

# Drawing & Rolling solutions

for the applications of wire, rod, bar, strip, tube & profiles



www.Q80ils.com

## Drawing & Rolling solutions

Our drawing & rolling solutions are the result of more than 120 years of product development and application experience. Our chemists and engineers take a unique, innovative and progressive approach to develop different products for different applications.

We develop smart products that extend die and roll life to significantly reduce operating costs, while staying a step ahead of the new demands arising from customer productivity, OEMs, materials and legislation.

The products are marketed under Q80ils and exported to customers in over 90 countries worldwide either directly or through our network of specialised distributors and agents. This makes us one of the largest global suppliers to the rod, wire, bar, strip, tube and profile industries.

Our products are suitable for all machinery and carry approval and recognition from many machinery OEM's.

Our range of Germ-Allcard has a historic pedigree for wire and tube with a combined heritage of over 200 years' experience for specialised products to the wire and tube sector.





Over 200 years combined experience in drawing lubricants

We are also a founding member of the International Wire & Machinery Association (IWMA) which is a leading corporate worldwide association www.iwma.org



Cover shows the Priamus butterfly which gives its name to one of our families of wire drawing lubricants, as the original founder of H.G. Allcard was a renowned butterfly expert.



We have been helping our customers grow their business for over 120 years



Priamus Profile Wirol Technical Service Semi-synthetic Added Value Multiwire Filtration Innovation Profile UCT VI Innovation Published Papers Stainless Lubrication Super Fine Equipment Annealing Approval Expertise Reduce Costs Costs Reduce Costs Costs Reduce Costs Costs Iwas Assuran Synthetic • Precious Lubricant Worldwide Cleanliness OEM Germ-Allcard draw Conductor Grease Rod Drawing Aludra Strip Alloys HS Emulsion Life Enamelled Oils Wire tection Cylrol

Aluminium Tube Twin Rod Magnet Wire Protectio Sustain



## Research & Development



New product development is at the heart of Q80ils' business. Q8Research ensures continuous technological innovation, utilising feedback from the industry, OEM's, as well as legislative bodies, Q80ils' team of scientists, chemists and product application engineers combine their extensive knowledge of lubricants to develop new products and to upgrade the technology of existing.

Every department of Q8Research works in close harmony to create a single unit of expertise. This experience enables Q8Research to offer a consultancy service for many other aspects of the lubricants industry such as safety, security, health, environment (SSHE), market intelligence, legislation and training.

With our holistic approach to lubricant research and product development, Q8Research is ideally placed to provide the very best support to our customers.

Q8Research is the focal point of Q8's SSHE culture and we have extensive knowledge in product data and material handling. Our team includes specialists in REACH (Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals) and sustainability.

We offer our customers and partners information & documentation in more than 40 languages, helping them to comply with the legislation of their region.

Q8Research has established a reputation as the partner of choice for OEMs, industry bodies and educational institutions, when advice is needed on legislation or compliance issues in their industry.

Q80ils can assure our customers of the back-up and support they expect from one of the most established brands in the wire and tube industries.

The lubricant is perhaps the smallest cost item in the process but remains one of the most influential in terms of overall production and performance of the production process.

#### **Training**

Our extensive training programmes cover many aspects of the lubricants industry which includes wire & tube. Training is carried out at our research and development laboratories, which have specially equipped facilities. Alternatively, our lecturers can run training courses on site, in factory or office anywhere in the world.

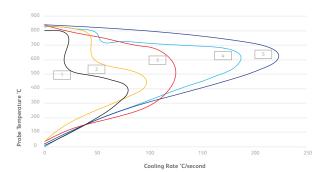
#### Support

Technical Service and Support is to assist the customer maintaining the product to deliver the best performance in the application, our technical support can include all aspects of the process and not just Condition Monitoring Analysis. (Fig 1).



Fig. 1

- Product Selection
- Emulsion Preparation and Water Quality Advice
- Comprehensive Emulsion Condition Monitoring
- Emulsion Lubrication, Evaluation and Advice
- Rolling Emulsion Quench Analysis
- Health and Safety Advice
- Training
- Emulsion Disposal Advice
- System Design and Filtration Recommendations
- Equipment Recommendations
- Technical Helplines
- Local Stock, Expertise and Support



Rolling emulsion quench analysis

## Smart engineering solutions

The consistency of the lubrication with newer generation copper wire drawing lubricants can be demonstrated and proven with both laboratory analyses and in live factory applications.

Under controlled identical conditions product technologies can be cross-referenced and compared in our laboratories.

Artificial aging under set criteria provide very stringent conditions for wire drawing emulsion evaluation and analyses.

The unique co-efficient of friction equipment used to determine the wire to capstan lubrication film performance is also used through the emulsion testing. (Fig 2)

Co-Efficient of Friction Test Rig

Load Cell

Capstan

T2

Co-Efficient of Friction  $\mu = 2\pi \log_e T1$ Fig. 2

This equipment is the only test method which utilises actual wire drawing equipment to measure a drawing emulsion's lubricating performance and can be considered a more powerful result than more traditional oil industry lubrication test methods such as Falex, Reichert or Cameron Plint.

The results from an artificial aging process can demonstrate differences from one technology of wire drawing lubricant to another. The lubrication level is monitored to determine if the performance is consistent (red line) throughout the emulsion life. This is compared with the tail off (blue line) in lubrication performance commonly seen with lesser quality products. (Fig 3)

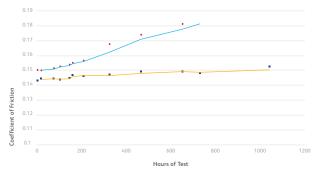


Fig. 3

A combination of products and application knowledge, research and development capabilities and a world wide presence makes Q80ils the perfect business partner. Our mission is to be the product and solution providers by continuing to invest in the rolling and drawing lubricant technology that will protect the long term profitability of our customer and the environment.



- dia

Germ-Allcard Priamus X10 1680 hours

Competitor product 1200 hours

#### **Productivity**

The simple way to increase the productivity of a wire drawing emulsion is to evaluate the process in several steps of the life of the product.

#### **Evaluation Steps**

- 1. Drawing Lubricant Technology
- 2. Housekeeping of the Emulsion System
- 3. Performance of the Drawing Emulsion
- 4. Technical Support by the Supplier.
- 5. Evaluation of Disposal Techniques and Costs

Simple measures together with Emulsion Condition Monitoring can increase emulsion life, save costs and improve the working environment of the drawing machine.

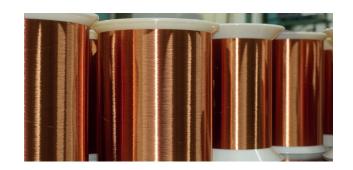
This means cleaner drawing dies and longer die life, a cleaner machine, increased speed and output of the machine.

All of these points provide money saving by simple techniques often overlooked by wire drawing companies.

The wire drawing emulsion is most probably the smallest cost item of the wire drawing process but is the most influential to the productivity of the machine.

## Copper wire drawing

The Germ-Allcard copper wire drawing lubricants are formulated to provide the optimum balance of lubrication and cleanliness. This balance provides greater die and capstan protection, long emulsion life and consistent production eliminating manufacturing downtime.



Priamus X7	Priamus X7, is a semi-synthetic lubricant optimised for copper rod breakdown and intermediate drawing on all high speed slip machines and is suited for rolled, cast, or dipform rod and is also recommended for shaved rod and small section copper strip.
Priamus X255	Multipurpose, semi-synthetic wire drawing lubricant, Priamus X255 is suitable for drawing all wire sizes from rod to fine wire, on all types of wire drawing machines and is especially suited for multi-wire machines and in-line drawing.
Priamus X10	Multipurpose semi-synthetic product suitable for the drawing of all wire sizes from rod to fine wire for both copper and aluminium on all types of drawing machines; it is also suitable for both multi-wire and in-line drawing machines. The low reactivity of Priamus X10 results in excellent cleanliness and exceptionally long life even at elevated operating temperatures.
Priamus V12	Multipurpose semi-synthetic wire drawing lubricant, Priamus V12 utilises the latest synthetic ester technology to give excellent cleanliness and low reactivity.
Priamus X14	An advanced lubricant for copper wire drawing in all sizes from rod to fine on slip and nonslip machines. Utilising the latest additive technology, both high lubricity and cleanliness can be achieved hence promoting the highest drawing machine productivity. The emulsion has a high detergency to keep the machines and drawing dies clean. Priamus X14 is suitable for make up in both soft and medium hardness waters and oxidation test results confirm a stable, long life emulsion.
Priamus S21	New generation synthetic oil based emulsion technology, a versatile product suitable for the drawing of all sizes of copper, aluminium and their respective alloys. A unique product based on the latest synthetic base, ester and additive technology providing a highly detergent emulsion to keep machines, capstans and drawing dies clean. Priamus S21 has excellent tramp oil rejection and biostability, it is suitable for mixing in all water qualities and the emulsion provides a bright material surface finish due to superior oxidation resistance.
Wirol 5000	Wirol 5000, a semi-synthetic lubricant is optimised for drawing plain and tinned copper wire of intermediate, fine and superfine sizes on single and multi-line machines. Independent tests show that Wiro 5000 can reduce tension breaks on multi-line machines by approx 40% compared with other products in identical conditions.
Wirol 2000 LFG	Wirol 2000 LFG is a synthetic product recommended for drawing of intermediate and small wire sizes of plain and tinned wire on both single and multi-line machines. Wirol 2000 LFG is especially recommended for drawing or rolling wire for enamelling. Further specialised applications include nickel plated and silver plated copper wires. Strip and section cold rolling is also possible with Wirol 2000 LFG.
Wirol 2020	Wirol 2020 is a synthetic, very high lubricity product recommended for drawing of intermediate, fine and super fine wire sizes of plain and tinned copper in all applications, single and multiwire. Wirol 2020 is especially recommended for the tandem in-line drawing or rolling for enamelling. Further specialised applications include the drawing of nickel plated and silver plated copper wires as well as the drawing of precious metals.
Wirol 2200	Wirol 2200 is a full synthetic product recommended for the drawing of intermediate, fine and super fine wire of both copper and aluminium, it is also recommended for the drawing of plated wires such as tin, silver and nickel plate as well as precious metals. Wirol 2200 has exceptional lubrication properties over current products of over 15% improvement and can provide a long consistent solution life.

### Annealing fluid

#### Annealer Fluid LF

Annealer Fluid LF is a fully synthetic, water-soluble additive that is entirely free from mineral oil and conventional fatty soaps. Annealer Fluid-LF is recommended for use in the cooling water of continuous annealers for both plain and tinned copper wire production.

Germ-Allcard Product	Priamus X7	Priamus X255	Priamus X10	Priamus V12	Priamus X14	Priamus S21	Wirol 5000	Wirol 2000 LFG	Wirol 2020	Wirol 2200
Rod	<b>*</b>	<b>✓</b>	1	<b>✓</b>	<b>✓</b>	<b>✓</b>				
Intermediate	<b>✓</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>✓</b>	<b>*</b>		<b>~</b>	<b>/</b>
Multiwire		<b>✓</b>	<b>*</b>	<b>~</b>	<b>*</b>	<b>✓</b>	<b>*</b>	<b>✓</b>	<b>~</b>	<b>/</b>
Fine Wire		<b>~</b>	<b>*</b>	<b>✓</b>	<b>*</b>	<b>✓</b>	<b>*</b>	<b>✓</b>	<b>✓</b>	<b>/</b>
Super Fine		<b>✓</b>	1	<b>/</b>		<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>/</b>
Shaving	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	<b>/</b>	<b>✓</b>				
Continuous Annealers	<b>✓</b>	<b>✓</b>	1	<b>~</b>	1	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Copper	<b>~</b>	<b>~</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	✓	<b>~</b>	<b>/</b>
Tinned Copper	<b>~</b>	<b>✓</b>	<b>*</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>*</b>	<b>✓</b>	<b>✓</b>	<b>~</b>
Brass				<b>~</b>		<b>*</b>				
Bronze				<b>*</b>		<b>✓</b>				
Gold						<b>✓</b>		<b>✓</b>	<b>~</b>	<b>/</b>
Platinum						<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>/</b>
Silver						<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>*</b>
Nickel								<b>✓</b>	<b>✓</b>	<b>/</b>

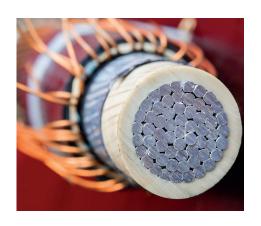
Further advice is available from your representative or our technical department.

### Lubricant Functions



## Aluminium wire drawing

Germ-Allcard provide a range of products for the drawing of Aluminium and Aluminium alloys, these products are suitable for slip, limited slip and non-slip drawing applications in high and slow speed wire drawing machines. Lubricants for the drawing of Single or Twin Rod, Intermediate, Fine and Super Fine applications are available and these provide benefits of long lubricant life and enhanced brightness of the drawn aluminium. Within our range we can offer options to our customers, either to use a NEAT or SOLUBLE OIL for the drawing applications.



Aludra 30	A low viscosity oil with high oxidation stability for the drawing of aluminium and aluminium alloy in Medium and Fine wire sizes on slip machines, it is also suitable for shaving applications and for use as a finishing die lubricant to facilitate a cleaner and brighter surface wire finish.
Aludra 150	A medium viscosity oil with high oxidation stability for the drawing of aluminium and aluminium alloys for Rod and Intermediate applications, it is also suitable for high speed slip and non-slip machines drawing shaped conductors and processing shaved rod.
Aludra 200 200	A high viscosity oil with high oxidation stability for the drawing of aluminium and high magnesium/silicon content aluminium alloys. Aludra 200 can draw all conductor wire, welding wire, rivet wire and handle a variety of obscure applications. It is also suitable for cold heading applications for fasteners and rivets as well as tube drawing applications from 20mm to capillary sizes.
Aludra 3993A Conc	A low viscosity lubricity additive for lubrication in aluminium stranding and compaction applications where it is used to provide residual lubrication within the compaction die. The product has vanishing properties hence leaving no residues on the compacted conductor. It can also be used as a lubricity booster for the Aludra range when drawing oils become contaminated with tramp oils.
Aludra X35	Latest technology low viscosity oil with high oxidation stability for the drawing of aluminium and aluminium alloys in medium and fine wire sizes on slip machines. Aludra X35 is free from added chlorinated paraffins hence a safer product in use and meeting the latest worldwide requirements.
Aludra X170	Latest technology medium viscosity drawing oil for the drawing of aluminium and aluminium alloys in rod and intermediate applications on slip and non-slip machines Aludra X170 is free from added chlorinated paraffins hence a safer product in use and meeting the latest worldwide requirements. Aludra X170 is also suitable for the drawing of shaped conductors and processing shaved rod.
Priamus S21	New generation synthetic oil based emulsion technology, a versatile product suitable for the drawing of all sizes of copper, aluminium and their respective alloys. A unique product based on the latest synthetic base, ester and additive technology providing a highly detergent emulsion to keep machines, capstans and drawing dies clean. Priamus S21 has excellent tramp oil rejection and biostability, it is suitable for mixing in all water qualities and the emulsion provides a bright material surface finish due to superior oxidation resistance even in the most sensitive aluminium alloys.
Priamus X10	A semi-synthetic water soluble product which forms an emulsion for the high speed drawing of aluminium, aluminium alloys and copper. Priamus X10 is clean in use and provide exceptional lubrication to the drawing dies. The emulsion can provide high speed optimum productivity of the drawing machine with customers running twin rod at 35 metres per second.
Priamus X255	A semi-synthetic water soluble product which forms an emulsion for the high speed drawing of aluminium, aluminium alloys and copper. Priamus X255 is clean in use with a unique lubrication property.

Germ-Allcard Product	Aludra 30	Aludra 150	Aludra 200	Aludra 3993A Conc	Aludra X35	Aludra X170	Priamus S21	Priamus X10	Priamus X255
	Neat	Neat	Neat	Neat	Neat	Neat	Soluble	Soluble	Soluble
Rod		<b>✓</b>	<b>✓</b>	<b>4</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>*</b>
Intermediate		<b>✓</b>	<b>✓</b>	<b>/</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>	1
Multiwire		<b>✓</b>	<b>✓</b>	<b>/</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>	1
Fine Wire	<b>✓</b>			<b>*</b>	1		<b>✓</b>	<b>✓</b>	1
Super Fine	<b>*</b>			<b>~</b>	1		<b>✓</b>	<b>✓</b>	1
Shaving				<b>~</b>			<b>✓</b>	<b>✓</b>	1
Aluminium	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>*</b>
Aluminium Alloy	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>

Operation

✓ Material

### Overhead Conductor Grease

Q8 Reynolds is a range of cold applied greases for the protection of overhead conductors made from aluminium, aluminium alloys, steel or multi-metal wires. The range offers product options from multipurpose to extreme performance.

Q8 Reynolds OC MP A multi-purpose performance anhydrous calcium grease offering outstanding protection.

Temperature Range -30C to +130C

Drop Point >140C

Q8 Reynolds OC AD An advanced performance lithium-calcium grease with high drop point offering outstanding

protection.

Temperature Range -20C to +130C

Drop Point >180C

Q8 Reynolds OC 110 An extreme performance lithium-calcium grease with high drop point offering superior

protection.

Specification EN 50326 type 20 A 110

**Drop Point** 190C

Q8 Reynolds OC 150 A very high performance inorganic grease with no drop point and zero oil bleed, having high

temperature properties and excellent adhesion.

**Specification** EN 50326 type 40 A 150, IEC 61394-2011

**Drop Point** No Drop Point



## Non-ferrous rolling

The Germ-Allcard range of emulsifiable oils form stable and highly effective emulsions for the hot and cold rolling of non-ferrous rod and strip. The range includes specific grades for hot rolling continuously cast copper and aluminium on Southwire, Contirod and Properzi mills. Complementing the range are the Q8 Bach R Series Neat Rolling Lubricants for strip production.

Cylroll CR55	Heavy duty rolling oil for aluminium and copper. Specially developed for roughing mill applications. Enhanced to stop oxides adhering to the roll surface and flush the loose scale to the filters.
Cylroll CR55AL	A heavy duty hot rolling oil for aluminium, enhanced to stop oxides adhering to the roll surface and to flush the loose scale to the filters. Cylroll CR55AL is designed for good rejection of gear oil contamination for a more stable emulsion and longer life.
Cylroll CR65	Synthetically fortified rolling oil for copper. Specially developed for finishing mill applications. Enhanced to stop oxides adhering to the roll surface and flush the loose scale to the filters. Provides superior roll life performance, protection and give increased productivity.
Cylroll CR75	A heavy duty rolling oil specially developed for the rolling of copper and aluminium rod in roughing applications and suitable for all mill types. A robust emulsion with enhanced oxidation properties ensure a longer life in running and delivering the highest quality of rod and cleaner work rolls.
Priamus X10	Multipurpose, semi-synthetic rolling lubricant, the low reactivity of Priamus X10 results in excellent cleanliness and exceptionally long life even at elevated operating temperatures.
Priamus X255	Multipurpose semi-synthetic rolling lubricant, Priamus X255 has the high lubricity and cleanliness required for difficult rolling applications for rod, strip, wires, tubes and profiles.
Wirol 2020	Wirol 2020 is a fully synthetic, oil free product recommended for cold rolling applications of fine and super fine wires, strip, profiles and section. Multi-materials include copper, tin plate, nickel plate, silver plate and all precious metals.
Q8 Bach R Series	A speciality range of superior performance neat rolling oils for the cold rolling of strip, the products cover the rolling of steel, stainless steel and all yellow metals.

Germ-Allcard Product	Cylroll CR55	Cylroll CR55AL	Cylroll CR65	Cylroll CR75	Priamus X10	Priamus X255	Wirol 2020	Q8 Bach R Series
Contirod	<b>✓</b>	<b>✓</b>	1	<b>✓</b>				
Southwire	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>				
Properzi	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>				
Senior	<b>✓</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>*</b>	<b>/</b>	
Buhler	<b>✓</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>/</b>	<b>/</b>	
Fives DMS								<b>~</b>
Sundwig								<b>✓</b>
Frohling								<b>~</b>
Demag								<b>*</b>
Achenbach								<b>✓</b>
Hitachi								<b>✓</b>
Copper	<b>~</b>		<b>*</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>*</b>	<b>✓</b>
Aluminium	<b>~</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>		
Brass	<b>✓</b>			<b>✓</b>		<b>✓</b>	<b>*</b>	<b>✓</b>
Bronze						<b>✓</b>	<b>*</b>	<b>✓</b>
Stainless								<b>✓</b>
Steel								<b>✓</b>
Nickel Chrome								<b>✓</b>
Titanium								<b>✓</b>



## Yellow metal protectives

These are specialised products for the increased protection of yellow metals. They include wax-coat protection of hot rolled continuously cast and upcast copper as well as quenching protection products for copper and alloy hot extrusion of tubes and profiles.



Copprotect H	Copprotect H is an oil free tenacious yellow metal protective coating specially developed for humid environments, this "waxcoat" is dipped or spray applied using automatic or manual equipment at 1% to 4% concentration in water onto non-ferrous rod or wire to provide a protective film. In addition, the lubricity properties associated with Copprotect H are particularly effective in aiding spooling or coiling and subsequent wire pay-off.
Copprotect Z	Copprotect Z can be used in virtually any system or environment where the requirement is to prevent the corrosion of copper ions in accelerating the degradation of other metals or components. It can be used at various concentrations ranging from 0.05% in water.

## Tube drawing

With the two ranges of non-ferrous tube drawing lubricants from Germ-Allcard are advanced lubricants for Bench and Block drawing of copper, aluminium and alloy tubes.



Cyldraw E Series	Synthetic based lubricants for the drawing of very hard speciality copper alloys including beryllium copper.
Cyldraw 6000 6000	Single Shot high viscosity non-ferrous tube drawing lubricant for drawing all sizes of tube, optimum lubrication and surface finish is achieved.
Cyldraw 1900C 3400	Single Shot medium viscosity non-ferrous tube drawing lubricant, multipurpose product for all tube applications.
Cyldol OC32 210	Cyldol OC32 is used for drawing copper and copper alloy tubes from shells to finish sizes on draw benches and bull blocks. It is also especially suited for final die lubrication and finishing applications on Schumag equipment. Cyldol OC32 is a medium viscosity neat lubricant with superior friction reducing characteristics and bright annealing properties developed for use in extremely humid environments.
Cyldol TBL 29	Cyldol TBL is a low viscosity neat lubricant with superior friction reducing characteristics and exceptional bright annealing properties. Using selected polymeric additives and boundary lubricants Cyldol TBL achieves an excellent tube surface finish, whilst promoting good die life. Annealing characteristics are achieved by use of a uniquely processed mineral oil.
Aludra 30, 150, 200, X35, X170	Lubricants for the drawing of aluminium and aluminium alloys in circulatory lubrication systems, drawing all sizes from large to capillary tubes.

Germ-Allcard Product	Cyldraw E Series	Cyldraw 6000	Cyldraw 1900C	Cyldol OC32	Cyldol TBL	Aludro
Drawbench	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>
Block	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>
>500mm dia.	✓	✓	✓	<b>✓</b>		<b>✓</b>
500-25mm	<b>✓</b>	✓	✓	<b>✓</b>		<b>✓</b>
25-10mm	<b>✓</b>	✓	✓	<b>✓</b>	✓	<b>✓</b>
<10mm				<b>✓</b>	<b>✓</b>	<b>✓</b>
Capilliary	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>
Copper	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Copper Alloy	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Aluminium	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>
Aluminium Alloy	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Brass	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Bronze	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	
Precious Metals	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	

✓ Operation ✓ Tube OD Size ✓ Material

### Welded tubes & profiles

Q80ils develops, manufactures and markets a range of soluble lubricants for the rolling of welded (ERW) tubes and profiles. The tubes and profiles are formed and rolled to size in a variety of materials including steel both hot and cold rolled (black and bright), alloy steels, aluminium and stainless steel (INOX).



#### Welded Tubes (ERW) - The Process

The tubes, ERW, Electrically Resistance Welded, are formed in a continuous process from flat strip through a series of rolls to cold form the strip into a tubular shape. The tubular shape is then welded by an electric resistance welder which will complete the edges of the shape to form a tube, the tube is then rolled to the desired dimension, shape and surface finish requirement. Throughout the process a soluble oil emulsion is used to provide both cooling at the weld and lubrication of the tube forming and rolling process.

#### **Q80ils Rolling Solutions**

Q80ils have leading water soluble products and work closely with customers, many of which are larger ERW Tube forming companies. Working together with our customers we have developed new technology and environmentally friendly products to make improvements to our customers process which meets their production and environmental targets.

Whichever the material, the rolling speed, the tube size, the final shape, the surface finish requirements. Q80ils has the solution for the customer.

- Our products are clean in use, protecting both the tube and work rolls throughout the rolling mill process by flushing fines from surfaces to the filter system.
- Our products are resistant to bacterial infection also tramp oil rejecting to prolong the life and performance of the rolling emulsion.
- With our experience of the customer process, Q80ils can develop and tailor products to specific customer requirements.
- Q8Oils have a range of supporting products for the process including specialised anti-corrosion products, greases and plant maintenance lubricants.
- Q80ils provide technical support and after sales service.

#### **Q8 Berlioz and Q8 Brunel** products are recommended for the forming and rolling process.

- Semi-synthetic and full synthetic rolling solutions and products can also be developed to specific customer requirements.
- Suitable for use of both soft and very hard water qualities
- TRGS 611 compliant
- Boron and formaldehyde free products to meet the latest legislation.

Q8 Berlioz XAD	A semi-synthetic emulsion for the rolling of all tube types, free from formaldehyde release biocides.
Q8 Berlioz XRC	A semi-synthetic low oil content emulsion for the rolling of all tube materials and sizes, the emulsion is free from formaldehyde release biocides.
Q8 Brunel XF 711	Q8 Brunel XF 711 is an advanced semi-synthetic soluble metalworking fluid incorporating the latest technology of high purity base oil in an unique combination of synthetic lubricity additives and select key components to provide high performance. Due to its high detergency characteristics, it is especially suited for tube forming applications and welded tubes production. The versatile formulation is highly resistant to bacterial infection and significantly exceeds conventional fluid duration periods, providing noticeable cost and waste reductions.

#### **Q8 Ravel** products are recommended for the corrosion protection of welded tubes, including:

#### Q8 Ravel DTX 1203

Q8 Ravel DTX 1203 quickly removes water moisture from the metal surface of ferrous components such as injectors, pipes, profiles, tubes, strip, sheets, bars, rods and mechanical parts. The fluid can be applied by spraying or dipping, leaving an extreme thin oily layer. The water removing properties are more effective when the components are dipped into the oil tank. Q8 Ravel DTX 1203 can be easily removed with a solvent or alkaline cleaner.

Please consult Q80ils for more information and advice as based on your specific requirements there are many products available.

Ancillary Products including, system cleaners, biocides, pH buffers & antifoams are available on request.

## Stainless steel bar, rod, wire, section, profile

The Germ-Allcard TANTAROLL and Q8 BACH grades are speciality products for the wet drawing of stainless steel, nickel alloys and alloyed steel bars, rod, wire, section and profiles, the grades utilise the latest additive technology to provide environmentally friendly products meeting the latest legislation.

The unique range provides products for the severe heavy duty drawing to moderate applications and are offered in a range of viscosities and additive technology. The range of products provide the optimum lubrication and anti-wear required for difficult applications providing a high die life at both slow and high speed drawing.

The TANTAROLL and Q8 BACH range also includes specialised products for the medical market which are animal derivative free.



#### Tantaroll XN

The Tantaroll XN is a non-active range of products for the drawing of stainless steel medium and fine wires, being free from chlorinated paraffin's and having a high safety profile the XN range is also suitable for medical wire applications. The choice of product can be dependent on the wire sizes and wire speeds.

Available in viscosities of 6, 10, 15, 28 and 36cS Kv40.

#### Tantaroll XS

The Tantaroll XS range is a heavy duty active range of products for the drawing of stainless steel and alloy steel, free from chlorinated paraffin's and based on very high quality base oils (Group III) this range provides a superior drawing performance with exceptional oxidation resistance and long life.

Available in viscosities of 16, 24 and 44 cS Kv40.

#### Tantaroll XA

The Tantaroll XA range is a heavy duty active range of products for the severe drawing applications of bar, rod, wire, section and profiles of stainless steel and alloy steel. Being free from chlorinated paraffin's the range has a very high safety profile. The extreme pressure performance of this range can outperform chlorinated products and is suitable for slow and high speed drawing applications.

Available in viscosities of 68, 100, 220, 420 and 680 cS Kv40.

#### **Tantaroll**

A high viscosity high performance drawing oil for the most severe applications of bar drawing.

Please consult Q80ils for more information and advice as based on your specific requirements there are many products available.



## **Ancillary products**



Within the Q80ils range of Metal Manufacturing products there is a comprehensive range of ancillary products to assist and support our customers.

- System Cleaners
- Biocides
- Antifoams
- pH Buffers
- Protectives for copper alloys and steel
- Emulsifiers

## Worldwide supply



Q80ils metal manufacturing fluids are used by customers in more than 90 countries around the world.

Americas	Europe
Africa	Middle East
Asiα	Australasia

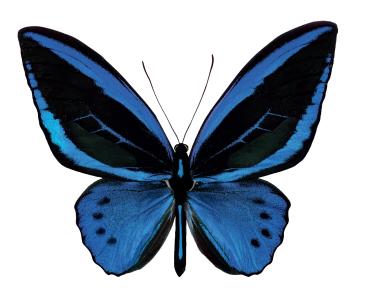
## Product portfolio

Q80ils product portfolio consists of over 1,000 grades of finished lubricants, this comprehensive range makes Q80ils one of the most complete suppliers of lubricants and petroleum based products in the industry.

#### For the Metal Manufacturing Industries, our product range includes the following:

- Wire Drawing Lubricants for Copper, Aluminium and all other Non-Ferrous Metals
- Full Synthetic Wire Drawing Lubricants for Fine and Super fine sizes
- Rolling Emulsions for the Hot Rolling of Continuously Cast Copper and Aluminium
- Yellow Metal Protective for Hot Rolled Copper, and all other Copper Applications
- Tube Drawing Lubricants for Copper, Aluminium and all other Non-Ferrous Metals
- Tube Rolling and Drawing Lubricants for Welded Tubes, Steel and Stainless Steel
- Stainless Steel Drawing Oils
- Rolling Emulsions for the Cold Rolling of Copper and other materials.
- Cold Rolling Oils for Stainless Steel, Copper, Brass and Phosphor Bronze
- High Temperature Chain Oils for Production Conveyor Systems

- Heat Treatment Oils and Emulsions
- Wire Rope Lubricants and Greases
- Casting Lubricants
- Corrosion Protectives for all Metals
- Greases
- Morgan Bearing Oils
- Soluble Metalworking Fluids for Metal Removal, all applications
- Neat Metalworking Oils for Metal Removal, all applications
- Neat and Soluble Pressworking, Punching and Forming Oils
- Vanishing Pressforming Oils for Electrical Connectors
- Biodegradable and Renewable Resource Products
- Wash Fluids
- Comprehensive Range of Plant Maintenance Oils and Greases, including Danieli approved Products
- Energy Products, including Gas Engine, Wind Turbine







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