

HIGH PERFORMANCE FILTERS advanced air filter engineering

- Increases Performance
- Provides Maximum Filtering
- Long Life Washable & Reusable
- Fuel Saver
- Environment Friendly
- Competition Tested





Transforming Air into Power!







Every DNA® High Performance Air Filter, keeps dust particles & debris "imprisoned" for ever, even the finest ones (5 microns), providing up to 99%+ filtering efficiency!

The Result? Increased horsepower and torque with maximum engine protection, reliability and fuel economy.

The only one that escapes from this "high security cell" is just... clean & fresh air!













www.dnafilters.com





The DNA® factory

1.300 square meters of pure passion for excellence!

The DNA® Filters Factory is located in the Papakosta industrial area of Mandra-Elefsina. Elefsina is town and municipality in western Attica, about 18 km northwest from the centre of Athens. It is located in the Thriasian Plain, at the northernmost end of the Saronic Gulf and is the seat of administration of West Attica Prefecture. It is best known for having been the site of the Elefsinian Mysteries, the most famous religious center of ancient Greece. It was also the birthplace of Aeschylus, one of the three great tragedians of antiquity.

The DNA® Factory is a purpose built 1.300 square meters production plant that incorporates the following divisions:

- Sales and Administration office
- Seminar and presentation hall
- R&D department
- Dyno cell & Race support
- Mold and Tooling department
- DNA[®] filtering material production department
- Three Filter production lines
- Quality control
- Composite parts department
- Packaging department
- Warehouse, order processing and shipping department

Equipped with the most modern, advanced technology machinery and systems, the plant's annual production capacity, is approximately 350.000 DNA® air filters, special composite and aluminum parts.

From our annual production around 10-12% is sold in Greece and 88-90% is exported to 42 countries worldwide.

The DNA® history

A brief presentation of a Greek Industry that became a global standard on High Performance, excellent quality and innovation, with a worldwide presence and recognition!



DNA® FILTERS LTD was founded in 2002 by Dino Nikolaidis, CEO and Maria Ralli, CFO, two people with a long and successful history in the motorcycle field. A history that started back in 1985 when the young technician Dino Nikolaidis, transformed his passion for motorcycles into profession, by establishing the well-known in

Greece, TecnoMoto Racing.

The valuable, national and international experience gained from the following years, 1985 to 2002, through thousands of tuning hours and testing all kinds of performance products, served as a catalyst in order to mature Dino's ambitious idea: to create the first and only Greek industrial company for manufacturing performance products for motorcycles and cars, and more specifically High Performance Air Filters and intake systems.

An important incentive for the implementation of this decision was the inability of the dominant company in the air filter segment to develop technologically and revolutionary designed products, that will fulfill the latest and more sophisticated motorcycle & automotive demands for high performance, better efficiency & drivability, longer servicing intervals and fuel economy. So the target was well fixed: DNA® had to be responsible for designing and manufacturing the most advanced product on it's field: to be the new standard, the best air filter money can buy!

In January 2003, the plant began its first steps through a tough period of adjustments and research to equip with the best machinery, raw materials, auxiliary materials, technical solutions and of course the most important of all, a team completely composed by Greek employees.

In August 2003, within an area of 500 square meters, fully equipped, production began with the first DNA $^{\otimes}$ air filter intended for the very popular motorcycle model in Greece, the Yamaha TDM 900.



The international success, came right from the start! DNA® celebrates the winning of 2004 World Endurance Championship with the YAMAHA R1 of GTM 94 TEAM.

Today, after 7 years, the world's acclaimed DNA®, has a strong present in over 42 countries worldwide, with a product range in excess of 400 unique codes. With its own proprietary plant designed from the outset as an exclusive plant of High Performance Air Filters production, is flanked by a team of experienced, tech-

nologically skilled and dedicated employees, all continue to work successfully under the guidance of the DNA® founder Dino Nikolaidis, with only one goal in mind: to offer innovative technology solutions, advanced product design and up-to-date products with the highest quality, aesthetics and performance. To transform air into power!

Full range of High Performance Air Filters and Intake Solutions



Complete range of specially designed maintenance and servicing products

The DNA® philosophy

One dream, one aim: To deliver the biggest smile on every driver's face!



The DNA®'s definition for "Power"

IS AN EXPERIENCE THAT IS

MEASURED BY THE SMILE

Our dream becomes alive when every throttle twist delivers the amazing feeling of joy and freedom that no dynamometer can measure neither colorful charts values and features. Each product is a "sealed contract"

or specifications are capable to describe, but all riders are familiar with, in every corner of this planet. It's the experience of pure satisfaction, coming from total harmony of man and machine.

This DNA®'s human oriented vision, is the foundation that

all the "power" core values to act as the "building blocks" and advanced technical expertise to suggest

the perfect "bond material". Our brand name, DNA®, condensates this specific vision, our philosophy,

with every rider, for lifelasting quality and high performance, for him, his bike and the environment.

But above all, inside every DNA® box, lives more than a single performance product: Breathes the friendly and dedicated motorcycle com-

supports a solid-ground corporate structure, with panionship that is so unique among our community. DNA® High Performance Filters are made to transform air into power. The power to smile on every throttle twist!

The DNA® Power origins

Beyond "specialization". Total commitment to excellence on every step. All DNA®'s advanced technical expertise, latest machinery, innovative solutions, attention to detail, is just a start.

Power by auality you can trust.



We, at DNA®, proudly introduce a filter that can last the life of the vehicle. Strict quality

control for construction & materials, chosen only by their highest quality, are some of the factors that allow us to offer a Lifetime Warranty!

Power by the best materials for the job.

High performance, starts from using the best materials available that meet the high DNA® standards. High tensile strength, high temperature and UV radiation resistance properties, is a must for our materials.

Power by the best material's for the environment.



We call it "Advanced **Environment Friendly** Engineering". We use Eco friendly materials.

like our 100% organic cotton instead of paper or synthetic foam.

Power by design.

Hi-tech, precision CAD design (computer aided design) & CAM (computer aided manufacturing). Revolutionary & unique design solutions like the Full Contour



design (FCd) which expands the active filtration area up to +80%, the factory

glued, high quality EVA foam seals, to ensure a correct & secure sealing and easy filter installation, are some of the features that make every DNA® the best air filter money can buy.

Power by controlled & unique manufacturing processes.

CNC machining, In-House tooling manufacturing, industrial automation & robotic production

systems etc, combined with our attention to detail and continuous quality control, ensures that each and every DNA® is a product of Advanced Air Filter Engineering.

Power by State-Of-Art testing & evaluating methods.

Air box Reverse Engineering using Faro & Microscribe 3D Arms. CAAFT (computer aided air flow testing). In-House dyno testing on every single product, using our expert tuning know how.

Power by performance.



DNA® increased air flow means increased engine power & torque: up to +12 hp increase

(common for some applications), resulting in crisp throttle response and better control. Translate this as increased dynamic safety that you will discover from the very first moment that you will use our products.

Power by engine protection & efficiency.



Search no more for the best combination of power & protection! DNA® High Perfor-

mance Air Filters,"trap"all the dust particles that flow towards the filter, even the very fine ones (down to 5 microns), guarantying that the only thing that passes the filter is just clean & fresh air!

The Power of a World Champion.



DNA® lives where ever high performance is a winning element. We have the will, the

product, the custom solutions and the experience to excel in the toughest testing environment: motorsports! Inside every DNA® filter

breathes a World Champion!

Power by non-stop research & innovation.

DNA® is constantly on the move looking for new frontiers, searching and testing new materials and manufacturing processes, to keep efficiency, power & protection on the highest levels, to be always one step ahead: the standard for high performance air filters.

Power by being "Green" without any compromise in performance.



Besides the presence of environment friendly materials and the fact that you will

never have to throw away our filter, the overall DNA® performance properties, translates to

lower emissions and better fuel economy! These are the results of a healthier, cleaner operating engine, under all driving conditions, without forgetting to mention the safety aspects that come with this improved engine performance. Of course all these

mean that using a DNA® filter you get more out of your vehicle: Increased power delivery & cost efficient use!

Power by being one of you, sharing the same passion: motorsports!

We're coming closer to you every day. In a car or with our motorcycles, driving on favorite roads, beyond them or at the racetracks around the world, DNA® will always be there to transform air into power. To ensure that you will keep on smiling on every occasion!

advanced air filter engineering

The DNA® manufacturing process

A DNA® filter is born.

Every new DNA® filter is a unique product that follows 21 specific steps, before you have it in your hands.

Only the best air filter worth to carry the DNA® logo.

21 steps to perfection for every single filter. This is DNA®'s Advanced Air Filter Engineering!

Model Selection

Our sales team creates a development list based on market research, feedback from our customers and new vehicle releases, etc.

Model Outsourcing

Vehicles and Air boxes are outsourced and shipped to our R&D department.

Case Study

Our R&D engineers will study each case and decide the workflow of the tests.

Testing & Analysis

Typical workflow would be: air flow testing of the stock filter, dyno testing, fitting testing, sealing testing, filtering efficiency testing, air box dynamics testing and material analysis.

Digitizing-Reverse Engineering

At this stage the stock air box is 3D digitized using Faro or Microscribe 7 axis arms, and all data are stored in our CAD system.

O Data Processing

Following all the tests, the data are processed using special software developed by DNA® and 3D design ideas are presented by each R&D engineer.

Prototyping

The best idea is chosen and further evaluated. If the result is positive, the filter is 3D designed

(CAD), and a series of prototypes are made using rapid prototyping technology. Each prototype features a different "size DNA® filtering media", a selection of pleat height and pitch.

🧿 Prototype Testing

All the prototypes are tested on our Rotronics Computerized flowbench and on our Dynojet Dyno. The one that shows the best result is chosen.

3D CAD Design

(Computer Aided Design)

This design is then finalized, all the mold manufacturing details are sorted out, and the mold-tooling is designed.

CAM

(Computer Aided Manufacturing)

The tooling 3D CAD file is then processed with our CAM software, toolpaths are generated and the CNC machining programs are sent to the machine centers for mold-tooling manufacturing.

Pre-Production

When tooling is ready, any necessary additional fixtures and production automation equipment are prepared and pre-production batch (zero series batch) is manufactured. The zero series batch allows us to fine tune all the details, test



the actual air flow, efficiency, dyno test and set up the production workflow and quality control.

© Cost Analysis

At this stage cost is calculated and the MSRP is set, not in the beginning of the development. Cost only, is not our main target; targets are: quality, airflow, innovation and then cost!

Quality Control 1

As soon as the zero series get a "PASS" from quality control, air flow testing, efficiency and dyno testing...

DNA® Filtering Media Production

...the DNA® filtering media for this new filter is produced.

Filter Production

The filtering media is forwarded to the production lines and production starts from batch No1. Each production batch is quality controlled and forwarded to...

Gasket Gluing

...gasket gluing! Yes our gaskets are factory glued, using high quality industrial grade adhesives and EVA foam gaskets, because this is the **only** way to ensure that the gasket will be correctly placed and stay in place for a lifetime. Then, the batch is forwarded to...

🕡 Oiling

...our oiling stations. Following the oiling process the batch is forwarded to the...

Quality Control 2

... quality control and air flow testing again. All filters that pass are then forwarded to...

Packaging

...the packaging department. Filters are packed and forwarded to our warehouse.

20 Official DNA® Filter Release

At this stage the new DNA® filter is officially announced, including technical info and pricing, to the distributors, dealers and our DNA® web site. And of course it is immediately available.

Shipping

The shipping department will then process all the orders received by our sales department, will pack and ship them to our network of distributors and dealers worldwide.

We are not yet finished; turn to the next pages and you will see a step by step photo guide of the DNA® manufacturing process and clearly understand...

...DNA®'s Advanced air filter engineering!

The DNA® Manufacturing Departments





R&D Dept.

Everything starts from the R&D department; starting from initial study of each application and testing the stock parts, a draft design is presented. If the idea is accepted by the responsible team, we 3D CAD design the filter and rapid prototype samples. Then we test the DNA® prototypes and

choose one from the best. The final 3D CAD design will be completed and toolpaths (NC files) will be generated with our CAM software.

The NC files via Ethernet connection are sent to the CNC machining centers for mold, tooling and other parts to be produced.



R&D/Designing

R&D/FARO digitizing

R&D/Microscribe digitizing



R&D/DYNO cell view

R&D/DYNO cell from the bike view

R&D/DYNO cell controls view



R&D/Rotronics computerized flowbench detail

R&D/Rotronics computerized flow bench general view

2

Mold, Tooling & Machining Dept.

NC files from R&D are loaded to the CNC machines and all the necessary molds and tools are produced. Following, the molds are transferred to our general machine shop for finishing all the necessary

essary details, to be cleaned and assembled. Next, the molds are transferred to the filter production department, including all the "jigs" and fixtures that are necessary for the production.



CNC machines general view

Absolute precision, high-tech tooling and machinery equipment



Filtering Media Manufacturing Dept.

This department produces the famous DNA 4 layer nafta cotton filtering media, at the necessary size for each DNA® filter. The material is then slitted and cut to the designed sizes and patterns. This is a

unique patented procedure that we cannot show. All the ready cut filtering material is quality controlled and forwarded to the filter production department.



100% organic cotton filtering media, combined with epoxy coated marine grade aluminum wire mesh.

The DNA® Manufacturing Departments





Filter Production Dept.

All the DNA® panel and round filters are produced here. Unfortunately we cannot show the complete procedure as we use unique equipment and automation purpose built by DNA®. The filter production department is also responsible for placing all the necessary parts on the filter, for example gaskets, spacers, bolts, locating tabs etc.

Following the production batch goes through quality control and all the filters that pass, are forwarded to the oiling stations. One robotic and two PLC controlled machines will complete the task with precision.

Next, the filters are forwarded to the packaging department.



Filter Production

Oiling (PLC control)

Oiling (ROBOTIC control)



Service Kit Production Dept.



The DNA $^{\circ}$ consumer and professional service kits are produced here in our factory.

This allows us to control the complete procedure and the final quality of the DNA $^{\circ}$ service products.

Service Kit Production



Packaging Dept.



At this stage all the DNA^{\oplus} products are packed in their dedicated boxes, including tech & installation info, plus all necessary documentation and parts. Additionally, during the packaging procedure all items pass the final quality control.

Packaging & final quality control

V

DNA® Warehouse, Orders Picking Dept.



Following the packaging, all the DNA° products will be placed in the warehouse, ready to be shipped.

All the DNA® products ordered from our customers are picked from here and forwarded to the orders packing department.

Picking the orders



DNA® Warehouse, Orders Packing Dept.



The picked orders are checked once more and packed here.

Attention to detail in every step!



DNA® Warehouse, Orders' Despatch Dept.



Packed orders are placed here, pass through a final check, weight and volume is confirmed and shipped to our valued customers worldwide.

The DNA® filters ready to be shipped

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.





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%.



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.



The DNA® filtering media.

The DNA® filtering media consists of 4 layers of DNA® cotton, sandwiched between 2 layers of DNA® wire mesh.



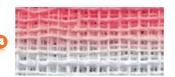
precisely pleated all together. We produce a very wide selection of media, starting from 8 mm to 50 mm height (sketch No.1), with an infinite size of "Pitch" (sketch No.2).



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.

COMPETITOR	DNA®	
Small —	Large	
External	External	
radius	radius	
Zero	Large	
Internal	Internal	
radius	radius	

Sketch :



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 performance of the engine). 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 and easily soluble to assist cleaning the filter.



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



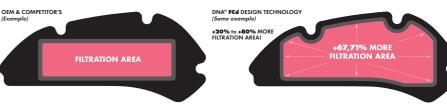
The DNA® EVA (Ethylene Vinyl Acetate polymer) closed cell seals.

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!



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!!



The DNA® High Performance Air Filter in action!

"It's a dirty job, but somebody has to do it!" Find out how a DNA® High Performance Filter works to protect your engine efficiently, without compromising performance!

Human "technology" inspiration!

The "technology" that our DNA® filter uses to clean the air is surprisingly common to all of us. It is part of our body; we use it constantly to stay alive! It is part of the Human respiratory system that filters the air we inhale! Tiny moistened hairs called cilia protect the nasal passageways and other parts of the respiratory tract, filtering out dust and other particles that enter the nose with the breathed air. The DNA® filtering cotton media is exactly that, millions of tiny fibers that are oiled!

This "hairy hybrid" as we call it, is a genius combination of cotton fibers per square millimeter. The Tex & Thread, of this unique cotton, is a result of intensive research and testing, by DNA[®]'s development engineers. The "hairy hybrid" impregnated with DNA®'s special filter oil, is transformed into the remarkable DNA® media that provides very high filtering efficiency and extremely high flow rates.

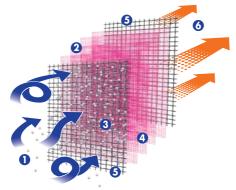
Trap "enemies" by static charge!

We designed the DNA® filter to acquire a positive static charge as the air passes through the pleated and oiled filter media. This weak static charge will very effectively "pull" on the oiled cotton fibers, the debris and dust that are in the air; remember in science class at school, the pen rubbed against wool that can attract small bits of paper, experiment? This is exactly what happens, as air flows through the filter, debris even as small as 5 microns will change course and stick onto the fibers, regardless if the "holes" between the fibers can be as large as 150 microns! The first layer of debris on the fibers will then absorb some oil, get statically charged and become part of the filtering media! And guess what, it will start attracting new debris assisting the cotton media in its filtration chore!

Finally debris will continue building up on the surface of the filter, as air passes through, until it is totally covered (see next page photos).

Extreme testing environment.

Our filters have being successfully tested even in the harshest environment during the DAKAR Rally! Through Argentina, up to the Andes, and down to



- AIR BOX INTAKE:

 Dirty and turbulent air enters the filter
- 2 DNA®'s next generation multilayer cotton gauze
- Dirt stays on the outside layers of the filter.
- Special oil produces static charge to the DNA®'s cotton media.
- 6 Epoxy coated Marine grade aluminum wire mesh.
- **6** ENGINE INTAKE:

High performance is achieved by the increased & cleaned smooth air stream that enters the engine.

the Atacama Desert in Chile. The dreadful "Fesh-Fesh" (Guadal) fine powder desert sand of the Atacama Desert, was successfully kept out of the race engines, outperforming the foam filters!

So the myth is busted, the DNA® filters can successfully be used in any environment, on and off the road, in the desert or the outback, DNA® will be there to protect you.

Here comes increased torque & power.

The DNA® filter will also smoothen out the air flow stream, as it passes through the filter, reducing turbulence and sending smooth clean & fresh air towards the engine intake, increasing torque and power. Additionally to the high air flow, smooth and unified air flow is very important. This explains why we see a decrease in power output when testing a bike or car on the dyno "without" a filter as the circulation of air in the air box is disturbed and the result is turbulence and low power output.



YAMAHA R1 - Race Bike: This DNA® filter (code P-Y10S09-0R) was used on a race bike for 2.000 km practice and races. Side A' is the dirty side of the filter, full of insects, debris and rubber from the race tires. Side B' is the clean side of the filter, the side towards the intake velocity stacks! Absolutely nothing has passed through the filter! Who says race bikes do not need filters?



HONDA XLV 1000 VARADERO - Adventure bike: This DNA® filter (code P-H10E03-01) was used on the Honda XLV 1000 bike, 70% in the urban area and 30% traveling in the countryside. Total 50.000 km before removed for cleaning. Side A' is the dirty side of the filter, full of city debris and black soot found in the polluted city environment. Side B' is the clean side, the side towards the intake velocity stacks! Now, who thinks that off-road is worse than city riding?



Adventure Bike

KTM LC8 ADVENTURE 950 - Adventure bike: This DNA® filter (code P-KT9E03-02) was used on a KTM LC8 950 bike for Adventure touring, 60% Off-road and 40% country roads, approximately 15.000km before removing for cleaning. Side A' is the dirty side of the filter, full of debris and off-road dust and sand. Side B' is the clean side, the side towards the carburetor velocity stacks! DNA® is the best choice for Off-road use!

DNA[®]: "Air Force"!





The Air Flow Tests.

For the air flow tests, we use the most advanced flow bench available today.

The ROTRONICS FlowScan, is a totally computerized flow bench that measures, Mass of the air, Flow of the air, Temperature of the air, Absolute air pressure, Differential air pressure, Speed of the air at various points (Pitot tubes), Absolute humidity of the air.

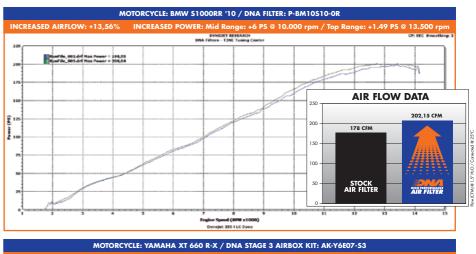
The complete procedure is automated and computer controlled, eliminating human errors.

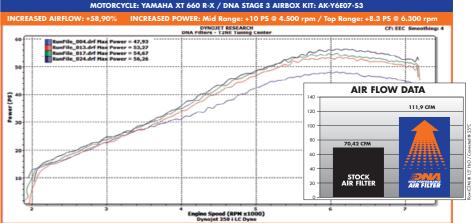


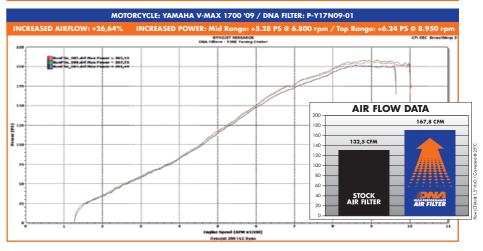
The Dyno Tests.

For the dyno tests, we use the industry standard Dynojet chassis dyno equipped with eddy current load control, Dynojet 250LC.

Our dyno cell is equipped with a variable flow air cooling system, designed to precisely simulate real world conditions







The DNA® Range of High Performance Air Filters

DNA® Advanced Air Filter Engineering for every application. Wide range of air filtering solutions.



Flat Panel air filters designed for the OEM air box.



Round (cylindrical or conical) air filters designed for the OEM air box.



Oval profile Universal rubber top "Clamp On" filters for motorcycle, automotive, marine and industrial use.



Special D shape rubber top "Clamp On" filters developed for custom applications.



Round profile Universal rubber top "Clamp On" filters for motorcycle, automotive, marine and industrial use.



Hexagonal profile Universal "Billet Aluminum CNC machined top" Clamp On filters for motorcycle, automotive, marine and industrial use.



Special D shape "Billet Aluminum CNC machined top" Clamp On filters developed for custom applications.



Round profile Universal "Billet Aluminum CNC machined top" Clamp On filters for motorcycle, automotive, marine and industrial use.



Round profile Universal "Billet Aluminum CNC machined top" Clamp On filters for motorcycle, automotive, marine and industrial use.



DNA Power 3D Universal

"Clamp on" filters for extreme
air flow applications without
compromising filtering efficiency.
The DP "Clamp On" filters
feature an open top and are extremely efficient for high output
turbo engines.



Elliptical profile Universal "Clamp On" filters for Radio Controlled Nitro models.



Round profile Universal "Clamp On" filters for Radio Controlled Nitro models.



Crank Case Vent round profile Universal filters, designed to be used when removing the air box and the crank case vent is exposed to dirt, available with

female or male connection.



Crank Case Vent Oval profile Universal filters, designed to be used when removing the air box and the crank case vent is exposed to dirt, available with female connection.



The DNA Stage 2 Kit, can be either a DNA filter or a DNA cover that is designed to replace a part of the air box, seriously increasing air flow to the engine. With the proper fuel recalibration the results are always very impressive.



The DNA Stage 3 Kit, consists of a complete air box and filter, designed to replace the existing OEM air box, improve air circulation around the filter and air flow to the engine.

Power increase up to 12 hp is common with the S3!

The S3 includes all the necessary hardware and installation information.

*1 Covered by the DNA® lifetime limited warranty or 2 years limited warranty for off-road and race applications
*2 Covered by the DNA® 2 years limited warranty for off-road and race applications.

Racing with DNA®. Beyond Performance: Winning!

Top of the class, top of the World.
Inside every DNA® Filter, breathes a World Champion!
Are you ready?

Competition & Race winning Heritage!

We are proud that DNA® High Performance Filters are used by many top race teams and tuners all over the world, officially or unofficially.

Our R&D department is working closely with top race mechanics and tuners to fulfill their needs and develop air filters that will satisfy even the most demanding technical partner.

All the technology and experience gained is then used to improve even further the DNA® products that we supply worldwide.









2004 ENDURANCE WORLD CHAMPION Bike: YAMAHA R1. Team: GTM 94



DNA® is setting the new world standard on winning track performance, right from the start!

"The Kawasaki ZX-10R race bikes used by British Superbike team Hawk Kawasaki, use air filters manufactured by Greek company DNA® Filters.

At the time of going to press, Hawk Kawasaki and DNA Filters are celebrating a recent double-podium

success. Team rider Scott Smart finished third and second on August 15th, in the latest round of the championship at Croft, Yorkshire, in the United Kingdom.

The Hawk Kawasaki team has achieved podium finishes in five of the last six races, and Scott Smart is now positioned third in the champi-

onship standings.
At this high level of racing, every component makes a difference and nothing escapes the meticulous attention of the team technicians. Much care and consideration are given to the air filter, which has an important influence over performance.

Hawk Kawasaki team boss Stuart Hicken told IDN about his satisfaction with DNA®'s filters:

The DNA air filter has worked superbly in the Hawk Racing ZX-10R. Whatever the conditions, the product has performed 100 per cent. We've had wet races, we've had tracks with dirty surfaces that throw up a lot of stones, and we've had a lot of close-quarter racing that throws up a lot of debris. Through all this, the DNA® filters have caught all the muck and, by doing so, have provided the perfect protection to our bores and pistons.

Stuart Hicken BSB Hawk Kawasaki Team Manager (From his published interview on IDN NEWS)



DNA® FAQ

Your needs, our action. You ask, we answer. Goodbye air filters' "black art". Welcome to DNA® High Performance Air Filters!





Does the DNA® filter provide the same level of protection as the OEM filter?

Yes and even better, the DNA® filters have a filtering efficiency of minimum 98% (ISO 5011 test). Good quality OEM paper filters are from 97% to 99% and the foam filters are from 92% to 97%.



What is filtering efficiency?

Filtering efficiency is the amount of "dirt" the filter can maintain (stop) and protect the engine efficiently. For example, the DNA® Filter for every 100 grams of dirt that it will receive, it will "trap" 98-99 grams, and this applies even to fine dirt as small as 5 microns.



What is ISO 5011 efficiency test?

The percentage of dust that the filter retains during a laboratory test, following the ISO 5011 protocol.



How does DNA® measure the airflow and why is this data useful for me, the end user?

DNA® uses the most advanced computerized ROTRONICS flowbench available today. The complete procedure is computer controlled/automated, to avoid human error. Additionally, we always test the DNA® filters back to back, the same day and time, with the stock OEM filters and publish the results. Reading our data, you can immediately see the difference in air flow, between the 2 filters and what to expect by using the DNA® filter.



Other performance filters manufacturers, claim air flow data much higher than DNA° for the same model, is this possible? I also tried to find the stock OEM flow data from them to compare, with no success. Can I use the DNA°?

It was brought to our attention, so we purchased the filters and tested them back to back at the same set pressure, with our DNA and the stock OEM filters. Well guess what, the data claimed where false, nothing to do with the reality! Of course the flow was higher than the stock but much lower compared to the DNA®! No wonder they never compare it with the stock, as they can't claim 300%(!) increase in air flow over the stock OEM filter. Only data measured back to back the same time are comparable, don't forget we are measuring air! This is why we always publish the stock OEM data.



Can I change my OEM filter with a DNA® without changing fueling?

All the latest fuel injected bikes and cars will benefit of the extra air flow and self adjust, so you can use it straight away.



I have heard that only the foam filters are good for Off-Road use not the cotton ones. Can I use the DNA® filter for Off-Road use?

 DNA^{\otimes} has developed a unique filtering media that is perfect for Off-Road use. During the toughest rally in the world, DAKAR 2011 in Argentina-Chile, one of the factory Aprilia 450 Rally bikes, was racing with DNA^{\otimes} filter. The results were very





impressive compared to the rest of the team's bikes racing with foam filters. Every evening when the bike was serviced, compared back to back the DNA® filter and the foam filters, absolutely no dust had passed through and the engine was like new! Not to mention that one filter was enough for each day, compared to 2 or 3 foam filters per day the other bikes had to use. So this myth is busted!



Can I use the DNA® filter un-oiled? Must I always apply oil after cleaning it?

No you must never use the DNA^{\otimes} filter un-oiled. The oil is a crucial part of the filtering media. You must always apply the Special DNA^{\otimes} filter oil, not just any oil, after servicing the filter.



I have seen, in many other cotton filters, the rubber material the filter is made of, has leaked all over the filtering media severely reducing the filtering area. Can this happen to the DNA® filters?

Absolutely no, DNA® uses very special thixotropic polyurethane that will not leak in the filtering media reducing the active filtering area, when we produce our round filters. Concerning the panel filters, we will allow a controlled 3 to 5 mm leak, that is nothing compared to the uneven 10 to 15 mm leak that our competitors have.(see photo).





I have a race bike. Do I need to use a filter and if yes why DNA®?

Race bikes must be kept always in top condition, especially the engine. Debris and flying bugs found at the track, plus rubber from the bikes tires' in front, can seriously damage the engine. DNA^{\oplus} will provide the maximum air flow and at the same time maximum protection. We do not compromise filtering efficiency in order to increase flow; we increase air flow using our revolutionary FCd design, maintaining the 4 layer reliable DNA^{\oplus} filtering media. If you want the highest air flow and filtering efficiency of 98% for your race engine, then your only choice is DNA^{\oplus} .



What is DNA® FCd design?



The DNA® FCd design is an innovation by DNA®. It allows the pleated filtering media to follow precisely the air box contour, regardless the complexity of the shape. Using the complete footprint of the air box, we eliminate "dead spots" that rob power and seriously increase air flow. Using DNA® Fcd technology, at least +20% and up to +80% more filtration area is common!



How often do I have to clean my DNA® filter?

The servicing intervals depend on the environment that the vehicle is used. Once a year or every 15.000 to 30.000 km is suggested, to keep your DNA $^{\odot}$ filter in top condition. An easy way to check if the filter needs cleaning, is to see if the wire mesh that is on the dirty side, is visible.

If you can see the mesh, you can continue using the filter. If the mesh is totally covered in debris, you must clean the filter.



Can I use gasoline, thinners or compressed air to clean my DNA® filter?

Absolutely no! You must treat your DNA® filter as delicate textile. How would you clean an expensive and delicate garment? First of all read the cleaning instructions, then follow them carefully. Every DNA® filter packaging & the DNA® service products include detailed cleaning instructions. The procedure is very user friendly.

The DNA® Service & Care Products

Specially formulated Cleaner & Oil, designed by DNA®. High quality packaging materials for easy application & secure store. A perfect product to regenerate your DNA® filter.



Taking Care of The DNA® Filter.

The DNA $^{\circ}$ Air Filter will serve you for many years and will need very little care using the DNA $^{\circ}$ Service Kit. When the filter is dirty, simply follow the instructions that you can find in the service kit, allow the filter to dry, re-oil and you are ready to use your filter again, like new!

Our service products are "air transport safe", no aerosols included.

PRODUCT	PART No.	USE	CONTENT	INSTRUCTIONS
AIR FILTER SERVICE KIT	DSK-2001	RETAIL / CONSUMER	OIL/BOTTLE 220 ml	Included
			CLEANER/BOTTLE 270 ml	
AIR FILTER OIL	OL-2100	PROFESSIONAL WORK SHOP	BOTTLE 1.100 ml	Included
AIR FILTER CLEANER	CL-2100	PROFESSIONAL WORK SHOP	BOTTLE 1.100 ml	Included

MORLD POMER

DNA®, through its International Representatives & Sales Network is growing strong, day by day.

We will meet at the World Wide Web, the social networks, and the forums, as well as in National & International exhibitions, the Global media, Racing or Track Days' events or at your favorite retail, parts, service & tuning store, nearby.

Find DNA® all over the World, On or Off Road, where all people get united under the same passion, all speaking the same language:

the language of motorsports!





DNA® World Trade Map

















PROUDLY DESIGNED AND MANUFACTURED IN GREECE / EU

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