KEMTRAK

CHLORINE DIOXIDE ANALYZER

Liquid & Gas Measurement

SCRUBBER OPTIMIZATION PRODUCT CONCENTRATION DOSING CONTROL

ClO_2 DETECTION

BENEFITS

01 / Optimize generator & gas scrubber performance. Maximize ClO_2 generation while minimizing emissions into the atmosphere.

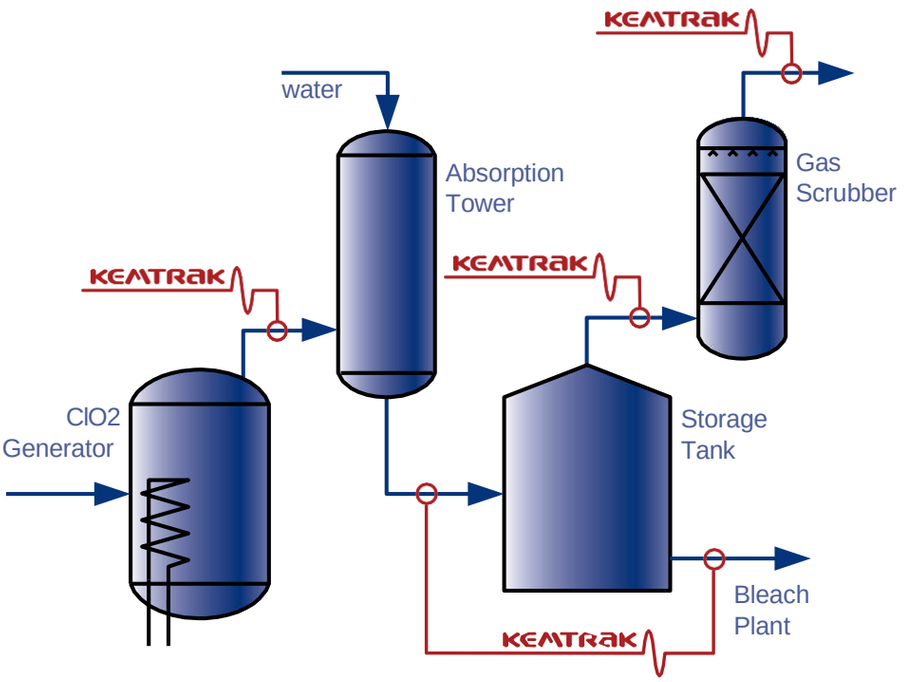
02 / Concentrated ClO_2 solutions up to 20 g/l and trace detection down to 10 ppb liquid / 1 ppm (2.3 $mg.Nm^{-3}$) gas.

03 / Real-time measurement to ensure your processes remain finely tuned.

04 / No drift and low maintenance. Robust UV-LED process analyzer with wetted parts constructed from corrosion-resistant materials.

05 / Effortless validation using a validation and calibration accessory

The Kemtrak DCP007 process photometer is used to optimize the efficiency of ClO_2 generation, improve the control of vent-gas scrubbers reducing atmospheric emissions and for monitoring the final concentration of ClO_2 sent to the bleaching plant. Robust corrosion resistant titanium measurement cells with sapphire windows and double o-ring sealing ensure a maintenance free operation.



Optimize the reaction efficiency of ClO_2 generation, improve the control of vent-gas scrubbers to reduce atmospheric emissions and monitor the final concentration of ClO_2 sent to the bleaching plant.

Chlorine dioxide (ClO_2) is used primarily as a bleaching agent in the pulp and paper industry for elemental chlorine free (ECF) bleaching. Other uses include the chlorination of municipal drinking water, treatment of water in oil and gas applications, disinfection in the food industry, microbiological control in cooling towers, and textile bleaching.

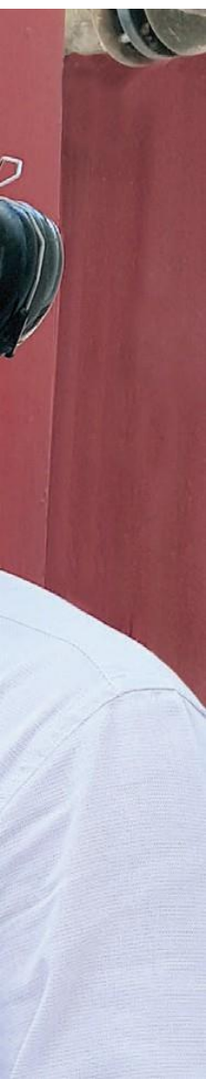
Chlorine dioxide has a strong UV absorption. It's concentration can be accurately and continuously measured in all liquid and gas streams using a photometric analyzer.

Kemtrak manufactures online continuous process analyzers designed for the measurement of liquid and gas chlorine dioxide (ClO_2). The Kemtrak chlorine dioxide analyzer uses high performance long life LED light technology that provides substantial benefits over traditional incandescent lamps. The optical output from a LED light source is exceptionally stable and consistent over time which eliminates drift and removes the need for recalibration. LED light sources have a zero maintenance requirement.

Simultaneous measurement is made at two optical wavelengths to provide accurate and reliable measurement unaffected by window fouling or entrained particulates/suspended solids. The result is continuous concentration analysis without the need for consumable reagents.

Initial calibration is simplified using an automated one-point correlation. Validation can be used to verify analyzer performance without process interruption.

APPLICATIONS



01 /

Pulp and paper

Monitor the concentration of chlorine dioxide sent to the bleaching plant after chlorine dioxide generation to optimize the exhaust scrubber and absorption towers.

02 /

Environmental monitoring

Improve the control of vent-gas scrubbers to reduce emissions into the atmosphere and prevent product loss.

03 /

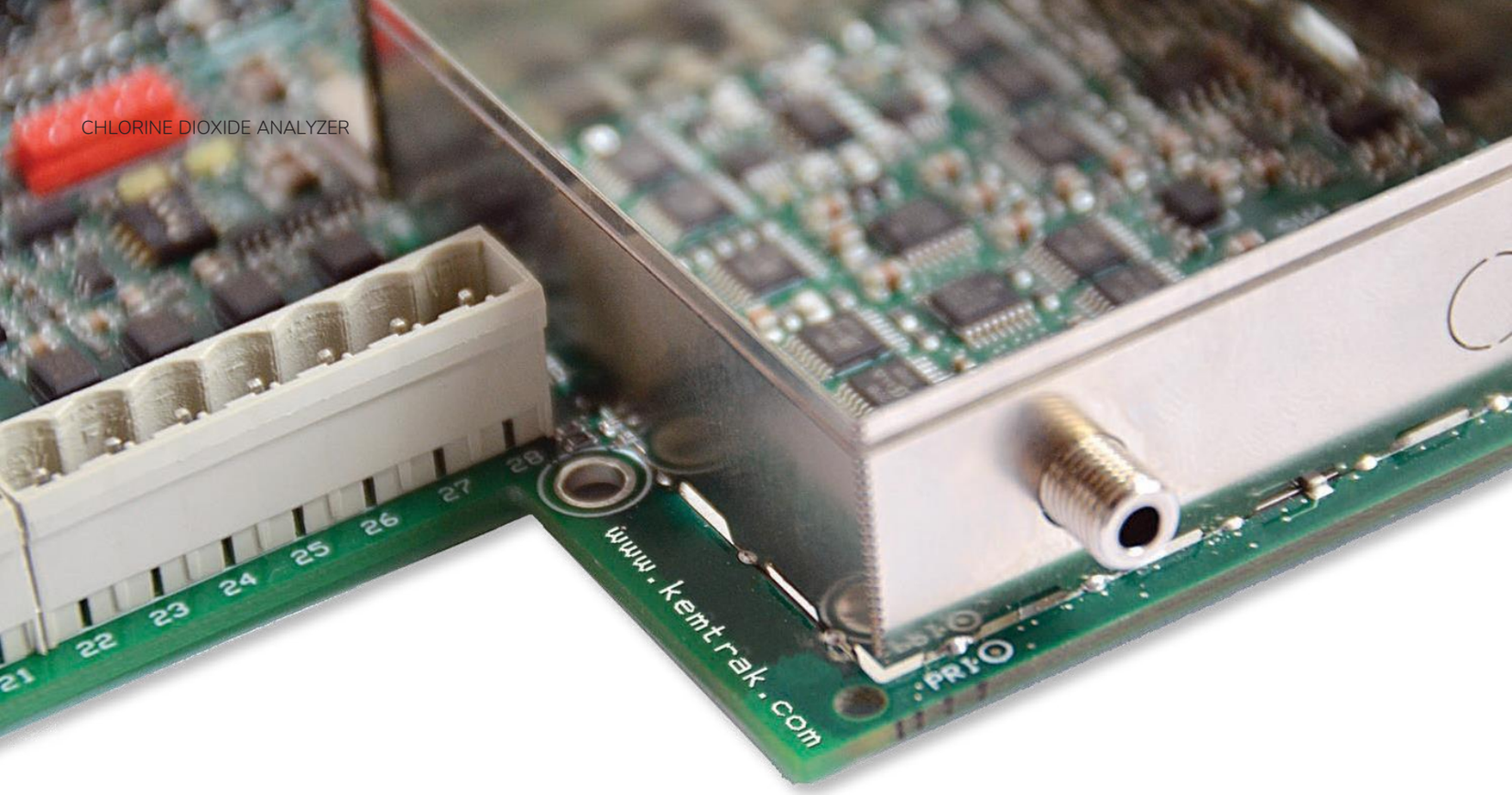
Water treatment plants

Measure chlorine dioxide solution strength before and after dosing.

04 /

Disinfection control

Assure the concentration of chlorine dioxide is sufficient to provide efficient disinfection of ship ballast water, cooling water and air conditioning systems.



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.

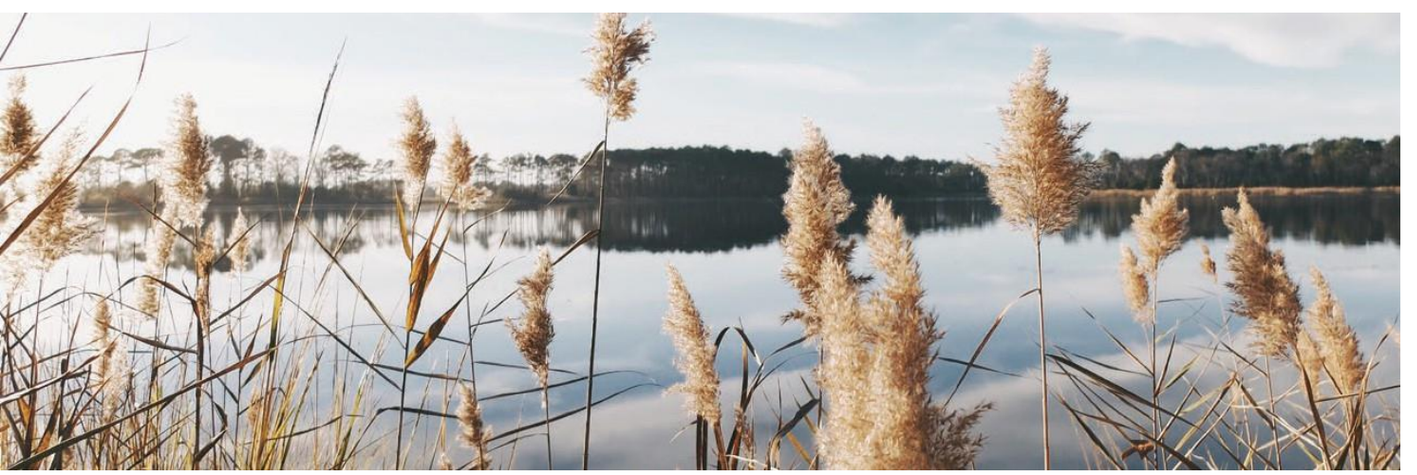
5. **Interface Detection:** Kemtrak analyzers minimize product loss, process downtime, and waste through precise interface control, ensuring consistent performance at any concentration.

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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