magazine

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MATACHANA GROUP CORPORATE NEWS

Nº 09 · 2024

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WITH MAT LD1000 WASHERS AND AN AL10 ROBOT

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FRONT COVER

The Panama Canal, strategically located between the Caribbean Sea and the Pacific Ocean, cuts through the Isthmus of Panama at its narrowest point. This majestic work of engineering, inaugurated on August 15, 1914, is a magnificent feat with locks at both ends. They raise the ships to Gatun Lake, 27.5 meters above sea level, and then lower them to the Pacific or the Atlantic.

The Panama Hospital City has been built beside this historic work of engineering. It is a state-of-the-art facility, designed with the highest standards of quality and sustainability, and is destined to become a center of reference in healthcare.

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EDITORIAL

We are delighted, once again, to tell you about the many activities we carried out in 2023 and those we have just launched in 2024 in this exclusive MATACHANA magazine.

In this new edition we feel really motivated and excited about a new Strategic Plan for 2024-2026. This will enable our company to continue along the path set in 1962 by its founder, Antonio Matachana, who inspires us to continue to be a global leader in infection control technologies.

In the markets in which we operate Hospitals, Life Sciences and Pharma, which differ so much from a corporate point of view, we have created a Strategic Plan to keep growing in a robust and sustainable way. We will meet the challenges our customers set us, without losing our character as a family business and our Mediterranean spirit, of which we are so proud.

We are launching several new products in 2024, which you can read about in detail in this magazine. These include the new version of the S1000 Steam sterilizer and the opening of a new subsidiary in Portugal. We would especially like to mention Portugal, a sister country of Spain, where we have been operating for decades in close collaboration with the hospital and laboratory sectors, research centers and industry.

We are particularly proud of the major operation carried out in Panama Hospital Health City complex, an excellent job carried out in conjunction with our distributor. The quality of the work carried out by the construction company, as well as the equipment installed throughout the facility, enable this hospital complex, which is and will be a worldwide point of reference for many years, to spearhead the use of technology for patients and the Panamanian population.

As always, we would like to end by thanking so many customers from all five continents who continue to place their trust in our products and services. They give us the motivation to keep growing with renewed enthusiasm.

Good health to all of you! We hope you enjoy this new issue.

AL10

Robotic loading and unloading

PRODUCTIVITY

AUTOMATED LOGISTICS

OPTIMIZED SURFACE

ERGONOMICS

THE FUTURE IS NOW

SAFE TRANSPORT

INTELLIGENT PRIORITY

UNINTERRUPTED FLOW

PROFITABILITY

matachana
Innovating for a better future

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MATACHANA PORTUGAL, WELCOME TO OUR NEW SUBSIDIARY

Josep Mª Pellicer
Sales Director. Int. Healtcare Div.
MATACHANA

Since MATACHANA's beginnings in 1962, we have always had the idea of operating in Portugal. However, it was not until the early 1980s that MATACHANA entered into a representation agreement with a local company in Portugal.

Now, in 2024, after more than 40 years in the Portuguese market, with dozens of research centers, labs and industrial companies using our tech, the time has come for us to directly set up our own subsidiary.

Matachana Portugal has been created to directly offer all of our customers in Portugal MATACHANA's complete range of products and services, so we can meet any kind of need in the Portuguese market now and in the future. We are starting this challenge with a young team, who are very well prepared, with a lot of respect for the high level of demand in the Portuguese market. We are sure that, with a lot of hard work and dedication, we will be able to achieve it.

The whole team is enthusiastic about the creation of Matachana Portugal. There has always been a very special connection between MATACHANA and Portugal, so we want to try to repay the generosity and the joys it has given us over the years, during which MATACHANA has become one of the most highly-rated companies in sterilization and washing equipment for all kinds of facilities, such as hospitals, laboratories, industry, morgues, and infectious hospital waste treatment companies.

The Matachana Portugal team is entering this new stage with great enthusiasm and determination. We have no doubt that this attitude that will define the path we must follow to continue and strengthen, still more, the great name and reputation that brand has today.

It is very important to mention that MATACHANA is committed to training. Our participation in the ANES Congress, to be held this year in San Triso on June 6 and 7, will kick off a calendar that will combine online and face-to-face training and courses in several cities in Portugal, so that everyone can participate and expand their knowledge.

All that remains is to invite you all to come to Portugal to meet the team that will make this challenge possible. So:

"Bem-vindo/a à nossa nova casa, e muito obrigado por toda a sua ajuda."

See you in Portugal!

MATACHANA DIRECT OPERATIONS IN PORTUGAL

We are pleased to announce that, after more than 40 years of operating in Portugal, we are taking a step forward and opening our own subsidiary in the country

WELCOME TO MATACHANA PORTUGAL!

EcoSAVE
& EcoSAVE+

MatCONNECT
& MatCLOUD

ERGOLine

TwinSmart

S1000 READY FOR THE FUTURE?

Marino Alonso
Director of Marketing
MATACHANA GROUP

MATACHANA has always been known for its strong desire to improve. One of the main foundations of this constant has been innovation in our devices.

Proof of this is that in recent years we have developed and launched completely new products internationally, such as the 130HPO® and 50HPO®, our successful range of Hydrogen Peroxide and Plasma sterilizers. Also, the recent version of the 130LF® High Speed, the most advanced Steam and Formaldehyde sterilizer on the market, with cycles up to 60% shorter than other equipment using similar technology in the sector.

Not to mention our flagship, the S1000, the most popular family of Steam sterilizers used by our customers. We set to work with a 360° perspective and the aim to improve the performance of our current equipment and ... we have succeeded!

To achieve this, we have based our work on three foundations: sustainability, connectivity and ergonomics. Innovations such as EcoSAVE and EcoSAVE+ to optimize energy and water savings. The new TwinSmart display to allow more convenient interaction with the sterilizer. The new MatCLOUD and MatCONNECT communication platforms, with built-in Artificial Intelligence, will enable access to and analysis of sterilizer data from any environment. And our new ERGOLine loading systems, which adapt to all of our customers' functional and organizational needs, are just some of the distinctive aspects of this entire range.

That's all for now, but don't worry... you won't have to wait long for more. In the first half of 2024 we will launch this new version of the S1000, which I am convinced will continue to be a sales leader and a disruptive device in the market, just like the previous version.

Best regards and see you soon...

PANAMA HOSPITAL CITY
A LEADING COMPREHENSIVE PROJECT

Carlos Herrero
Crossborder Project Manager
MATACHANA

The Hospital City has been a major challenge in MATACHANA's 60-year history. From 2009 to 2023 we worked with architects, construction companies, biomedical experts and public authorities to build this health center of reference in Latin America.

The importance of getting the design right, which was carried out in the initial phase, is clear to see in this project. Although several areas of Sterilization Central have been upgraded, and latest-tech equipment has been added, the foundations have not changed substantially.

The added equipment is an improvement on the initial requirements, as it is more sustainable by cutting water and electricity consumption. Special mention should be made of the reduced electricity consumption. The incorporation of steam generators makes it possible to use the hospital's steam system to generate clean steam with the optimal pressure and temperature conditions to ensure good sterilization quality. The devices have a contingency system in case of incidents in the steam supply.

In addition to this main RUMED, the hospital complex has two Sterilization Central subunits in the Cardiothoracic Institute and the Pediatric Hospital.

MATACHANA has designed and equipped a treatment plant in the Hospital City to decontaminate infectious waste. It is a clean and environmentally-friendly process that is carried out through Steam sterilization.

And the morgue has been equipped with corpse preservation chambers.

Edinson Porras
Sales Manager LATAM
MATACHANA

KEY FIGURES

- Health campus to the west of Panama City
- 219,000 m^2 GFA
- 1235 beds and 43 operating rooms. The campus is made up of a group of connected buildings, notably including:
- Cardiovascular and Thoracic Institute (with a sterilization central subunit)
- Institute of Nephrology and Transplantation
- Institute of Research, Innovation and Knowledge Management
- Maternal-Fetal Medicine and Obstetrics Department
- Pediatric Hospital (with a sterilization central subunit)
- Specialized physical medicine and rehabilitation center
- Clinical Laboratory, specialized in genetics and transplantation
- General Services
- Surgical block (with a sterilization central subunit)
- ICU

With a visionary approach and an unwavering commitment to the population's health and wellbeing, MATACHANA marks a significant milestone in Panama and Latin America with its Hospital City project. This ambitious project is a beacon of hope and progress in the region, as the largest hospital complex in Panama and one of the largest in Latin America. The Hospital City is not just a hospital; it is a promise of world-class healthcare that transcends borders.

At the heart of this project are the three Sterilization Central subunits that MATACHANA designed and equipped. These will enable an unprecedented offer of medical services and benefits for Panamanian citizens and, by extension, all of Latin America. This initiative will not only raise the quality of medical care in Panama to unprecedented levels; it will also serve as a source of inspiration for the development of hospitals throughout the region. The vision for the Hospital City goes beyond the physical facilities. It is a sign of MATACHANA's ongoing commitment to the advancement of healthcare in Latin America.

This exemplary project demonstrates that MATACHANA is not just a world-renowned brand; it is also a driver of change and development in the region. Through the Hospital City, the company is leaving an indelible mark on medical care in Panama and Latin America and bringing hope and tangible improvements to people's quality of life. MATACHANA is a leader in the health sector and its vision and commitment are an inspiration for all countries seeking to raise the standard of medical care in the region.

Daniel Romeo
Manager of Project Coordination Dept.
MATACHANA

The construction phase of the Panama Hospital City project involved a great deal of management work by the entire MATACHANA team, as well as HOSPIMED, our distributor in Panama. From the very beginning they showed great dedication and involvement in achieving the success of this project.

Due to the magnitude and complexity of this project, direct on-site collaboration by a technician from the Project Management Department was required to support our distributor. This kind of project, in which different types of installations are carried out in different locations in the same complex, requires constant monitoring and supervision by all the parties involved to achieve the objective set with a great end result.

Giovanna Ruiz
Clinical Specialist & MIEC-LATAM
MATACHANA

That was the case for the Hospital City project, with three sterilization central units, a laboratory, a morgue and a waste management plant, all with different equipment and different features and requirements in terms of installation.

It is important to point out that much of the success of the end result was due to good communication and coordination between MATACHANA, HOSPIMED and the construction company RIGA SERVICES. That facilitated the rapid resolution of situations that arose on site, as naturally occurs in any project, to ensure the correct performance of all the work. Consequently, it also facilitated the installation work to guarantee the proper operation of the equipment.

We are moving ahead with new facilities, providing our customers with the best service.

In the work environment it is essential to have continuous vocational training that enhances people's skills for job advancement and recognition. In the RUMED, we provide education to strengthen processes that increase patient and user safety.

Being aware of the importance of continuing education, our MIEC department (Matachana International Education Center) and HOSPIMED have carried out an initial theoretical training course at the impressive Hospital City facilities in Panama. The course addressed the following subjects:

1. The evolution and transformation that sterilization departments have undergone over the years.
2. Characteristics of automated washing.
3. General information about Steam sterilization and its advantages.
4. Range of indicators for steam process monitoring.

All this has corroborated that sterile material processing centers are strategic focal points for healthcare and the backbone of healthcare centers. All the training carried out in good practices in reprocessing will have a positive impact on the RUMED's main objective: to contribute to preventing healthcare-associated infections (HCAI).

We would like to thank the reprocessing professionals for their commitment and are confident that together we will work to enhance sterilization sciences.

MATACHANA: TECHNOLOGY AND TRAINING AS FOUNDATIONS FOR HEALTHCARE PROFESSIONALS' DEVELOPMENT

MIEC Matachana International Education Center

Elena Lorenzo
IPC & MIEC Global Manager
MATACHANA

The continuous development of healthcare technology has led to a significant increase in the complexity and diversity of medical devices. In this scenario of constant progress, training of healthcare personnel is essential to guarantee safe and effective medical care. The European Medical Devices Regulation (MDR 2017/745) stresses the importance of professionals being properly trained to adequately address the challenges posed by current and future healthcare technology.

In the context of Reprocessing Units for Medical Devices (RUMED), continuous training is one of the keys to the preparation, motivation and commitment of professionals to their institutions. Human capital has become one of the most important and scarce assets in healthcare organizations. Continuous training is a tool to keep staff up to date and, therefore, ready to face new challenges.

Concerned about this group of technicians who work every day in reprocessing units, several years ago MATACHANA set up the MIEC (Matachana International Education Center) department as a unit within the company to promote the scientific and technical development of this group of professionals.

The MIEC's everyday activities focus on promoting the spread of information and knowledge about sterilization sciences around the world. They improve workers' safety and confidence, making their work more responsible, more comfortable and more reliable, to ensure the safety of all patients who will benefit from these technical tasks.

For years our company has had facilities devoted to this task at its headquarters in Barcelona. These consist of a complete Sterilization Central and classrooms for theoretical and practical teaching in all relevant aspects related to sterilization and the general prevention of healthcare-associated infections.

Training in Granada

In order to expand this work to the user's own facilities, in collaboration with our distributors and hospital staff, MATACHANA has always prioritized this essential aspect. It has extensive experience in training, for both

Training in Mexico

totally new and remodeled reprocessing units, with numerous references worldwide. For these activities, our clinical specialists offer their services wherever they are required, either through virtual sessions or face-to-face training when necessary.

The training MATACHANA provides ranges from technical and operational aspects to procedural, qualitative and legal issues. Reprocessing professionals benefit from tailored learning programs specifically designed to keep


Training in Panama

them up to date with the latest innovations in cleaning and disinfections, as well as to ensure strict compliance with good reprocessing practices for the installed equipment. This brings about an improvement in the RUMED's productivity and efficiency in the short term.

Companies such as MATACHANA play an essential role in infection prevention, not only because we provide


Training in the Maldives

state-of-the-art medical devices, but also because we ensure professionals are qualified to make the best use of our equipment and to tackle the challenges of modern medical technology in the safest way.


Training in Vietnam

COMMITMENT TO QUALITY AND SAFETY

MATEC | Matachana Test Center

Dr Nelson Carreras
Global Product Manager Consumables
MATACHANA

Over the last few years, MATACHANA has designed and set up an interdisciplinary laboratory involving engineering and microbiology, as part of its commitment to advancing technology for reprocessing reusable medical devices. The MATEC (Matachana Test Center) lab has a multidisciplinary team (biology, microbiology, instrumentation, engineering, biochemistry, chemistry and nursing professionals). It focuses on ensuring the safety and reliability of RUMED's reprocessing processes in line with both local and international standards and regulations.

MATEC stands out for its commitment to quality and has an ISO 9001-certified quality management system (QMS). It focuses on ensuring safety from the design phase through to process validation and lays a solid foundation for the safe and effective introduction of medical devices on the market.

From left to right: **Dr Daniel Antonio Vázquez**, Global Reprocessing Specialist, **Cristina Ríos**, MATEC Lab Technical Specialist and **Dr Nelson Carreras**, Global Product Manager Consumables.

TESTS AND METHODOLOGIES

1. Validation of washing efficacy
Detection of organic protein residues with different techniques: orthophthaldehyde (OPA) and bicinchoninic acid (BCA), according to ISO 15883-1-2-5 standards.

2. Testing of contaminated endoscope samples
Microbiological evaluations with *Enterococcus faecium* and *Pseudomonas aeruginosa*, according to ISO 15883-4.

3. Chemical and thermal disinfection validation
Evaluation of the effectiveness of thermal disinfection and chemical disinfection, according to ISO 15883-1-2-5-6-7.

4. Endoscope decontamination
Decontamination of endoscopes through high disinfection reprocessing and Low Temperature sterilization, eliminating organic residues and preventing biofilm accumulation.

5. Sterilization efficacy validation
Validation of medical devices through microbicidal efficacy studies (SAL 10^{-6}) and bioburden tests for saturated Steam sterilization, according to EN 285, EN 13060 and ISO 17665, and for Low Temperature sterilization, according to ISO 25424 (LTSF) and ISO 22441 (vH2O2).

6. Sterilization penetrability evaluation
Controlled contamination of surgical material to simulate real conditions in cannulated devices of different lengths and internal diameters.

7. Tightness testing and validation of heat sealers
Evaluation of the validation of sterile barrier systems, according to ISO 11607, parts 1 and 2.

8. Biocompatibility
Evaluation of cytotoxicity through elution tests with buffered solutions in the medical device after reprocessing processes, according to ISO 10993.

9. Artificial biofilms
Synthetic matrices for the growth of Gram+ and Gram- bacteria, simulating common biofilms in various geometries and lumens.

DEVELOPMENT AND STANDARDS

MATEC stands out for its commitment to developing and improving tests with state-of-the-art methods described in scientific publications. It actively participates in developing international and national guidelines and in ISO working groups for the main reprocessing standards, leading initiatives in the field of infection control.

CUSTOMERS AND PARTNERS

With a focus on quality, safety and technological advancement, MATEC is positioned as a trusted partner for manufacturers, healthcare users, laboratories and certification companies in the continuous pursuit of excellence in medical device reprocessing.

OPTIMIZING LOW TEMPERATURE STERILIZATION METHODS

Sebastián Fernandez
Pharmacist. Specialist
in Sterilization and University Lecturer
Head of the Sterilization Service

Silvia Martínez
Pharmacist
Deputy Head of the Sterilization Service

Marcela Molina
Sterilization Service Pharmacist

Marianella D'adamo
Sterilization Service Pharmacist

Hospital Italiano de Buenos Aires (HIBA) in Argentina is a high-complexity center, accredited by Joint Commission International. More than 45,000 surgical procedures are performed there each year in its 48 operating theatres and procedure rooms, and more than 700 inpatient beds.

Sterilization central processes around 70,000 devices per month, for which it has five Steam autoclaves, two Ethylene Oxide units, two Hydrogen Peroxide/ Plasma sterilizers and one Low Temperature with 2% Formaldehyde Steam sterilizer.

For the processing of thermosensitive devices, HIBA's Sterilization central takes the following criteria into account:

- The manufacturer's instructions for reprocessing of the medical device.
- Structure and design of the sanitary device.
- Compatibility of materials with the sterilization method.

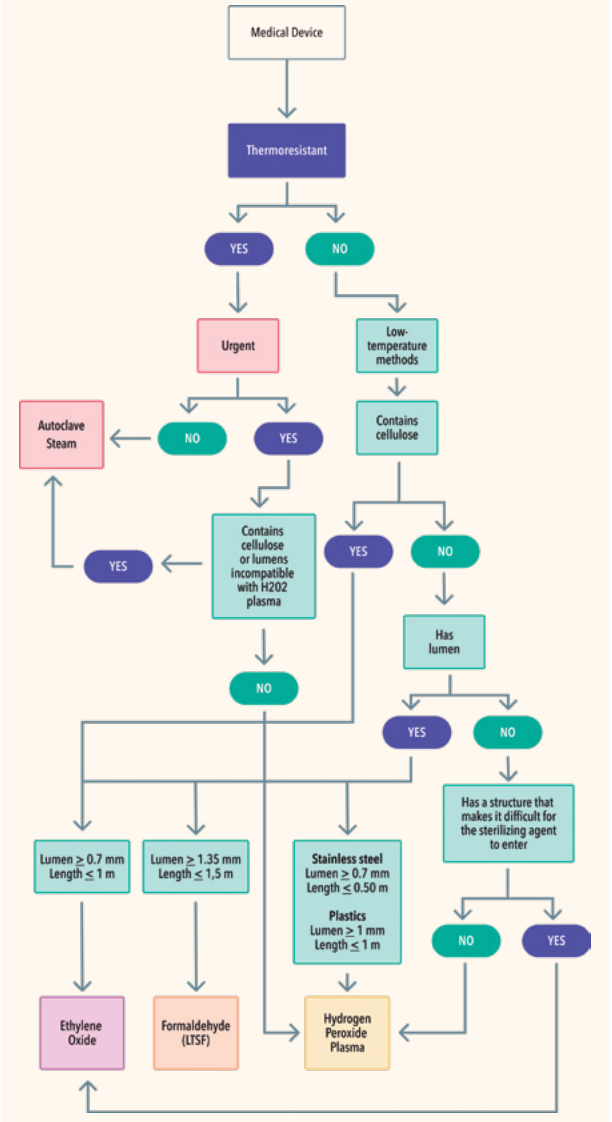

Fig. 1: Decision flowchart to choose the sterilization method.

- Urgency with which it is required.
- Number of devices waiting to be processed.

Moreover, the Low Temperature sterilization methods have the following characteristics:

- Hydrogen Peroxide/Plasma: the most commonly-used cycle takes 50 minutes, so it is ideal for devices that are urgently needed. It is not possible to sterilize instruments containing cellulose derivatives, nor those with lumens smaller than 0.7-1.0 mm that have a length equal to or greater than 1 m or with blind ends.

- Low Temperature 2% Formaldehyde Steam (LTSF): in our case, the 60 °C cycle is used. The duration of this program, with the generation of devices installed at HIBA, is 3.5 to 4.5 hours (in more modern models the cycle is up to 60% shorter). Devices with an internal lumen ≥ 1.35 mm and a length of up to 1.5 meters, including a blind end, can be sterilized. (Our own research work published in MATACHANA Magazine 07). Although this is not our clinical case, there is currently evidence and studies justifying the use of this technology for sterilization for more complex flexible endoscopy. It is incompatible with moisture-sensitive devices.

- Ethylene Oxide: the 15-hour 55 °C cycle is used. Due to the high penetration of the sterilizing agent, there are no limitations in terms of devices' internal diameter and length.

Having three Low Temperature sterilization methods makes reprocessing of thermosensitive medical devices very versatile, as it makes it possible to speed up their sterilization according to their characteristics and the urgency with which they are required.

It is thus possible to take full advantage of the benefits of these complementary technologies: the speed of Hydrogen Peroxide/Plasma, the wide variety of devices compatible with Ethylene Oxide, and the great versatility of Formaldehyde, which allows most of the devices compatible with the other two methods to be sterilized.

Alejandro Ramírez
Global Product Manager
Low Temperature Sterilization
MATACHANA

HEALTHCARE EXCELLENCE

In contemporary hospitals, Low Temperature sterilization has become crucial to ensure maximum protection for patients and users.

To meet all the needs of a state-of-the-art RUMED, having all three Low Temperature sterilization technologies is synonymous with flexibility and total coverage.

In parallel, the implementation of a solid and robust quality system such as Joint Commission International* demonstrates clear commitment to achieving superior quality in the delivery of healthcare services, while ensuring safety and efficiency at all times.

Hospital Italiano de Buenos Aires is a clear example of a center committed to excellence in healthcare.

*Joint Commission International: a leading organization in the evaluation and accreditation of the quality and safety of health services worldwide.

https://www.jointcommissioninternational.org/

LARGE FACILITY IN JAPAN WITH MAT LD1000 WASHERS AND AL10 ROBOT

Tokyo Medical and Dental University is one of the most important special function hospitals in Japan.

Few years ago, Dr. Hideo Kubota, Junior Associate Professor, Material Management Director - Tokyo Medical and Dental University, was interested to explore the ways to increase the productivity of the sterile reprocessing of medical devices as well as personnel safety for the project of a new Building of this University hospital. This new building C started operations from October 2023. This building allocates a state-of-the-art RUMED (CSSD) that includes seven MATACHANA Washer disinfectors MATLD1000 (18 DIN baskets each), racks return cabinet and 4 units of MATACHANA robot AL10 that automate the activities of loading and unloading of the washer disinfector and the racks return cabinet in a revolutionary way achieving the targets that Dr. Kubota and his team were looking for, being the first installation of its kind in Japan.

The 4 robots AL10 are working together automatically based on the instructions given by the users through tables. In the dirty/decontamination area two robots take racks equipped with RFID which enable the washer disinfector to detect and automatically start the selected program by the user in the available washer disinfector. This way the personal at this area is focused on their assigned tasks without the need of moving the racks to the washer maximizing productivity and reducing accidents.

In a similar way two robots work together automatically in the clean are unloading the racks from the washer disinfectors and transporting them to the available inspection and packing station so again the personnel working in this area is focused of their task without the need to watch if any washer is ready for unloading.

Therefore, this is a great example of how this cutting each technology an help to have a more efferent RUMED that take care if its personal improving safety.

This new RUMED is capable of reprocessing 48 to 50 operations worth of surgical sets per day.

This installation has been caried out by MATACHANA Partner in Japan, UDONO Limited that worked intensively together with the responsible of this RUMED from May-June 2023 to customized the way that they wanted the robots to work.

Aside from these washer disinfectors this complete new RUMED is also equipped with one unit of MATACHANA Low Temperature Steam and Formaldehyde sterilizer (LTSF) model 130LF® High Speed (the fastest of its kind), to sterilize complex thermolabile medical equipment. Other equipment from several manufactures complete this state of the art sterilization central.

Enrique Hernández
Global Product Manager
Washing Systems
MATACHANA

AL10 ROBOT:
ASSESSMENT OF THE FIRST YEAR

As the heald of this product line, it has been a pleasure over the years to talk about the advantages of our innovative AL10 robotic loading and unloading system.

By cross-referencing real data from different facilities in operation for more than a year, we confirm every day that the system meets all our expectations.

In real-world operation, each AL10 robot carries out the following tasks each year:

- More 30,000 racks moved.
- More than 1,000 km traveled.
- More than 1,000 tons of instruments loaded.

These data demonstrate the great improvement in users' quality of life. By avoiding these non-value-added jobs, they can focus on tasks that really require their knowledge and experience, which raises the value of human work at the sterilization central.

NEW MATACHANA RUMED AT CHILDREN'S HOSPITAL HO CHI MINH CITY, VIETNAM

Francisco Fernandez
Director Rep. Office APAC
MATACHANA

Last Augst 11th 2023 was formally inaugurate the new Children Hospital N1 in Ho Chi Minh City with a capacity of 1,500 inpatient-beds and 22 Operating Rooms, a modern pediatric hospital equipped with the state of the are medical equipment being one of the referral hospitals in the country.

This hospital includes a new RUMED (CSSD) equipped with the following MATACHANA equipment: 4 units of washer disinfectors model MAT LD1000E-2, 2units of cabin washer model MATLD2000, one of them in a dedicated area outside the RUMED to disinfect beds 4 units of steam sterilizers model 1008E-2, one ultrasonic cleaner with irrigation for canulated items model MAT MC1001, drying cabinets, ergonomic inspection and packing stations and other accessories, being one of the most complete CSSD set up in the country.

Dr. Le Thi Thanh Thuy, responsible of this RUMED, understood that such an important project with would not be completed without having personnel well trained in the best practices in the reprocessing of medical devices in order to assure the delivery of sterile instruments in a safety environment for the sterilizatio central's staff and therefore to the patients.

In order to comply with this important vision, from June 12 to 15, 2023, Ms. Elena Lorenzo, head of MIEC (Matachana International Education Center), flew to Vietnam to train the Infection Prevention and Control staff as well as the users of the medical device reprocessing unit of the hospital.

A total of 25 professionals received complete theoretical and practical training. For 3 days, theoretical presentations were held and later practical sessions in front of the equipment, where users were able to share their doubts and ask questions about the operation and proper use of the equipment.

KIGOBORA HOSPITAL INSTALLS THE MOST MODERN RUMED IN RWANDA

Mina Wassef
Regional Sales Manager
MATACHANA

In 2022, MATACHANA in collaboration with our partner for the East African market, ACHELIS GROUP, supplied and installed equipment for the first fully equipped RUMED (CSSD) in the Kibogora District Hospital Rwanda.

Kibogora District Hospital is supported by the German Osteomyelitishilfe e.V. Association https://osteomyelitishilfe.de/ Since its founding in 2015, the NGO's mission is to treat and prevent chronic hematogenous osteomyelitis (inflammation of bone marrow) in children and adolescents. At the late stages, this disease causes severe infections especially in the bones of the arms and feet in children. After fighting and curing the infection, complex and reconstructive operations are often required.

According to Dr Michael Weber from Osteomyelitishilfe, "In the past, the treatment and operation have often led to reinfections due to the lack of sterility of the operating instruments, which have compromised the success of the operations. For this reason, we decided to finance a new CSSD as part of the renovation of the surgery and maternity ward. Thanks to the very constructive cooperation with Achelis, we were able to install a modern CSSD with high-quality MATACHANA

Washers and Sterilizers . It is currently the most modern RUMED in Rwanda. For the surgical departments of surgery and gynecology at the Kibogora Hospital, this new and modern installation represents an enormous leap in quality in terms of the sterilization of implants and instruments."

This RUMED is a showcase for the country and for the whole region. We will keep on working passionately to supply similar installations to the East African market in the near future.

The RUMED at Kibogora was equipped with one Washer Disinfector MAT LD500-E2 and two Steam Sterilizers SC500E-2 including all required accessories and a future option to upgrade it by another Washer Disinfector and Steam Sterilizer. Due to the insufficient water quality in Rwanda, a dimensioning water treatment unit consisting of one Water Softener DAV 60 and one Reverse Osmosis Treatment Plant AP-5 has been also delivered.

GMP APPLICATIONS:
STEAM+AIR PROCESSES FOR TERMINAL STERILIZATION

David Pastor
PHARMA Business Development Manager
MATACHANA

MATACHANA is moving forward with its penetration strategy in the pharmaceutical industry by designing and manufacturing MPHS Series sterilizers for GMP applications with terminal products.

In the pharmaceutical production environment, "terminal sterilization" is the sterilization process carried out at the end of a product's manufacturing process. Typically used in non-aseptic production environments, this GMP-recommended process is intended to maintain product integrity for patient use.

This product normally comes in liquid form and is packaged in different kinds of containers designed to avoid environmental contamination of the product after the sterilization process. To achieve this physical barrier between the product and the environment, this container is hermetically sealed. For example, vials are capped and encapsulated with an aluminum cover or parenteral bags are heat-sealed. There is a wide variety of products depending on the end-use format, including glass containers, such as ampoules, bottles and vials, or plastic such as bottles, SVP & LVP, blister packs, etc. Regardless of the formats or materials, all these containers have one thing in common: their sensitivity to the pressures generated inside and outside the container during sterilization cycles.

When the encapsulated product inside its final container is subjected to heating, sterilization and subsequent cooling, the state of matter usually changes. This creates high pressures inside the container. This can cause the container to deform, become damaged or even explode. To avoid this, various applications are used to create equilibrium between the product's internal pressure and the chamber pressure. So when the traditional steam-vacuum process is not viable, backpressure processes are often used. These seek to control the product's internal pressure at all times and balance the external pressure to avoid damaging the container. To achieve this, use of the vacuum to homogenize the chamber temperature is avoided.

One way to achieve the correct sterilization process is to use steam as the physical sterilizing agent, but since air cannot be substituted for steam, a mixture of both gases, steam and air is used. To achieve a homogeneous mixture that guarantees the correct temperature distribution inside the chamber, a stirrer is used to stir and mix both gases and force their distribution in the chamber through a set of diffusers parallel to the side walls. The steam+air mixture will achieve the necessary conditions to guarantee the sterility of the product at all points in the chamber.

When it comes to the pharmaceutical industry, this applies to production, so reducing cycle time is key to increasing the plant's production rate. These sterilizers are equipped with elements that force the cooling of the product. The sterilizer jacket itself can be used as a cooling medium by passing cold water through, or a set of heat exchangers can be installed inside the chamber through which ice water will also flow. In both cases, the chamber fan will continue to move the air inside to increase energy transfer.

Throughout the process, the sterilizer control system monitors the product's internal pressure using a sample product with a built-in sensor. This sensor sends the necessary information to the controller, which compares it with the chamber sensors. The controller runs the process and releases or adds compressed air to the chamber, as needed. This system, perfected by MATACHANA, allows precise pressure control, so we can work at maximum performance without damaging the product.

MPSG 300V pure steam generator

SURG FOR ALL

Ana Arbona Rovira
First Vice-president of "Surg for All"
Sterilization and Operating Room Supervisor - Valencian Institute of Oncology (IVO)

Surg For All (SFA) was created in 2013, when Jesuit priest Emmanuel Nkeng visited Dr Rubio in Valencia, suffering from a prostate problem that could not be resolved in Cameroon. After this visit, Dr Rubio was invited to travel to his country to observe the hospital situation and consider the possibility of collaborating. He accepted the invitation and, when he returned, decided to found SFA with other professionals. The experience of operating in developing countries was wonderful, but it was also necessary to train the local healthcare team to apply rigorous standards and continue the work in those countries. It was then that SFA decided to adopt Confucius's motto: "Give a man a fish and he eats for a day; teach a man to fish and he eats for the rest of his life".

This is SFA's modus operandi:

1. Selection: choosing the hospital through sampling trips. The area's safety is verified, and energy sources, needs and human resources are quantified. Work begins and the team of professionals is consolidated.

2. Training: this is done in Spain in teams of one doctor and two nurses. The training, funded by SFA, is arranged through a 5-year loyalty contract with the hospital of origin to ensure that what they learn is not applied solely for their personal benefit.

Though this plan, Dr Kitio MG was able to develop the full urology specialty from 2018 to 2023, with 2 semesters in Valencia. Five other local doctors have been trained in different specialties: urology, ophthalmology, laparoscopy and gynecology.

Nurse Angela Elema was fully funded to complete her nursing degree in Douala, Cameroon, and 8 other nurses were trained in urology, anesthesia, hospitalization and operating room surgical techniques.

3. Funding: in order to share responsibilities, it is always proposed to purchase the necessary material on a 50/50 basis with the hospital of origin. Often this is not possible and SFA pays a higher percentage. To date, endourology equipment has been provided for 3 hospitals, together with ophthalmology and radioscopy equipment for other centers.

4. Surgical missions: lasting about 10 days, the aim is to help the trained team develop what they have learned with the ad-hoc material, until they become independent. To date, more than 34 professionals from all around Spain have gone on these missions. SFA is currently focused on the St Joseph Catholic Hospital in Monrovia (Liberia) and Centre Catholique Notre Dame De La Santé in Dschang (Cameroon). Seven missions are planned at the two hospitals in 2024.

Apart from training and missions, the most ambitious project is the construction of a urology department at St Joseph Catholic Hospital, as there are NO urologists in Liberia with a population of 5 million. A tripartite collaboration agreement has been signed with the hospital and its owners, the Brothers of San Juan de Dios. The project is being budgeted and the plans for the future Urology Unit are being drawn up. Financial support from companies and individuals will be required.

www.surgforall.org

MATACHANA FEATURED EVENTS

MATACHANA CONVENTIONS

After several years of pandemic, it was finally possible to hold sales conventions in person. This one ended with a set of incredible recreational activities.


Healthcare Convention 2023


Service & Support Convention 2023


Healthcare Convention 2024


We all took part in the MATACHANA Treasure Hunt

A fun day at Castelldefels Castle, where the teams explored every nook and cranny of the castle looking for the hidden treasure, only to discover that the real treasure is the MATACHANA team: MATACHANA TEAM TREASURE!

NEW REUSABLE STANDS

TRANSFORMING OUR TRADE FAIRS WITH INNOVATION AND SUSTAINABILITY

MATACHANA is proud to have taken our stands to a new level at recent trade fairs.

A modular design that adapts perfectly to each event: in the last 3 months, it has already been used at 8 trade fairs in the Healthcare, Life Science and Pharma sectors!
The essential purpose of the architecture and materials focuses on sustainability, resulting in a 100% reusable and recyclable stand.

We incorporate natural wood elements perfectly integrated with technology: a large screen and a totem that allow us to display all the details of our solutions and products. Current, cutting-edge technology, while maintaining our commitment to the environment, values that characterize MATACHANA. A complete reflection of our message: 'Innovating for a better future'.

ARAB HEALTH 2024

2023 HEARTBEAT CAMPAIGN

TOGETHER SPREADING HEARTBEATS

THANK YOU FOR TAKING PART!

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Hospital Occidental Managua


Clínica Portoazul


Hospital do Salnes Vilagarcía Arousa


Hospital Residencia Sant Camil


Facultad Instrumentación Quirúrgica FUAA


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