

ENGINEERING
TOMORROW



Case story | iC7-Automation

Pioneering OEM **commissions** bottling line **with confidence**

The situation

BELGIUM: The family company, Legendre Conveyors, now part of Vinci Energies Belgium, is willing to pioneer the new iC7 series from Danfoss Drives due to its great trust in Danfoss built up over many years. Legendre Conveyors has designed conveyor systems with Danfoss drives for many years, using VLT® AutomationDrive FC 302. Now they progress to the iC7-Automation drive. Legendre Conveyors made their choice with no previous experience of this next-generation drive series. Yet, the commissioning is a success, thanks to the great cooperation between Danfoss and Legendre Conveyors.

"With the new projects using iC7-Automation from Danfoss Drives, Legendre Conveyors is now using the fourth generation of Danfoss AC drives products. They are confident, being familiar with how Danfoss products work, and knowing the service and support they can expect from Danfoss", says Patrick De Smet, Consulting & Sales Engineer at Danfoss Drives.

First

mover now
controls conveyor
systems with
iC7-Automation

The challenge

The primary aims of the investment by Brasserie Caulier in Péruwelz, Belgium, were to increase production volume and production efficiency while at the same time reducing CO₂ emissions and water consumption. Legendre Conveyors was tasked to design a new bottling line for the brewery.

For improved energy efficiency, Brasserie Caulier decided to harvest energy released during boiling. Previously, this energy was lost, but in this project the aim was to reuse harvested energy to heat the hot rooms all year round. For optimized water consumption, the short-term goal was to reduce water consumption from 7 liters to 4 liters of water for every liter of beer produced.

For the conveying systems and the bottling line, the project requirement was to increase nominal throughput up to 20,000 bottles per hour and optimize conveyor efficiency for improved CO₂ footprint.

“The iC7-Automation enables Legendre to support Brasserie Caulier in reducing its carbon footprint”

Patrick De Smet, Consulting & Sales Engineer
at Danfoss Drives

20,000

bottles per hour
throughput
target





58

iC7-Automation
units installed in
total

The solution

In order to contribute to the decarbonization target, efficiency of the bottling line conveyors was optimized using a combination of 46 iC7-Automation units and 46 VLT® OneGearDrive gear motors. The project also used 12 iC7-Automation 0.55 kW drives for control of induction motors on a conveyor belt.

Commissioning of the new bottling line by Legendre Conveyors commenced in June 2022, with support from Danfoss Drives. The iC7-Automation is easy to program using MyDrive® Insight software. The position of connectors supplying voltage and motor

connection is better than before. The larger control panel is also easier to read. The diodes to see status about communication are also improved compared to VLT® AutomationDrive FC 302. Mounting hole dimensions are identical from one generation of drives to the next.

Mathieu Legendre, Chief Operating Officer (COO) at Legendre Conveyors, explains: "The iC7-Automation is easier to connect, install and use. It's intelligent to operate and easy to mount, one drive at a time. Danfoss has offered us great support and it's been a pleasure to work closely with the Danfoss team on yet another project"

"The iC7-Automation is easier to connect, install and use. It's intelligent to operate and easy to mount."

Mathieu Legendre, Chief Operating Officer (COO)
at Legendre Conveyors

The outcome

Using the iC7-Automation drive, Legendre Conveyors well and truly met the project requirements for conveyor efficiency. They also found the drive convenient to install and use.

The first reaction from Younes Taleb, PLC Programmer at Legendre Conveyors was: "The design of the iC7-Automation is perfect. The disposition of the information on the control panel is clear, the fieldbus diodes are better than before, and the new MyDrive® Insight software is more intuitive and user-friendly when managing the drive." Furthermore: "The improvements that Danfoss Drives has made are super: the fan position, moving main supply to the left, motor connection to the right, and color codes for safety and non-safety components."

With the new generation of components in the Danfoss iC7 series, the improved availability of the drives was truly appreciated by Legendre Conveyors. As such, Legendre Conveyors is ready for the next generation of drives and for another 20 years of reliable performance.

Brasserie Caulier

Since 1933, this family business has passionately brewed and bottled quality beer.

www.brasseriecaulier.beer

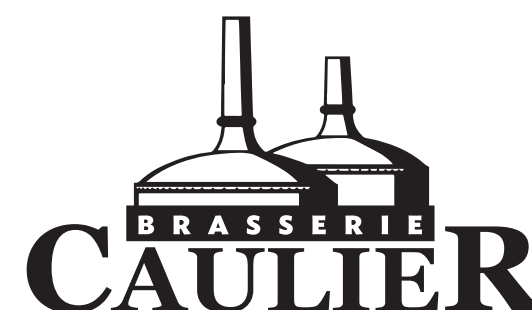
Legendre Conveyors: We Convey - You Relax

For over 70 years, Legendre has expertly integrated transport systems and line management.

www.legendre.be

"The design of the iC7-Automation is perfect, and the new MyDrive® Insight software is more intuitive and user-friendly when managing the drive."

Younes Taleb, PLC Programmer
at Legendre Conveyors



From the left: Olivier Legendre, CEO of Legendre Conveyors, and Mathieu Legendre, COO of Legendre Conveyors

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