

## Filtration for FOOD SAFETY



### **The SMART choice for filtration**

# **Filtration for Food**

If you're involved in the manufacture of food in Ireland today you will almost certainly be managing food safety in your process's using the HACCP principles. In conjunction with HACCP procedures the successful production of safe food and beverage product is contingent on selecting the most appropriate and optimal performing filtration equipment.

The purpose of this brief guide is to help you in identifying how and where filtration processes can impact on the quality of your finished product as well as helping to navigate through the ever evolving food safety requirements.



# Hall Pyke

Hazard	Analysis	Critical	
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#### Initial considerations should include:

- · Food Safety Regulations and Compliance
  - HACCP
  - FDA 21 CFR177-1520 certified
  - USP VI, CFR compliance
  - EC directives for food contact 90/128/EEC (1990)
- Filter selection Physical contaminant removal, Chemical contaminant removal, Microbiological removal. Removal efficiency, nominal or absolute and bioburden reduction?
- Validating and validation guides specific to requirements





### The SMART Choice for Filtration

Hall Pyke are one of Irelands leading filtration, separation and purification companies. Since 1977 we have been supplying bespoke, unique customer solutions for a broad range of applications to the food and beverage industry.

Choosing your filtration supplier is a very important decision for your business. We want to make sure that you are making the right choice, the SMART choice. What does the SMART choice mean?

### Solutions

Finding the optimal filtration solution requires specialist, technical knowledge, experience, dedication and long-term commitment.

### Money Saving

Helping you make informed decisions around the true cost of a process, the total cost of ownership and the real return on investment.

### Available Product

Having critical product stocks available locally for shipment and working with you to ensure accurate and timely demand forecasts.

### Regional Offices

With offices in Dublin, Cork and Limerick, Hall Pyke representatives are available when and where our customers require us.

### echnical Support

Providing excellent onsite and laboratory services including; integrity testing, particle size analysis, filter ability index testing.

#### 1. Steam filtration

**Culinary steam** is used to ensure the sterilisation of filters and process equipment or sanitisation of general equipment. Offering a range of filter grades and materials, Our porous stainless steel cartridge filters are suited to culinary steam applications and comply with 3A Standard 609-01.

- General Requirements (3A Standard 609-01)
  - The steam filter should be capable of removing **95% of particles 2 micron** in size and larger in the liquid phase, and should have an associated condensate trap (thermodynamic type).
  - The materials of construction of the filter should be
  - The materials of construction of the filter shou manufactured from 300 Series stainless steel or above
- Any additives to the boiler feed water should conform to CFR Title 21, Chapter1, Part 173, Subpart D, Section 173.310.



#### 3. Dust / powder cartridges

We supply industrial filter cartridges for all dust collector types ranging from silo-top collectors, horizontally mounted cartridge collectors, pleated bag collectors, vertically mounted cartridge collectors, flat cell filter

collector.

We supply customized filters or standard filters for replacement.



#### 5. Water Filters / Membrane Filters for Cryptosporidium

Bottle rinsing filtration - The removal of spoilage organisms such as yeast and bacteria from glass and PET bottles is assured with the use of our integrity testable membrane filters. Membrane filter - Our range of membrane filters are designed to remove micro-organisms, Cryptosporidium oocysts and particulate or unwanted suspended material from utilities such as water, air, gas or steam.

Water filters - for polishing and particulate filtration, and microbiological stabilisation.

#### 7. Mesh for sieving and sizing

TEST SIEVES Particle size distribution impacts upon the quality and the properties of solids. A consistent grain size distribution guarantees consistent product quality. Reliable control of the grain

size distribution is therefore essential.

Hall Pyke only use Swiss manufactured BOPP SI steel meshes in the production of bespoke mesh filters and sieves used in the production of:

- Chemical products
- Foodstuffs and spices
- Feedstuffs (de-dusting pellets, screening out crumbs,
- molasses-based feedstuffs)
- Fertilisers (phosphates, potash, Kali, urea, compost)
- Sugar and salt (sizing)
- Recycling

#### 2. Baghouse & dust collector filtration

Our range of filter bags have been independently tested to meet the strict quality requirements in the dairy industry.

Using different materials we can optimize the efficiency of your plant, Let us show you how we can optimize the performance and efficiency of your **dust collector & Baghouse** by using our range of pleated bags and socks.



### 4. Sterile compressed air, vent and mixed gases filtration

Our filters ensure the removal of **spoilage organisms** from CO2, N2 and air, and can also be used for sterile venting and blanket transfer.

The hydrophobic characteristics of the ePTFE membrane makes our filters particularly suitable for wet gas sterilising applications, such as fermenter air feed.

Tanker transfer, our filters can provide the **assurance of quality** during transfer from tank to tank, or tank to process.



#### 6. Bag filters

Filter bags are used for all sorts of applications from **cheese**, resin bags, **RO protection**, catalyst recovery and even chewing gum to name but a few. Bag filters are an economic way of filtering out impurities and come in a variety of materials and sizes. We can also make bags to your specific requirements.

All our bags are FDA compliant to 21CFR177-1520 and meet with the EN1935/2004 requirements for fibre shedding.

#### 8. HVAC filters for air intake

Our range of HVAC filters offer the highest quality air that is required for air that is being used for drying, fluidisation and aeration of milk powders, raw materials in bakeries and other food powders.

