

TRIBOMAR



TRIBOMAR®
Oil Management Solutions

W



IRONTEST

TribolIron Test Kit

Digital Iron Detection

- Corrosive & Abrasive Iron detection
- Measuring range 50–500 ppm
 - Corrosive iron 50–500 ppm
 - Abrasive iron 50–500 ppm
- Accuracy $\pm 10\%$
- Number of tests 50
- Non-hazardous for transport and storage

Order No.: 1395

Consumables
Iron Reagent Set #1410 (50 tests), #1411 (100 tests)



Engine manufacturers have changed their engine design to comply with Tier II NO_x regulations and the latest Energy Efficiency Design Index (EEDI) guidelines. As a result cold corrosion in these engines is more likely to occur due to liner operation temperatures below the acid dew point.

Older engines are nowadays forced to run on slow steaming mode to reduce fuel consumption. These engines now suffer similar problems with cold corrosion due to operation at lower temperatures.

To identify a cold corrosion problem, a measuring tool is required to detect the total iron content in the scrape down oil. There are two different iron types existing. The corrosive and the abrasive part. The TribolIron Test enables the ship operator to identify both types of iron.



WIO & BN

TriboCon plus

Digital Water & BN Test with stirrer

- With stirrer for better results
- Water-in-Oil Test for lubricants and fuels
Range: 0–1 %, 0–2 %
- Determination of Base Number of engine oils
Range: 0–100 mgKOH/g (BN)
- Robust coated metal housing
- Exchangeable battery (9V Block)

Order No.: 1150

Consumables
#1058/1060, #1059, #1027
(Must be ordered separately)

The TriboCon plus is an upgraded version to improve the accuracy, the quality and the speed of testing for determining the water content in lubricants/fuels and Base Number of engine oils.

A specially designed stirrer improves the mixing grade of reagent and sample. The measuring time is drastically reduced down to 5 minutes. The repeatability of the results and the accuracy is not affected by manual shaking.

The TriboCon plus is loaded with sample and reagent and the test will start right after the unit is closed and placed on the stirrer. Just wait until the inbuilt countdown of the TriboCon elapsed to note the result in the display. No need of shaking anymore.

Checking the BN of cylinder drain oil on a 12 cylinder engine using two cups and two reagent chambers (including stir fishes) will require no more than 1 hour for testing. While using one set, a second set is prepared for the next sample. Simple, fast and accurate.



	Stirrer	Digital	BN	Water	Order-No.
TriboCon plus	✓	✓	✓	✓	#1150
TriboCon	—	✓	✓	✓	#1009
TriboCon BN	—	✓	✓	—	#1339
TriboCon W	—	✓	—	✓	#1240
TriboWater	—	—	—	✓	#1086

The scope of the TriboCon series is to measure the water content of lubricants and fuels and is also designed to determine the Base Number (BN) in engine oils.

The TriboCon provides two water measuring ranges: 0–1 % and 0–2 %. The BN measurement becomes easy as the calibration mode of the

TriboCon includes the ability to enter the name and the calibration value of the oil in use. At any time the right BN settings can be easily recalled.

Made of high-quality parts and enclosed in a robust coated metal housing. The ideal tool for field engineers controlling the condition of the operational fluids on site.



TriboCon

Digital Water & BN Test

- Water-in-Oil Test for lubricants and fuels
Range: 0–1 %, 0–2 %
- Determination of Base Number of engine oils
Range: 0–100 mgKOH/g (BN)
- Robust coated metal housing
- Exchangeable battery (9V Block)

TriboWater

Analog Water Test

- Water-in-Oil Test for lubricants and fuels
- Range: 0–1 %, 0–2 %
- Robust metal housing
- Suitable for tail shaft monitoring

CASES & CABINETS

Oil Test Cabinet N°1

Fuel and Lubricant Test Cabinet

- Electronic Viscosity Test for fuels and lubricants
- Fuel Compatibility and Stability Test
- Density Test
- Water-in-Oil Test for lubricants & fuels
- Base Number Test – alkalinity reserve in engine oils
- Viscosity Test – comparison of fresh and used oil
- Spot Test – insoluble and impurities
- Salt Test – nature of water contamination

Other versions of the Oil Test Cabinet can be assembled to customer specifications.

Order No.: 1115

The TRIBOMAR Oil Test Cabinet N°1 combines all necessary test equipment for testing the main parameters of fuel and lubricants onboard. This enables the operators and engineers to control onsite the condition of the technical fluids in operation at any time.

This cabinet contains an electronic viscosity meter, density, WiO & Base Number digital cell and much more to identify in time deterioration of main parameters before major damages can occur.

It is always recommended to have a tool in hands helping the engineers onsite to prove the condition independently from the lab. TRIBOMAR provides to the field engineers easy to use measuring devices with a reliable and repeatable accuracy.

Consumables
#1058/#1060, #1059, #1027, #1066/#1061, #1047/#1048



Please contact us for customer specified versions!

#1087



Oil Test Case N°1

Test Kit to check the water content in fuels and lubricants

- Water-in-Oil Test (analog)
- Two measuring ranges: 0–1 & 0–2 vol.-%
- Works with WR SAFE reagent (non-hazardous for transport)

Consumables
#1058/#1060, #1027

#1016



Oil Test Case N°3

Test Kit to check main parameters of your lube oil

- Water-in-Oil Test for lubricants and fuels
- Base Number Test – alkalinity reserve of engine oils
- Viscosity Test – comparison of fresh and used oil

Consumables
#1058/#1060, #1059, #1027

#1068



Oil Test Case N°5

Test Kit to check main parameters of your lube oil

- Water-in-Oil Test for lubricants and fuels
- Base Number Test – alkalinity reserve of engine oils
- Viscosity Test – comparison of fresh and used oil
- Spot Test – insolubles and impurities
- Salt Test – nature of water contamination

Consumables
#1058/#1060, #1059, #1027, #1066/#1061, #1047/#1048

SENSORS

LOTM

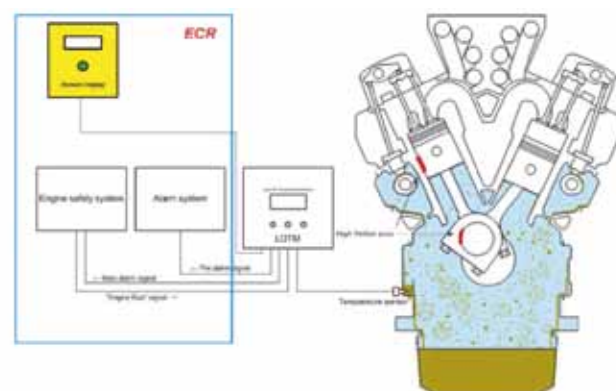
Lube Oil Temperature Monitor

- Oil temperature monitoring in crankcases
- Prevents your engine of severe damages
- Simple principle with high valuable output
- GL approval

The Lube Oil Temperature Monitor (LOTM) is designed to protect the crankshaft as well as other sliding metallic surfaces on marine diesel engines using early prediction of severe damages.

The protection principle is based on the detection of above-normal lubricating oil temperature caused by increased friction of engine moving parts (for example bearings or piston rings).

Order No.: 1095



The circulating lube oil comes out from the rotating components and splashes on the crankcase inner walls and crankcase covers. On the crankcase covers there are special catch pockets with mounted temperature sensors.

The current temperature values are constantly measured and processed by a micro controller.

The microcontroller of the LOTM calculates the mean temperature and compares each station temperature value with permissible deviation value and maximum permissible temperature.

In case of an abnormal temperature deviation the LOTM switches on an alarm signal which is transmitted to the connected ship alarm system.

IR Water Control

Infrared Water-in-Oil Online Sensor

- Online Monitor for water content in lubricants
- Measuring range from 0–1 vol.-% water content (0–10000 ppm)
- Continuous monitoring 24/7
- Measures saturated, emulsified and free water

Order No.: 1117



In cooperation with technical development companies and institutes Tribomar has released its latest product development based on infrared technology monitoring water in oil 24/7 in real time.

The transmission principle enables the operator to monitor the water content in lubricants like crankcase oils of crosshead engines, hydraulic and gear oils in a reliable and accurate way.

This sensor is the start for a wide range of sensors covering the most important parameters of lubricants to help the operators get instant information about the condition of the lubricants onboard.

Tribomar is constantly developing new systems in the segment of sensor technology to follow up with the latest innovations in the market.



MP Filtri ICM

Inline Contamination Monitor

- Constant monitoring of particles and moisture
- Manual, automatic and remote control flexibility
- Measures and displays the following international standard formats: ISO 4406:1999, NAS 1638, AS4059E and ISO 11218

#1118

WATER IN OIL SENSORS

WIO200

WIO Sensor & 2 x 2 m cable & Terminal box



The Water In Oil Sensor (WIO) technology is a secure online system monitoring the water content in oil. Water or moisture is the second largest contamination (after particles) in oil systems with damaging effects on the life time of both, i.e. the machinery and the oil.

Features

- 24 VDC \pm 10 % power supply
- 2 x NC relay outputs 250 VAC/2 A
- 1 x galvanic isolated analogue output 4–20 mA
- 4 digit indication display for aW/ppm
- LED indication for H/HH-Alarm
- Push button for H/HH-Alarm
- Acoustic indication for H/HH-Alarm
- Fixed alarm points HA 0.50 aW, HHA 0,90 aW
- Manual test function

While conventional approaches require taking a small sample of the oil and then analyzing it, the sensor provides continuous monitoring of the entire lubricant oil volume, providing early warning of high levels of water content that could damage the machine. WIO-Sensors will give alarms and provides a local visual indication of the water level in the oil. It is possible to link these Sensors to any external Condition Monitoring Systems.

PAJ WIO-Sensors covering following features: 24/7 monitoring, highest measuring accuracy, GL-Approval, MAN-Diesel approved, Calibration Certificate, Analogue Output or MODBUS, Configuration to exact needs, easy to install.

Features

- 24 VDC \pm 10 % power supply
- 2 x NC relay outputs 250 VAC/2 A
- 1 x galvanic isolated analogue output 4–20 mA
- 4 digit indication display for aW/ppm
- LED indication for H/HH-alarm
- Push button function for H/HH alarm
- Acoustic indication for H/HH alarm
- Includes Ball Valve part adapter for sealing and retaining

WIOI200 Integrated



WIO400

WIO Sensor & 2 x 2 m cable & Terminal box with communication BD9 plug



Features

- 24V DC \pm 10 % power supply
- 2 x NC relay outputs 250 VAC/2 A
- 2 x galvanic isolated analogue output 4–20 mA
- RS485 modbus user interface
- adjustable alarm points for HA and HHA (aW/ppm) via com.-bus
- Manual test function
- 4 digit indication display for aW/ppm
- 4 digit indication display for °C/F
- LED indication for H/HH-Alarm
- Push button function for H/HH-Alarm
- Acoustic indication for H/HH-Alarm
- USB Stick for WIO software

WIOI400 Integrated



Features

- 24 VDC \pm 10 % power supply
- 2 x NC relay outputs 250 VAC/2 A
- 1 x galvanic isolated analogue output 4–20 mA
- RS485 user interface
- Adjustable alarm points for HA and HHA (aW/ppm) via com.-bus
- 4 digit indication display for aW/ppm
- LED indication for H/HH-alarm
- Push button function for H/HH alarm
- Acoustic indication for H/HH alarm
- USB Stick for WIO software
- Includes Ball Valve part adapter for sealing and retaining

QUALITY

TriboVis Pro 2

Electronic Viscosity Test Device with inbuilt heating for fuels and lubricants + Density Test

- Viscosity measurement at 40, 50 and 80 °C
- Falling ball principle
- Viscosity Range from 1–999 cSt
- Includes viscosity measurement of gas oil
- Calculation of CCAI, injection temperature and other important parameters
- Determination of density of fuels and lubricants
- Measuring range from 0.82 – 1.05 g/ml
- Measuring temperature at 50 °C
- Heating range from ambient temp. to 95 °C
- Also applicable for simple compatibility test

The TriboVis Pro 2 is an electronic falling ball viscosity meter with an inbuilt heating system for all kind of fuels and lubricants. The easy to use testing procedure enables the operator to get an instant result about the viscosity parameter of the bunker fuel or the lubricant in use.

The TriboVis Pro 2 has the latest software installed. Several calculation options e.g CCAI, injection and pumping temperature settings of fuels are installed to help the engineer operating the machineries with maximum efficiency.

The Density helps the engineers onboard to control the bunker fuels on the right specifications according the bunker delivery note (BDN).

Density is also needed to measure the correct viscosity ($V_{kin} = cSt$) of the bunker fuel by means of an i.e. TriboVis Pro.

Order No.: 1121

Consumables: #1027



#1114



#1063



#1011



#1055



TriboVis Pro

Electronic Viscosity Test Device with inbuilt heating for fuels and lubricants

- Viscosity measurement at 40, 50 and 80 °C
- Falling ball principle
- Includes viscosity measurement of gas oil
- Calculation of CCAI, injection temperature and other important parameters

TriboVis Lite

Electronic Viscosity Test

- Electronic viscosity test for lubricants/distillate fuels
- Falling ball principle
- Viscosity range from 1–999 cSt at 40 °C
- Measurement at ambient temperature
- Auto calculation of viscosity at reference temperature
- No V/T (viscosity/temperature) charts needed

TriboVis Basic

Viscosity Test

- Viscosity Test for lubricants and distillate fuels
- Falling ball principle
- Viscosity range from 2–999 cSt at 40 °C
- PC software for easy evaluation of test results
- No V/T (viscosity/temperature) charts needed

ViscoCheck

Lube Oil Quality Test

- Checking the viscosity by comparing fresh and used oil

Consumables for all products above: #1027

QUALITY

TriboAmix

Fuel Compatibility & Stability Test

- Testing the compatibility of different fuels
- Testing the stability of fuels
- Oven to dry spot test paper
- Temperature range from ambient to 100 °C
- Robust metal housing



Order No.: 1090

Consumables
#1027, #1047/#1048, #1027, #1048, #1346

TriboFlash



#1132

TriboFlash PMCC Flash Point Tester (PMCC = Pensky Martens Closed Cup)

- Power supply: AC 230 Volt
- Heating power: 600 Watt
- Measuring range: 20–280 °C
- Dimensions: 35 cm x 28 cm x 25 cm
- Weight: 6 kg

Consumables: #1027

Compatibility

All blended fuels carry the risk of incompatible components causing them to become unstable with serious consequences for the users. Our Compatibility test provides assurance against such occurrence.

Danger and risk

- Clogging of filters, pumps and injection nozzles
- Power loss/ failure of the drive system – interruption in service
- High cost of removing blockages in pipes/cleaning tanks etc.

Reason

- Fuel combines crude oil from many different sources not all compatible.

Solution

- On board testing with the TriboAmix to determine Compatibility

The TriboAmix device is designed to determine the compatibility and stability of different and single fuels. The latest technology provides an easy to use measuring device to the field engineer. It is feature-rich, comes in a robust metal housing and is easy to handle. Reliable and repeatable accuracy makes the unit the ideal tool for controlling the condition of the operational fluids on site.

TriboDens D

Digital Density Test

- Electronic density determination
- Measuring range from 0.6–1.3 g/ml
- Measurement at ambient temperature (no heating required)
- Automatic calculation and display of the density
- Measuring time less than 1 minute

Order No.: 1239

Consumables
#1027



TriboDens (analog)



#1113

Density

A critical parameter in the purchasing, managing and burning of fuel oil.

Danger and risk

- As fuel is delivered by volume and paid for weight Density is the key to value
- It is essential for efficient separator operation. Valuable in trimming the vessel

Reason

- Density is the key for efficient operations

Solution

- Accurate on-board tests such as TriboDens analog or TriboDens Digital enable efficient and cost-efficient operations

The TriboDens D is a digital density measuring device. This device helps the engineers onboard to control the bunker fuels on the right specifications according the bunker delivery note (BDN).

- Does not require a hydrometer
- Higher accuracy, easy to use, fast results
- The medium must not be heated for measuring
- The density is automatically converted to density at 15 °Celsius

Density is also needed to measure the correct viscosity ($V_{kin} = cSt$) of the bunker fuel by means of an i.e. TriboVis Pro (#1114).

Density Test

- Determination of density of fuels and lubricants
- Measuring range from 0.82–1.05 g/ml
- Measuring temperature at 50 °C
- Heating range from ambient temperature to 95 °C
- Also applicable for simple compatibility test

Consumables: #1027

REAGENTS

WR Safe Reagent Set

- Reagent for Water-in-Oil test (two components)
- Non-hazardous for transport and storage (Certified by DEKRA Industrial GmbH)
- Applicable also for non-Tribomar test devices
- Also available with 50 tests per set

The WR Safe Reagent Set is a water-in-oil reagent which consists of two components: WR Safe and WR Releaser. As long as the components are not mixed they are classified as non-hazardous for transport and storage.

The reagent can be prepared for instant use in portions for a small number of tests, which is advantageous for maintenance personal, or it can be mixed in one, if needed in one place.

The non-hazardous character of WR SAFE is tested and certified according the UN test regulations - Test N.5 - by DEKRA Industrial GmbH and confirmed by document N° 55098069/12-1.

Order No.: 1058 (25 test)
Order No.: 1060 (50 test)



BN Reagent (Base Number)

- Reagent to determine Base Number of engine oils



Salt Reagent & Saltesmo

- Reagent to determine the presence of salt water in lubricants and fuels



Cleaning Agent

- Special cleaning spray for all Tribomar test equipment



Iron Reagent Pack

- For Triboliron Test Kit
- 50 and 100 tests
- Non-hazardous

SAMPLING

Bunker Sampler

- Material: stainless steel 1.4571 and 1.4301
- Size: 2–14"
- For folding containers of 5 or 10 L
- Equipped with eyelets to secure settings and containers with seals
- Made in Germany

By definition, a “sample” is required to represent a greater quantity of fluid. For a small amount of fuel to be “representative” of the whole, it must therefore replicate the quality profile of a larger volume of bunkers from which it was drawn.

The Tribomar bunker sampler provides this representative sample to retrieve a full picture of the total fuel delivered.

The Tribomar bunker samplers are lightweight, easy to install and comply with the IMO MARPOL 73/78 Annex VI and the Singapore Standard.



Order No.:

#1222	Bunker Sampler DN 50	2"
#1147	Bunker Sampler DN 80	3"
#1167	Bunker Sampler DN 100	4"
#1223	Bunker Sampler DN 125	5"
#1168	Bunker Sampler DN 150	6"
#1224	Bunker Sampler DN 175	7"
#1225	Bunker Sampler DN 200	8"
#1136	Bunker Sampler DN 250	10"
#1226	Bunker Sampler DN 300	12"
#1227	Bunker Sampler DN 350	14"



MADE IN GERMANY ✓



TriboVac

Vacuum Pump

- For easy drawing of oil samples
- Hand-operated
- Suitable for 120 ml bottle



MARPOL Cubitainer Sample Set

(5 L & 10 L)

- To collect fuel samples acc. MARPOL regulations
- Sealable cubitainers



MARPOL Sample Bottle Set

(500 ml & 1000 ml)

- To retain fuel samples acc. MARPOL regulations
- Sealable sample bottles
- With unique numbered seals and oil resistant labels



Sample Bottle 120 ml

- PET Sample bottle with tamper evident closure

ULTRASONIC

TriboSonic

Ultrasonic Cleaning Device

- Highly effective cleaning
- Ideal for engine parts & filter components
- Working frequency at 30 kHz
- Standard sizes from 40 to 250 liters
- Customized baths & submersible transducers on request
- Including basket and lid



Ultrasonic cleaning device for easy cleaning of machine and filter components. Standard sizes available from 40 L to 250 L.

40 L		230/440 V
50 L		230/440 V
80 L		440 V
170 L	+ level sensor	440 V
200 L	+ level sensor	440 V
250 L	+ level sensor	440 V

Customized sizes and models available on request.



MADE IN GERMANY ✓

TriboSonic HT

The powerful cleaning detergent concentrate

- Biodegradable
- Acid-free
- Solvent-free
- Non-corrosive
- Non-hazardous

Application Example	Mixing Ratio
Engine parts	1:10
Filter cartridges	1:10 (in special cases 1:5)
Greasy and oily parts	1:20
Rusty parts	1:10
General recommendation	1:10

#1315 (5 Liter)
#1379 (27 Liter)

Tribomar Used Oil Analysis (UOA)

The new Tribomar used oil analysis service is an excellent tool for predictive maintenance and provides important data on the performance of the lubricated machineries.

Tribomar has signed an agreement with the well-established Tribocare laboratory to provide to our customers a professional and independent used oil analysis service.



Tribomar UOA Sample Bottle Set
Order No.: 1238

Benefits on used oil analysis:






- Higher safety margin to avoid machinery break-down
- Optimized engine operation through oil condition monitoring
- Reduced costs on cylinder and system oil
- Time between overhauls extended
- Reduced maintenance cost
- Minimizing of down time

Tribomar UOA Sample Bottle Set & Tribomar CDA Sample bottle set






- 12 prepaid sample bottles Including envelopes, labels, MSDS, Sampling & Shipping instructions etc.

powered by  **TRIBOCARE**









TEST CASES & CABINETS

Order No.	Product name		
1395	Tribolron Test Kit	Digital Iron Detection, Corrosive & Abrasive Iron detection, Measuring range 50–500 ppm Non-hazardous for transport and storage	
1087	Oil Test Case N° 1	Water-in-Oil Test (analog), Two measuring ranges: 0–1 & 0–2 vol. % Non-hazardous for transport and storage	
1016	Oil Test Case N° 3	Water-in-Oil Test for all lubricants and fuels, Base Number Test - alkalinity reserve of engine oils, Viscosity Test – comparison of fresh and used oil. Non-hazardous for transport and stor-age	
1068	Oil Test Case N° 5	Water-in-Oil Test for all lubricants and fuels, Base Number Test – alkalinity reserve of engine oils, Viscosity Test – comparison of fresh and used oil, Spot Test - insolubles and impurities, Salt Test – nature of water contamination. Non-hazardous for transport and storage	
1115	Oil Test Cabinet N°1	Electronic Viscosity Test, Fuel Compatibility and Stability Test, Density Test, Water-in-Oil Test, Base Number Test, Viscosity Test, Spot Test, Salt Test. Non-hazardous for transport and stor-age. Other versions of the Oil Test Cabinet can be assembled to customer specifications	


WIO & BN TEST

Order No.	Product name		
1150	TriboCon plus (Test unit only)	Digital Water & Base Number Test with stirrer for lubricants and fuels. Range: 0–1 %, 0–2 % Determination of Base Number of engine oils. Range: 0–100 mgKOH/g (BN), robust coated metal housing, exchangeable battery (9V Block)	
1009	TriboCon (Test unit only)	Water-in-Oil Test for lubricants and fuels. Range: 0–1 %, 0–2 %, Determination of Base Number of engine oils. Range: 0–100 mgKOH/g (BN), robust coated metal housing, exchange-able battery (9V Block)	
1339	TriboCon BN (Test unit only)	Determination of Base Number of engine oils. Range: 0–100 mgKOH/g (BN), robust coated metal housing, exchangeable battery (9V Block)	
1240	TriboCon W (Test unit only)	Water-in-Oil Test for lubricants and fuels. Range: 0–10000 ppm, 0–20000 ppm, robust coated metal housing, exchangeable battery (9V Block)	
1086	TriboWater (Test unit only)	Analog Water-in-Oil Test for lubricants and fuels. Range: 0–1 %, 0–2 %, robust metal hous-ing	









VISCOSITY & FUEL MANAGEMENT

Order No.	Product name		
1121	TriboVis PRO 2	Viscosity measurement at 40, 50 and 80 °C, Falling ball principle, Viscostiy range from 10–999 cSt. Includes viscosity measurement of gas oil, calculation of CCAI, injection tempera-ture and other important parameters. Incl. Density Test: Determination of density of fuels and lubricants. Measuring range from 0.82–1.05 g/ml, Measuring temperature at 50 °C, Heating range from ambient temperature to 95 °C, also applicable for simple compatibility test	
1114	TriboVis PRO	Viscosity measurement at 40, 50 and 80 °C. Falling ball principle, includes viscosity measure-ment of gas oil. Calculation of CCAI, injection temperature and other important parameters	
1239	TriboDens D	Digital Test Device for fast and accurate measurement of the density of lubricating oils and fuels. Measuring range from 0.6–1.3 g/ml. Measurement at ambient temperature (no heating required). Automatic calculation and display of the density, measuring time less than 1 minute	
1113	TriboDens	Analog Determination of density of fuels and lubricants, Measuring range from 0.82–1.05 g/ml. Measuring temperature at 50 °C. Heating range from ambient temperature to 95 °C	
1063	TriboVis Lite	Electronic Viscosity Test, Falling ball principle, Viscosity range from 1–999 cSt at 40 °C Measurement at ambient temperature. Automatic calculation of viscosity at reference tempera-ture. No V/T (viscosity/temperature) charts needed	
1011	TrioVis Basic	Viscosity Test for lubricants and distillate fuels. Falling ball principle. Viscosity range from 2–999 cSt at 40 °C. PC software for easy evaluation of test results. No V/T (viscosity/tempera-ture) charts needed	
1055	ViscoCheck	Checking the viscosity by comparing fresh and used oil	
1090	TriboAmix	Testing the compatibility of different fuels, testing the stability of fuels. Oven to dry spot test paper, temperature range from ambient to 98 °C, robust metal housing	




ULTRASONIC

Order No.	Product name		
on request	TriboSonic	Ultrasonic cleaning device for easy cleaning of machine and filter components. Standard sizes available from 40 L to 250 L Customized sizes and models available on request	


REAGENTS (CHEMICALS) & CONSUMABLES

Order No.	Product name		
1410/ 1411	Iron Reagent Set 50 tests, 100 tests	Reagent to determine the Iron Conent. Non-hazardous for transport and storage	
1058/ 1060	WR SAFE (WiO) 50 tests, 100 tests	Reagent for Water-in-Oil Test (two components). Non-hazardous for transport and storage (certified by DEKRA Industrial GmbH), applicable also for non-Tribomar test devices	
1059	BN Reagent 25 tests	Reagent to determine Base Number of engine oils	
1066	Salt Reagent	Reagent to determine the presence of salt water in lubricants and fuels	
1027	Cleaning Agent	Special Cleaning Spray for all Tribomar test equipment	
1061	Saltesmo (30 pads)	Test Paper for the semi-quantitative determination of chloride, bromide and iodide.	
1047	Insolubles Test A5	Spot Test Paper 20 sheets A5 for 300 tests	
1048	Insolubles Test 50x50 mm	Spot Test Paper 100 papers	







SENSORS

Order No.	Product name		
1117	IR Water Control (Water in oil Moni-tor)	Online Monitor for water content in lubricants. Measuring range from 0–1 vol.-% water content (0–10000 ppm), continuous monitoring 24/7, measures saturated, emulsified and free water	
1095	LOTM (Lube Oil Temperature Moni-tor)	Oil temperature monitoring in crankcases, prevents your engine of severe damages Simple principle with high valuable output, GL approval	
1118	MP Filtri ICM (Parti-cle Monitor)	Constant monitoring of particles and moisture. Manual, automatic and remote con-trol flexibility. Measures and displays the following international standard formats: ISO 4406:1999, NAS 1638, AS4059E and ISO 11218	

FLASH POINT TESTER

Order No.	Product name		
1132	TriboFlash	PMCC Flash Point Tester suitable to determine the flash point of petroleum products with a flash point higher than 40 °C	

SAMPLING

Order No.	Product name		
refer to page 18	Bunker Sampler 2” – 14”	Tribomar Bunker Samplers are ideally suited to obtain representative fuel samples demanded by the MARPOL regulations. The Tribomar Bunker Samplers are MADE IN GERMANY	
1051	Cubitainer 24 x 5 L	To collect fuel samples acc. MARPOL regulations, sealable	
1052	Cubitainer 24 x 10 L	To collect fuel samples acc. MARPOL regulations, sealable	
1044	MARPOL Bottle 24 x 500 ml	To retain fuel samples acc. MARPOL regulations, sealable sample bottles, with unique numbered seals and oil resistant labels	
1046	MARPOL Bottle 24 x 1000 ml	To retain fuel samples acc. MARPOL regulations, sealable sample bottles, with unique numbered seals and oil resistant labels	
1238	Sample Bottle 120 ml	PET sample bottle with tamper evident closure	
1233	TriboVac	Hand-operated vacuum pump for easy drawing of oil samples, suitable for 120 ml bottle (#1238)	
1238	Sample Bottle Set	Sample bottle set for UOA and CDA oil analysis powered by Tribocare	

TRIBOMAR international Agents

TRIBOMAR Agent Denmark, Sweden, Finland

Tommy Ch. Bjornstad
Rugvaenget 101
2980 Kokkedal
DENMARK
Phone: +45.49 18 08 13
Mobile: +45.60 14 90 13
bjornst@email.com

TRIBOMAR Agent U.K.

AtZ Marine Technologies Ltd.
Unit 21
The Sidings
Hound Road
Netley Abbey
SOUTHAMTON SO31 5QA
U.K.
Phone: +44.2380.45 54 47
sales@atzmartec.com
www.atzmartec.com

TRIBOMAR Agent Baltic States

CAPRICORN MARINE SERVICE OY
Juris Dreimanis
Estonia pst 5
10143 Tallin
ESTONIA
Phone: +371.66 00 24 24
Fax: +371.67 16 71 96
Mobile: +371.29 25 26 62
Skype: yuri.dreimanis
capmar@capmar.eu
www.capmar.eu

TRIBOMAR Agent Ukraine

HCP GmbH - Ukrainian branch office
Yuri Buligin
Odessa
UKRAINE
Phone: +380.4 82 34 29 29
Skype: bulyginyuri
Mobile: +380.5 06 50 56 72
buligin@marineoil.de

TRIBOMAR Agent Italy

Fulgor Marine
Shipping & Industry Business Procurer
Mr. Giuliano Germeno
Via R. Bosco, 137
80069 Vico Equense -NA-
ITALY
Phone: +39.81.87 99 54 7, +39.81.35 08 00 2
Fax: +39.81.87 99 54 7
Mobile: +39.377.11 79 589 / +39.349.85 54 373
giuliano.germenogmail.com

TRIBOMAR Agent UAE

Hamburg Trading House FZE
Swen Sauerberg
Jumairah Lake Towers, Tiffany Tower, Office 804
P.O.Box 212103, Dubai
UNITED ARAB EMIRATES
Phone: +971.4.36 39 386
Fax: + 971.4.36 89 893
Mobile: +971.50.55 35 459
info@hamburgtradinghouse.com
www.hamburgtradinghouse.com

TRIBOMAR Agent Singapore

Global Offshore & Marina Systems Pte. Ltd.
Mr. Chris Heng
190 Woodlands Industrial Park E5
#04-02 Woodlands Bizhub
Singapore 757516
SINGAPORE
Phone: +65.91 44 97 33
info@goms.com.sg

TRIBOMAR Agent Greece, Cyprus, Turkey

FleetOne
Shiprepair & Marine Services
Christos Kaptanoglou
George Karakasis
Sotiros Dios 12, Piraeus 18535, Greece
Phone: +30.21 04 10 18 00
info@fleetoneship.com
kaptanoglou@fleetoneship.com
karakasis@fleetoneship.com
www.fleetoneship.com



TRIBOMAR GmbH is a young company for oil management solutions founded in Hamburg, Germany in 2011. Our goal is to provide engineers with high quality tools for monitoring the main parameters of fuels and lubricants.

We take the customer's request seriously. We strive to maintain the latest technology and demands of the industry.

TRIBOMAR GmbH is not only providing the standard test kits to cover the basic requirements of the customer, we are also going one step further by offering sensors of the latest generation to monitor operational fluids like fuels and lubes online.

TRIBOMAR GmbH has excellent, skilled engineers with years of experience and knowledge helping our customers to operate their machinery at an optimum level.

We are constantly focusing our efforts on new developments and the latest technology for the best, easiest and most cost efficient solutions for the industry.

We will keep you updated with the latest news about our progress and product developments.

Please check out our website www.tribomar.com to see the latest news about TRIBOMAR and its products.

For more information please contact:

TRIBOMAR GmbH

Biedenkamp 3e
Glinde/Hamburg
GERMANY

Tel.: +49.40.73 09 13 99-0
Fax: +49.40.73 09 13 99 33

info@tribomar.com
www.tribomar.com

TRIBOMAR GmbH is representative and/or agent for:

ABCON A/S

Abcon A/S is the world's leading producer of lube oil Stop Leak products. The company is well known for its STERN TUBE SL and THRUSTER SL products which can be used to keep vessels operational until next dry docking. The Stop Leak products are delivered as concentrated additives ready to be added into the existing oil.
www.abcon.eu



Dimar-Tec PTE Ltd.

DIMAR-TEC Pte. Ltd. – under German management – is specialized in preventive and predictive maintenance solutions for all diesel engine types.
www.dimar-tec.com



Tribocare

Tribocare is a modern equipped laboratory to provide to the marine and land based industries a comprehensive and high quality analytical service.
www.tribocare.com

