

# MAI DUBAI

## WATER SECTOR

**Mai Dubai LLC**  
Dubai, United Arab Emirates  
**Group:** DEWA (Dubai Electricity & Water Authority)

- 12,000 BPH PET LINE for 0.5 L containers:
  - Smiform ECOBLOC® 6-24-6 H P VMAG integrated system
  - Smiflexi LSK 25T shrinkwrapper
  - Conveyors Smiline & subsupplies
  - Smipal APS 3050 P palletizer
- PET line for 5-gallon containers
- PET line for plastic cups



VIDEO



GEO LOCATION



The Electricity & Water Authority of Dubai (DEWA) was formed on 1 January 1992 by virtue of a decree issued by His Highness Sheikh Maktoum bin Rashid Al Maktoum, who ordered the merger of the Dubai Electric Company with the water department.

Mai Dubai LLC came into being on 19 December 2012, a company created by DEWA to build and manage a new water bottling plant in the UAE.

Mai Dubai LLC is a new, exciting and daring commercial initiative in the

mineral water bottling sector and launched its production business at the beginning of 2014.

This new company's goal is to quickly reach positions of primary importance in the industrial reference overview.

For this reason Mai Dubai LLC is planning major investments in technology and people, which will enable it to obtain a product that will live up to the reputation of the brand that produces it.



# BLUE GOLD: AN IMPORTANT SOURCE OF WEALTH

The production of drinking water is undoubtedly the biggest challenge for a place like Dubai, which does not have a river system and has limited rainfall; challenge that DEWA decided to face, to expand in the promising market for the production and bottling of the so-

called "blue gold".

The Mai Dubai project is part of a broader strategic vision of the company's mission of providing products and services of high quality.

Desalinated water is now the main source of drinking water in the United Arab Emirates, the demand for which is growing rapidly, and therefore requires massive investment in advanced systems and technologies.

Since sea water is desalinated using special equipment owned by the customer, SMI's supply begins from the treatment that makes desalinated water potable and ends with the palletizing of the finished packs, ready to be distributed and sold on the market.



The system for the desalinated water treatment provided by SMI is produced by the French company I.C.E., one of the main references in the field of technologies for the treatment of water and bottled soft drinks, which SMI chose as partner in this project since it guarantees the high quality of products supplied, thanks to the excellence of its machinery.

The I.C.E. system installed by SMI in the Mai Dubai plant is very sophisticated as it must make drinkable sea water from which salt and minerals were extracted.

As a result of this treatment, water is subjected to an enrichment process with chemical elements provided by a specific formula determined by the customer, the composition of which varies according to the characteristics and taste that the "blue gold" must have in the end.



From the left:  
Fabio Sisimbro, SMI's Sales Area Manager, and  
Saeed Bin Ghanam, Mai Dubai LLC's Sales Officer.



## THREE PRODUCTION LINES FOR THREE MARKET NEEDS

The agreement between DEWA and SMI was signed in 2013 after a long selection process that took place through a bid issued by the Emirates. In the end, the latter deemed that SMI was the supplier that best reflected the qualitative, economic and technological characteristics required by the invitation to tender. The turnkey solution proposed by SMI for Mai Dubai also includes, besides the actual bottling plant, all the ancillary equipment necessary to run the production lines, from the desalinated water treatment system to the palletizing of the finished packs. With this new investment, Mai Dubai Water aims to become one of the leading companies in this sector. The company's goal is to win significant market shares both from the private consumer - to which the 12,000 bph PET line is dedicated for the bottling and packaging of 1.5-liter, 0.5-liter and 0.33-liter PET bottles - and from the industry and service sector - to which the production of bottled water in 5-gallon containers is intended. Finally, Mai Dubai also aims at the airlines' niche sector through the production of the line that packages water in small plastic cups.



## A NEW CHALLENGE FROM THE CITY OF A THOUSAND CONTRASTS

Nothing ever stops in Dubai. Dubai is the city of the future and many contrasts, which continues to grow and collect one record after another, such as the one DEWA - the Dubai Electricity & Water Authority - recently achieved and which designed and built from scratch, in collaboration with SMI, a new plant for the production, bottling and marketing of a new brand of still water: "Mai Dubai".

It is a very ambitious project and one of a kind, implemented in style just like all the great works that take shape in this amazing city.



## A LARGE-SCALE TURNKEY PROJECT

Dubai is one of the richest cities in the world, where glitz coexists with tradition and skyscrapers overlook the desert. It is the throbbing heart of the United Arab Emirates and the city of the future for anyone who wishes to dream, desire and contemplate changes in his/her life. In Dubai you can feel the thrill of

being able to achieve your goals, the excitement of continuous innovation, the certainty of a country that devotes everything to the well-being and safety of its citizens and visitors: in other words, a magical and exotic place.

Dubai is the city of wonders: the beauty of many sights with an oriental flavor, fun in the glow of the evening,

the endless number of buildings and clubs, the grandeur of the most amazing works of architecture and the tranquility of an enchanting sea. It is the city of greatness and challenges.

This is why DEWA (acronym for Dubai Electricity & Water Authority) - decided to build a plant from scratch to bottle drinking water, for the



production of 12,000 bottles per hour. The development of the entire project, which was named Mai Dubai, was entrusted to the SMI Group in San Giovanni Bianco (Italy) as sole supplier. The only exception are the desalination plant and the factory building, which the company of the Emirates provides for directly. The task entrusted to SMI designers soon turned into a big challenge: to design, implement and install a complete turnkey system comprising the entire process, filling, storage & distribution technology as well as all the relating management and control systems.

SMI proposed itself as the sole supplier to handle all the major stages regarding the design and construction of the plant, with the primary objective of providing a first-class product and demonstrating its technical and managerial skills to the customer. Mai Dubai commissioned SMI both for the technical design of the bottling line and the construction of the plant that houses the line, supervised by the SMI Group's QHSE (Quality, Health, Safety & Environment). The priorities highlighted by the company in the bid mainly concerned the timing involved in the implementation and start-up

of the new production lines as well as the technological content of the machinery making up these lines; all this to achieve a state-of-the-art plant in the UAE that would ensure constant and efficient production flows of excellent quality in all three bottling lines installed in the new plant of 22,123 m<sup>2</sup>. SMI completed the plant's construction work, which lasted about one year, within the deadline agreed with the customer. The first 12,000 bph production line, intended for bottling water in the 0.33-liter / 0.5-liter / 1.5-liter PET collations, came into operation in May 2014.



“ Customer priorities: meeting deadlines and quality excellence ”



From the left: Pierre Anid, Managing Director of Novadim, and Fabio Sisimbro, SMI's Sales Area Manager.

## Novadim food technology

In the UAE SMI is represented by Novadim Food Technology, the company managed by Pierre Anid that efficiently cooperated with both SMI and the customer Mai Dubai LLC for the successful supply of the new water bottling plant. Novadim Food Technology, headquartered in Beirut, Lebanon, has been working in the food & beverages sector for 20 years. Thanks to the expertise of its staff composed of 6 people, the company offers sales support and technical assistance to more than 200 SMI machines installed in Lebanon, Syria, Kuwait, Bahrain, Qatar, UAE, Oman, Yemen, Ethiopia, Uganda and part of East Africa. As far as the project of the new complete line installed at Mai Dubai is concerned, Pierre Anid, Managing Director of Novadim, stated: "I would like to thank all the people who believed in this project. Just two years ago it simply was a plot in the middle of the desert. Today it epitomizes a success both for Mai Dubai and SMI".

## THE ADVANTAGES OF SMI'S SOLUTIONS INSTALLED IN MAI DUBAI

The multi-sectoral experience gained by SMI in over 25 years of business allowed us to propose a comprehensive solution to DEWA which would coordinate, thanks to latest generation automation systems, the installation requirements of the systems, process logic, technical sizing of the utilities, logistics and storage technologies.

The 12,000 bph bottling line (dedicated to the 0.33-liter / 0.5-liter / 1.5-liter PET bottles) consists of: Smiform's integrated ECOBLOC® 6-24-6 HP VMAG stretch-blow moulding, filling and capping system, Smiflexi's LSK 25T shrinkwrapper, Smipal's APS 3050 P automatic palletizing system and a few other machines supplied by trusted partners with whom SMI has been working with for some time.

For this production line, Mai Dubai LLC opted for a compact stretch-blow moulding, filling and capping system of the ECOBLOC® series because it is the ideal solution for achieving high output efficiency at low cost.

The 0.33-liter and 0.5-liter water bottles are blow-moulded, filled and capped by the Smiform ECOBLOC® integrated system and subsequently packaged by the Smiflexi shrinkwrapper in 24-piece tray + film packs in the 6x4 collation while the larger 1.5-liter bottles are grouped in packs of 6 pieces, always in the tray + film formation.

The packaging process ends with the palletizing of the packs on 800x1200 mm Euro-pallets for the final distribution and marketing stages.



# CONNECTING MINDS, CREATING THE FUTURE

The Expo 2020 theme proposed by Dubai, i.e. "connecting minds, creating the future", fosters global development according to three very concrete sub-themes: mobility, sustainability and opportunity. These are the key principles behind the incessant economic activity of this unique Middle East city, a very popular and glamorous destination visited by travelers worldwide; a true miracle in the desert waiting to shine even more when the World Expo will be staged in 2020. In Dubai, everything is designed to amaze in size, uniqueness and luxury. A typical example of this vocation to excel is the "Burj Khalifa", a super skyscraper with 163 floors, which became the tallest building in the world in 2010 when it touched the sky with its 828 meters, Dubai's new icon. The plan of the building, which is surrounded by smaller facilities, is inspired by the shape of a Hymenocallis flower, a genus of plants also widespread in Dubai, where it is particularly popular. The Burj Khalifa skyscraper has the fastest elevator in the world,



moving at 18 m/s (64.8 km/h), and its interiors, which houses shops, offices, hotels and private apartments, were decorated by Giorgio Armani. Other monumental works, decided on and implemented in record time, have contributed to make Dubai the best known and most visited Arab emirate in the world,



which is also an extremely important trading port (the third of the planet) and a unique tourist destination, thanks to its infinite shopping malls (where you can buy anything at very competitive prices). This miracle in the desert was also made possible by a "magic potion" called fresh water; a precious commodity taken from the sea and placed inside huge desalination plants, a "blue gold" that irrigates thousands of flower beds, lush gardens and a multitude of magnificent golf courses.



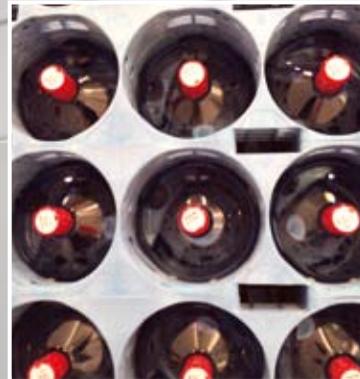
INSTALLATION / Mai Dubai



## DIFFERENT BOTTLES FOR DIFFERENT NEEDS

In addition to the 12,000 bph PET line, the turnkey system SMI provided to Mai Dubai also includes a second bottling line for 5-gallon (19 liters) returnable polycarbonate containers, implemented in collaboration with the Bardi company, and a third line for packaging water in small single-serving plastic cups, implemented in collaboration with Reepack.

The plastic cups are grouped manually into cardboard boxes and sold primarily to airlines, especially to the Emirates airline company (with which Mai Dubai has signed a commercial agreement).



INSTALLATION / Mai Dubai



SMI's supply includes all the utilities necessary to run the three production lines: high-pressure compressor, low-pressure compressor, compressed air piping, chiller, boiler, diesel tank, water and steam piping, etc. SMI's experience and expertise in the packaging industry were made available to DEWA also to study the shape and characteristics of the bottles to be used for marketing the Mai Dubai water. The installation of the new bottling lines was completed in May 2014 when the SMI Team supplied Mai Dubai with an as built drawing of the plant in virtual three-dimensional format.



# Dubai

## SUSTAINABLE CITY FOR EXPO 2020



Dubai's government authorities have set up a committee of experts to study and introduce green programs in Arab territory regarding energy efficiency, renewable energy production and green building projects. Solar energy street lights, green



building codes and high-efficiency LED-based systems are just a few examples of ambitious measures that Dubai has taken to become by 2020 one of the top 10 cities in the world as far as environmental sustainability is concerned. Ongoing preparations also for Expo 2020, when Dubai will welcome millions of visitors. Although 2020 is still far away, in

the emirate people are talking about the World Expo as an impending event and its connection with the Expo 2015 in Milan, with which a "Memorandum of Understanding" was signed as an agreement that opens important perspectives for Italian companies in view of Expo 2020 and which confirms the great interest of the United Arab Emirates for products and technologies "made in Italy".



## COMPLETE LINES FOR EVERY NEED

**S**MI designs and manufactures complete systems and plants for the bottling and packaging of food products and beverages, cleansing agents, personal care products, chemicals and pharmaceuticals. The complete bottling and packaging lines proposed by SMI are ideal for production requirements ranging from 4,800 to 50,000 bottles/hour and are based on technologically advanced choices that ensure high efficiency, great management flexibility, low energy consumption and a quality/price ratio among the best on the market. In terms of turnkey systems, SMI's proposals range from compact "essential" and "energy-saving" lines to complex solutions, with a wide array of intermediate products able to satisfy any present and future requirement in terms of production speed, product to be packaged, automation level and energy saving. Each complete line project includes a careful assessment of all the logistical aspects of the new system, a detailed study of the interactions between the machines and the equipment that make up the production line (whether produced by SMI or other trusted OEMs), as well as a thorough analysis of cost dynamics (TCO - Total Cost of Ownership) related to the purchase and management of the new supply.



# THE WORD TO THE CUSTOMER

## Interview with Jay Andres, Chief Operating Officer of Mai Dubai LLC



*What were Mai Dubai LLC's expectations when it issued the tender for the new bottling plant?*

"First of all the quality of the proposed solutions, followed by tight deadlines, an absolutely excellent after-sales service and, last but not least, a good quality/price ratio. In fact, this investment is only the starting point for our company, since we are already thinking about future developments based on positive feedback from the market".

*What are the main reasons that prompted Mai Dubai to cooperate with SMI?*

"We needed a reliable partner, able to provide a complete turnkey line, capable of meeting our timetable and coordinating the installation of all the systems and machines required to implement the new production facility. In addition, we wanted a supplier who, acting as prime contractor, would manage the four main aspects of the project: water

treatment plant, cups line, 5-gallon container line and PET line. Among the companies that participated in the bid, SMI ranked first in meeting all our selection parameters, thereby winning the order to build the new plant".

*What do you expect from your suppliers in terms of efficiency, flexibility and technological innovation?*

"A rapid process of growth and expansion is part of our company's development plans. For this reason, we want our suppliers to be able to grow with us. Mai Dubai LLC firmly believes in long-term cooperation with its business partners and the mutual benefits that may ensue. When we decided to invest in a new bottling plant, we set the very quick delivery of the entire system as a non-negotiable condition. As such, only a supplier like SMI could hit this target due to its innovative ideas and flexible organization. After all, Mai Dubai's mission is that of being "a sustainable and innovative company, a regional leader in the bottled water sector". In this regard, for example, we are constantly striving to reduce CO2 emissions and pursuing a strategy for environmentally sustainable expansion in agreement with the Dubai Electricity and Water Authority (DEWA), owner of Mai Dubai LLC".

*What role does a supplier like SMI play in this growth process?*

"Suppliers play a key role since it is up to them to provide Mai Dubai

with the best technical solutions available on the market, taking into account the following priorities: meeting customer needs, providing high quality products and offering solutions that will ensure excellent return on investment".

*How important is sustainable development for Mai Dubai LLC?*

"As producers of a good that uses various resources available in nature, we have specific responsibilities towards the environment in which we work. Therefore, we must constantly seek solutions and opportunities which allow us to reduce the consumption of energy, water and all the raw materials that are necessary for producing, bottling and marketing our products".

*What are your company's expectations in regard to this new supply?*

"We place great emphasis on the potential of the new bottling plant provided by SMI, which for us is the foundation on which to build further developments. Just think that Mai Dubai LLC is a company that was established in 2013 without any employees, but our growth plans envisage a workforce of 200 people by the end of 2014. The market's initial response to the marketing of Mai Dubai water was very good; consumers expressed their high satisfaction with the quality of the product, the design of the bottles used in the packaging and the brand designed for the commercial launch. We are pleased with our company and

proud of it, built with commitment and dedication, and we wish to share with our customers the passion we put into our work through modern social media such as Facebook and YouTube, where you can find pictures and videos of our production site".

