

Gasket International Group: a solution provider for ball & gate valves

When Valve World went to visit privately owned Gasket International at their ultramodern plant south of Bergamo in Italy, C.E.O., Mr Paolo Bergamini and the Chairman, Mr Giuseppe Girelli explained that Gasket International Spa had recently grown up to become a truly international group, designing and manufacturing all core components for ball and gate valves. Its long lasting support, almost 40 years, has enabled valve manufacturers worldwide to go farther, faster. The group has just started up a new plant in China, dedicated to the local valve manufacturers, and a new site in Italy for the production of XL balls, up to 64". And yet there's more to enjoy for the valve makers, as new international patents get filed and a strategic partnership for valve bodies and closures is picking up! It was also emphasized to us that Gasket International is neither a gasket nor a valve manufacturer itself... and never will be.

By Christian Borrmann and Gillian Kersley

Gasket International was founded in 1971 by Mr Giuseppe Girelli who, today, is the company President. Says Mr Girelli, "Before then we were in the industrial gasket business, being involved in three companies with specific expertise in the machining of metal, rubber and thermoplastic parts and were designing metal seats for ball valves together with valve manufacturers at that time. In the late 1970's the valve business in northern Italy in particular was growing rapidly due to the forging capabilities here for large size valves, and although we did not give up the industrial gasket business, we concentrated more on the design and experimental aspects." Mr Girelli goes on, "We then put our knowledge of rubber and thermoplastics

to good use by becoming involved in co-designing a new solution for rubber sealing in gas applications. The result was one of our company's flagship products - the Delta design, a specially shaped soft seat with several technical advantages over the traditional O-ring. This has since been developed into different sizes and for a variety of applications for the Oil & Gas industry in cooperation with different valve manufacturers."

Following the incorporation of the original three businesses into one, the company began building on the standard design concept and kept a stock of semi-finished products including manifolds and bars for thermoplastic, pre-moulded O-rings and Delta rings as well as raw material so providing a fast delivery service to

customers. Over the years, products have been developed to cater for various applications, including low to high temperatures and pressures, subsea and aggressive liquids and extends to gate and other types of valves too. Today the company supplies all sealing parts for the stem, body and closure, from the seat to ball and everything between. Mr Girelli tells us that "this year we have broadened our scope of sealing systems and we now offer whatever is required by our customer as a full package. The advantage to the customer is that everything is supplied from one source and will match perfectly which is not always the case when products come from different suppliers which can lead to performance problems."

The company today

Mr Bergamini takes up the story: "2007 saw the end of a very successful growth period for our company which doubled in size over three years and had become a world leader in the complete seat business. Our facilities in Italy employ over 140 people and produce annually hundreds of thousands of seats and balls and millions of O-rings, thermoplastic



rings and industrial gaskets. To build on our success we laid out a strategy focused on three major steps - to increase foreign trade, to complete our product portfolio by increasing the size of the balls we manufactured from 24" to 60" and to open a plant in China, not as a de-localization project to produce and ship back to the western world, but to supply to the local growing

Balltech - balls, bodies and closures for the best performance of the valve

Balltech started from an idea of Gasket International: the completion of a valve components range, adding bodies and closures to seats and balls. It is not just an additional logic with the simplifying the supply chain of the valve manufacturers, but a new logic technique, that is now missing from most valve manufacturers: bodies, closures, balls and seats start from a single production process in order to match together perfectly. The manufacturing facility, with significant production capacity, has modern machining centers, grinding and boring machines that produce pieces from 12" to 64" with extreme levels of roughness and finishing details. The company also produces cladding pieces in the main materials (Inconel 625, F316, etc.) with very thorough specifications and it can complete the service to clients by supplying the required surface treatments (nickel, chrome, tungsten carbide, stellite, etc.).

Also, Balltech has a new three-dimensional measuring machine (C.M.M. - Coordinate-measuring-machine) that is able to make dimensional checks on pieces up to 72". Thanks to the forging purchasing power of Gasket Group and its unquestioned technical leadership in the field, for the first time worldwide a manufacturing organization is responsible for supplying the main components of a ball valve with a single logic technique: the maximization of the performance of the valve.





market." Mr Bergamini continues, "In 2008, through a private equity fund specialized in supporting investments in Chinese companies, the financial side was completed. At the same time the company also underwent a restructuring process, hiring new managers from medium to large companies bringing new attitudes and skills. At the end of 2009 we started up a 5000 m2 plant in Suzhou, about 80 km west of Shanghai, which is able to produce seats up to 30" with top notch imported machines." Mr Bergamini says proudly, "So was born Gasket Suzhou Valve Components Co, Ltd. In January 2010 we announced our acquisition of some operations of Italy-based OMPG and the incorporation of a new company, namely Balltech Srl, for the production of balls up to 60". Our foreign trade has also increased and is now roughly 50% of our turnover. Our 3 in 1 plan was achieved in just 18 months."

Mr Bergamini is a little cross as he tells us that, actually, the crisis helped them achieve their goal as it freed up a lot of resources within the company. And, he adds, it is easier to make deals in a crisis period which results in a win-win situation for both parties for the future. In addition, the company implemented a new European SAP, so 2009 was a very hectic year for them – all done without affecting their existing customers and with minimal impact on the normal running of the business. The plans were completed on schedule and within budget and figures show that the China plant should close

2010 50% up on target.

Today Gasket International is a truly international group and Italy is home to the global R&D for the group as well as the purchasing and marketing and sales activity in Italy. "Balltech is also ahead of budget and we already have orders exceeding our target for 2010. Thanks to our partnership with them and OMPG it has become an ongoing process to sell body and closures for ball and gate valves as they are produced in neighbouring factories," says Mr Bergamini. During this period the company has also filed two important patents especially to support their customers' tough

applications which they believe are likely to worsen with the quality of future oil finds being poorer, more contaminated, more aggressive and more costly to locate and extract. Details of these are due to be released soon.

Complete package

Continuing a point touched on before, Mr Girelli adds, "The company strategy was to move from a single product provider to a service provider. We are probably the only company today to offer a complete solution seat to ball kit, from design, through manufacture to guarantee." We do supply to a few end users and engineering companies but our customers are mainly valve manufacturers – over 200 of them. We supply everything it takes to assemble a single valve and all the customer has to do is to assemble and test the finished product. We also provide R&D service and support." Mr Girelli emphasizes the importance of a good product: "When I say we provide a guarantee for the sealing, I mean we really do. Because we provide the product, if any leakage occurs in the valve, between the seat and the ball we consider it to be 100% our responsibility. We have confidence in our products. I think we all have a duty to the environment and good products help to protect the environment."

Mr Bergamini agrees: "We always buy our raw materials from top class

Gasket International speaks fluent Chinese

On August 17, 2009 Gasket International obtained the business license for the newborn Gasket Suzhou Valve Components Co, Ltd (GSVC). Located in the SIP, the top class industrial district of the modern town of Suzhou, 80 km west of Shanghai, GSVC produces complete seats up to 30", according to the design and the specifications of the mother company Gasket International.

The start up team, 40 people so far and growing, is a mix of young local talented managers and technicians, supported by the knowledge and the experience of some expatriates. The industrial building of 5.000m² is mainly dedicated to the shop floor and it has been totally redecorated according to the high and demanding international standards. GSVC has decided to invest in the best technology, installing brand new imported machines of worldwide renowned brands. As of January 1, 2010 the plant is 100% operative and, in April, obtained the ISO 9001 Quality certificate.



manufacturers and, thanks to the worldwide supply chain that we handle this means that we can provide the best deals for our customers. The amount we purchase from forges and other suppliers means we can command the best quality at the best prices. We know what to buy, where to buy from and when and this advantage is passed on to our customers in terms of convenience to them as they only have to approach one supplier; speed of delivery, quality and cost."

Looking to the future

The company has a business plan that runs until 2016. This does not, at the moment, include any new acquisitions or new directions. "We intend to concentrate on nurturing our 'new born' businesses, especially China," explains Mr Bergamini. "However, our company is ready and willing to extend further its product portfolio, even through other acquisitions of small/medium sized companies within the 'inside the valve' boundaries. The original expectations we had for China were somewhat conservative when we first decided to invest. This was largely because we really didn't have much good, first hand information such as market research and market analysis as this is

just not made available for the Chinese market. We had to rely on intuition and some second hand information so we set conservative targets to compensate for any drawbacks we might come across down the road." Mr Bergamini smiles, "Actually, we found things were way ahead of what we thought which meant the local producers were up and running much quicker than anticipated, trying to get all the required certifications and qualifications. We are the only seat maker in China however – one reason why we wanted to get established there as soon as possible!" Mr Girelli hastens to add, "By seat we mean, of course, the fully assembled made up part with the insert, which seems

relatively simple, but accuracy is the key. No one in China, before we arrived, was making full, complete, tested seats or offering the same package as we do. There are local players who are, of course, able to do the machining of the seat ring according to the customer drawing but that's all. We provide the full service." Mr Bergamini concludes, "We offer the same service in Europe so we can speed up the process of design improvement for valve makers in China which is a challenge for the western world but inevitable. We took the decision to go with the flow instead of trying to fight against the current and are helping the players in China with our support."

Seats and ball, the heart of the valve.

Continuous requests from customers to obtain reliable solutions for every type of complex application, make it more essential every day to customize integrated projects for seats and ball, hereinafter called 'kit', in terms of both design and materials. Correct designing and manufacturing of the kit has a direct impact on both performance and on the final cost of the valve, increasing its working life and its overall reliability at the lowest possible cost. According to the operating conditions specified by the customer, Gasket International co-designs a kit in line with all requirements and constraints, finding the most suitable dimensional solutions and appropriate materials avoiding the risk or need of additional tests and trials.

It is indeed the incredible know-how gained in nearly forty years of activity, which allows Gasket International to propose advanced solutions for all our customers. Following this principle, when we are asked to supply a kit, we analyze every detail of the valve to achieve both cost reduction and performance goals: the first step is to verify the possibility to standardize design solutions and components in order to keep costs under control, while minimizing risks using our well established practices and procedures.

During the second stage of development we study, according to customer requirements, several possible solutions regarding design and placement of gaskets (such as O-rings, back-up, Graphoil packings, lip seals, etc.) in their slots and for any application in Oil & Gas, cryogenic, metal / metal, water and nuclear fields. This analysis is completed with the selection of mechanical components, such as bearings and washers that will ensure the correct torque values required by the project. Yet the job is not finished with designing. Gasket International takes care of internal manufacturing and quality control, as well selecting and purchasing raw material of all parts supplied. This is the other half of the success of the project: direct control of the whole process. Careful procurement is followed by in house production of seats, balls and both thermoplastic components and elastomers in the best special rubber compounds resistant to gas penetration and high pressure, known as ED.

At the end, Gasket International ensures rigorous quality and performance checks of the kit before delivery. Last, but not least, the 'kit concept' has been extended to gate valves, with the design and internal manufacturing of seats and slabs, for which international patents for critical applications have been filed.

