Q8 Oils

METALWORKING

Q8 Brunel XF 700

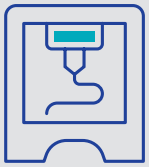
A new generation of coolants

www.Q8Oils.com

Value and sustainability

At Q8Oils, environmental awareness is embodied in a constant pursuit of solutions that guarantee customers an ever-higher level of performance combined with a minimised environmental impact. Q8Oils focuses all its development work on finding the perfect combination of these two fundamental requirements.

Our products represent the tangible synthesis of the value of Q8Oils: they are not just an answer to an operational need but veritable assets to be made available to customers to further enhance their business.



Increased productivity

*A better-performing product means **increased tool life and better surface finish**: better cooling means less wear, less maintenance on tools and less production downtime. Ultimately, reduced cycle times, faster production and less waste.*

Reduced operational costs

*A higher quality product ensures **significant cost reduction along the entire production chain**: less evaporation ensures lower consumption and consequently less disposal; the special cleaning and lubricating powers ensure better machine operation and less maintenance. All factors that substantially decrease energy consumption.*

Improved working environment

Reduced energy consumption and increased productivity have a positive effect on the environmental impact generated by the process. The improved safety profile generates additional benefits: the product's almost non-existent/neutral odour and minimal mist generation have a significant impact on the operating environment in terms of user tolerability. All factors that contribute to a healthy working environment.

Properties and characteristics

	Refractometer factor	Lubricating base (%)	Appearance	Application	Materials							
					Cast iron	Steel	Alloy & stainless steel	Aluminium	Autom. aluminium	Aviation aluminium	Copper	Titanium
Q8 Brunel XF 753	1.2	34	milky	cutting grinding	○	●	●	●	●	●	○	●
Q8 Brunel XF 741	1.7	10	semi-translu-cent	cutting grinding	●	●	●	●	●	●	○	○
Q8 Brunel XF 732	1.7	20	semi-translu-cent	cutting grinding	●	●	●	○			○	
Q8 Brunel XF 711	2.4	8	translucent	cutting grinding	●	●	○				○	

● recommended ○ usable

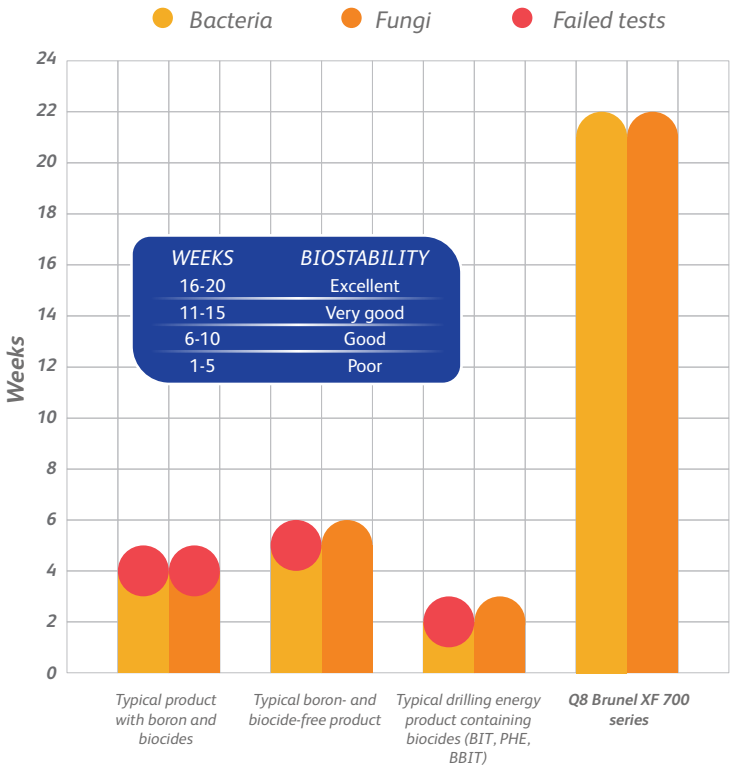
Outstanding safety profile

Free from boron & biocides, the Q8 Brunel XF 700 series offers outstanding biostability while maintaining top-level performance.

Boron derivatives and biocides are the most commonly used preservatives to prevent the proliferation of microorganisms such as bacteria and fungi, contaminants that can severely hamper machine operation and compromise the cleanliness of the working environment, in coolant fluids.

Boron derivatives, however, release boric acid in aqueous solutions, and biocides are chemicals which, because they are tasked with killing microorganisms, inevitably possess a certain level of toxicity. Some biocides are also strong allergens while others, such as phenoxyethanol, release phenol, a dangerous mutagen, into the emulsion.

In addition, new limits have been placed on boron derivatives as of December 2022, and in establishing the European Chemicals Agency (ECHA), the European Union is applying increasing restrictions on the use of biocides.



How biostability is assessed

The biostability of coolant fluids is evaluated with specific tests known as Challenge Tests*, in which very high concentrations of bacteria and fungi are injected into the emulsion on a weekly basis. At the end of each week, the level of proliferation of bacteria and fungi in the sample is checked. The test stops - and is considered to have failed - when high contamination, set at 10*6, is present in the emulsion for two weeks in a row.*

The Q8 Brunel XF 700 series achieved such an outstanding result that the test was stopped after 22 weeks without any contamination having developed.

Outstanding operational performance

Thanks to an innovative formulation, Q8 Brunel XF 700 series coolants are extremely resistant to bacterial infection and ensure a longer service life than conventional fluids, thereby ensuring a significant reduction in costs and waste.

Natural gas-derived base

The Q8 Brunel XF 700 series was developed with bases derived synthetically from natural gas. The unique nature of the base, in addition to its extremely high purity, gives it incredible stability properties compared to traditional petroleum-derived base oils.

These bases have a number of strengths: they are free of sulphur, nitrogen and aromatic compounds, they are colourless and odourless and they are characterised by a high viscosity index, excellent oxidation stability, a very high flash point and very low volatility.

This technology represents a further development achieved by our laboratory, which is constantly working on new, cutting-edge formulations to guarantee customers products with increasingly sustainable profiles, without sacrificing ultra-high performance.

- *Excellent safety profile*
- *Free of boron derivates and any biocides*
- *Excellent corrosion protection*
- *Unique wetting and cleaning characteristics*
- *Improved productivity*
- *Longer tool life*

Q8 Brunel XF 700

Q8 Brunel XF 700 series coolants have unique wetting and cleaning characteristics, reducing fluid drag and ensuring excellent machine cleanliness.

They can be used with all water qualities, both soft and very hard.

Q8 Brunel XF 753

*Q8 Brunel XF 753 has the highest **cutting performance** on all aluminium alloys, particularly those specific to the automotive and aerospace industries.*
It is designed to excel in a wide range of medium- to heavy-duty machining operations on ferrous and non-ferrous materials, including titanium alloys.
It does not stain aluminium alloys and can also be used on copper alloys.

- *Compliant with Airbus AIMS 12.10.00*
- *ASML OMNEO Grade II approved*

Q8 Brunel XF 741

*This 700 series product has the most extensive **range of applications**: it can be used on ferrous materials such as grey cast iron, ductile cast iron, steel alloys and stainless steel, as well as on aluminium alloys for the automotive and aerospace industries.*
It does not stain aluminium alloys and can also be used on copper alloys.

Q8 Brunel XF 732

*Q8 Brunel XF 732 provides the most remarkable **cleaning properties**: it is designed to excel in medium-hard machining operations on all ferrous materials, grey cast iron, ductile cast iron, alloy steels and stainless steel.*
It can also be used on copper alloys and for non-heavy-duty applications on aluminium alloys.

Q8 Brunel XF 711

*Has been marked as the product with the highest **biostability**: it has demonstrated extraordinary resistance to fungi and bacteria even at very low concentrations. It is designed to excel in medium- to heavy-duty machining operations on ferrous materials. Thanks to its significant cleaning powers, it is well suited for profile forming applications and the production of welded tubes.*

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