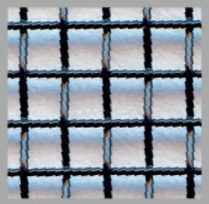
The Anatomy of a DNA® High Performance Filter

This is what Power is made of!
A DNA® High Performance Filter is a high quality, next generation multilayer cotton gauze, oil impregnated air filter.

1 The DNA® Cotton

This very special cotton is designed by DNA®'s R&D engineers for High Performance filtering purposes.
The basic media is a non woven surgical cotton gauze with a modified TEX & THREAD, with extremely high strength of break. This unique cotton media, actually is a "hairy hybrid" featuring extremely high air flow rates and excellent filtering efficiency that exceeds 98%.

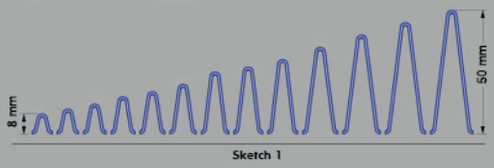


2 The DNA® Wire Mesh

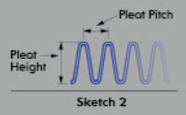
The DNA® wire mesh, is a very special material designed by DNA®'s R&D engineers. Made out of marine grade 5000 series Aluminum, features a unique "wrap & fill" and precisely calculated wire diameter, to have the necessary high tensile strength and elasticity to last a lifetime. Additionally it is protected against oxidation by a fine layer of epoxy coating. The DNA® wire mesh is designed to perfectly support the cotton layers and at the same time not restrict the air flow.

3 The DNA® filtering media

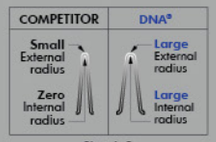
The DNA® filtering media consists of 4 layers of DNA® cotton, sandwiched between 2 layers of DNA® wire mesh, precisely pleated all together. We produce a very wide selection of media, starting from 8 mm to 50 mm height (sketch No.1), with an infinite size of "Pitch" (sketch No.2). Actually we can choose from an unlimited combination of DNA® filtering media when designing a new filter. Another important feature of our filtering media is the "Large pleat edge radius". This feature allows the edge to be an active part of the filtering media, instead of a "dead" inactive area as our competitors is (sketch No.3). The result is a unified high air flow of the filter. The only drawback of this design is that the media is very sensitive during production before molding and must be handled with extreme care, increasing the production cost.



Sketch 1



Sketch 2



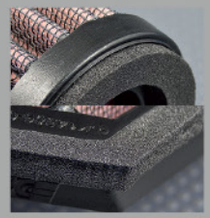
Sketch 3

4 The DNA® PU (elastomer polyurethane)

The DNA® PU is a thixotropic material, that we use to manufacture the high quality "frame" of the filter, with unique material specifications.
High tensile strength with the necessary hardness for each application, high temperature, fuel and oil resistance, the DNA® PU will keep the filtering media in place, it will absorb vibration and will last for a life-time.

5 The DNA® air filter oil

This is an extremely important part of the DNA® filter. As soon as the DNA® oil is added to the cotton media, the cotton is "static charged" and transformed into an unbeatable filtering material!
To achieve this fantastic result we have developed a unique air filter oil formula. The specifications of our DNA® air filter oil are as impressive as our filters are. Humidity will not attack the oil, even if the filter is submersed in water. The flow of the filter remains unchanged even under extreme rainy conditions with high humidity. (We have seen many competitors' filters transformed into a "milky mess" when it rains, severely reducing the engine's performance). The oil has low viscosity, plus very high temperature resistance and stability. It will uniformly spread and stay on the filter regardless the temperature. Additionally, it is UV resistant, easily soluble to assist cleaning the filter.



6 The DNA® EVA (Ethylene Vinyl Acetate polymer) closed cell seals

We use only high quality EVA seals. Precisely cut and factory installed (glued) using industrial grade adhesive, guaranty a perfect airtight sealing and trouble free filter installation for the user. The DNA® EVA seals and the industrial adhesive are fuel, oil and temperature resistant. Additionally the DNA® cleaner will not affect them when the filter is cleaned!

FCd
Full Contour design
advanced air filter engineering

7 The DNA® FCd design technology

The DNA® FCd design or "Welcome to the Future"! At least +20% and up to +80% more filtration area, using DNA® FCd technology is common. This unique revolutionary design, an innovation by DNA®, allows the pleated filtering media to follow precisely the air box contour, regardless the complexity of the shape, seriously increasing air flow. Taking advantage of the complete footprint of the air box, we eliminate "dead spots" that rob power. If the area is there why not use it!!

OEM & COMPETITOR'S *(Example)*

DNA® **FCd** DESIGN TECHNOLOGY
(Same example)

+20% to **+80%**
MORE FILTRATION AREA!