

Fluid Fundamentals

PSP Peugeot Improves Production Process with Blaser Swisslube

Matthew Jaster, Senior Editor

In a recent move to boost manufacturing production, PSP Peugeot changed a few things in their production facility. They purchased two new cutting machines and upgraded the material needed to manufacture the “poire” or “pear” (pepper mills you’d find in restaurants, for example) with S250 stainless steel.

Production managers also reached out to Blaser Swisslube to discuss how the company’s Liquid Tool could add additional benefits to the manufacturing process. The poire is ground via gear hobbing, a demanding machining process where cycle time and tool life are vital to productivity and machining efficiency. The Liquid Tool by Blaser Swisslube helped PSP Peugeot improve their production process considerably by saving tool costs, omitting deburring and improving surface quality.

A History of Fine Craftsmanship

Those pepper and coffee mills — regarded by many as the most famous in the world — were first produced by PSP Peugeot back in the 19th century. In 1810, the Peugeot family transformed their father’s grain mill into a steel foundry. By 1840, the first coffee grinder was created, followed by the first pepper mill as a table model in 1874 (The Z-Model).

In 1889, the rapid development of the organization would include the production of scissors, saws, clock springs, planing knives and automobiles. For decades, the company would be renowned for the quality, longevity and craftsmanship of its products and technologies.

Currently, the plant located in Quingey, France (with 130 employees), produces roughly 2 million pepper and salt mills annually in over 80 countries worldwide.

High Quality Cutting and Grinding Fluids

Blaser Swisslube is a globally active company in the metalworking fluid sector. The independent and family-owned Swiss company was founded in 1936 and has since grown from a small business into a global player, employing around 600 people worldwide. Blaser Swisslube is represented in about 60 countries, close to its customers.

The company develops and produces high-quality cutting and grinding fluids so that its customers can produce a wide range of products, from the tiniest of components to large, critical and structural components in all manufacturing industries.

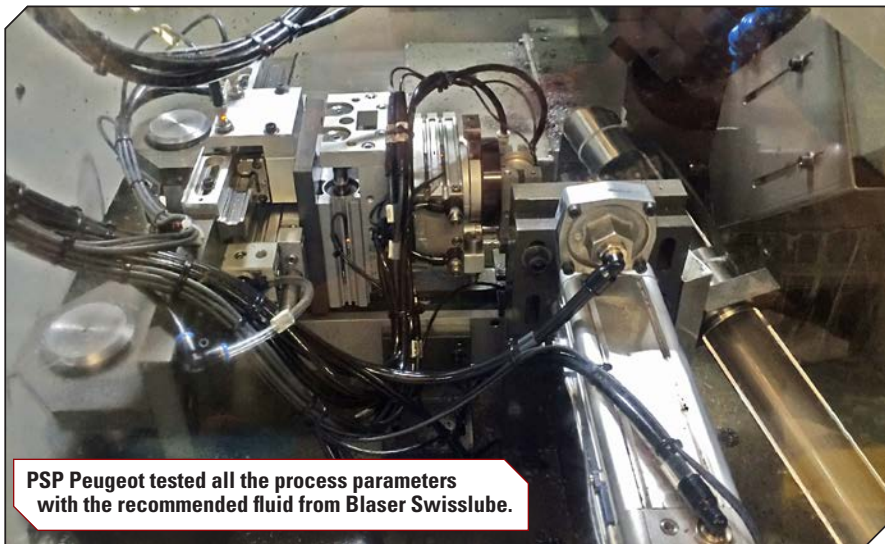
Machining Tests

Ghislain Jouffroy, methods engineer at PSP Peugeot contacted Blaser Swisslube in France. He was willing to perform machining tests with the recommended metalworking fluid Blasomill GT 22 on a Tech-Tech machine for three months. Blaser specialist Christophe Simon intensively oversaw this test phase, systematically recording all processing parameters.

The workpieces were aligned, guided, machined and then ejected by a spiral vibrator — everything was automated.

“In addition to the metalworking fluid, we also switched the milling tool from HSS to carbide,” said Simon. Per machine and year, 1.2 million poires are produced during shift operation, with a cycle time of 13 seconds per pear.

The improvements thoroughly impressed PSP Peugeot.



PSP Peugeot tested all the process parameters with the recommended fluid from Blaser Swisslube.

Thanks to the Blaser metalworking fluid, 90,000 instead of the previous 30,000 workpieces could be produced — reducing the tool costs by 21 percent. Additionally — because the workpieces no longer heat up during the hobbing process — no more brows are formed, making the deburring process superfluous.

“The Blasomill GT 22 releases the air very quickly, does not foam and is the perfect choice for this machining process at PSP Peugeot,” said Simon. The litre price of Blasomill GT 22 is higher than that of the previous oil, but the various savings result in net savings of 25,173 euros per year.

Jouffroy was pleased with the results. “Everything is running like clockwork and we are very satisfied,” he added.

The recording of these processing parameters were completed by using Blaser’s online tool, Liquid Tool Analyzer.



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According to Philippe Lacroix, general manager of Blaser Swisslube France, they were able to document the gained values in many different areas.

“Besides the mentioned tool cost savings, the machining time was reduced by 1 second per piece with an annual production of 1,200,000 units. This is equivalent to one month of production of one machine. In addition, coolant consumption was lowered by nine percent. All in all, the customer expectations were exceeded,” Lacroix said.

A Look at Blasomill Cutting Oils

Blasomill cutting oils suit various segments and requirements. The high-pressure and wear protection performance of these products varies according to each individual application.

Blasomill GT 22 is a high performance cutting oil. It was developed specifically for machining stainless, acid- and heat-resisting steel, titanium and non-ferrous metals. It is suitable for milling, hobbing, drilling, turning, automatic turning, threading, tapping, broaching, reaming and sawing. It is also suitable for high-speed machines like Escomatic.



PSP Peugeot produces more than 2 million salt and pepper mills annually.

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general manager, Blaser Swisslube France

An Evolving Collaboration

PSP Peugeot has found the right coolant partner in Blaser Swisslube. They do not want to rest on their laurels, but want to continuously optimize their processes together. Thus, for the next project, they want to jointly analyse and improve the operation of the turning lathes.

Based on the great results with Blasomill GT 22, PSP Peugeot also tested Blasers Vascomill CSF 35 for minimal quantity lubrication (MQL) — cutting punched DN40 steel. This resulted in additional tool cost savings and post processing gains.

“The engineers from the customer side have a profound understanding of their manufacturing process and can estimate what an improvement will bring to the entire production

process,” Lacroix said. “Our Blaser Swisslube engineers have a long-term experience in the field of manufacturing and know precisely the strengths and skills of the coolant solutions. Therefore, with the collaboration, we get the most out of the machines and tools and optimize the process verifiably.”

Metalworking fluids play a significant role in many manufacturing processes. In the future, Blaser Swisslube will grow and develop products simultaneously with new machining technologies and materials.

“Blaser Swisslube will develop further to support and to achieve measurable added value to our customers and partners in the industry,” Lacroix said. ⚙️

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The two companies will continue to collaborate in the future to optimize cutting and tooling procedures.

