Technical Fabrics and felts for gas and liquid filtration

Hall Pyke can optimize the performance of your filtering needs through used filter analysis, air permeability tests and tensile strength tests.

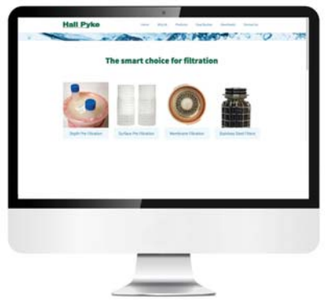
Armed with this information we can determine the optimum filter media for your application.

Materials of construction:
- FDA compliant materials
- PTFE
- Polyester
- Polypropylene
- Anti-static
- Nylon
- Polyester

Centrifuge bags • Dryer arm sleeves • Nutsche filter cloths • FBD bags (Octopus)

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.



Visit us online at www.hallpyke.ie

Hall Pyke

COMPRESSED AIR Filtration

Energy Saving Solutions

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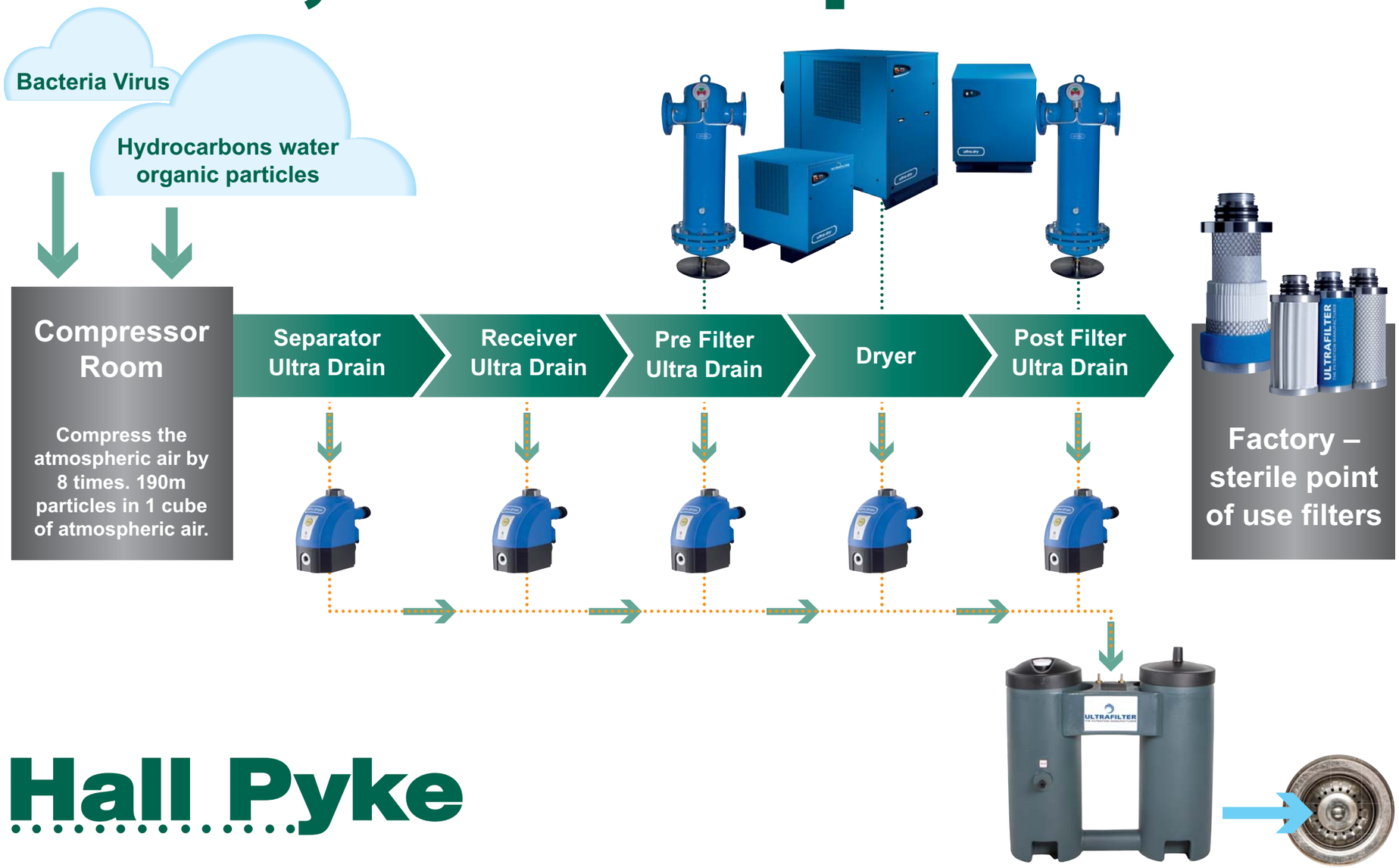
The SMART choice for filtration

Clean, safe compressed air.



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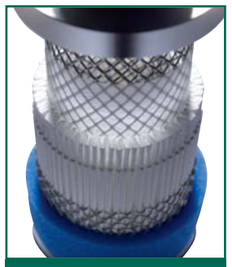
Energy saving benefits of our filter elements



Cross section of our filter elements utilizing Nano Fibre Technology.

A reduction of 200mbar pressure drop at a 75KW compressor is equal to a saving of €630.00!! per year.

e.g. **0.02% x 75KW x 6000 hrs x €0.07 cent/KW/hr = €630.00 saving**

How did we get to this:

There is the basic rule that energy consumption of a compressor will increase/decrease by ca. 10% when the compressor needs to deliver 1 bar more/less pressure.

The pressure required at the point of use is given, e.g. 7 bar. On the way from the compressor outlet to the point of use there are filters, dryers, piping, etc, causing a differential pressure, e.g. altogether 1 bar. This means the compressor needs to deliver 8 bar to get the required 7 bar at the point of use.

If you now take a filter that creates 0.2 bar less pressure drop in the above example the compressor now only needs to deliver 7.8 bar instead of 8 bar in order to get the 7 bar at point of use.

When 1 bar less outlet pressure of the compressor means 10% less energy consumption 0.2 bar less outlet pressure results in 2% less energy.

Compressed Air Facts

Atmospheric air is made up of many things such as bacteria, viruses, water, organic particles, hydrocarbons.

190 m

The average number of particles in 1 cubic/mtr of atmospheric air.

70%

The average daily mean relative humidity for Ireland

Humidity is the amount of water vapor in the air. Water vapor is the gaseous state of water and is invisible.[1] Humidity indicates the likelihood of precipitation, dew, or fog. Higher humidity reduces the effectiveness of sweating in cooling the body by reducing the rate of evaporation of moisture from the skin. This effect is calculated in a heat index table or humidex, used during summer weather.

There are three main measurements of humidity: absolute, relative and specific. **Absolute humidity** is the water content of air.[2] **Relative humidity**, expressed as a percent, measures the current absolute humidity relative to the maximum for that temperature. **Specific humidity** is a ratio of the water vapor content of the mixture to the total air content on a mass basis.

The **dew point** is the temperature at which the water vapor in air at constant barometric pressure condenses into liquid water at the same rate at which it evaporates. At temperatures below the dew point, water will leave the air. The condensed water is called dew when it forms on a solid surface.

When compressed to 8 bar all this is 8 times greater.