

ANTIGUA DISTILLERY

WATER SECTOR

Antigua Distillery Limited
St. John's, Antigua and Barbuda

7,200 BPH PET LINE:

- Smiform ECOBLOC® 4-28-6 LG-VMAG integrated system
- Smiline conveyor belts
- Smiflexi LSK 25 P Shrinkwrapper
- Linear labeller, control systems, high pressure compressor



GEO LOCATION



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The clean blue and rich-with-life sea, the white sand beaches, hibiscus, orchids, giant bamboos, coconut palms and the historic ruins of the Admiral Horatio Nelson naval base: these are some of the attractions that have earned Antigua the nickname "jewel of the Lesser Antilles". But the island of Antigua, named like this by Christopher Columbus in honor of Santa Maria de la Antigua (the Virgin he venerated in the cathedral of Seville), surprises also for its modern and industrialized side. A striking example of modernity, advanced technology and economic development is represented by Antigua Distillery Limited, a leader in the production and marketing of beverages, whose company "vision" is based on comprehensive quality, understood as a fundamental objective to be pursued at all costs to meet the demands of an increasingly demanding market. Quality reached by combining old traditions with modern production technologies, as done recently by the Caribbean company to meet the strong demand for "Oasis Water"-branded mineral water and carbonated soft drinks.



In fact, Antigua Distillery turned to SMI experience and technology for devising the "line engineering" and to implement a new 7,200 bph bottling and packaging line, which is characterized by compact dimensions, operative flexibility and environmental compatibility.

From left:

Kristin Myers, Maintenance Manager of Antigua Distillery Ltd, with Roberto Cavagnis, Sales Area Manager of SMI, and Giovanni Milesi, Project Manager of SMI.



ANTIGUA DISTILLERY

FROM LEADER IN THE PRODUCTION OF RUM...

The island of Antigua has a long history in the production and marketing of Rum.

The delicacy and singularity of the elegant taste of this liqueur depend on the sugar grown in Antigua, much sweeter than that grown in the neighboring islands.

At the beginning of the nineteenth century the island's production of rum was mainly for domestic use until, in 1932, a group of Portuguese traders decided to found Antigua Distillery Ltd.

Using only local capital, they bought new estates and a small sugar factory, which provided the key ingredient for the direct production of the molasses syrup (essential to impart a unique and tasty flavor to liqueurs).

They then began to produce aged rum on a wider scale called "Caballero Rum" and the first bottled rum called "Cavalier Muscovado", the latter aged for two years inside oak barrels to give it a special unique taste.

In the 60s, consumer preferences began moving towards lighter-build

liqueurs; to meet that change, Antigua Distillery modified the distillation process of its plants and began producing the lighter "Rum Cavalier Antigua".

Today the Caribbean company boasts a very diverse range of products with brands of international success as "The English Harbour Extra Old Rum", widely used to prepare cocktails like the famous "mojito" and has received numerous golden awards in the aged rums category.

ANTIGUA: THE ISLAND WITH 365 BEACHES

A former British colony, Antigua is known as the island with 365 beaches: "one for every day of the year", as the locals say. Quiet and almost unknown is Barbuda, only 40 km north of Antigua, considered its younger sister and authentic temple of virgin beauty. Here you can enjoy an enveloping peace, interrupted only by the lapping of the water and the singing of the birds. Above, the nuances of a pastel blue sky and the swirl of colors of its lush vegetation give you the feeling of being part of a corner of paradise. The island of Antigua still retains a traditional character, especially in some of Saint John's neighborhoods outside of the tourist resorts. The architecture is very lively and music accompanies the moments of daily life to the rhythm of reggae and calypso played by the local bands that use improvised percussion instruments made from oil barrels. To make the atmosphere of Antigua even more magical are the old stone windmills, which now symbolize the island and are scattered in large numbers among the abandoned sugar cane plantations, as the old mills of "Betty's Hope" plantation with its small museum.



The use of high quality ingredients and advanced technologies enable the company to obtain excellent products at competitive prices, without giving up the traditional methods that have always been used in the distillation of the island's rum.



...TO LEADER IN THE PRODUCTION OF BEVERAGES

Antigua Distillery does not just mean rum production; this company is also the market leader in the production and marketing of "Oasis Water"-branded soft drinks and mineral water, water that is filtered by means of a thorough process that preserves its purity.

Oasis water is also devoid of sodium and chlorine and, therefore, ideal for infant feeding.

Antigua Distillery's production process is in compliance with the highest quality standards defined by international water bottling associations, which also require the rigorous analysis of samples of all products at least once a year.

ST. JOHN'S: THE BEACH IS JUST THE BEGINNING!

Capital and commercial center of Antigua, this city has about 36,000 inhabitants, almost half the island's total population; tourism is mainly concentrated around two large complexes that overlook the harbor: the "Heritage Quay", cruise ship terminal and home to modern reception facilities, and the "Redcliffe Quay", the ancient seat of the slave trade and current citadel of wooden huts and old stone buildings that house shops, art galleries and restaurants. Among the main monuments stands the imposing Anglican Cathedral of Saint John's, dating back to 1681 that is the highest point of the city with its soaring spires. Another must in Saint John's is the picturesque town market which gives its best to the lively local population especially on Friday and on Saturday morning offering plenty of fruits, vegetables, crafts, t-shirts, souvenirs and spices of all kinds in a sensational swirl of colors and scents.

THE OBJECTIVES OF THE NEW PROJECT: COMPACTNESS, FLEXIBILITY AND ENERGY SAVING

The new bottling line commissioned to SMI by Antigua Distillery was devised and implemented using advanced technologies in terms of flexibility, reliability, efficiency and compactness; all extremely important factors to be able to easily adapt the company's production cycles to current and future needs. The "heart" of the new system is the Smiform ECOBLOC® 4-28-6 LG-VMAG integrated system, used for the blow-moulding of 0.35 litre, 0.65 litre and 1,5 litre PET bottles, for filling them with Oasis-branded natural mineral

water and for the final capping of the containers. Thanks to the fact that the system provided by SMI is able to bottle also carbonated liquid, the new production facility is already prepared to meet the planned expansion of activities of Antigua Distillery in the carbonated beverages segment (water and soft drinks), thus optimizing the return on capital invested and making the most of the system's potential. The production system of the new bottling and packaging line is fully automated and allows quick transitions from one container to another and from



HOW TO MAINTAIN EFFICIENCY AT HIGH LEVELS

one pack configuration to another; besides, the new facility handles both the "flat" and the "sport" cap. The design of the new PET containers took into account the functional, economic and image expectations of the customer. The new Oasis water PET bottles, made with low-weight preforms, are lightweight, strong and fully compatible with Antigua Distillery's environmental policy. In addition, all the preforms used for the production of the 0.35 litre, 0.65 litre and 1.5 litre bottles have the same type of PCO thread, thus allowing the switch from one format to another without the need to change the format of the bottle's neck. Major energy saving innovations were implemented in the new line, such as the heat recovery system installed on the shrink tunnel of the LSK 25 P Smiflexi shrinkwrapper. This system allows reusing some of the hot air generated by the heating elements inside the shrink tunnel. Through appropriate pipes, the hot air present in the pack's outlet area is fed back to tunnel inlet to be able to reuse it during the shrinking process and therefore reduce the generation of heat performed by the heating elements.



The primary packaging of Antigua Distillery's Oasis mineral water in 0.35 litre, 0.65 litre and 1.5 litre PET bottles is performed by Smiform's stretch-blow moulding, filling/capping ECOBLOC® 4-28-8 LG-VMAG integrated system, while the secondary packaging in shrink film packs with and without flat cardboard pad is performed by a Smiflexi LSK 25 P model shrinkwrapper.

All the machines supplied by SMI for Antigua Distillery's bottling and packaging line are built with first-rate materials, which ensure operative reliability and durability, and are made with wear-resistant components that reduce cleaning and maintenance.



The system supplied to the Caribbean company also includes a linear labeller, the control systems and conveyor belts that handle the bulk containers and the packaged product; handling that occurs in a fluid, constant and precise manner thanks to the use of a latest generation line automation and control system, which ensures optimized production flows, easily adaptable to demand.

Line logistics solutions offered by SMI are characterized by:

- modular structure, compatible with a wide range of containers and packages of different sizes and shapes;
- minimized format changeover times, allowing you to quickly switch from one production to



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- another;
- high operative reliability, thanks to AISI 304 stainless steel structures and components;
 - noise and friction levels among the lowest in the industry;
 - reduced time for cleaning and maintenance;
 - system start-up and running through simple and user-friendly steps;
 - ease of use, thanks to the POSYC operator panel with LCD touch-screen;
 - energy consumption and operating costs among the lowest in the market.

The use of sophisticated sensors throughout the production line also allows maximizing the working efficiency of all the system's machines and optimally manages any downtime or malfunction of any machine.



SMIGROUP INNOVATIONS MEET THE BEVERAGE AND "LIQUID FOOD" INDUSTRY

With an exhibition area of 132,000 square meters, the international Drinktec 'kermis', scheduled from 16 to 20 September 2013 at Munich's New Trade Fair Centre, is the most important international "showcase" for new technologies and latest innovations in the bottling industry. Since Drinktec is a worldwide meeting point for all operators of this sector, SMI chose this event to present the world première of its new solutions for the stretch-blow moulding of PET bottles, secondary packaging and line-end operations. These are newly designed bottling and packaging products, born from years of advanced research in SMI's R&D labs, characterized by low power consumption, high performance and quality/price ratio among the best in the market. The issue of economic and environmental sustainability of production processes has become an integral part of every strategic decision also in this area. In fact, "food & beverage" production companies require manufacturers of systems and machinery to come up with technical solutions increasingly in line with new development models. Therefore, also for the primary and secondary packaging sectors, efficiency and flexibility

of industrial processes must be pursued that must be consistent with increasingly stringent parameters, for the optimal use of resources and energy saving of the production cycles, without forgetting the fundamental quality requirement of the end product.

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