
INNOVATIVE ANALYTICAL & AUTOMATION SOLUTIONS FOR THE DAIRY INDUSTRY
BENTLEY
INSTRUMENTS

YOUR SUCCESS, OUR PRIORITY

BENTLEY INSTRUMENTS, the guarantee of excellence and personalized service.

For more than 35 years, Bentley Instruments specializes in the design and development of analytical solutions for the optimal valorization of milk and dairy products (cream, serum, retentate, yoghurt, ice cream, ...). Our solutions allow you to ensure optimal and rapid quality control in order to perfect your manufacturing process or herds management.

We also offer solutions for the milk analyzers and laboratories automation to ensure complete methods standardization as well as a systematic and optimized analytical evaluation of each sample. The goal of this new holistic approach is to provide new tools for the optimal qualitative and economic valorization of your production processes or herds management.

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DAIRYSPEC FT SERIES: INFRARED ANALYZERS

SEMI-AUTOMATIC AND AUTOMATIC VERSIONS FROM 100 UP TO 300 SAMPLES/HOUR

It gives access to the very fine analysis of milk and dairy products chemical composition (fat, proteins, casein, lactose, solids, urea, citric acid, fatty acids profil, FPD, ... up to 64 parameters).

Highly reliable and accurate for milk (raw, UHT, ...) and dairy products (cream, whey, permeate, retentate, ...) analysis.

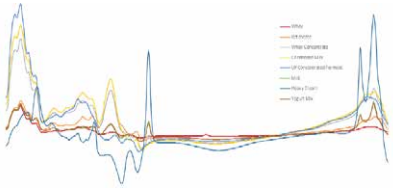
Standardized spectra in real time (without reagents) for optimal calibrations transferability and stability. Adaptable to measure other products and parameters upon request.

	DairySpec FT*
Measurement range	0-50%
Milk type	Cow, goat, sheep, buffalo, ...
Accuracy	Cv < 1% (for Fat, Protein, Lactose & Solids)
Repeatability	Cv < 0.5% (for Fat, Protein, Lactose & Solids)
Carry-over	< 1% (typically < 0.5%)
Voltage	110/220V; 50/60Hz
Dimensions (DxWxH)	61.2 x 67.6 x 38.4 cm
Weight	68 Kg

Connected to the local database and remotely accessible

FOR LABORATORY, MILK RECEPTION & PROCESS TESTING

→ **FTIR**

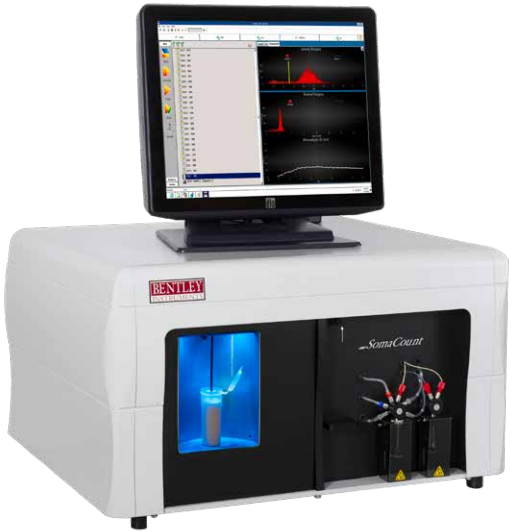


Optional connected balance for dilution of high viscosity products (automated coefficient)

*Specifications subject to change without any prior notice.

SOMACOUNT FC SERIES: SOMATIC CELLS COUNTERS

SEMI-AUTOMATIC AND AUTOMATIC VERSIONS FROM 100 UP TO 300 SAMPLES/HOUR



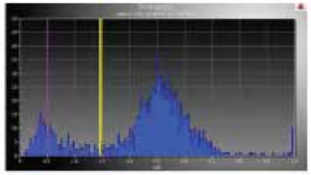
It guarantees the accurate counting of somatic cells in milk at a maximum speed of 300 samples/hour (6 versions available: manual, 100, 150, 200, 250 and 300). The automatic SomaCount FC version is coupled to a conveyor system.

→ **Flow cytometry**

	SomaCount FC*
Measurement range	0-10,000,000 cells/mL
Raw milk type	Cow, goat, sheep, buffalo, ...
Accuracy	≤ 10% (ISO 13366-1)
Repeatability	Range (/µL) Specifications 100-300 CV ≤ 6% 300-500 CV ≤ 4% > 500 CV ≤ 3%
Carry-over	< 1% (typically < 0.5%)
Voltage	110/220V; 50/60Hz
Dimensions (DxWxH)	61 x 66 x 39.4 cm
Weight	45.4 Kg

Connected to the local database and remotely accessible

FOR LABORATORY & MILK RECEPTION



SCC lyophilized calibration standards (5 levels)

*Specifications subject to change without any prior notice.

DAIRYSPEC-COMBI SERIES: DAIRYSPEC FT & SOMACOUNT FC

AUTOMATIC VERSIONS FROM 100 UP TO 300 SAMPLES/HOUR

The combination of these two flagship methods provides a complete overview of milk chemical and hygienic composition by analyzing up to 64 parameters simultaneously. Different versions of DairySpec Combi are available (100, 150, 200, 250, 300) up to a maximum speed of 300 samples/hour.

→ **Flow cytometry & FTIR**

	SomaCount FC*	DairySpec FT*
Measurement range	0-10,000,000 SCC/mL	0-15%
Raw milk type	Cow, goat, sheep, buffalo, ...	Cow, goat, sheep, buffalo, ...
Accuracy	≤ 10% (ISO 13366-1)	Cv < 1%
Repeatability	Range (SCC/µL) Specifications 100 - 300 Cv ≤ 6% 300 - 500 Cv ≤ 4% > 500 Cv ≤ 3%	Cv < 0.5% (for Fat, Protein, Lactose & Solids)
Carry-over	< 1% (typically < 0.5%)	< 1% (typically < 0.5%)
Voltage	110/220V ; 50/60Hz	110/220V ; 50/60 Hz
Dimensions (DxWxH)	61 x 66 x 39.4 cm	61.2 x 67.6 x 38.4 cm
Weight	45.4 Kg	67.5 Kg

Connected to the local database and remotely accessible

FOR LABORATORY & MILK RECEPTION

*Specifications subject to change without any prior notice.

BACTOCOUNT IBC$_M$ SERIES: BACTERIA (ISO 16140-2:2016) AND SOMATIC CELLS COUNTERS

SEMI-AUTOMATIC VERSION UP TO 50 ANALYZES/HOUR

	BactoCount IBC$_M$*	
Raw milk type	Cow, goat, sheep, buffalo, ...	
Carry-over	≤ 1% (typically ≤ 0.5%)	
Total flora	IBC$_M$ - *ISO 16140-2:2016 certified* IBC$_M$ 3.0 - equivalent to BactoCount IBC$_M$ Range: 2,000 - 10,000,000 IBC/mL	
Repeatability	Range (IBC/µL)	Specifications
	10 - 50	Sr ≤ 0.07 log
	51 - 100	Sr ≤ 0.06 log
	101 - 300	Sr ≤ 0.05 log
	> 300	Sr ≤ 0.03 log
Reproducibility	Range (IBC/µL)	Specifications
	10 - 50	S_R ≤ 0.14 log
	51 - 100	S_R ≤ 0.12 log
	101 - 300	S_R ≤ 0.10 log
	> 300	S_R ≤ 0.06 log
Accuracy	Sy, x ≤ 0,3 log (ISO 4833) Cow: Sy, x = 0.167 (AIA) Sheep: Sy, x = 0.245 (AIA) Buffalo: Sy, x = 0.201 (AIA)	
Somatic cells	0 - 10,000,000 cells (SCC)/mL	
Sample temperature	4 - 42 °C	
Accuracy	≤ 10% (ISO 13366-1)	
Repeatability	Range (SCC/µL)	Specifications
	100 - 300	Cv ≤ 5%
	300 - 500	Cv ≤ 3%
	> 500	Cv ≤ 2%

The BactoCount IBC$_M$ series is the optimal solution for raw milk hygienic quality control at reception. It garantees the fast release of your milk tankers, ensuring a fast return on investment. The BactoCount IBC$_M$ 3.0 can be equipped with a conveyor, automating the sampling at a maximum rate of 50 analysis/hour.

→ **Flow cytometry**

	Technical specifications*
Speed	Analyzing time: < 1 minute Sample prep. time: IBC$_M$ <10s | IBC$_M$ 3.0 automatic Incubation time: 1 minute (SCC)/ <10 minutes (IBC)
Undiluted work factor	10 - 100
Voltage	110/220 V ; 50/60 Hz

Connected to the local database and remotely accessible

FOR MILK QUALITY CONTROL AT RECEPTION

* Specifications subject to change without any prior notice.

COMBI FTS SERIES: INFRARED ANALYZER (FTS) & SOMATIC CELLS COUNTER (FCM)

AUTOMATIC VERSIONS FROM 400 UP TO 600 SAMPLES/HOUR

The Combi FTS allows to analyze the chemical composition (up to 64 parameters) and somatic cell content in milk up to a maximum speed of 600 samples/hour. Three versions of Combi FTS are available (400, 500 and 600 samples/hour) depending on your analytical needs.

→ **Flow cytometry & FTIR**

	SomaCount FCM*	Bentley FTS*
Measurement range	0-10,000,000 SCC/mL	0-15%
Raw milk type	Cow, goat, sheep, buffalo, ...	Cow, goat, sheep, buffalo, ...
Accuracy	≤ 10% (ISO 13366-1)	Cv < 1%
Repeatability	Range (SCC/µL) Specifications 100 - 300 Cv ≤ 6% 300 - 500 Cv ≤ 4% > 500 Cv ≤ 3%	Cv < 0.5% (pour Fat, Protein, Lactose & Solids)
Carry-over	< 1% (typically < 0.5%)	< 1% (typically < 0.5%)
Voltage	110/220V ; 50/60Hz	110/220V ; 50/60 Hz
Dimensions (DxWxH)	61 x 66 x 39.4 cm	61.2 x 67.6 x 38.4 cm
Weight	45.4 Kg	64.3 Kg

Connected to the local database and remotely accessible

FOR LABORATORY

* Specifications subject to change without any prior notice.

COMBINED SYSTEMS AUTOMATION

ILAS 3000 ROBOT & BENTLEY COMBI FTS

The combination of our instruments and high-tech robotics allows the complete automotion and standardization of the analytical chain and MSDs reduction. An operator can manage up to 3 lines simultaneously. Always with a goal of enhanced productivity and standardization, this system analyzes up to 600 samples/hour (compatible with Combi FTS and alternative methods).

BENTLEY INSTRUMENTS & INTELLITECH AUTOMATION

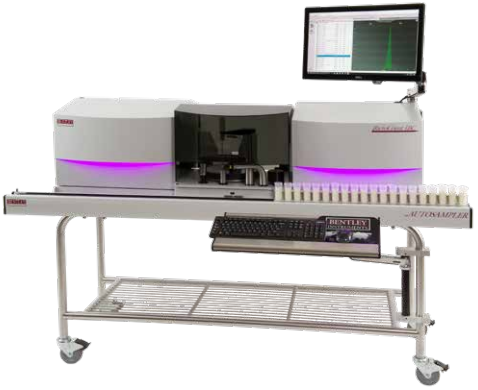
FOR LABORATORY

BACTOCOUNT IBC SERIES: BACTERIA (ISO 16140-2:2016) AND SOMATIC CELLS COUNTERS

AUTOMATIC VERSIONS FROM 50 UP TO 200 ANALYZES/HOUR

The BactoCount series (50, 100, 150, 200) uses flow cytometry for the real-time determination of total flora and somatic cells in raw milk up to a maximum speed of 200 analysis/hour.

	BactoCount IBC*		
Raw milk type	Cow, goat, sheep, buffalo, ...		
Carry-over	≤ 1% (typically ≤ 0.5%)		
Total flora	IBC 50, 100, 150 - *ISO 16140-2:2016 certified* IBC 3.0 100, 200 - equivalent to BactoCount IBC Range: 2,000 - 10,000,000 IBC/mL		
Repeatability & Reproducibility	Range (IBC/µL)	Specifications	
	10 - 50	Sr ≤ 0,07 log	S_R ≤ 0.14 log
	51 - 100	Sr ≤ 0,06 log	S_R ≤ 0.12 log
	101 - 300	Sr ≤ 0,05 log	S_R ≤ 0.10 log
	> 300	Sr ≤ 0,03 log	S_R ≤ 0.06 log
Accuracy	Sy, x ≤ 0.3 log (ISO 4833) Cow: Sy, x = 0.167 (AIA) ; Sheep: Sy, x = 0.245 (AIA) Buffalo: Sy, x = 0.201 (AIA)		
Somatic cells	0 - 10,000,000 cells (SCC)/mL		
Accuracy	≤ 10% (ISO 13366-1)		
Repeatability	Range (SCC/µL)	Specifications	
	100 - 300	Cv ≤ 5%	
	300 - 500	Cv ≤ 3%	
	> 500	Cv ≤ 2%	
Technical specifications			
Speed	Analyzing time: < 1 minute ; Prep time: 15 seconds Incubation time: 1 minute (SCC)/10 minutes (IBC)		
Voltage	110/220 V ; 50/60 Hz		
Connected to the local database and remotely accessible			



→ **Flow cytometry**

FOR LABORATORY & MILK RECEPTION

* Specifications subject to change without any prior notice.

BACTOCOUNT AUTOMATION & STANDARDIZATION

NEW ILAS 4000 ROBOT & BACTOCOUNT IBC

The new ILAS 4000 robot is an unique solution to automate and standardize sample preparation for bacteria counters up to a maximum speed of 200 samples/hour. Fully refrigerated, samples are identified (RFID chips or barcode), homogenized, uncapped and analyzed. The vials are automatically recapped after analysis and place back in their original tray position (compatible with BactoCount IBC and alternative methods).

BENTLEY INSTRUMENTS & INTELLITECH AUTOMATION

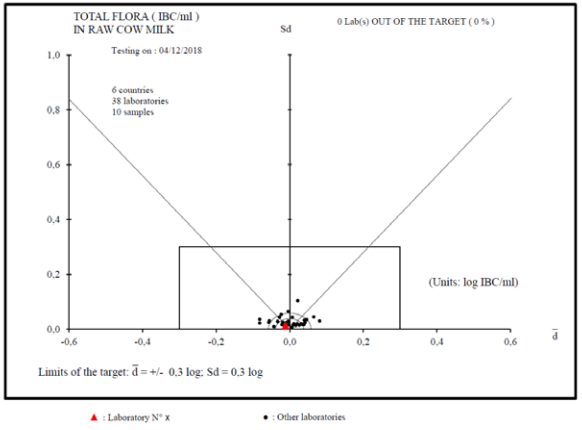
FOR LABORATORY

METHODS STANDARDIZATION

PROFICIENCY TESTING TOTAL FLORA ISO 17043 (IBC) & SRM BACTERIA (IBC) OR SOMATIC CELLS (SCC)

Our international monthly Total Flora (IBC) ISO 17043 certified Proficiency Testing (PT), organized in collaboration with Actalia-Cecalait (French reference laboratory), is the optimal way to control the BactoCount standardization and to guarantee IBC and CFU results global equivalence after application of our universal conversion equation (also implementable on alternative automated methods).

IBC lyophilized
control standards



ISO 17043 Proficiency Testing - Total Flora (BactoCount)

SCC lyophilized
calibration standards (5 levels)

ACTALIA CECALAIT & BENTLEY INSTRUMENTS

KIT MILK AMYLOID A (MAA) FOR EARLY MASTITIS DIAGNOSIS

KIT MAA TP-8072 (80 ANALYZES) & KIT MAA TM-900 (800 ANALYZES)

Based on an ELISA method, the MAA kits are designed to measure the amount of amyloid A in raw milk for early mastitis diagnosis, thus preserving herd health and reducing the use of antibiotics.

ÉCOANTIBIO
RÉDUIRE L'UTILISATION DES ANTIBIOTIQUES VÉTÉRINAIRES
REDUCING ANTIBIOTIC USE IN VETERINARY MEDICINE

Tridelta Development Limited

BENTLEY INSTRUMENTS

Bioteck lait

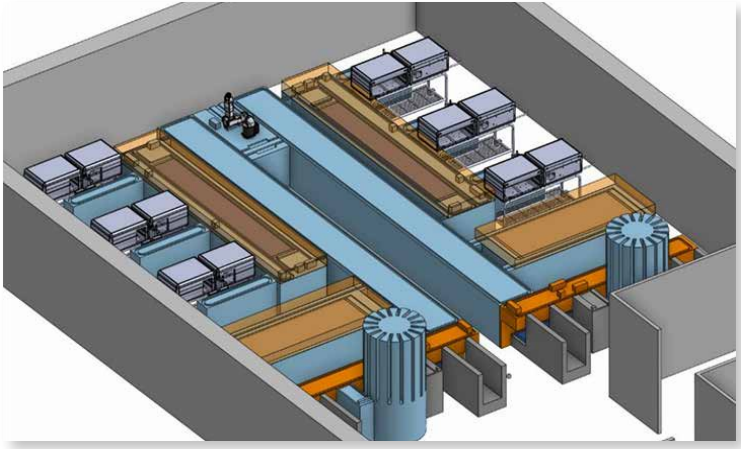
INNOVATIVE AUTOMATION & STANDARDIZATION SOLUTIONS

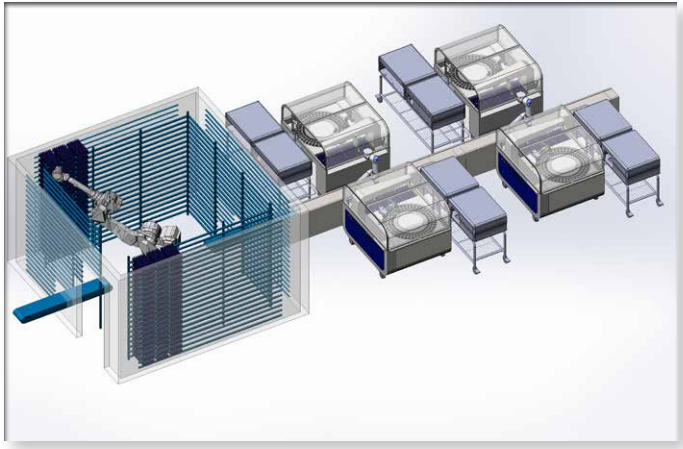
OPTIMAL & INDIVIDUALIZED VALORIZATION OF EACH SAMPLE

Thanks to the Combi FTS ILAS 3000 combined with sorting, aliquoting and samples transport systems, the laboratory can be completely automated. This unique solution allows a total standardization of the analytical chain, time savings, increased productivity and reduced MSDs.

The samples trays are sorted in a refrigerated area depending on the type of analysis and placed on a conveyor, in order of priority. The samples are then automatically directed to the first available BactoCount or FTS Combi (or alternative methods). This solution is modular and can be customized according to your requirements.

This new holistic approach guarantees the optimal qualitative and economic valorization of every individual milk sample.



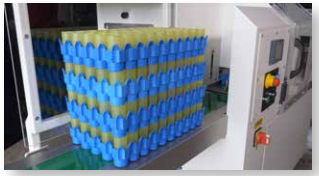


BENTLEY INSTRUMENTS & INTELLITECH AUTOMATION

FOR LABORATORY

VIALS CAPPER & PRESERVATIVE DISPENSER ROBOT

The capper robot is used to dispense the preservative and cap the vials up to a maximum speed of 2500 vials/hour. It can be equipped with an input/output stacker or a gravity roller depending on the space available.

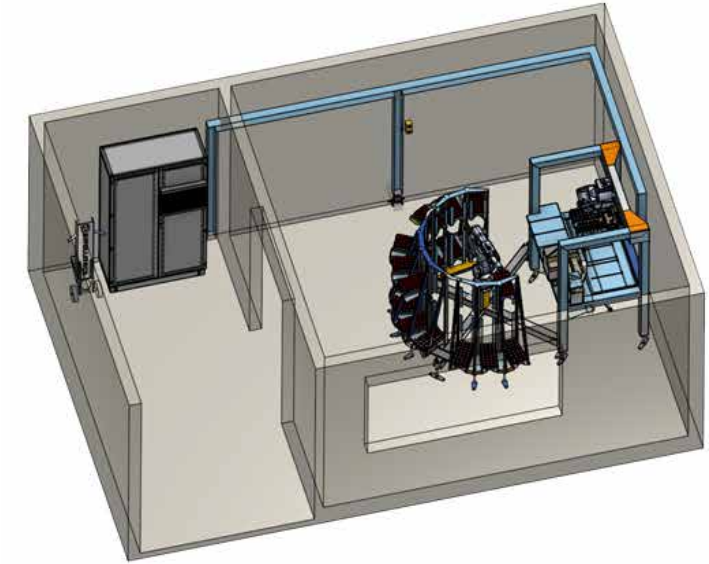


BENTLEY INSTRUMENTS & INTELLITECH AUTOMATION

FOR LABORATORY

SAMPLES SORTING AUTOMATION

The sorter robot is used to sort the samples and placed them in trays of different colors, depending on the desired analytical chain. Refrigerated to maintain samples quality, it sorts up to 6 different criteria.



BENTLEY INSTRUMENTS & INTELLITECH AUTOMATION

FOR LABORATORY

SAMPLES PREPARATION AUTOMATION

AGIFLEX 270 FOR HOMOGENIZATION OF SAMPLES BEFORE ANALYSIS
THE PARAFFIN DISPENSER

Ideal for laboratory use when preparing samples before analysis, the Agiflex 270 is a compact device designed to homogenize all types of containers such as sample trays, racks, flasks and tubes. Adjustable rotation speed from 17 up to 52 rpm.

The paraffin dispenser allows automatic dispensing of melted paraffin in vial or tube racks. Designed specifically to fit your containers, this dispenser is mainly composed of a set of automation and a customized trolley for carrying trays.

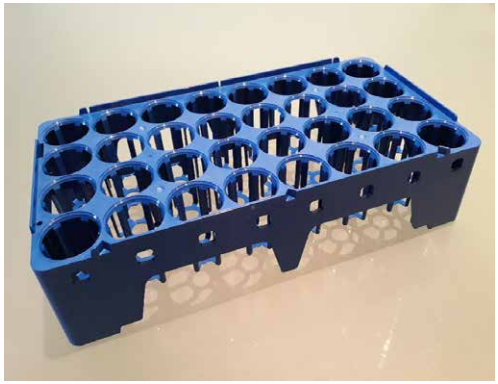
BENTLEY INSTRUMENTS & Amitech

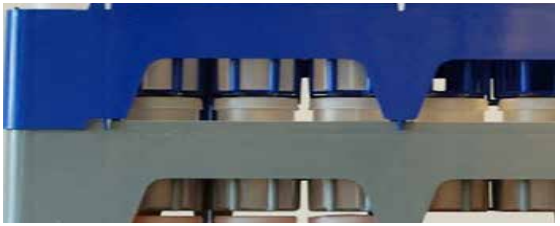
FOR LABORATORY, MILK RECEPTION & PROCESS TESTING

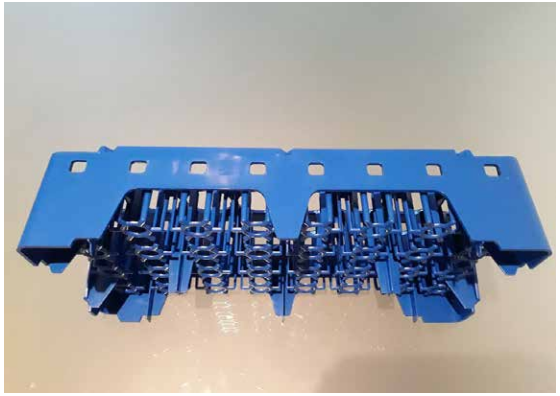
STANDARDIZED TRAY FOR LABORATORY AUTOMATION

TRAY 4X8 FOR VIALS 60 ML

The Bentley Instruments tray is made of high-resistance ABS plastic (-18°C / +80°C) and identifiable by HF/LF RFID chips or barcode. It lets circulate water in a water bath, is stackable with fall blocking system and positions from 1 to 32 are indicated. Usable with ILAS robots, it is also compatible with most vials (84 mm height max - diameter 36 mm max).



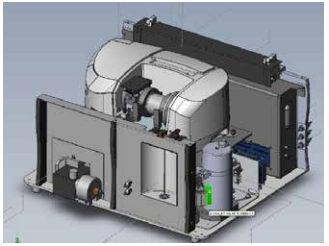


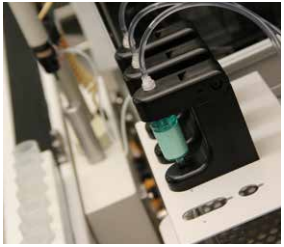


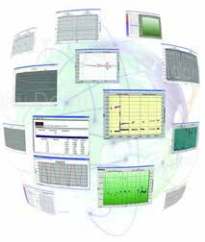
SERVICE SUPPORT EXCELLENCE

BENTLEY INSTRUMENTS FOLLOWS YOU STEP BY STEP IN THE ASSURANCE OF YOUR QUALITY

- **Unlimited** telephone and internet support via our network of technicians.
- Spare parts stock in France, shipping within **24-48 hours** (no planned obsolescence policy).
- E-ticket system via our platform for **fast support**.
- Support and development of customized calibration (based on your spectra and reference values).







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CONTACT US
TO DISCOVER THE BENEFITS
OF OUR SOLUTIONS

Bentley Instruments SARL.
ZA Brunehaut, 840 rue Curie
62161 Maroeuil, FRANCE
Phone : +33 (0)2 85 52 90 73
Fax : +33 (0)3 20 09 87 12
info@bentleyinstruments.eu

www.bentleyinstruments.eu

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Bentley Instruments SARL
ZA Brunehaut, 840 Rue Curie, 62161 Maroeuil
SIREN: 438 788 788
RCS de Lille Métropole N° 438788788
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