

Lead in hard machining secured



With HiPIMS technology, Lafer has taken the long-standing collaboration with CemeCon to the next level © Lafer

HiPIMS opens up new market shares for Lafer

With Italy's largest coating service in Piacenza, Lafer SpA has been supplying coatings at the highest level for a wide range of industries for over 30 years. From the very beginning, the company has relied on CemeCon technology to coat cutting tools. In search of a high-performance solution for hard machining, Lafer has now taken its long-standing collaboration to the next level with HiPIMS technology.

Food packaging, medical consumables such as syringes, or connector housings for electrical components – molds for injection molding are needed for a wide variety of areas. So it's no wonder that mold and die manufacturing is booming worldwide. Economical solutions for hard machining of hardened steels are therefore more in demand than ever. Lafer, too, was looking for a high-performance coating that would give its experts an edge in this market.

THE solution for hard machining: HiPIMS

“In addition, we were approached by a well-known tool manufacturer who, despite having its own coating competence within the company, was not getting anywhere with the processing of hardened steels. We finally found the solution in the HiPIMS coating system from our long-standing partner CemeCon,” reports Primo Civardi, head of coating production at Lafer for 20 years and member of the management board.

To be really sure that they had found the best solution, Lafer tested HiPIMS intensively both in-house and externally using the latest measuring technology. The result: when it comes to hard machining in tool and mold making, there is nothing better than the HiPIMS coating material SteelCon®.

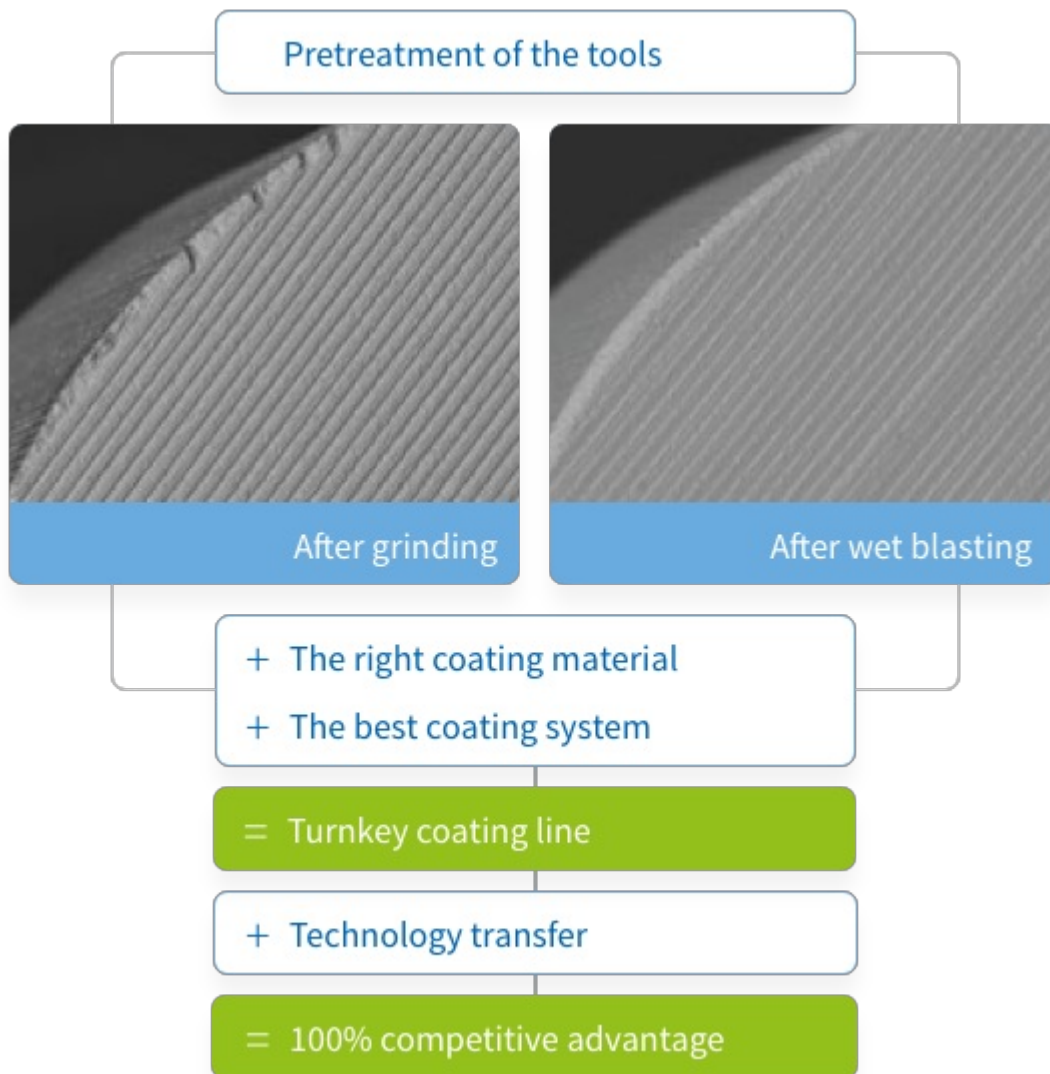
Lafer has added the HiPIMS coating material to its portfolio under the name Coral HiPIMS and adapts the coating to the respective precision tools of its customers.

In addition to producing established coatings, Lafer's experts can also develop their own coatings with the in-house coating line. This may sound complicated to some ears, but with CemeCon technology it is quite simple. The open architecture of the HiPIMS machine and full access to all HiPIMS parameters offers complete flexibility in tailoring coatings. At the same time, the processes are so well anchored and automated in the control system that (almost) anyone can handle them. The corresponding training for this is part of the CemeCon technology package.

On the way to your own Premium Coating

The Technology package

On request, CemeCon supplies the complete package consisting of substrate pretreatment, coating system and added periphery. The unit of plant engineering, proven process and training of employees in a CemeCon coating center not only facilitates manufacturers to enter the coating technology. It also makes the difference from any other technology supplier!



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Service life 50 percent higher

Coral HiPIMS significantly improves the performance of carbide cutting tools when machining medium and high strength steel. The HiPIMS coating is smooth, tough, hard and wear-resistant. This reduces machining time and a better surface finish can be achieved.

Alessandro Bertè, R&D Manager at Lafer, comments: “Machining steel with 62 HRC with a ball end mill is the classic high-end application in tool and die making. Perfect, therefore, to compare our coating with other solutions. The result was amazing and exceeded all our expectations: The tool life of the cutters with Coral HiPIMS was 50 percent higher than with all other tools – and with excellent surfaces. We are thrilled!”

What makes the new coating so successful and powerful? HiPIMS! The combination of the high hardness and toughness is unique. The hardness results from the chemical composition (AlTiSiN). The toughness originates from the new physical properties of the dense coating – this is only possible with HiPIMS.

Enormous potential for the future

“We want people to be able to recognize these exceptional coating properties directly from the name. That’s why our new coating is not simply called Coral, but Coral HiPIMS,” adds Primo Civardi. “With Coral HiPIMS, we have created a unique selling point for ourselves. It allows us to tap into completely new business opportunities in tool and die making. For us, HiPIMS is the breakthrough technology of the future. It is a milestone in our growth strategy.”

Encouraged by the extremely positive machining results, Lafer also sees enormous potential with HiPIMS technology in titanium machining for aerospace applications. Coral HiPIMS is a promising start into new markets. We are looking forward to the things yet to come!



Lafer Spa

[Lafer Spa](http://www.lafer.eu), based in Piacenza, was founded in 1986 and is today, thanks to steady growth, the largest coating center in Italy. On an area of 5,000 m², 120 employees produce high-quality PVD and CVD coating solutions for components, tools and molds. The “Lafer Method” means finding the best solution for each application thanks to many years of experience and know-how, offering the customer the excellence for which Lafer is well-known. The research and development department is constantly looking for new technologies to further improve the quality of the coatings offered. Lafer’s customers come from a wide variety of industries: mold and die, aerospace, medical, automotive, racing, food technology, and mechanical engineering.

www.lafer.eu

Lafer

hardmachining

HiPIMS

Premium Coating

Coating plant

Coating technology

CC800® HiPIMS