



ENGINEERING  
TOMORROW

*Danfoss*

Case study | ICF valve stations

## Frigotehnica **reduces downtime by 30%** in brewery retrofit

The brewery viewed the revamp of its 27-year-old industrial refrigeration system as an opportunity to simplify operations, improve safety, and reduce CO<sub>2</sub> emissions. However, they faced a challenge. Their existing facility remained essential for daily operations, so shutting down for weeks or months was not an option.

Under these conditions, the brewery turned to the design expertise of Frigotehnica Industrial. As part of VINCI Energies, Frigotehnica shares the same values, goals, and vision as the Group. In a world undergoing constant change, VINCI Energies contributes to the environmental transition by helping bring about major trends in the digital landscape and energy sector. VINCI Energies creates bespoke multi-technical solutions and services for energy, transport, and communication infrastructure, as well as buildings, factories, and IT systems.

To address the unique project situation of their client, Frigotehnica's design experts proposed a straightforward and efficient solution — new Danfoss ICF valve stations.

### **The challenge: retrofitting and operating at the same time**

Danfoss ICF valve stations were key in helping Frigotehnica address several challenges. Firstly, the brewery was particularly concerned about the operational safety of their

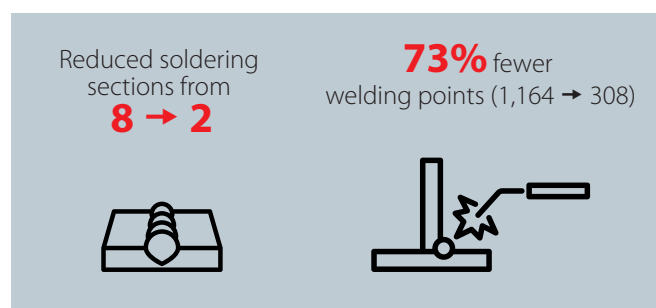
existing system. Secondly, cumbersome ammonia control station valves required frequent servicing. Finally, the pipe network, originally built in 1997 and partially extended in 2007, further complicated maintenance efforts.

To address these needs, Frigotehnica installed the latest technology from Danfoss — ICF valve stations — known for enabling fast installations and operational simplicity. With this extensive upgrade, the client was able to leverage the latest technologies, extend its cooling capacity, and improve its CO<sub>2</sub> footprint.

### **The outcome: a trusted solution and implementation**

"If you need to move quickly and cannot afford mistakes or delays, ICF valve stations are essential," said Razvan Voicu, development manager at Frigotehnica. "We are seeing simpler installations, fewer errors, and lower maintenance costs. Clients appreciate the reduced space requirements and the operational savings from carbon capture."

The brewery's innovative and eco-friendly application has been well-received by employees. The redesigned system includes a 120 ICF valve station and **reduces soldering sections from eight to two**. Additionally, there are **73% fewer welding points, down from 1,164 to 308**. Installation was carried out in cold conditions while the unit remained operational, causing minimal disruption to daily activities. Only one major stoppage of the refrigeration plant was necessary, allowing the brewery to maintain normal business operations. The result was 30% less downtime for the brewery retrofit.



The final solution enhanced safety, and lowered maintenance needs. Danfoss' advanced automation systems not only streamlined operations but also improved the overall reliability of the production process.

As the retrofit progresses to its next stage, Razvan talks about Danfoss valve stations, emphasizing, "Old technology comes with a risk we cannot afford. We trust Danfoss to provide the innovative, high-quality solutions our clients require."

## Two decades have passed and our collaboration remains strong

In a standard partnership, Danfoss offers extensive support during the installation phase and ensures that automation systems are seamlessly integrated into existing infrastructure. However, this wasn't an ordinary partnership. "We grew up together," commented Romulus Papuc, General Manager at Danfoss Romania. "Previously, we supported Frigotehnica with presentations, design, and technical support. Today, they have become the experts. While they may not require our assistance, they still trust our products, our service, and our partnership."

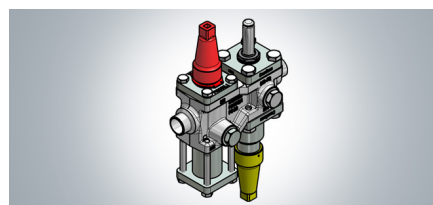
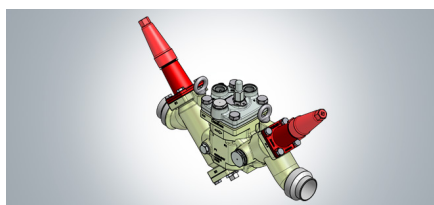
As manufacturers increasingly look for better, greener solutions, Danfoss is here with expert advice, innovative and quality solutions that transform project ideas into a reality in cooperation with our partners and customers.



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**Old technology comes with a risk we cannot afford. We trust Danfoss to provide the innovative, high-quality solutions our clients require.**

*Razvan Voicu  
Development Manager at Frigotehnica*



For more information on the solution, please visit our dedicated webpage:

[Danfoss ICF™ Flexline valve station](#)



For more information about Frigotehnica, please visit their website:

<https://www.frigotehnica.ro/>

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