

## What is a Pneumatic Filter?

A pneumatic filter is a critical system component that can prevent premature failure of your pneumatic machinery. The filter is a device designed to remove contaminants from a compressed air stream. Here at [MGA Controls](#), we have compiled a list of need to know information about pneumatic filters.

### Types of pneumatic filters

In order to make effective air filtration possible, it is important to understand the different types of filters and the media they work with. The most common [pneumatic filters](#) used in industrial applications include:

- **Water Separators**  
Water or moisture can easily damage pneumatic components, which is why water separators are extremely important. If water makes its way into a valve or cylinder, it can cause them to stick, hindering the effectiveness of the product. By including a water separator, the pneumatic filter can remove large quantities of water and water-borne contaminants.
- **Particulate Filters**  
Particles such as debris and rust can cause pneumatics to wear prematurely. They are often generated from old carbon steel pipes and desiccant air dryers. The particulate filters feature pleated designs which allows a large surface area in order to work effectively when trapping dirt and dust particles.
- **Coalescing Filter**  
These filters are good at removing water, oil and rust from an air supply. Their design differs however the filter does the same job, universally. As air moves through a filter element, solid particles trapped and liquids are formed into droplets that drain away.
- **Adsorbing Filters**  
Adsorbing filters are used to remove oil from compressed air streams. They are used at the closest point of use possible to provide more effective results. They are often used for breathing air preparation and food and drug applications.

### Maintenance of a pneumatic filter

The amount of maintenance a pneumatic filter requires depends on the environment where it is used. The more debris entering the system, the more the filter will need cleaning. The most common sign that your pneumatic filter will need to be cleaned is a significant pressure drop. Of course, a drop in pressure will hinder the effectiveness of your filter and you should follow careful instructions to carry out a safe service. There are two components of the filter that should never be maintained and they are the service indicator and the automatic/manual drain.

### How does a pneumatic filter work?

In order for complex machinery to work effectively, compressed air must be of high quality and completely free of water and other particles, the pneumatic filter works to achieve this. The filter can work one of two ways, either by using a media to trap particles and allow air to pass through or through the use of a membrane which only allows air to pass through the filter.

MGA Controls are leading [suppliers of pneumatic products](#), including pneumatic filters. If you require more information please contact us today on **+44 1704 898980** or email [sales@mgacontrols.co.uk](mailto:sales@mgacontrols.co.uk), one of our technical team will be happy to help.