PORLA fuel analyser for the marine industry

Proven technology provides safety at bunkering processes and ensures reliable business

Understanding your fuel

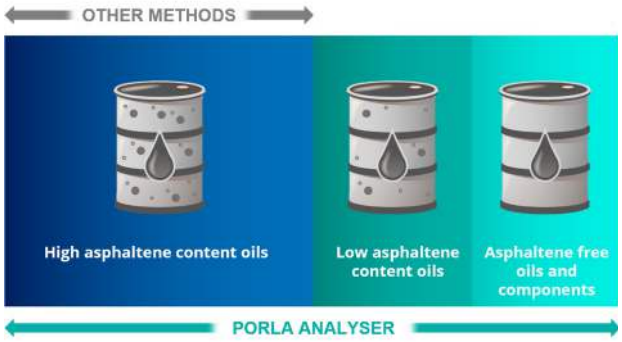
The Porla analyser is the result of co-development with a major Finnish oil refining company, as well as many other refineries and industry professionals. It complies fully with ASTM standard D7112.
As an important part of Auramarine's portfolio the product is further developed together with clients, resulting in enhanced reliability, easier user experience and full customer support.

With the multitude of existing and newly developed ultra low sulphur fuels (ULSFO), properties such as stability and blending compatibility properties need to be taken into account.
This may also be the case for other fuels, including biofuels. By taking a proactive approach and embracing technology, problems related to these properties can be avoided.

Auramarine provides the solution

Auramarine's new Porla analyser is an easy, reliable and fast analysis instrument for measuring oil stability and predicting blending compatibility of oils. This proven technology provides safety at the bunkering process and helps to avoid unintended maintenance and reduce downtime.

Auramarine's Porla analyser is used to predict safe blending ratios between different fuels by measuring the blending compatibility parameters of the fuels. Blending parameters can be measured even for a fuel that contains no asphaltenes. Unlike other comparable analysers, Porla analyser is capable of measuring stability and compatibility parameters of fuels that have a very low asphaltene content.



Weighing the sample

Very often also fuels with low asphaltene content are subject to stability and compatibility issues which can cause clogging and result in severe problems and even engine failures on board.

The analyser is suitable also for high asphaltene content fuels analysis.

Technical details:

Operational Specifications	Measurement ranges	1-7 P-Value (stability value) 0-100% Solvent Equivalent
	Detection limit of asphaltenes	0.05%
	Measurement temperature	20 - 70 ºC
	Sample carousel	4 positions, with sample heating
	Analysis duration	Normally full cycle takes approx. 45 minutes and borderline cases up to 90 minutes.
Utilities	Electric power	110 or 230 V, 50/60 Hz
	Solvents	Paraffinic and aromatic solvents
Physical Specifications	Weight	38 kg
	Dimensions	H 453 mm, W 585 mm, D 464 mm
Sample Specifications	Sample size	20 - 40 g of oil directly from tank or other storage

Properties

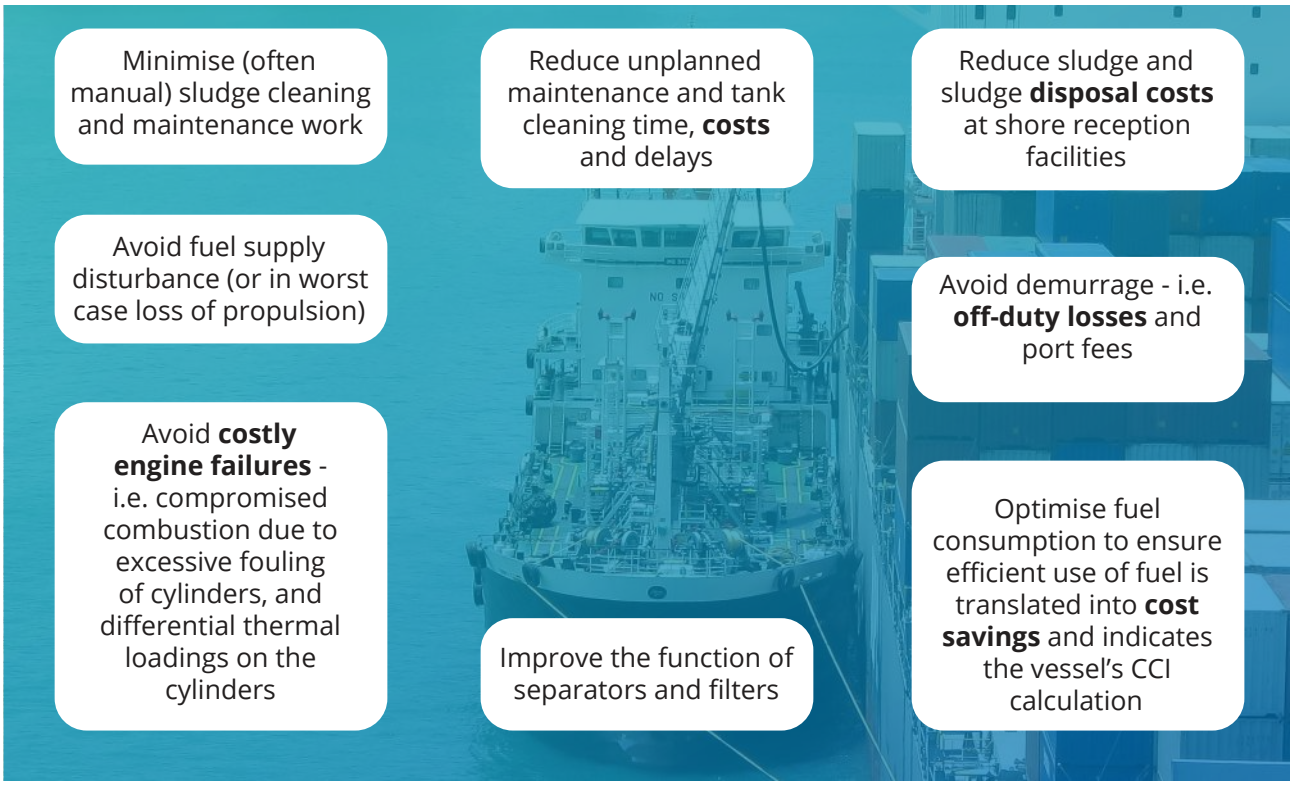
- Automatic fuel oil analyser
- The system enables proactive testing of fuel compatibility
- Determination of stability and compatibility parameters In (insolubility number) and SBN (solubility blending number)
- ASTM test method D7112 since 2005
- Ability to use different paraffinic and aromatic solvent combinations
- The system will self-clean at the end of each test procedure

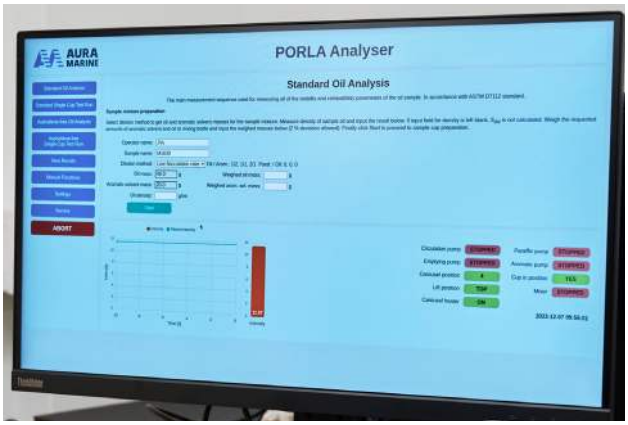
A result of non-optimised fuel blending

Advantages

- Provides peace of mind and eliminates costs and delays caused by non-compatible or bad bunker
- Auramarine's Porla analyser allows users to check the the compatibility and stability of the fuel in the tank and any new fuel introduced before bunkering
- The solution can be used for blending optimisation of different fuel oils
- User-friendly sample preparation and automated analysis to reduce user time and minimise errors
- In fast screening mode, the system can determine optimal running parameters for unknown samples
- The system reduces the amount of sludge and related disposal costs

Proactivity pays off





Accessories and maintenance

Auramarine provides users a complete range of consumables needed to operate the Porla system, ensuring repeatable and reliable results.

Please contact Auramarine to find out the recommended replacement intervals for your Porla analyser parts. We provide prisms, pumps, solvents, sample bottles, sample containers. Scales are also available.

You can benefit from our technical support and sample analysis services are available upon request.

In addition, it is possible to opt for an analyser unit maintenance contract.

Definition of parameters

Porla analyser analyses the following values, including the important P-value (stability):

- P-value, state of peptisation of asphaltenes in the oil (stability of oil)
- Pa, peptisability of asphaltenes
- Po, peptising power of the oil medium
- FR5/1, solvent equivalent number
- FRmax, max. flocculation ratio i.e. minimum required solvency power of a solvent mixture to keep the asphaltenes in an oil colloidally dispersed
- Xmin, volume of paraffin needed to flocculate asphaltenes in 1 gram of pure oil sample
- IN, insolubility number, measure of oil's insolubility to paraffinic solvent
- SBN, solubility blending number, measure of how good the oil is as a solvent

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For futher information, please contact:

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Watch the video on YouTube: