

Thanks to the lasertube, ARROW has optimised the production of its exhaust systems.

## When it's a matter of **reaction times**



Gruppo Giannelli is a renowned leader in the production of motorbike exhaust systems. The Group is made up of three companies: Giannelli Silencers, ARROW and Solutions, Moulds and Tooling. The first deals with original equipment and aftermarket exhaust mufflers and silencers for mopeds and motorbikes; ARROW, on the other hand, offers **top end aftermarket products**. Solutions, Moulds and Tooling deals with the design and manufacture of industrial moulds and tools.

### The technological experience of racing

ARROW is the Group's brand name, which is linked to the racing world thanks to its aftermarket activity. As such it has an aggressive and technological image. Just a few of the top names that AR-

ROW supplies are: MV Agusta, Husquarna, Aprilia, Derby and Beta Moto.

Another important name is Triumph UK, that directly uses special exhaust systems supplied by ARROW.

"Our sponsorship in Superbike - says Giorgio Giannelli - has given us a vast technological experience like no other. Only by being directly in the field and **having an active co-operation with the bike manufacturers** can we push ourselves beyond all limits and improve". To have ARROW's name linked to the racing world is not just a matter of image, but it is a way of **gaining experience in technology and product and material development**.

### Outstanding production flexibility

ARROW's global turnover can be broken down as follows: 70% in Italy, 56% of this being in the aftermarket sector, a percentage that soars to 90% when it comes to the remaining 30% of the foreign market. The remaining percentages relate to original equipment.

The aftermarket sector changes considerably due to its nature and has **very low reaction times** as well as outstanding production flexibility. This has led Arrow to install the ADIGE Lasertube LT 905 cutting system, which has reorganised and optimised production and **practically done away with outsourcing** particularly for important operations such as laser cutting of its components.

Today, **90% of the exhausts** produced by ARROW contain components that have been laser





cut, particularly the end parts- "We are using the machine to its utmost potential - explains Giannelli - and it guarantees an **outstanding level of production flexibility**, which is the most important feature of our company".

Laser cutting has allowed ARROW to organise its production in an efficient manner for **both small and medium-large batches**. "Almost everything we produce is laser cut" says Giannelli. We still cut some components in the traditional way, but we were thinking of a manifold kit that has about ten pipe bends to be cut, for example like the Hon-

da CBR 600 manifold, **of which 70% is laser cut** and, even before, it was designed for specifically for this".

#### The three cuts necessary in 30"

ARROW's production is more streamlined to the point that the advantages in terms of logistics and production steps compensate even for any increases that may arise in production costs. A fine example of this is the production of the component that couples the exhaust manifolds and that requires several distinct cutting steps, with welding and three deburring cycles in between. The laser performs these **cuts in 30"** in a **single position** instead of three separate operations that involved complex handling and cleaning of the pieces. Even the inconveniences arising from coupling and welding have been solved and reduce scraps.

This undoubtedly demonstrates that the laser has revolutionised production at ARROW; it is worth emphasising, however, that regardless of the applied technology, two strategic phases of the activity are performed by the unmistakable skill of the operator, such as assembly of the exhaust system and most of all fine tuning of the initial prototype.



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