



## **Amafilter®**

Amafilter® is a Filtration Group brand, specializing in the design, engineering, manufacture and delivery of systems that maximize the efficiency of our customers' plant filtration processes. Our aim is to develop products which deliver cutting-edge filtration solutions that have a direct impact on your process applications and which enable your operations to run more efficiently.

Our expertise is built from over 90 years' experience of providing filtration solutions across the world in market sectors including food & beverages, minerals & mining and chemical industries. Our expertise covers an extensive range of sector-focused applications, such as beet and cane sugar, artificial sweeteners, cheese brine, cocoa butter and gelatine, within the food and beverages sectors. Our experience also extends to chemical applications such as copper electrolytes, waterglass, oleo chemicals, PTA, brine, activated carbon filtration to name a few, as well as minerals applications.

Our range caters for the most demanding applications and includes the Cricketfilter®, self-cleaning filters and horizontal & vertical pressure leaf filters, as well as process filtration spares.

Our service team delivers world-class service and support across the globe, using our expertise and technical know-how to optimize your filtration process.

We believe in partnering with our customers to provide total filtration solutions throughout the life of a filter. Our experienced laboratory team can assist to optimise filtration processes and maximise efficiencies. We work closely with our customers throughout the process and can assist in the complete design, testing, commissioning and servicing of a project.



#### Chemical Industry

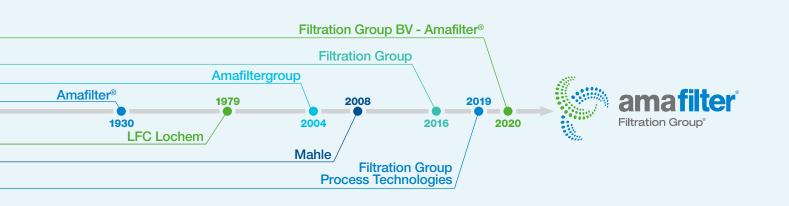
The chemical market faces various filtration challenges, including the quality of bulk chemicals, intermediates, up to ultra-fine chemicals. Filtration Group has extensive experience in the supply of innovative filtration technologies that provide optimized solutions for the chemical processing industries. Our products are designed to provide chemical producers with the highest consistency and quality of output, ensuring the removal of any contaminants, hence improving product yield.



#### Food and Beverages

We understand that the food and beverages industry manage large volumes of products throughout their processes, and that maintaining their quality and cleanliness is paramount.

Our extensive product range can be utilized for all areas of the food and beverage market, including coarse clarification and the removal of microorganisms.



## Cricketfilter® Technology

With over 1000 Cricketfilters® sold, this well-established automated pressure filter system was developed to combine the advantages of traditional pressure filter leaf and cartridge/candle filter systems, whilst avoiding their drawbacks.

The Cricketfilter® proven technology is the perfect solution for separating fine solids from fluids and can be found in installations across the world in Food & Beverages and Chemical applications.

The Cricketfilter® Optimal design reduces maintenance interventions, improves the total cost of ownership and creates a safer working environment.



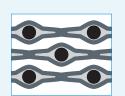
## **Higher flux**

#### 40% Greater filtration area

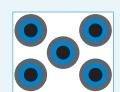
The unique Cricketfilter® element shape is designed to deliver up to 40% greater filtration area than a traditional round shaped element in a tank with the same/volume diameter. Higher flow provides an increase in plant capacity, leading to a more profitable operation.

#### 40% more cake holding capacity

Can hold up to 40% more cake than a traditional shaped element due to its flat shape design. A greater amount of cake can be produced without the need for manual maintenance interventions, contributing to a safer operation.



Cross section top view of Cricket bat shaped filter elements with cake



Cross section top view of round shaped filter elements with cake





## Features and Benefits of the Cricketfilter®



### **Maximises installation footprint**

#### Up to 20% reduction in footprint

Delivers more filtration area over m² floor space than other traditional systems, making it more versatile in terms of installation space and footprint whilst also contributing to lower overhead costs.





## High quality and reliability

#### Up to 30 years no replacement parts

The Cricketfilter® elements are produced in stainless steel 316L in an automated welded process, leading to a highly reliable and durable product which lifespan can extend up to 30 years before being replaced. This means that maintenance interventions are rarely required, lowering the costs of repairs and spare parts replacements.



## Excels in polishing applications

Ideal for solid content applications in comparison to existing pressure leaf filter systems

Ideal in low solid contents and solids that are difficult to discharge with pressure filter leaf systems. The Cricketfilter® provides direct filtration onto filter cloths at temperatures up to 150 °C.



## Reduced operating costs

#### Up to 2 years spare parts replacement cycles

The high quality of the filter cloths provide product longevity, which in turn reduces maintenance interventions and spare parts replacements, contributing to a more profitable operation. The increase in capacity is also estimated to provide an increase of up to 3 days in plant production, depending on the process and product filtered.

#### Can substantially reduce or remove filter aid consumptions

Due to the effective performance of the filter cloths, filter aid consumption is substantially reduced in comparison to traditional pressure filter leaf systems, and at times, eliminated depending on the application.



## Features and Benefits of the Cricketfilter®



## Easy to clean

The Cricketfilter® uses air or gas pulses to efficiently clean the filter cloths section by section. As it does not require a vibrator, the Cricketfilter® generally benefits from limited maintenance interventions.

Washing and Cleaning in place (CIP) works effectively and does not cause damage to the cloths. A mild washing step is generally included in the Cricketfilter® programme.



## **Optimal drainability**

The Cricketfilter® elements are engineeringly designed to provide minimum fluid retention during regeneration ensuring optimal cleansiness, especially important in Food&Beverages applications where high hygiene standards must be met.



## Reduces or eliminates pre-coating

The Cricketfilter® cloths are available in various pore sizes and materials to maximise performance in different applications.

The ideal filter cloths can be selected to deliver optimal results, reducing and at times eliminating the amount of pre-coating required, making filtration more economical.



## Cricketfilter® design options

The Cricketfilter® is available as a standard in carbon steel or stainless steel 316L.

Other special alloy materials, design pressures/temperatures and design codes can be provided upon request.





## Cricketfilter® Design Options

# Cricketfilter® with dry and wet cake discharge

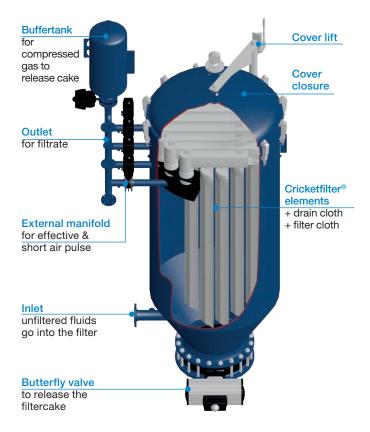
Both the Cricketfilter® with dry and with wet cake discharge have uniquely cricket bat shaped filter elements with a small internal volume that ensures minimum backwash during cake release and prevents solids settling down in the element itself.

It works with a wide variety of different filter media (1-80  $\mu$ m) and intensive cleaning of the filter medium is possible.

#### Cricketfilter® with Dry Cake Discharge

The Cricketfilter® with dry cake discharge has been engineered to minimize liquid retention in the cake. This minimizes waste when the cake is discarded.

On the other hand, this optimizes the quality of the cake, especially when cake washing is part of the filtration process. Cricketfilters® with dry cake discharge are especially suitable when the solids are the desired product. A large bottom valve at the base of the filter has been specifically designed to guarantee the easy discharge of the dried cake.



The Cricketfilter® with dry cake discharge is ideal for use in the Food&Beverages and Chemical applications. This filter produces the least product waste, reducing residual liquid content down to 20% for specific applications. This solution is optimal if you require highly pure solids as the product.



## Cricketfilter® Design Options

#### Cricketfilter® with Wet Cake Discharge

The Cricketfilter® with wet cake discharge is suitable for any application in which the cake formation is too low for dry cake discharge or where the wet cake can be regenerated easily.

Wet cake discharge doesn't require the inclusion of a large bottom valve.

#### **Buffertank** Cover lift compressed gas to release cake Cover closure Internal Outlet manifold for filtrate Cricketfilter® elements External + drain cloth manifold + filter cloth for effective & short air pulse Inlet unfiltered fluids go into the filter

The Cricketfilter® with wet cake discharge has unique filter elements with small internal volume that ensures minimum backwash during cake release and prevents solids settling down in the element itself. It works with a wide variety of different filter media (1-80 µm) and intensive cleaning of the filter medium is possible.

## Cricketfilter® for wet cake discharge with Septum plate

The Cricketfilter® with septum plate is our optimal solution for processes that do not require a large filtration area. It is also perfectly suited as a polishing and/or heel filter.

#### Advantages:

- No internal manifolds.
- Side outlet, ensuring a completely drainable septum.
- · Small footprint.
- · Easy to automate.
- Ease of clean due to less internal parts.



The Cricketfilter® for wet and dry cake discharge with septum plate is designed to be safer to use than filter bags, as it eliminates the need to replace filter bags, thereby making it safer when opening bag filter housings.





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