
"We want to be close to our customers"

Fabrizio Pere, Vice President Sales of Danieli Centro Combustion (DCC), talks about globalization, digitalization and energy efficiency in the heat treatment business.

**How does your company deal with the globalization?**

Pere: Regarding globalization, the company has evolved expanding abroad with new design, manufacturing and service centres, to manage local projects and compete on the market staying closer to customers. However, we keep the Headquarter in Italy for the core business, including research and development of technologies.

**How do you evaluate the steel business climate at the moment?**

Pere: The risks of global economy seen in 2017 due to US policy shifts, European election uncertainties, China deceleration, China’s debt problem and geopolitical tension in the Korean peninsula to some extent remain and give some risks, however the expectation is of a moderate growth, mainly due to China slower growth, while in the rest of the world steel demand will maintain its momentum. We expect steel demand to recover well while we still need to face the lack of a strong growth engine to replace China. Advanced and developing economies are showing a stronger economic phase resulting in a better confidence and more investments.

**What business areas are becoming more important in the future?**

Pere: Business is becoming more and more service driven, thus local capability of service might represent the key point also in terms of maintenance.

**What is the most important market for Danieli Centro Combustion?**

Pere: DCC has an indirect market approach through Danieli Group working as a full liner, but also a direct market for its products in a stand-alone scenario. The products like furnaces are relevant to the steel and aluminium business. As of today the steel plays the major part of DCC business but we are positively seeing a step up in the aluminium market.

**How do you evaluate the latest economic developments in China?**

Pere: The Chinese economy has been gradually decelerating. It is supported by consumption with investment deceleration. In 2017, the Government has moderately boosted the construction program, GDP grows below 3 % and in 2018 no significant grows are expected in steel demand. But economic rebalancing and environmental protection could generate opportunities for revamping activities.

**Will the European economy continue to recover?**

Pere: After the 2008 crisis, the construction sector is now showing positive trends. If we look at the automotive industry that gives alternate signals region by region but with interconnecting effect, we would consider it as moderate enthusiasm.

**The number of Greenfield projects has decreased. What does this mean for your business?**

Pere: We need to consider revamping activities when the market is idle. We firmly believe that over the next few years the focus of business will be on technological packages, revamping projects, with much more proximity to customers locally. New projects may come from aluminium but as far as steel is concerned, these will mainly be revamping projects. As far as the traditional steel business is concerned, an increase in the request for revamping is expected. In the steel heat treatment business additional capacity is foreseen – especially for higher quality steel grades.

**The heat treatment market is getting more competitive. How does this change your business strategy?**

Pere: We have been able to extend our furnace portfolio over the past year thanks to internal product development and through mergers and acquisitions. We have achieved positive results working alongside the Danieli Group and recently we have made a strong comeback in the direct market, not only with traditional furnaces but also with innovative new furnaces. Our plan for the future is to develop solutions to meet the increasingly selective and challenging requests of our clients.
What is your unique selling proposition in comparison with your main competitors like Tenova, SMS group and Primetals?

**Pere:** Danieli Centro Combustion mainly dedicates innovations to combustion systems with the design and testing of burner prototypes. These activities take place in the DCC Research Centre, located within the Engineering University Campus in Savona, Italy. The facility has recently been upgraded and we now have four furnaces that are fully dedicated to testing different sized burners relevant to different applications. The first is a 3 MW furnace type with side wall burners which is able to operate with both cold and hot air. Gas used for the burners is natural gas or mixed gas. We also have another smaller 1 MW power furnace with the same capability. A 150 kW furnace with sidewall burners is also able to test for Radiant Tube I shapes. The latest furnace is fully dedicated to Radiant Tubes and can test any type of Radiant Tube connected to the DCC burners; this type of burner has a capacity of 180 kW.

How will production change due to digitalization of the economy?

**Pere:** The traditional approach of manufacturing companies, based on the production of physical items and on the creation of value through the transfer of the physical ownership of the goods to the customer, now has found an alternative. Smart production made it possible to shift from the traditional model, where the purchaser has to pay the technical assistance costs and bear the risks related to downtimes and out-of-warranty defects, to an “as a service” model wherein the producer of the goods maintains the ownership of the asset and bears the costs and risks related with the use of the same by the purchaser, in exchange for a price based on use. The resulting advantage is evident, because the infrastructural costs related to managing such services can be shifted outside, with a significant benefit of being able to adapt the utilized services to the business trend.

What are the benefits of data driven processes?

**Pere:** Danieli is implementing the use of innovative technical decision based on the “Data Driven” methodology. The consequence for Danieli customers will be a drastic drop in transformation costs while maintaining the same level of productivity, increasing the product level quality and reducing the consumption of scarce and expensive resources. In this scenario, driven by a massive and intensive use of the industrial automation, what will be the human role? The new generation systems will have to be seen, as they are in reality, as powerful decision-making tools supporting humans, of whom only some functions and operability are replaced. The operator will remain decisive to control and improve the process even if in a different role: he will be the director. Mobile equipment devices and collaborative robots can support the operators and will help them to avoid mistakes, increasing the product quality level and workplace safety.

Are you already working with predictive maintenance tools?

**Pere:** Danieli is proceeding to develop a technology that will be assisted and integrated by a modern automation system. The technology will be able to prevent and correct deviations from the desired process profile. What Danieli wants to do is to move from a reactive to a proactive design, thanks to the complete digitalization of the processes. By means of proper equipment and products monitoring, and with the implementation of modern techniques based on machine learning, Danieli believes in the contribution of the statistical approach helping the more traditional physical-based modeling.

Will energy efficiency be more important in the future – and what will be the consequences for the heat treatment industry?

**Pere:** Energy efficiency is directly connected to emissions and will keep its priority. On a large scale this can be effective only by introducing at government level regulation and giving incentives to upgrade for existing plants in operation. On the contrary, the main activities will be related to revamping in terms of production increase and product quality and for new plants according to regulation.

What effects will the climate targets have on the heat treatment industry?

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**RÉSUMÉ**

**Fabrizio Pere**

After graduating in Mechanical Engineering Genoa University, he worked in Italy as process engineer and then moved to the USA for six years. There he attended the MBA Katz Business School Pittsburgh in 2001 and worked as project engineer and project manager responsible for plant commissioning. When he came back to Italy he started to work in the sales department. At present he is Vice President of Danieli Centro Combustion, having skills in global market sales and a strong technical background.

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Pere: The driving elements worldwide in the thermal business are primarily related to energy savings and reduced emissions. In heat treating specifically, we are pursuing the same approach placing special emphasis on the requirements of the coupling of Radiant Tubes and burners. We cannot avoid understanding the environment in which we operate. We have a social responsibility in the way we approach the industry. Danieli with its Research Centre and the continuous improvement of the same confirms a strong commitment in respecting international regulations and to continuous improvement of performances in terms of reduced emissions and savings in energy.

**What is the core competence of your company?**
Pere: Thermal Business, furnaces and ancillary equipment for the metal industry.

**What management strategy do you prefer?**
Pere: An idea, a plan, a market opportunity and a great team. Having the right people with you is the key. We know instinctively that the successful team is the winning answer - the High Performance Teams are an indispensable part of the equation – so the challenge is how to build them. Especially for DCC that is an engineering company, the asset is the people, the employees.

**What are the main challenges for the business development of your company?**
Pere: The recession has encouraged the Danieli Centro Combustion team to improve its expertise in revamping projects covering all applications in the metals industry. Through the development of capabilities in its Research Centre dedicated to the development of new burners and broadening the type of burners and special components for the market, Danieli Centro Combustion aims at continuous improvement of all its services and activities starting also from a local presence worldwide. We have performed more than ten revamping projects in the last two years. We want to be close to our customers to continue improving operating techniques and technology. This motto has also been applied to our approach within the thermal business and of course, improved efficiency, product quality and consumption. All this is playing an extremely important role in revamping activities.

**How much does your company invest in research and development?**
Pere: Danieli Group invests more or less 7% of the sales revenue.

**What technologies will change the industry in the future?**
Pere: The one that will make good by doing well.

**What is your advice to young people?**
Pere: Do what you love and just do it. If you learn and you are always challenging yourself and are challenged by the environment to learn more and more about your job, you will just do it at the best and eventually you will grow as a person. A professional management needs to keep the training of young employees as one of the first tasks, followed by the stimulation of growing as a continuous improving challenge.

"Danieli is implementing a Data Driven methodology"