# easy**Spiral**®

## The world's fastest Spiral® plater

interscience

# Our quality for your lab

- Designer and manufacturer for microbiology

- R&D leadership for innovative and reliable products

- Worldwide distribution network in more than 85 countries

- Made in France



interscience
R&D center and manufacturing plant
Mourjou FRANCE

# **Spiral**® method:
# 35 years experience

The Spiral® method was designed in 1973 to automate the routine work of bacterial enumeration by Dr. Ed Campbell, researcher at the FDA (Food & Drug Administration). With François Jalenques, friend and founder of interscience, they patented an updated method in 1992.

Since then Spiral® automatic platers have been a reference for applications in food microbiology, medical bacteriology, research on food preservatives or cosmetological factors in compliance with the **NF V08-100, NF V08-050, NF V08-034, ISO 7218, ISO 4833-2, ISO 15189, FDA-BAM** and **AOAC standards**.

interscience has proudly launched the 3rd generation of Spiral® platers with easy**Spiral**® and easy**Spiral Pro**®.



François Jalenques & Dr. Ed Campbell



**Spiral**® **DS**
First Spiral Plater®
**1979**

**Spiral**® **DS+**
Automatic Spiral Plater®
**1996**

easy**Spiral**®/easy**Spiral Pro**®
World fastest Spiral® platers
Worldwide patented
**2010**

# What is Spiral® method?

With easy**Spiral®** automatic plater, increase your lab capacity with a counting range from 100 to $1 \times 10^7$ CFU/mL on **one single Petri dish** without prior dilution.

## Manual plating method

This method requires repetitive actions: at least **4 dilutions** and **4 successive platings** are necessary to obtain one good and readable Petri dish.

dilution 1/10 | dilution 1/10 | dilution 1/10 | dilution 1/10

spread 0.1 mL | spread 0.1 mL | spread 0.1 mL | spread 0.1 mL

1st Petri dish | 2nd Petri dish | 3rd Petri dish | 4th Petri dish

Incubation | Incubation | Incubation — *OK* | Incubation
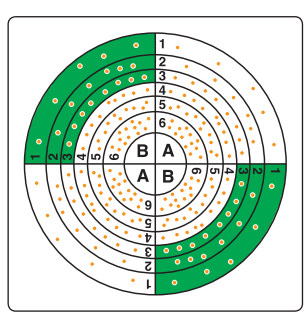
## Automatic Spiral® method

With this method, make your analyses on **1 single Petri dish!**

+ sample
- sample

*All dilutions on 1 Petri dish!*

Incubation — *OK*

- **From 100 to $1 \times 10^7$ CFU/mL on 1 single Petri dish**
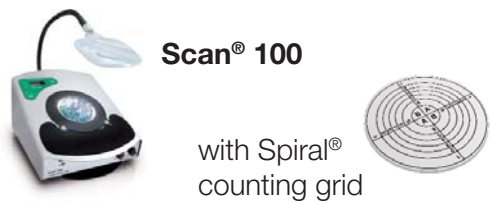- **Up to 75% less consumables**
- **Full plating cycle in 25 seconds!**

# How to count?

With the **Spiral®** method, a **logarithmically decreasing** volume of sample is dispensed on the surface of a rotating Petri dish in an **Archimedes spiral**. The volume is calibrated and known at every point of the Petri dish. Bacterial concentration is determined by dividing the number of colonies found by the volume dispensed in the same sector of the dish.

For manual counting, count the colonies in the first A or B outer segment and **reach a minimum of 20 colonies.** Repeat the same operation on the opposite side of the Petri dish.

## Manual colony counting

**Scan® 100**

with Spiral® counting grid

or

## Automatic colony counting

**Scan® 300**
**Scan® 500**
**Scan® 1200**
**Scan® 4000**

# easy**Spiral**® revolutionary efficiency

The new **easySpiral**® patented technology, exclusively developed by interscience, allows the automatic plating of your sample on a Petri dish in only 25 seconds with a decreasing concentration (counting range: from 100 to $1\times10^7$ CFU/mL).

A completely new architecture with a **revolutionary rotating arm** allows a **full cycle in 25 seconds** (disinfection, sample-taking and plating). All the liquid flows are visible. No exterior maintenance is needed.

**easySpiral**® is equipped with an innovative unique stylus cleaning device, which guarantees a perfect cleaning and disinfection of the stylus, with **no risk of cross-contamination**.

### Autoclavable bottles
Secure and easy connection
by CPC Connectors

### 2 L bottles
600 cleaning cycles

### Auto disinfection
The inside and outside of the stylus
are cleaned by overflow technology
No cross contamination

**PATENTED**

### Sampling area
Fast and accurate filling in a sterile beaker
DB50, sterile and autoclavable

### Stainless steel housing
Compact, 40 cm wide
Can be used inside and outside a laminar flow

easy**Spiral**® ensures fast sample platings with 99.5% repeatability and reproducibility, and reliable analyses by harmonizing the work of the whole lab team.

## Cleaning liquid sensor
Alarm when the bottle is empty

## Rotating arm architecture
Automatic full cycle: 25 seconds

**PATENTED**

## Modular Petri dish stand
Switch from 90 to 150 mm Petri dishes

## Intuitive control panel
Easy to use
No training needed

## Monthly cleaning
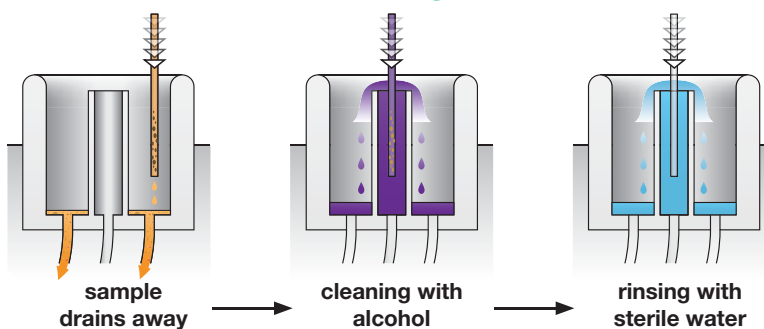1 button to access the intensive, periodic cleaning cycle (10 mn approx.)

*interscience*

| NF V08-100 | NF V08-050 | XP V08-034 | ISO 7218 | ISO 4833-2 | ISO 15189 | FDA BAM Bacteriological Analytical Manual | AOAC 977.27 |

# easy**Spiral®** technology

Delivering the fastest cycle time ever, easy**Spiral®** has an impressive rotating arm architecture, new patented disinfection system avoiding risks of cross-contamination and full traceability of the operations with a counting range from 100 to $1 \times 10^7$ CFU/mL on **1 Petri dish**.

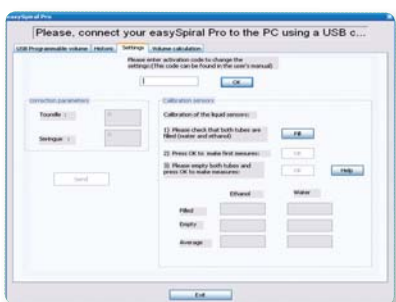## The fastest Spiral® plater: only 25 seconds for a full cycle!

- 25 seconds for a full cycle (disinfection, sample-taking and plating)
- Rotating arm with high speed movement
- Patented electronic robot system
- 10 Petri dishes plated in less than 2 mn (with the same sample)

## Overflow technology*

**sample drains away** → **cleaning with alcohol** → **rinsing with sterile water**

- No cross-contamination
- Unique patented disinfection system by overflow
- 600 cleanings without changing bottles (2L)

## USB programmable volume & traceability**

- Easy PC connectivity via USB
- From 10 to 1000 microliters programmable volumes
- 3 preset plating modes
- Monitoring software with traceability

XLS Excel™    USB

## Consumables reduced up to 75%!

- Reduced budget for consumables
- No specific consumables needed
- More space in your laboratory

*Scientific study available upon request
**On easy**Spiral Pro®**

# Plate & Count System® + dataLink™



easy**Spiral Pro®**
and **Scan® 4000**

Plate & Count System® + data**Link**™ offer quick and reliable results from automatic plating to colony counting with total traceability.

- **GREAT SAVINGS**: Up to 75 % savings in time, consumables and space

- **QUICK**: Full plating cycle in 25 seconds and counting in 1 click. No need of manual data input as the Scan® colony counter retrieves it and adjusts automatically.

- **RELIABLE**: Repeatable and reproducible results up to 98 %

- **FULL TRACEABILITY WITH** data**Link™**: Automatic saving of data and results
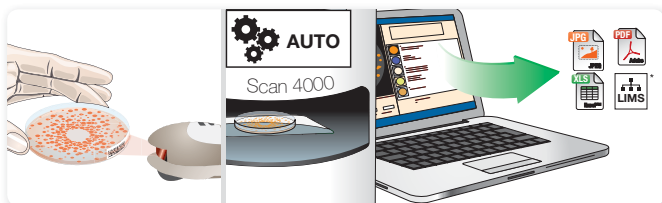
## How does it work ?



### STEP 1
Plate with easy**Spiral Pro®**.
easy**Spiral®** software collects the plating data.



### STEP 2
Print the label with Datamatrix code. Stick the label on the plated Petri dish and place in the incubator.

**...** *24-72 h incubation*



### STEP 3
Once the colonies have grown, scan the Datamatrix code. The **Scan®** colony counter automatically adjusts its settings thanks to the Datamatrix label's data. Click on "COUNT". Export the data.

* Please check LIMS compatibility

**DOWNLOAD SCAN® SOFTWARE**
FREE DEMO VERSION
www.interscience.com

# Technical specifications

| | easy**Spiral®** | easy**Spiral Pro®** |
|---|---|---|
| Reference | **412 000** | **413 000** |
| Syringe capacity | 1000 µL | |
| Preset deposited volume | 50 or 100 µL | 50, 100 or 200 µL |
| Counting range | 300 to 1.3 x 10$^5$ CFU/mL | 100 to 1 x 10$^7$ CFU/mL |
| Plating time (50 µL - disinfection + plating) | 25 seconds | |
| Overflow technology | 8 bars pressure | |
| Disinfectant autonomy (in normal mode) | 1000 cycles (2L bottles) | |
| Distilled water autonomy (in normal mode) | 600 cycles (2L bottles) | |
| Successive plating capacity with the same sample | Up to 20 Petri dishes (50 µL) | |
| Automatic disinfection program | ✓ | ✓ |
| 90 mm Petri dish | ✓ | ✓ |
| 150 mm Petri dish | - | ✓ |
| Exponential deposition mode | ✓ | ✓ |
| Circle deposition mode | ✓ | ✓ |
| Constant deposition mode | - | ✓ |
| Excel™ export traceability | - | ✓ |
| Programmable deposited volume (via USB) | - | from 10 to 1000 µL |
| Dimensions | 40 x 41.5 x 29 cm | |
| Weight | 16.4 Kg | |
| Power supply | 100-240 V~   50-60 Hz | |

## APPLICATIONS

- **Microbiological analyses**
- **Food quality control**
- **Bacterial cinetics**
- **MIC of antibiotics**
- **Challenge test: cosmetics control**
- **Pharmaceutical control**

**Delivered with:** 1 blue dye for testing, 1 syringe with silicone tubing, Spiral® counting grids: 90 mm & 150 mm*, support test container, 2 filters, 1 replacement stylus, 4 connector sets for GL45 bottles, 1 GL45 double connection connector set, 1 pot of EnzyClear®, 1000 sterile beakers, power cord, user manual, 150 mm Petri dish ring*, software on a CD-ROM*, USB cable*.

*Only for easy**Spiral Pro®**

# Accessories

### Housing protection for platers
Transparent housing for working outside laminar flow
**Ref  413 001**

### data**Link**™
Traceability system
**Ref 410 100**

### DB 50 beakers
1 000 sterile beakers for Spiral® platers
**Ref  415 100**

### Bar-code reader
Barcode reader for traceability
**Ref  522 000**