

Hach BioTector B7000i Dairy Online TOC Analyzer

Applications

- Food and Dairy



Maximize your profits by minimizing your product loss.

The Hach® BioTector B7000i Dairy Online TOC Analyzer is the most innovative, maintenance-free TOC analyzer on the market, designed specifically to detect product loss, decrease and conserve water usage and improve production processes.

Industry studies show that lost product can be reduced by over 15% in Dairy Processing Plants by using accurate, reliable and continuous TOC measurement. Further savings of up to 40% can be made in the operating cost of the treatment plant by reducing energy and water consumption.

Reliable measurements, every time

With a patented Two Stage Advanced Oxidation Technology system, a sample injection unit and a self-cleaning sample reactor, as well as tubing designed specifically for dairy applications, the B7000i Dairy analyzer provides you with maximum reliability and uptime so you will be certain to get the measurements you need.

Minimum maintenance, even in the harshest conditions

The B7000i Dairy analyzer comes with self-cleaning technology which limits necessary maintenance to only twice a year, with no calibration requirements between services. Even in the harsh dairy environment, it will handle samples with soft particles up to 2 mm in diameter, including samples with fat, oil, greases, sludge and salts.

One instrument for multiple streams

A single B7000i Dairy TOC analyzer gives you the ability to monitor up to two streams with now added Flow input to enable product management to see actual real time product loss on the BioTector display.

Technical Data*

Parameter	TOC, TIC, TC, VOC, after correlation COD, BOD
Measurement Method	Infrared measurement of CO ₂ after oxidation
Oxidation Method	Patented Two-Stage Advanced Oxidation Process using Hydroxyl Radicals
Range	0 - 20000 mg/L C
Range Selection	Automatic or Manual Range Selection
Multi-Stream	1, 2, 4 and 6 streams
Repeatability	±3 % of reading or ±0.3 mg/L C, whichever is greater, with Automatic Range Selection
Cycle Time	From 6.5 minutes, depending on application
Permissible Chloride Range	Up to 30%
Communication	Modbus RTU, Modbus TCP/IP & Profibus
Enclosure Rating	IP44; optional IP54 with air purge
Sample Inlet Temperature	2 - 60 °C (36 - 140 °F)
Ambient Temperature	5 - 40 °C (41 - 104 °F) Air conditioning and heating options are available.
Humidity	5 - 85 % (non-condensing)
Particle Size	Up to 2 mm, soft particulates

Data Storage	Previous 9999 analysis data on screen in the microcontroller memory and storage of data archive for the lifetime of the analyzer in the SD/MMC card. Previous 99 fault data on screen in the microcontroller memory and storage of fault data archive for the lifetime of the analyzer in the SD/MMC card.
Display	High contrast 40 character x 16 line backlit LCD with CFL backlight
Power Requirements (Voltage)	115 V AC / 230 V AC
Power Requirements (Hz)	50/60 Hz
Service Interval	6 months service intervals
Dimensions (H x W x D)	1250 mm x 750 mm x 320 mm
Weight	90 - 120 kg Enclosure weight may change depending on system optional features.

*Subject to change without notice.

Principle of Operation

TIC

Acid is added to lower the pH so that inorganic carbon is sparged off as CO₂. This is also measured to ensure the Total Inorganic Carbon (TIC) is not carried over into the TOC.

Oxidation

BioTectors's patented oxidation method (TSAO) efficiently oxidizes the organic carbon in the sample to CO₂. TSAO utilizes hydroxyl radicals generated within the analyzer by combining oxygen, which passes through the ozone generator, with sodium hydroxide.

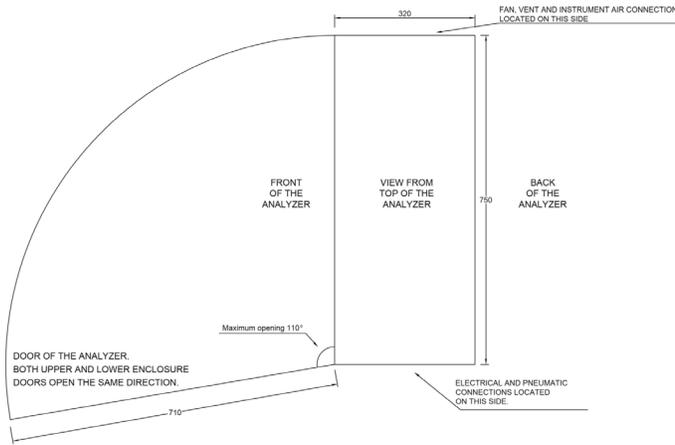
TOC

To remove CO₂ from the oxidized sample, the pH of the sample is lowered again. The CO₂ is sparged and measured by the specially developed NDIR CO₂ analyzer. The result is displayed as Total Organic Carbon (TOC).



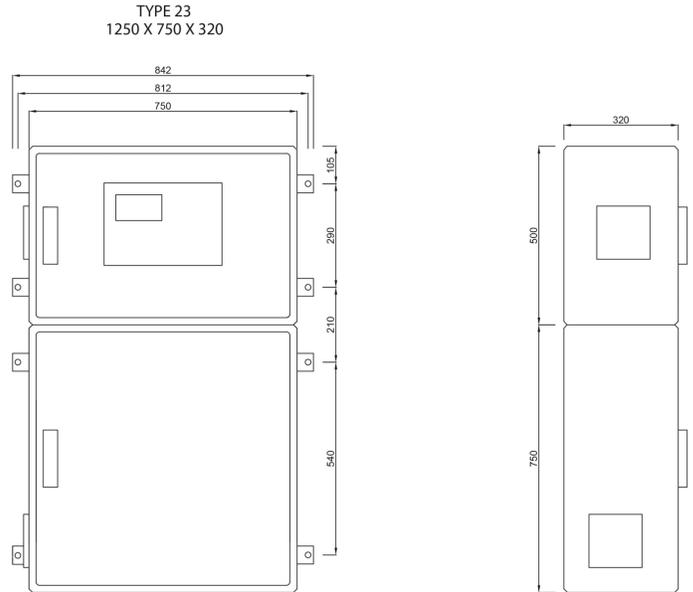
Dimensions

Access requirements

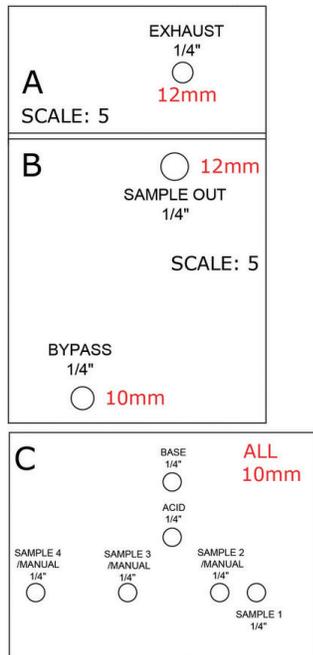


It is recommended that a clear space of 300mm is allowed around the BioTector in all directions. 150mm should be free in front of the BioTector so that its access doors can easily be opened. Dimensions in mm.

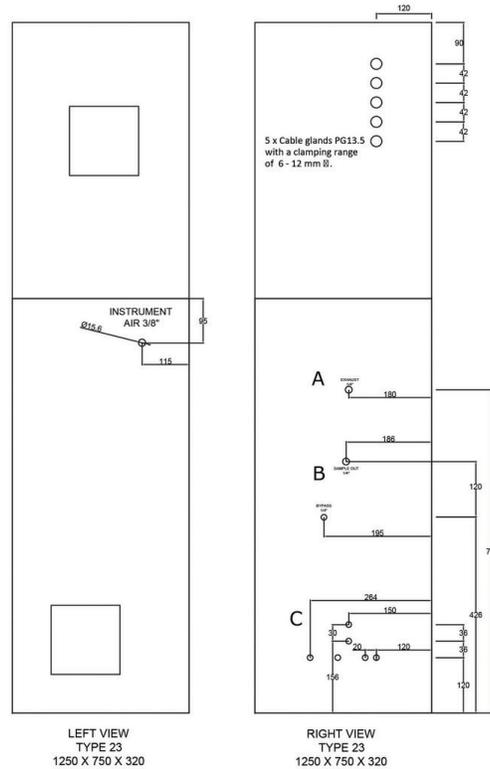
Enclosure



TOC connections



PRODUCTION NOTES:
DIMENSIONS IN RED ARE HOLES SIZES



Order Information

Instruments

- BDAAA052MABAA4** Hach BioTector B7000i Dairy Online TOC Analyzer, 0 - 20000 mg/L C, 1 channel, 115 V AC
BDAAA052NABAA4 Hach BioTector B7000i Dairy Online TOC Analyzer, 0 - 20000 mg/L C, 2 channels, 115 V AC

There are additional options available. Please contact Hach for more details.

Accessories

- 19-COM-160** BioTector Compressor 115 V / 60 Hz
19-COM-250 BioTector Compressor 230 V / 50 Hz
10-SMC-001 Air supply filter pack
19-KIT-132 B7000i Dairy 6 month service kit

Reagents

- 2985562** BioTector base reagent 1.2 N sodium hydroxide
25255061 BioTector acid reagent 1.8 N sulfuric acid containing 80 mg/L Mn

Be confident with Hach Service

Start-Up/Commissioning: Our service technicians visit your site and setup instrumentation, provide basic end-user training on operations and maintenance, and validate settings and performance to get you started.

Service Agreement: Hach provides on-site and in-factory repair, preventive maintenance, and calibration programs for your instruments to ensure reliability and instrument up-time. We have services to fit your specific needs.

Hach World Headquarters: Loveland, Colorado USA

United States: 800-227-4224 tel 970-669-2932 fax orders@hach.com

Outside United States: 970-669-3050 tel 970-461-3939 fax int@hach.com

hach.com

Printed in U.S.A.

©Hach Company, 2017. All rights reserved.

In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.



Be Right™