



World's #1 Lubricant Solutions Brand
The choice of leading OEMs

SHELL
LUBRICANT SOLUTIONS



Key trends shaping the **plastics industry**



Customer / End user

Customers want access to data on fingertips to make faster decisions

Customers seek optimal **equipment life, productivity, and reliability**, without unexpected breakdowns

Customization: Injection molding allows for intricate designs and complex shapes, enabling manufacturers to meet the demand for unique and specialized products

Customers want more **compact machines** for better utilization of space and low overall investment



OEM demands

Energy efficiency: OEMs are focusing on developing energy-efficient machines to meet sustainability goals and reduce operational costs

Industry 4.0 integration: Industry 4.0 technologies for improved automation, data exchange, and real-time monitoring

OEM wants lubricant partner to provide end-to-end solutions during lubricant life cycle



Technology, environment & policies

Regulations on plastic waste: Single-use plastics policy introduction by government

Focus on circular economy: The government promotes the use of recycled materials and encourages the implementation of environment-friendly technologies, including reduced energy consumption

Advanced materials: Designed to offer improved mechanical properties, durability, and resistance to harsh environments

Key operational challenges of the **plastics industry**

Demand for compact & efficient machines

Results:

Small sump size

Higher machine productivity expected

High operating pressures

Demand for efficient operations

The fluid operates in severe conditions such as higher pressures & higher temperatures, which can increase the stress on the fluid and reduce its life

Demand for managing end to end lubricant life cycle

Results:

Need for **maintaining fluid condition** during lubricant life cycle

Need for a lubricant partner who helps in sustainability goals by reducing environmental impact & improving operational efficiency

Lubricant manufacturer capabilities:

- Support for oil condition monitoring
- Extended services of filtration, flushing, varnish removal
- Support for proper lubricant disposal after end of oil life

Ensuring hassle-free business operations and a sustainable future

Shell Oil Life Cycle Management

How we help them overcome it

By providing an end-to-end solution comprising of world-class products, predictive maintenance, filtration & waste oil recycle i.e., sustainability, productivity and reducing total cost of ownership

Shell Lubricants India is proud to present **Shell Oil Life Cycle Management**, a platform to provide our industrial customers tailor-made and sector relevant “products & services”

Solutions

Under **Oil Life Cycle Management**, here's what we provide to our industrial customers:



Technically superior and high-quality lubricants & grease products



Complete range of products & services solutions for sectors and applications



Best-in-class raw materials & tight production quality controls



Reduced total cost of ownership and cost savings



Predictive maintenance services

Helping customers identify maintenance needs in advance, saving them from downtime, production and productivity losses



Sustainability goals

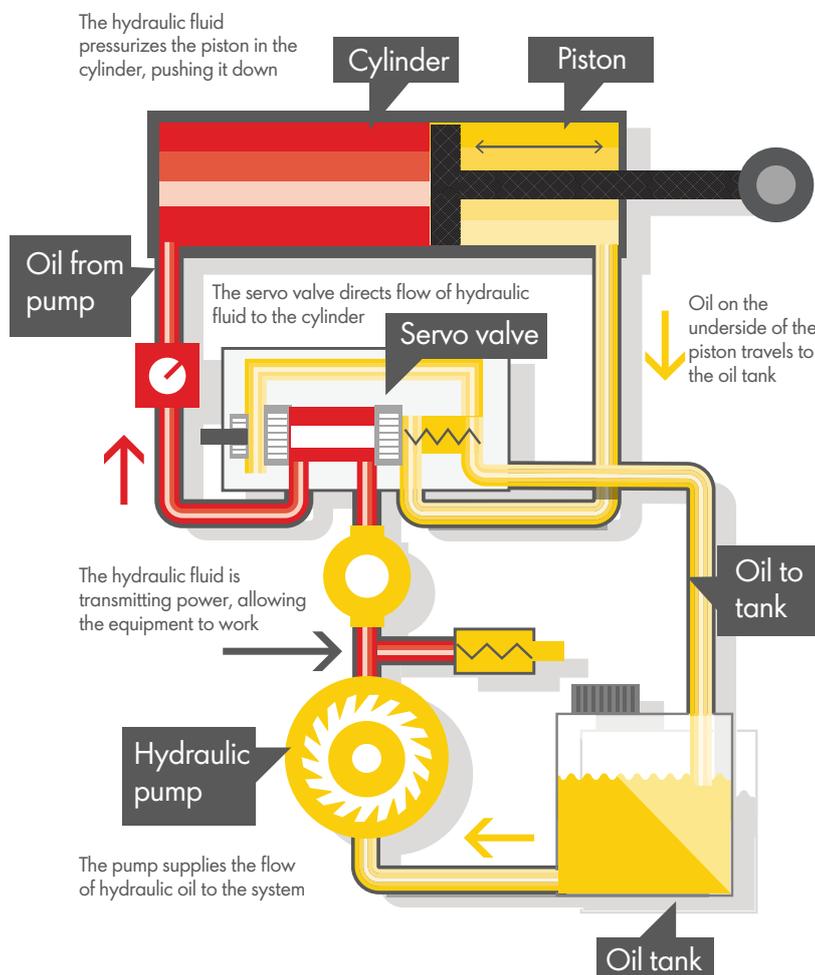
Tested as per **Shell safety standards**, achieved via a network of best-in-class partners, experts in waste oil collection & recycling of used waste oils, to avoid damaging the environment

The critical role of **hydraulic oil**

The hydraulic oil in a plastics injection moulding machine plays a vital role in extending equipment lifetime and improving productivity.



How it works: the hydraulic system



Decrease downtime

A high-quality oil will prevent unexpected breakdown and increase productivity



Optimum speed

The right hydraulic oil allows the system to operate continuously with lower waste and lower energy consumption



Protect from wear and oxidation

Hydraulic oil that protects the system increases the service life of components, reduces maintenance downtime and costs, which increases productivity and ROI



Precision in extreme conditions

Modern plastics injection moulding operations demand a hydraulic oil that can cope with extreme pressure and ensure high precision and accuracy

Shell Tellus has got you covered

Dominating the hydraulics markets since past 75 years

Shell
Tellus

Shell Tellus has more than **1,800 equipment** manufacturers' approvals.³

1 in **7 litres** of hydraulic oil sold worldwide is made by Shell.²

Shell tellus runs successfully in **25,000+** plastic moulding machines.¹



Shell Tellus S2 MX

High performance hydraulic oil

-  **Advanced wear protection** For improved reliability
-  **Optimised system for efficiency** and performance
-  **Long oil life** to reduce maintenance spend



Shell Tellus S3 MX

High performance premium hydraulic oil

-  **Increases oil life,** offers oxidation stability
-  **Wear protection:** Excellent piston pump and valve protection
-  **Quality system efficiency:** Long filter life despite residue contamination
-  **Extended oil** TOST life upto 7500 hrs
-  **OEM approved -** Eaton, denison



Shell Tellus S4 VE

Energy-efficient high performance premium hydraulic oil

-  **Leading wear protection** greater reliability
-  **Extended oil life** reduced maintenance spend
-  Superior energy efficiency and productivity synthetic with **GTL technology**
-  **Extended oil** TOST life upto 10,000 hrs

rexroth
A Bosch Company

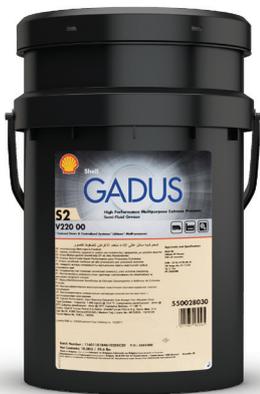
Shell Tellus has surpassed the Bosch Rexroth Fluid Rating Test limits

¹Data estimated from Shell sales over the five years to July 2021

²Data based on Shell records of December 2015, the basis of the Kline & Co. 2019 report

³Data based on Shell records of September 2020

Explore our other **products/lubricants**



Shell Gadus S2 V 220 0/1

Developed to deliver best value through enhanced features



Provides enhanced **wear protection**



Long **grease** Life



Increases **system efficiency**



Promises heavy-duty **protection**



Excellent water resistance capability



Extends equipment **service life**



Shell Omala S2 GX

Developed to deliver best value through enhanced features



Longer **oil** life



Improved **system efficiency**



Improved **wear protection** and load carrying capacity



Shell Omala S4 GX

High Performance Premium Synthetic Gear Oil



Excellent **load carrying capacity** and micropilling performance



Outstanding resistance to breakdown

Customer benefits

Increased equipment protection

Extended oil drain intervals



Shell Corena S3 R

Designed to meet challenges



Extra-long life



Improved efficiency



Excellent protection at high temperature



Shell Corena S4 R

High Performance Premium Synthetic Compressor Oil

Product Features



Exceptional resistance to thermal and chemical breakdown



Advanced ashless anti-wear system

Customer benefits

Long oil life helps to reduce maintenance requirements

Outstanding wear protection prolongs life of alical parts



Shell Lubricants **Portfolio of services**

Shell's complete toolkit of services for the Plastic sector put you back in control of your maintenance. Easy-to-use digital tools and cutting-edge oil analysis allow you to make informed technical decisions, while our training programmes cater for lifelong learning, empowering you to make better lubrication choices.



All in-site plant assessment

Assessing the machine's compliance and safety functions as per lubricant application, storage & handling, equipment optimization, oil conditioning monitoring, contamination control



Shell LubeAnalyst

A network of on-site reliability service partners delivering an end-to-end solution for lubricant storage, handling & maintenance of equipment.



Shell LubeOptimiser

Shell LubeAnalyst tests the condition of your lubricant to monitor and track your equipment's performance.



Shell LubeExpert

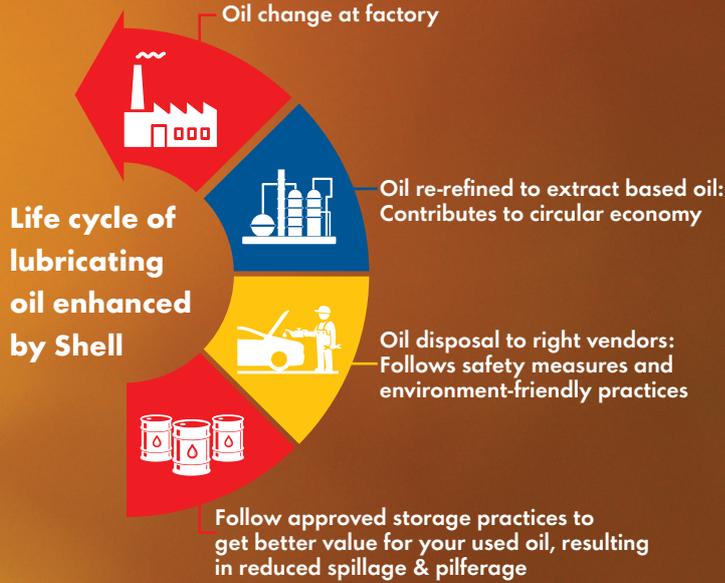
An on-site oil expertise to improve your bottom line.



Shell Used oil collection



Recycling can reduce 21% of CO₂e emission contributed from product life cycle



Shell's Green Certificate recognises successful recycling of used oil through Shell



CERTIFICATE OF APPRECIATION

AWARDED TO CUSTOMER NAME

FOR CONTRIBUTION TOWARDS A CLEANER ENVIRONMENT AND SUCCESSFULLY

SAVING 123 NO. OF TREES BY DIVERTING 123L OF USED OIL FOR RECYCLING
DURING THE PERIOD JANUARY 2024

Debanjali Sengupta

Debanjali Sengupta
General Manager
Shell Lubricants, India

Disclaimer: Savings indicated above are typical values seen in both field and lab test evaluation. They do not represent a guarantee that savings will be achieved. Actual savings may be higher or lower than this calculation.

There is no universally agreed and harmonized methodology for calculating CO₂e intensities that addresses all the specific requirements of lubricant products production. 64 trees are estimated to sequester in average 1 ton of CO₂ per year. Source: www.trees.org.

Assuming 15% re-refining, 67% fuel and 20% other uses through formal collection [Source: Kline report Global Used Oil and Re-Refined Lubricants, 2022]. Using GHG Intensity 1.68 kg CO₂e/l from end of life of lubricants and 0.34 kg CO₂e from re-refining [Source: ACS Sustainable Chemistry and Engineering: Life Cycle Carbon Footprint of Re-Refined versus Base Oil That Is Not Re-Refined, 2014].

Industry 4.0 Solutions for Plastic Molding Industries

INJECTION MOLDING | BLOW MOLDING | EXTRUSION

EMBRACE OUR
SMART
MANUFACTURING
SOLUTIONS
AND REALIZE
TRUE SAVINGS
YEAR OVER YEAR



Productivity Monitoring

Achieve comprehensive monitoring of machines, identify production bottlenecks and realize ROI with a rich set of real-time alerts



Mold Dynamics Monitoring

Obtain insights into mould performance, achieve data driven defect screening and achieve consistent part quality with our patent-pending technology



Tie Bar Monitoring

Monitor tie bars, reduce production losses and improve safety by preventing breakage, flashing, scoring and dimensional inaccuracies



Clean Room Monitoring

Ensure the cleanest environment for manufacturing sensitive devices by detecting and monitoring air-borne contaminants and gases in a cost-effective manner



Machine Health Monitoring

Pre-empt machine failures with our unique multi-modal and comprehensive predictive maintenance solution. Minimize machine down-time and production losses



Productivity Monitoring

Mold Dynamics Monitoring

Tie Bar Health Monitoring

Clean Room Monitoring

Machine Health Monitoring

Approved and trusted by the best

Our lubricants meet the highest standards

**Shibaura
Machine**



HUSKY®

And many more

Neelkamal

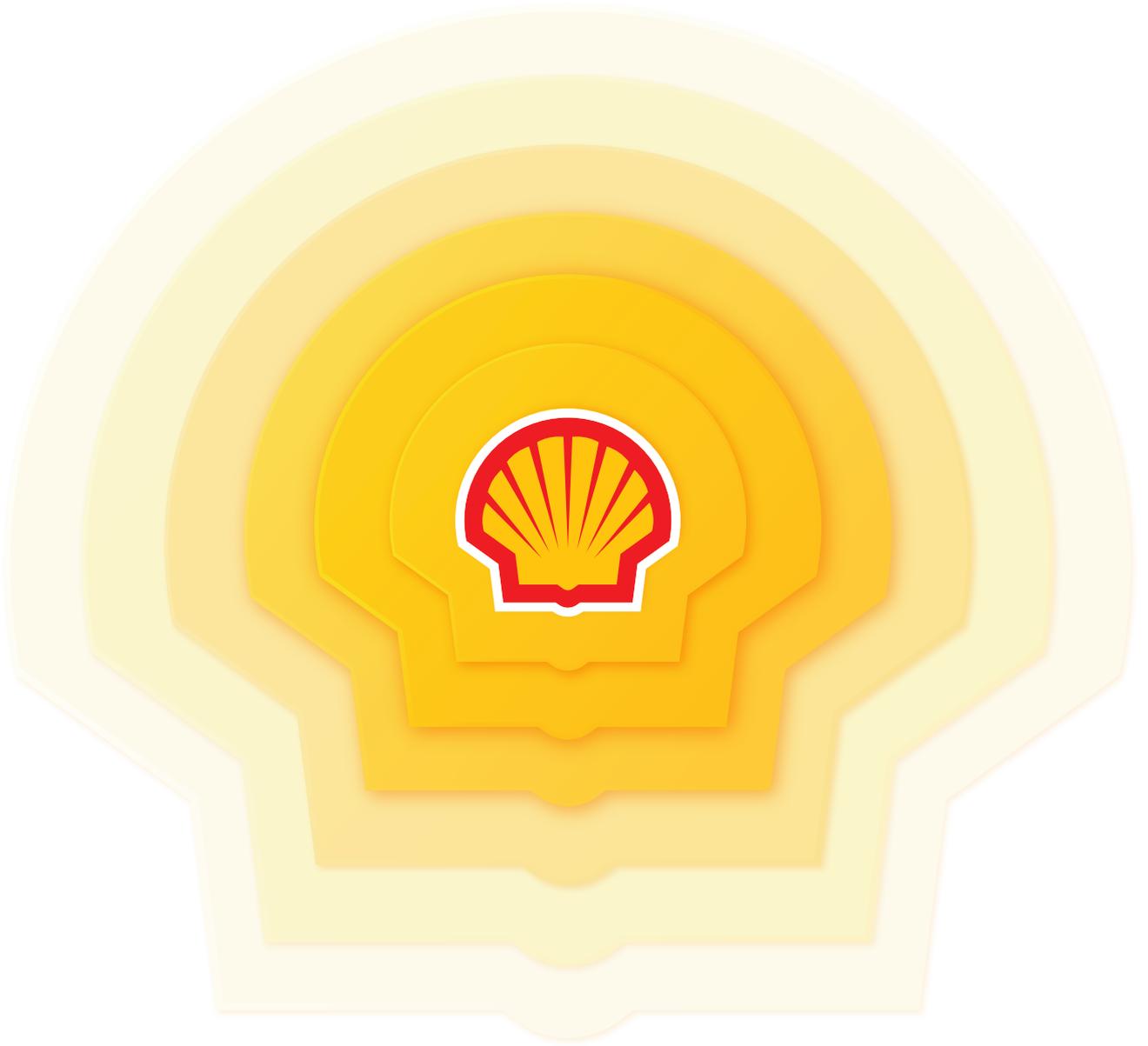
Supreme

Lumax

Motherson

Varroc Polymer

And many more



Shell India Markets Pvt. Ltd.

**Scan to
know more**

