

GAME-CHANGING SOLUTIONS FOR MAINTENANCE, REPAIR AND OPERATIONS



A&S
INTERNATIONAL



WIRE ROPE CLEANING
AND LUBRICATION



INCREASED
FUEL EFFICIENCIES



OIL SPILL AND
WASTE MANAGEMENT



MEASURE, CONSULT
AND TREAT VARNISH IN
INDUSTRIAL FLUIDS



QUALITY MAINTENANCE
LUBRICANTS AND
CHEMICALS



FULLY BUNDLED
LUBRICANT STORAGE
AND DISPENSING



INSTANT LIVE LEAK
PIPELINE REPAIR



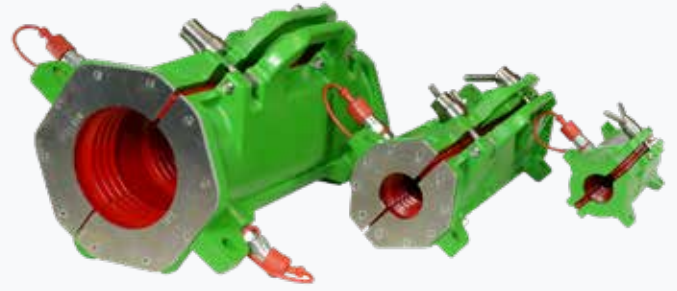
INSTANT REPAIR
SYSTEM FOR
HYDRAULIC HOSES

Specialist Products for Industry : **Committed to Sustainability**

“10/10. To make any part of our job more efficient is a bonus. The Viper Mini certainly ticks all the boxes.”

Mike Roberts – Operations Manager – OM Heavy Lift





WIRE ROPE LUBRICATORS

Fast, effective, safe and the most environmentally responsible method for cleaning and lubrication of wire ropes

Increase wire rope life by up to **300%**

Reduce labour required to lubricate wire ropes by up to **90%**

Viper Wire Rope Lubricator

Viper is the #1 world leading product in wire rope lubrication, delivering significant benefits extensively to the heavy lifting industry, marine, mining, oil & gas, construction, bridges and anywhere that wire rope maintenance is critical.

The Viper WRL range of products provide fast and effective cleaning and lubricating in one simple process. There are three size options, enabling wire ropes from 6mm to 165mm in diameter to be greased at speeds up to 2,000 metres per hour.

Huge reductions in lube consumption, less pollution, significant extension in wire rope life and improved health and safety, employee wellbeing. Significant financial benefits.



Financial benefits of using the VIPER WRL

- Increases the life of wire rope assets by up to 300% versus manual lubrication methods
- Reduces re-lubrication times of wire ropes from several days to several hours compared to manual lubrication

Environmental/H&S benefits of Viper WRL

- All grease applied goes on the wire rope
- Does not leak grease, meaning no mess
- No wasted lubricant
- Lightweight allows for safe & efficient application
- No direct human contact with the lubricant
- Wire ropes can be lubricated from a safe distance

APPLICATIONS

Mobile Cranes, Tower Cranes
Gantry Cranes, Bulk Carrier Cranes
Ship Lifters
Winches



“ The results of the tests carried out after the introduction of Sulnox Eco onboard have proven to be very promising. We observed measurable fuel savings, cleaner engines, and reduced emissions. ”

Roberto Fazi
Senior Vice President of Marine Operations Crystal , Cruises

“ The numbers from these trials make it clear: Sulnox Eco helps our locomotives burn fuel more effectively and run cleaner. It's a no-disruption, high-impact solution that fits seamlessly into our operations. ”

Paul Conway,
Head of Engineering and Compliance, Colas Rail UK





Sulnox helps industry and transport fleets cut fuel costs and emissions right now - with no engine changes or capital expenditure.

Why Industries Are Adopting Sulnox Eco

Sulnox Eco Fuel Conditioner is an organic, drop-in solution for more complete combustion and improved engine function – applicable to all liquid hydrocarbon fuels.

- Fuel Savings: 5% average for marine + 8% average savings for land applications, >300% ROI in weeks.
- Lower Emissions: c.90% particulate reduction, plus lower CO₂, NO_x and SO_x.
- Protect Engines: c.17% added lubricity + decarbonisation benefits.
- Simple Application: Just add to existing fuel

How It Works - Four Mechanisms

1. **Emulsification:** Disperses free water into microscopic droplets within the fuel
2. **Secondary Atomisation:** Fragments larger fuel droplets through micro-explosions to increase surface area and deliver more complete combustion
3. **Detergency:** Cleans and decarbonises vital engine components for improved operation
4. **Lubricity:** Reduces friction dramatically to lower wear and maintenance costs



Real World Results Across Fleets

From trucks and trains to loaders and container ships, Sulnox Eco works with any liquid hydrocarbon fuel in any combustion engine. Typical savings...

8% Freight & Logistics

5% Marine

6% Construction & Mining Equipment

13% Generators

6% Rail (Locos, Tampers)

8% Coaches & Buses



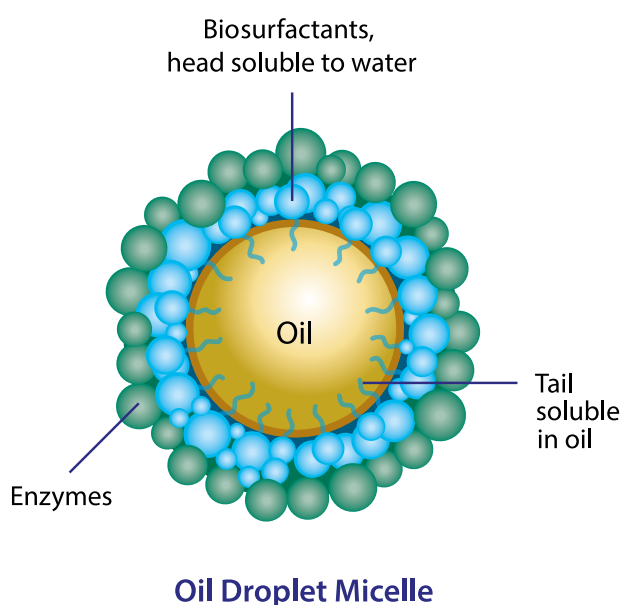
See the savings your fleet could make...
sulnoxgroup.com/savings-calculator/



“ We are delighted with OSEII for its ease of use and successful applications as the main treatment of the everyday spills around our beaches and harbours. ”

Eoin Miller - OIC Marine Services, Orkney Isles

Bioremediation Process





The most environmentally safe and cost effective treatment for oil spills, hazardous waste, and contamination on land and water.

IMPRESSIVE reduction in clean up costs
PERMANENTLY eliminate hazardous waste problems
NO secondary clean-up required

Oil Spill Eater II (OSE II) is the world's most effective Hydrocarbon Bioremediation Product.

OSE II is an environmentally safe clean-up method because it uses nature's own bioremediation process to effectively eliminate hazardous materials. OSE II is not a bacteria (bug), fertilizer or dispersant product. It is a biological enzyme that converts the waste into a natural food source for the native bacteria found in the environment.

The end result is only CO₂ and water. OSE II will reduce clean-up costs and permanently eliminate the hazardous waste problem with no secondary clean-up required.



Benefits of using Oil Spill Eater II (OSE II)

- A one stop contamination treatment with no secondary clean-up required
- Non-toxic and completely environmentally friendly and biodegradable
- Works with natural occurring bacteria at the site of contamination without introducing foreign bacteria to the environment
- Will not harm flora or fauna during use

Approved by

United States Environmental Protection Agency

And the only bioremediation solution approved by the

UK Marine Management Organisation



Marine
Management
Organisation



United States
Environmental Protection
Agency

“ We have never changed our oil and even more we have never had a trip due to a lubrication related issue thanks to Fluitec! ”

Mark Joy - Supervisor, Salt River Project



Scan the QR code to view the Salt River Project Case Study



RULER 'V'

- **Provides critical information** on the health of your lubricant
- **Delivers oxidation results earlier than any other technologies** using Linear Sweep Voltammetry to accurately measure active antioxidants in lubricants
- **Strong industry support** with four ASTM standards written around it
- **OEM's including Siemens & GE recommend RULER** as part of condition monitoring programmes

VITA ESP

- **Contamination control system for varnish** mitigation and particulate removal in rotating equipment
- **Contamination control system for acid scavenging** and all degradation products in Phosphate Ester fluid applications
- **Uses easy-to-replace element inserts** designed for small to medium-sized reservoirs.
- **Lower cost of ownership** with more efficient replacement elements, save money on shipping and more environmentally friendly.
- **Versatile:** Can use ESP, ENDURE and Depth Filters



MEMBRANE PATCH COLORIMETRY (MPC)

A quick, cost-effective way of assessing your oil's varnish potential. The Color instrument allows real time on- site determination of the condition of your lubricant.

Data results are captured and stored in text and audio captions for quick analysis. The MPC Colour Instrument packs tremendous science into a convenient and extremely accurate package.



Fluitec



Solving deposit issues and meeting sustainability targets - enhanced lubricant performance and elimination of mechanical issues due to varnish.

SUSTAINABLE treatments for industrial oils
RESTORE fluid life and **PREVENT** further deterioration
EXTENDS equipment life

DECON - Removes deposits and decontaminates the system

- **Outstanding Solubility** – Features optimal solubility to dissolve oil deposits
- **Exceptional Deposit Control** – Prevents deposits from forming in the long run, unlike other chemical solutions for lubrication systems
- **No Impact on Oil Performance** – Produces no adverse impact on the oil's demulsibility, air release, foam, etc.
- **Better Seal Compatibility** – Offers better seal compatibility than mineral oil and handles changes in mass, volume, strength, and modulus better



**APPROVED BY OEM'S
including Siemens
Energy, MAN Everlence
& SOLAR Turbines**

DECON AW - Replenish Depleted anti-wear additives

- **Prolongs the life** of hydraulic fluids
- **Significantly reduces** the oil's varnish potential (as measured by MPC, UC, and Particle Counts)
- **Minimises sludge**, varnish, and other deposits from your system
- **Dissolves varnish** from machine internals
- **Improves** the deposit control performance of in-service hydraulic oils
- **Extends the life of hydraulic fluids**
- **Reduces maintenance costs** and downtime associated with frequent oil changes
- **Minimises** risky and costly flushes
- **Reduces carbon emissions** by cutting demand
- **Improves the performance** of servo-valves
- **Increases the efficiency** of heat exchangers
- **Provides long-term protection** against varnish, sludge, and deposits



DECON AO - Replenish depleted Antioxidants

- **Superior seal compatibility** compared to mineral oil (change of mass, change of volume, change of modulus, change of strength)
- **Excellent oxidation stability** and deposit control characteristics
- **No adverse impact** on the in-service oil's performance (i.e. air release, demulsibility, etc.)
- **Rapid reduction** of the oil's varnish potential as measured by MPC, UC and Particle Counts.



“The maintenance team have found it to be an easy and quick solution.”

Duncan Andrews - General Manager, Davies Crane Hire





Water resistant grease solutions for maintenance, repair and operations, specifically designed to help protect equipment and personnel.

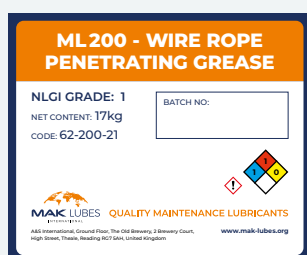
VESSEL GENERAL PERMIT (VGP) compliant lubricant*
Consistency **PREVENTS SLING-OFF** or dripping
EXTEND lube intervals and **REDUCE** lube consumption

ML253 ECOLOGY EAL WIRE ROPE GREASE

Specifically designed with BIODEGRADABLE, non-toxic natural and synthetic ester base oils and a special calcium thickener system to protect the environment. Meets the specifications required by the EPA's Vessel General Permit (VGP).

A tacky, stringy grease that offers excellent penetration and superior coating protection for wire ropes that are exposed to severe environments including salt water.

This proprietary technology provides a long lasting product with excellent water resistance, good E.P. properties and wear protection. The tacky adhesive NLGI Grade 1 grease will provide a water resistant coating around the wire rope protecting it from rust and corrosion. Will not drip, sling off or wash off wire ropes..



ML200 WIRE ROPE PENETRATING GREASE

Semi-fluid lubricant with excellent adhesion characteristics and water resistance.

Developed from a special blend base oil, additives and thickeners highly resistant to moisture. Ideal for the lubrication of wire ropes and chains that are exposed to severe conditions; its consistency allows fast penetration, protecting against wear, rust and corrosion.



ML221 WIRE ROPE COATING GREASE

Superior dual action lubricant, with excellent penetration and coating protection for wire ropes that are exposed to severe environments including water.

The proprietary technology provides a long lasting product with E.P. characteristics and water resistance. The tacky adhesive NLGI Grade 1 Grease provides a water resistant coating around wire ropes protecting against rust and corrosion. It will not drip, sling off or wash off wire ropes.

*Specific to ML253 Ecology EAL Wire Rope Grease

“ Since moving to MAK Welding all of the welders are happy with the product - which is no mean feat. So great feedback on every aspect of the solution. ”

Adam Black - SHEQ Assurance Engineer



MC626 MAK WELDING Anti-Spatter Liquid

A silicone-free anti-spatter liquid that is also biodegradable and non-toxic.

Suitable for both manual and automatic robotic welding applications it is non-flammable and does not produce harmful fumes during welding as it only contains natural and ecological substances.



MC828 MAK MOISTURE EXPEL Anti-Corrosion Protection

A professional aerosol product that effectively protects electrical & electronic components.

It provides protection against moisture, corrosion & humidity for a wide variety of industrial applications including electric motors, wiring, connectors, junction boxes, switches, tools & mechanical parts.

MC606 MAK D-SCALEX Descaler & Restoration Fluid

An extremely effective & cost efficient acid based cleaner designed to remove calcium deposits, limescale & rust from all acid-resistant surfaces.

Very economical in use – can be mixed with water for most applications, does not change its characteristics, even under temperature variations and works quickly.

At a dilution of 1:5 & above it perfectly breaks the bond between the surface and calcium or lime scale deposits on ceramic tiles or other sanitary products.

An ideal solution for maintenance, repair and operations companies for effectively descaling surfaces, pipes & radiators as well as removal of stains, oxidation, rust and corrosion.



MakChem



Quality maintenance chemicals used for maintenance and repairs in industry, specifically designed to help protect equipment and personnel.

Safe for the environment **BIODEGRADABLE** products
NON-TOXIC, SOLVENT FREE degreaser/cleaners
Solutions for waterproofing and **RUST PROTECTION**

MC929 MAK FOX - Multi-Purpose Degreaser/Cleaner

A unique multi-purpose, non-flammable degreaser that does not contain any hazardous compounds such as hydroxide, phosphate or any hydrocarbons.

MAK FOX leaves no residue, is completely biodegradable as well as water-dilutable to 1:100 mix ratio.

Totally safe for operators, the environment and has impressive wetting capabilities that make it suitable for all industries.

The product has a gel form and can also be used as a detergent in cleaning machines, tunnel washers, hand sprayers and high-pressure cleaners for a wide range of surfaces/materials in industrial environments including metal, glass, plastic and wood.



MC808 MAK CLEANEX Food/Industrial Degreaser & Cleaner

A unique biodegradable strong degreasing agent applied via aerosol (650 ml) which degreases and cleans in one step.

Ideal for maintenance use in all types of industry situations. It contains no hazardous substances such as Ketones & N-Hexanes and is NSF K1 registered.

MAK Cleanex is also certified according to IEC 156 and can therefore be used for cleaning electrical equipment that is not susceptible to solvents such as cleaning electric motors without disturbing the insulating varnish. Does not attack plastics, aluminium or rubber.



“Our equipment works long hours in harsh environments, so monitoring the condition of the lubricant in each machine and then responding to any concerns is absolutely critical to meeting production targets.”

Director - Iron Ore Mining Company, Pilbara



isoPod





Fully bunded lubricant storage and dispensing rooms providing contamination free storage and dispensing of lubricants and coolants.

Secure and controllable access to **VALUABLE** lubricants
Plug-&-Play solutions that **GROW AND MOVE** with you
Purpose built units and **NOT** a modified container

Best Practice Lubrication storage and dispensing of lubricants

Lubricant storage and dispensing is an important part of any lubrication programme. Lubricants can become heavily contaminated without proper storage and dispensing containers. Oil storage and transfer containers are essential for reliability best practice.

The isoPOD™ family are a purpose built, portable, plug-&-play lubrication storage and dispensing system designed specifically for dispensing lubricants from drums into small portable containers typically used in the maintenance or top-up of machines. They are a great solution to ensure your lubricants are stored and dispensed correctly.



Benefits of using isoPOD products

- Best practice lube storage and dispensing means less product lost to contamination
- Better product performance due to the lubricants being kept clean, cool and dry
- Reduced product loss due to leaks and spills
- Less downtime of equipment as lubricant kept in prime condition
- Lubricants will last longer due to no contamination or damage

Environmental and H&S benefits

- Reduces contamination as dispensing can be done inside the fully bunded container
- Due to bunding all leaks are contained in situ reducing slip hazards and costly clean-ups
- Less wastage and disposal of contaminated lubricants

“ The speed and ease of use of SylWrap enabled the repair to be completed before the tide returned to the salt marshes, the pipe had been successfully sealed ahead of being covered with mud and seawater again. ”

Maintenance Management Team - UK Chemical Plant





Used globally in all types of industry, SylWrap is the go-to product for permanent repair of all liquid and gas carrying pipes and pipelines.

Permanently fix a leaking pipe in under **30 minutes!**
Used on **ALL** types of pipe, **UP TO 600MM**
WRAS approved, use with potable water

Universal pipe repair, even when pressure can't be stopped.

Sylwrap is a water activated composite system for permanent leak repairs - no need to replace broken or damaged pipes. Proven and cost-effective pipe and leak repair systems that have been independently tested to industry accepted standards.

A complete range of repair kits and solutions for every eventuality, they are effective on pipes of all materials and sizes and most of the products have WRAS approval, meaning that they have been certified to British standards as safe to use with drinking water.

Repairs are pressure resistant to 30bar, temperature resistant to 200°C and have high chemical resistance.



Benefits of using Sylmasta products

- Fast and permanent repair for leaking pipes
- Use on pipes that are still under pressure – up to 30 Bar
- No shutdown of equipment required so repair can be completed while equipment is still in use

Environmental benefits of Sylmasta

- Reduced wastage of damaged pipes
- Reduce contamination caused by leakages, by reducing time to stop the leak



“Very impressed with how easy Hosepatch is to use. Pinhole leak was spotted and repaired in less than 10 minutes saving us on costly downtime. Now Hosepatch is a must have on all of our diggers.”

General Manager Waste & Recycling Plant - QLD





Hosepatch is an instant repair system for hydraulic hoses that fixes a leaking hose in less than 10 minutes!

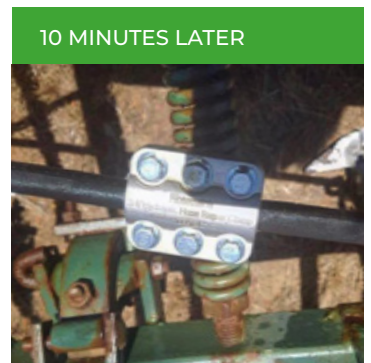
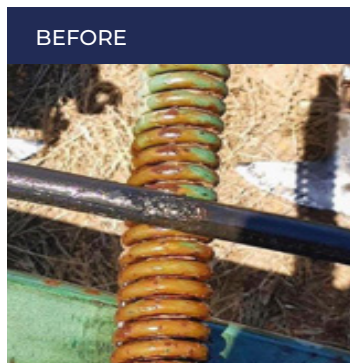


COMPLETELY seals a leaking hose, working either as a low pressure patch, or as a joiner
Enables work to continue **AVOIDING** costly downtime

HOSEPATCH HYDRAULIC HOSE REPAIR CLAMPS PERFORM WHEN YOU NEED THEM MOST!

Hosepatch in-field hydraulic hose clamps make repairs as simple as possible, with no removal of the hose from the machine. Cranes and heavy lifting equipment can be up and running in as little as 10 minutes. The clamps can be used on most types of hydraulic hose eliminating the need to have different fittings for different types of hose.

Emergency, Temporary & Reusable Hydraulic Hose Repair Kit



Using as a Patch

The clamp can be used as a patch for simple repairs. You place the clamps over the leakage in the hose, making sure the hole is placed centre of the clamp and then tighten the bolts. You're ready to go. Use as a patch has its limitations and best suits pressures under **2000 psi**, small holes, where the hose is in relatively good condition.

Using as a Joiner

Using the clamp as a joiner requires the use of the joining barb that comes in the kit, which means the hose has to be cut. The advantages of using as a joiner are that condition isn't important and can be used at pressures up to **6000 psi**.



HOSEPATCH clamp/joiner can be removed along with the damaged hose once correct new hydraulic hose is installed. It can then be returned to the kit ready for its next emergency repair job.

We sell and distribute products for maintenance, repair and operation in industry that deliver performance change, bottom line financial benefits, AND WITH A MAJOR FOCUS ON SUSTAINABILITY.



A&S International

How can we help you today?

Information about a specific product?



Hello@aands-international.com

Understand how we can help you towards your zero emissions target?



Angus@aands-international.com

Pricing?



Shaun@aands-international.com

Find out about delivery elsewhere in the world?



Jackie@aands-international.com

Place an order?



Aurelie@aands-international.com

Arrange a meeting



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