

DELIVERING GREATER MANUFACTURING EFFICIENCY



Shell Lubricants

DESIGNED TO MEET CHALLENGES



DESIGNED TO CUT COSTS

In manufacturing, you are constantly striving to drive down production and maintenance costs, and to increase your competitiveness. Whether you want to extend the lives of metalworking tools, increase the productivity of your assembly line or improve the finish of your products, Shell has lubricants that can help to make a real difference to your bottom line.

These products can help to reduce your process and equipment ownership costs by providing

- enhanced protection
- extended oil and equipment life
- improved energy efficiency.

DELIVERING VALUE

Using the right lubricants can substantially reduce costs by

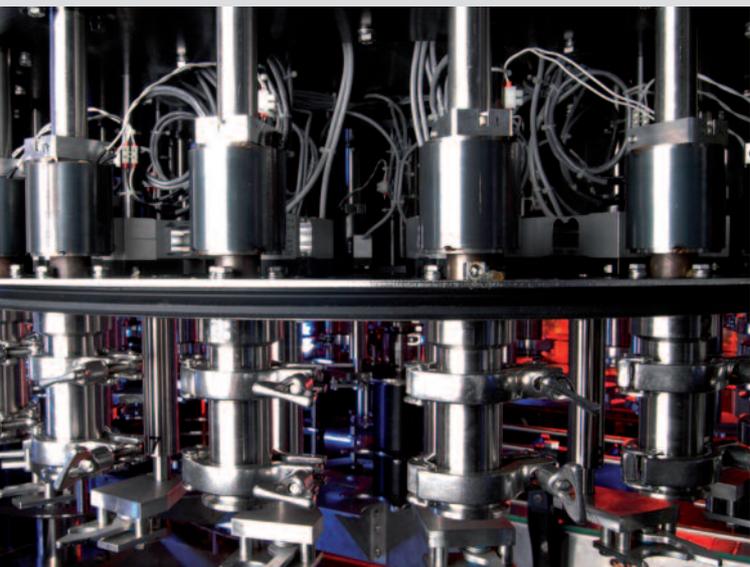
- cutting unplanned plant downtime
- lowering maintenance costs
- increasing equipment life and availability.

PROVEN TECHNOLOGY

Shell harnesses technology to deliver value through the creation of solutions such as energy-efficient and long-life lubricant products that respond to customers' needs. It makes a significant investment each year in the research and development of new lubricant products at cutting-edge laboratories in Asia, Europe and North America. All Shell lubricants are subjected to rigorous development programmes, and the organisation works closely with equipment manufacturers to ensure that its products are approved for use in your equipment. The benefits of Shell lubricants are then demonstrated in manufacturing facilities around the world.



ENERGY EFFICIENCY: Leading manufacturing company Niigon Technologies Ltd and other businesses have significantly cut their energy consumption by using Shell Tellus EE synthetic hydraulic oil. One company achieved an improvement of up to 13.1%!



ENHANCED PROTECTION: Chinese textile manufacturer Hongyue has 400 looms at its Jiaxing plant. The company reported that it is saving over \$17,000² a year thanks to Shell Omala gear oil's enhanced protection and longer life. Hongyue is improving its lubricant management practices, and is using the Shell LubeAnalyst oil and equipment monitoring service to increase equipment availability.

EXTENDED EQUIPMENT LIFE: A global steel manufacturer reduced bearing failure rates by 75% and grease consumption by 30% when it switched to Shell Albida HD polyurea greases.

ADVANCED TECHNOLOGY INDUSTRIAL LUBRICANTS:

- System efficiency • Wear Protection • Reduced Maintenance

HYDRAULIC SYSTEMS	INDUSTRIAL GEARS	AIR COMPRESSORS	MACHINE TOOLS SLIDEWAYS	GREASES
<p>Shell Tellus EE</p> <ul style="list-style-type: none"> ■ Energy saving capability ■ Long-life, maintenance saving ■ Wide operating temperature range 	<p>Shell Omala HD (Industrial Gear)</p> <ul style="list-style-type: none"> ■ Low friction formulation ■ Long-life, maintenance saving ■ Enhanced high temperature protection <p>Shell Tivela S (Worm gears)</p> <ul style="list-style-type: none"> ■ Energy saving capability ■ Long-life, maintenance saving ■ Enhanced wear and micropitting protection 	<p>Shell Corena AS</p> <ul style="list-style-type: none"> ■ Maintains system efficiency ■ Long-life, 8,000 hours maintenance interval capability ■ Excellent air and water separation 	<p>Shell Tonna S</p> <ul style="list-style-type: none"> ■ Increased machine accuracy ■ Excellent friction properties ■ Protects the slideways from corrosion and wear 	<p>Shell Stamina</p> <ul style="list-style-type: none"> ■ Polyurea Greases ■ Exceptional performance ■ Long lasting ■ Outstanding resistance to thermal degradation <p>Shell Tactic EMV</p> <ul style="list-style-type: none"> ■ Automatic single point lubricators available with a selected range of high performance greases

MAINLINE INDUSTRIAL LUBRICANTS:

- Reliable Operation • Wear Protection • Reduced Maintenance

HYDRAULIC SYSTEMS	INDUSTRIAL GEARS	COMPRESSORS	MACHINE TOOLS SLIDEWAYS	GREASES
<p>Shell Tellus</p> <ul style="list-style-type: none"> ■ High performance hydraulic fluid ■ For most hydraulic applications <p>Shell Tellus T</p> <ul style="list-style-type: none"> ■ High performance multigrade hydraulic fluid ■ For mobile and static hydraulic applications 	<p>Shell Omala</p> <ul style="list-style-type: none"> ■ High performance gear oils ■ For most industrial gear applications 	<p>Shell Corena</p> <ul style="list-style-type: none"> ■ High quality compressor oils ■ Range of products for rotary (screw) and reciprocating compressor applications 	<p>Shell Tonna T</p> <ul style="list-style-type: none"> ■ Simpler coolant maintenance ■ Good machining accuracy 	<p>Shell Albida</p> <ul style="list-style-type: none"> ■ High performance lithium complex greases <p>Shell Alvania</p> <ul style="list-style-type: none"> ■ High performance lithium soap greases

FULL PRODUCT PORTFOLIO

Shell offers a comprehensive product range that is designed to help you easily select the right lubricants for your needs, including oils and greases for

- plastic injection moulding
- metalworking and assembly
- pumps, gearboxes, compressors, bearings, hydraulic systems and other industrial equipment.

It also includes specialist product ranges, including

- Shell Naturelle environmentally considerate oils and greases
- Shell Cassida very high performance oils and greases for the food and beverage industries
- Shell Metalworking fluids and oils for cutting and deformation operations, corrosion protection and heat treatment.

WORLD-LEADING SERVICES

The Shell LubeAnalyst oil condition monitoring service is also offered as a health check for your lubricants and machinery. It is designed to reduce costs through

- identifying potential oil or equipment failures before they become critical
- extending lubricant life, thus reducing change-out downtimes and procurement costs
- lowering risks and contributing to safe and reliable operations.



WORKING WITH INDUSTRY

Modern manufacturing equipment is designed to be smaller and to operate under higher pressures and temperatures. Oil-drain intervals and the demands on lubricants have also increased. To respond to market needs, Shell is continually developing products to help you to reduce your energy consumption and operating costs, and to raise your productivity, product quality and equipment uptime.

Shell has long relationships with many equipment manufacturers. Many of these companies supply their equipment containing a Shell lubricant as an essential component of the machine.

Shell's 3,000 equipment manufacturer recommendations or approvals across its product range include approvals from

- ABB
- Bonfiglioli
- Bosch
- Bosch Rexroth
- Cincinnati Machines
- CompAir
- Eaton Vickers
- Flender
- Mitsubishi Heavy Industries
- Parker Hannifin
- SEW-Eurodrive
- Schaeffler
- Textron
- SKF
- Timken
- Voith.

Shell supports the development of new industry performance specifications by working with international organisations such as

- AGMA
- ASTM
- DIN
- ISO.

EFFICIENCY FOR YOUR FACILITY

Over many years of working with the world's leading manufacturers, Shell lubricant experts have developed a deep understanding of your industry challenges. They use this knowledge and experience to create technology-leading products that can deliver clear cost benefits, which can be demonstrated in your facility.

SPEAK TO YOUR SHELL LUBRICANTS DISTRIBUTOR FOR MORE INFORMATION.

*Shell Lubricants" refers to the various Shell companies engaged in the lubricants business.

¹The actual energy savings depend on the application, the current oil, the maintenance procedures, the equipment condition, the operating conditions and the intensity of hydraulic power usage.

²Savings reported by one customer. Actual savings may vary, depending on the applications, the current oil used, the maintenance procedures and the condition of the equipment.