

Industrial Lubricants



TOTAL

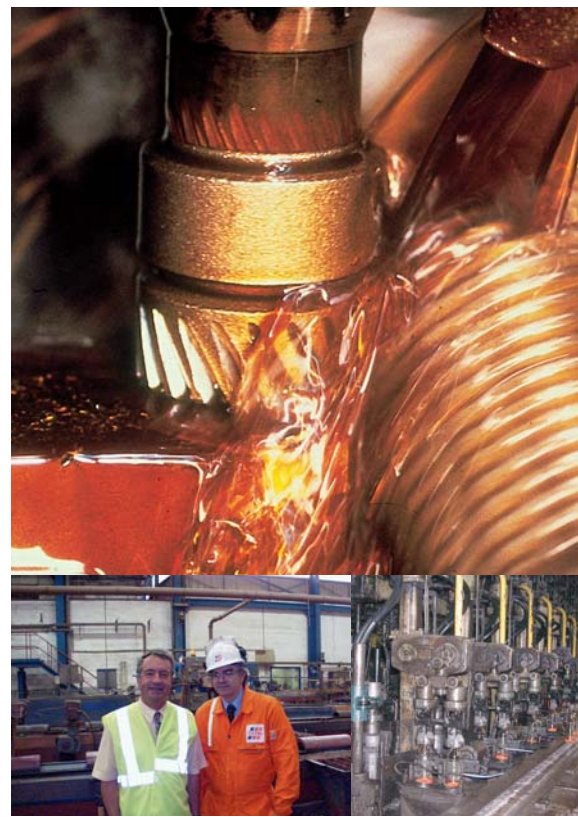
A complete range of Industrial Lubricants

Every industry uses specialist products that require the very best care and attention in order to manufacture at their optimum. A machine that doesn't work to its best performance represents lost money and, in some cases, a significant cost. This is recognised in TOTAL's range of industrial lubricants, which have all been specially designed for the many thousands of applications used in industry today.

The TOTAL range is the result of many years' research and development and is used and trusted by some of the most respected and successful companies throughout the world.

The highest standards of customer service

Our customers demand first class support and assistance and we are dedicated to provide this through our complete "Customer Care" package. This includes a dedicated technical helpdesk on hand to help deal with any technical queries relating to our products and their applications.



Industrial Lubricants

| Hydraulic Oils | Viscosity | Specifications | Product Description |
|-----------------|-------------------------------------|---|--|
| AZOLLA ZS RANGE | ISO HM 10, 22, 32, 46, 68, 100, 150 | AFNOR NF E 48 603 HM, ISO 6743/4 HM. Denison HFO, HF1, HF2. Cincinnati-Millacron P68, P69, P70. Vickers M-2905S + -I-286. | High-quality hydraulic oil available in a wide range of viscosities to cover many diverse industrial applications. |
| AZOLLA AF | ISO HM 46 | ISO 6743/4HM. DIN 51524-2 HLP AFNOR NFE 48-603 HM. Vickers I-286S. Cincinnati P68, P69, P70, MAN N340. | High-quality ashless hydraulic oil designed for the severest industrial applications. Particularly injection moulding machines, presses, hydraulic systems in steel, wood, paper, mechanical or car industries. For use in other equipment systems equipped with fine filtration systems. Particularly in the presence of water. |
| EQUIMS ZS RANGE | ISO HV 15 to 100 | ISO 6743/4 HV. DIN 51524-3. HVLP AFNOR NFE 48-603 HV. Vickers M2950S, -I-286. Cincinnati-Millacron P68, P69, P70. | Hydraulic systems operating under high temperature and pressure conditions and requiring an anti-wear oil possessing a high viscosity index (VI>160). Equipment working outside with extensive differences in temperature (public works, quarries etc). Silicon-free. |
| EQUIMS XV | ISO HV 32, 46 | AFNOR NFE 48-603-HV DIN 51524-3 HVLP. | Hydraulic equipment having to operate over a very wide temperature range and requiring an anti-wear oil possessing an exceptional viscosity index (VI>260) and very shear resistant. Most particularly suited to applications subjected to low temperatures. |

| Fire Resistant Hydraulic Oils | Viscosity | Specifications | Product Description |
|-------------------------------|------------|-----------------|--|
| HYDRANSAFE HFC146 | ISO HFC 46 | ISO 6743/4 HFC. | Hydraulic circuits requiring a fire-resistant HFC-type fluid (Water/Glycol mixture). Ready-for-use fluids. Used in iron and steel industry, mines, foundries, etc. |

| Enviro-friendly Hydraulic Oils | Viscosity | Specifications | Product Description |
|--------------------------------|-------------|----------------------------------|---|
| BIOHYDRAN RS38B | ISO HETG 38 | VDMA 24568 HETG. ISO 15380 HETG. | Open-air hydraulic applications when there is a possible risk of pollution of the natural environment: public works, forestry, river traffic. BIODEGRADABLE high-quality vegetable oil-base fluid. |
| BIOHYDRAN TMP 46 | ISO HEES 46 | VDMA 24568 HEES. ISO 15380 HEES. | Severe hydraulic applications when there is a possible risk of pollution of the natural environment: public works, forestry, river traffic. BIODEGRADABLE, very high-performance synthetic fluid (saturated ester-base) that permits longer oil drain intervals, in a very wide temperature range of use (-30°C to +100°C). |

| Turbine Oils | Viscosity | Specifications | Product Description |
|----------------|--------------------|--|--|
| PRESLIA SE JET | ISO 25 | MIL-L-23699E Approved: Allison, General Electric, Rolls-Royce, Turbomeca. | Synthetic oil for industrial gas turbines in land and marine applications. |
| PRESLIA GT | ISO 32,46 | ISO 6743-5L TSA/TSE/TGA/TGB/TGE. DIN 51515 Part 1 OEMs: ABB (Switzerland, Sweden), Alstom, General Electric, Nuovo Pignone, Siemens, Solar, Thermondyn. | Hydro-cracked lubricant with outstanding antioxidant properties for gas and combined cycle turbines. |
| PRESLIA | ISO 32, 46, 68,100 | ISO 6743-5L TSA/TSE/TGA/TGB/TGE. DIN 51515 Part 1. JIS K2213 Type 2. BS 489 OEMs: ABB Switzerland, Sweden), Alstom, Demag Delaval, Fives Cail Babcock, Garrett, General Electric, GE Hydra, MAN Energy, Nuovo Pignone, Siemens, Solar, Thermondyn. | Mineral oil designated for the lubrication of turbines, (steam, gas, combined cycle). Turbo-compressors lubrication. |

| Industrial Gear Oils | Viscosity | Specifications | Product Description |
|----------------------|------------------|---|--|
| CARTER EP | ISO 68 - 460 | ISO 6743/6 cat. CKD. DIN 51517 Part 3. CLP AGMA 9004-D94. DAVID BROWN. | Gears in casing irrespective of the loading conditions. Bearings and highly loaded couplings. Oil mist lubrication if an "extreme pressure" oil is required. |
| CARTER SH | ISO 150-1000 | ISO 6743/6 cat. CKD. FLENDER - Mueller Weingarten. DIN 51517 Part 3 CLP. DAVID BROWN. | Synthetic high performance. Gears in casing under high loads and extreme temperatures. Lowering costs by increase in oil-change intervals. Miscible with mineral oils. |
| CARTER SY | ISO 220-460 | DIN 51517 Part 3 CLP ISO 6743/6 cat. CKS/CKT DAVID BROWN. CMD. | Industrial transmission with a high sliding rate. Worm gears reducers. POLYGLYCOL-base synthetic oil. Reduce wear and engine power consumption. Severe operating conditions: shocks, extreme temperatures. Incompatible with mineral oils and some synthetic oils. Protects equipment from corrosion during shutdown phases. |
| CARTER VP/CS | ISO 220-680 | ISO 6743/6 cat. CKD HANSEN transmissions FLENDER. DIN 51517 Part 3 CLP. | Reduction gears under particularly severe conditions of lubrication: extreme loads, hot, wet or cold and corrosive environment. Excellent thermal stability permits extended oil-change interval. Defers of micro-pitting. Protects equipment from corrosion during shutdown phases. |
| CARTER ENS/EP 700 | ISO 700 at 100°C | ISO 6743/6 cat. CKJ. | Exposed gears or in non-watertight casing revolving at low speed. For metal cables and chains. "Coating"-type lubricants. Available in aerosol cans. |

| Circulating Oils | Viscosity | Specifications | Product Description |
|------------------|--------------|---|---|
| CIRKAN ZS | ISO 220, 320 | ISO 6743/1 cat. AB. ISO 6743/2 cat. FD ISO 6743/6 cat. CKB. | Movements and mechanical systems under severe conditions: good anti-wear properties and resistance to oxidation. |
| CIRKAN C | ISO 22-460 | ISO 6743/1 cat. ISO 6743/4 cat. HH. | Total loss oils (can, wick, mist) or in casing for movements, joints, bearings, chains or gears under very mild conditions. |

| Heat Transfer Oils | Viscosity | Specifications | Product Description |
|--------------------|-----------|----------------|---|
| SERIOLA 22, 2100 | ISO 22 | | Lower viscosity product, specified for use where the highest rate of heat transfer is required. |
| SERIOLA 68 | ISO 68 | | Suitable for most heat transfer systems working at higher temperatures. Higher additive treatment for longer service life under the most severe operating conditions. |
| SERIOLA D | | | Heat transfer system flushing oil. To be used for the cleaning of heat transfer oil circuits before draining. |

| Specific Applications | Viscosity | Specifications | Product Description |
|-----------------------|-------------------------|----------------|--|
| CORTIS SHT 200 | | | High-performance synthetic fluid. Movements operating at temperatures up to 270°C on a continuous basis. Roller chains rolling elements, rollers, conveyors, cams used in ovens or stoves. Feeder machine mechanisms for glass manufacture. Machines for continuous manufacture of chipboards. |
| CYL C | ISO 100, 460, 680, 1000 | ISO 6743/0. | Lubrication of steam engine cylinders. Compounded viscous mineral oils. Medium loaded reduction gears. |
| PNEUMA SY | | ISO 6743/11. | Antifreeze oil for drilling air tools, specially for sound proof pneumatic tools. This oil cannot be mixed with conventional mineral oils. |

| Corrosion Preventives | Viscosity | Specifications | Product Description |
|-----------------------|-----------|----------------|--|
| OSYRIS RANGE | | | A full range of rust prevention oils including dewatering fluids. Please refer to technical for product recommendation based on application. |

| Refrigerator Compressor Oils | Viscosity | Specifications | Product Description |
|------------------------------|-----------|--|--|
| LUNARIA 68 | ISO 68 | DIN 51 503 CLASS A. ISO 67 43-L-DRA,DRB. | Pure mineral oil for rotary and reciprocating refrigerant compressors. |
| LUNARIA MP | ISO 46/68 | DIN 51 503 Class KA, ISO 6743-3B-L-DRA, OEM specifications: CARRIER, COPELAND, TECUMSEH, TRANE, YORK. | Super refined naphthenic oils selected for the lubrication of rotary and reciprocating refrigerating compressors using NH ₃ , CFC's and HCFC's. |
| LUNARIA SH | ISO 46 | OEM Approvals: Bock, Grasso, Howden, Sabroe,... | Semi-synthetic (PAO) oils for ammonia refrigerating compressors, with evaporator temperature down to -50°C. Product specially resistant to ammonia. Refrigerating gas: NH ₃ . |
| PLANETELF ACD 68 | ISO 68 | OEM Approvals: AERZEN, BOCK, CARRIER, FRASCOLD, GRAM, GRASSO, HOWDEN, J&E HALL, MCQUAY, SABROE, SULZER, TECUMSEH, YORK | Synthetic polyolester oils for refrigerating compressors using HFC refrigerants. |
| PLANETELF PAG 488 | ISO 130 | Approved by SANDEN SP20 GM Spec No: 9985752. | Synthetic PAG type lubricant for car air conditioning. |

| Gas Engine Oils | Viscosity | Specifications | Product Description |
|-----------------|-----------|---|---|
| NATERIAL MJ | SAE 40 | Guascor/GMT Ficantieri. Jenbacher 1000 - 1106. Wartsila Diesel Gas. Waukesha VGF. | Medium ash mineral Gas Engine Oil. |
| NATERIAL MH | SAE 40 | Caterpillar (3300 to 3500 series), Cummins, Deutz-MWM, IVECO-AIFO, Jenbacher 1000-1106, Mitsubishi, Perkins, Warsila, Waukesha. | Low ash detergent mineral oil. Suitable for spark ignited engines fed with natural gas. |

| Compressor Oils | Viscosity | Specifications | Product Description |
|-----------------|---------------|--|--|
| DACNIS P range | ISO 68 to 150 | DIN 51 506 VDL. | Mineral oils for reciprocating compressor applications. |
| DACNIS SE | ISO 100 | DIN 51 506 VDL. | Di-ester based synthetic oils for air compressors (reciprocating high pressure, rotary according to specific OEM recommendation, turbo compressors). High thermal stability. |
| DACNIS SH | ISO 46 | ISO 6743: DAJ. | PAO based synthetic oils for rotary air compressors. Long drain intervals, up to 8000 hours. |
| DACNIS VS | ISO 46, 150 | DIN 51506 VDL, ISO DP 6521, ISO 6743: DAJ. | Mineral oils for rotary air compressors. Long drain intervals, up to 4000 hours. |

| Neat & Soluble Cutting Oils | Viscosity | Specifications | Product Description |
|-----------------------------|-----------|----------------|--|
| | | | A wide range of both neat and soluble machine oils are available. Please call technical helpline on 01977 636222 for recommendations based on specific applications. |

| EDM Fluids | Viscosity | Specifications | Product Description |
|------------|-----------|----------------|--|
| EDM 3 | | | Single product to perform all operations for all types of parts, from rough machining to finishing operations. |

| Machine Tool Lubricants | Viscosity | Specifications | Product Description |
|-------------------------|---------------------------|---|---|
| DROSERA MS | ISO 32, 68, 100, 150, 220 | ISO - L - HM. ISO - L - HG. ISO - L - GA. ISO - L - CKB . ISO - L - CKC. ISO - L - CKE. ISO - L - FD. | Machine tool slides and hydraulic circuits. Multi-function oil for lubrication of all machine tool parts (hydraulics, slides, gears). Perfect compatibility with cutting fluids of the TOTAL range. |

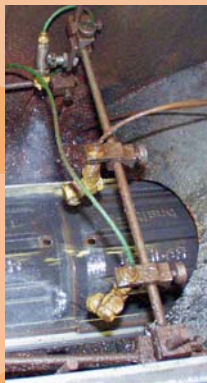
| Transformer Switchgear Oils | Viscosity | Specifications | Product Description |
|-----------------------------|-----------|--|---|
| ISOVOLTINE | 10.7 | IEC 296. | Transformers, switch gears, contacts, welding sets and high voltage equipment. |
| Process Oils | Viscosity | Specifications | Product Description |
| TORILLIS | | | A range of pure mineral oils used in a variety of industries: rubber, plastics, textiles. Available in a wide range of viscosities. Please call technical helpline on 01977 636222 for recommendations based on specific applications. |
| Mould Release Agents | Viscosity | Specifications | Product Description |
| | | | Products for every application available. Please call technical helpline on 01977 636222 for recommendations based on specific applications. |
| Greases | Viscosity | Specifications | Product Description |
| ALTIS EM 2 | NLGI 2 | ISO-L-XBFEA2. DIN 51502 K2R- 20. | High temperature high speed polyurea grease. For use in high speed applications operating at high temperatures in dry and mildly humid environments, bearings of electric motors, generators, bearings of extraction fans for hot gas or steam, bearings of dryers, pumps, and all other applications where rotation speeds and temperatures are high. Suitable for extended lubrication intervals or filled for life grease. Operating temperature range from -25°C to +180°C. |
| ALTIS SH 2 | NLGI 2 | DIN 51502 KP2R - 40. ISO-L-XDFHB 2. | High temperature high speed synthetic polyurea grease. Extreme pressure with outstanding low and high temperature performance. Lubrication intervals or filled for life applications. Operating temperature range from -40°C to +180°C. |
| CALORIS 2 | NLGI 2 | ISO-L-XAFAA2, DIN 51502 K2RO. | Bentone based grease. For the lubrication of slow moving mechanisms subjected to very high temperatures. Range of use : 0°C to 180°C and peak temperatures of 200°C. |
| CERAN WR2 | NLGI 2 | ISO-L-XBFIB 2. DIN 51502 KP2R - 25. | Extreme pressure multi-purpose for lubrication of applications operating in wet conditions in marine and off-shore. Operating temperature range from -25°C to +180°C. |
| MULTIS 2 , 3 | | ISO-L-XBCEA 2. DIN 51502 K2K-25. ISO-L-XBCEA 3. DIN 51502 K3K-20. | Multi-purpose non extreme-pressure grease for general lubrication under normal operating conditions and loads. Operating temperature range from -25°C to +120°C. Lubrication of all kinds of bearings and joints when the temperature and loading conditions are normal. |
| MULTIS COMPLEX EP 2 | | ISO-L-X BEHB 2. | Lithium complex grease with extreme pressure additives. For use on any application where high temperature grease is specified plus excellent adhesion and water resistance. |
| MULTIS COMPLEX S2 | NLGI 2 | ISO-L-XDFHB2, DIN 51502 KHCP2R-40. | A fully synthetic grease (PAO) designed to operate over a very wide temperature range from -40°C to +180°C. Ideal for use in applications where high temperatures are combined with steam or wet environments and where low temperature pumpability is required. |
| MULTIS COMPLEX TEP2 | NLGI 2 | ISO-L-X BEHB 2. | Lithium complex grease with extreme pressure additives. For use on any application where high temperature grease is specified plus excellent adhesion and water resistance. |



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| Greases | Viscosity | Specifications | Product Description |
|-----------------------|------------------|--|---|
| MULTIS EP 00, 0, 1, 2 | NLGI 00, 0, 1, 2 | ISO - L- XBCEB 00, 0, 1, 2 . MB 267.0. | Multi-functional extreme-pressure grease for lubricating all bearings slides and racks subjected to heavy loads and shocks. Good behaviour in the presence of water. |
| MULTIS HT 500 | NLGI 000 | ISO - L-X BBFB 000. | Fluid grease for automatic commercial vehicle chassis lubrication systems. |
| MULTIS MS2 | | ISO-L-X BCDB 2. | Extreme pressure multi-purpose grease with molybdenum disulphide. Suitable for slow moving mechanisms subject to high loading or repeated shocks and in high temperature conditions. |
| MULTIS WR2 | NLGI 2 | ISO-L-X-ACHB 2. | Extreme pressure water resistant grease. Specially designed for plummer blocks. |
| MULTIS ZS 000 | NLGI 000 | ISO - L- XECFB 000. DIN 51502 MP00/000K - 45. Willy Vogel. Mercedes Benz 264. MAN 283 Li-P 00/000. | Central lubricating systems. Especially suitable for small diameter systems (trucks, etc.) operating at very low to medium high temperature. Operating temperature range from -45°C to + 120°C. |
| SPECIS CU | NLGI 1/2 | ISO - L - XAFBB 1/2. DIN 51502 MPF12R/ - 10. | Anti-seize. Applications working under very severe corrosion conditions in presence of water vapour or aggressive gases. |
| SPECIS EPGT | | ISO-L-XBDHB0. | Graphite extreme pressure tacky grease - sprayable. For lubrication of cement plants, mines, quarries, ovens and grinders. |
| SPECIS SY | NLGI 00 | ISO-L-X- COEB 00. | Semi-fluid synthetic grease for closed gears. Lubrication of enclosed mechanisms subjected to very high loads including reduction and worm gears. |

| Cleaning Products | Viscosity | Specifications | Product Description |
|-------------------|-----------|----------------|--|
| CLEANING RANGE | | | A complete range of cleaning products for use in the industrial sector. Including degreasing fluids and products for use in steam cleaning applications. |



TOTAL

Technical support

Lubricants and grease are extremely complex products and at TOTAL we recognise that there may be occasions when you need some help and advice on their application and handling.

Our technical team is available for both field visits and for telephone support to make sure that the right product is recommended every time.

- Field and office based
- Vast industry experience and knowledge
- Oil condition monitoring programme

To contact our technical team, call our helpline on **01977 636222**.

ANAC

Reducing maintenance costs and optimising performance are vital weapons in the fight for increased profits, and that's why the ANAC diagnostic system is one of your greatest allies. ANAC appraises the wear of mechanical components in the engine, transmission and hydraulic system, to help you keep everything operating at optimum efficiency. Used for over 3 million diagnoses, and also available on the internet, ANAC delivers the following benefits:

- Longer equipment lifetime
- Prevention of breakdowns and downtime
- Contingent maintenance
- Optimised oil change intervals
- Improved workshop efficiency
- Best possible fuel consumption

For more information on our ANAC service please call Customer Services on **01977 636200**.

Industrial oil waste solutions

With the waste disposal service from TOTAL, you don't have to worry about getting rid of your industrial waste oil, because we look after everything for you - cost effectively, efficiently and with minimum fuss. This means you concentrate on running the business, whilst we take care of your waste.

The TOTAL industrial waste oil disposal service is designed to be as flexible as you need it to be. So whatever type of business you operate, you can choose the service that best suits your needs. Our experienced team can conduct a waste oil survey and recommend a cost effective solution.

The service includes the completion of the Environment Agency special waste regulations documentation, further reducing your involvement.

- Complete "hassle free" service
- Legislation advisory services
- Range of flexible payment options

For more information on our industrial oil waste solutions please call Customer Services on **01977 636200**.

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