

Revolutionary Technology Lubricants for the Mining & Quarrying Industry



www.magnagroup.com

About ITW

ITW (NYSE:ITW) is a Fortune 200 global multi-industrial manufacturing leader. The company's seven industry-leading segments leverage the unique ITW Business Model to drive solid growth with best-in-class margins and returns in markets where highly innovative, customer-focused solutions are required. ITW has nearly 50,000 dedicated colleagues in operations around the world who thrive in the company's unique decentralized and entrepreneurial culture. To learn more about the company and the ITW Business Model, visit www.itw.com.

To offer the best service to each market segment, ITW PP & F Korea Limited operates the following divisions that are branded uniquely for the most prominent recognition by users and customers:



OMEGA Ultimate Lubricants
Specializing in lubrication solutions - greases, oils and additives



MAGNA Welding Alloys
Specializing in gas and arc welding consumables for maintenance



CORIUM Industrial Chemicals
Specializing in industrial & commercial chemicals and adhesives



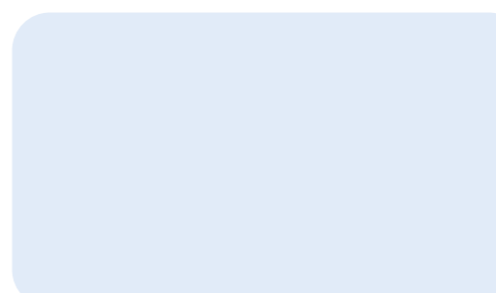
ZETALUBE Lubricants
A new lubricity dimension evolved from experience

We supply superior products that make maintenance:

- Faster
- Safer
- More reliable

Our products are engineered to:

- Lower costs
- Reduce downtime
- Cut wastage



We reserve the right to modify or change products for purposes of improving performance characteristics. © 2021 ITW PP & F Korea Limited

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The information contained in this publication supersedes all relevant information previously released and is to the best of our knowledge and accurate at the time of issue on 2021.

ITW PP & F Korea Limited is a business unit of Illinois Tool Works Inc. (ITW), U.S.A.

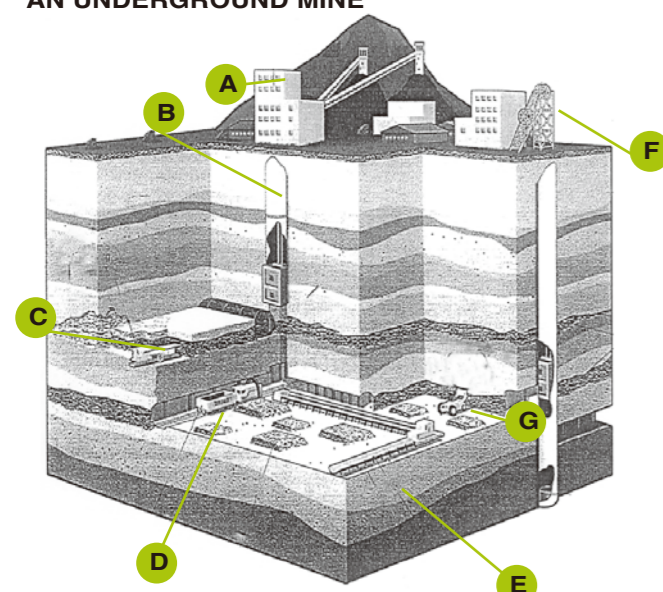
OPL 038 English Version

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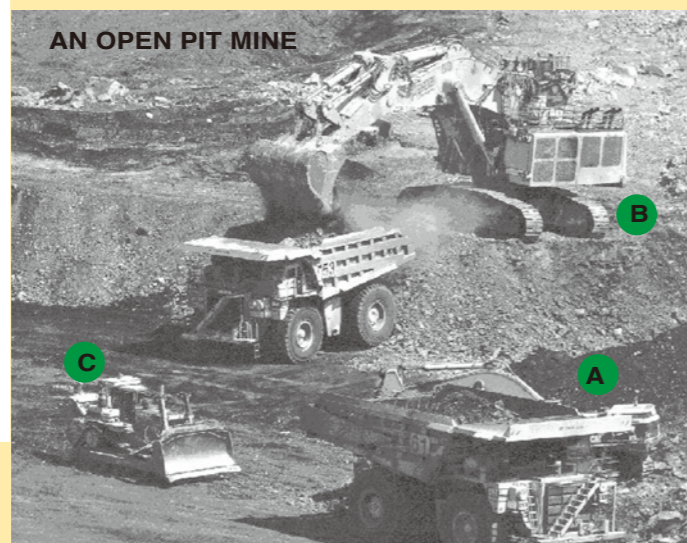
Typical Application - UNDERGROUND MINE

ITEM	LOCATION	MACHINERY APPLICATION	OMEGA PRODUCT	COMPETITIVE ADVANTAGE
A	Above ground	Fan extractor	O28	Withstands most petroleum gases
B	Underground	Shaft wire rope	O65	Slides easily, prevents metal to metal contact
		Gear system	O690	High lubricity resulting in noise reduction
C	Underground	Longwall mining Machine	O77 or O95	Resistant to acids caused by contaminants
D	Underground	Grease points	O77/O89/O95	Multi uses, ability to spread over wide area
	Railway network	Gears	O690	High lubricity resulting in noise reduction
E	Underground	Conveyor system	O646 or O608	Multitude of maintenance uses thus reducing inventory
F	Lifting gear system	Open gear	O73	All weather resistant
G	Underground	Bushing and pin	O64	No squeeze out
	Excavator	Hydraulic system	O917	Lubricates, protects and prolongs life of seals

AN UNDERGROUND MINE



AN OPEN PIT MINE



At ITW PP & F Korea Limited we are fully committed to a proactive approach to safety, health, environment and product improvement. Our commitment is well reflected in:

- Our continuous Research and Developments
- Our on-going in-house Training and our in-house Training Facilities
- Our comprehensive range of Quality Products
- Our many long-term Repeat Customers



Omega
The Ultimate Lubricant



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How Omega Benefits You

Maintenance of heavy equipment in the mining industry is between 30-50% of operational cost. There has been a gradual shift from Traditional Maintenance, which is done only when an equipment breakdown occurs to Preventive Maintenance. But lately "Condition Maintenance" is becoming popular with many mining companies. It is based on the principle that maintenance is done on equipment when it is about to fail. This way of predicting failures requires good monitoring techniques and usage of high quality spares and maintenance consumables.

Omega division of ITW PP & F Korea Limited, a business unit of ITW, Inc. (a Fortune 200 company listed in NYSE), has been supplying a wide range of high quality specialty lubricants to the mining and quarrying industries since 1965.

Research and Development

Omega's Research team is continuously formulating products to meet the demands and changing trends of the mining industry. Its team is dedicated to working in close partnership with its Distributors and Customers to provide a complete lubrication solution and service.

Network of Distributors

The competitive advantage of Omega is the ability to respond to customer's application needs and supply products quickly through its extensive network of distributors and export managers around the world. All products supplied are backed by a Product Liability Insurance of USD1 million for every customer's protection and as a guarantee of superior Quality and Performance.

Environmental Policy

Omega recognizes environmental protection as an integral part of its business activities. The company has an environmental policy that aims to minimize impact on its customers, its employees and the community. Objectives set within the policy are directed at conserving natural resources and reducing waste generated in areas of its activities.

Internet / Intranet Site

Omega's Export Managers located at various cities and its Distributors utilize an information system through the Internet Technology in order to respond almost immediately to customer's queries.

Comprehensive Customer Service

Omega Export Managers, trained Distributor Representatives and Lubrication Consultants are available to provide a complete package (ask your local representative for details) to determine your lubrication needs which may include the following:

Equipment survey will include:

- Visual check on lubrication oil level in engines, compressors, etc
- Check on lubrication time cycle
- Recommendation of Omega lubrication system
- Recommendation of stock level

Lubrication analysis program:

- Oil and grease analysis report
- Failure analysis report
- Final recommendation

In - house training program:

- Trained Representatives can conduct seminars on request
- In - house training programs are customized on request

Labelling of equipment:

- We offer special labels to record product used
- Our distributor's representative will conduct follow up to monitor progress

Omega products are able to improve the quality of lubrication used in open and enclosed gears, bushing system, wire ropes and hydraulics. The OMEGA product range can be divided into 3 main categories namely Greases, Oils and Special Products. The following are some of the many popular products used in the Mining Industry. Check with your Local Distributor for a detailed list of other products that are available.

Omega Greases

Omega 28 Super Fluoroether Grease

Omega 28 is virtually non-destructible even with radiation exposure. It is also able to withstand most toxic gases and temperatures up to 260 degrees Centigrade.

Omega 64 Pin, Bushing and Track Roller Grease

Omega 64 is ultra-tacky, and has a strong resistance to squeeze-out. It is ideal for use in track rollers, pins and bushing system. The product is able to withstand any harsh environment you normally associate with open cast mines and quarries.

Omega 65 Long Life Chain and Cable Grease

Omega 65 provides penetration quality that stops grease from squeezing-out. It ensures that cables, wire ropes and chains become completely saturated with lubricant. Omega 65 provides long-term protection to conveyor chains; mine head equipment, mobile lifts, hoist chains, crane cables and elevators.

Omega 73 Waterproof Open Gear Grease

Omega 73 is an all weather resistant open gear grease that will cling onto metal surfaces tenaciously. Omega 73 has unlimited applications in open gear situations you normally find in cranes, hoists, rail pulleys, truck turntables, etc.

Omega 77 EP Bearing and Chassis Grease

Omega 77 is popularly used as a universal grease because it can be applied onto a variety of single or combination of metals such as zinc, copper, bronze, cadmium etc. Using Omega 77 also helps in reducing inventories and maintenance down time cost.

Omega 99 "Seize Stop" Grease

Omega 99 is an acid-resistant, waterproof and high heat resistant, metal preserving lubricant. It is non-toxic and can be used in confined spaces. Omega 99 is ideal for releasing and protecting nuts, bolts, washers, steam pipes and plugs.



Omega Lubrication Oils

Omega 636 Jamaican-Base Universal Maintenance Oil

Omega 636 has universal application for all basic maintenance requirements. It is popularly used for general lubrication, rust-proofing, displacing water and to loosen "frozen" rusty bolts and nuts.

Omega 646 Superior Chain Lubricant

Omega 646 is a lubricant that will hold on tenaciously to applied surfaces. It is ideal for lubricating chains on conveyors, gear drives, pulleys, etc

Omega 690 Super EP Gear Oil

Omega 690 is an extreme pressure gear oil. It is able to follow a gear train and stay in position. Omega 690 is water and vibration resistant. It is ideal for initial top-up or refill in Hypoid differentials (especially limited slip type), industrial gearboxes and automotive transmissions.

Omega Industrial Specialties

Omega 904 Industrial Oil Concentrate

Omega 904 contains fortified additives, which includes extreme pressure "EP", anti-wear and anti-oxidation to improve operational efficiency. It is ideal for use in hydraulic systems, transmissions, V-drives, variators, reducers, transfers and all forms of manual gearboxes

Omega 909 Super Engine Oil Additive

Omega 909 contains twenty-two additives designed to keep engines at peak performance. Omega 909 eliminates ring and valve stick, inhibits corrosion and reduces friction, resulting in reduced fuel consumption and lesser engine wear.

Omega 917 "Seal Saver"

Omega 917 lubricates, protects and prolongs the life of all types of seals. It prevents fluid loss caused by seal deterioration. Omega 917 contains no harmful solvents and is non-flammable. Omega 917 works while equipment is operating thus saving cost on downtime and material wastage.