



SEDIMENT & INSOLUBLE CONTENT TESTING EQUIPMENT

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Sediment and insoluble materials in petroleum products are indicators of contamination, instability, and potential for equipment fouling. Sediment content — whether in crude oil, residual fuel oils, or refined products — is a key quality parameter that affects filter performance, burner reliability, pump wear, and refinery process equipment integrity.

Torontech offers dedicated instruments for sediment extraction and total sediment determination, covering the principal test methods used in the global petroleum industry. Whether measuring sediment by extraction in crude oil and fuel oil or determining total sediment in residual fuels by hot filtration, Torontech's equipment provides accurate, standards-compliant sedimentation analysis results.

APPLICATIONS

Application

Sediment and insoluble content testing is essential across a range of petroleum products and operational contexts:

- Crude oil: Sediment content is measured at custody transfer points to quantify BS&W (basic sediment and water) and protect refinery equipment from abrasive particulates.
- Residual fuel oils: Total sediment determination (ASTM D4870) is critical for marine and power generation fuels, where high insoluble levels cause filter blockage and injector damage.
- Heavy fuel oil (HFO) and bunker fuel: Sedimentation testing identifies asphaltene instability and potential for sludge formation during storage and blending.
- Refinery process streams: Monitoring sediment and insoluble content in intermediate streams helps prevent fouling of heat exchangers and process pipework.
- Fuel oil storage tanks: Periodic sediment testing supports tank maintenance programs and prevents contamination of downstream equipment.

FEATURES

Why Choose Torontech's Series for Your Sediment & Insoluble Content Testing?

Torontech's sediment testing instruments are developed for the rigorous demands of petroleum quality laboratories:

- **Dual-Method Coverage:** Separate instruments optimized for solvent extraction-based sediment testing (crude oil and fuel oil) and total sediment determination by hot filtration (residual fuels).
- **Standards Compliance:** Equipment aligned with ASTM D473 (sediment in crude oil and fuel oil by extraction) and ASTM D4870 (total sediment in residual fuels).
- **Precise Temperature Control:** Critical for hot filtration sediment testing where controlled temperatures directly affect result accuracy.
- **Robust Filtration Systems:** Designed to handle the challenging viscosity and abrasiveness of heavy petroleum matrices without compromising filter integrity.
- **Reproducible Results:** Consistent extraction and filtration conditions ensure the sedimentation measurements meet method repeatability and reproducibility specifications.



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

