



Auto-Jet[®]

Self-Cleaning Pressure Leaf Filter



C. Emery Nelson, Inc.

INDUSTRIAL AND POWER PLANT EQUIPMENT

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WATER TECHNOLOGIES

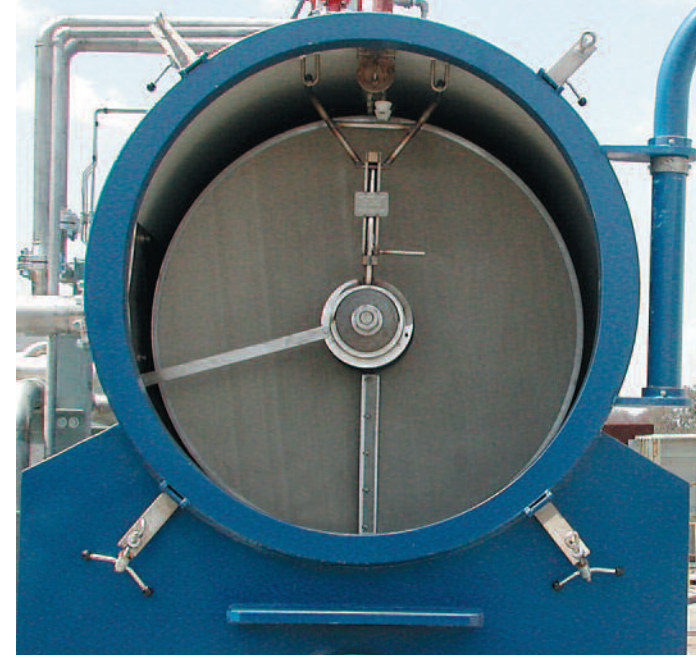
Auto-Jet®

Self-Cleaning Pressure Leaf Filter System

Veolia Water Technologies combines product innovation with industry experience to provide economical and effective operation in a number of filtration and water treatment applications.

Auto-Jet is the premium self-cleaning leaf filter designed for efficient filtration in the most severe applications. Due to its superior, patented design, Auto-Jet maintains its full-rated capacity even where heavy, sticky or unusually tenacious cake is encountered.

Its efficient sluicing system ensures thorough cleaning of every square inch of filter surface area each cycle. Engineered for filtration efficiency, Auto-Jet features uniform leaf construction for leaf interchangeability and to provide uniform precoating, filtration and cake buildup.



- > **Fine Filtration**
filters particle size down to 1-micron
- > **Severe Process Conditions**
high solids loading, high temperature, high/low pH
- > **Increased Efficiency**
reduces cleaning costs
- > **Auto-Lok Door**
ensures leakproof, positive closure and quick and easy access
- > **Uniform Filter Leaves**
for uniform precoat and filtration
- > **Positive Shaft Seal**
provides pressure-tight seal on effluent manifold
- > **Standard Sizes**
ranging from 50-2000 ft² for a variety of applications including sanitary design

CHOICE OF CONSTRUCTION MATERIALS

Auto-Jet can be manufactured in various construction materials including carbon steel, stainless steel, monel, Hastelloy™, 6% Moly alloys, and other metals. Rubber or plastic linings are available for carbon steel tanks. All tanks can be constructed to conform with ASME code specifications.

SUPERIOR FILTRATION AND SELF-CLEANING

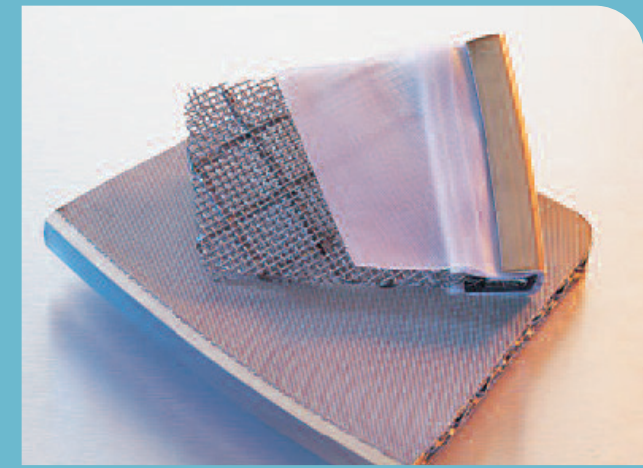
Integral to the Auto-Jet's superior filtration capability is its patented sluicing system incorporating specially-designed jets. As the filter leaves rotate, flat, knife-like jets of cleaning liquid quickly strip away the heaviest cake and scrub the entire surface area. Using only a fraction of the cleaning liquid required by other types of filters, Auto-Jet completely cleans the filter surface area in three minutes or less.

The Auto-Jet filter inlet and adjustable baffling are carefully engineered to team with the leaf design for better filtration. The filter shell can be manufactured with either a conical, double conical, or deep V-shaped bottom to accommodate the heaviest sludge loads.

Easy inspection and service are facilitated by a sluice manifold design which allows for complete manifold removal without removing filter leaves.*

Test units are available.

**When using dry cake discharge, a screw conveyor transfers the cake.*



The Auto-Jet's Superior Self-Cleaning Filter Leaves

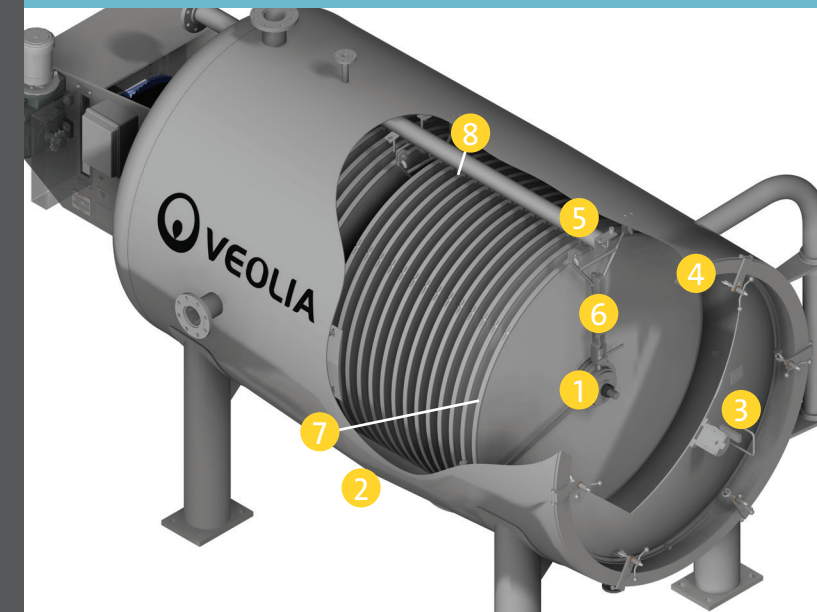
The Auto-Jet's filtration leaves are manufactured to the highest quality. Engineered with superior materials and laser welded for durability, these filter leaves provide durable and consistent performance.

WET OR DRY CAKE DISCHARGE

Normal configuration is wet cake discharge using sluice jets for cleaning. With the dry cake discharge option, air dries the cake and the leaves rotate against a knife blade cutoff.

Applications

- > Mining leach solution clarification
- > Merrill-Crowe (gold/silver) processing
- > Chlor-alkali processing
- > Soda-ash processing
- > Copper-sulfate processing
- > Acid filtration
- > Brine processing
- > Beer/wine/whiskey processing
- > Sugar/sweetener processing
- > Gelatin processing
- > Catalyst processing
- > Lithium hydroxide processing
- > Condensate filtration
- > Sulfur clarification
- > Several other industrial applications



Auto-Jet® Cutaway


- | | |
|-------------------------|----------------------------|
| 1 Rotating Shaft | 5 Removable Spray Header |
| 2 Sloped Bottom | 6 Removable Toggle Support |
| 3 Auto-Lok Door | 7 Five-Ply Leaf Design |
| 4 Self-Energized Gasket | 8 Leaf Alignment Guide |

QUICK AND EASY MAINTENANCE

Access for inspection and maintenance to the Auto-Jet is simplified by the quick-opening Auto-Lok door. By removing a single nut on the filtrate shaft, leaves can be slipped off the cantilevered shaft without entering the filter. One person can open a 600 sq. ft. Auto-Jet and remove all the leaves in less than 30 minutes – about the time it takes just to open a bolted-door type filter.



Resourcing the world



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