



METALUBE®

Metachain™

A COMPREHENSIVE RANGE
OF HIGH PERFORMANCE CHAIN
OILS FOR INDUSTRY



METALUBE®



Metachain™



Global specialists in high-performance lubricants

For over 30 years METALUBE® has developed and delivered high-quality lubrication solutions for specialist industrial applications. With headquarters in Manchester, United Kingdom, METALUBE® operates a fully integrated lubricant manufacturing facility, and state-of-the-art laboratory from which it delivers to customers in over 90 countries around the world.

Research and innovation are at the heart of METALUBE®, with state-of-the-art laboratories and a team of development chemists ensuring that products deliver optimum performance for customers.

Our success lies in our ability to be flexible, offering unrivalled technical and after-sales support. It is our priority for customers to run at peak efficiency – and for 30 years METALUBE® has delivered a world-class service and superior-performance products.

Metachain™ is our range of high performance chain oils. The range has been formulated using the latest synthetic base oils, anti-oxidants and anti-wear additives to meet the specific demands of chain applications in extreme temperature processes where conventional oils fail to perform.

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Some of the many industries we serve are:

- Wood based panel presses
- Plastic film stretching
- Bakeries
- Food industry
- Glass-wool and mineral wool insulation
- Plasterboard
- Ceramic and porcelain ovens
- Textile stenters
- Paint and powder coat curing ovens



Features and benefits

- High resistance to oxidation which yields longer 'in service wet film life'
- Significantly reduced carbonisation
- Exceptionally low oil volatility reduces consumption
- Unique combination of anti-wear additives reduces friction and wear
- Excellent thermal stability enables extended lubrication frequencies
- Most importantly equipment and component life is enhanced resulting in the following benefits:
 - Less downtime
 - Higher output capability
 - Reduced engineers time
 - Minimised parts spend

Wood Panelling Products

Metachain™ CB-100/200

Metachain™ CB-300

Metalife™ CB-401/402

DIEFFENBACHER

Metachain™ CB-100/200

Continuous press lubricants for the wood panel industry

The Metachain™ CB range is specifically designed for use on wood based panel board presses manufactured by companies such as Dieffenbacher GmbH and Siempelkamp GmbH. They provide excellent lubrication and thermal transfer properties whilst ensuring minimal residue formation.

Metachain™ CB-100

Designed for use on continuous wood panel presses for the lubrication of steel belts. Metachain™ CB-100 is approved by Dieffenbacher due to its trusted performance in service.

- Predominantly for lubrication of belts, but also rollers and chains in certain machines
- Specifically designed for wood panel presses
- Excellent thermal stability
- Extends belt life
- Temp range -10°C to + 260°C
- Reduces wear to extend platen, roller and chain life
- Significantly reduces carbon build-up

Metachain™ CB-200

Designed specifically for the lubrication of the chain and roller systems on continuous wood panel presses. Metachain™ CB-200 is also approved by Dieffenbacher for its ability to reduce wear and extend bending rod life.

- Highly resistant to carbonisation
- Extends bending rod life
- Lower viscosity to aid penetration
- Excellent thermal stability
- Clean in operation
- Reduces need to drill roller rods
- Temp range -10°C to + 260°C



Metachain™ CB-300

High performance, synthetic chain lubricant and cleaner for continuous panel presses

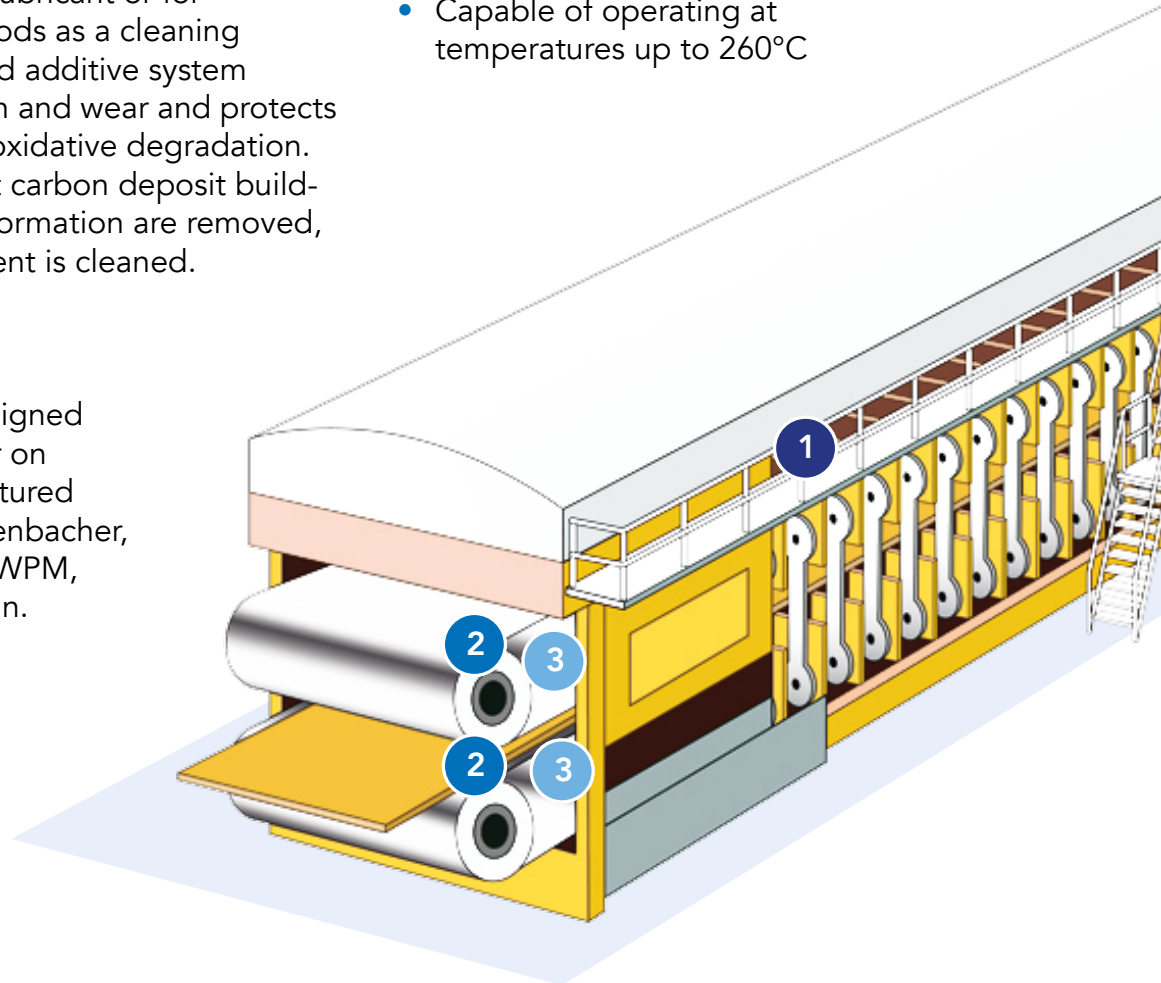
Metachain™ CB-300 has been designed for the cleaning of the chain and roller system on high temperature continuous wood panel presses. A fully synthetic lubricant specifically designed to clean residue build up on chain systems where sludge and carbon deposits present cleanliness and alignment issues.

The base fluids have been carefully selected to deliver excellent lubrication and cleaning properties at high operating temperatures. Metachain™ CB-300 can be used as a permanent chain and roller lubricant or for intermittent periods as a cleaning oil. The advanced additive system minimizes friction and wear and protects against thermo-oxidative degradation. This ensures that carbon deposit build-up and lacquer formation are removed, and the equipment is cleaned.

Our full range of Metachain™ CB products are designed to work together on presses manufactured by Messrs. Dieffenbacher, Siempelkamp, SWPM, Kusters and Yalian.

Metachain™ CB-300

- Excellent detergency and flushing properties to effectively remove deposits left by other oils, resins and release agents from the chain and rod/rollers
- Fully synthetic base fluids and anti-wear additives deliver outstanding lubrication at high operating temperatures allowing continuous use on presses if desired
- Suitable for use on all types of continuous composite board presses
- Capable of operating at temperatures up to 260°C



Metalife™ CB-401/402

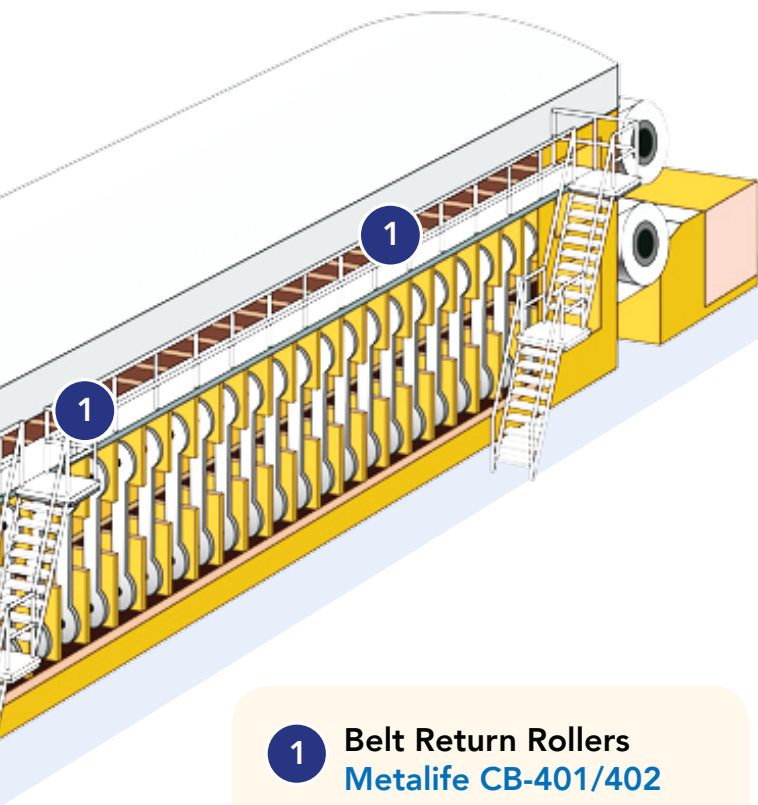
Extended lubrication life greases for roller bearings working at elevated temperature environments in continuous wood panel presses

Metalube Metalife™ CB-401 and CB-402 are high-temperature bearing greases especially designed for the lubrication of rolling bearings subject to high thermal stress found in continuous wood panel presses.

Both products sustain extended lubrication at temperatures up to 285 °C and being inert Metalube Metalife™ CB-401 and 402 also benefit from having no effect on the steel belt or roller chain oils.

Metalife™ CB-401/402

- High temperature capability up to 285°C
- Excellent load carrying and anti-wear properties
- Neutral behaviour to press components
- CB 401 NLGI 0/1
- CB402 NLGI 1/2



- 1 **Belt Return Rollers**
Metalife CB-401/402
- 2 **Steel Belt Top & Bottom**
Metachain CB-100
- 3 **Chain & Roller System**
Metachain CB-200

Plastic Film Stretching Products

Metachain™ PF-11

Metachain™ PF-13

Metachain™ PF-22

Metachain™ PF-32

Metachain™ PF-34

Metachain™ PF-35

Metachain™

Metachain™ PF-11/13/22/32/34/35

Chain lubricants for plastic film stretching machines

The Metachain™ PF range of products are high performance, fully synthetic lubricants specifically designed to lubricate and protect the TDO chain systems of plastic film (BOPP, BOPET etc.) stretching machines. The very latest technology additive system minimizes friction between the sliding material (in particular PEEK) and track, and protects chain components from wear.

Metachain™ PF - Plastic film stretching lubricants

This product range is specifically designed to lubricate the chain systems of biaxially orientated polypropylene film stretching machines (in particular those manufactured by Bruckner Maschinenbau GmbH).

Metachain™ PF-11

- Sliding chains specific
- FOK4.4.4
- Speeds up to 350 m / min

Metachain™ PF-13

- Roller chain specific
- FOK 5 type machines

Metachain™ PF-22

- Sliding chain specific
- FOK 4.4.6
- Speeds of up to 450 m / min.

Metachain™ PF-32

- Sliding chain specific
- FOK4.8
- Speeds up to 450 m / min
- 220centistokes

Metachain™ PF-34

- Sliding chain specific
- FOK4.8
- Speeds over450m/min

Metachain™ PF-35

- Sliding chain specific
- FOK4.4.6
- Speeds over 450m / min
- NSF-H1 registered for food safety standards



Food Industry Products

Metachain™ FG-25

Metachain™ FG-30

Metachain™ FG-35

Metachain™ FG-40

Metachain™ FG-45

Metachain™

Metachain™ FG-25

Food grade chain lubricant for chillers, provers and high temperature applications

Metachain™ FG-25 is a fully synthetic chain oil formulated to meet multiple demands in food production environments. It is formulated from the very latest technology synthetic base oils, polymeric viscosity improvers, anti-oxidants, anti-wear additives and unique rust inhibitors.

This unique combination delivers outstanding corrosion protection in high humidity environments such as provers whilst maintaining excellent low temperature properties and the ability to operate at temperatures up to 240°C.

The formulation is fully compliant with NSF H1 requirements for lubricants with incidental food contact. Metachain™ FG-25 is suitable for use in a wide range of applications, from temperatures as low as -40°C to + 220°C (intermittently up to +240°C).

Metachain™ FG-25

- Wide operating temperature range -35°C to +240°C
- Superb oxidation stability allows high temperature use
- Excellent corrosion protection in high humidity environments
- Low evaporation rate extends relubrication intervals
- Good anti-wear properties protect chain and drive system components
- NSF H1 registered – number 158158



Metachain™ FG-30/35/40/45

High performance chain lubricants for the food and clean industries

The Metachain™ FG range has been intelligently designed to perform in numerous chain applications, examples include: bakery travelling ovens, provers, coolers, overhead systems in meat processing and pin chains on aluminium canning lines. Being NSF registered Metachain™ FG meets the highest safety standards of any audit body to ensure full compliance and total peace of mind.

Metachain™ FG-30

Designed to give excellent lubrication on roller and conveyor chains in the food and clean industries our high quality ester oils enable superior performance to deliver the following benefits to your operation:

- Extended chain life
- Excellent resistance to varnishing
- Reduced carbonization
- Extended re application intervals
- Temperature range -30°C to + 280°C
- NSF-H1 registered
- 390 centistokes

Metachain™ FG-40

The Metachain™ FG-40 range has all the characteristics of the Metachain™ FG-30 range but has been designed for use where NSF-H1 is not required. Being NSF-H2 registered it is still safe for use in a food environment where contact with the food cannot occur.

- Temp range -30°C to + 280°C
- NSF-H2 registered
- 100 centistokes

Metachain™ FG-35

As Metachain™ FG-30 but in a thinner viscosity for applications where enhanced penetration or application through a centralised lubrication system is required:

- Temperature range -30°C to +280°C
- NSF-H1 registered
- 220 centistokes

Metachain™ FG-45

As Metachain™ FG-40 but in a thicker viscosity for applications where enhanced adhesion is required or excessive moisture is present:

- Temp range -30°C to + 280°C
- NSF-H2 registered
- 280 centistokes





Glass Wool Industry Products

Metachain™ GW-410

Metachain™ GW-420

Metachain™ GW-430

Metachain™ GW-440

Metachain™ GW-411

Metachain™ GW-410/420/430/440

Chain lubricants for mineral and glass wool curing ovens

Metachain™ GW has been developed to withstand the extreme temperatures encountered in curing ovens and forming stations for glass and mineral wool insulation. Developed for use on Munstermann and other oven systems, Metachain™ GW has a high flash point and minimal carbon residue formation to reduce the potential for combustion of the oil or residue at these extreme temperatures.

Metachain™ GW-410

Superior high temperature chain lubricant for use in mineral and glass wool curing ovens.

- Excellent thermal stability
- Minimum carbon residue
- Temperature range -30°C to +285°C
- 265 centistokes

Metachain™ GW-420

Superior high temperature chain lubricant for use in mineral and glass wool curing ovens. Metachain™ GW-420 pushes the boundaries of high temperature chain lubricants to deliver superior performance in operation.

- Excellent thermal stability
- Minimum carbon residue
- Second generation additive package
- Operating temp up to +300°C
- 220 centistokes

Metachain™ GW-420 and GW-440 are second-generation, fully synthetic, high performance lubricants specifically designed to lubricate and protect the chain systems of continuous glass and mineral wool insulation curing ovens.

The base fluids have been carefully selected to deliver superb thermo-oxidative stability and, combined with the advanced additive system, the oils maintain high cleanliness and offer first class lubrication at operating temperatures up to 300°C. This ensures that carbon deposit build-up and lacquer formation are minimized and friction and wear are reduced.

Metachain™ GW-430

Superior high temperature chain lubricants for use in mineral and glass wool curing oven. Similar properties as Metachain™ GW-410 but in a lower viscosity for increased penetration and ease of application.

- Excellent thermal stability
- Minimum carbon residue
- Temperature range -30°C to + 300°C
- 100 centistokes

Metachain™ GW-440

Superior high temperature chain lubricant for use in mineral and glass wool curing oven. All the same properties as Metachain™ GW- 430 but in a lower viscosity for increased penetration and ease of application.

- Excellent thermal stabilities
- Minimum carbon residue
- Operating temp up to +300°C
- 115 centistokes

Metachain™ GW-411

High performance, synthetic lubricants for glass and mineral wool insulation curing ovens

Metachain™ GW-411 is a high performance, fully synthetic lubricant specifically designed to lubricate and protect the chain systems of continuous glass and mineral wool insulation curing ovens.

The base fluids have been carefully selected to deliver excellent lubrication properties at high operating temperatures. The advanced additive system minimizes friction and wear and protects against thermo-oxidative degradation. This ensures that carbon deposit build-up and lacquer formation are minimized and evaporation rates are low.

Metachain™ GW-411

- Excellent resistance to thermo-oxidative degradation minimizes carbon deposit build-up
- Fully synthetic base fluids and anti-wear additives deliver outstanding lubrication at high operating temperatures
- Capable of operating at temperatures up to 300°C

Metachain™ EL-46

Chain lubricants for mineral and glass wool forming sections

Metachain™ EL-46 has been specifically designed to combat corrosion issues found in forming sections. Where high wash down occurs, the product protects and extends the life of the chains. Where biodegradability and water contamination are a concern Metachain™ EL is both biodegradable and Ecolabel registered and ensures your ecological responsibilities are met.

Metachain™ EL-46

- Excellent corrosion resistance
- Ecolabel approved
- Bio degradable
- Compatible with common lubrication systems
- Superior anti wear properties
- Non-toxic to aquatic organisms
- Temp range -20°C to +120°C

Metachain™ FS-46, FS-150

- Designed specifically for forming sections
- Range of viscosities
- ISOVG 46, 150 and 220
- Temp range -20°C to +120°C



Gypsum Industry Products

Metachain™ DW-101

Metachain™ DW-280

Metachain™

Metachain™ DW-101/280

Chain lubricants for dry wall and gypsum board drying ovens

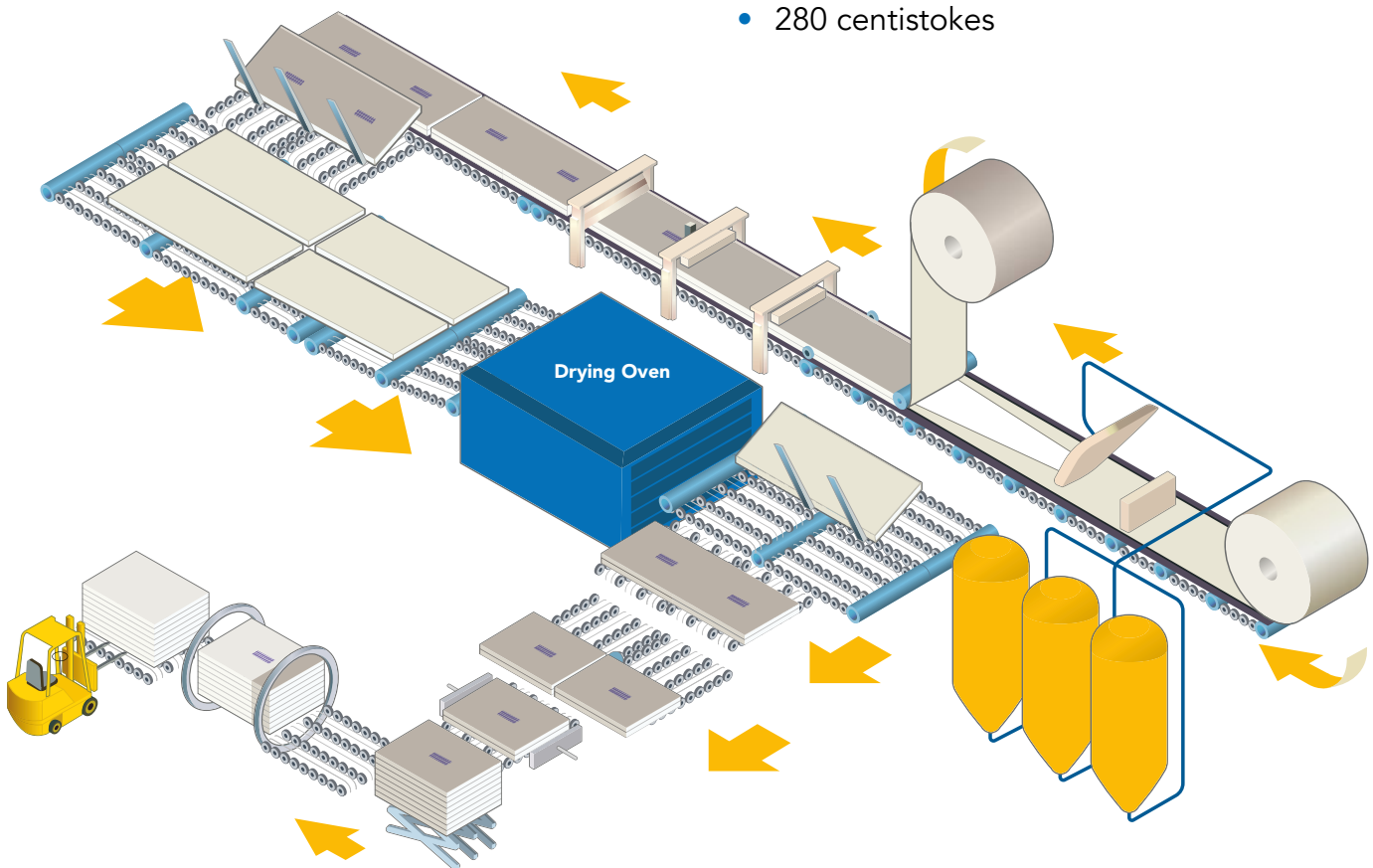
Metachain™ DW are dedicated high temperature chain lubricants for use on drying ovens manufactured by Grenzebach GmbH and others for the production of dry wall or gypsum boards.

Metachain™ DW-101

- Originally designed for Grenzebach
- Operating temperature 260°C
- Resists dust and dirt build up
- 100 centistokes
- Flashpoint 305°C

Metachain™ DW-280

- High viscosity for heavier chains
- 280 centistokes



Paint Coating Products

Metachain™ PC-125

Metachain™

Metachain™ PC-125

High temperature chain lubricants for paint coating lines

Metachain™ PC-125 is specifically designed for use in all painting conveyor chain applications. Formulated to be compatible with aqueous painting processes Metachain™ PC-125 also has excellent resistance to chemical attack. Latest generation base oils and high quality additives ensure excellent thermal stability and extend chain life whilst not affecting the painting process.

Metachain™ PC-125 (Paint Coating)

- Compatible with aqueous paint
- Designed for dipping and painting line chains
- Created to be compatible with e-coating process
- Excellent resistance to chemical attack
- Thermally stable to resist high temperatures
- Operating temperatures of up to +325°C



Textile Lubricants

Metachain™ TS-300

Metachain™

Metachain™ TS-300

Chain lubricants for textile stenters and ceramic ovens

Metachain™ TS has been optimised to offer cost effective lubrication for textile stenters and ceramic ovens where the thermal stability and high lubricity of the synthetic base fluids minimise consumption and improve productivity.

Metachain™ TS-300

- For use on Stenters
- Operating temperature 260°C
- Excellent resistance to thermo oxidative degradation
- 280 centistokes
- Clean in operation



Multi-purpose chain lubricant

Metachain™ HTS

Metachain™ DF-600 (DRY FILM)

Metachain™

Metachain™

Multi-purpose high performance chain lubricants

The Metachain™ multi-purpose range offers premium performance to industrial users in a wide variety of applications. The products are based on synthetic ester technology and class-leading anti-oxidants which provide extended lubrication intervals with minimal levels of carbon deposits.

Metachain™ HTS (Multi-purpose)

- Operating temperatures up to +280°C
- Outstanding resistance to oxidation
- Clean film high quality ester
- Suitable for automatic lubrication systems
- For use on all roller and conveyor type chains

Metachain™ DF-600 (Dry film)

- Dry film high temperature chain lubricant
- Operating temperatures of up to +600°C
- For use where conventional oils fail
- Used for bakery travelling ovens
- Not suitable for centralized lubricators





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**Certificate Number 2367
ISO 9001, ISO 14001, OHSAS 16001**

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