CASE STUDY

Team spirits: craft distiller blends its brewing expertise with Omron's control automation

A success story

Craft-spirits venture, Spring Mill Distillery, located in Guelph, Ontario, is aimed to position itself as one of Canada's top producers of craft whiskey and other distilled spirits such as vodka and gin.

Spring Mill Distillery is an independent, privately-funded enterprise co-owned by individual investors with John Sleeman owning the biggest minority share. Sleeman was the founder and former owner of one of Canada's most successful beer companies, Sleeman Breweries, before he sold the company to brewing giant Sapporo Breweries in 2006.

Doan Bellman, vice-president of operations and master distiller has worked with Sleeman since 1988 and relates that he is proud to continue on with the philosophy that Sleeman started, which is based on the belief that having the right equipment, ingredients and know-how can enable the company to produce some of the finest products in the world.

"We spared no expense in putting together what we think is the finest craft distillery in Canada," said Bellman. "We have best-ofbreed distilling and processing equipment expertly laid out for optimal production." Bellman adheres to the belief that the operation's long-term success would be dependent on installing the right process control solution along with all the related instrumentation and hardware, that would withstand the test of time and vastly increase output down the road.

Bellman brought in LSI Control Systems Integration Canada ULC to spearhead the fairly complex automation and integration project.

LSI's branch manager, Ian Richardson, immediately began working on drawings of how the system would operate. "Once we developed the process and instrumentation drawings, equipment lists and other requirements, we started the automation dicussions," said Richardson. "We knew there were many functions that could be automated, but still give Spring Mill Distillery the autonomy of controlled production."

Richardson anticipated that long-term they could automate most functions so they needed hardware in place that could be flexible and would not become obsolete by the time Spring Mill Distillery put their first high-end products on the market.

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Business Need

An upstart craft distiller in Canada was seeking a flexible and future-proof automation solution that would allow for a ramp up in production and throughput as its operations expanded.

Unique Solution

An integrated process control solution, developed by Omron and partner LSI Control Systems Integration Canada ULC, using Omron NJ-series controllers and NA-series HMIs was added to their distilling and processing equipment to vastly increase output down the road while still allowing for the autonomy of controlled production.

Customer Benefits

Omron's solution improved overall operational flexibility and production efficiency. The distillery can now vastly increase output down the road without worrying about dealing with obsolete hardware and sofware.



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"From our perspective the risk in the learning curve lay in being able to program the project, as we were working with intrinsically safe components, standard components and a variety of instruments and equipment," recalled Richardson.

After a series of live tests and demonstrations, Richardson became convinced that Omron's Sysmac automation platform would provide the best solution for the distillery's process control needs.

With flexibility being a critical consideration, Omron supplied high-performance automated valves with modular components to accommodate any future changes, along with devices capable of performing variable duties.

LSI's Richardson also used Omron's remote I/O blocks that could be easily expanded as required - keeping wiring local to the change but the process connected to the main controller, an Omron NJ-101.

With Omron's flexible platform and most changes being coderelated rather than hardwarerelated, new capital costs are effectively able to be controlled.

THE PURSUIT OF QUALITY

In the end, the Omron Sysmac automation platform turned out to be a cost-effective solution with plenty of flexibility to accommodate Spring Mill Distillery's future production needs.

"Omron's Sysmac automation platform has proven to be flexible enough to handle the many changes and additions as we walk down the learning curve," adds Richardson. "And the Omron NA HMIs satisfy the distillery's visualization needs and they can be customized as we move through the process."

Richardson states that LSI is already in talks with Spring Mill Distillery about doing data acquisition down the road. "The Omron Sysmac automation platform is already set up for it, it's just a case of selecting what data and how to present it."

With today's consumers increasingly choosing quality over quantity, Spring Mill Distillery is confident in Omron's ability to accommodate further growth.

Read the full story in Canadian Packaging's September 2019 issue. Omron Automation is an industrial automation partner that creates, sells and services fully integrated automation solutions that include sensing, control, safety, vision, motion, robotics and more. Established in 1933 and currently headed by President Yoshihito Yamada, Omron's 36,000 employees help businesses solve problems with creativity in more than <u>110 countries.</u>

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