

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.

..... advanced air filter engineering



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

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

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

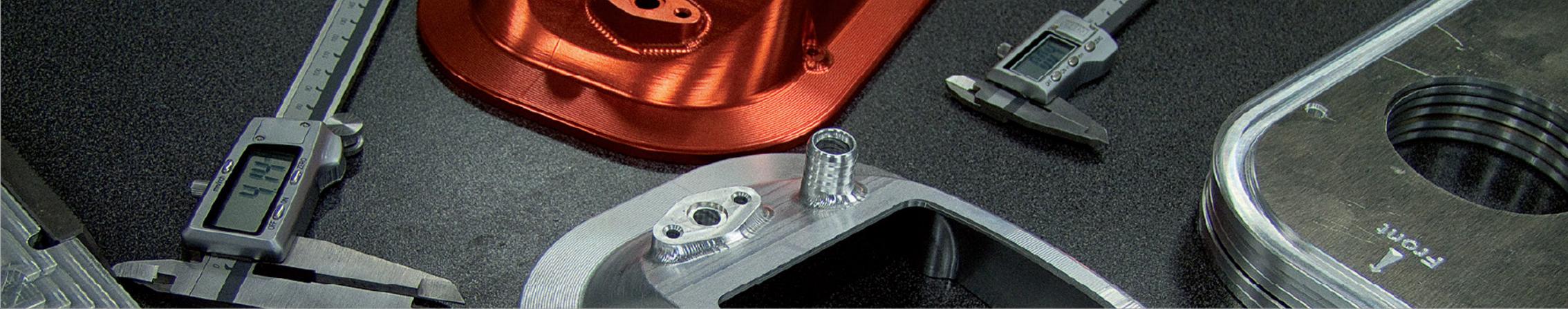
Case Study Our R&D engineers will study each case and decide the optimum workflow of the tests.

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.

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 own Rotronics computerized Flowbench and on our in-house dyno center. The one that shows the best results 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 carefully 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.

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

