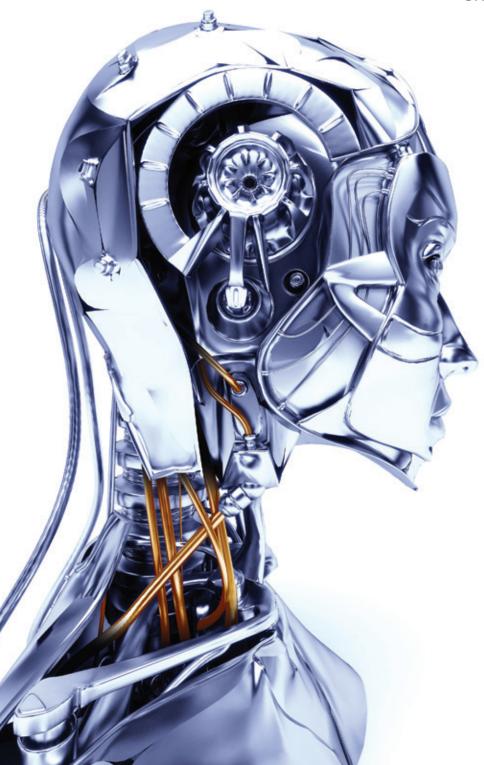


smart engineering solutions



soluble metalworking fluids



Our metalworking 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.

As well as performance requirements, we recognise our customers' commercial needs. By offering a range of fluids from general purpose through to extreme performance products; we can help you balance criteria such as surface finish, severity of the operation, working environment and productivity, against cost. Q80ils metalworking fluids have been developed to perform to the highest standards demanded in todays modern manufacturing climate. Our latest formulation ensures tooling performance is maximised and machine tools are protected. Fluid stability and cleanliness is assured in both hard and soft waters and our products are highly resistant to microbiological contamination (bacteria & fungi) leading to long term sump life.

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

- O8 Brunel:
- soluble fluids and the flagship range for superior performance -boron, chlorine, formaldehyde and secondary amine free.
- Q8 Berlioz:
- soluble fluids that are free of formaldehyde, chlorine and secondary amine.
- Q8 Baroni:
- soluble fluids without chlorinated paraffin.

The Functions of a metalworking fluid

A blend of oil & additives designed to aid the removal and shaping of metal



Are you working safely with MWF's?

Where as choosing the right product with the right balance of safety & performance is an important step in improving and ensuring the protection of operators, it is important to recognise that once in use; the composition of MWF will change. This can include both chemical deterioration & contamination (such as tramp oil) and also microbiological contamination.

This can result in potential hazards to the skin, eyes and more critically to the airways and lungs. The control of Substances Hazardous to Health Regulations (COSHH 2002) is enforced by law and requires all work environments to demonstrate adequate control to exposure of substances including MWF's.

Ensuring the adequate control of exposure can be achieved by;

- Reducing Exposure to as low as is reasonably practical
- Selecting the most appropriate product
- Ensuring & demonstrating adequate local exhaust ventilation (LEV)
- Conducting and recording a fluid monitoring programme.

Keeping records in accordance to COSHH requirements;







Employee health records & records of exposure to hazardous substances





The HSE Inspection programme

In 2016 the HSE announced its work plan for a proactive inspection programme in the manufacturing industry where workers may be at risk of exposure to asthmagens and/or carcinogens generated during the production process. One particular focus area is in the use of metalworking fluids (MWFs').

The HSE has identified that there is a potential risk of ill health for operators exposed to oil & MWF mist leading to respiratory diseases such as COPD (chronic obstructive pulmonary disease) and EAA (extrinsic allergic alveolitis), also known as hypersensitivity pneumonitis.



Mist can be generated from both neat & soluble metalworking fluids during processes and employers have a duty of care to ensure that adequate measures are taken to reduce the level of operator exposure to mist. The purpose of the inspection programme therefore is to ensure that the risks are managed.

Q80ils will offer you advice and its expertise whether it is offering product & legislation advice, assistance with fluid condition monitoring, responding to unforeseen problems or general advice on applications.





Q8 Brunel

To help our customers achieve their technical and environmental targets, the Q8 Brunel range is extensive, ensuring a solution for every application.

Q8 Brunel metalworking fluids deliver the very best in performance with superior wetting, anti-wear and extreme pressure characteristics. They maximise cooling, resist foaming, improve tool life and component surface finish, whilst protecting sensitive material grades such as aerospace aluminium alloys.

Q8 Brunel is fully compliant with European environmental and chemical legislation and is free from:

boron

- boric acid
- chlorinated paraffin
- secondary amines
- formaldehyde releasing biocides nitrites



Challengi	ing applications combined with a need
for health	% environmental protection require
revolution	nary solutions.

Q8 Brunel Product Type	Q8 Brunel XF 111	Q8 Brunel XF 132	Q8 Brunel XF 263	Q8 Brunel XF 343	Q8 Brunel XF 277	Q8 Brunel XF 280	Q8 Brunel XF 450	Q8 Brunel XF 442	Q8 Brunel XF 527	Q8 Brunel XF 530	Q8 Brunel XF 575	
Oil Content												
High oil					1							
Medium oil		1	*	1								
Low Oil	1											
Non Oil												
Ester Based						1	1	1				
PAG Based									1	1		
Fully synthetic											1	
Lubricity		*	**	**	*	***	**	**	**	***		
Application												
Grinding	***	**	**	**			**	***	***	**	***	
Milling	*	**	***	***	**	***	**	*		**		
Turning	*	**	***	***	**	***	**	*		**		
Deep hole drilling			**	**	*	***	*	**		**		
Broaching		*	*	**	*	***				**		
Skiving & Roller Burnishing	*						**	***	*	**		
Forming					*	*						
Materials												
Cast Iron	***	***	***	**	*		**	**	**	**	***	
Carbon Steel	***	***	***	**	*	*	**	***	**	**	***	
Stainless Steel & Nickel Alloy	**	*	***	***	**	***	**	***	**	***	**	
Aluminium	*	*	**	***	*	***	**			*		
Aerospace Aluminium				***	***	***	7.7.7					
Copper / Copper Alloys	*	**	**	**		**	*			*	**	
Titanium			**	**		***	*	*	**	***		
Hard / Super Alloys			**	**		***	*	*	**	***		
Tungsten carbide						7.7.		**	***	777		
Composites							*			**	**	
mulsion appearance	Translucent	Translucent	Semi-translucent	Semi-translucent	Milky white	Tight milky white	Semi-translucent	Yellow solution		n Colourless solution		
pH @5% in D.I. water	9.1	9.4	9.0	9.2	9.0	9.6	9.2	9.2	9.6	9.4	9.3	
Refractomer factor	2.10	1.50	1.20	1.30	0.80	0.90	1.60	2.40	1.50	1.50	2.00	

Aerospace Approved

Q8 Brunel XF 343 is a new generation metalworking fluid designed to excel across a wide variety of aerospace machining applications. Q8 Brunel XF 343 has gained PCS 4001 Ed. 2 accreditation from Safran Landing System and be placed on the approval list PCS 4002 for metal machining applications in the manufacture of aircraft landing and braking systems. This milestone is further progression on the 455-201-0-00-8 approval by Snecma Safran.

Q8 Berlioz

Soluble fluids free of formaldehyde and secondary amine.

Q8 Berlioz is a full range of soluble metalworking grades designed to balance the latest European legislation requirements with performance. Q8 Berlioz is a full compliment of products which encompasses the latest in additive technology and is designed to cover every applications.

- Free from formaldehyde, secondary amines & chlorinated additives*. (except Q8 Berlioz EPS)
- Fully compliant to TRGS 611 legislation.
- Covers a full range of applications & materials from economical to high performance.
- Demonstrates low foaming and stability in all water hardness.
- Superior bio-stability and corrosion protection.



Advanced materials and demanding applications require smart engineering solutions.

Q8 Berlioz Product Type	Q8 Berlioz XMR	Q8 Berlioz XAD	Q8 Berlioz XRC	Q8 Berlioz XVP	Q8 Berlioz XVH	Q8 Berlioz XMA	Q8 Berlioz EPS	Q8 Berlioz XHS	Q8 Berlioz XRS
Oil Content									
High oil	_								
Medium oil	•	_		✓	_		_		
Low Oil		·	✓	•	· ·	•	·		
Non Oil			•						
Fster Based									
PAG Based									
Fully synthetic								_	1
Lubricity	*	*		*	**	***	**	**	
Free from									
Chlorine	*	✓	✓	*	✓	✓		~	/
Formaldehyde	/	✓	✓	/	✓	✓	✓	/	1
Secondary Amine	✓	✓	~	✓	✓	✓	✓	✓	*
Application									
Grinding	**	*	***	***	**	*	**	***	***
Milling	**	*	*	**	***	***	***	*	
Turning	**	*	*	**	***	***	***	*	
Deep hole drilling					**	**	**	**	
Broaching				*	*	**	*		
Skiving & Roller Burnishing			*				*	***	
Forming	*	***							
Materials		222							
Cast Iron	**		***	***	**	**	**	**	***
Carbon Steel	**		***		**	***	***	***	
	XX		***	***	XX	***	***	***	***
Stainless Steel & Nickel Alloy	**		*	*	**	***	***	***	**
Aluminium	*			*	**	***	*		*
Aerospace Aluminium					*	**			
Copper / Copper Alloys	*	**	**	**	**	**	**		
Titanium			*		**	***	**	*	
Hard / Super Alloys					*	**	**	*	
Tungsten carbide								**	
Composites									**
Emulsion appearance	Milky white	Semi-translucent	Translucent	Translucent	Tight milky white	Semi-translucent	Semi-translucent	Yelow solution	Colorless solution
pH @5% in D.I. water	9.8	9.4	9.5	9.3	9.1	9.3	9.4	9.3	9.6
Refractomer factor	0.90	1.50	2.30	1.60	1.00	1.30	1.00	2.00	2.30

Q80ils Research

Q80ils extensive research & development facilities conduct range of testing in order to develop superior products. The strength of Q80ils lies in our ability to take a full life cycle approach to product development. Products that start life on the laboratory bench are meticulously analyzed at each stage of the development process until we are satisfied that they are ready for our customers.



Q8 Baroni

Soluble fluids without added chlorinated paraffins for high performing machining.

Q8 Baroni is a chlorine free, multipurpose range of semi-synthetic fluids designed to be versatile and cover an extensive range of machining applications and materials. Q8 Baroni is formulated to provide extreme fluid sump life and resistance to micro-biological contamination, as well as providing superior protection against corrosion.

- A multipurpose and versatile range to cover a wide range of applications & materials.
- Excellent low foaming and stability in all water hardness.
- Superb emulsion stability and high bio-stability and corrosion protection.



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

				Application					Materials											
Q8 Baroni Product Type	Lubricity	Grinding	Milling	Turning	Deep hole drilling	Broaching	Cast Iron	Carbon Steel	Stainless Steel & Nickel Alloy	Aluminium	Aerospace Aluminium	Copper / Copper Alloys	Alloyed Steel	Hard / Super Alloys	Composite	Refractomer factor	pH @5% in D.I. water	Emulsion appearance		
Q8 BARONI X	EPL	**	**	***	***	**	*	***	***	***	**	*	**	***	**	**	1.20	9.1	Semi- translucent	
Q8 BARONI X	GP	**	**	***	***	**	*	***	***	**	***	***	**	***	*	*	1.25	9.1	Semi- translucent	
Q8 BARONI X	CIS	*	***	***	***	*	*	***	***	**	*		**	**			1.10	9.7	Semi- translucent	

Q8 Equipment

At Q80ils we endeavour to be much more than just an industrial lubricant supplier. With a comprehensive inventory of equipment solutions and dedicated technical personnel, we can further support your operations to be deliver optimum efficiency.

Our solutions include oil skimmers, mixers, pumps, refractometers, dipslides and coolant recovery and disposal.



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

Q8 Ancillaries

Q80ils also offer a full range of ancillary products to compliment the use of metalworking fluids.

- Q8 Antifoam EWD 5
- Q8 Brytoklean TR
- System Cleaner

- Q8 Antifoam 661
- Scudo FA-50 (Tankside pH Buffer) Bacteriacide
- Q8 Brytoklean AQ-LF • ADDEM-W (Tankside Emulsifier) • Fungicide

QCare

The QCare service uses a network-enabled, tablet-based systems with a bespoke 'app' that enables Q80ils Application Specialists to monitor fluids, complete their audits and deliver results while still on site. In addition, our metalworking experts, will assist machine operators with identifying any problems and help to rectify them.





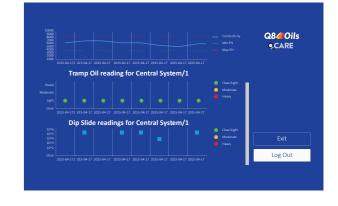
Our Application Specialists are also on hand to offer advice to help you minimise unscheduled maintenance, increase coolant life and optimise performance, resulting in improved machining productivity and reducing man and machine downtime to



You can also log on to the QCare system using your own tablet or desktop computer and view a full historical report at any time, and share it with colleagues.



In the past twenty years the fluid management system system has moved from a 'paper' system requiring everything to be written down and multiple copies made, to an advanced and automated 'traffic-light' system that identifies conditions as Green (normal), Amber (caution e.g. adjust fluid concentration) or Red (immediate action required).



Because QCare is user-friendly, fully-automated and therefore quicker, graphical charts and reports showing the full history of individual machines can be distributed instantly, even when Q80ils field service technicians are on-site.

The combination of highly-trained Q80ils field service technicians and modern tablet technology will enable you to:



streamline your metalworking operation



significantly reduce



increase tool life



improve production rates



reduce coolant usage



improve operator acceptability

about Q80ils

Q80ils 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. Using high quality base oils we 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 metalworking fluids are used by customers in more than 80 countries around the world.





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