

FUEL AND LUBE OIL TEST CABINET

Basic Version and Customized Options

The FUEL AND LUBE OIL TEST CABINET is a comprehensive portable laboratory specifically designed to conduct an extensive range of various test analyses on site in order to monitor effectively the condition of fuels, lubricating and hydraulic oils in the engines systems. The test devices included in the Test Cabinet allow measuring the most important oil properties on a regular basis and in simple and quick test procedures. As the end-results can be assessed directly after the tests, any occurring changes in the oil condition are immediately observable, and the respective adequate measures regarding maintenance and services can be taken at the exact time when it is necessary.



FUEL AND LUBE OIL TEST CABINET Basic Version incl. Reagents and Accessories

Basic Version includes the following test devices:

V 150 SALT CHECK, V 5108 TWIN CHECK, V 310 SPOT CHECK,
V 232 VISCO DENS PLUS, V 200 VISCOSITY COMPARATOR,
V 351 COMPATIBILITY CHECK

Martechnic® offers its customers also **customized versions** of the FUEL AND LUBE OIL TEST CABINET according to individual requirements, a specific field of application and in all possible combinations.

The examples of possible optional combinations:

Basic Version + Option I: V 750 FLASH POINT CHECK (contains hazardous goods)

V 400 POUR POINT CHECK (contains hazardous goods)

Basic Version + Option II: V 280 MT CAT FINES CHECK

V 160 TOTAL IRON CHECK

Option II is a new configuration as a solution to the increased number of requests regarding the challenging problem of cat fines in new types of heavy fuel oil (VLSFO) and engine components wear related to total iron concentration in cylinder drain oil.



FUEL AND LUBE OIL TEST CABINET Option II: MT CAT FINES CHECK + TOTAL IRON CHECK incl. Reagents and Accessories

The Cabinet can also be supplied exclusively for testing lube and hydraulic oil (**LUBE OIL TEST CABINET**) or key parameters of bunker fuel (**FUEL OIL TEST CABINET**).

Features:

Basic Version:

- **Water-in-oil**
 - Measuring range: 0 – 1.0 vol.% H₂O
 - Measuring time: depends on the measured value (min. 2 – max. 20 min.)
 - Accuracy: +/- 3%
- **Base Number**
 - Measuring range: 0 – 150 BN
 - Measuring time: depends on the measured value (min. 2 – max. 20 min.)
 - Accuracy: +/- 1 BN
- **Oil Viscosity**
 - Measuring range: max. lube oil
 - Measuring time: about 3 min.
- **Heated Electronic Falling Ball Viscosity**
 - Measuring range:
 - Viscosity: 1 – 999 mm²/s
 - Density: 0.82 – 1.05 g/ml
 - Measuring time: about 15 min.
 - Oil Sample: approx. 200 ml
 - Accuracy: +/- 3%
- **Saltwater Contamination**
 - Measuring range: go/ no go
 - Measuring time: about 10 min.
- **Spot Test**
 - Measuring range: all lube oils
 - Measuring time: about 1 min.

○ Compatibility Check

- Measuring range: all heavy fuel oils + MGO
- Measuring time: about 10 min.
- Oil sample: 2 x 50 ml
- Accuracy: go/ no go

Option I:

○ Flash Point Check

- Measuring range: ambient temperature – up to 200 °C
- Measuring time: about 15 min.
- Accuracy: +/- 2 % < 100 °C, +/- 6°C > 100 °C

○ Pour Point Check

- Measuring range: - 20 °C to + 30°C
- Measuring time: about 10 min.
- Accuracy: +/- 2°C

Option II:

○ MT Cat Fines Check

- Measuring time: about 15 min.
- Up to 8 simultaneous measurements possible
- Visually quantifiable

○ Total Iron Check

- Measuring range: 15/20-1100 mg/kg (ppm)
- Measuring temperature: 70 °C
- Measuring time: about 20 min. for two cylinder drain oil samples
- Measurement method: illuminance meter with LED source
- Accuracy: +/- 20 mg/kg (ppm) (confirmed repeatability of test results)

Benefits:

- Various tests for comprehensive oil condition assessment
- Easy and quick test procedures
- Accurate and efficient test results
- Compact and fastenable to a wall
- Built-in lighting and test desk