STRATEGY

Innovation and partnership, the driving force for growth

In 2014 GYS the French Industrial company celebrated its 50th year in business as it continues to go from strength to strength. Employing more than 500 people both in France and abroad, GYS continues its investment strategy from Saint Berthevin near Laval, France. Over the years GYS has developed increasingly powerful and sophisticated state-of-the art welding products establishing itself at the leading edge of technology. In order to meet customers' needs, GYS invests in process and product innovations, as well as placing emphasis on a close partnership with its customers.

Innovation and partnerships are the drivers of growth at GYS.

Both the company and headquarters of GYS have grown significantly since the current management took over in 1997. The Saint Berthevin site is currently being transformed to fulfil increasing production needs, improve reactivity, boost the organisation and provide employees with the best possible working conditions. A recently acquired plot of land adjacent to its current site will provide much larger warehousing by 2016, extending the site to over 400,000 sq ft.

Bruno Bouygues, GYS' general manager along with his father and CEO Nicolas Bouygues, often invite their partners, distributors and large end users to visit the industrial site to share the company vision for the future.

According to Bruno "The market is constantly shifting and the size of our family business allows us to adapt quickly to new circumstances. We are convinced that our future is closely linked to our clients'. We strive to understand what our distributors and end users expect from us, to know what challenges they face and how we can help them to overcome these challenges, meet their expectations and remain their privileged partners for the road ahead".

Increasingly Diverse Skills

Not content with being among the most important equipment and welding product players, the GYS industrial site is driven by a relentless force, its evolution is driven by a single goal: to better meet the needs of its customers, whatever part of the industry they come from. This strategy has paid off with GYS' turnover growing, thanks to some prestigious export markets.

GYS strives to constantly innovate both product and manufacturing process so that its' 'Made in France' products remain in prime position both in the EU and worldwide while remaining at the forefront of global technology. During the GYS journey

The headquarters of GYS, located in Saint-Berthevin Mayenne, expands over the years. In 2016, it will extend over 430 000ft². It was 75 000ft² in 1997.

new markets have been explored and its industry knowledge expanded. Arc welding led GYS to spot welding, which in turn led to in house mechanical parts manufacturing. These mechanical skills encouraged GYS to develop pulling and lifting equipment, especially since its experience in battery chargers for the automotive industry made it possible to capitalise on existing business partners to distribute these new products. Similarly, from the base of spot welding for the repair of cars now riveting products have been introduced for alternative vehicle construction methods. And induction heating generators were born from a demand from the automotive industry.

"Thanks to our in-house expertise, we were able to quickly develop an induction generator using technologies at the forefront of global manufacturing. This technology will gradually replace direct flames used to heat metal in the repair process. More accurate, faster and safer, it also allows many new applications" explains Bruno Bouygues.

In the same spirit the company has drawn on the requirements of its export customers, including Germany and Japan, improving the quality of its products and services, thus enabling GYS to penetrate high-end markets.

At the cutting edge of global technology

The pillars of this approach are the engineers and technicians of GYS' research centre, combining and sharing their expertise in mechanical, mechatronic, electronics, electrical, induction, plastics and software engineering. They constantly work on the company's business driven project, with the ambition to bring new developments to fruition quickly and effectively.

"The main elements of our research centre are based on creativity, strong internal communication and sharing of expertise. The sustainability of this triptych is our guarantee of success. Combined with a strong customer focus, it allows us to constantly offer new products that are a better fit for the needs of end users".

GYS is also working on expanding its skills in the world of battery charging. In a few weeks, the extension of the new GYSFLASH product range will give GYS the means to furnish showrooms and professional diagnostics experts in the automotive industry with a stabilised power supply preventing power surges and sub voltages that may damage highly sensitive and complex vehicle electronics.

"The level of sophistication in modern vehicles imposes the same level of sophistication for our products. There are only a few global players in this niche market and we will boost our offering with a new product range. It is more advanced, both from a technological and design perspective, as well as significantly less expensive than the competition. These products will also we hope, help us enhance our reputation with car manufacturers. I believe we have reached a milestone in our 2015 strategy, aiming to make our products more powerful and technology heavy in order to help our customers overcome the new challenges they face".

The company is also developing more complex, synergic curves for its industrial welding plant which are essential for making progress in the welding sector. A real transfer of the manufacturer's know-how to the machine, translated into complex mathematical algorithms, results in the synergic programs automatically integrating the various parameters that need to be taken into account by the welder, or the robot. A good example is the recent launch of the new welding machine TIG 220A AC/DC enabling an advanced adjustment when welding aluminium (triangle, trapezoid, sine, square). The precision of the advanced parameters enable the device to weld metal combinations that had been difficult to work with before now. This approach also requires an analysis of the ever more sophisticated man-machine interface as all advanced stations will soon integrate a 'plug and play' system in order to make the welder's skilled job easier. The research centre also works on plasma cutting in order to perfect cutting quality. After years of

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The engineers and technicians within GYS's brand new research centre, combining and sharing their expertise in mechanical, mechatronics, electronics, electrical, induction, plastics, software engineering…

Its industrial culture led GYS to integrate many Production operations, ensuring the productivity and flexibility needed to navigate ever-changing demands.

Previously outsourced, the mechanical welding activity has reinstated the walls of the company, allowing it to experiment and test its welding stations in-house.

GYS has invested in a new automated painting facility, which allows it to work more quickly and thus improve its flow and also to handle larger and more complex parts.

The robotic machines take metal plates and place them into the correct working position where oval vents, oblong mouldings, square or round holes are cut. Each piece is bespoke for the application.

GYS has invested in a high power winding robot, capable of producing 15,000 pieces daily.

The assembly of electronic cards is fully automated.

development of the single phase plasma cutting stations, we launched our first three phase product for industrial applications in 2014 and we will launch our second product at the end of 2015.

Projects also aim to constantly improve product development, to make them more compact, durable, reliable and ergonomic. In the spot welding section, the engineers and technicians are working on reducing the weight and volumes. Each piece has been analysed in order to know where to save both weight and size without compromising on quality. Another team is finalising the development of a welding calibration testing tool in the form of a suitcase containing an electronic processing unit. Intended mainly for distributors, to audit and calibrate an existing welding station, in compliance with the new EN1090 standards.

Testing Laboratories

GYS has also invested in testing laboratories, in its new metrology laboratory the manufacturer is now able to simulate rainfall at different angles in order to verify that its products are in compliance with the IP classification insulation standards. Another room houses a climatic chamber with temperature and hydrometric control. Equipment also includes flicker generators that simulate the variations of electrical networks in different countries, this equipment is used to replicate the problems encountered in a specific export market and fix it.

"Working on the electrical disturbances that are common in some countries has enabled us to develop proprietary technologies".

Elsewhere in the laboratories, a camera connected to a welding robot (operating at 20,000 frames per second) films the way a drop of molten metal falls, allowing a precise analysis of the weld bead and providing improved accuracy. A fully isolated room has also been designed to check EMC devices without risk of interference with the rest of the plant. Since last year, a new department linking R&D and production validates all technical docu-ments necessary for the industrialisation of a product and performs the final tests before production. This improves quality, responsiveness and cost control through the anticipation of potential errors.

Integration, the essence of productivity and flexibility

Production also benefits from new areas of investment, with the introduction of new machinery improving pace, promoting product quality and enabling the company to meet the increasingly complex needs of its customers. This is the case when manufacturing electronic cards - set in an environ¬ment comprising an ESD area, pro¬tecting the parts from the risks of electrostatic discharge which may damage them. This space will also accommodate a third production line to meet increasing demand.

GYS internally develops and produces almost all of its components (sheet metal, wiring, transformer, electronic, mechanical, assembly and test), so the site must cover a wide variety of skills.

"Our industrial culture led us to integrate many trades, from the manufacturing of printed circuit boards to the sheet metal, mechanical, mechatronics or the wiring. This gradual integration secured the productivity and flexibility needed to navigate in this ever changing world" corroborates Bruno Bouygues.

Previously outsourced, mechanical welding has been reinstated within the factory, allowing GYS to experiment and test its welding stations in-house.

This plant also includes a new automated painting facility, the most modern in Western France, with a

An international group

The GYS Group generates half of its business through exports in more than 110 countries, but aims to increase this ratio to 75% within three years. To expand its international reach, the company relies on its headquarters in Saint-Berthevin and its five subsidiaries: Aix-La-Chapelle in Germany, Rugby in Britain, Coimbatore in India and Shanghai in China, where the group also holds a factory dedicated to the manufacturing of low value-added devices such as cables or battery chargers. "China is the first market in the automotive world and to be active commercially, it is important to have an industrial and technical presence directly in the country. Without our second plant, we would not have been able to support our international and Chinese clients on this market. "

Each PCB is tested individually once all the components are installed.

New welding robot for electronic cards. The card is immersed in a bath which can weld its 200 components in a single process.

capacity much higher than the previous system. The manufacturer can change colours quickly to respond to its customers' customisation needs for private labels. Moreover, the screen printing workshop will move closer to the painting workshop and improve efficiencies around the designation of the different models.

Tailor-made services

To cope with the customisation needs, the marketing and design department have also been strengthened. It now comprises seven people, able to organise specific operations with distributors and to ensure that during a national tender, the customer not only receives pricing, but an offer accompanied by technical data and the visuals he wants.

"For all our major customers, we want to give them the same quality of service, whether it's for their products or ours. Once again, this allows us to distinguish ourselves from our competitors".

Beyond its products, GYS is also investing in the services provided to distributors to better adapt to their new requirements.

"Over the last few years, the needs of the distribution sector have evolved. Having invested heavily in logistics and IT systems, retailers are now looking to increase their own brand's visibility. Therefore we need to adapt by providing them with more expertise and a better understanding of our requirements/production capacity".

Answer everything, instantly.

To assist customers with technical information, GYS has provided an improved website and numerous training sessions at the in house GYS academy. Five years ago, the company's HQ was visited by a dozen distributors a year. In the first quarter of 2015, it has already welcomed a hundred from France and abroad, not to mention the training provided by distributors and by field based demonstrators in their trucks. The current sales force comprises a Sales Director, fourteen technical salespeople, nine demonstrators for the automotive sector as well as a team of two industrial demonstrators which is expected to rise rapidly over the next two years.

For complete traceability, all tests are recorded in real time during the final test. The user has access to the entire product's path through the 2D bar code printed on the machine.

The company has invested in a Kardex storage system for the electronic cards' components. Eleven million components are stored on two levels.

In addition, the commercial team now has ten sales agents based at the head office.

"Their role is not only to take orders, but to be in constant contact with the distributor, which has less and less time and more and more products to follow, in order to issue recommendations, training and monitoring".

Since mid 2014, the team was strengthened by two product specialists, responsible for providing technical answers to distributors who contact the head-office for specific products or special projects. Their role is also to formalise the training content, particularly important in the welding industry since a lot of verbal knowledge is linked to experience.
"We want to be able to answer everything as fast as possible and as clearly as possible".

Big companies, big partners

If the GYS credo remains a strong focus on the distributor, its willingness to go upmarket and towards more complex products now going as far as robotics, through the development of a key account function, to understand the specifics of some industries the manufacturer fosters more and more partnerships with large end-user companies. "We do not discuss trade, but technique. The increasing technological maturity of GYS happens through the design of industrial products for special applications. It is interesting to note that the more technical the project is, the more major clients will trust us and not hesitate to come here to visit and brainstorm within our factory.

Translated from French, original article written by Agnès Richard

Anxious to boost its expertise in increasingly complex sectors, GYS fostered more and more partnerships with major companies for which the manufacturer acts as a subcontractor. Tra-C Industry (69) has invested in TIG 250 AC / DC as part of its defence business.