

FCP's Air Filter and Screen Products

FCP uses a variety of filter designs for Air Filtering and Air Screening applications, depending upon each customer's specifications. These designs include:

- Pleated Cotton Gauze/Rigid Metal Wire Mesh
- Perforated Metal Screen
- Sintered Metal Media
- Stiff Wire Mesh
- T-type Filters (to remove liquids).

Pleated Media/Rigid Metal Mesh

FCP develops and manufactures disposable filters for the removal of contaminating particles ranging in size from 3 - 150 microns. Disposable filter media are relatively flexible and fragile, and so must be layered with wire mesh for structural support. This makes it possible to pleat the filter, which greatly increases its surface area and, as a result, its dirt-loading capacity.

FCP specializes in the design and manufacture of this type of filter for aerospace quality barrier filtration systems for helicopters. The very high dirt loading capacity of these filters makes them ideal for the high face velocities associated with a turbine engine inlet and helicopter service in demanding environments.

Perforated Metal Screen

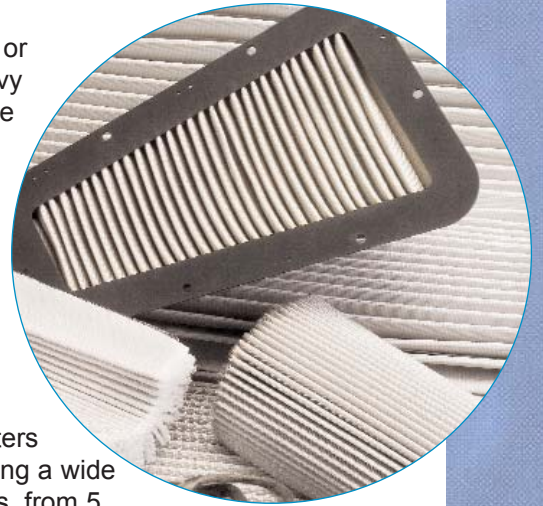
Air intake screens were specially designed by FCP for jet aircraft. The objective of these stainless steel intake screens is to keep birds and other large flying debris from entering and damaging the jet engine. There is a limitation on how small a particle you can trap in a perforated metal screen. This is around 250 microns. (To filter smaller particle sizes a wire mesh filter should be used, since these can trap particles all the way down to 5 microns in size.)

Sintered Metal Media

Sintered bronze filters developed by FCP offer advantages over comparable stainless steel filters. Sintered bronze is rigid, thus making it self-supporting and able to be cast in any shape or configuration. The filter media consists of tiny compressed spheres of bronze, creating a cleanable, depth-type filter. Different filtering ratios are achieved by varying the diameter of the tiny spheres of bronze. Sintered metal media filters hold less dirt than either paper or stainless steel filters, but can withstand higher temperatures than paper and are less expensive than either paper or stainless steel.

For air filtration applications the filter media used is

usually either bronze or stainless steel. In Navy diver's air systems the porous media is typically designed to capture particulates down to 1 micron or smaller at pressures of 5,000 p.s.i. (333 bar).



Stiff Wire Mesh

Stiff Wire Mesh filters are suitable for trapping a wide range of particle sizes, from 5 microns up to 250 microns. The main advantages of this type of filter are X, Y and Z.

Metal wire mesh is available in different weaves to suit different filtration applications. One version of this filter type has been used as an air intake screen/cover to protect the jet engine air intakes of F-4 fighters in storage on the ground.

T-Type filters

This type of "coalescer" filter is designed to remove airborne liquids such as water vapor and oil mists from the air supply in confined spaces. It is typically constructed using a thick-walled borosilicate cylinder. Applications include use on board nuclear submarines.

Why Select FCP?

FCP provides a wide variety of custom engineered filters for air, hydraulic fluid, lubricant, oil, fuel, water, and steam filtration applications. We specialize in precision filters designed to meet rigorous temperature, chemical, and pressure specifications. We maintain the certifications and approvals needed to support our customers. These include:

- AS9100, Rev. B.
- ISO 9001: 2000
- NADCAP
- Mil-I-45208, and
- Sub-Safe Level 1.

The world's largest defense contractors, jet engine manufacturers, and nuclear submarine builders depend on FCP, so you can too.

Contact us today!



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