



Filtra-Matic™ Fixed Leaf High-Volume Filtration



C. Emery Nelson, Inc.

INDUSTRIAL AND POWER PLANT EQUIPMENT

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WATER TECHNOLOGIES

Filtra-Matic™ pressure leaf filters are designed for large volume liquid filtration.

The Filtra-Matic™ is a versatile, pressure leaf filter for tough filtration jobs involving large volumes of liquid. It is especially useful where a dry cake discharge is desired. Designed for operating efficiency and easy maintenance, this filter is offered in two basic models: the Filtra-Matic™ RT with its unique retracting tank, and the Filtra-Matic™ RB featuring a retracting bundle design. Filter leaves for both models are of heavy-duty construction and provide maximum strength as well as flexibility needed to prevent deformation.

Benefits of the Filtra-Matic™

- **Automatic Wet Sluice Cleaning**
scrubs leaf surfaces clean and assists in flushing cake from vessel
- **Cake Drying Capability**
by gas/steam injection through air inlet
- **Quick-Opening Door Option**
no operator intervention, completely automated for fast access to vessel interior
- **Heavy-Duty Filter Leaves**
for maximum strength and efficiency



Two Retracting Designs

The Filtra-Matic™ RT offers substantial advantages for many applications. In this design, the leaf bundle remains stationary while the filter vessel itself retracts. All connections, including the filtration outlet nozzle, are located in the stationary front section. As a result, process piping remains intact during cleaning, eliminating misalignment problems. Retraction of the shell exposes the entire leaf bundle for ease of inspection and maintenance of the filtration surfaces. This design also minimizes cake drop-off into the shell during the opening step of dry cake discharge systems. The RT is available in cylindrical or conical tank configuration. The retracting bundle design, the Filtra-Matic™ RB, offers good flow distribution and pressure control. It provides excellent sluicing characteristics and features easy access to the filter leaves bundle for quick cleaning and inspection. The RB is available in cylindrical, conical, or double-conical configuration.

Key Operating Features

Hydraulics

Filtra-Matic's inlet is baffled to provide a uniform flow distribution for quick, even precoat and uniform cake distribution. The large inlet baffle is adjustable for varying flow rate conditions. In larger models or for special service conditions, inlet distribution headers are utilized.

Fixed-Leaf Construction

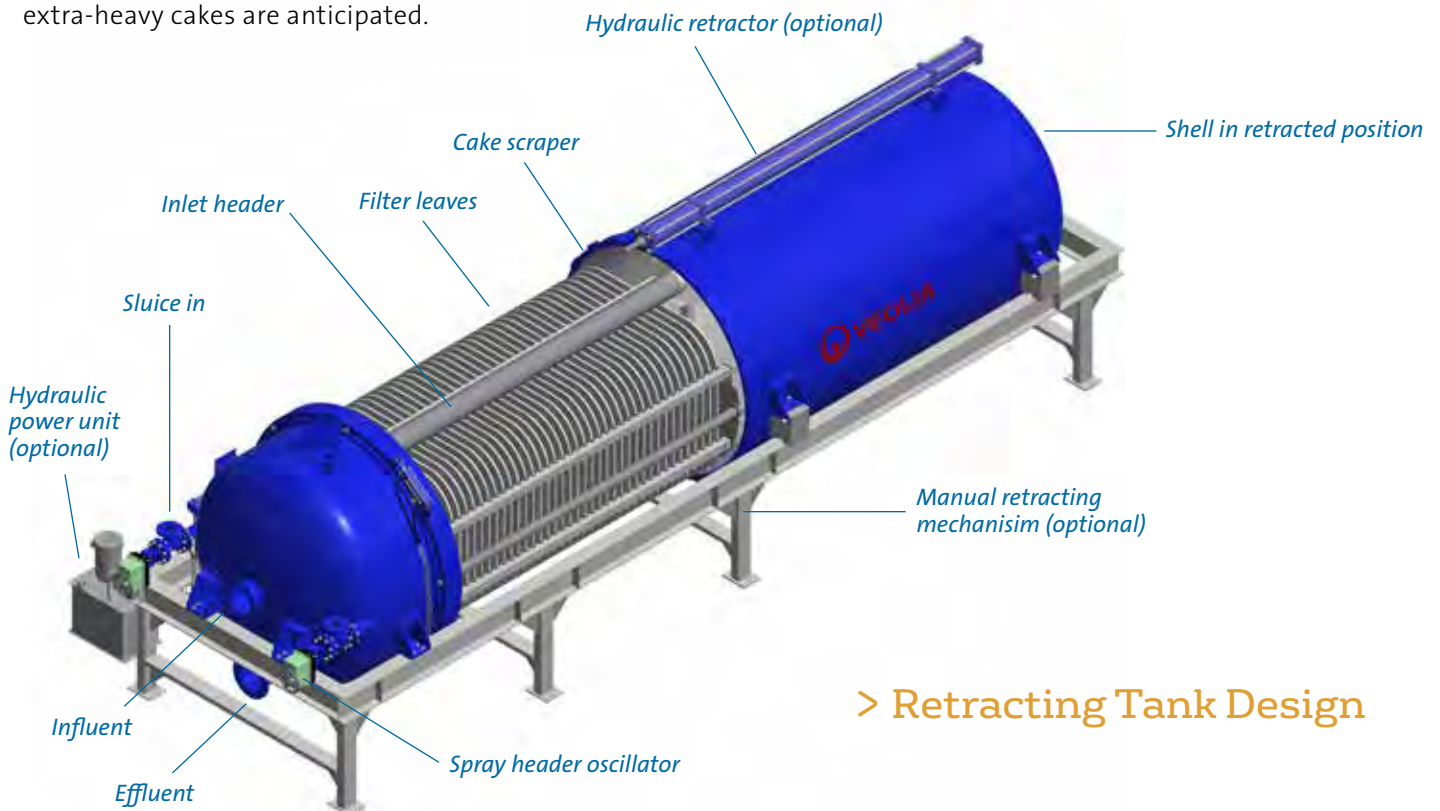
Heavy-duty leaves offer maximum strength and flexibility. Filtra-Matic's standard leaf design consists of an expanded metal center drainage member and a fine outer mesh of wire cloth. This design, combined with a filter medium like diatomaceous earth or cellulose, produces filtered liquids in the submicron range that often need no further treatment. Leaves are easily removed or installed and are interchangeable. Three-inch spacing is standard, but greater clearances can be provided where extra-heavy cakes are anticipated.

Superior Cleaning

For automatic wet sluice cleaning, oscillating headers with V-port spray nozzles are mounted in the header between each pair of leaves. As headers oscillate, they scrub the surface of each leaf with a powerful jet.


Specialized Discharge Manifold

A sectionalized effluent manifold with valves and sight glasses can be furnished. The sight glass enables the operator to visually inspect effluent quality. If there is a loss of clarity, individual leaf sections can be removed from service without disturbing the filtering cycle.



> Retracting Tank Design

Resourcing the world



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