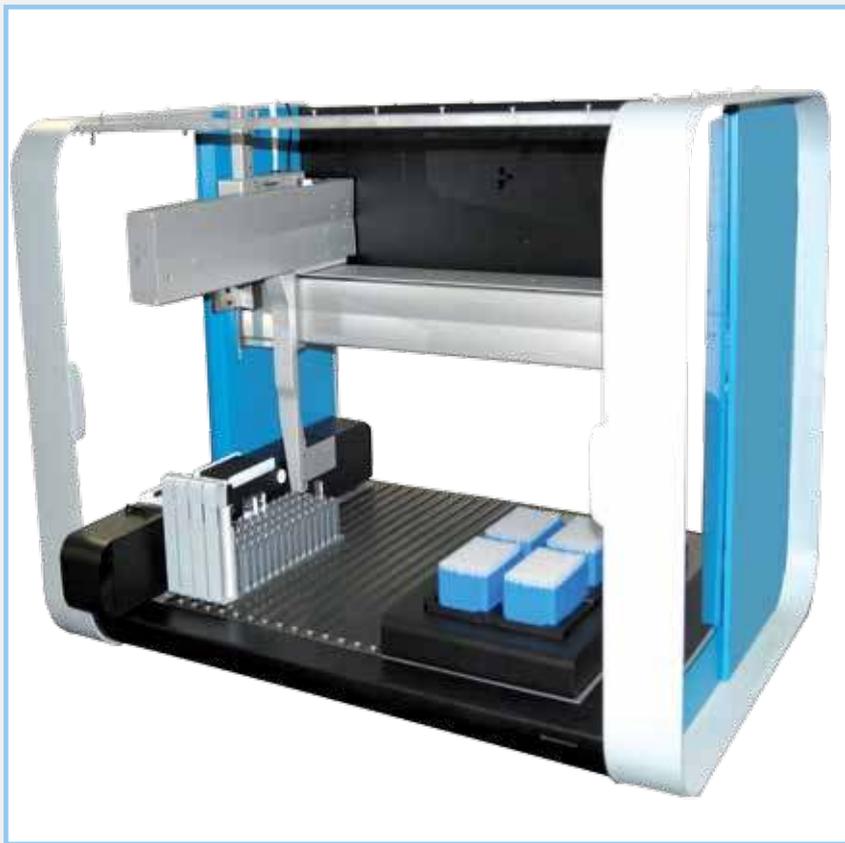


NEO SAMPLE MANAGEMENT THE SYSTEM YOU CAN RELY ON.

HIGH CAPACITY SAMPLE MANAGEMENT SYSTEM

- NEO Plate guarantees traceability using a positive identification methodology.



IMPROVING PRODUCTIVITY

Designed for small to mid-sized laboratories and hospitals to meet ever-increasing pressures on time and productivity, the NEO Sample Management® provides complete, reliable liquid storage management of biological samples.

NEO Sample Management will fulfil all your requirements for liquid sample management (-80°C) thanks to a complete range of products:

- ↘ The NEO automated liquid handling robot will help you to transfer your laboratory samples from the primary tubes to secondary tubes and plates, guaranteeing traceability and security.
- ↘ The NEO Plate, with its integrated 2D barcode, together with the NEO Manager (software) guarantee traceability and efficient retrieval from the biobank.

The target markets of NEO Sample Management are clinical, serum banks, blood banks, cord blood, diagnostics, drug centers, biotechnical, veterinary environment and safety testing laboratories. NEO Sample Management is available around the world.

➤ WHAT DOES THE NEO
Sample Management do?

The new NEO Sample Management is designed to guarantee the traceability of samples, to ensure sample integrity, to improve tracking efficiency and finally to optimize freezer space in order to effectively manage your biobank's needs.

NEO Sample Management System manages the full lifecycle of the sample, from reception of the primary tubes to expiry or final analysis of the resulting aliquots. The refrigerator or freezer storage phase is also fully monitored.

1. SAMPLE CREATION AND TRACKING
WITH NEO SAMPLE MANAGEMENT AND THE NEO PLATE

Primary tubes with liquid solutions are loaded into NEO Robot

1



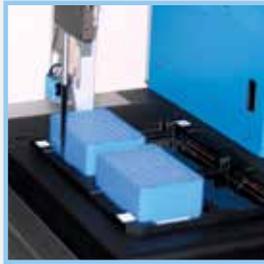
Select the sample type (type of analysis or product stored) and configure the number of aliquots using NEO Manager (software)

2



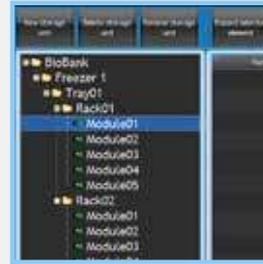
NEO Robot transfers the liquid from the primary tubes to the NEO Plate automatically

3



Place the NEO Plate into freezer storage following instructions from the NEO Manager (software)

4



2. SAMPLE LOCATION AND INFORMATION RETRIEVAL
WITH NEO SAMPLE MANAGEMENT AND THE NEO PLATE



1

Enter information into NEO Manager using the "Search" function to locate the sample in the freezer storage



2

Retrieve the NEO Plate from freezer storage. You will save time locating samples with NEO Manager (storage software)



3

Scan the microtube using the NEO Reader to ensure safety, traceability and security



4

Analyse the sample contents or transport it. Update the NEO Plate information using the NEO Manager, put it back into NEO robot or into freezer storage

SECURITY AND TRACEABILITY

- ↳ NEO intelligently determines available liquid volume and tube diameter
- ↳ Positive identification of primary, secondary tubes and plates is performed by NEO robot
- ↳ 2D barcode for sample information storage
- ↳ Full traceability pre/post biobank
- ↳ Ensure data safety by customising security rights for users

PRODUCTIVITY

- ↳ Experience time savings with the preemptive identification methodology
- ↳ Intelligent storage of the sample characteristics of your samples: volume, patient ID, sampling dates for a multi-criteria search
- ↳ High throughput: 180 tubes per hour
- ↳ Increase traceability and productivity with the monoblock NEO Plate

FLEXIBILITY

- ↳ Simple and intuitive menu at each stage of the process
- ↳ Configurable Import/Export to/from Laboratory Information System (LIS)
- ↳ Individual detachable tube release from monoblock NEO Plate
- ↳ Use the software to easily transfer samples in a freezer to a different location, even if the new freezer has a different physical layout. Very useful for freezer breakdowns

➤ FAST AND POSITIVE IDENTIFICATION

at each stage with NEO for total traceability of your sample

2 DISPOSABLE
1ML TIPS RACKS

Pause the batch to replace the racks, and continue where you left off

1

INTELLIGENT
FLUID DISTRIBUTION

From 10µL up to 1mL transfers, with depth level detection that allows the software to make intelligent choices when there is not enough liquid to complete all the joblist requests for the primary tube

2

POSITIVE
IDENTIFICATION
METHODOLOGY

The NEO Robot works together with the NEO Manager (software) using the positive ID barcode

3

SECURITY

Safety curtain avoiding intrusion during a batch

9

UNIVERSAL
PLATE
COMPATIBILITY

Uses 2 compatible plate formats :
-SSP (48 wells)
-NEO Plate (96 wells)

4

14 CUSTOM
DESIGNED
RACK SYSTEM

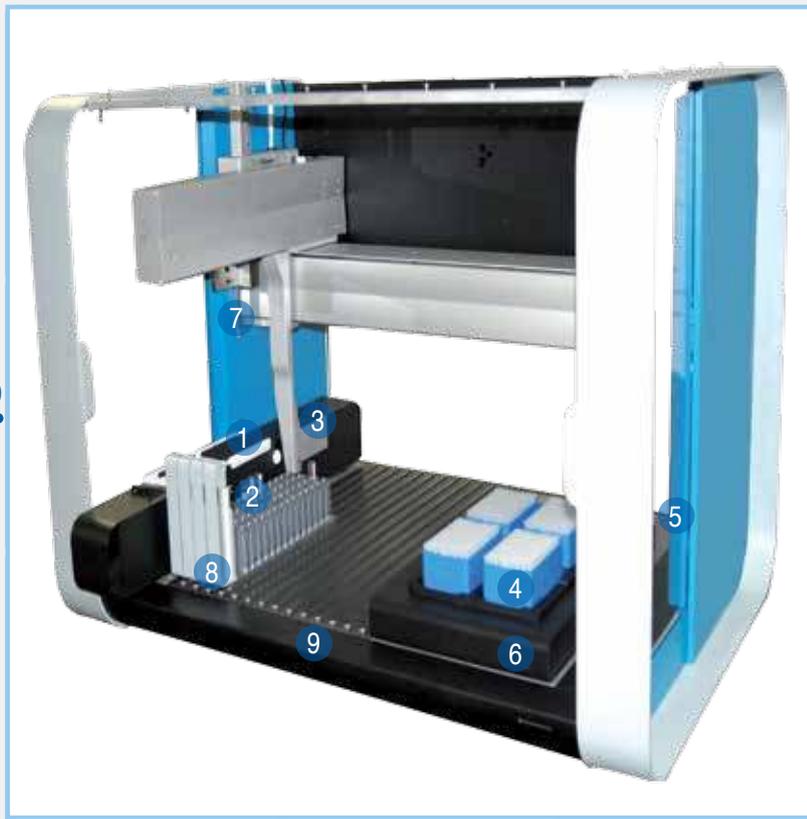
Features high capacity liquid handling sample with 14 receptors for primary or secondary tubes (7mm-17mm)

8

TUBE DETECTION
CONTROL

The NEO Manager checks the presence of a tube in the robot.

5



DOUBLE
LEVEL
DETECTION

Air Pressure and Capacitance
Intelligent sampling
Clot detection

7

6

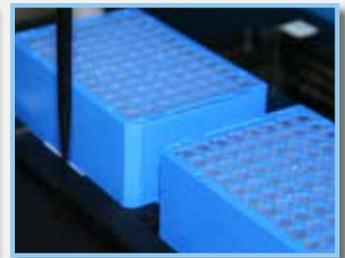
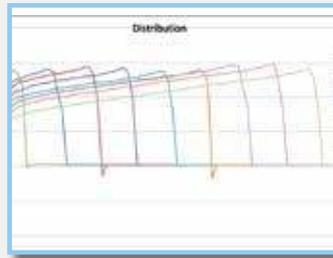
FULL-PLATE
SCANNING

4 plates sites process different plate formats at once

NEO IS IDEAL FOR SMALL TO MEDIUM SIZE LABORATORIES...

Including clinical, serum banks, blood banks, cord blood, diagnostics, drug centers, biotechnical, veterinary environment and safety testing laboratories.

THE PERFECT SOLUTION TO INCREASE THROUGHPUT



NEO: THE AUTOMATED LIQUID HANDLING ROBOT

- The NEO automated liquid handling robot provides high-speed aspirating and dispensing into our SSP or NEO Plate.
- Primary tube depth level measurement allows the software to make intelligent choices when there is not enough liquid to fulfil all the joblist requests. This pre-emptive transfer volume reallocation makes our robot a leader in its field.
- An integrated A4 scanner assures positive identification of our full range of plates, and this step is performed even before any aliquoting is started. This gives the user full control over the joblist, eliminating potential problems during the distribution cycle.
- Real-time monitoring of internal pressure during aspiration and dispensing for clot detection.

FEATURE AND BENEFITS of NEO Robot

1. Pre-emptive liquid level detection, for intelligent aliquoting.
2. High security using positive identification (no barcode, no transfer).
3. Air-pressure monitoring of liquid transfers for minimum maintenance.
4. 4 plate sites and 196 sample tubes.
5. Hot-swapping tips racks.

EASY MAINTENANCE

Air based aliquoting for minimum maintenance.
 Easy access to internal components.
 Custom software helps the technicians to perform rapid maintenance and calibration.

TECHNICAL SPECIFICATIONS OF THE ROBOT	
Reference	3S10-010
Power consumption	150 Watts
Dimensions	114cm x 90cm x 98cm
Weight	75 Kg
Compatibility	SSP, NEO Plate
Options	Automatic closer
Capacity	196 tubes / 4 plates

➤ GUARANTEED VALIDITY

of the treatment of the samples with custom robot control software



- 1 14 racks of 14 tubes from 7mm to 17mm (Ø)
- 2 SSP
 - 500µL
 - 1mL
- 3 NEO Plate
 - 70µL
 - 500µL
 - 1mL

- 10 Tips rack status
2 Racks
- 9 Sample tubes
barcode
level
in job list



- 4 Plate
Microtube
- 5 Tube
barcode

- 8 Robot joblist imported from the LIS
- 7 Colour coded display of the resources.
- 6 Tactile screen

THE NEO MANAGER SOFTWARE

is so comprehensive that even inexperienced operators can achieve reliable, accurate results in a fraction of the time of other systems.

NEO
MANAGER
THE MOST
INTUITIVE
SOFTWARE

POSITIVE IDENTIFICATION METHODOLOGY

The principle of positive identification is intrinsic to the concept of full traceability and is used throughout the Neo product range. The first phase of a distribution cycle is to scan the barcodes of all the resources in the robot.



POSITIVE IDENTIFICATION

It allows the software to present you with a comprehensive visual map of the current state of the resources inside the robot:

- Estimation of the workable volume of liquid inside the primary tube
- Confirmation of the presence of the tube barcode in the joblist
- Tubes and microplates with missing or unreadable barcodes

All of this can be monitored, checked and validated before hitting the GO button. No surprises, and no wasted time with tubes ignored due to complex workflow configurations.



INTELLIGENT LIQUID HANDLING

After the positive identification phase, our robot detects the diameter and level detection of the tube which allows the calculation of the real volume available for the operation.

When a primary tube does not have enough liquid to fulfil all the requests from the LIS, the software can make intelligent decisions to provide you with the best possible result. You can configure the system to suit your laboratory's specific requirements.

BIOBANK LINK LIS/JOBLIST

Your biobank probably uses an expensive and comprehensive laboratory information system (LIS) which manages patients and samples. Our software can be linked to your LIS, receiving the aliquot requests and sending back confirmations, integrating effortlessly into your existing workflow.

FREEZER MANAGEMENT

The NEO robot works together with the NEO Manager software using the principle of positive identification. Our software will help to keep your biobank information matching the contents of the freezers.

New freezers can be added with just a few clicks of the mouse.

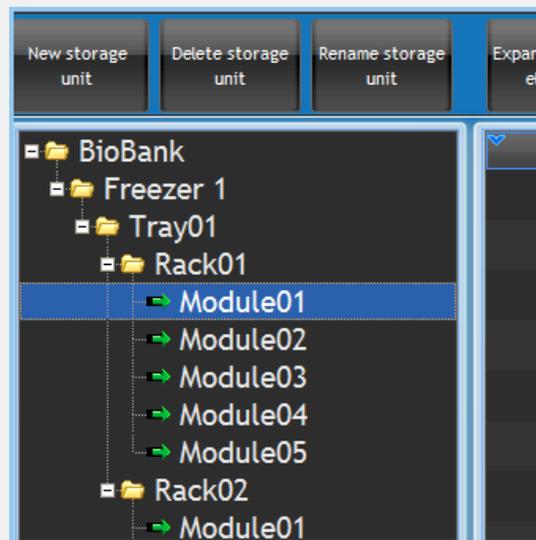
PATIENT INFORMATION

Your LIS keeps detailed records of the patient's information, including assay test results, personal information, and other assorted medical details. Our job is not to replace the LIS, but to form a cohesive addition that specialises in robot aliquoting and freezer management.

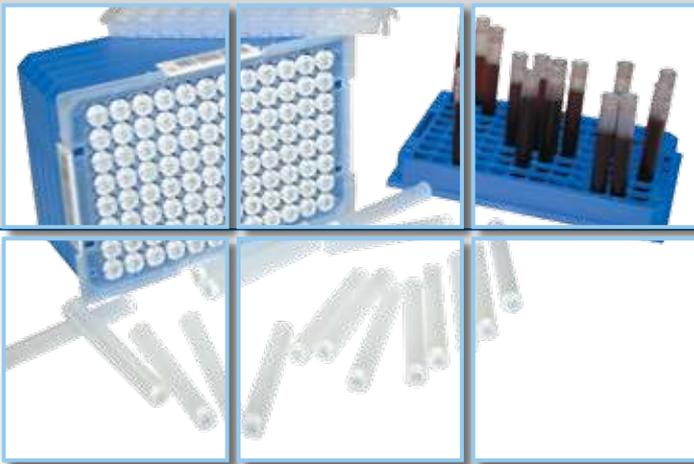
When your LIS transmits the aliquot requests, basic patient information is sent along with it. This is stored in the application database to enable a particular patient's microwells to be located in the freezer, without the need to interrogate the LIS database.

GUARANTEED TRACEABILITY YOUR SAMPLE INFORMATION

The link between the primary sample tube number, the patient number and the well number are all entered electronically, (no human errors are possible) creating an unbreakable link, and only a barcode reader is needed to locate a microtube for a particular patient.



Events Patient	
N° 35	3
N° LIS	132447
Title	Mr.
Last name	COUNTER
First name	Didier
Middle name	
Maiden Name	
Date of birth	30/01/1974
Gender	<input type="radio"/> ? <input checked="" type="radio"/> Male <input type="radio"/> Female
Address:	7 Foxtrot Avenue, Stourbridge
Postcode	13000
Telephone	0245125478
FAX	
Mobile	
Email	
N° Social Security	
Date added	27/11/2015



THE NEO PLATE

- This plate is monoblock. The tubes cannot be moved. That means you can still have full positive identification without the need for an A4 scanner. If you only need a single sample tube you can use our cracker tool in order to extract the microtube.
- The mono and multi-extraction tools for the plate give you total control over the automatic transfer of your samples.
- This plate, consisting of 96 tubes, resists most organic solvents and is free from additives and leachates. The NEO Plate has a standard SBS footprint and comes in 70 μ l, 500 μ l and 1mL format, providing rapid and homogeneous sample storage in -80°C freezers.

THE NEO HOLDER PLATE

Accuracy and enhanced security with the monoblock format



Once the microtubes are identified using the engraved barcode on their base, you will be able to separate each microtube and create a new storage plate with the extracted microtubes: The NEO Holder plate.

A custom storage plate holder has been created to rebuild a new micro plate. The 2D DataMatrix ID will allow you to guarantee the traceability of your sample.

- Reference 1mL: 3S96-1001
- Reference 500 μ L: 3S96-0501
- Reference 70 μ L: 3S96-0071

INNOVATIVE
NEO Plate

- 1➤ Monoblock detachable microtubes for rapid scanning
- 2➤ NEO Plate is monoblock for improved security and stability of your samples.
- 3➤ 96 microtubes in multi-formats: 70µL, 500µL, 1mL for rapid and homogeneous freezing.
- 4➤ Multi-coding ID with the DataMatrix and barcode provides absolute traceability of each sample.
- 5➤ The new NEO Plate and the NEO Holder Plate simplify the traceability of your samples.
- 6➤ Use our Cracker unit to reconstitute a new plate from several partially populated ones.
- 7➤ Reduce format 10 times less space compared to other tubes



PLATE	
NEO Plate	96 sample tube units
Microtube base	“U” Format SBS footprint
Clean room manufacturing	Class 10 000 Polypropylene RNase and DNase free
Volume 1: 1mL Volume 2: 500µL Volume 3: 70µL	96 microtubes X 1mL 96 microtubes X 500µL 96 microtubes X 70µL
Codes Available	2D barcode / 1D barcode
Temperature Resistance	-80°C in a mechanical freezer
Chemical resistance	DMSO, methylene chloride, methanol, ethyl, organic solvents

➤ THE SCANNER

Ensure sample traceability

The NEO Scanner and the NEO Plate barcoding systems were developed to help customers store their laboratory samples securely as well as track and retrieve them efficiently. The DataMatrix is integrated into the resource scanning process to guarantee the traceability of the sample pre/post biobanking.

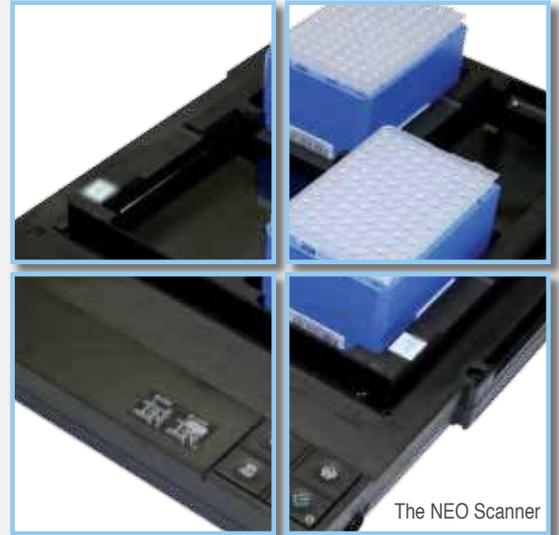
- Reference 3S22-010

➤ THE NEO 2D READER

No need for an optical scanner

Ideal for sample tracking and identification analyzes, recording the history of the activity of the sample, and full traceability of manual manipulation, the reader is the perfect mix of performance and simplicity. By scanning a sample microtube DataMatrix code using the NEO reader, the system can display all sample information and the event records in real-time.

- Reference 1ml: 3S20-020



➤ THE NEO CLOSER

Easy-to-use automatic closer places caps on all the microtubes of a NEO Plate

- Reference: 3S96-9400

➤ THE NEO PEN

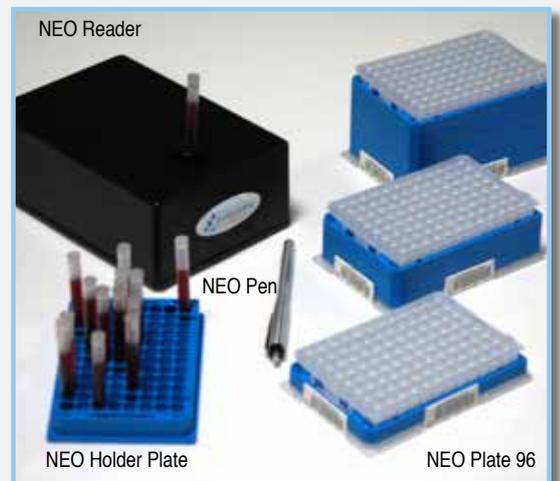
Simple manual pen for opening and closing an individual microtube

- Reference: 3S96-900

➤ THE NEO STORAGE MODULE

The storage module provides custom assembly of individual storage units to suit your freezer space requirements.

- Reference: 3S96-9100



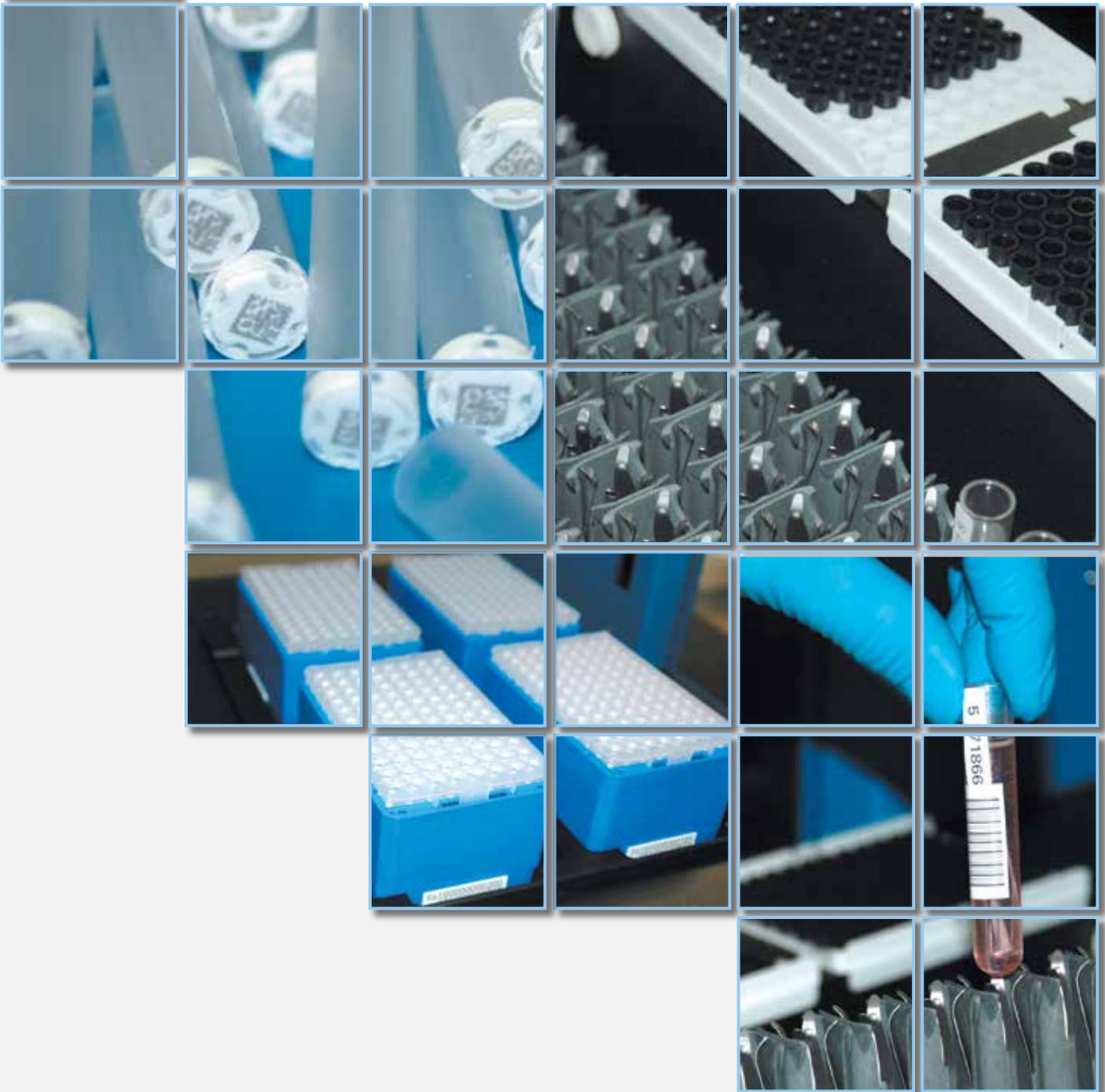
NEO SAMPLE MANAGEMENT PRODUCT REFERENCES



REFERENCE	DESCRIPTION	PACKAGING
NEO PLATE		
3S96-1001	NEO Plate 1mL	CARTON (48 PLATES)
3S96-0501	NEO Plate 500 μ l	CARTON (72 PLATES)
3S96-0071	NEO Plate 70 μ l	CARTON (144 PLATES)
HOLDER PLATE		
3S96-1110	Holder Plate 500 μ l	BOX (9 PLATES)
INTERFACE EQUIPMENT		
3S11-050	NEO Total Chain	PALLET
3S14-550	NEO Manager (Software)	LICENCE
3S20-020	NEO Reader	BOX
3S22-010	NEO Scanner	BOX
3S21-001	DYMO Printer	BOX
3S24001	Portable barcode reader	BOX
ACCESSORIES		
3S96-9400	NEO Closer	BOX
3S96-900	NEO Pen	BOX
3S96-9100	NEO Storage Module	CARTON (72 MODULES)
3S96-0011	NEO Tips with filter	CARTON (10 RACKS)
3S96-0010	NEO Tips without filter	CARTON (10 RACKS)

➤ NEO SAMPLE MANAGEMENT

the complete sample lifecycle solution that you can rely on.



➤ FOR A COMPLETE LISTING OF OUR GLOBAL DISTRIBUTORS

- visit us at : www.biosamplingsystems.com
- or email at : s.maillard@ilsa-france.com
- or call at : +33 (0) 1 34 30 42 09

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ANTICIPATING THE DEMAND OF TOMORROW

BioSampling Systems® uses technology to accelerate innovation in its products, and it will continue to develop its expertise to improve efficiency. NEO Sample Management comes with the CE mark that demonstrates our depth of experience and guarantees a sustainable competitive advantage.

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Diagnostic



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