

Mid Sweden University and Sandvik sign five-year agreement

Mid Sweden University and global engineering group Sandvik have signed the first partnership agreement between the parties. Within the five-year agreement, an investment is made in an electron beam melting machine at Mid Sweden University – one of the first of its kind with a completely new functionality.

– We have already launched the first project where we want to develop and industrialise a new alloy on the market for electron beam melting – a super-duplex stainless steel material that is very strong and resistant to corrosion. I believe that we will be able to initiate more of this type of project through our cooperation, says Lars-Erik Rännar, professor.

The five-year partnership agreement means that the parties initiate joint research and development projects. The new machine remains in Sandvik's ownership, but Mid Sweden University is responsible for operation and service. The goal is to develop even more materials that help drive the industrialisation of additive manufacturing in metal.

– Sandvik is a frontrunner in additive manufacturing, with leading expertise along the additive value chain – from metal powder to finished component. We are very much looking forward to collaborating with Mid Sweden University who are highly experienced in electron beam melting, and especially so since we will be focusing on super-duplex stainless steel. This is a flagship alloy group for Sandvik, which we have been perfecting for decades. Earlier this year we announced our capability to process our well-renowned super-duplex metal powder Osprey® 2507 through L-PBF, and now we look forward to keep developing this material for other applications through additive manufacturing as well, says Mikael Schuisky, VP and Head of Business Unit Additive Manufacturing at Sandvik.

– Sandvik's collaboration with us is a proof that we have conducted good research for a long time in additive manufacturing and specifically electron beam melting, and it will help us recruit both national and international students for our upcoming courses at advanced level, says Lars-Erik Rännar.

For Mid Sweden University's current and future students in additive manufacturing, the new machine offers unique opportunities to manufacture and analyse materials. In recent years, the university has also had a very high utilisation rate on the existing machine, which means that the new machine from Sandvik provides better opportunities for more research projects and this in turn can lead to an expansion of the research group.

– In the past, we have had some limitations in how the melting process could be controlled, but with the new machine and a new software that another partner provides, we will be one of the first users in the world with this type of equipment.

One can say that we go from being limited to laying a puzzle with existing pieces to being able to design all the pieces ourselves in exactly the way we want. Overall, it opens up completely new ways of melting metal powder into solid material that will give us fantastic research opportunities and hopefully useful results for Swedish industry, concludes Lars-Erik Rännar.

Contact person Mid Sweden University:

Lars-Erik Rännar, Professor and Research Leader Additive Manufacturing,
+46 101 428 417, lars-erik.rannar@miun.se

Press contact Sandvik Additive Manufacturing:

Lena Berg, VP Marketing and Communications+46 70 633 83 08,
[lena.berg@sandvik.com](mailto:lana.berg@sandvik.com)