SPINFLO Air intake solutions that protect from dust & water





Air Intake Filtration Systems that are cost effective, maintenance free and meet your space & efficiency requirements

Prag Spinflo Self-Cleaning Inertial Air Filtration System removes moisture and dust particles of varying sizes from entering the engine through the air intake. The system, consisting of an array of spintubes, is designed to beat tough contaminants like fly ash, soot, sawdust, rain, and snow while offering minimal resistance to the flow of air.



Built to work in the toughest of environmental conditions with very high dust concentrations, Spinflo panels operate continuously, providing clean, smooth airflow with very low maintenance requirements. Often used as pre-cleaners, the Spinflo panels significantly enhance the life of disposable secondary / final filters by removing more than 99% of coarse dust particles from the inlet air stream.

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The Prag Spinflo Cyclonic Filtration Modules are housed in heavy-duty corrosion-resistant filter panels designed to be installed in locations where dust concentrations are extreme or where service must be minimized. The system has no moving parts or replacement parts and thus needs very little maintenance. The self-cleaning feature makes it ideal for locations where heavy contaminant loading is a problem for conventional air-intake filtration. In addition, there are no periodic filter element replacement costs.



The spintubes that form building blocks of the Spinflo Air Intake Filtration System utilize rapid change in airflow direction and the principles of inertia to separate mass (particulate) from the incoming air stream. A cyclonic airflow pushes the particles entering the spintubes to the periphery and ejects them out to the bleed air duct.



The Prag Spinflo is a highly efficient self-cleaning filter, equipped with matrix of spintubes molded from rugged, high density corrosion and abrasion resistant polymer, which also complies with the requirements of EN 4554(R4), ISO-5660-MAHRE, ISO-5659-2-CIT(g) and ISO-5659-2: 2006 for smoke, flame and hazard.

The strong corrosion-resistant construction is unaffected by wide ambient temperature variations, maintaining stability and operational integrity from -40 to +150 °C. The clean air stream flows out from the outlet tube and into the engine air intake. Particulate are accumulated and drained out by means of a bleed air suction blower. This principle is normally applied when there is a high concentration of coarse particulate, and in many cases as a pre-filtration mode to higher efficiency final filters.



Spinflo panels are available in Steel, Aluminum and Thermoplastic constructions to suit varied application requirements.

The compact, lightweight and modular construction of the units allows for multiple units to be combined readily in a package to handle the most demanding filtration requirements.





Prag offers standard Spinflo Air-Intake Solutions for Alco, EMD, & GE Locomotives and are OEMs to the Indian Railways. Panel capacities range from 6,572 SCFM (11,160 m³/hr) to 36,926 SCFM (62,700 m³/hr). Air intake systems can also be designed for applications with other flow rates.

Designs are validated by CFD simulations to predict airflow and efficiencies and FEA analysis to ascertain the construction strength well before prototype development. Prototype panels undergo extensive in-house testing on test rigs that are designed to replicate actual application conditions.

Our team of very experienced filtration engineers, equipped with our world-class in-house design and testing facilities, is always ready to evaluate specific customer requirements and recommend the most effective filtration solutions including custom built Spinflo panel designs and final filter suggestions suitable for any application.

Today, the inertial particle separation technology is used extensively across a wide range of applications including ground vehicles, industrial equipment, defense vehicles, commercial buildings, railroads, gas turbines and diesel generators

The system is essential for the air intake of any critical equipment exposed to harsh environments. Prag has in-house capability and expertise to design Spinflo systems that are both cost effective and offer the necessary level of protection for equipment used in many different applications.

DIVERSE APPLICATIONS

EFFICIENT OPERATION

The Spinflo filter panel is highly efficient in separating dust particles from engine intake air as well as in preventing penetration of rainwater / snow ino the system and has a dirt-removal efficiency of 99% for particles 15 microns and larger in addition to a moisture-removal efficiency of over 90%.

When used in pre-filtration mode, Spinflo pre-cleaners provide long-term economies by greatly reducing dirt loading on secondary filter elements, thereby extending their service lives.





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