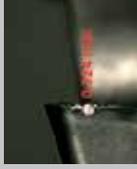


Source: Blaser Swisslube

Tool wear - milling

conventional metalworking fluid	The Liquid Tool Blaser
  <p>Maximum wear 32 paths / 6.4 meters 34 paths / 6.8 meters</p>	  <p>Maximum wear 32 paths / 6.4 meters 44 paths / 8.8 meters</p>

Higher tool life due to Blaser's Liquid Tool



liquidtool
 BASIS VOR PRODUKT

Blaser Swisslube
www.blaser.com
 Hall 3A, Booth A118

METALWORKING FLUIDS

The Metalworking Fluid Turbo for the Automotive Industry

In order to accelerate basic research in the field of turbocharger manufacturing, Blaser Swisslube, in collaboration with its partners, has carried out extensive tests at the company's own Technology Center.

The production of turbochargers is very complex. Stable and reliable processes as well as high productivity are crucial. Tests carried out at Blaser Swisslube's own Technology Center in Switzerland have clearly demonstrated what can be achieved with carefully planned processes and the right metalworking fluid.

Increased tool life

In 2013, Blaser began to carry out tests together with a leading tool manufacturer in the field of turbine housing machining. This involved machining heat-resisting cast steel (1.4849, 1.4848 as well as 1.4837). The aim of the tests was to find the ideal tool/metalworking fluid combination, thus creating added value for the customer. The bench-

mark for the testing was drilling and face milling using original components and test components. Thanks to Blaser's Liquid Tool, the tool life of 1,200 drills was increased to over 2,000 drills. When it came to face milling, the tool life was increased to up to 25 percent for rough cutting and approx. 45 percent for finishing.

Basic research

In close collaboration with a leading OEM in the field of turbocharger production, a further project was launched in 2017. The aim of that basic research project was to answer the following question: 'What is the ideal metalworking fluid strategy for machining turbine housings?' The focus was on process security, cost reduction and process stability. Special attention was paid to the interaction of the cutting materials, metalworking fluid strategies and machining materials.

Significant cycle time and tool cost reduction

With the help of the findings, one automotive sub-supplier from India was able to reduce its cycle times by an incredible 5 seconds without sacrificing the process security. In another case, a large European car sub-supplier was able to save a total of 20 percent of tool costs



Source: Blaser Swisslube

for drilling, V-band roughing (using bell tools) and milling in the course of a three-shift operation. The metalworking fluid's sump life also significantly increased (by over 50 percent), thanks to the Blaser's new metalworking fluid solution.

The Liquid Tool by Blaser Swisslube

This project made quite clear that factors such as productivity, economic efficiency and machining quality strongly depend on the choice and quality of the metalworking fluid and know-how of the machining specialists. In addition to the coolant, it's Blaser's expert knowledge in the areas of sales, research and development, technology and customer service that solidify its status as an excellent partner. This professional competence transforms a metalworking fluid into a Liquid Tool, a solution that is tailored to the partner's specific needs.