# Scan®

Automatic colony counters & inhibition zone readers

Scan 1200°

Scan 500®

Scan® 300
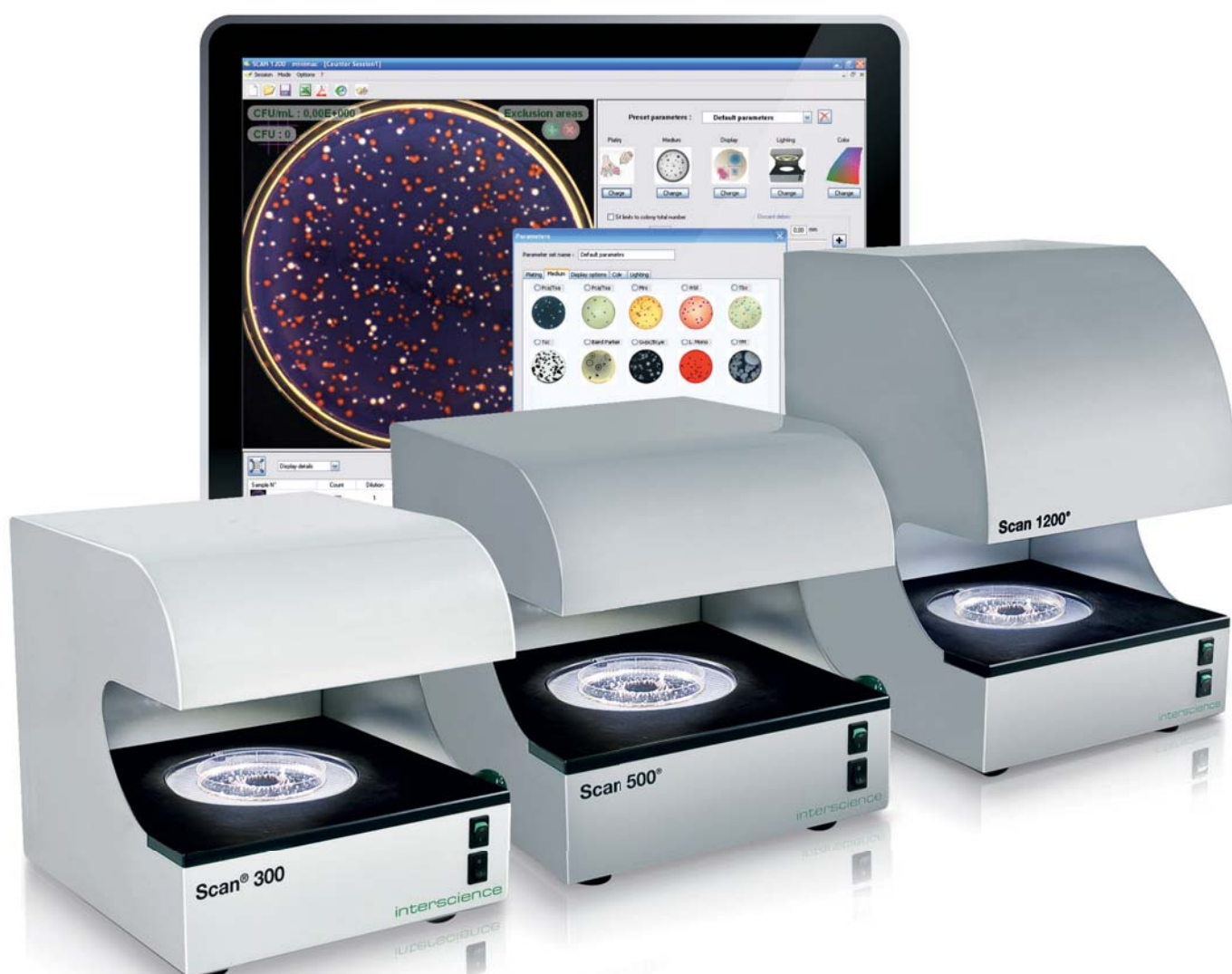
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# interscience

## Our quality for your lab

- Designer and manufacturer for microbiological analyses
- Made in France
- R&D leadership with innovative & reliable products
- Worldwide distribution network, immediate delivery

# Scan®

# High quality analyses, full traceability

**Scan® 300, Scan® 500** & **Scan® 1200**
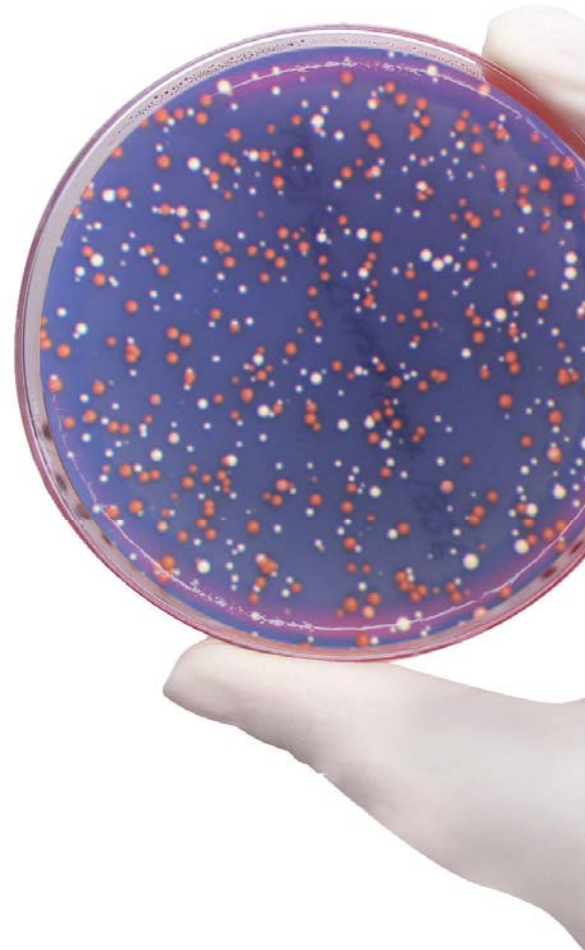High technology automatic colony counters

With a digital camera and high technology software, they can be linked to a PC via a USB connection. They count all colonies on a Petri dish in less than 1 second and provide a complete, fast, accurate and traceable reading of the result.

## ■ Bacterial enumeration

- **Food analyses**
- **Total flora analyses**
- **Aerobic & anaerobic bacterial enumeration, yeasts, lactobacillus...**
- **Pathogenic bacteria research**
- **Environmental research**
- **Pharmaceutical analyses**
- **Medical analyses**
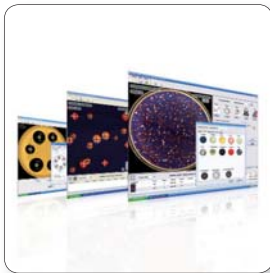- **Cosmetics analyses**

## ■ Inhibition zones

- **Pharmaceutical industry, medical research & hospitals**
  (antibiograms, resistance tests to pathogenic microbes, medical diagnoses...)
- **Food industry**
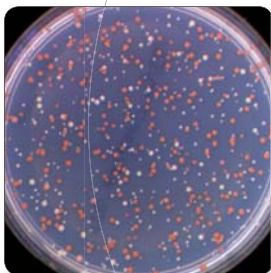  (Tests on lactic ferments & for dairy ingredients industry...)

# Scan®

■ **Automatic colony counters: No settings**

■ **Inhibition zone readers***

■ **Data traceability and full report**

## High performance

> Count colonies of numerous media
> Read chromogenic Petri dishes[1]:
  Colored differentiation of colonies
  (up to 7 different colors on the same dish)
> Inhibition zone measurement

## Live image

> Fits any type of dish: automatic adjustment
  of contrast and lighting
> High-definition color image
> Each colony is marked with a cross
> Powerful zoom: up to x28

Scan® 300

interscience

## Instant results

| Sample N° | Count | Dilution | |
|---|---|---|---|
| E COLI | 174 | 1 | 2. |
| E COLI | 353 | 1 | 5. |
| SPIRAL | 47 | 1/1000 | 9. |
| PETRIFILM | 89 | 1 | 8. |
| RIDA COUNT | 179 | 1 | 1. |
| Filtering Membrane | 111 | 1 | 1. |

> Up to 1000 colonies detected in 1 second
> Counts 30 dishes in 5 minutes
  (in real condition with presetting)
> Reproducible and standardized results
> **Scan**® results: instant and automatic

**ISO** 7218 | **AOAC** 977.27 | **21 CFR** Part 11

sfm · EUCAST EUROPEAN COMMITTEE ON ANTIMICROBIAL SUSCEPTIBILITY TESTING · European Society of Clinical Microbiology and Infectious Diseases · CLINICAL AND LABORATORY STANDARDS INSTITUTE

(1) on Scan® 500 & Scan® 1200

## Easy-to-use

Counting in 1 click <
All functions in 1 single window <
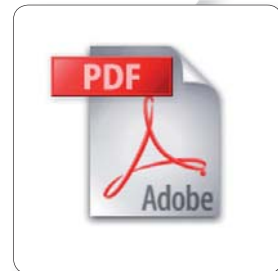Custom parameters: day, users, project... <

COUNT

## Dark Field technology

Display of every colony <
Optimized lighting & contrast <
Long lasting LED lighting <
6 lighting combinations <

Scan 1200°

can 500°

## Traceability & reporting

Automatic archiving and printing of data: <
pictures, comments & results

Export to EXCEL™, PDF, JPEG, BMP <

Barcode reader <

Connection to LIMS network <

PDF Adobe

**FREE DEMO VERSION**

***DOWNLOAD
SCAN® SOFTWARE***

www.interscience.com

data Link   LIMS   USB   **COLOR** DETECTION   Dark Field   FREE UPDATE [2]   3 YEAR WARRANTY [3]
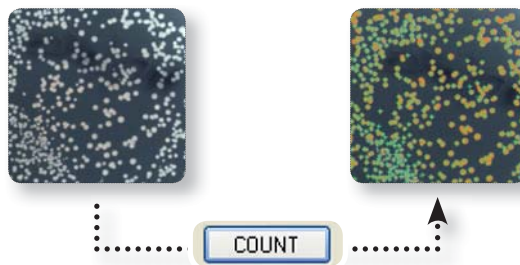
(2) Free update of the software during warranty period (3) After registration of the warranty form

# Efficiency & time saving

## Instant results

Thanks to the live image display of the Petri dish on your computer, count more than **1000 CFU/s** on all media. Each counted colony is marked with a cross and the result is automatically saved.



COUNT

## No settings

Choose your pre-set parameters for Petri dishes:



| Pca/Tsa | Mrs | Vrbl/Vrbg | Tbx | Tsc | Baird Parker | Gvpc Bcye | YM | RAPID' *L.mono*™ | RAPID' *Entero-bacteriaceae*™ | Rhapsody | Compass cereus |

Also available on **Scan® 1200**:

- MC-Media Pads™: AC, CC, EC/CC, SA
- Petrifilm™: AC, ETB, CC, EC/CC, EC
- Compact Dry™: TC, CF, EC, ETB

## High-performance colony counters

**Scan®** works for every kind of colony. The minimum size is **0.05 mm for Scan® 1200** and **0.1 mm for Scan® 300** and **Scan® 500**. **Scan®** colony counter automatically separates confluent colonies, allows you to create polygonal exclusion areas and ignores agar flaws and air bubbles. You can also add or remove colonies manually. Every change is automatically saved in your report.
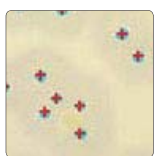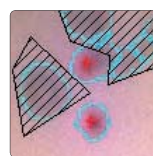


Scan® read all the colonies, even the smallest
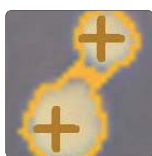
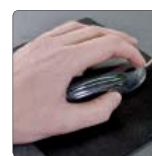Automatic separation of confluent colonies
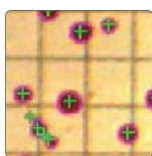
Automatic elimination of counting grids

Cross on each counted colony

Polygonal exclusion areas

Automated software with manual control

## Color detection & chromogenic media

**Scan® 500** and **Scan® 1200** can read chromogenic agar and differentiate colonies by color: **up to 7 different colors on the same Petri dish**. Color selection can be made directly from the color of the bacteria and a cursor allows you to set the sensitivity.

Chromogenic media reading allows the detection of Salmonella on XLD media and E.Coli on TBX media, for example.
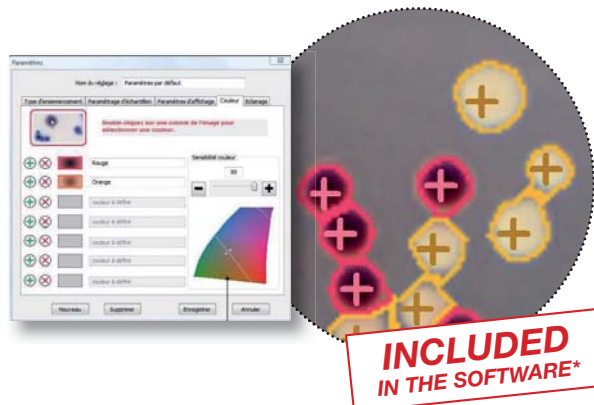
* on Scan® 500 & Scan® 1200



*INCLUDED IN THE SOFTWARE**

# Scan® : 3 models adapted to your needs

## Scan® 300
### Essential

**Ref 436 300**

- 6 combinations of lighting and backgrounds

- Motorized background color

- Brightness, contrast and sensitivity are automatically optimized by the software

- Long lasting LED lighting

- CMOS color camera, zoom x28, M12 lens

- Minimum size of detected colony: 0.1 mm

### Count these supports

Surface/pour plating   Spiral® plating

## Scan® 500
### Efficient

**Ref 436 000**

- 6 combinations of lighting and backgrounds

- Motorized background color

- Brightness, contrast and sensitivity are automatically optimized by the software

- Long lasting LED lighting

- CMOS color camera, zoom x28, M12 lens

- Minimum size of detected colony: 0.1 mm

- **Detects and counts up to 7 colors on the same dish**

- **Inhibition zone reading with EUCAST, CA-SFM, CLSI and editable database**

### Count these supports

Surface/pour plating   Spiral® plating

Chromogenic Petri dishes   Antibiogramm

## Scan® 1200
### High-Resolution

**Ref 437 000**

- 6 combinations of lighting and backgrounds

- Motorized background color

- Brightness, contrast and sensitivity are automatically optimized by the software

- Long lasting LED lighting

- **HD color CCD camera, zoom x28, HD japanese lens**

- **Minimum size of detected colony: 0.05 mm**

- **Detects and counts up to 7 colors on the same dish**

- **Inhibition zone reading with EUCAST, CA-SFM, CLSI and editable database**

- **Petrifilm™, Compact Dry™, MC-Media Pads™ and filtration membrane reading**

### Count these supports

Surface/pour plating   Spiral® plating

Chromogenic Petri dishes   Antibiogramm

Petrifilm™   Compact Dry™   MC-Media Pads™   Filtration membrane

# Inhibition zone from paper discs, agar wells & peni cylinders

## Performance and flexibility

**Scan® 500** and **Scan® 1200** allow efficient work flow because you can create and edit a list of antibiotics, useful for routine analysis.

Measured by **Scan®**, inhibition zones guarantee repeatability and reproducibility of analysis and diagnosis reliability.

- Rapid detection: up to 8 antibiotic sensitivities in 1 click.
- Paper discs, agar wells and peni cylinders may be manually added or deleted. Inhibition zones may be manually resized.



*INCLUDED IN THE SOFTWARE\**

The result of sensitivity in contact with the antibiotic is fast and visualization of results is clear:

> Red (resistant)
> Yellow (intermediate)
> Green (susceptible)

## Medical analysis

Inhibition zone measurement allows you to test the efficiency of antibiotics on micro-organisms to accelerate the diagnosis in order to choose precisely an appropriate antibiotic treatment for a patient. **Scan®** has a built-in antibiotic database from the **French Society of Microbiology (CA-SFM),** the **European Committee on Antimicrobial Susceptibility Testing (EUCAST)** and the **Clinical and Laboratory Standards Institute (CLSI)** which determines the sensitivity of the bacteria to the antibiotic. This database is fully editable.



Precision of inhibition zone radius measurement from paper discs : 0.3 mm

## Pharmaceutical analysis

In the pharmaceutical industry, **Scan®** allows you to test the quality of an antibiotic during its manufacturing process by measuring the inhibition zones. To evaluate the action of an antibiotic, antibiotic diffusion from paper disc, agar well or peni cylinder is supported.
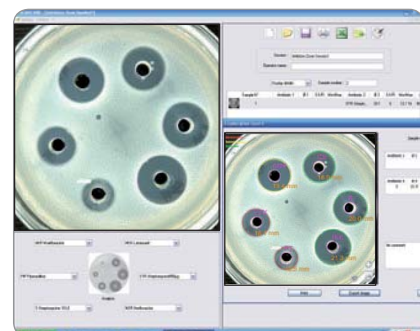


Precision of inhibition zone radius measurement from agar wells : 0.3 mm

**21 CFR** Part 11   **GLP** GOOD LABORATORY PRACTICE

\* on Scan® 500 & Scan® 1200

# Comfort of use

This feature enables total control of colony counting.

## Optimum visualization

Enjoy comfortable viewing of the colonies with the unequalled **Dark Field technology**, high definition live image and with the automatic optimization of the image (lighting, contrast and sensitivity). You can also check key areas thanks to the digital zoom.

Dark Field: LED are disposed in a circle for optimal contrast
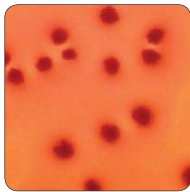
Scan® automatically optimizes contrast, luminosity and sensitivity
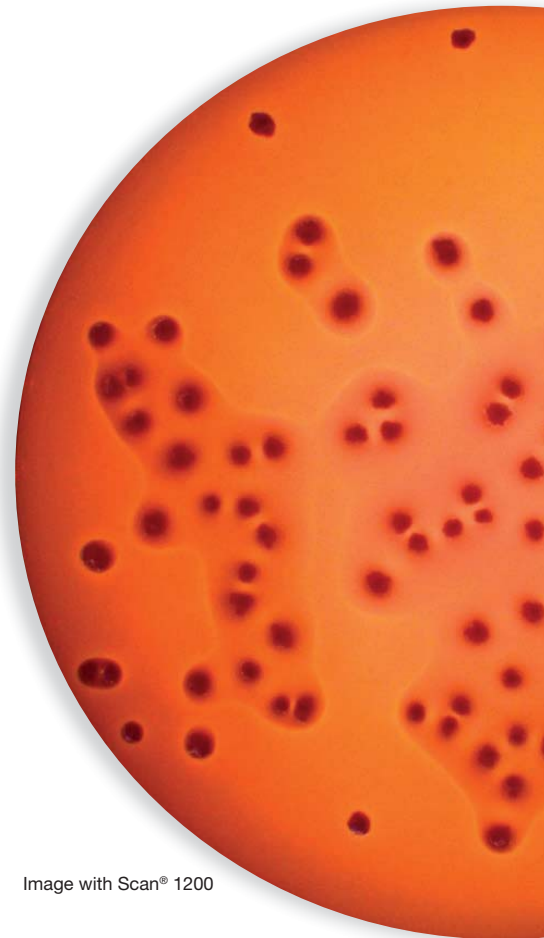
Digital zoom with the mouse wheel (up to x28)

## Easy-to-use

All **Scan®** functions are in **one single window** and colonies are counted in one click.

The **Scan®** easy commands (visualization, settings and results) allow quick access to both ongoing and archived work sessions.

**Scan®** software is available in **7 languages** (English, French, Chinese, Russian, Japanese, Spanish and German) and is updated regularly. The intuitive use of **Scan®** does **not require any special training**.

Image with Scan® 1200

# Fast communication, total traceability

## Results harmonization

Using the **Scan**® allows more reliable analyses and harmonizes the results within a team.

You can save as many settings as you wish and customize the settings according to the type of dishes and agar you use.
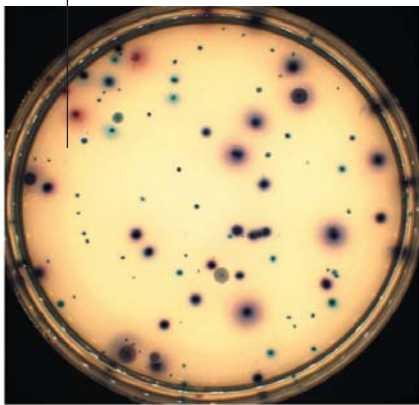
The automatic archiving of data, photos, comments and results ensures total traceability.

## Print your results

You can export your results to your PC, archive it in Excel™, PDF, SCA or BIO format. You can also export pictures from the camera in JPEG, PNG and BMP format.
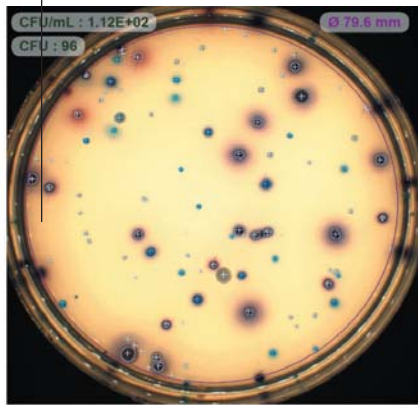
Petri dish before counting

Petri dish after counting

Add your own logo in the reports

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CFU/mL : 1.12E+02
CFU : 96
Ø 79.6 mm

Sample

Sample analysed with SCAN 1200®, version 7.0.2.0

Sample information

| Operator name : | be | Sample N° : | 2 | | CFU/mL : | 1.12E+02 |
|---|---|---|---|---|---|---|
| Parameters : | Coli-Coliforms | Count : | 96 | Dilution : | 1 | |
| Date Time : | 12/10/2014 9:52:13 | Area (%) : | 86 % | | | |

Comment :

Comments

OK

| | E. Coli : | 23 CFU | 2.68E+01 |
|---|---|---|---|
| | Coliform : | 73 CFU | 8.51E+01 |

Printed report example

Analysis result

# Reproducibility of results

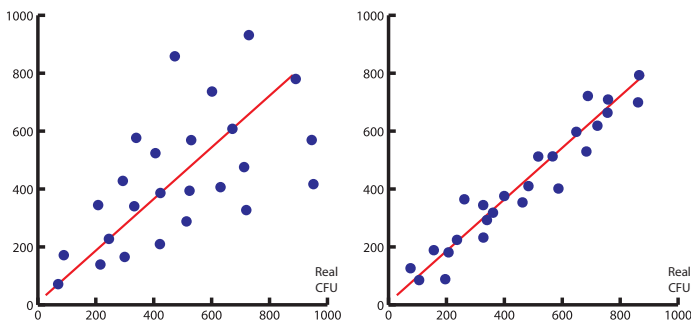Automatic counting is a guarantee of **regularity and standardization** of analyses, which is the key to ensure accurate and reliable results. **Reproducibility** of results is guaranteed whatever the day, conditions and user.

A scientific study has proved up to 98% precision for **Scan**® colony counters.



**Manual counting:**
**Random results over time and different users by manual counting of colonies**

**Automatic counting:**
**Standardized and reproducible results by automatic counting**

Study made on *Bacillus cereus*, *Escherichia coli* and *Lactobacillus casei*
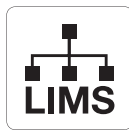
# Internal traceability

Thanks to the **LIMS** connection and the barcode reader, photos of counted plates are **saved and traceable**. The images are accessible and recountable at any time.



Barcode     Archiving     LIMS connection     dataLink™

# Secure your sessions

Sessions are secured with a **security code** (one per operator) and the impossibility to alter each saved counting. **Scan**® use allows the compliance with **21 CFR part 11**: system securization, operational controls and documentation management.

## > External traceability

Scan® software provides numerous possibilities to easily and quickly export your results.
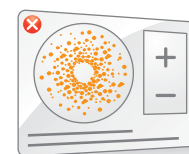


Work sessions saving



PDF export



JPEG, PNG & BMP formats export



Export results to Excel™ to ensure traceability



Print report from Scan®

# Plate & Count System® with dataLink™

**INCREASE**

your lab capacity with **easySpiral®** & **Scan®!**

Scan® 1200

interscience

easySpiral Dilute

**Plate & Count System®** with data**Link**™ enables automatic plating and colony counting with full traceability!

- **INCREDIBLE SAVINGS:** Save up to 75% in time, consumables and bench space

- **FAST:** Full plating cycle in 25 seconds and counting in 1 click. No manual data input.

- **RELIABLE:** 98% repeatable and reproducible results

- **TOTAL TRACEABILITY WITH** data**Link™:** Automatic data saving and reporting

**Plate & Count System®** with data**Link™** includes:

- easy**Spiral®:** Automatic Spiral® platers
- **Scan®:** Automatic colony counters
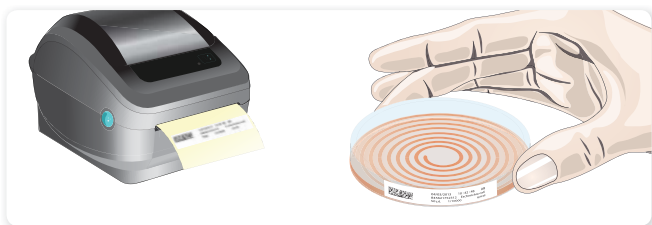- data**Link™:** Traceability system

## HOW DOES IT WORK?

**STEP 1**
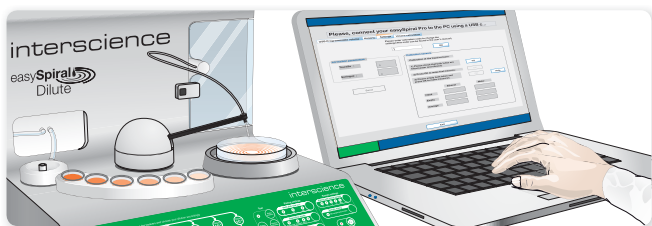


Plating with easy**Spiral Pro®** or easy**Spiral** Dilute**®**.The easy**Spiral®** supervision software collects data from the plater.

**STEP 2**



Label printing with the Datamatrix code. Stick the label on the plated Petri dish before incubation.

*...* *Incubation 24-72 h*

**STEP 3**



* Please check LIMS compatibility

After incubation, scan the Datamatrix code. The **Scan®** colony counter is parametered automatically with the Datamatrix data. Click on "VALIDATE". Export the data.

## PLATE AND COUNT YOUR PETRI DISHES

■ **From 30 to 1x10$^{12}$ cfu/mL on one single petri dish**

easy**Spiral®** automatically plates a sample in **8 seconds**: from 30 to 1x10$^{12}$ CFU/mL on a **single Petri dish** without prior sample dilution. Once the sample is plated and incubated, it is ready to be counted by **Scan®** automatic colony counters. Results are immediately displayed and saved.

■ **Up to 75% savings**

easy**Spiral®** and **Scan®** guarantee the regularity and standardization of the analyses, save time, consumables and bench space of up to 75 %.

| ISO 7218 | ISO 4833-2 | AOAC 977.27 | FDA BAM Bacteriological Analytical Manual | 21 CFR Part 11 |

# Technical specifications

| | | Scan® 300 | Scan® 500 | Scan® 1200 |
|---|---|---|---|---|
| | Reference | 436 300 | 436 000 | 437 000 |
| **Image** | Camera | CMOS color camera | | HD CCD color camera |
| | Lens | M12 lens | | HD japanese lens |
| | Digital zoom | x 28 | | |
| | Resolution | 1 megapixel | | 1.2 megapixels |
| | Counting time | Up to 1000 colonies per second | | |
| | Minimum size of colonies | 0.1 mm | | 0.05 mm |
| | Lighting technology | Long-life white LEDs / Dark Field | | |
| | Lighting system | Automatic 6 combinations, top and/or bottom light white or black background | | |
| **Counting** | Counting | Automatic, with manual control | | |
| | Results / data export | Scan® recountable file, PDF report, JPEG, PNG, BMP, Excel™ | | |
| | LIMS connection | ✔ | ✔ | ✔ |
| | USB connection | ✔ | ✔ | ✔ |
| | Petri dishes | ✔ (55-90 mm) | ✔ (55-90 mm) | ✔ (55-90 mm) |
| | Spiral® plating | ✔ | ✔ | ✔ |
| | Color detection | - | 7 colors on the same Petri dish + 1 color to exclude | |
| | Chromogenic medium | - | ✔ | ✔ |
| | Inhibition zones | - | ✔ | ✔ |
| | Petrifilm™ | - | - | ✔ |
| | MC-Media Pads™ | - | - | ✔ |
| | Compact Dry™ | - | - | ✔ |
| | Filtration membrane | - | - | ✔ |
| | Languages | English, French, Japanese, Chinese, Russian, Spanish, German | | |
| | Traceability | 21 CFR Part 11 | | |
| **Hardware** | Dimensions (w x d x h) | 28.5 x 26.5 x 29 cm | | 28.5 x 26.5 x 37.5 cm |
| | Weight | 8.4 kg | | 9.4 kg |
| | Body | Stainless steel | | |
| | Computer connection | USB | | |
| | Power | 100-240 V~      50/60 Hz | | |
| **PC requirements** | Operating systems | Windows™: Seven™ (Service Pack 1) or 8 or 10 | | |
| | Processor | (Quad-core recommended) Intel i3 or i5 or i7 or AMD FX 6000 or superior, 2.4 Ghz or superior | | |
| | RAM | 4 Go minimum (8 Go recommended) | | |
| | Graphic card | AMD or NVIDIA (chipsets are not recommended) | | |
| | Equipment | USB 2.0 slot | | |
| | Screen | 1280 X 1024 pixels and more | | |

**Delivered with :** Scan® software, power cord, 2* or 3 validation plates, user guide, quick user guide. (*only on Scan® 300)

CE   WEEE 2002/96/EC   RoHS 2002/95/EC   IQ/OQ/PQ   MADE IN FRANCE   Product made for INTERSCIENCE by Interlab, an ISO 9001 certified company

## Warranty
3 years **Warranty / 3** years free **Software update** (after registration of the warranty form)

PC requirements are subject to change. Please check our website www.interscience.com for current updates and additional informations.

# Scan® accessories

**dataLink™**
Ref. : 410 100

**Barcode reader**
Ref. : 522 000

**Adaptor for Petrifilm™***
Ref. : 437 002

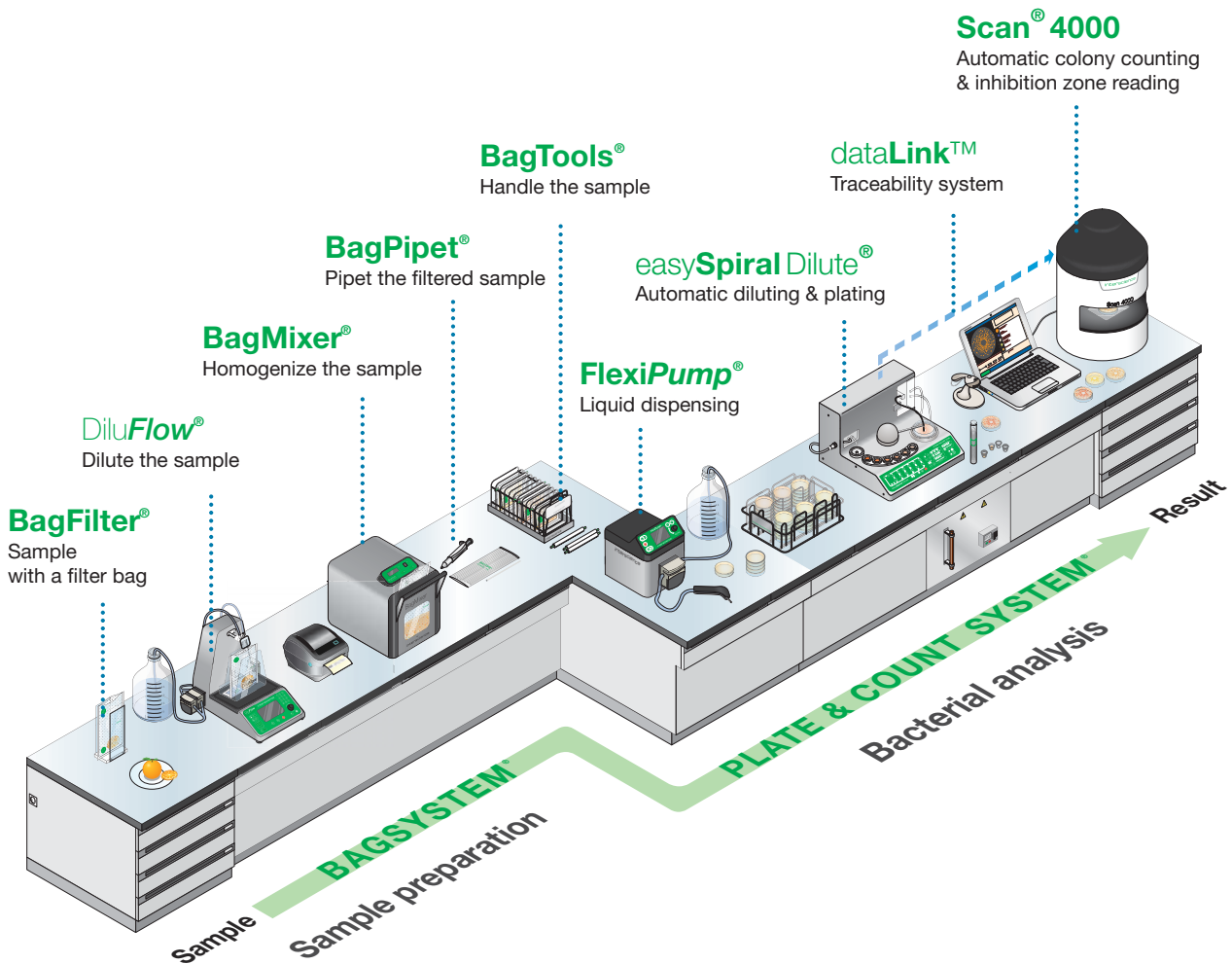**Adaptor for MC-Media Pads™***
Ref. : 437 001

**Adaptor for Compact Dry™***
Ref. : 437 004

**Adaptor for Petri dish (55 mm)**
Ref. : 436 005

\* Only on Scan® 1200

## Discover our complete range for microbiology

**Scan® 4000**
Automatic colony counting & inhibition zone reading

**BagTools®**
Handle the sample

**dataLink™**
Traceability system

**BagPipet®**
Pipet the filtered sample

**easySpiral Dilute®**
Automatic diluting & plating

**BagMixer®**
Homogenize the sample

**FlexiPump®**
Liquid dispensing

**DiluFlow®**
Dilute the sample

**BagFilter®**
Sample with a filter bag

Sample

Sample preparation

BAGSYSTEM®

PLATE & COUNT SYSTEM®

Bacterial analysis

Result

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• Demonstration photos and videos