

# Innovative freezing

... on the cool edge of science

Fabian Van Damme | Dohmeyer



# AGENDA

... on the cool edge of science

- 1** Introduction M.Sc. Fabian Van Damme  
Introduction Dohmeyer
- 2** Short introduction Movie
- 3** Innovative freezing



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# 1. INTRODUCTION

## Our technological support team



**Fabian Van Damme**  
Director

Master Of Science in Engineering  
M.Sc. Chemistry  
M.Sc. Biochemistry  
M.Sc. Fermentation technology  
Vlerick Business School alumni.

Majority shareholder of Dohmeyer and driving force behind the company for over a decade. Established the Dohmeyer Network around the world with research and production



**Danny T' Kindt**  
Sales Manager

Long lasting face in the cryogenic business. Build up his career through several functions and companies, ever proven his value for his colleagues and customers. Recently brought 2 decades of machine development and sales experience to Dohmeyer.



**Tomasz Kucwaj**  
Project Manager

Master of Science in Mechanical Engineering. Project engineer and manager in the Dohmeyer construction facility in Poland. Developer of many improvements and innovation in the current Dohmeyer product gamma.



**Koen Vanderborgh**  
Business Developer

Master of Science in Bio-Engineering with several years of experience in the food and pharmaceutical process industry. Recently joined Dohmeyer to put into practice his knowledge on heat-transfer in bio-technological processes.

# 1. 1. CRYOGENIC FREEZING

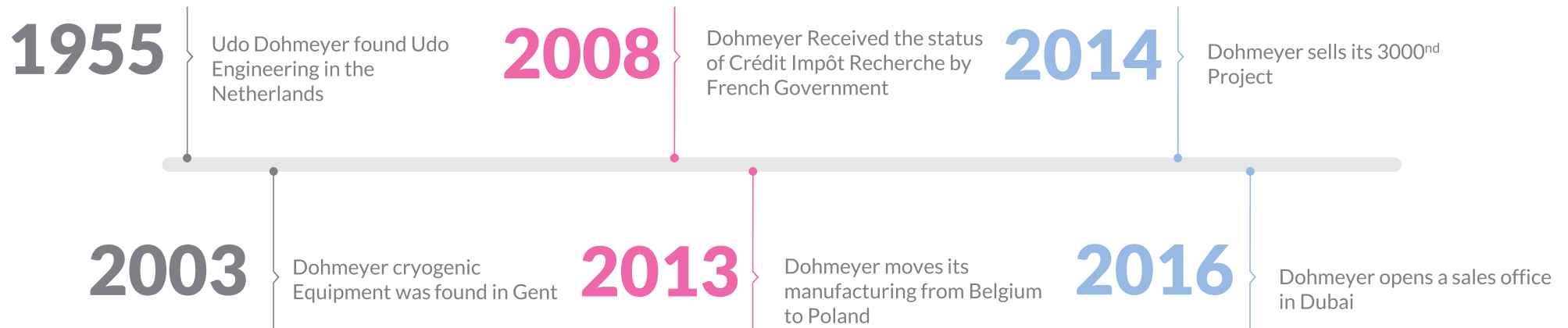
Not your ordinary Freezer

Cryogenic Freezing	Mechanical Freezing
$N_2$ $CO_2$	$CH_3CCl_2F$ $NH_3$ $CCl_2F_2$ $C_2H_4F_2$

Cryogenic gasses offer extremely low temperatures combined with high flexibility and freezing power, freezing products rapidly while exposed to the gasses. Due to this rapid freezing products the products are controlled

dehydrated while being frozen. Next to that the cryogenic gasses, used for the freezing process offer an inert protective atmosphere and unseen cooling power per time unit. Resulting in perfect controlled conditions

## 1.2. OUR COMPANY MILESTONES

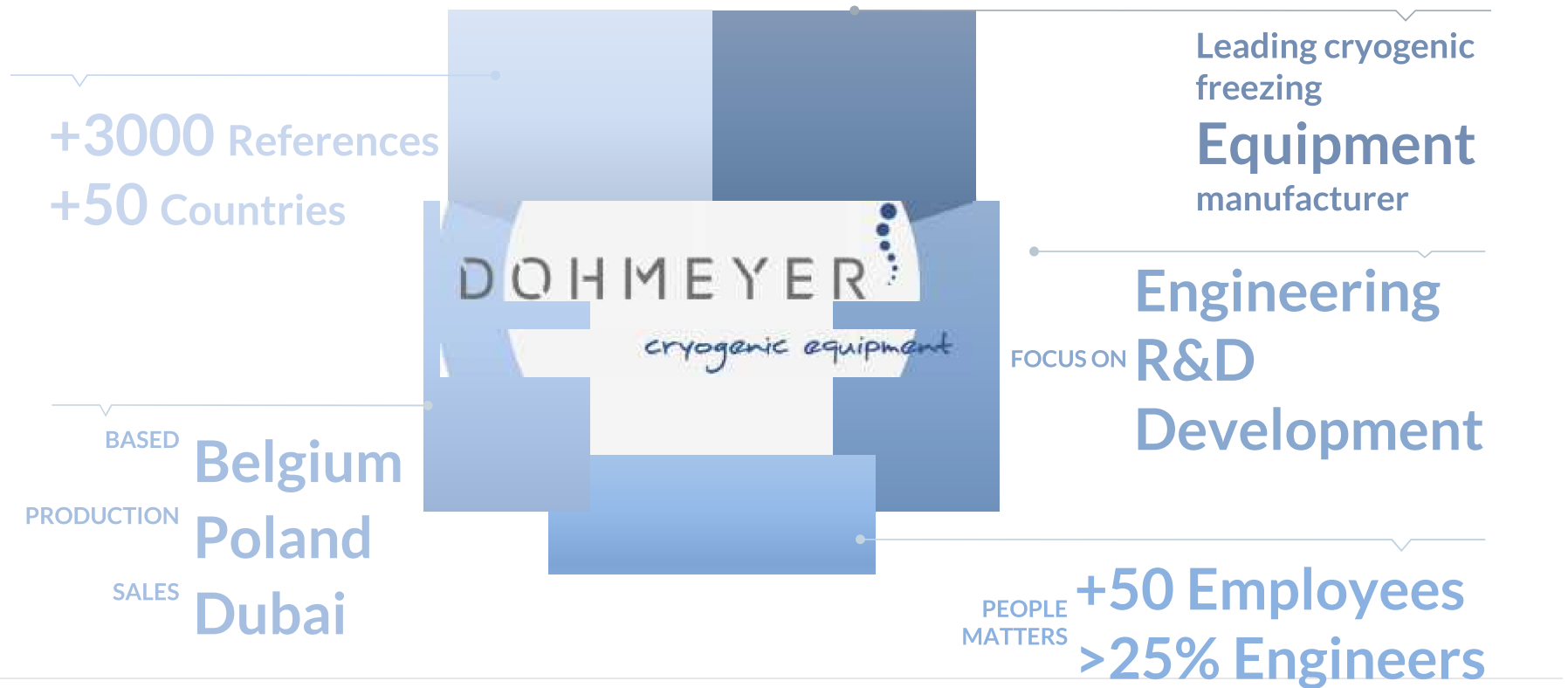


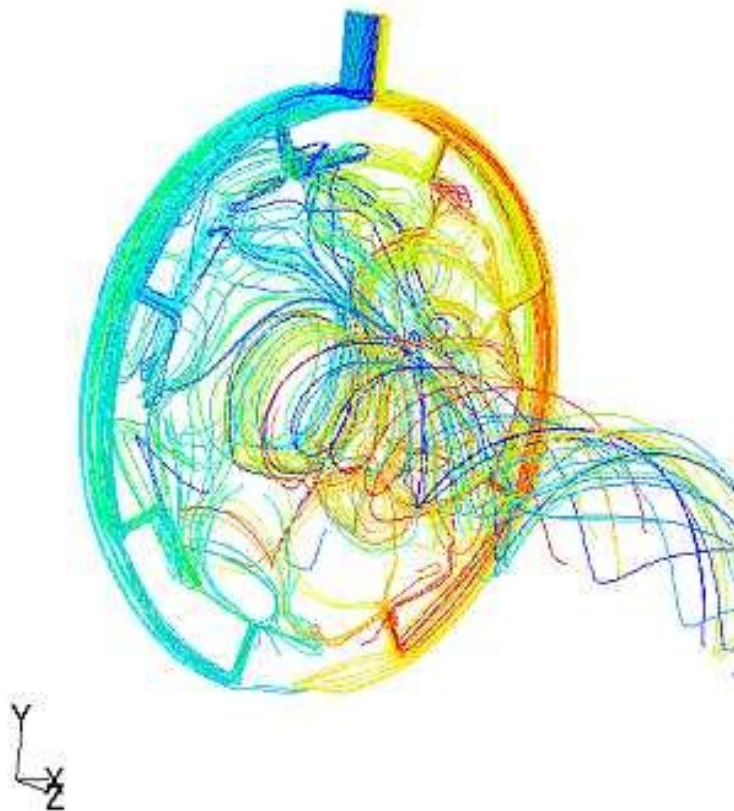
### OUR FUTURE PLANS

Dohmeyer continuous to grow worldwide and is opening offices close to mayor emerging markets. Dohmeyer wants to continue his efforts to increase cryogenics understanding and continuous improve the efficiency of its freezers.

## 1.3 DOHMEYER IN KEY FIGURES

Find out more on [www.dohmeyer.com](http://www.dohmeyer.com)





## 1.4. RESEARCH & DEVELOPMENT ...working on the cool edge of science

1

**Finite element analysis and Flow Analyses:** Material stress forecast with finite element analysis. With the use of Flow Analysis software, flow and cool rates can be predicted and optimized

2

**Cryogenic crystallization control** is an important process in the life science and metal industry, often using cryogenic equipment, for distinctive tasks in highly demanding industries, like gametes, aviation and sustainable electricity production. To induce or avoid **vitrification**

3

**Research projects, supported with (inter)national fundings** to give you a competitive edge on your competitors. As Dohmeyer is officially granted the title of being a research institute (Credit Impot de Recherche), we offer a big advantage compared to other research institutes as we focus on solutions that are directly useful in the industry as well..





## 1.5. CORPORATE DATA DOHMEYER

### Worldwide Network

#### Corporate Office

Belgium	+32 9 241 52 22
Poland	+48 17 788 98 18
UAE	+971 4 319 9365

#### Agents & After Sales

UK	+44 1173 121314
Philippines	+639 175399767
Brasil	+55 11 558 969 35
USA	+1 347 448-3409
South Korea	+82 10 887 1429 1
Thailand	+66 8 1996 9344
Hungary	+36 30 466 97 83



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### **Dohmeyer Introduction Movie**

Dohmeyer is a manufacturer of cryogenic equipment. As we think information is important, we show you an in depth offer a preview of what our machines are capable of and what our customers think about us, our machines and the cooperation we managed to build up over the years.

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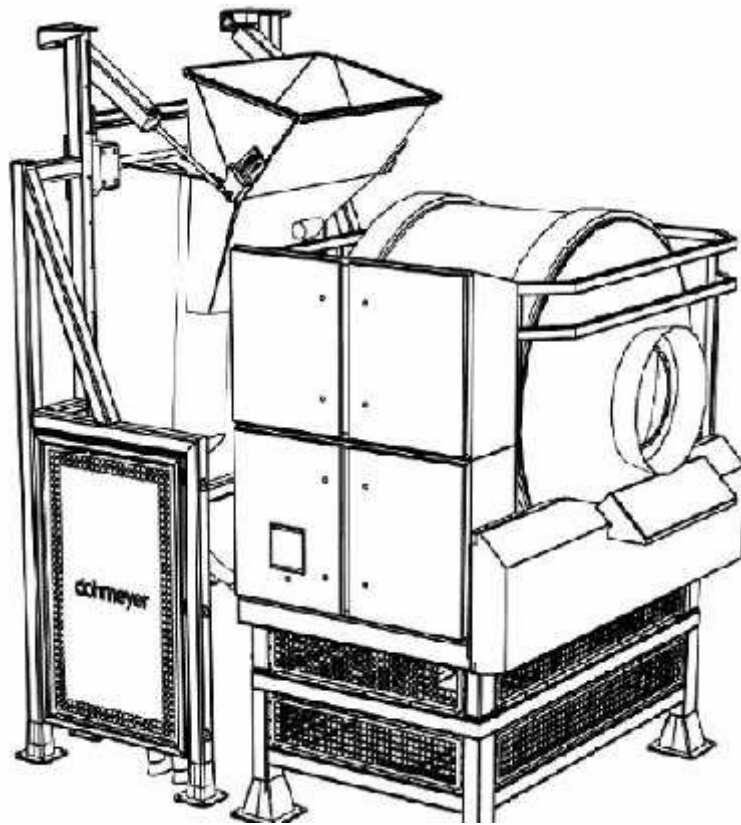
Cabinet freezers : double and twin







Product: Coated shrimps (Macrobr. Rosenbergii) with a traditional cream sauce with garlic and herbs. Coating 100+100 in less than 20 minutes. Freezing point of the sauce  $-5.5^{\circ}\text{C}$ .

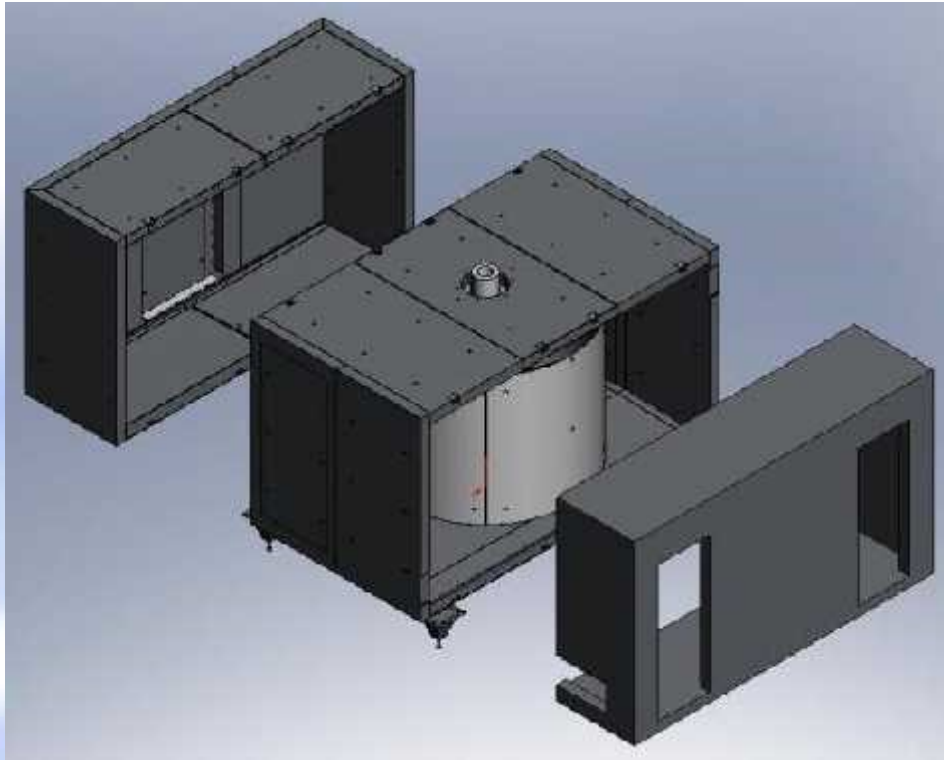


## Spiralfreezers





## Spiralfreezers in modules



## CO2 Snowhorns and applications

Vacuum insulated with precooling



Application : dough (bread)

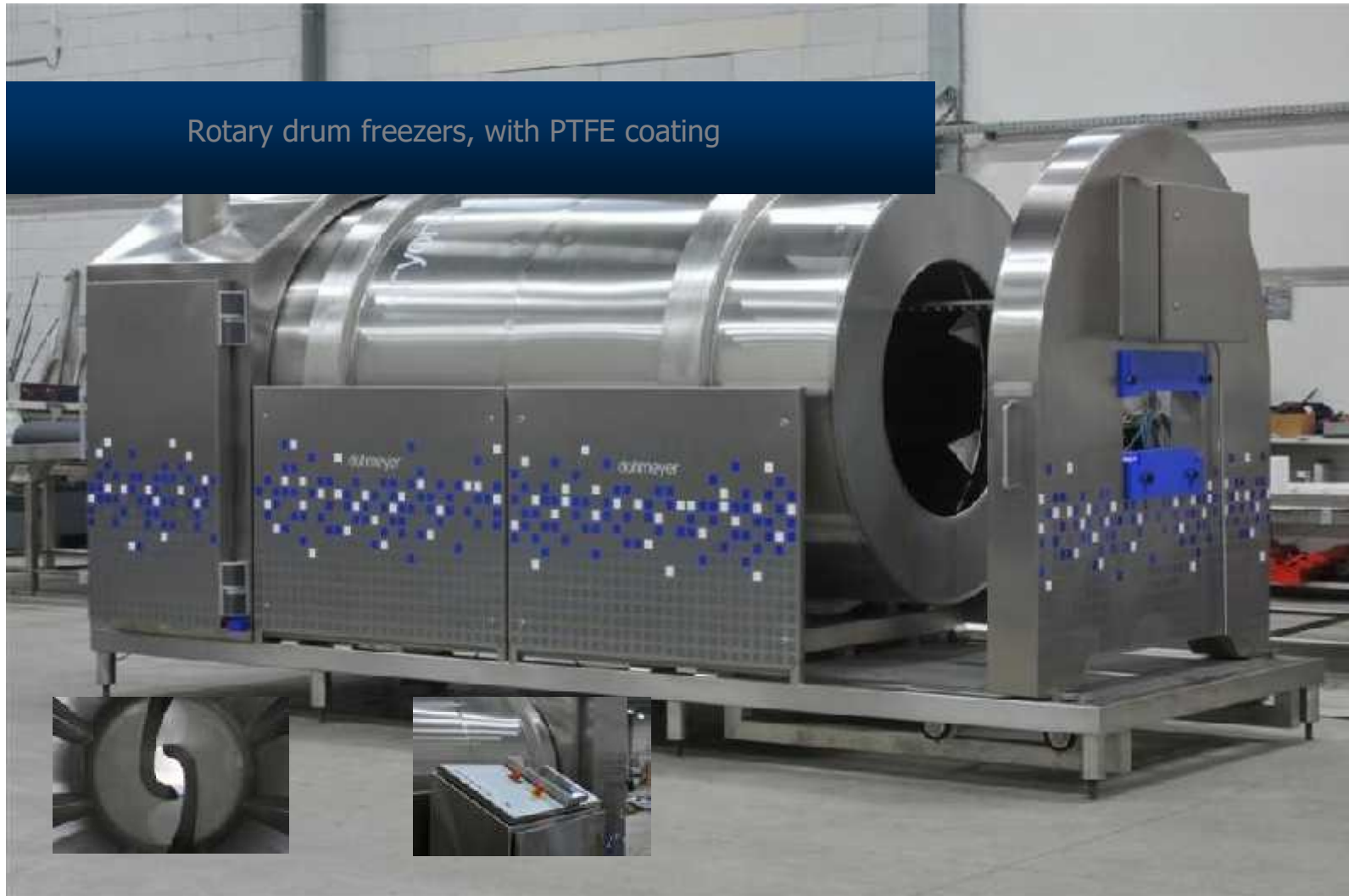


Application : standardizing of white cheese





Rotary drum freezers, with PTFE coating





Printing of ice cream

Improved technology for rapid shaping of Ice Cream



## Hardening of extruded ice cream surface



## Dohmeyer's technology for Ice Cream industry

### Technologies for Cornets Roset hardening

Fast chocolate crystallization  
Fruit topping freezing

### Reliable fat coverture layer

Extending shelf live with 1 year  
Fast hardening of the fat glazure (Ca 10 sec)

### Solid Point

Reducing the run down  
Reducing consumption (from 7gram to 3gram)

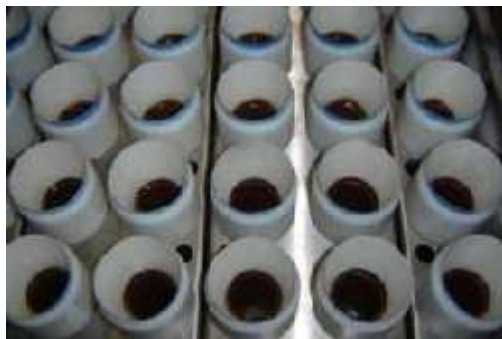


## Topping freezing on Cornetto® filling line





## Chocolate glaze crystallisation in Cornetto® filling line



# CONTACT



**Belgium  
Poland  
United Arab Emirates**



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