Foundry specialist offers metallurgical process solutions

Dr Peter Vomacka is Chief Executive Officer of NovaCast Foundry Solutions AB, a subsidiary of NovaCast Technologies AB. Here, Dr Vomacka shares details of his professional career and his thoughts on the latest NovaCast software innovations for the international foundry industry.

Dr Peter Vomacka, Chief Executive Officer, NovaCast Foundry Solutions AB

CM&DT: Please describe your academic and professional background.

Having studied materials science and technology at the Luleå University of Technology in Sweden and holding a PhD degree from this time, I am author/co-author of more than 20 scientific papers, published in different journals. They deal with topics such as cast iron including compacted graphite iron, steel, materials selection, case-based reasoning, material characterisation and analyses. Throughout my working career, I have gathered experiences from a variety of fields due to my employments at Volvo, Swedish Institute of Production Research, Daros Piston Rings and NovaCast Technologies.

CM&DT: Who have been major influences on the development of your career path?

In my opinion, it is always a number of factors that play an important role in one's life when it comes to a working career. In my case a major event has definitely been the relocation from Czech Republic, where I was born, to Sweden 21 years ago. This environmental change has shaped my personality and dramatically influenced my working path. I am very grateful to all colleagues I met on the way and from whom I learned a great deal. I am looking forward to learning even more in the years to come.

CM&DT: What attracted you to a career in software technology for the international foundry industry?

The world today is an ever changing organism, where everything is happening at an ever increasing pace. Making decisions based on all possible achievable facts is becoming more and more important. The foundry industry is currently undergoing tremendous development driven by increasing demands on quality assurance, consistency of the metallurgical processes and environmental control. Not to be forgotten is cost-effectiveness, one of the decisive factors when foundries compete in the marketplace. NovaCast Foundry Solutions provides system solutions addressing all these issues to help customers develop their businesses.

CM&DT: What do you consider to have been your most satisfying work-related achievements to date?

It is always very satisfactory to see a customer succeed. NovaCast Foundry Solutions has recently helped a customer with whom we have been working and co-operating with for a relatively long time, to optimise their process for nodular iron. The customer was able to reduce direct costs of the process by 22%. This is a great achievement. The approach to analyse-stabilise-optimise a metallurgical process has proven effective and cost saving.

CM&DT: Traditionally, producers of automotive castings and tools represent key target customers for NovaCast but are your systems equally relevant for other branches of the foundry industry?

Our system solutions can be tailored to any foundry metallurgical process involving grey, nodular or compacted graphite iron when it comes to systems using thermal analysis. In the case of simulation solutions, we also work with non-ferrous metals such as aluminium.

NovaCast Foundry Solutions has customers in 43 countries. They are not only automotive related but also include businesses associated with the wind farm industry, marine applications, the food and transportation sectors, architecture and interior design, offshore, prototyping and many others.

CM&DT: How influential are foundry customers in the development of NovaCast software solutions?

It is extremely important to involve customers when developing software solutions. We need to address issues and problems from reality, from everyday life in a foundry. We strive to fulfil our customers' needs and through our software development ensure that the foundry is working with tools that can make a difference, ie our system solutions.

NovaCast Foundry Solutions' experts are closely involved in discussions with customers in order to continuously improve solutions.

CM&DT: How widespread is the NovaCast foundry industry customer base and how do you service their requirements?

NovaCast Foundry Solutions is a global company, with over 420 customers in 43 countries. We have a widespread network of 23 agents/distributors around the world and a subsidiary, NovaCast Solutions USA Inc. The agents/distributors are our door to the marketplace abroad.

As always, good communication with a customer is the most essential feature of any customer contact.

Among other measures we regularly organise agent meetings to discuss possible strategies for implementation of newly developed technologies so that our agents are always up-to-date with the latest developments at NovaCast.

CM&DT: Particularly in the current economic climate, what benefits can customers expect to generate from installing your software systems?

As mentioned previously, our software systems are designed to optimise metallurgical processes in a foundry. Simply expressed, the implementation of NovaCast Foundry Solutions' knowhow saves money!

CM&DT: How widely has the NovaCast concept of Technology Partner Agreements been adopted by the foundry industry?

Our concept of Technology Partner Agreements (TPA) has been well adopted by the foundry industry. TPA customers see the advantages and generally renew their contracts annually. Product updates and continuous support help to maintain a high level of foundry expertise, increase knowledge about foundry processes and thereby further reduce productions costs.

CM&DT: In 2005, Camito AB was acquired, bringing innovative metals melting technology into NovaCast. Has this acquisition proved successful and can further business expansion be expected?

Camito AB is today a sister company of NovaCast Foundry Solutions AB and is also part of NovaCast Technologies AB. Rolf Mastenstrand, CEO at Camito AB says: "Yes, the Camito technology brings innovative solutions to the market by changing the way of die making in to a lean, fast and improved industrial process. The Camito concept enhances customer production economics and considerably reduces costs and lead times compared to traditional die manufacturing. Therefore, the business is expanding further and gaining market shares as a highly competitive technology, by casting tool steel and grey iron into one solid piece."

CM&DT: NovaCast is located on a software-orientated Science Park in Ronneby. Has this environment assisted with the recruitment of key staff members?

Being located at Soft Center in Ronneby has given many advantages. Our close co-operation with Blekinge Institute of Technology has provided ready access to programming, translations and other services. Our latest employee, for example, who develops systems for thermal analysis, was hand-picked from Blekinge Institute of Technology.

CM&DT: How important are research and development initiatives to the attainment of your company's future goals and can foundry customers expect many product refinements in the coming months/years?

Research and development is the key process at NovaCast Foundry Solutions. We need to react to all new developments and changes in the foundry industry and ensure that our products and knowhow are aligned with our customers' requirements. At the same time, we have an opportunity and obligation to drive new developments of knowledge connected to metallurgical processes towards even deeper understanding.

In the coming months, actually starting right now, we are introducing a new version of our thermal analysis system called ATAS 7.0 (Adaptive Thermal Analysis System), featuring new on-line measurements of metallurgical quality of the melt. We are also launching a brand new version of our simulation system NovaFlow&Solid CV, which is probably the fastest simulation system of its kind in the world. Last year, we introduced a new system for mass production of the third generation of CGI (compacted graphite iron) featuring the latest developments of CGI, focusing on low environmental footprint and cost savings.

CM&DT: Away from the office, what are your favourite past times?

Away from the office, I enjoy all kinds of sports activities but cross country and downhill skiing are my favourites. A good book or music is of course a necessity in life. Without support from my family though, I could never enjoy my work or leisure time.

CM&DT: Health permitting, what would Peter Vomacka like to be doing in 20 years?

In 20 years, I hope to be able to look back on my working career and recognise the tremendous changes the foundry industry will have undergone. Hopefully, I will be feeling satisfaction in having been part of it while at the same time being able to share my knowledge with the new generation of foundry men and women.

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