DIEMOULD INDIA 2018 Special Supplement - An initiative by MACHINE TOOLS WORLD Magazine

MACHINE TOOLS WORLD

www.mtwmag.com

Monthly Magazine on Machine Tools & Allied Industry

MACHINE TOOLS WORLD TAGMA DIEMOULD INDIA-2018 Special Supplement

## CONTENTS



# Blasocut Bio Concept - A step towards a greener planet

**Punit Gupta, Managing Director, Blaser Swisslube India Pvt Ltd**

It is becoming a global requirement for all Manufacturing organizations to contribute towards a greener planet. These initiatives are either due to global regulations or self-consciousness towards the environment. Blaser Swisslube has designed Blasocut, a concept that works in perfect harmony with nature. It enables colonization by stable primary bacteria that eliminate all other bacteria by taking over the available nutrition, thus limiting their own growth as well. The result is long-term emulsion stability and one of the safest formulations to use across the world.

### Blasocut basics

Water-miscible Blasocut emulsions stay biologically stable inherently, without needing any bactericides – a concept Blaser Swisslube introduced 40 years ago. The harmless environmental primary bacteria commonly found in drinking water are deliberately fostered to keep Blasocut emulsions stable. Mixing the emulsion concentrate with water propagates a natural biological equilibrium. By incorporating the primary bacteria, the Blasocut system uses a well-proven law of nature to eliminate the use of tank side addition of allergenic bactericides.

### Blasocut benefits

Apart from successful technical performance of Blaser Swisslube metalworking fluids, one of the company's top priorities has always been its human and environmental compatibility. Blasocut emulsions based on the primary bacteria principle enables optimal process reliability, extremely long service life and make it as one of the safest formulations in the world.

### Leveraging effect of Blaser Swisslube Liquid Tool

It is fascinating to see the large positive impact which can be brought by little investment in this area of metalworking fluids. Blaser Swisslube has been able to demonstrate this dimension very well.

In many closely held studies at customer places, Blaser has been able to achieve productivity improvements in the range of 8-15 per cent by working together with customers. In terms of tool cost, the effect can be approximately 20-40 per cent reduction.

### Doubling of the tool life

In a recent project, Blaser experts in the Technology Centre impressively optimised the tool life. A renowned partner filled the role of international supplier and manufactured aircraft parts from a high-strength titanium alloy. In the ultra-modern Technology Centre in Hasle-Rüegsau, a range of tests were started with the goal of optimising the tool life during pocket machining.

The specialists at Blaser reconstructed the partner's machining environment and employed the same machining parameters and data using a DMG Mori DMU 65 mono block machining centre, and began comprehensive tests employing trochoidal milling strategies.

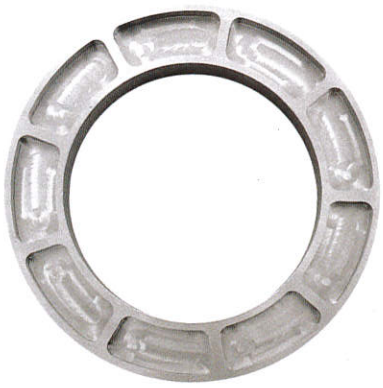
The tests compared machining performance (specifically tool wear) when using a conventional metalworking fluid against an optimal metalworking fluid specifically adapted to the partner's needs.

The series of width of wear tests were conducted up to 0.30 mm.

The results were excellent. Using the optimally adapted coolant from Blaser Swisslube, eleven (11) instead of just five (5) pockets could be milled until the wear on the tool forced the processing to be stopped. The result achieved was confirmed in various series of tests, and corresponds to a doubling of the tool life.

### Machining data

**Operation:** Pocket milling
**Material:** high-strength titanium alloy for aircraft construction
**Tool:** End mill with a diameter of 12 mm
**Cut parameters:** Vc 80 m/min, fz 0.075 mm, ae 0.9 mm, ap 19 mm
**Coolant pressure:** 75 bar. MTW



Blaser. SWISSLUBE