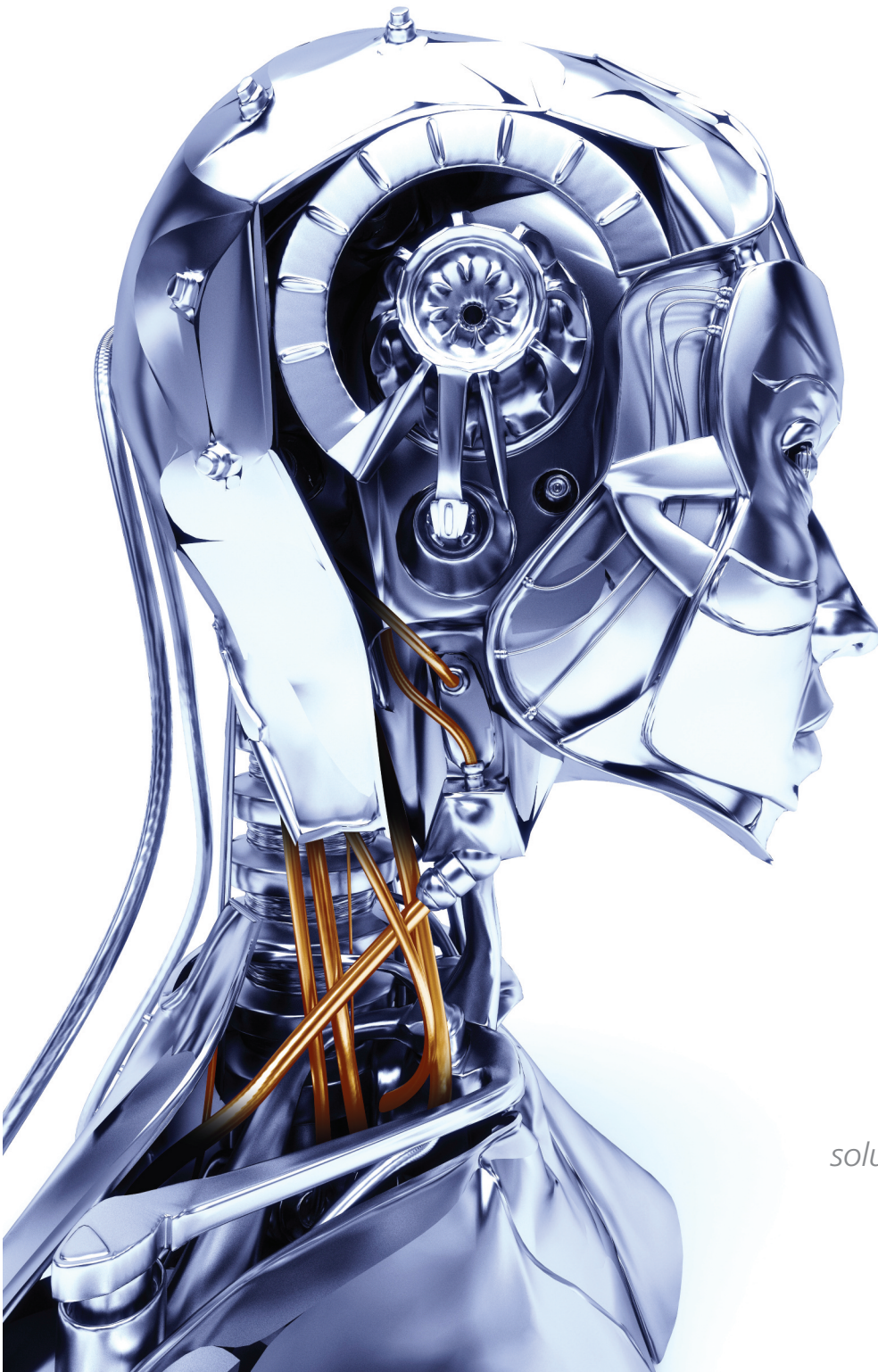


Q8 Oils

smart engineering solutions



soluble & neat metal working fluids

smart engineering solutions

Metal working fluids are one of the most complex liquids owing to their chemistry and the environment in which they have to perform. The wide range of materials and applications means that it is not possible to develop one formulation that fits all requirements. It is therefore essential to offer a wide product range so that customers can confidently choose the metal working fluid best suited to their process and application.



Complex chemistry, new materials and difficult applications require smart engineering solutions.

As well as performance requirements, we recognise our customers' commercial needs. By offering optimum, high and extreme performance products, we can help you balance criteria such as surface finish, the severity of the working environment and productivity, against cost. High performance chemistry comes at a higher price; for example, the machining of aerospace titanium compared to steel, requires smart and different engineering solutions.

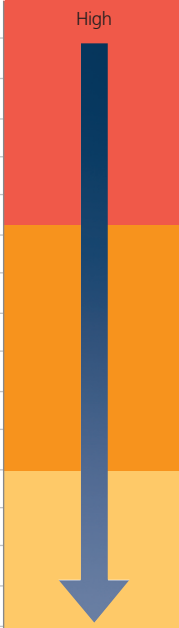
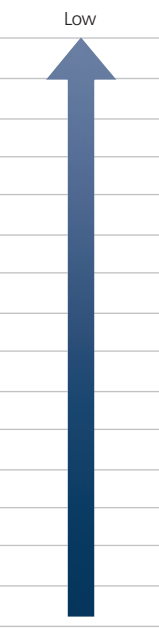

The table below identifies the performance level required from the metal working fluid in relation to the severity of the operation.

As the severity of the machining operation increases, the speed of operation decreases and the need for antiwear and EP protection increases.



The Q8Oils Field Service Technicians conduct on-site inspections and tests to ensure products are performing correctly and offer advice to customers on how to increase coolant life and optimise performance.

Q8Oils use a network enabled, tablet-based system with an 'app' that enables Q8Oils technicians to monitor performance; whilst customers can use their own devices to obtain the reports.

Machining Operation	Operation Severity	Cutting Speed	Cutting Fluid Activity
Broaching, internal	High	Low	High
Pipe threading			
Broaching, surface			
Forming & thread grinding			
Threading, general			
Gear shaping, rotary			
Thread rolling, rotary			
Gear shaping			
Reaming			
Deep drilling			
Drilling, boring			
Thread rolling, rack	Low	High	Low
Hobbing, gear spline			
Milling			
Turning			
Band and hand sawing			

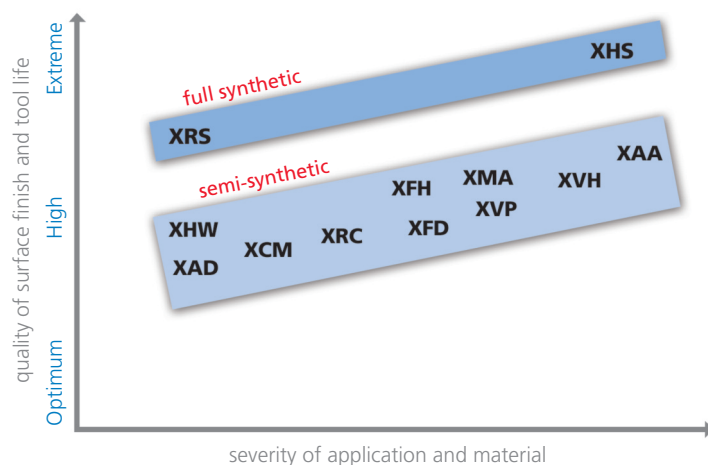
On the following pages, the table and graphs will help you identify candidate products in the Q8Oils range. You can verify then your choice by referring to our data sheets which give a detailed profile of each product. Alternatively, you may request a visit from a Q8Oils product specialist to discuss your requirements in more detail (see back page).

To download a product data sheet visit: www.Q8Oils.co.uk/technicalhelp.aspx

Q8 Berlioz

Soluble fluids that are free of formaldehyde, chlorinated paraffins and secondary amine.

Material	Cast iron & low alloy steel	Stainless steel & low alloy steels	Aluminium & alloys	Yellow metals
Grade	All products	XAA, XHS, XMA, XVH	XAA, XFD, XFH, XHS, XMA, XVH	XAA, XCM, XFD, XFH, XHS, XMA, XRC, XRS, XVH, XVP

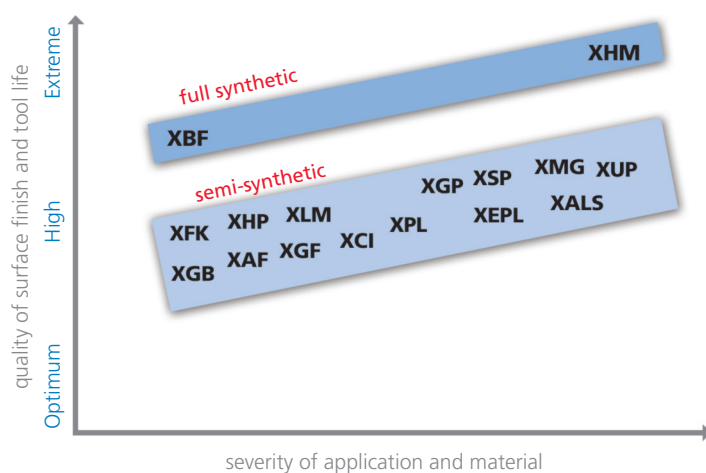


Q8Oils engineers are specialists in finding solutions, or improving existing performance.

Q8 Baroni

Soluble fluids without added chlorinated paraffins for high performance machining.

Material	Cast iron & low alloy steel	Stainless steel & high alloy steels	Aluminium & alloys	Yellow metals
Grade	All products (not XMG)	XALS, XBF, XEPL, XGP, XHM, XSP, XUP	XALS, XEPL, XGP, XMG, XSP, XUP	XAF, XALS, XGF, XGP, XPL, XSP, XUP

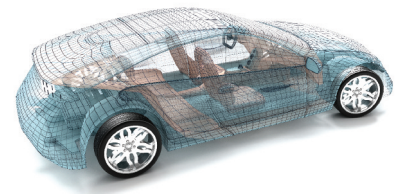
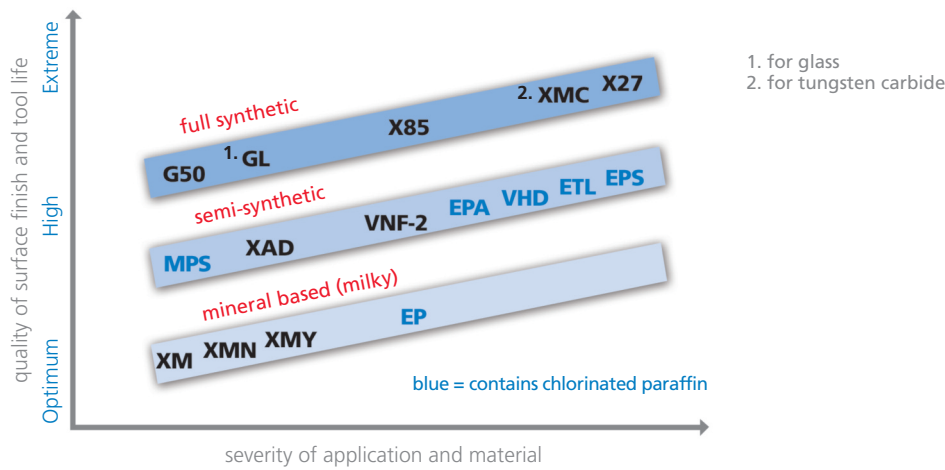


Regardless of the material, machining environment or application, we have a product for the task.

Q8 Beethoven

Soluble fluids that contain chlorinated paraffins, or are chlorinated paraffin free, depending on the grade.

Material	Cast iron & low alloy steel	Stainless steel & high alloy steels	Aluminium & alloys	Yellow metals
Grade	EP, EPA, G50, MPS, VHD, X85, XAD, XM, XMN	EP, EPA, EPS, ETL, MPS, VHD, X85	EPA, EPS, VHD, VNF-2	VHD, VNF-2, XAD, XMY

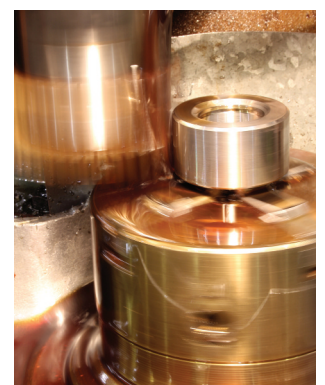
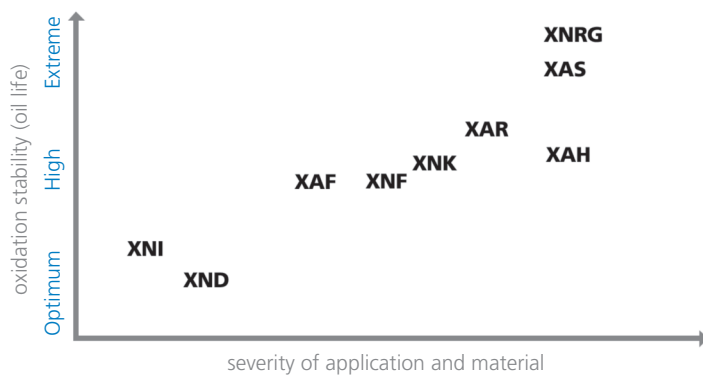


Innovation in materials and engineering techniques must be matched by innovation in metal working fluids.

Q8 Bach

Neat metalworking fluids.

Material	Cast iron & low alloy steel	Stainless steel & high alloy steels	Aluminium & alloys	Yellow metals
Grade	XAF, XAH, XAS, XNF, XNI, XNK, XNRG	XAH, XAR, XAS, XNF, XNK, XNRG	XND, XNF, XNK, XNRG	XND, XNF, XNK, XNRG



Q8 Bach uses Q8 base oils which makes them very oxidation stable, so maintaining viscosity and product integrity, leading to longer service life.

Q8 Brahms

Forming oils for all material types and severity of applications. Please contact Q8Oils for more information.

Q8Oils product range

Our metal working fluids are the result of more than 100 years of product development and application experience. Our chemists and product engineers take a unique, innovative and progressive approach to developing different grades for different applications. We develop smart products that extend tool life and significantly reduce operating costs, while staying a step ahead of the new demands arising from higher fluid pressures, faster cutting speeds, new materials and tool technologies.



Ensuring a healthy environment for the machine operator is a key consideration in our product and service philosophy.

To achieve this we constantly seek new components to improve chemical and biological stability, including biodegradable and synthetic esters. Combined with the latest active and non-active chemistry our products have excellent wetting, anti-wear and EP properties. They maximise cooling, resist foaming, improve tool life and eliminate corrosion and staining to ensure excellent component surface quality. Our products are formulated to resist attacks from micro-organisms such as bacteria and fungi. They perform equally well in hard or soft water, maintain machine cleanliness and ensure operator safety. With low misting, low evaporation and low odour, Q8Oils products also improve the workshop environment. Additionally our superior neat oils are highly oxidation stable, primarily due to their formulation using our own Q8 base oils, so that they retain their colour, viscosity and most importantly product integrity, which prolongs their life.



Confidence in our products, services and people, has been a key factor in establishing Q8Oils reputation as a trusted partner.

There are five product families in the Q8Oils portfolio. Selection depends on the type of chemistry required:

- **Q8 Beethoven:**
soluble fluids that contain chlorine, or are chlorine free, depending on the grade.
- **Q8 Baroni:**
soluble fluids without chlorinated paraffin.
- **Q8 Berlioz:**
soluble fluids that are free of formaldehyde, chlorine and secondary amine.
- **Q8 Bach:**
neat metal working oils.
- **Q8 Brahms:**
neat forming oils.

Product research & development is the foundation of superior performance and customer productivity.



Q8Oils extensive research & development facilities carry out a full range of testing in order to develop superior products, including: torque tapping test TTT microtap, Cameron plint, four ball weld, Reichert, corrosion, Falex EP, material compatibility, oxidation, emulsion, quenching and many more.

about Q8Oils

Q8Oils is part of the Kuwait Petroleum Corporation (KPC), one of the world's largest oil companies. With 120 years of known reserves and crude oil production levels of 2.9 million barrels per day, it is ranked the seventh largest oil producer in the world. KPC's business spans every segment of the hydrocarbon industry: on and offshore exploration, production, refining, marketing, retailing, petrochemicals and marine transportation.

Backed by the significant corporate resources of our parent company, Q8Oils is a fully integrated lubricants organisation. We refine our own high quality base oils from Kuwait Export Crude, manufacture an extensive range of oils in our own blending plants and have established state of the art European laboratories for development and technical support work. Today, Q8Oils metal working fluids are used by customers in more than 80 countries around the world.



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