

HUMAN HEALTH

ENVIRONMENTAL HEALTH

NO TIME FOR
DOWNTIME



OilExpress™ 4
Oil condition monitoring system


PerkinElmer
For the Better



YOUR PARTNER
FOR OIL
CONDITION
MONITORING



OilExpress 4



NO TIME FOR DOWNTIME

High-throughput oil analysis has never been easier, more reliable or more cost effective.

Our OilExpress™ 4 system delivers highly automated, rapid, reliable oil condition monitoring results using recognized industry standard protocols such as

ASTM®, JOAP and Caterpillar® S-O-SSM. The smart design maximizes laboratory productivity while dramatically reducing solvent use and waste generation – a single analysis now requires just 3 mL of cleaning solvent and 750 µL of sample. With a full suite of instrumentation, consumables, training, and service, our combined oil monitoring package is designed to support every key aspect of your oil analysis program.



As a world leader in lubricant analysis since 1962, PerkinElmer is not only an industry expert, but a partner you can trust. Over 10 million samples are analyzed every year using PerkinElmer OilExpress equipment, and our extensive experience in lubricant analysis has been created through strong partnerships with world leaders in lubricant analysis, including Caterpillar® and

ExxonMobil™. This knowledge and expertise has been distilled into the latest high performance oil conditioning monitoring solution, OilExpress 4.

MAXIMIZE YOUR RETURN ON INVESTMENT



The OilExpress 4 system adapts to your laboratory's needs, from dozens to thousands of samples per day. Its modular design makes it possible to scale up your sample throughput or separately utilize the oil dilution capabilities in busy laboratories that are using ICP analysis. The system minimizes your operational costs by reducing instrument downtime, increasing throughput to reduce cost per sample, and offering significant savings from decreased solvent waste.

By upgrading OilExpress 4 units instead of purchasing multiple instruments, laboratory throughput can be increased while optimizing capital expenditure. For example, our OilPrep™ oil dilution system can be upgraded to an OilExpress 4 FT-IR analysis system, or vice versa, so you get more for less. Alternatively, you can purchase the system with both OilPrep and FT-IR modules. This flexibility not only diminishes the cost of ownership, but also means your investment is protected.

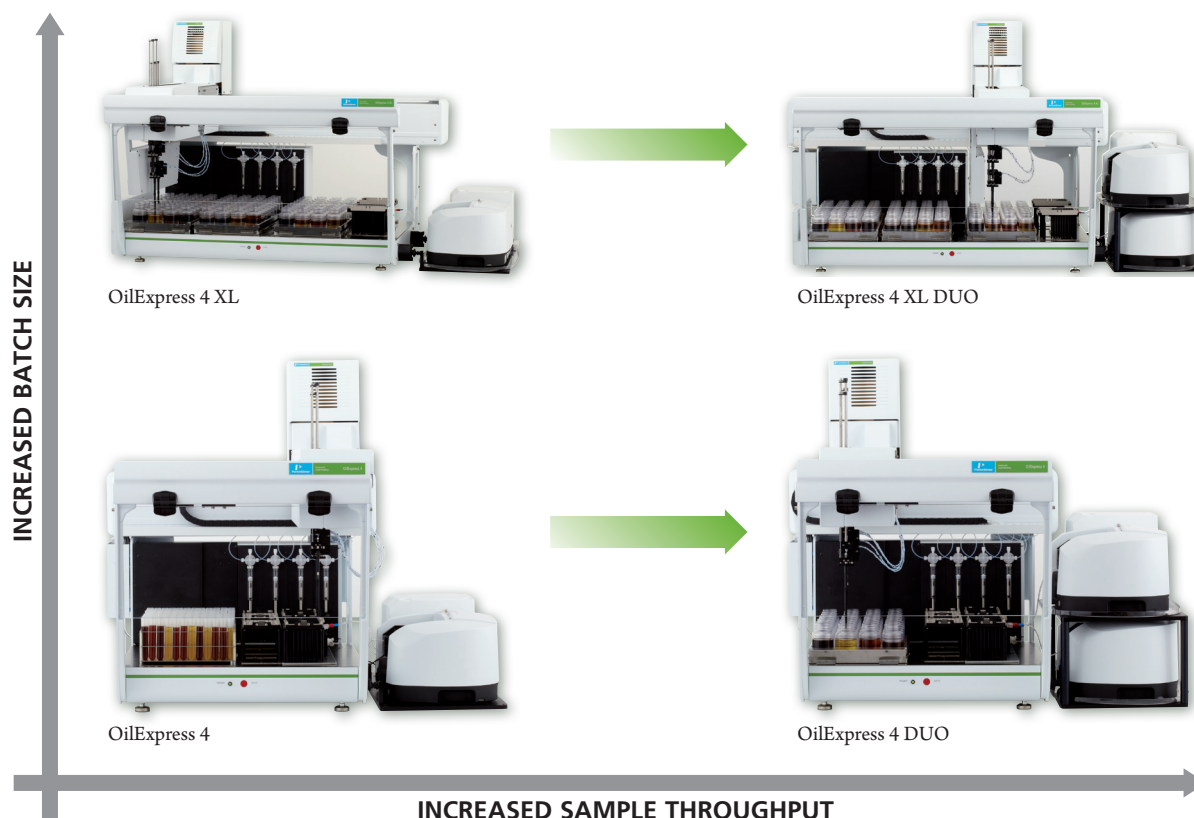


Key benefits include:

- Modular solution adapts to changing sampling and throughput needs – simply upgrade the OilExpress 4 system rather than purchasing additional instruments
- Lower solvent consumption – up to 80% reduction in solvent and waste volumes compared with previous systems
- Increased throughput – up to 100 samples analyzed per hour with OilExpress 4 DUO. Up to 96 4 oz bottles, or up to 384 17 mm tubes in a single unattended batch run on OilExpress 4 XL system

GROWING WITH YOUR NEEDS

The high performance OilExpress 4 system can be easily adapted to deliver increased sample throughput and batch size. A dedicated OilPrep oil dilution function can also be added, where cost effective analyses, high throughput processing and rapid turnaround time are required.



OilPrep 4 – Automated High-throughput Oil Dilution

Employing the same robust autosampler system as the OilExpress 4, the OilPrep 4 and OilPrep 4 XL can automatically dilute up to 260 oil samples per hour with kerosene (or similar diluents) prior to metals analysis by Inductively Coupled Plasma (ICP-OES). OilPrep 4 can dilute up to 96 samples in a single batch while OilPrep 4 XL offers a larger capacity up to 184 samples.

The ultrasonic liquid-level sensing option allows the systems to perform unattended dilution of variable volume samples. Disposable tips provide certainty that there is no cross-contamination between samples.

For added flexibility, OilPrep 4 can be upgraded to an OilExpress 4 to allow FTIR analysis and oil dilution within a single platform. Conversely, OilExpress 4 can be upgraded with oil dilution capability by the addition of OilPrep software.



OilPrep 4

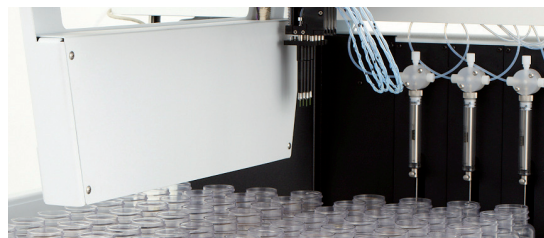


OilPrep 4 XL

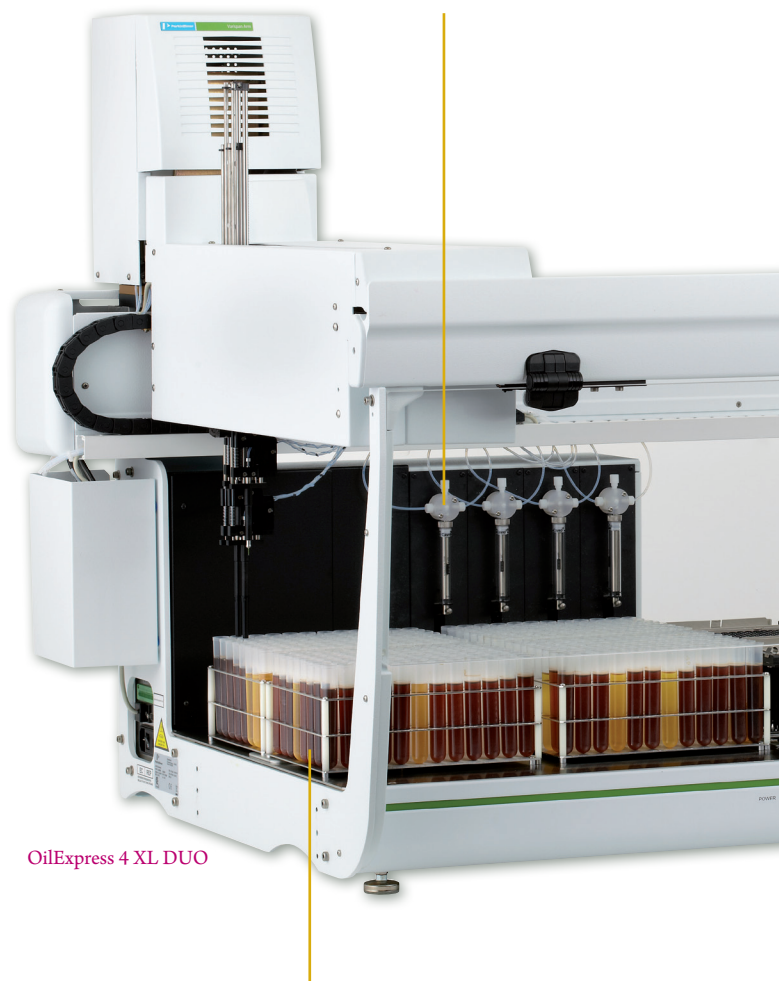
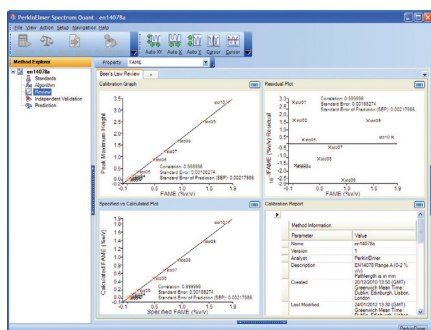
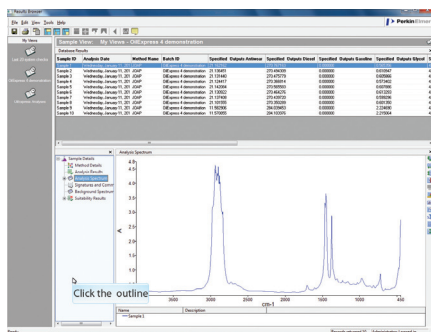
INNOVATION IN OIL MONITORING

Confidence in results is guaranteed by the OilExpress 4 system's outstanding performance and robust, reliable design. An innovation in oil condition monitoring, OilExpress 4 is a modular system that grows with your laboratory's needs.

- **Precision syringe system** – vacuum assistance accurately dispenses samples of widely varying viscosities.



- **Acclaimed software** – offers dedicated user interface and LIMS import / export. Customized parameter calculations allow direct trending and reference spectrum methods, as well as Beer's Law and chemometric methods for analytes like TBN.

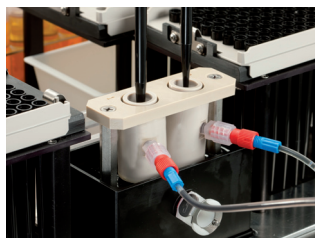


OilExpress 4 XL DUO

- **Full suite of consumables, training, and service support** – including bulk convenience packs of sample tubes and tips, reference oil kits enabling validation of system performance, and a network of over 1,500 certified service technicians worldwide who can provide in-depth training, software and hardware upgrades, and validation and qualification solutions.



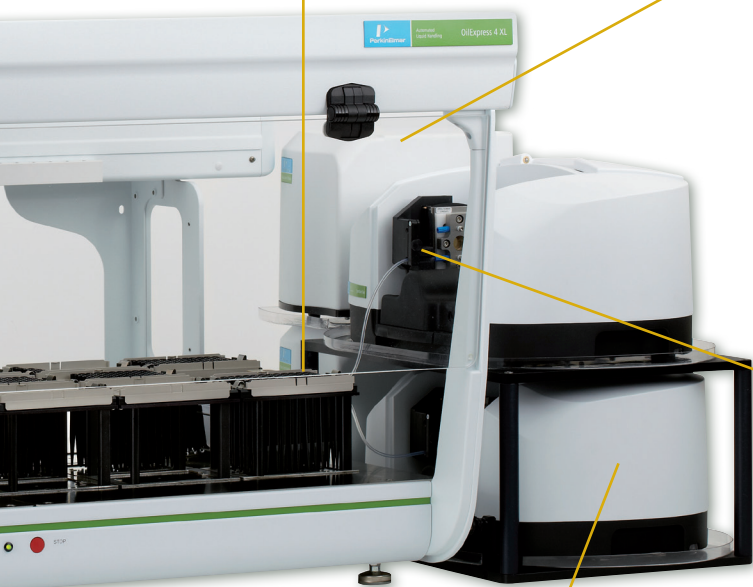
- **Injection station** – disposable sampling tips avoid cross-contamination and increase efficiency of cleaning procedures. Novel vacuum-assisted sample dispenser adapts to oils of different viscosities.



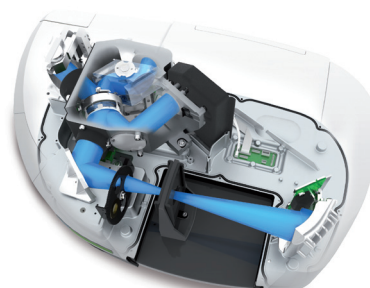
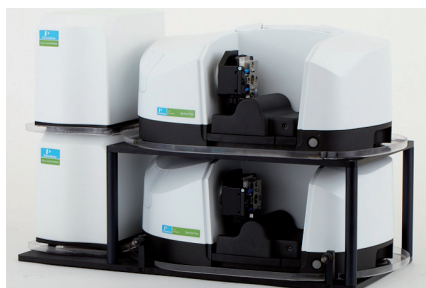
- **Intelligent fluid control** – sensors ensure fast fill times, efficient cleaning, and detection of sample height, system pressure and waste overflow.



- **Shuttle station** – obtains background reference IR spectra automatically.



- **Powered by high performance Spectrum Two** – exceptional high performance, low maintenance FT-IR system ensures outstanding results with minimum downtime. Spectrum Two's unique Dynascan™ interferometer provides accurate, reliable FT-IR analysis.



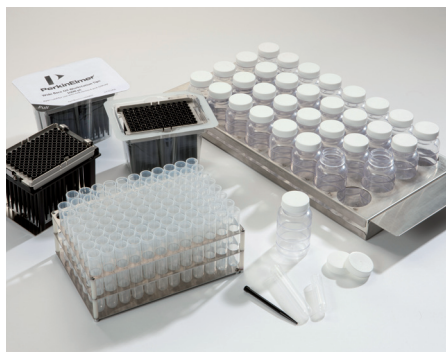
NO TIME FOR DOWNTIME

A PARTNERSHIP YOU CAN TRUST

We offer a range of tailor-made, global support services covering servicing, calibration, and consumables to ensure you get the best from your OilExpress 4 range. A network of over 1,500 certified service



technicians worldwide provides in-depth training, perform software and hardware upgrades and can protect your compliance status with our leading validation and qualification solutions. And with telephone support from personnel operating in 150 countries, help is always just a phone call away. With PerkinElmer, you don't just get a high quality instrument, but a comprehensive, highly responsive support service ready to find the right solution for your oil testing requirements.



With everything you need to help you take control of your oil analysis operations, PerkinElmer is your perfect partner for ultimate peace of mind. From bulk consumables packs for high sample throughput to reference oil kits for results accuracy, you can benefit from our easy-to-order solutions. With over 60 years in the analytical measurements business, you can rely on our technology, knowledge and experience to meet your technical and commercial needs.

For more information, visit www.perkinelmer.com/oilexpress

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