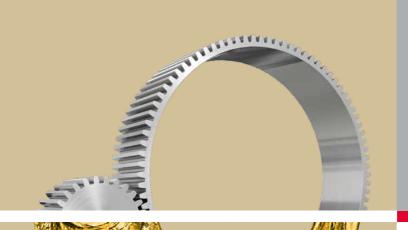


### **CEMENT INDUSTRY**

Reliability and cost savings.





# **CEMENT INDUSTRY**

Since 1955, **Total Lubricants** has developed innovative high-performance products and solutions.

Total has achieved an expertise in the Cement industry by supplying major international companies on all continents.

We are also a key supplier for the first fill of main Industrial OEMs.

Our historical presence and strong experience enables us to help you achieve savings by implementing a Total Cost of Ownership approach.

Thanks to our partnership with
Lubrilog for Open Gear lubricants,
Total is the one lubricant
supplier able to offer a full
range of products that will
satisfy the performance
demands of all your applications
from the quarry to the plant
including the specialties.

#### Your challenges

#### **■** Continuous process:

High cost of shutdowns.
Safety of lubrication operations.

■ High value manufacturing equipment: Extend the lifetime of key assets.

#### ■ Severe operating conditions:

Presence of shock-loads in a harsh environment.

#### ■ Energy intensive industry:

Research for reducing environmental impact.

Optimization of fuel and lubricant consumption, with a goal of lowering your CO<sub>2</sub> footprint.

#### **Our solutions**

### ■ Dedicated products for severe environment from the quarry to the plant, including specialties to protect your equipment:

Lubricants with high extreme pressure and anti-wear properties. Shear stable, shock resistant specialty products.

### ■ Complete range of services to monitor your equipment, extend the lifetime and optimize preventive maintenance:

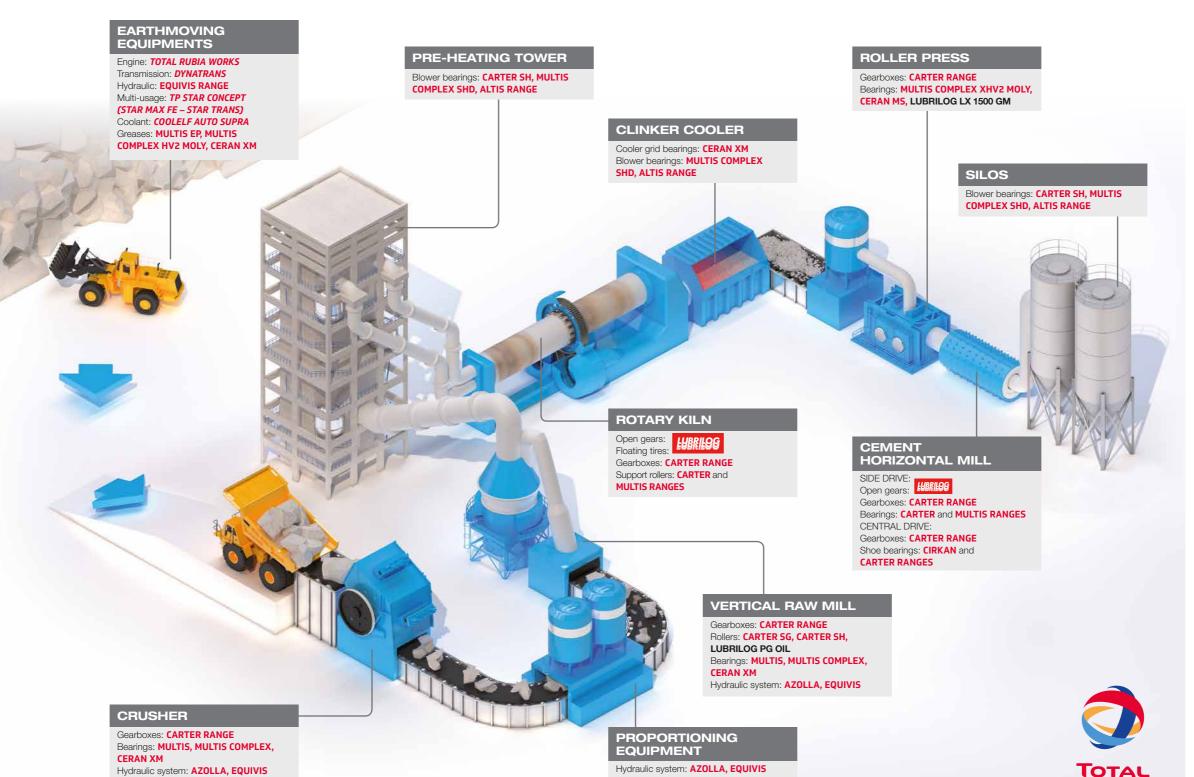
Open gear inspection and thermography.

Oil monitoring with predictive analysis and lubrication maintenance software. Innovative lubricating solutions: automatic lubricators, programmable grease dispenser.

#### ■ Savings through Fuel Efficiency and Energy Efficiency ranges:

Up to 5% fuel or energy savings on mobile and industrial equipment with RUBIA WORKS FE and CARTER SG.





#### A COMPREHENSIVE RANGE OF GEARBOX OILS

Gears	CARTER EP/XEP: high load capability, flender approved, micropitting protection.	
Heavy loaded gears	<b>CARTER HD:</b> outstanding resistance to shocks and vibrations.	
Gears with high temperature of operation	CARTER SH: synthetic PAO based lubricant; extended lifetime.	
Worm gears, ball mills gear boxes	CARTER SG: synthetic PAG based lubricant with high energy efficiency, up to 5% energy savings.	
Gears with possible leakages	CARTER BIO: synthetic biodegradable ester.	

#### HIGH PERFORMANCE GREASES

	MULTIS EP: extreme pressure multipurpose
	grease.
Bearings	MULTIS COMPLEX EP/HV: extended
searings S	lifetime due to excellent mechanical stability.
x multipurpose	MULTIS COMPLEX XHV2 MOLY: solid
	additives, strong protection against shocks.
	CERAN XM: very high load and thermal
	capability with outstanding water resistance.

#### COMPLETE SOLUTION FOR QUARRY

Engines	oils especially developed for the constraints of off-road equipments, matching the most stringent OEMs requirements.	
Transmissions	<b>DYNATRANS:</b> full range of lubricants for all transmission applications: final drive, automatic gearbox, LS, etc	
Multi-usage	TP STAR CONCEPT: innovative concept for rationalization of all your quarry lubricants of all equipments.  STAR MAX: for engines and hydraulics.  STAR TRANS: for all transmission applications.	

**TOTAL RUBIA WORKS:** top tier range of engine

	SPECIALTIES	<u>LUBRILO</u>
Open gear lubrication	GRAFOLOG: aluminium complex greases with solid additives for optimum protection of your gear drive. GEAR FLUID: new technology of thick fluids for reduced operating costs.	
		Easy to spray lubricants:

Floating kiln tires

GRAKOTE FLUID: synthetic fluid based.
GRAFOLOG 1278S: water based dispersion of graphite.

**LUBRICANTS** 

Cleaning of open gear LUBRICLEAN EP: fast cleaning of open gear drives in-service.

# The benefits offered by



# TIG 6, optimized maintenance software for your lubricants



TIG 6 allows you to boost your productivity through efficient maintenance planning.

Built on the expertise of our engineers, TIG 6 offers you to:



**Increase efficiency** and savings of your maintenance management.



**Monitor lubricant parameters and analyses** with a single tool.



Assert your quality and safety management through management of lubricant documentation and critical points.

## THERMOGRAPHIC INFRARED IMAGING





Minimizing failures and maximizing equipment availability are major objectives for maintenance managers and their teams.



 Thermographic inspection allows you to monito your machines and equipments in service and identify abnormal thermal patterns. Hot spots may be linked to lubrification failures, leading to premature wear or equipment failures.



Preventive or corrective actions can be decided on and planned without production stops, thus reducing risk of failures, optimizing equipments availability and reducing maintenance cost.

#### A major player

With our production, supply chain and commercial presence in more than 150 countries, we deliver a full range of lubricants.

## Support and partnership

Thanks to local technical presence, we provide a high level of service to optimize your Total cost of Ownership.

## References & OEMs

TOTAL Lubricants cooperates
with equipment
manufacturers to create
high-technology products
for optimal performance
and protection
of your machinery.



## Innovation & Research

TOTAL invests in biotechnologies to find the most suitable components to reach energy efficiency through formulations designed in our Research Centers.

#### **Quality and environment**

TOTAL Lubricants ISO 9001 certification is the guarantee of a long term commitment to quality. From the initial design stage, our R&D teams seek to develop products that minimize toxicity risks and environmental impact.

Safety Data Sheets are available at www.quickfds.com www.industrial.lubricants.total.com

