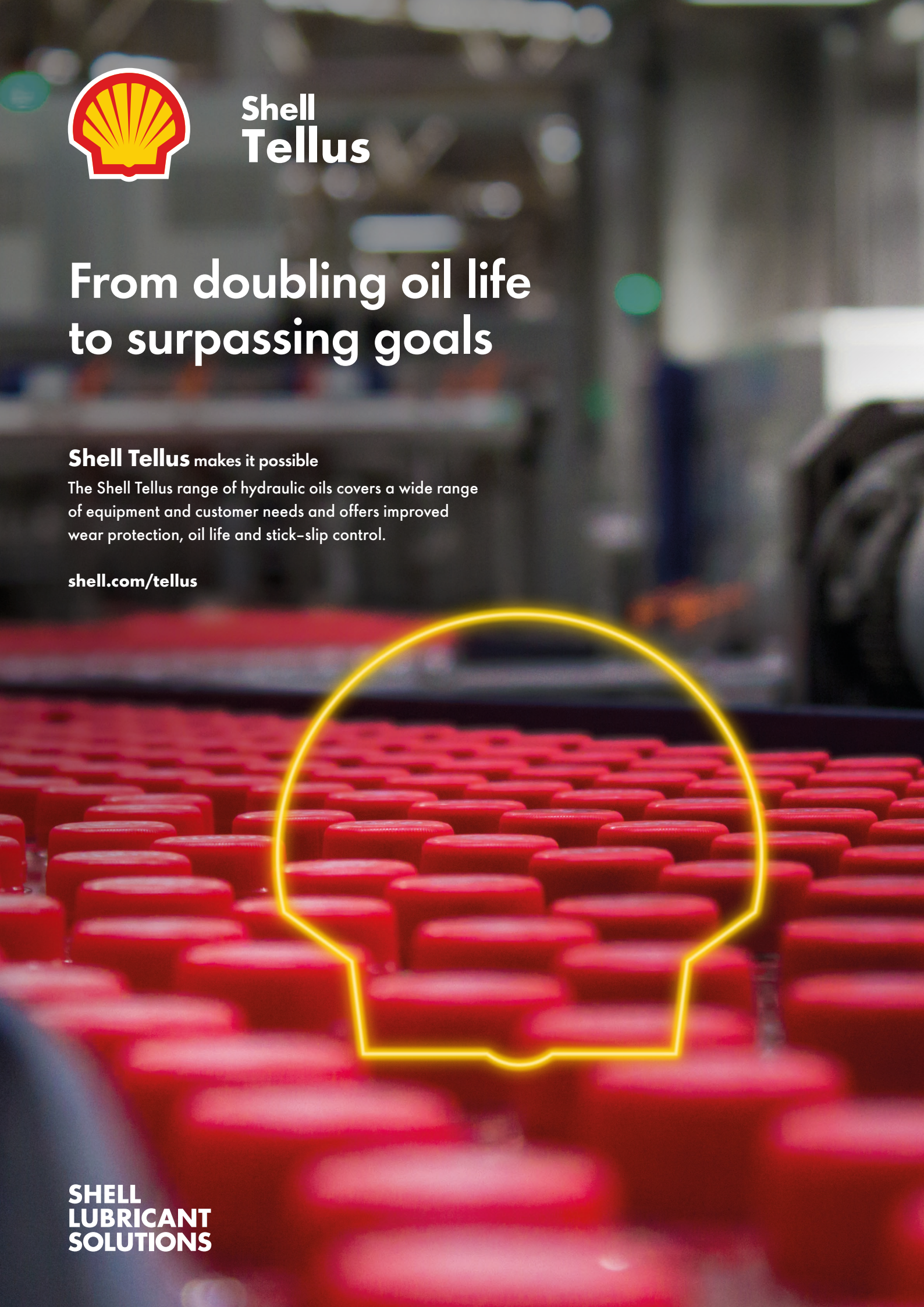
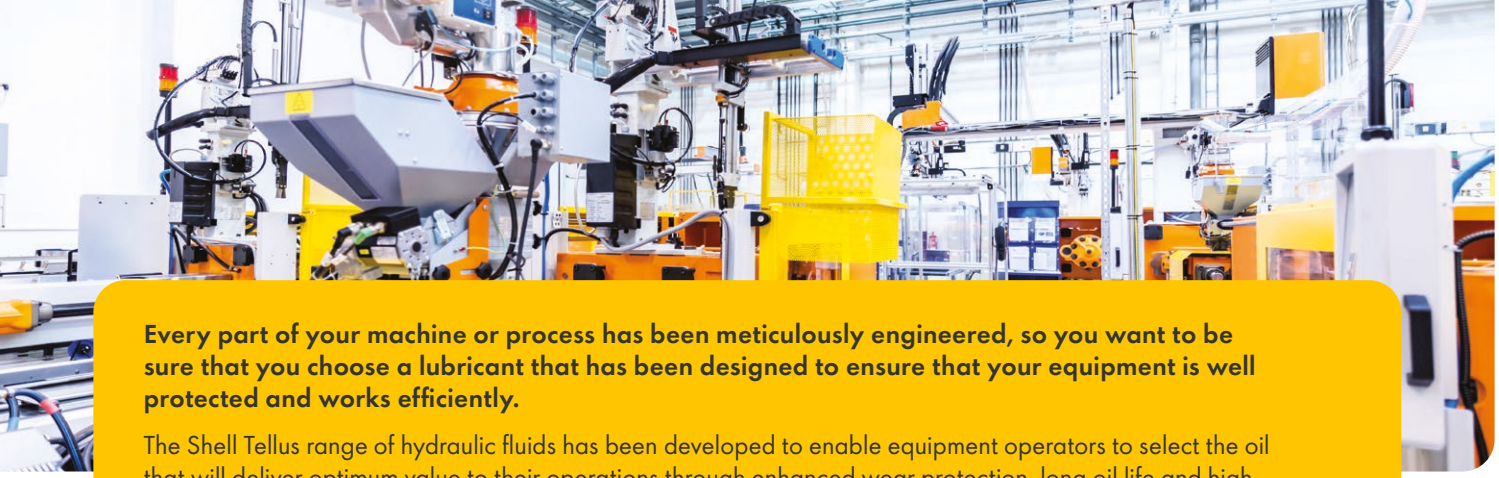

Shell
Tellus
From doubling oil life
to surpassing goals
Shell Tellus makes it possible
The Shell Tellus range of hydraulic oils covers a wide range
of equipment and customer needs and offers improved
wear protection, oil life and stick–slip control.
shell.com/tellus
SHELL
LUBRICANT
SOLUTIONS



**Every part of your machine or process has been meticulously engineered, so you want to be sure that you choose a lubricant that has been designed to ensure that your equipment is well protected and works efficiently.**

The Shell Tellus range of hydraulic fluids has been developed to enable equipment operators to select the oil that will deliver optimum value to their operations through enhanced wear protection, long oil life and high system efficiency.

## Wear protection

The hydraulic pump is the heart of your hydraulic system. Any wear can reduce efficiency and system service life. The Shell Tellus range of hydraulic fluids offers a range of options that can help to extend pump life, even under the most severe applications.

## Oil life

The longer the oil life, the less fluid maintenance is required to help your equipment operate for longer without interruption. The Shell Tellus range of hydraulic fluids enables you to match the oil life of the fluid to your operational needs. It includes extra-long-life synthetic technologies capable of up to four times standard life[1], through to cost-effective, reliable products for less-demanding applications.

## System efficiency

To help your equipment perform to its design standards, the hydraulic fluid needs to protect, lubricate and help transmit power in the most effective way possible. Shell Tellus hydraulic fluids can help maintain or even improve the efficiency of hydraulic systems. From Shell Tellus S4 VE, which can improve the energy efficiency of many hydraulic systems, to Shell Tellus S2 MX and Shell Tellus S2 VX that provide reliable air release, water separation, filterability, cleanliness and stick-slip performance, there is a choice that can help to optimise your system's efficiency and costs of operation.

## Real-world value delivery

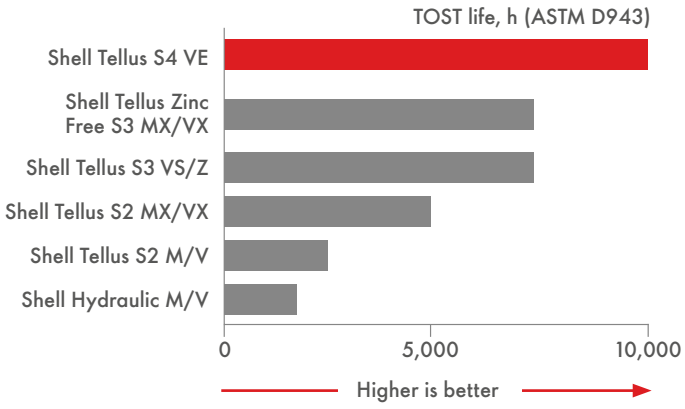
While many other companies design their fluids for the individual components of a hydraulic system such as the pump, Shell Lubricants looks at the system more broadly. For instance, Shell Tellus S4 VE, which is based on synthetic gas-to-liquid (GTL) technology, has been designed to benefit the complete system. The result is a fluid that

- is statistically proven to help improve the efficiency and productivity of the system in which it is used. Up to a 6% hydraulic productivity improvement and up to a 21% lower energy loss from a hydraulic pump compared with a mineral oil have been found.[2, 3]
- can help to increase oil life by up to four times compared with conventional oils in the Shell range
- can help to prolong equipment life through excellent hydraulic pump wear protection.



### Improved cleanliness

All Shell Tellus products meet or exceed the demanding cleanliness requirements of the DIN industry standard to help provide extra protection, improved filter performance and less maintenance.




A graph comparing the results of an ASTM D943 test (commonly known as the turbine oil oxidation stability test, or TOST) of various Shell hydraulic oils over 10,000 hours. It shows that Shell Tellus S4 VE reached 10,000 hours (top, red bar). Shell Tellus Zinc Free S3 MX/VX and Shell Tellus S3 VS/Z reached 7,500 hours. Shell Tellus S2 MX/VX reached 5,000 hours. Shell Tellus S2 M/V reached 2,500 hours. Shell Hydraulic M/V reached 2,000 hours. A note on the graph says that "Higher is better", which is why Shell Tellus S4 VE's bar is red compared to the other shorter bars on the graph being grey.

**Shell Tellus S4 VE** – for the latest energy saving and longer oil life technology

[1] Compared with other oils in the Shell range

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

[3] Based on tests run at 2,200 rpm with aeration (with all fluids were ISO VG 46) conducted by the Milwaukee School of Engineering Fluid Power Institute. The test methodology was presented at the ASME/BATH 2017 Symposium on Fluid Power and Motion Control.

## A range of hydraulic fluids to meet your needs

Shell has designed a portfolio of fluids that enables you to choose a product to match your needs.

Increasingly efficiency and performance

| | Zinc-based hydraulics | | Speciality hydraulics | Zinc-free hydraulics |
|---|---|---|---|---|
| **Advanced** | **Shell Tellus S4 VE**<br>• Energy efficient, lighter/low density<br>• Enhanced oil life 10,000 h/8,000 ODI<br>• Enhanced wear protection<br>• DIN/ISO/GB + OEMs<br>Application: Construction, Mining, Manufacturing, Power, Agri , Metals<br>Technology: GTL | **Shell Tellus S4 VK**<br>• All-season operating window – subarctic<br>• Very shear stable<br>• Enhanced protection + oil life 8,000 h<br>• DIN/ISO/GB + OEMs<br>Application: Subarctic - Construction, Mining<br>Technology: GTL | | **Shell Tellus S4 VX**<br>• Zinc free<br>• Enhanced operating window – arctic<br>Application: Arctic - Construction, Mining, Power<br>Technology: Naphthenic |
| **Premium** | **Shell Tellus S3 Z**<br>• Extra-long life<br>• Extended oil life 7,500 h/5,000 ODI<br>• Extended performance + protection<br>• DIN/ISO/GB + OEMs<br>Application: Construction, Mining, Manufacturing, Agri<br>Technology: Synthetic Blend GII/GIII | **Shell Tellus Lower Carbon S3 MX/VX**<br>• 10% lower carbon intensity + circular<br>• Extended oil life 7,500 h/5,000 ODI<br>• Extended performance + protection<br>• DIN/ISO/GB + OEMs<br>Application: Construction, Mining, Manufacturing, Agri, Power<br>Technology: Synthetic Blend RRBO GIII/GII | **Shell Tellus S3 VS**<br>• Reduced stick–slip<br>• Extended oil life 7,500 h/5,000 ODI<br>• Extended performance + protection<br>• DIN/ISO/GB + OEMs<br>Application: Specialist long boom, precision equipment<br>Technology: GII/GIII | **Shell Tellus Zinc Free S3 MX/VX**<br>• Zinc free, low ecotoxicity<br>• Extended oil life 7,500 h/5,000 ODI (new)<br>• DIN/ISO/GB + OEMs<br>Application: Construction, Mining, Manufacturing, Agri , Metals<br>Technology: GII<br>Formerly known as Shell Tellus S3 M/V |
| **Mainline** | **Shell Tellus S2 MX/VX**<br>• Extended performance + protection<br>• Extended oil life 5,000 h/4,000 ODI<br>• DIN/ISO/GB + OEMs<br>Application: Construction, Mining, Manufacturing, Agri , Metals , Power<br>Technology: GII | | **Shell Tellus S2 VA**<br>• Reduced stick–slip<br>• Detergent based<br>Technology: GI | **Shell Tellus S2 MA**<br>• Zinc free<br>• Detergent based<br>• Reliable performance + protection<br>Application: Industrial & Metals<br>Technology: GI |
| **Entry** | **Shell Hydraulic S1 M**<br>• Reliable performance<br>• Reliable protection<br>• DIN/ISO<br>Application: Construction, Mining, Manufacturing, Agri , Metals<br>Technology: Local GI | **Shell Hydraulic S1 V**<br>• Reliable performance<br>• Reliable protection<br>• DIN/ISO<br>Application: Construction, Mining, Manufacturing, Agri , Metals<br>Technology: Local GI | | |

Bosch Rexroth approved

V = Increased protection against extremes of temperature

## Full product and service Portfolio

Shell Tellus hydraulic fluids have offered benefits to users for 70 years. Shell is constantly investing to develop better lubrication solutions, including advanced synthetic technologies such as

- Shell Omala S4 GXV synthetic gear oil – for long life in demanding applications, Siemens MD approved
- Shell Corena S4 R air compressor oil – for up to 10,000 hours and extended up to 12,000 hours under certain conditions.

In addition, Shell provides the world-leading Shell LubeAnalyst oil condition monitoring service, which is designed to help improve your business performance.

Whatever your needs or application, Shell can provide a full range of oils and greases, including synthetic, high-performance products and additional services.

# Shell hydraulic fluids product range

| Product | Benefits | Technology | ISO viscosity grades | Specifications and approvals (Full details of approvals for all products can be obtained from your Shell representative; approvals and claims will vary by viscosity grade.) |
|---|---|---|---|---|
| **Shell Tellus S4 VE** | • Energy efficient<br>• Extra-long life<br>• Enhanced protection<br>• Versatile applications | GTL synthetic, zinc based | HV/32, 46, 68 | **Approved by** Bosch Rexroth (RDE 90245), Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HV); DIN 51524-3 (HVLP); GB 11118.1-2011 (L-HV) and GB 11118.1-2011 L-HS; and JCMAS* P 041:2004 normal and low temperature<br>*Meets this standard (JCMAS) |
| **Shell Tellus S4 VK** | • Ultra-low temperature<br>• Shear stable<br>• Versatile applications | GTL synthetic, zinc based | HV/32, 46 | **Approved by** Danfoss Vickers and Parker Denison.<br>**Industry standards:** ISO 11158 (HV) and DIN 51524-3 (HVLP) |
| **Shell Tellus Zinc Free S4 VX** | • Ultra-low temperature<br>• Versatile applications | Naphthenic, zinc free | HV/32 | **Approved by** Komatsu Mining, Komatsu and DIETZ automation. |
| **Shell Tellus Zinc Free S3 VX** | • Longer life<br>• Extra protection<br>• Versatile applications | Group II mineral, zinc free | HV/32, 46, 68 | **Approved by** Bosch Rexroth (RDE 90245), Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HV); DIN 51524-3 (HVLP); and GB 11118.1-2011 (L-HV general and high pressure) |
| **Shell Tellus Zinc Free S3 MX** | • Longer life<br>• Extra protection<br>• Industrial applications | Group II mineral, zinc free | HV/22, 32, 46, 68, 100 | **Approved by** Bosch Rexroth (RDE 90245), Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HM); DIN 51524-2 (HLP); and GB 11118.1-2011 (L-HM general and high pressure) |
| **Shell Tellus S2 VX** | • Extra protection<br>• Versatile applications<br>• Long life | Group II mineral, zinc based | HV/15, 22, 32, 46, 68, 100 | **Approved by** Bosch Rexroth (RDE 90245), Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HV); DIN 51524-3 (HVLP); and GB 11118.1-2011 (L-HV) |
| **Shell Tellus S2 MX** | • Extra protection<br>• Industrial applications<br>• Long life | Group II mineral, zinc based | HV/32, 46, 68, 100 | **Approved by** Bosch Rexroth (RDE 90245), Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HM); DIN 51524-2 (HLP); and GB 11118.1-2011 (L-HM general and high pressure) |
| **Speciality grades** | | | | |
| **Shell Tellus S3 VS** | • Enhanced stick–slip<br>• Long life<br>• Extra protection | Group II/GTL synthetic blend, zinc based | HV/32, 46 | **Approved by** Parker Denison, Danfoss Vickers and many other equipment manufacturers.<br>**Industry standards:** ISO 11158 (HV); DIN 51524-3 (HVLP); and GB 11118.1-2011 (L-HV) |
| **Shell Tellus S2 VA** | • Extra protection<br>• Water tolerant | Mineral, zinc based, detergent | L-HV/46 | **Industry standards:** ISO 11158 (HV)* and DIN 51524-3 (HVLPD)*<br>*Meets DIN and ISO specifications but as high-detergency hydraulic oil not in the presence of water |
| **Shell Tellus S2 MA** | • Extra protection<br>• Water tolerant | Mineral, zinc free, detergent | L-HM/10, 32, 46 | **Approved by** Arburg (VG 46) and Müller Weingarten (VG 46).<br>**Industry standards:** ISO 11158 (HM) |
| **Shell Fire-Resistant/ Shell Water Glycol** | Portfolio of fire-resistant hydraulic fluids | | | Contact your Shell representative for details |
| **Shell PANOLIN** | Range of biodegradable lubricants including hydraulic fluids | | | Contact your Shell representative for details |

## Services

**Shell LubeAnalyst** Oil and equipment monitoring | **Shell LubeCoach** Lubrication training | **Shell LubeAdvisor** Expert advice | **Shell LubeMatch** Find the right oil

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

Find out more by visiting
**www.shell.com/business-customers/lubricants-for-business.html**

Shell Tellus

From extending oil life to surpassing goals
**Shell Tellus makes it possible**

Version 2