen surface will inevitably result in high pressure losses...with residually higher pressure losses even after cleaning...and subject system flow to variable operating pressure and more frequent backwash/cleaning cycles.

Liquid loss—Subject to operating pressure, the liquid loss during cleaning cycles can exceed 500 U.S. gallons (1900 liters) or more.

Solids handling—Excessive liquid loss limits this equipment's ability to concentrate the solid contaminants for easy handling.

Replacement parts—Moving parts and cleanable surfaces are subject to wear, malfunction and normal degradation. Self-cleaning Screens therefore require parts & service manuals. One of them, for example, is 100 pages long. LAKOS, by contrast, has no moving parts or cleanable screens...and therefore no parts or service manual.

Maintenance requirements—The self-cleaning feature is not foolproof. These provide for bypass features for periodic maintenance and inspection routines. Organic contaminants present a high likelihood of routine manual screen cleaning.

Use the same criteria above to judge the suitability of LAKOS Separators for a given application. We welcome comparison.

Ask your LAKOS representative about other filter comparisons and the specific advantages of LAKOS Separators.

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