

Maximizing Reliability & Profit While Helping the Planet



# How we are built



We are a diverse team of internationally recognized experts delivering innovative solutions. Our expertise **enhances the reliability and profitability** of manufacturing plants, rotating equipment, and transportation industries.



Fluitec's clean technology solutions offer environmental benefits and high-level, rapid return on investments, merging economics with sustainability.

As a certified **B Corp**, we reduce our environmental impact and help clients achieve similar results.



Part of the **Solar Impulse Foundation's 1000 Solution**s, our products positively impact the environment and maximize equipment reliability.

Featured in the **Climate Drive's library**, we provide trusted, actionable information amidst evolving regulatory requirements.



We're honored to be named in the **2025 Top Impact Companies** by *Real Leaders* magazine. This award curates and celebrates the world's fastest-growing companies driving meaningful impact, and we're thrilled to stand among such exceptional businesses.

**Pierre Vanderkelen**Chief Executive Officer

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# A Carbon Negative Company

As the **only industrial lubricant manufacturer** to attain B Corp certification, we do our part to balance profitability with purpose. Our **Fill4Life<sup>TM</sup>** solutions have been awarded the Solar Impulse efficient solutions label for over 6 years. Our technologies help to reduce the overall GHG emissions into the atmosphere. In fact, Fluitec is **carbon negative**, saving our customers 6X as much CO2 as we create.

Fill4Life is not just a solution, it is a way of life and we use this model to help our customers to also create a positive impact on the environment.



We always begin with understanding the true health of the oil through condition monitoring. Since we have a better idea of what's in the oil, we also know what should not be there. Therefore, we can ensure that contaminants do not stand a chance at entering the oil by employing our filtration systems to stop them. Depending on the condition of the oil, we can then identify if certain additives need replenishment or not to aid in protecting the equipment. None of this would be possible without educating our end users through our learning platforms, **Fluid Learning<sup>TM</sup>** and **LRVS**.



#### 01 CONDITION MONITORING

Each system operates under unique conditions, making it essential to monitor oil health—measure antioxidants, degradation products, wear, and varnish potential with our **RULER™ V**, Online Monitoring systems, and **MPC™** equipment.

#### **03 ADDITIVE REPLENISHMENT**

As oil degrades, additives deplete—safely replenish them without altering oil characteristics using our  $DECON^{TM}AO$  &  $DECON^{TM}AW$  products.

#### **02 CONTAMINATION CONTROL**

Contaminants can be internally generated as lube oils degrade, causing equipment failure—keep your lube system clean with our **ESP<sup>TM</sup>** equipment, specialty filters and **Solvancer®** technology available in our **DECON<sup>TM</sup>** line of products.

#### **04 LEARNING & CONSULTING**

Education enables the practical application of theories. When end users understand how our products enhance operations and industry best practices, they can adopt a *Total Cost of Ownership approach* and appreciate the value we provide.

#### **OUR MISSION**

To bring solutions that maximize the life and performance of lubricants and machinery resulting in a positive environmental and economic impact.

#### **OUR VISION**

Develop revolutionary technologies and services that allow our customers to simultaneously operate more sustainably and profitably.

#### **OUR GOALS**

We are committed to creating a safe, inspiring, and fun work environment for our employees while driving exceptional value for our shareholders and customers.

#### **2030 IMPACT GOALS**

- Reduce our clients CO2e by 100,000 tonnes by 2030.
- Eliminate the disposal of 15 million liters of lubricant by 2030.
- Increase our Carbon Savings Ratio (CO2 savings for customers vs our footprint) from 6x in 2023 to 10x by 2030
- Continue to be an inclusive environment and have a predominantly diverse organization by the end of 2026.
- Innovate to develop new technologies to increase the carbon footprint reduction of our offerings from 85% to 90% by the end of 2026.

# Why Choose Us?

Choose Fluitec for reliable, valuable, and cost-effective products and services. Our premium technologies not only save money but also significantly reduce your organization's GHG emissions.

Fluitec's customizable **Fill4Life** program extends the life of critical equipment and fluids, supporting quality and maintenance programs while minimizing costs and waste. By leveraging our full product and service portfolio, we solve reliability challenges, optimize resources, reduce CO2, and extend fluid life.

We have proven that many industrial lubricant applications can become **Fill4Life** fluids by minimizing contaminants, removing oil degradation by-products, and replenishing additives, all while monitoring fluid health.

Fluitec's vision is to deliver technologies that drive the industry towards Fill4Life lubrication and significant operational cost savings.









# WE HAVE A QUALIFIED TEAM OF SCIENTISTS & EXPERIENCED PROFESSIONALS

Our elite team of professionals span a wide range of expertise from formulation experts to field engineers, lab personnel and operations specialists. They work together to ensure that the products we produce are of the highest quality and meet / exceed the industry standards.

Our team is always at the forefront of research and new developments in our field with over 100 technical papers published in various journals and presented at technical conferences over the last two decades.

We work alongside OEMs to create solutions to positively impact the environment while also allowing the customers to achieve financial savings and meet industrial requirements.

### WE PROVIDE CONSULTING SERVICES

Caring for your oil or making decisions which could impact your equipment can be a daunting task. Fluitec can help you to make those decisions. With our experienced

team of professionals, we work alongside our customers to ensure that they can get the data they need to determine the best path forward for their equipment.

By understanding the operational stresses and unique degradation profiles of each oil formulation, we can tailor solutions to meet your reliability goals. We achieve this through comprehensive on-site support and remote consultation, ensuring our expertise reaches every corner of the globe.

# **Our Solutions**

### **CONDITION MONITORING**

We offer a range of solutions to monitor your oil's health, helping you make informed maintenance decisions.

- MPC trends the varnish potential of your oil, ensuring it meets OEM requirements and identifying varnish risks.
- **RULER V** measures the antioxidant health of the lubricant allowing the oil's Remaining Useful Life to be determined.
- Online Monitoring characterizes and quantifies the mode of degradation, additive health and degree of contamination to allow real-time oil monitoring.







MPC™

Membrane Patch Colorimetry



RULER™ V

Antioxidant Monitoring Solution



#### **ONLINE MONITORING**

Oil Condition Analysis





# CONTAMINATION CONTROL & PREVENTIVE CARE

Integrated with patented **Solvancer** technology, **DECON** quickly dissolves varnish and organic deposits, decontaminating your assets. It reduces varnish potential and offers long-term protection against deposits and sludge.

Unlike other chemicals, **DECON** leaves no residue upon degradation.

Trusted by global manufacturers and operational facilities, **DECON** improves operational efficiency, minimizes downtime, and increases profitability.





#### DECON™

Denosit Remover & Oil System Cleane

### **DECON™ HD**

Denosit Remover & Oil System Cleaner for Heavy Duty Systems





# **Our Solutions**

**Electrophysical Separation Process™ (ESP)** technology uses chemisorption to selectively remove oil degradation products in suspension or solution without disturbing the fluid's additive system. **ESP** media is customized for each application based on oil type and condition.

### **CONTAMINATION CONTROL**

It chemically targets and removes contaminants through strong adsorption forces, ensuring they are not released back into the oil. **ESP** has a high capacity, utilizing the full volume of the media, not just the surface area.







VITA ESP™II

l Separation Process™ Electrophysical Separation Proces





VITA ESP™ III

#### **VITA ESP™ V100 & V200**

Electrophysical Separation Process



The **VITA ESP™ II & III** are designed for various applications, including rotating equipment. They are ATEX/ECEx certified, explosion-proof, and available in pneumatic, airdiven motor versions with no electrics. The **V100** and **V200** models are explosion-proof with no moving parts.



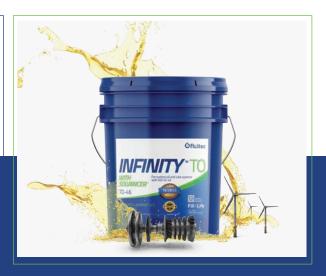
# ADDITIVE REPLENISHMENT & NEW OIL FILL

Our proprietary technologies replace depleted antioxidants and eliminate deposits and varnish, transforming your lubes into **Fill4Life** fluids and reducing oil waste.

- DECON AO replenishes antioxidants.
- DECON AW replenishes antiwear additives.
- Infinity<sup>™</sup> TO produces virtually no varnish by-products, even after extensive stress tests, ensuring long-term performance and environmental benefits.







**DECON™ AO** 

Deposit Remover & Antioxidants Replenishe

**DECON™ AW** 

Deposit Remover & Antiwear Replenisher for Hydraulics

## **INFINITY™ TO\***

Extended Life Lubricant for Turbine







Fluitec's **Customized Simulation Test** ensures maximum compatibility and success with **DECON AO**. This involves testing your in-service oil, developing a customized formulation, blending **DECON AO** at the specified treat rate, and performing compatibility testing according to ASTM D7155.

# **Our Solutions**

### **LEARNING**



Education ensures our customers understand and implement our solutions effectively. We provide access to field experts and their knowledge.

**Fluid Learning** is our online platform offering virtual, on-demand courses from global experts on topics like **RULER**, **MPC**, ICML exam preparation, and lubrication and reliability.

**LRVS - Lubrication Reliability & Virtual Summit** is a virtual event featuring expertise from professionals in maintenance, lubrication, reliability, and leadership. It occurs three times a year in the Americas, APAC, and EMEA regions.





#### FLUID LEARNING™

ICMI Training Partner for VPR & VIM Radge



**LRVS** 

Annual Lubrication & Reliability Virtual Summit



#### **LUBRICATION ACADEMY**

On-demand Acadamies



**Lubrication Academies** are in-person training events where Fluitec experts share product information and industry updates with our customers. Visit our dedicated landing page by clicking or scanning the QR code above under *Lubrication Academy*.





# Our Expert Services

Our in-house experts offer solutions to your industry challenges, including root cause analysis, consulting, and specialized testing. Let our team guide you on this journey.



#### **ROOT CAUSE ANALYSIS**

When a fluid fails prematurely or underperforms, Fluitec's consultants conduct a detailed investigation.



#### **CONSULTING**

Combining root cause analysis, specialized testing, and Fluitec's deep technical knowledge of fluid failures and operational impact, our consultative services are invaluable to Plant Managers and Reliability Engineers across all industries.



#### **SPECIALIZED TESTING**

We offer specialized testing, including:

- Deposit Characterization and Analysis: Detailed analysis of new and in-service lubricants using tools like NMR and GPC.
- Oil Performance Prediction
   Tests: Benchmark new oils in simulated operational conditions.





# Case Studies



This collection of case studies, developed impart with the **Solar Impulse Foundation,** showcases clean and profitable solutions across various industries.
From tackling premature oil degradation in Arizona—to streamlining shutdown processes and avoiding extensive system cleaning in Spain, to addressing rising bearing temperatures in compressor units in Qatar—our products have helped many customers across the globe achieve financial savings and create a positive environmental impact.





# SALT RIVER PROJECT | USA

Developed with the Solar Impulse Foundation, this case study highlights clean and profitable solutions. SRP (Salt River Project), a public utility in central Arizona, serves over two million people with reliable electricity and water. To address premature oil degradation in its combined-cycle power plants, SRP implemented innovative strategies at its 1250MW Mesquite Power plant in Arlington, Arizona. These strategies reduced the need for frequent oil changes, cutting costs and minimizing environmental pollution.

Client: Salt River Project

Application Industria I Turbines

Savings: >\$1,000,000

Solution: **DECON AO** 



### PAPER PLANT | SPAIN

A paper manufacturing plant in Spain faced operational challenges due to elevated **MPC** values, which suggested the need for oil replacement. However, extending the shutdown for the necessary flushing and system cleaning was not feasible. To address this, **DECON** was introduced at a 5% treat rate to preclean the system and remove deposits. Consequently, the plant was able to streamline its shutdown process, eliminating the need for system flushing and adhering to the scheduled timeframe.

Client: Paper Plant

Application Gas Turbine

Savings: €80,000

Solution: **DECON** 







# MAJOR OIL & GAS COMPANY | QATAR

A prominent Oil and Gas corporation in Qatar noticed elevated thermal readings at the Non-Drive End (NDE) of their compressor unit. An **MPC** analysis indicated a low varnish potential, but rising bearing temperatures risked an operational shutdown. Oil analysis suggested shear stress as the primary cause of fluid degradation.

Client: Major Oil & Gas Company

Application Siemens Compressor

Savings: \$175,000

Solution: ESP

# ASPHALT COMPANY | USA

Inefficiency slowed production at a midwestern asphalt plant due to an inconsistent heat transfer system, increasing labor costs and component wear. The Mobil  $^{\text{\tiny M}}$  engineering team implemented an oil-based solution to improve system performance, stability, and extend oil life.

Client: Asphalt Plant

Application Heat Transfer System

Savings: \$60,000

Solution: **Mobil™ Solvancer**®





### WHAT IS MOBIL SOLVANCER?

Developed with ExxonMobil<sup>™</sup> and based on Fluitec's **DECON** technology, **Mobil Solvancer** is an oil-soluble cleaner blended from Group V base stock. It is compatible with most lubricants formulated with API Group I − Group IV base stocks. Typically, a 3-5% concentration of **Mobil Solvancer** in the system oil is recommended. You can add it to in-service oil without any adverse impact on performance, unlike water-based chemical cleaners or some aggressive oil-soluble cleaners.





### GLOBAL TIRE MANUFACTURER | JAPAN

A global tire manufacturer in Japan faced significant output issues due to high levels of varnish in one of their turbines, with MPC levels at 54 and critical TAN values of 0.93. By adding DECON at a 3% treat rate, the facility successfully decontaminated the system, reducing MPC levels to 5 and normalizing TAN values. This solution prevented unscheduled downtime, avoided maintenance costs, and ensured uninterrupted production. Over 10 years, the company saved \$63k USD, 4700 liters of oil per turbine, and reduced CO2e emissions by 70k kg, demonstrating DECON's effectiveness in maintaining operational efficiency.

Client: Global Tire Manufacturer

Application Turbine

Savings: \$63,000

Solution: DECON





# PHARMACEUTICAL MANUFACTURER | SINGAPORE

A pharmaceutical plant in Singapore faced high TAN levels and particle counts in their power generation turbine system. Unable to shut down for a full flush, they added **DECON**, which decontaminated the system and stabilized **MPC** levels below 7. This solution prevented downtime and reduced maintenance needs. Over 10 years, the plant saved \$69k, 2,250 liters of oil, and 33k kg of CO2e emissions, demonstrating **DECON's** efficiency.

Client: Major Pharmaceutical Manufacturer

Application Power generation turbine

Savings: \$69,000

Solution: **DECON** 

## POWER GENERATION PLANT | AUSTRALIA

A power plant using Fluitec's **ESP VITA II** system for seven years noticed a decline in antioxidant levels to 50%, risking a shutdown. They introduced **DECON AO** in two 1.5% doses, which elevated antioxidant levels to 100%, sustained over six months. **MPC** levels stabilized within the 5-10 range, ensuring seamless operation without shutdown risks. This solution resulted in \$166,000 in cost savings and 6,500 liters of oil savings.

Client: Major Power Generation Plant

Application Gas Turbine

Savings: \$166,000

Solution: VITA ESP II





A leading tissue manufacturer faced elevated MPC values and reduced antioxidant levels, necessitating a 3-day turbine flush. By adding 5% DECON AO, they decontaminated the system and increased antioxidant levels. This intervention eradicated varnish deposits, significantly reduced MPC levels, and elevated RPVOT and RULER values, eliminating the need for equipment shutdown. The solution resulted in \$326,000 in cost savings and 7,000 liters of oil savings.

Client: Tissue Manufacturer

Application Solar Turbine Titan 250

Savings: \$326,000

Solution: **DECON AO** 





# Impact Report

As a Benefit Corporation, we're evaluated on four main impact areas—environment, employees, community, and governance. Here's what we're doing to make a positive impact across all areas of our business.

**+20%** 

↓ 85%

### **PRODUCTS/ SOLUTIONS**

- More than 60 % of products sold have an environmental certification
- Every litre of Solvancer® used saves 30 litres of oil
- Every machine deploying Fill4Life™ will <u>lower its lubricant-related</u>
   <u>CO2e footprint by 85%</u>
- On average, Fill4Life™ represents at least 50% savings (in monetary terms) compared to the traditional model of using oils.
   In most cases, the solution has a payback of less than 1 year

GIVING BACK

+20%

Fluitec's **LRVS** event gave back <u>more than 20%</u> of its revenue to charitable / non-profit organizations as well as to students.

50% SAVINGS IN COSTS

↓ 30%

### **MEASURED IMPACT**

- Fluitec is carbon negative. We save our customers 6X as much carbon as we generate.
- Scope 1 and 2 GHG emissions have been reduced by 25% (2022 vs. 2019)
- Carbon Intensity for Scopes 1 and 2 has been <u>reduced by 35%</u> (2022 vs. 2019). Carbon Intensity = Tons of CO2/\$M (revenue)







# Our Offices

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