AIRPORTS & AVIATION INDUSTRY

AIRPORT DE-ICING:

Total Organic Carbon Monitoring with BioTector B7000i

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Total Organic Carbon monitoring for your airport's de-icing operations

As a leader in water quality analysis worldwide, Hach® knows that the airport environment represents a unique and dynamic wastewater management challenge. With the BioTector B7000i Online TOC Analyzer, Hach offers a powerful solution to monitoring your de-icing, storm water, runway, and other runoff, so you can maintain compliance, save money, and more effectively manage your process.

The BioTector B7000i is designed specifically with airport demands in mind. In addition to continuous, online monitoring of total organic carbon (TOC) at a wide range of concentrations, it delivers unmatched uptime, with automated self-cleaning, large diameter tubing, and a unique sample processing method that won't get fouled by the oils, salts, rubber, and other particulates often found in airport runoff.

Regulatory requirements

Regulatory requirements for airport facilities worldwide can include strict discharge limits for TOC, biological oxygen demand (BOD), or chemical oxygen demand (COD) concentrations. TOC is considered by many industry experts to be the most cost-effective, accurate, and timely measurement of organics in wastewater like glycol. The BioTector B7000i is optimized to detect TOC in a wide range of concentrations, giving you continuous visibility into the composition of your water. This table illustrates the speed, accuracy, and safety associated with measuring TOC when compared to BOD or COD.

Measurement Options	TOC	BOD	COD
Analysis Cycle Time	<7 minutes	5 days	2 hours
Accuracy	±3%	±20%	±5%
Hazardous Waste Generated	No	No	Yes

Cost savings

In addition to avoiding hefty fines as a result of discharge permit violations, accurately measuring TOC in your process enables you to more efficiently manage your workforce, saving time and money. Continuously monitoring the TOC in your storm water runoff can also assist you in enforcing the polluter-pays-principle, allowing you identify the biggest aircraft de-icing fluids (ADF) users and quantify their impact.

Process management

Whether it's managing discharges and controlling flow, measuring the effectiveness of and optimizing your treatment process, or recovering glycol for reuse, online measurement of TOC can quickly and confidently inform your decision making with reliable data at every step.

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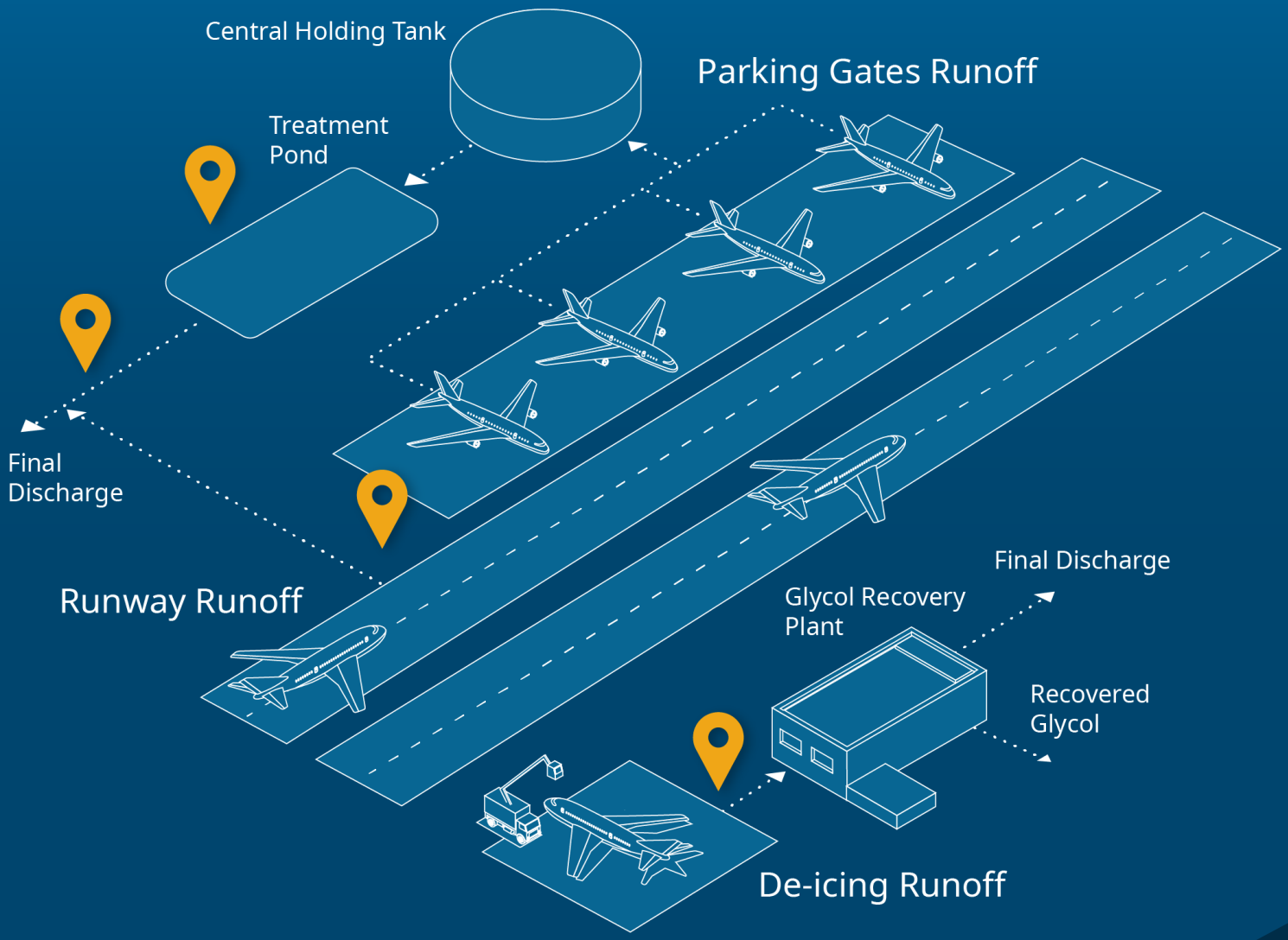
Integrating the BioTector B7000i solution into your facility

The BioTector B7000i Online TOC Analyzer is designed to function with maximum uptime and minimal maintenance, in the challenging environment of a busy airport, as illustrated here.

BioTector B7000i TOC Analyzer



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Airport Problems: Hach's BioTector B7000i Solution

Worry-free self-cleaning	**Airport problem:** Glycol is a very viscous substance and can stick to the side walls of sample tubing on analyzers resulting in clogging, false measurements, and eventually downtime, all of which can be costly. **BioTector B7000i solution:** BioTector B7000i's self-cleaning technology automatically cleans all components of the analyzer which have come in contact with the sample, during every measurement cycle, and without the need for an external cleaning agent.
Handles dirty jobs with ease	**Airport problem:** In addition to glycol, airport wastewater often contains fats, oils, salts, rubber, and any number of potentially hazardous particulates that can wreak havoc on instrumentation. **BioTector B7000i solution:** Our analyzers are designed with large-diameter tubing that can handle soft particulates of up to 2 mm in diameter, requiring no filtering of your sample. The B7000i's two-staged advanced oxidation (TSAO) technology eliminates any issues such as reactor build-up that can lead to drift or inaccuracy that plague other TOC measurement technologies like high temperature oxidation.
Minimal maintenance required	**Airport problem:** Access to equipment in the airport environment can be difficult due to security restrictions, weather conditions, or manpower shortages, which means that frequent maintenance significantly increases your costs. **BioTector B7000i solution:** Routine maintenance for the analyzer is only required every six months of operation, enough to keep you running through an entire de-icing season and minimize operational expenses.
Superior performance & reliability	**Airport problem:** Organic loading in your wastewater can vary from as little as 20 parts per million to as high as 240,000 parts per million in as little as a few minutes. **BioTector B7000i solution:** The B7000i touts a wide range of measurement and can effortlessly handle sudden, drastic changes in TOC levels, maintaining industry-leading uptime and precise accuracy and repeatability.

Join the growing list of locations using Hach's BioTector technology:

Brussels Airport · FINAVIA · DFW Dallas/Fort Worth International Airport · Leeds Bradford International Airport · swedavia Swedish Airports · Port of Portland · OSL Oslo Airport · manchester airport

DOC033.53.30628.May20

To learn more, visit hach.com/industries/airport, or reach out to a Hach representative today.

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