

Why *bioconcept*
cutting fluids

are becoming essential -

and how Blasocut sets the standard



No dip slide
required



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cutting fluids**

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"Safer chemistry is not just about meeting regulations - it's about building a healthier workshop, protecting skilled people, and improving reliability. We've seen too many businesses treat coolant as an afterthought. The reality is that coolant choice drives productivity, compliance, and even staff morale."

Stewart Coull
MANAGING DIRECTOR

Safety, compliance, and performance no longer have to be competing priorities

Cutting fluids have long been the lifeblood of precision machining. They cool tools, improve surface finish, and extend tool life - but they can also introduce health, safety, and compliance risks if not managed correctly. In recent years, the

UK Health and Safety Executive (HSE) has placed greater emphasis on controlling bacterial growth and preventing nitrite-related hazards in water-miscible coolants.

Bioconcept cutting fluids, which are specifically designed to prevent the formation of harmful nitrosamines, have emerged as a clear solution. These fluids not only protect operators and workplaces but also help manufacturers reduce long-term costs and maintain machining consistency.



The challenge with traditional water-miscible coolants

Water-miscible coolants are essential for high-speed machining because they provide excellent lubrication and heat control. Unfortunately, these same fluids can also become a breeding ground for bacteria and microorganisms, especially if systems are poorly maintained. As bacteria multiply, several problems arise simultaneously:

1

Coolant performance deteriorates

This leads to shorter tool life, inconsistent machining accuracy, and unplanned downtime.

2

Odours and mist become unpleasant

Bacterial contamination produces a foul smell that spreads across the workshop, creating an unhealthy environment.

3

Nitrite formation poses serious health risks

When secondary amines in coolants react with nitrites, harmful nitrosamines can form - a key concern for the HSE.

4

Maintenance costs escalate

Operators are forced to clean or recharge sumps more often, increasing downtime and chemical consumption.

"We regularly audit systems where operators have become so used to bad odours and short coolant life that they see them as normal. That's a dangerous mindset, because it hides both compliance risks and hidden costs. This is precisely why the HSE recommends bioconcept coolants - fluids designed without secondary amines, meaning there's no pathway for nitrosamine formation."

Darren Clarke
SALES & APPLICATION ENGINEER, JEMTECH

What makes bioconcept fluids different?

Instead of controlling bacteria through heavy use of harsh biocides, bioconcept cutting fluids like Blasocut from Blaser Swisslube use a bio-stable formulation that resists bacterial attack naturally. By eliminating the chemical components that can react with nitrites, these fluids maintain performance and remain safer for operators.

The benefits go far beyond compliance:



Coolants remain stable for years rather than months.



Operators work in a cleaner, odour-free environment.



Machines run consistently without sudden coolant breakdowns.



Total cost of ownership drops thanks to less maintenance, fewer fluid changes, and reduced waste disposal.

A good cutting fluid should be predictable; you shouldn't have to constantly fight bacterial growth with additives. Blasocut works with you, not against you - the chemistry is designed to stay clean and stable.

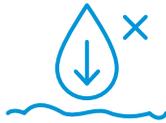




Blasocut 201: A proven bioconcept solution

Within the Blasocut range, **Blasocut 201** has become the benchmark coolant for demanding industries including aerospace, automotive, medical, and precision subcontract manufacturing. The formulation is **amine-free, chlorine-free**, and engineered to protect both people and equipment.

Workshops using Blasocut 201 consistently report:



No dip slide needed

Only needs to be monitored for the concentration and pH.



Improved tool life & surface finish

Thanks to stable lubrication and cooling performance.



Exceptional sump life

Often lasting several years between full system changes.



Lower total operating costs

Fewer chemical top-ups and less downtime for coolant maintenance.



These are not just incremental gains. In many cases, businesses see a step change in process reliability, translating directly into higher productivity and profitability.

Why UK manufacturers need to act now

The **HSE's bioconcept guidance** isn't optional advice - it reflects a shift in how regulators and industry view occupational exposure risks in machining environments. Using a bioconcept coolant like Blasocut addresses multiple issues in one step:



Compliance

No uncontrolled nitrosamine formation, no surprises during inspections.



Productivity

Stable chemistry means consistent machining performance.



Safety

A healthier environment for operators, with fewer odour and mist issues.



Cost savings

Less downtime, fewer additives, and longer fluid life reduce the total cost of ownership.

"When you take compliance seriously, performance benefits usually follow. HSE guidance isn't there to slow industry down - it's about preventing risk and ensuring the best practices that ultimately help companies operate more efficiently."

Stewart Coull

MANAGING DIRECTOR, JEMTECH

Jemtech: the UK authority on Blaser cutting fluids

As the official UK distributor of Blaser Swisslube, Jemtech offers more than just product supply. Their technical team provides:

- ✓ **System audits** to identify bacterial growth issues and compliance risks.
- ✓ **Expert product recommendations** to match each machining process.
- ✓ **On-site commissioning and training** to ensure a seamless transition.
- ✓ **Ongoing monitoring** to maintain peak coolant performance.

This approach transforms coolant management from a reactive chore into a strategic advantage. Jemtech works closely with customers to **improve workshop health, extend sump life, and increase profitability.**

We take a partnership approach; our role isn't just to sell Blasocut - it's to help customers get measurable results. Better chemistry is just the starting point.



The takeaway: safer chemistry equals stronger performance

The move toward bioconcept cutting fluids is both a regulatory expectation and a business opportunity. With Blasocut, UK manufacturers don't have to choose between compliance, safety, and performance - they can have all three.

If you're still battling bacterial growth, coolant odours, or short sump life, now is the time to act. Jemtech can help you make the switch smoothly, improve your machining processes, and protect your people.

Ready to make your cutting fluid an asset, not a liability?

Contact Jemtech, the UK's only official Blaser Swisslube distributor, to arrange a coolant audit or discuss a Blasocut trial. **Visit Jemtech.co.uk or call 01825 767400**



Product range



Fluid management

The intelligent and automated fluid management systems designed for your cutting fluid of choice



Mist extraction

Air purification filters from CNC to full factory solutions



Cutting fluids

Reduce costs, increase efficiency and provide quality where it counts.



Industrial vacuums

Coolant / neat oil industrial vacuum units.

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