

# easySpiral®

The world's fastest Spiral® plater



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# 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<sup>®</sup> method: 35 years experience

The Spiral<sup>®</sup> 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<sup>®</sup> 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 3<sup>rd</sup> generation of Spiral<sup>®</sup> platers with **easySpiral<sup>®</sup>** and **easySpiral Pro<sup>®</sup>**.



François Jalenques & Dr. Ed Campbell



**Spiral<sup>®</sup> DS**  
First Spiral Plater<sup>®</sup>  
1979



**Spiral<sup>®</sup> DS+**  
Automatic Spiral Plater<sup>®</sup>  
1996



**easySpiral<sup>®</sup>/easySpiral Pro<sup>®</sup>**  
World fastest Spiral<sup>®</sup> platers  
Worldwide patented  
2010



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# What is Spiral<sup>®</sup> method?

With **easySpiral<sup>®</sup>** 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.

1<sup>st</sup> Petri dish  
Incubation  
2<sup>nd</sup> Petri dish  
Incubation  
3<sup>rd</sup> Petri dish  
Incubation  
4<sup>th</sup> Petri dish  
Incubation  
OK

**Automatic Spiral<sup>®</sup> method**

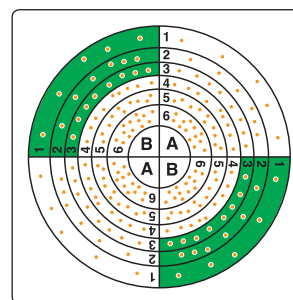
With this method, make your analyses on **1 single Petri dish!**

+ sample  
- sample  
All dilutions on 1 Petri dish!

- 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<sup>®</sup>** 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<sup>®</sup> 100**

with Spiral<sup>®</sup>  
counting grid



or

### Automatic colony counting



**Scan<sup>®</sup> 300**  
**Scan<sup>®</sup> 500**  
**Scan<sup>®</sup> 1200**  
**Scan<sup>®</sup> 4000**

# easySpiral® 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  $1 \times 10^7$  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



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easySpiral® 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.)



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**NF**  
V08-100

**NF**  
V08-050

**XP**  
V08-034

**ISO**  
7218

**ISO**  
4833.2

**ISO**  
15189

**FDA BAM**  
Bacteriological Analytical  
Manual

**AOAC**  
977.27

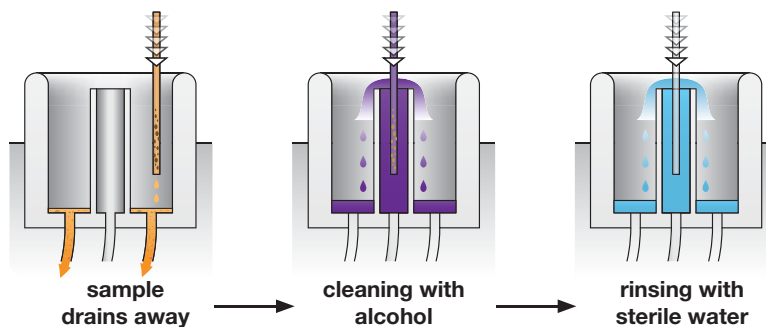
Delivering the fastest cycle time ever, **easySpiral<sup>®</sup>** has an impressive rotating arm architecture, new patented disinfection system avoiding risks of cross-contamination and full traceability of the operations with a counting range from 100 to 1x10<sup>7</sup> CFU/mL on **1 Petri dish**.



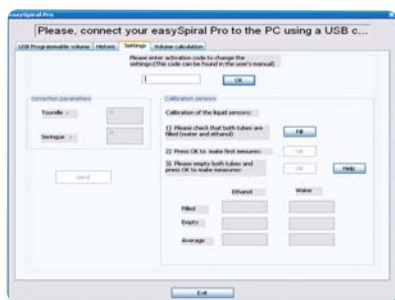
## The fastest Spiral<sup>®</sup> plater: only 25 seconds for a full cycle!

- 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\*



- 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



## Consumables reduced up to 75%!

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



\*Scientific study available upon request

\*\*On easySpiral Pro<sup>®</sup>

**Labequip**

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# Plate & Count System<sup>®</sup> + dataLink<sup>™</sup>



**Plate & Count System<sup>®</sup> + dataLink<sup>™</sup>** 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<sup>®</sup> colony counter retrieves it and adjusts automatically.
- **RELIABLE:** Repeatable and reproducible results up to 98 %
- **FULL TRACEABILITY WITH dataLink<sup>™</sup>:** Automatic saving of data and results

## How does it work ?



### STEP 1

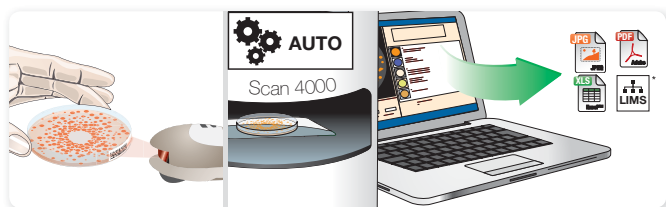
Plate with easySpiral Pro<sup>®</sup>.  
easySpiral<sup>®</sup> software collects the plating data.



### 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<sup>®</sup> colony counter automatically adjusts its settings thanks to the Datamatrix label's data. Click on "COUNT". Export the data.

\* Please check LIMS compatibility

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**DOWNLOAD  
SCAN<sup>®</sup> SOFTWARE**

[www.interscience.com](http://www.interscience.com)



# Technical specifications

	easySpiral®	easySpiral 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 <sup>5</sup> CFU/mL	100 to 1 x 10 <sup>7</sup> 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 easySpiral Pro®

# Accessories



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



**dataLink™**  
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**



## easySpiral® Automatic spiral plater

Ref. 412 000

New patents for unique efficiency.

The new easySpiral® patented technology allows the automatic plating of your sample on a Petri dish in only 25 seconds with a decreasing concentration replacing up to 4 necessary dilutions with a sensitivity from 300 to  $1.3 \times 10^5$  CFU/mL. easySpiral® is equipped with an innovative unique stylus cleaning device, for the guarantee of perfect disinfection of the stylus and no risks of cross-contamination.

## ADVANTAGES

- ▶ Sensitivity: from 30 to 10 million CFU/mL
- ▶ Full cycle in 25 seconds
- ▶ Patented disinfection system
- ▶ Programmable volumes via USB
- ▶ Costs reduced up to 75%

## TECHNICAL SPECIFICATIONS

- ▶ 25 seconds for a full cycle (disinfection, sample-taking and plating)
- ▶ Controlled by microprocessor
- ▶ Revolutionary rotating arm with high-speed movement (Patented)
- ▶ Stylus disinfection system: inside and outside by overflow, 8 bars pressure (Patented)
- ▶ Security detections for lack of disinfection liquid
- ▶ Petri dish plate diameter: 90 mm
- ▶ Preset volume dispensed: 50 and 100 micro liters
- ▶ Detection in CFU/mL: from 300 to  $1.3 \times 10^5$  CFU/mL
- ▶ Plating modes: exponential and circle
- ▶ Dispensing time: 8 seconds.
- ▶ Syringe capacity: 1 000 micro liters
- ▶ Successive plating capacity with the same sample: 10 Petri dishes (50 micro liters)
- ▶ Monthly cleaning program
- ▶ Cleaning capacity: 600 cycles (2L bottles)
- ▶ Compact, stainless steel

- ▶ Power: 100-240V~ 50-60Hz
- ▶ Machine: size (W x D x H): 38 x 42 x 29 cm, weight: 15.6 kg
- ▶ Box: size (W x D x H): 60 x 50 x 55 cm, weight: 25 kg

- ▶ 1 year guarantee (after registration)
- ▶ In compliance with: ISO 7218, AFNOR V08-100
- ▶ Designed and made in France
- ▶ Manufactured under: ISO 9001 V2008, CE, WEEE 2002/96/EC, RoHS 2002/95/EC

## DELIVERED WITH

- ▶ 1 000 sterile beakers
- ▶ 1 blue dye for testing
- ▶ 1 liquid detergent
- ▶ 3 sets of connectors for autoclavable GL45 bottles
- ▶ Container stand for testing
- ▶ Counting grid: 90 mm
- ▶ Power cable
- ▶ User manual, IQ/OQ/PQ guidelines
- ▶ Quick user guide

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## OPTIONS / ACCESSORIES

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- ▶ **Ref. 413 001** Housing protection
- ▶ **Ref. 415 100** Spiral<sup>®</sup> DB50 beakers
- ▶ **Ref. 413 014** 90 mm counting grid
- ▶ **Ref. 413 002** 2L GL45 glass bottle
- ▶ **Ref. 413 003** Connection set for GL45 bottle
- ▶ **Ref. 415 510** Liquid detergent
- ▶ **Ref. 415 530** Blue dye



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