

A WHALE OF AN ADVANCE IN CLARIFICATION TECHNOLOGY

Float, sink or “in-suspension”, any matter with a particle size or distinctly different in density or viscosity to that of water can be claimed or “selectively” separated using the Baleen filter technology.

The Baleen filter is a unique self-cleaning separation technology which offers trouble-free filtration of water-based streams to as fine as 20-microns (1/25th of human visibility) without chemical assistance.

Regardless of application, Baleen offers water treatment practitioners a simple, yet well-engineered approach to drastically reduce energy and chemical requirements for separation of water-borne constituents in lieu of, or in complement with, traditional secondary approaches to water-treatment or byproduct-recovery.

Baleen side-steps the need for ‘backwash’ (common to conventional self-cleaning ‘dead-end’ filters) by focusing its self-cleaning functionality upon maintenance of screenings flow across the filter-media rather than filtrate-flux through the filter, virtually persuading the suspended matter to shear-out of suspension and dewater across the filtration interface to enable inline separation, and thus undisrupted filtration.

Now, fully commercialised the Baleen filter is currently manufactured from Stainless or Duplex Steel materials of construction. There are three product models available across four sizes of filter spanning modular, user-install or connect-and-use installation options each with a range of control options so as to ensure broad market affordability.

COMPETITIVE ADVANTAGE

In terms of separator-technology, Baleen fills the technology gap between settler-clarifier and skimmer-flotation equipment to separate and recover matter that is poorly-settleable or poorly-floatable to enhance clarification-ability and better-bridge previously unrealisable polluted water resources to higher-order filtration technologies. What this means is that difficult or highly contaminated wastewater (as found in industry) can now be effectively recycled or re-used as a value-added resource, or considered for extended treatment involving membrane-technology. Apart from demonstrable performance gains, the savings in environmental footprint also places Baleen ahead of conventional clarifier technology in the case of replacement or Greenfield clarification plant.

Whether Baleen is employed upstream for pollutant load-reduction, in-process for sludge thickening, or downstream for polishing of treated water Baleen can be successfully installed cross-industry for all of



these applications. Baleen has a very low operating cost (as low as \$1 per 500kL filtered), produces no backwash (with screenings collected as a natural mass) and has an exceptionally low environmental footprint when compared to conventional clarification and membrane-filtration treatment for primary-stage water reclamation.

Product pricing starts at \$25,000 with annual maintenance costs often less than 1% of initial capital outlay, and a general operating-life exceeding 10-years is commonplace.

COMPANY PROFILE

Baleen Filters Pty Limited has demonstrated competencies in management, sales and marketing, engineering and client services involving delivery of innovative filtration systems to the international water industry and has successfully partnered with an array of industrial and governmental organisations, and is recipient of numerous international awards. The quality of its members is characteristic of a mature, high growth rate start-up company.

We continue to seek test-bedding opportunities with regulatory bodies within Australasia, African continent, the European Union and the Americas to gain validation for use of Baleen within globally-influential water treatment applications, such as those involved with ‘fit for purpose’ reuse and environmental protection.

INGENIOUS PRODUCT DESIGN

The Baleen filter is based upon a simple, yet ingenious ‘double-act’ of high-pressure, low-volume sprays, one of which dislodges material caught by the filter media, while the other sweeps it away. As water flows through the filter, substances initially suspended in the water are left behind but before they are allowed to accumulate the ‘double-act’ periodically affects their removal from the filter for ready collection.

Installation prerequisites comprise; level foundation or platform, on-demand connections of compressed

air, power and mains (or reclaimed water) for utility supply purposes, and solids handling means (for transfer of collected screenings). Other considerations may include upstream balance tank provision, monitoring instrumentation or containment provisions.

Baleen filter end-users broadly span industry; from agriculture and aquaculture, food & beverage processing, mining and manufacturing, through to water supply and sewage treatment. Existing ‘brand-name’ clientele include; Master Foods, Sunbeam Foods, Chiquita, Inghams, Fosters, SA Water, Tyson Foods, Nestle, Fonterra, Baiada and Mainland just to name a few.

VALUE PROPOSITION

The Baleen filter may be applied to various process streams, including traditionally troublesome applications that render other filtration and separation methods inefficient or inoperable. Use of Baleen by industry offers enhanced clarification capability for “Best Practice” and ‘Cleaner Production’ advantages and can drastically reduce energy, maintenance and chemical consumption for direct cost-savings and betterment of the environment.

Regardless of treatment approach there always exists an opportunity for improving plant performance with Baleen, whether its upstream for load reduction, in-process for sludge thickening, or downstream for polishing of final clarified waste water. Baleen have installations in all these areas of application across-industry including direct-inline separation of ‘floc’ and biomass (without the need for conventional clarification).

Further Information

Should you wish to explore the practical and cost-saving benefits of introducing the Baleen filter technology within your operations please visit our website at www.baleenfilters.com