

INDUSTRY 4.0 SOLUTIONS THAT INCREASE PRODUCTION PROFITABILITY

A tiny peninsular covered by desert dunes and surrounded by the waters of the Persian Gulf, where life continues under the shade of the ancient souks and futuristic skyscrapers. Qatar is a land of contrasts, where history and traditions live hand in hand with innovation. In Qatar everything is projected towards the future, above all the companies which, in preparation of growing market demand, continually invest in new technology and in cutting edge production installations. As the future is not always predictable the winning choice is that of concentrating on the customers' current needs without losing sight of future objectives. One example of success of this development strategy is Al Etihad Refreshment, which, thanks to its collaboration with SMI, has installed a new water bottling and packaging line for the Doha Water brand. This installation, with a current production of 20,000 bottles/hour, can easily be adapted to double the production without changing the line layout, or replacing the machinery that is currently used.

Ready to increase production! The idea of a line with expandable production

To create the new water bottling and packaging installation for the Doha brand, Al Etihad Refreshment turned to the experience of SMI, who proposed a bespoke solution for the current production requirements but with a truly innovative aspect, the possibility to quickly and easily adapt to growing future market demands, without compromising their investment. The idea of an expandable production line was devised, a line



that right from the start could face an increase in production of up to 40,000 bottles/hour without having to change any machinery in the installation, which is currently producing 20,000 bottles/hour, because they only need to add a new integrated ECOBLOC® ERGON system to double the installation output in very little time. The flexibility of the SMI equipment also gives the customer another option, he can decide if he wants to maintain his current production speed of 20,000bph and use the

new integrated ECOBLOC® ERGON system to bottle another product or to run new bottle formats. Even in this case, no modifications to the line are necessary as the conveyors and automatic wrappers from the LSK and LWP range are so flexible that they will allow the simultaneous management of numerous products and/or formats.

Industry 4.0 solutions that increase production profitability

In the era of Industry 4.0 machines

The future is not always predictable



Main advantages of SMI solutions:

- Compact and flexible solution for stretch-blow moulding, filling and capping PET bottles with mineral water.
- The use of innovative technical solutions that satisfy the installation's present and future demands. The conveyors have been sized so that in a very short time, they are able to manage greater volumes of production without needing any further modification to the present layout.
- Changeover time reduced to minimum for a rapid switch from one batch to another.
- Modular and ergonomic structure that is easily adapted to various types of container and production flows.
- Precise and quick operation, thanks to the electronic operations system, to the motorised stretch rods and the use of high efficiency valves controlled by flowmeters.
- Reduced energy consumption: the stretch-blow moulding module has a dual air recovery system that allows the reduction of energy costs

and installations need to be flexible, intelligent and interconnected. Men, machines and systems communicate constantly among themselves, creating networks of added values and automated production processes that guarantee the optimal use of the resources available.

More and more often, companies need to face rapid organisational and production changes to satisfy constant changing market demands, these can be, the type of product, packaging format, packaging mate-

rial and so on. To be able to have the availability of more slender, flexible, versatile bottling plants is without a doubt, an important competitive advantage, which allows companies to maintain and gain market share, and to successfully face the most demanding challenges that come from fickle consumer habits.

A practical example of this reality can be seen by the "expandable" production line supplied and installed at the Al Ethiad Refreshment Factory.