

WATER & SEDIMENT COMBINED (CENTRIFUGE METHOD)



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The combined determination of water and sediment content — commonly referred to as BS&W (Basic Sediment and Water) — is one of the most widely used acceptance tests in the petroleum industry. The centrifuge method provides a rapid, direct measurement of the total volume of water and sediment in crude oil, fuel oil, and related products, making it an essential tool for custody transfer, receiving inspection, and storage monitoring.

Torontech's oil test centrifuge is purpose-built for petroleum product BS&W determination by the centrifuge method, delivering fast, reliable results with minimal sample preparation. The instrument provides accurate quantification of both free water and sediment filter residue in a single test, enabling efficient quality control workflows.

APPLICATIONS

Application

The centrifuge method for combined water and sediment determination is applied in multiple critical contexts:

- Crude oil custody transfer: BS&W content directly affects the net quantity of saleable crude oil at loading terminals and pipeline transfer points.
- Fuel oil receiving inspection: Incoming fuel deliveries to power plants, marine vessels, and industrial facilities are tested to verify water and sediment content within specification limits.
- Refinery feedstock monitoring: High BS&W in crude feedstocks can accelerate corrosion in distillation units and desalters, making regular centrifuge testing essential.
- Tank farm and storage management: Periodic centrifuge testing identifies water accumulation and sediment buildup in storage tanks before it causes problems.
- Marine bunker fuel: Combined water and sediment content is a key quality parameter under ISO 8217 for marine fuel oil specifications.

- Pipeline petroleum: Transmission operators use the centrifuge method for BS&W monitoring in compliance with pipeline tariff specifications.

FEATURES

Why Choose Torontech's Series for Your Water & Sediment Combined Testing?

Torontech's oil test centrifuge is engineered to meet the demanding requirements of petroleum custody transfer and quality control laboratories:

- Centrifuge Method Compliance: Fully aligned with ASTM D96 (crude oil and fuel oil) and ASTM D1796 (fuel oils) for combined water and sediment determination by the centrifuge method.
- Precision Speed Control: Accurate RPM control ensures the centrifugal force required by the test method is consistently achieved for reliable sediment filter separation.
- Temperature-Controlled Operation: Heated centrifuge capability reduces sample viscosity for accurate BS&W determination in heavy fuel oils and waxy crudes.
- Rugged Construction: Designed for the harsh conditions of terminal laboratories and field testing facilities.
- Rapid Results: The centrifuge method delivers BS&W results significantly faster than filtration-based sediment methods, supporting high-throughput custody transfer operations.



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