

Industry 4.0 for Investment Casting

The forth industrial revolution with autonomous and smart machines will change the working world fundamentally. In modern production and industrial plants nothing will remain the same and there will be drastic changes – this is at least what the intercedes of this trend are claiming. What does this mean for our Investment Casting world in general and in particular?

First of all we have to accept, that I.C. around the world is not the same. There is still a lot of manual technology in use. But on the other end there are fully automatic lines with several 6-axis Robots, automatic refill, shuttles and continuous monitoring and controlling. The second group is of course the more important one, when we start our discussion about Industry 4.0. And we have to split into two major fields: one is the production site and the output of I.C. parts.

The idea of Industry 4.0 can help to improve the quality, to shorten the development and delivery times and to reduce the scrap rate.

And the second interesting field for the new approach are all production machines and equipment, the robots, shuttles, the transfer stations and all moving and turning parts. Industry 4.0 can help to optimise the maintenance and to reduce costs, downtime and store capacity.

In a way, both areas belong together but we all have to find individual solutions when implementing the idea of Industry 4.0. And beside all the positive aspects we have to understand, that the new trend will also affect our working world and if we really think it to the very end, there might be a complete man less production and everything will be done by Robots. In this paper we will explain what might be possible and which solutions are already implemented.

Video: 4 minutes