



# Oil Test Solutions

Simple to Use & Economical  
Fuel & Lube Oil Testing Made Easy



ENGINEERING YOUR SUCCESS.

# Making Fast On-site

# Maintenance Decisions

Protect your assets, improve productivity and increase uptime with regular on-site oil analysis. Parker's complete range of economical oil test kits provide reliable oil condition results in minutes.

Parker's oil test kits provide a condition monitoring tool enabling you to make informed operational and maintenance decisions about your critical plant and equipment. The ability to test on-site at the point of use enables engineers and facilities managers to conduct oil analysis quickly and easily. Detecting out-of-spec fuels and lubricants can identify potential problems, before they become critical.

Choose from a range of equipment and parameters to use either individually, or combined as a single test kit.



# Multi-Parameter Oil Test Kits

Supplied ready for use, in heavy duty aluminium or durable ABS cases, Parker multi-parameter test kits contain all of the necessary equipment and consumables for your oil condition monitoring needs.

- Fast, accurate results for multiple oil parameters, in an easy to use, portable kit
- Make informed on-site maintenance decisions
- Act before the onset of critical failure
- Robust and reliable for use in harsh or remote environments



# Multi-Parameter Oil Test Kits

Non-hazardous version available for shipping water in oil cell when you see the EasySHIP logo



DIGI+ Product Code	Description	Tests Included	Range
FG-K6-101-KW+ EasySHIP Version	DIGI+ water	DIGI water in oil cell	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm
FG-K6-102-KW+ EasySHIP Version	DIGI+ water / viscosity kit	Digi water in oil cell Econ viscostick	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm Go/no go
FG-K6-103-KW+ EasySHIP Version	DIGI+ basic kit	Digi water in oil cell Econ salt test Econ insolubles test Econ viscostick	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm, Go/no go Qualitative Go/no go
FG-K6-004-KW+ EasySHIP Version	DIGI+ BN test kit	BN	5-150 BN
FG-K6-107-KW+ EasySHIP Version	DIGI+ industrial kit	Digi combined water in oil/BN cell Econ insolubles test Econ viscostick	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm / 5-150 BN Qualitative Go/no go
FG-K6-108-KW+ EasySHIP Version	DIGI+ field kit	Digi combined water in oil/BN cell Econ insolubles test Econ viscostick Econ AN test	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm / 5-150 BN Qualitative Go/no go AN: 0-6
FG-K6-110-KW+ EasySHIP Version	DIGI+ combined kit	DIGI combined water in oil/BN cell ECON salt test ECON insolubles test ECON viscostick	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm / 5-150 BN Go/no go Qualitative Go/no go
FG-K6-971-KW+ EasySHIP Version	DIGI+ clean oil kit	Digi water in oil cell Digi viscotube Econ AN test	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm, 20-600 cSt @ 40°C AN: 0-6
FG-K6-897-KW+ EasySHIP Version	DIGI+ biodiesel test kit	Digi water in oil cell Low range falling ball viscometer Density hydrometer Free fatty acid test / AN test Visual test (cleanliness)	0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm, 1-10 cSt @ 40°C 850-950 kg/m <sup>3</sup> Acid Content / 0-6 AN Qualitative

NB: Electronic laboratory grade analysis equipment is also available for Water in Oil, Base Number (BN), Acid Number (AN) and Insolubles. See the Oil Analysis Solutions Brochure for further details.

# Parker Test Cells

The DIGI Cell from Parker has become the favoured test method for on-site and on-board oil condition monitoring since its introduction in 1993.

Based on extensive experience and feedback from working with marine experts worldwide, Parker have developed their latest addition to the range, the DIGI Plus.

The DIGI Plus has exciting new features aimed at making testing easier and more accurate, especially when used in challenging conditions.

DIGI+ features:	Benefit
Moulded 2 piece light weight construction	Reduces handling fatigue
Additional soft touch buttons on interface	Improved functionality
Improved menu structure	Easy navigation through menu architecture
Membrane keypad with positive ident buttons	User gets confirmation of key press action
Improved back-lit screen display and colour enhanced features	Better visibility in poor light conditions and simple colour intuitive result display
Storage for up to 10 different oils for residual BN analysis	Maximum flexibility for a wide range of applications
Store up to 50 individual test results	Recall past test results and conduct easy PC trend analysis
SPOT test (single) mode for miscellaneous testing	User is not restricted to set test routines and can use the cell outside of these parameters.
Rechargeable battery via USB connection	Ease of charging means the cell can always be ready for testing
Download test results to PC over USB	Create Sample Point Identification routes (SPID) and mapping sequences



# DIGI+ Features

Electronic display gives step by step test instructions

Simple to use keypad for ease of use

Lightweight glass reinforced plastic body

Latest transducer technology for improved accuracy and ease of cleaning

Non slip twist grips



## Impressive new design features

As well as impressive functional improvements, the DIGI Plus now comes with helpful new design features to make operation more straightforward. It features new tactile soft touch buttons and an improved menu structure for easy navigation.

Combined with a moulded 2-piece light weight construction, the DIGI Plus reduces handling fatigue during testing.

## Data storage for improved accuracy and tracking

The DIGI Plus features a built-in test memory for recording up to 50 individual test results as part of a pre-programmed test plan (SPID Mode), whilst also having the capability for miscellaneous or SPOT tests as well. Tests results are downloaded using the USB cable and then the downloaded data can then be used as part of a trend analysis programme. The USB cable can also be used for quick and easy charging of your DIGI Plus cell.

## Full colour backlit digital display for greater visibility

The new and improved backlit colour display provides better visibility, especially when used in poor light conditions.

This same colour display makes identifying alarm conditions and pass or fail results quick and easy whilst also guiding the user through important test steps like cell cleaning.

DIGI+ Technical Information

	Description
Test parameters	Water in oil / Base Number
Operating range	Water in Oil = 0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm, Base Number = 5 - 150 BN
Screen type	LCD screen with multi-coloured LED backlight - 30mm x 20mm
Key pad	4 x tactile feedback interface membrane buttons
User interface	NEW interactive menu structure accessed via keypad
Display features	Main menu / oil type entry / SPID entry / BLUE - test in progress / GREEN - test result / RED - test warning
Cell dimension	H 112mm x Diam 77mm (moulded)
Sample volume	Varies depending on test carried out - 0.25ml to 20ml
Battery type	Lithium ion rechargeable
Charging details	Charge via computer / USB port providing 5v 100mA – Full charge from empty <5 hours
Battery life	In use, 5 hours continuous / 50 tests whichever occurs first. Lifetime 500 charge cycles or 3 years (typical - depending on usage)*
Technology	Calcium hydride (CaH <sub>2</sub> ) - pressure transducer
Test time	Water in oil - 3 min. Base Number - 2 min. With visual progression bar.
Basic kit includes	Top display body / base sample chamber / sample agitator / USB charging cable / USB pen (manuals - SPID program) / reagent kit (type specific)
Material	Glass filled ABS for body, polycarbonate for display bezel, Keypad is fine textured polyester. Agitator is nylon.
Memory (qty)	10 x oil types / 50 SPID's (Sample Point Identification)
PC requirements	Windows 10 - USB connection
Calibration	Not required
CE certification	EMC

\* Based on 20°C ambient temperature.

Maintain and protect your equipment, whilst eliminating damage caused by water in your oil.

The DIGI+ Water in Oil Test Kit provides state of the art, digital analysis and gives fast, accurate results for easy monitoring of trends. The kit contains a test cell together with all necessary reagents and equipment for an easy to use, economical test.

- Prevent corrosion, cavitation or failure of your machinery by detecting water in oil, before any damage occurs
- Minimise instability of additive packages and damaging microbe growth by monitoring your oil
- Fully portable for use on-board or in the field, test kits are extremely robust, durable and easy to use

Ordering information

FG-K6-101-KW+: [EasySHIP](#) DIGI+ Water in Oil Kit

Range: 0.02-1.00%, 0.1-10%, 0.1-20%, 100-3,000 ppm, 200-10,000 ppm, Test time: 3 minutes

Memory: 10 x oil types / 50 SPID's (Sample Point Identification)

Battery life: In use, 5 hours continuous / 50 tests whichever occurs first. Lifetime 500 charge cycles or 3 years (typical - depending on usage)\*

\* Based on 20°C ambient temperature.



Base Number (BN)

Measure your oil's alkaline reserve and ability to neutralise acids from combustion.

The DIGI+ BN Test Kit provides state of the art, digital analysis and gives fast, accurate results for in-depth monitoring of trends. The test kit gives a rapid indication of BN depletion in lubricants.

- Avoid fouling within the engine and corrosion of engine components by monitoring the Base Number (BN) of your lubricating oils
- Simple, economical monitoring of lubricants

Ordering information

FG-K6-004-KW+: [EasySHIP](#) DIGI+ BN Test Kit

Range: 5 - 150 BN

Accuracy: Typically +/- 10% of new oil BN

Test Time: 2 minutes

Memory: 10 x oil types / 50 SPID's (Sample Point Identification)

Battery life: In use, 5 hours continuous / 50 tests whichever occurs first. Lifetime 500 charge cycles or 3 years (typical - depending on usage)\*

\* Based on 20°C ambient temperature.



## Viscosity



Viscosity is widely regarded as an oil's most important characteristic. It is the viscosity that shows the oil's resistance to flow and the strength of the oil film between surfaces.

The Parker DIGI Viscometer (or Viscotube) uses the falling ball technique to measure the viscosity of an oil. The DIGI Viscotube is provided with viscosity calculation software and a digital thermometer for accurate results.

The ECON Viscostick gives a simple go/no go result. Typically it will detect 5-10% distillate fuel dilution of an SAE 30 to 40 engine oil as well as increases in viscosity due to oil contamination.

- Make informed maintenance decisions and prevent costly machinery downtime
- Measuring oil viscosity provides early detection of contamination, fuel ingress and shear thinning
- Suitable for hydraulic oils, diesel engine oils, enclosed gears and fuel oils
- Simple, cost effective equipment requiring no consumables

### Ordering information

FG-K14828-KW: DIGI Viscotube

Range: 20-600 cSt @ 40°C using three sizes of ball  
Application: Lubricating oils, hydraulic oil, warm fuel oil  
No. of tests: Unlimited  
Test time: 1-10 minutes

FG-K3-020-KW: ECON Viscostick

Range: Go/no go  
Application: Lubricating oils, viscous hydraulics  
No. of tests: Unlimited  
Test time: 1 minute



## Acid Number (AN)

Testing for AN is essential to maintain and protect your equipment, preventing damage in advance.

Measure both the weak organic and strong inorganic acids present within an oil with the Parker AN Test. A rise in AN is indicative of oil oxidation due to time or operating temperature.

- Test kit is supplied with up to twenty-five tests, enabling you to monitor AN level trends
- Simple to use drop test - the result is shown by a colour change, providing you with easy to interpret results, suitable for use by non-technical personnel

### Ordering information

FG-K24743-KW: ECON AN Drop Test Kit

Range: 0-6 AN

Application: Turbine, gear and hydraulic oils

Test time: 2 minutes

Accuracy:  $\pm 0.3$  AN

No. of tests: 25



## Salt Water Contamination

Eliminate rapid corrosion in lube oil, fuel or hydraulic systems by checking for the presence of salt.

- Provides rapid indication of the presence of salt, even if all the water has been evaporated
- Fast and easy to use

### Ordering information

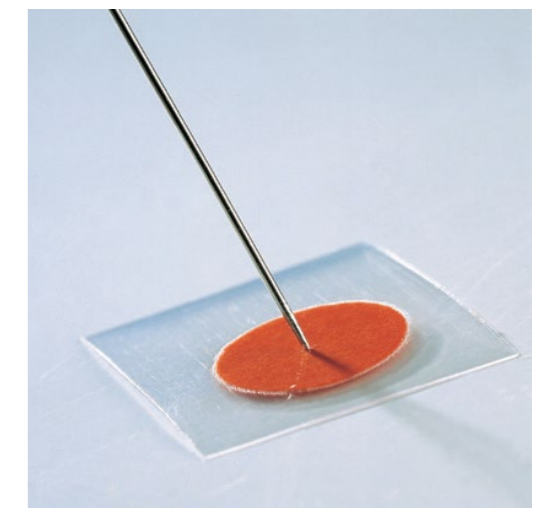
FG-K1-005-KW: ECON Salt Water Contamination Test Kit

Range: Go/no go

Application: Lubricating oil, fuel, water

Test time: 1 hour (unattended)

No. of tests: 25



## Reagents, Spares and Consumables

Parker test kits for individual parameters contain reagents, consumables and full instructions for multiple tests.

- Replacement reagents can be ordered at short notice
- Kits contain all necessary equipment for instant test results in the field
- Reagents are packed in accordance with IATA/IMDG/IRD Air/Marine/Road Transportation codes and can be delivered to major ports worldwide



Part Number	Description	Items in Packs
FG-K24743-KW	ECON TAN reagent pack	25 packs
FG-K2-003-KW	Insolubles reagent pack	50 packs
FG-K2-101-KW	Water in oil reagent pack	50 packs
FG-K2-002-KW	Total base number reagent pack	50 packs
FG-K16822-KW	Seal kit	Single
AS-K17465-KW	Agitator	3 per pack
ACCK06001	1.5m USB lead	Single
ACCK06002	USB dust cover	10 per pack

## Particle Contamination - Hydraulic Particles (Patch Test)

Monitoring your hydraulic and gearbox oils is a necessary part of any preventative maintenance programme.

One of the most valuable indicators of machinery condition is oil cleanliness. The presence of particulate contamination in hydraulic or gearbox oils can be catastrophic. Monitoring fluid cleanliness levels assists in identifying abnormal conditions and preventing potential machinery damage.

- Identify abnormal conditions as part of your preventative maintenance programme
- Clear and easy examination of particle contamination
- No interference from water droplets or pearlescent fluids
- Comes with a full instruction manual, containing contamination charts for easy analysis of results
- Test kit is supplied in a fully portable, robust case for quick and easy testing in the field

### Ordering information

FG-K14368-KW: Hydraulic Particles Test Kit

Range: Qualitative

Application: Hydraulic oil, gearbox lubricants

Test time: 5 minutes

No. of tests: 100



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