

## PRESS RELEASE

---

### FOR IMMEDIATE RELEASE:

**Plastic & Rubber Unit contact:**

Nicola Balducci  
Frigel GmbH General Manager  
n.balducci@frigel.com

**Marketing contact:**

Simone Serni  
Marketing Manager  
s.serni@frigel.com

## Frigel Introduces the Latest Developments in Advanced Mold Temperature Control Units and Adiabatic Cooling Solutions at FAKUMA 2024 (Hall A5-5123)

SCANDICCI (FI) ITALY – Sep 04, 2024

Frigel Group will participate in Fakuma 2024, the International Trade Fair for Plastics Processing, in Friedrichshafen (Germany) from 15 to 19 October, presenting the latest process cooling solutions, designed especially for the following Plastics fields: **automotive, packaging, medical, household and technical molding**.

Frigel is a Global Solutions Provider for cooling and temperature control applications, with more than 10.000 customers worldwide. Our innovation and expertise offer unique systems, designed to match the specific needs of each industrial process.

Our innovative solutions are focused on:

- **Maximizing productivity** through highly innovative mold cooling technologies
- **Reducing overall operating costs**, through significant energy and water savings
- **Highest sustainability standards**, with the lowest environmental footprint in the market.

Visit us and meet our engineers, as they will be able to show you the best solutions for your precise industrial process. Learn about our important innovations:

- **New Turbogel B4:** a new generation of Mold Temperature Control Units, specifically designed for cycle-time reduction for all injection molding and packaging applications achieving up to 40% increased productivity
- **New Microgel™ RSY:** Unique Mold temperature Unit with patented SYNCRO Variotherm Technology, provides unprecedented increase in productivity of high-quality technical molding parts - up to 60%
- **Ecodry Adiabatic Cooler 4DK:** centralized closed-circuit adiabatic cooling systems designed to replace the old cooling tower technology
- **3PR 4.0 control system:** complete real-time control of the entire cooling system (parameters, functions, alarms, etc.)
- **Thermogel TDK Series:** High precision Single Zone pressurized water TCUs
- **A wide range of Microgel RSM/RSD** provides an optimized mechanical design, increased reliability and a wide range of options. Powerful pumps and precise temperature control up to 90°C ensure long-term high performance and product quality improvement with minimal cycle cooling time.



## **NEW TURBOGEL B4 Series – The unique “Profit Booster TCU”**

Frigel launches for the first time in market history, a **New Generation of Mold Temperature Control Units, specifically designed for cycle cooling time reduction**. The advantages for the customer are easily understood, increased productivity and profitability of a single production cell, against an investment with an average payback time of few weeks.

The unprecedented performance of these units **guarantees a significant reduction of the cycle time by increasing the heat transfer efficiency between recirculating water flow and mold cavities**, thus drastically reducing the cooling time of the actual cycles, over traditional TCUs.

This complete range of units comes in several versions covering most applications:

### **Turbogel “S” – for INJECTION MOLDING:**

This new generation of temperature control units offers to all molders a unique tool to highly improve productivity and optimize their process keeping high quality of molded parts. As an immediate replacement of standard TCUs commonly used in the industry, **these new units have proven productivity increase of at least 20% in most existing molds and up to 40% in some cases**. They are available in single zone (B4SM) and dual zone (B4SD) configurations. Each unit includes a high-performance booster pump per zone, actuated modulating cooling valve, and 6 to 24 kW heater per zone

### **Turbogel “P” – for PACKAGING:**

This unique TCUs are designed for high performance mold cooling in low temperature applications, including packaging molding, closures and thin-walled containers, blow molding, and extrusion applications.

Replacing the direct cooling from Central chillers, **these units reduce cooling cycle time of processes running with chilled water by highly increasing the heat transfer efficiency of the mold, obtaining productivity boost between 10 and 20%**.

These units are available in single zone and dual zone configurations, including a high-performance booster pump per zone (with or without inverter), actuated modulating cooling valves and cooling capacities capable of servicing the highest throughputs.



## **NEW MICROGEL™ SYNCRO RSY – A paradigm shift for high-end Technical Molding**

### **“Simply Synchronized Proven Results”**

Frigel presents to the market MICROGEL SYNCRO RSY, the most innovative Mold temperature Control Unit featuring patented SYNCRO Variotherm Technology, integrated water-cooled chiller and double zone booster pumps.

The new machine-side unit, that revolutionizes the temperature control method for technical injection molding, allows for a drastic reduction of cycle time -up to 60%-, while maintaining the surface quality, dimensional characteristics and mechanical properties of the finished technical products.

The reduction of the total cycle time is obtained thanks to the use of chilled water – provided by the integrated chiller – only during the cooling phase of the cycle, through the digital synchronization with the molding process, that provides the signal for “deep cooling only when it is needed”, obtaining a significant reduction of the cooling time while keeping the cavities warm during injection phase. The Microgel SYNCRO product line features more than 10 models, with cooling capacities from 16 kW to 56 kW and heating capacities from 12 kW to 24 kW.



As an immediate replacement of standard TCUs commonly used, this new technology has the great advantage of not requiring modifications to the mold itself or any of the molding parameters, making the system communicate with the press while remaining completely autonomous and easily implemented by the operators. The advantages for the customer are easily understood increased productivity and profitability of the single production cell, against an investment with an average payback time of few months.



## ABOUT FRIGEL GROUP

The Frigel group has an international structure with offices located all over the world and consists of five production sites, two of which in Europe (Florence and Padua), two in Asia (Thailand and India), one in South America (Brazil); five commercial subsidiaries (United States, Germany, Poland, Italy) and fifty-one distribution points (a worldwide network of agents and distributors). Our goal is to "Design a more efficient and sustainable industry". For decades we have been designing, manufacturing, and installing efficient and technologically advanced solutions for the cooling of industrial processes. The Frigel product range has been designed to cover a wide range of solutions, from machine-side to large centralized systems.

Frigel products and solutions are designed to meet the cooling and temperature control requirements of industries such as plastics and rubber, food and beverage, power generation and transmission, data centers, chemicals and pharmaceuticals, metals and others. Frigel has gained in-depth knowledge of the thermodynamic requirements of industrial processes, enabling it to design "tailored to the application" equipment and systems to meet the specific needs of each process.

Four key factors guide the design of optimal solutions for each customer – productivity, efficiency, sustainability and reliability.

OUR PURPOSE: engineering a more efficient and sustainable industry

OUR VISION: Be a global innovator of high performance, sustainable and quality engineered solutions for process cooling and temperature control technologies.



FRIGEL FIRENZE S.p.A.

[www.frigel.com](http://www.frigel.com) | [marketing@frigel.com](mailto:marketing@frigel.com)

