

INNOVATION in CORE MAKING

an interview with Primafond & Animisteria Todescato Sas

From a collaboration that is now over thirty years, the supplier of core making technologies, Primafond Srl, and Animisteria Todescato Sas, have created a project, at the latter, aimed at increasing efficiency thanks to the introduction of solutions inspired by the Industry 4.0 incentive scheme.

Based in Sandrigo in the province of Vicenza, the **Animisteria Todescato Sas** company, specialise in the manufacture of cores and moulds using Shell Sand. (Croning Process)

They have achieved the milestone of their 49th year of activity in 2019. In fact, the company was founded, as a foundry in 1970, by the brothers Giuliano and Otorino Todescato, and since the mid-1980s it has been headed by Giuliano with the collaboration of his family. As well as other staff members, his daughters Giulia and Irene as well as his wife Francesca work alongside him.

It is in conjunction with Francesca, that during the 1990s, the founders decided to convert the casting activity into that of producers of cores for the foundry industry.

Primafond, are a specialized manufacturer of core machines and equipment for the foundry sector. With their headquarters in Thiene, also in the Vicenza area, the company was founded in 1990 by Claudio Cavedon, following his previous years of experience with Imafond. Nearly thirty years on from that time, Primafond are today, as then, noted for the construction of machines and plant for the production of cores in any process.

Recorded in the journal Fonderia Pressofusione, "the first machine purchased by the Todescato core shop was a core shooter for the Betaset process". Over time, "cold-box and finally shell-molding processes machines were subsequently integrated".

In 2014 however, the decision was made to concentrate solely on the production of shell-molded cores, so that today the core machine line up can count 12 core shooters of different sizes and types.

Over the course of almost thirty years, the relations between the two producers, Primafond and Todescato, has always remained constant and the desire to closely follow the main technological developments within the industry, in Todescato's words, has been shared.

In a meeting with Giuliano Todescato, he recalled the first delivery by us of a core-shooting machine in 1992, marked the starting point for a lasting partnership.

In the interview, Primafond told me that Todescato, " have made significant steps in terms of growth, in size and in the technologies used, which is reflected in their production plant and in their diverse range of customers.

Todescato says that "in common, and still today we believe in the future, having the characteristic of firm family management, and the desire to continue to improve, with continuous investments and with courageous confidence in the future".

On the wave of Industry 4.0 Initiative.

In recent times and fully grasping the ideas and opportunities offered by the Industry 4.0 initiative, the Sandrigo-based company turned again to Primafond, for a further renewal initiative to be completed jointly.

As Todescato, summarized, the objectives to be achieved were essentially all revolved around obtaining greater efficiency from the point of view of volumes produced, continuity of processes control and an improvement in that of costs management. For Todescato, it was therefore primarily a question of "monitoring and keeping the entire production line under control in real time, including the ability to intervene promptly in the event of problems or a slowdown of the machines. Also, a system was needed to

accurately calculate costs-v-earnings for each single job in production, by interacting with each machine and its operator directly from the offices”.

Todescato continued by saying, "The critical issues to be overcome were represented in the first instance by the need to develop a software built specifically for our needs and to make the company management applications interact with the software of Primafond machines. This project, which lasted about a year, required a significant economic commitment, and for all those involved it was an absolute novelty as since initially we did not have an absolute certainty about the final result. However, the commitment and work by all of those involved was really huge".

Without a doubt, the improvements introduced with the restyled way of working are numerous and clearly visible and reflected in the operating methods.

Todescato went on to say, "the technological equipment we are now in possession of is made up of the latest generation core shooting machines that allow network connection, connection between machinery and our main computers, using a LAN (Local area network) throughout the company, and software that allows you to view, control and modify the parameters of the production process remotely.

100% satisfaction

Elaborating on an accurate estimate of what has been gained, in percentage terms, or in terms of efficiency, speed, reduction of errors and optimization and control of processes is currently difficult to itemise.

Todescato then commented that certain data, will certainly be available shortly. He says “that as yet we do not have a complete vision because the project has yet to be fully integrated. The results will be seen when the entire production line will be managed and controlled with the new programs”.

Primafond, for its part, has stated and clarified “we are still taking only the first steps of this integration, but in the coming months we will certainly be seeing tangible information on all of these specification aspects.

On the other hand, observing the increase in information obtainable already from the automatic management of the machines is encouraging. No more manually recorded production data, the gain in satisfaction is considered as 100%”.

It is therefore not surprising that Animisteria Todescato, once it had the proof of the benefits of digitalization, has expressed its intention to continue along this same path and with the support of the same partners.

Returning to Todescato, “**In the last few years we have come to understand that innovation is the secret to continuous improvement.** We believe that the Industry 4.0 project has provided us with the strong motivation needed and now our commitment is to continue along this path, which can be gauged by the already enormous interest that the operation has aroused among our customers.

Also the collaboration with Primafond was fundamental and we are therefore planning other joint implementations with them”.

In relation to Industry 4.0 and with reference to access to incentives, it must be emphasized that all core shooters designed and built by Primafond, largely meet the requirements of Industry 4.0 as far as a machine manufacturer is concerned.

However, given that Industry 4.0 wants to favour technological and or digital transformation processes, our programmers are already interfacing with the IT managers of other customers, creating customized interconnection systems with their factory SCADA architectures.

Study, updates and the help of consultants specializing in regulations, facilitations, and technologies, is how Primafond tries to give answers to every new market requirement”.