KEMTRAK

SAYBOLT COLOR ANALYZER

ASTM D 156 measurement

PROCESS MONITORING

CONTAMINATION DETECTION

COMPLIANCE

www.kemtrak.com
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P1 Product 1
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SAYBOLT COLOR

BENEFITS

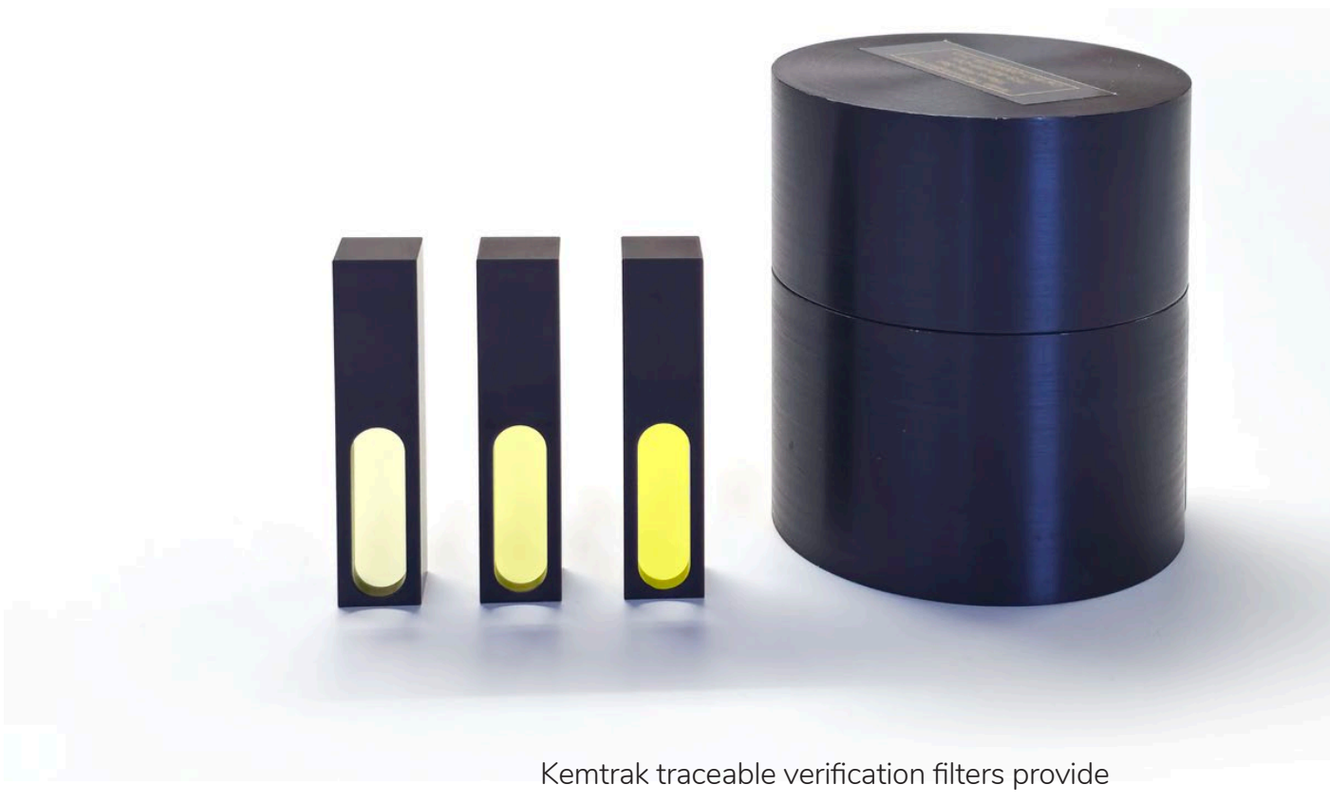
01 / Real-time in-line measurement of liquid color. Suitable for hydrocarbons such as gasoline, jet fuel, kerosene, naphtha and NGL (Natural Gas Liquids)

02 / Saybolt color scale according to ASTM D156 from +30 to -16 Saybolt

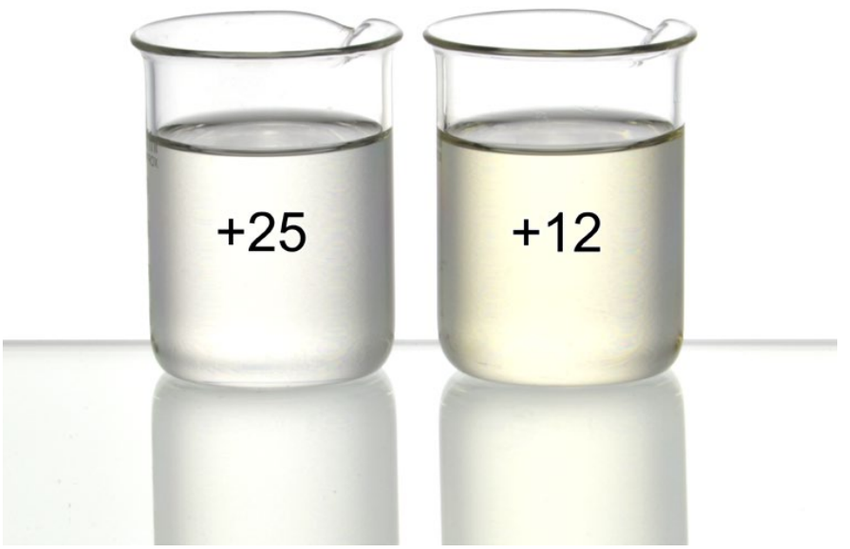
03 / No maintenance. Lifetime guarantee on the light source.

04 / Robust & chemically resistant measurement cells for a wide range of applications.

05 / No recalibration required. Factory-calibrated and effortless validation using the traceable validation accessory and color filters.



Kemtrak traceable verification filters provide measurement confidence assurance while saving valuable time and resources. Convenient colored glass filters are inserted in the measurement path between the analyzer and measurement cell without the need to uninstall the measurement cell from the process line. The result is a highly reliable verification method that provides confidence the instrument is working to specification and is providing a correct and accurate measurement.



The Saybolt color scale, defined by test method ASTM D156 (Standard Test Method for Saybolt Color of Petroleum Products), ranges from +30 (colorless) to -16 (yellow) and is used to determine the purity of light petroleum products

The Saybolt color scale is a visual method used to determine the purity of petroleum products such as gasoline, diesel, kerosene, jet fuel and other light petroleum products. The test method ASTM D156 (Standard Test Method for Saybolt Color of Petroleum Products) defines the color scale which ranges from +30 (colorless) to -16 (dark yellow) and traditionally relies upon matching a standard colored disc viewed through an adjustable volume of sample.

The Kemtrak Saybolt color analyzer automates this laborious and error probe task, providing real-time in-line Saybolt color monitoring under actual process conditions. This capability enables crude oil refiners, natural gas processors, and pipeline operators to monitor and control manufacturing processes more effectively, enhance product quality and monitor product transfer.

The Kemtrak Saybolt color analyzer is a high-performance, LED-based photometer that operates by passing light through the measurement cell and measuring absorbance at two distinct wavelengths. The primary wavelength targets the peak absorbance corresponding to the “yellowness”, while the secondary wavelength simultaneously measures sample haze (cloudiness) to automatically compensate for its impact on the color measurement. This dual-wavelength LED-based approach ensures reliable, drift-free, and repeatable color measurement without the need for sample conditioning.

Kemtrak industrial-grade measurement cells contain no electronics or moving parts, making them ideal for hazardous area use. An easy-to-use verification accessory is available to ensure measurement confidence while saving valuable time and resources.

APPLICATIONS

01 /

Gas condensate

The Kemtrak Saybolt color analyzer monitors gas condensate color to ensure quality and detect process issues. Real-time monitoring of the process stream color helps operators maintain product standards, identify contamination, and verify quality during transfers, enhancing safety and efficiency.

02 /

Color verification of NGL

Saybolt color monitoring at NGL custody transfer points (LACT Units) is essential to assure product quality when NGL is transferred from one company to another. Real-time monitoring assures contractual obligations are met.

03 /

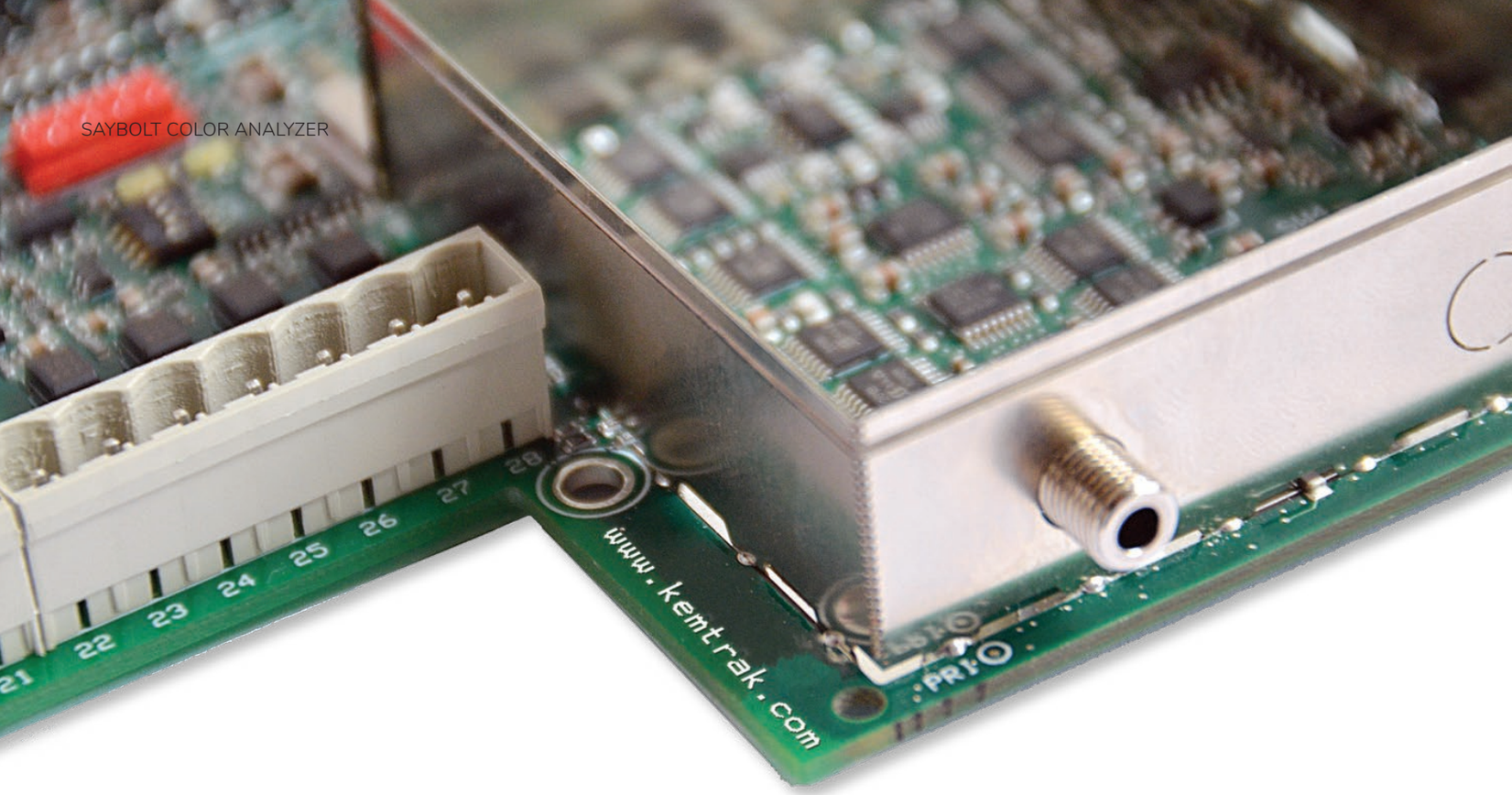
Color of refined fuels

Color change is an indicator for potential contamination or offspec production of refined fuels. Detecting color inline and in real-time allows operators to redirect products for further refining or redistillation before export to distribution systems.

04 /

Interface detection in distribution pipelines

Interface detection in liquid pipelines involves detecting and directing different fluid batches to maximize product delivery without compromising quality. The Kemtrak Saybolt color analyzer provides a high resolution interface measurement.



SAYBOLT COLOR ANALYZER

ABOUT KEMTRAK

Founded in 2006, Kemtrak is the industry leader in LED-based industrial photometers. Low optical power and long lifetime provide dependable products with the highest performance and lowest cost of ownership available.

The Kemtrak 007 analyzer platform is a robust industrial analyzer designed to accurately measure and report specific properties of liquids and gases in-line and in real time. Based upon either absorbance, light scatter, or fluorescence, Kemtrak photometers are used in a wide range of industrial applications for measuring parameters like color, concentration, turbidity, and solids concentration.

Kemtrak is located in Stockholm, Sweden. Kemtrak products are distributed globally. No matter where you are in the world, Kemtrak has a motivated team of skilled engineers ready to help.

- Industrial liquid and gas concentration measurement
- Real-time, in-line
- State of the art with exceptional performance
- Low cost of ownership:
  - No / ultra-low maintenance
  - Long life LED light source
  - Robust and reliable
- Application experience and know-how
- Global sales and support
- ISO 9001:2015 Quality System

At Kemtrak, we believe efficient manufacturing processes are essential for a sustainable world. Our products empower our customers to increase profits by preventing or limiting waste. Kemtrak analyzers provide insight into the process enabling resources to be conserved, waste minimized, energy reduced, and harmful leaks detected.

Kemtrak technology delivers tangible, measurable, and substantial benefits. We help our customers make the transition to a greener future through process optimization.

Our philosophy is to focus on areas that are beneficial for people and the planet, and Kemtrak supports the societies where we conduct business. By leveraging the latest and greenest technologies, we ensure we are doing our best to create a more sustainable process industry for the coming generations.

TYPICAL APPLICATIONS:

1. **Gas Scrubber Optimization:** Kemtrak photometers continuously monitor exhaust gases such as ClO_2 and Cl_2 to limit harmful emissions and loss of product into the environment.

2. **Leak Detection:** Continuous monitoring of leaks is an essential part of any process and Kemtrak analyzers provide ultra-low (ppb) levels of detection.

3. **Distillation Optimization:** Reduce energy consumption in distillation processes through real time measurement of tray & distillate concentration.

4. **Centrifuge Control:** Kemtrak turbidimeters optimize separators used to remove SO_2 and particulates from wet scrubbers that clean marine exhaust gas.

5. **Interface Detection:** Kemtrak analyzers minimize product loss, process downtime, and waste through precise interface control, ensuring consistent performance at any concentration.

OUR APPROACH:

Eco-Friendly Products: Kemtrak products have a no/ultra-low service and maintenance requirement, helping companies lower their ecological footprint and reduce costs. Our products are mercury-free, comply with RoHS directives, and are made from durable materials like stainless steel.

Minimizing Carbon Footprint: Kemtrak promotes environmental awareness, has energy-efficient facilities with eco-friendly electricity, recycles waste, and encourages remote meetings and responsible travel.

Research & Development: Kemtrak invests in sustainable technologies and practices, and develops products used to create a more sustainable process industry.

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