

# Danish Dairy & Food Industry ... worldwide



## Paramount Quality

**Dairy & Food Production**

Processing • Hygiene • Analysis • Ingredients

Packaging • Transportation

# Contents

## Index to Advertisers

- 27 AAK
- 9 AC Dairy Machines
- 63 Alectia
- 68 Alfa Laval
  - 7 Arla Foods
  - 5 Au2mate
- 55 Blücher
- 39 Chr. Hansen
- 61 Dairy Fruit
- 19 DSM Food Specialties
- 67 DSS, A Tetra Pak Company
- 17 Eurofins Steins
- 35 FH Scandinox
- 65 FoodTech '14
- 23 GEA Process Engineering
- 29 International Dairy Books
- 43 Jorgensen Engineering
- 31 Keofitt
- 13 KOLD College
- 15 LOGSTOR
- 21 LP Kolding
- 59 MyAdvisor
- 41 Novadan
- 45 Raw Milk Connect
- 33 RPC Superfos
- 47 Scan-Vibro
- 49 Silhorko-Eurowater
- 53 SPX Flow Technology
- 57 Tetra Pak
  - 2 Trepko
- 11 University of Copenhagen - Food Science

- 28 **AAK:** New Opportunities with Specialty Fats from AAK, *by Malin Thors Rosenquist and Lena Ingvarsson*
- 56 **AC Dairy Machines:** Minor Company - Global Outlook, *by Anna Marie Thøgersen*
- 62 **Alectia:** Quality by Design, *by Erik Dath Harbo*
- 32 **Alfa Laval:** Unique Water Savings, *by Allan Bruun*
- 8 **Arla Foods:** Quality around the Globe, *by Anna Marie Thøgersen*
- 18 **Auzmate:** OEE- Overall Equipment Effectiveness, *by Klaus Dam*
- 52 **Blücher:** The Best of Hygiene in the Drainage System, *by Søren Davidsen*
- 36 **Chr. Hansen:** Beyond Protection of Your Business, *by Peter Thøysen*
- 60 **Dairy Fruit:** Paramount Quality Spices & Fruits, *by Mogens Hede Jensen*
- 20 **DSM Food Specialties:** Greek-style Yoghurt, *by Cécile Aubert*
- 16 **Eurofins Steins:** Avoid Antibiotic Residues, *by Carsten Theisen Pedersen and Peter Pedersen*
- 64 **FoodTech 2014:** MCH Messecenter Herning
- 24 **FOSS:** Screening can Spot the Needle in the Haystack, *by Richard Mills*
- 12 **GEA Process Engineering:** Advanced Process Control, *by Anders Sehested*
- 44 **International Dairy Books:** Butter and Related Products
- 34 **International Food Contest**
- 42 **Jorgensen Engineering:** High-Quality Traceable Infant Formulas, *by Anna Marie Thøgersen*
- 10 **KOLD College:** Tailor-made Dairy Courses, *by Hans Skjerning and Bjarne Vagn Larsen*
- 14 **LOGSTOR:** Better-Insulated Pipes, *by Lars Petersen*
- 22 **LP Kolding:** Paramount Quality, *by Mogens Andreassen*
- 58 **MyAdvisor:** The Prisoners Dilemma, *by Søren Bollerup Hansen*
- 40 **Novadan:** From Udder to Greek Yoghurt, *by Jens Ole Jensen*
- 45 **Raw Milk Connect:** Leading Independent Consultancy, *by Berte Asmussen and Tove Asmussen*
- 30 **RPC Superfos:** Keep Customer Attention on your Brand, *by Per Sollenby*
- 26 **RPC Superfos:** New Pack for Easy Snacking, *by Søren Marcussen*
- 46 **Scan-Vibro:** When Machine Manufacturing is an Art! *By Lars Valentin Peters*
- 48 **Silhorko-Eurowater:** High-Quality Water Treatment, *by Jens O. Gjerløff*
- 50 **SPX Flow Technology:** Innovative Thermal Processing, *by Bent Oestergaard*
- 54 **Tetra Pak:** New Generation of Heat Exchanger, *by Frederik Wellendorph*
- 6 **The Danish Food Ministry:** Growth and Sustainability Must go Hand in Hand, *by Dan Jørgensen*
- 38 **Trepko:** What is NOT in the Package? *By Jesper Bjørn Hansen*
- 11 **University of Copenhagen - Science:** Dairy Technology - in an Online Classroom

High-Quality Food Production Requires:

# High-Quality Water Treatment



By  
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The Danish dairy company Arla has recently taken a step closer to its ambition of becoming one of the leading producers of dairy products in Russia, specifically high-quality cheese products. Thanks to EUROWATER, Arla now has the necessary expertise in high-quality water treatment.

## Reliable water treatment - Arla Russia

For the first time, Arla has established local production in Russia. More specifically in the city of Kalacheevsky in southwest Russia where Arla's Russian subsidiary together with the dairy company Molvest has converted an existing dairy in accordance with Danish standards.

EUROWATER has supplied water treatment plants for many of Arla's Danish dairies, so it was natural to continue the cooperation in Russia where EUROWATER already has many years of experience in sales and service.

## Projecting

Mr. Palle Jellesmark of the consulting firm Dairy Tech Denmark was employed by Arla as project manager to tie the threads together for the craftsmen, suppliers and authorities involved. "The partnership with EUROWATER as supplier of water treatment plants has fully met the agreed objectives," says Palle Jellesmark.

In connection with commissioning, EUROWATER also had a technician at the dairy in Russia to ensure that everything was done by the book.

## Water treatment

In the dairy and the waterworks belonging to it, water treatment plants from EUROWATER were applied for the following purposes:

- Process water for cheese production.
- Technical water in connection with milk separation and pasteurization.
- Water for CIP system (Cleaning In Place).

## Water for cheese production

A waterworks owned by Molvest supplies the dairy with water. Among other substances, the water contains too much iron and manganese. Previously, the dairy used groundwater without treatment, but those days are gone. Now the water is filtered in two parallel pressure filters from EUROWATER - just as it is done in thousands of waterworks in Denmark. The treated water is collected in large stainless steel vessels and a pumping unit supplies clean drinking water to the user points as re-

quired. The plant has a production capacity of up to 180 m<sup>3</sup>/h and the water is primarily used as ingredient water for cheese production and as drinking water, secondarily for cleaning. Maintaining a constantly high cheese quality requires that the water have no bacterial activity, which is achieved with a UV disinfection system.

The complete solution consisting of pressure filters, pumps, UV system, PLC control, electrical connections and connecting pipe system of stainless steel was pre-installed in the factory in Denmark. Then the plant was quality assured, including functional test and pressure test. Before dispatch, all connections were labelled and documented, thus the plant is ready for quick and safe installation in the dairy.



**Foreground: Frame-mounted pumping unit with the UV disinfection system.**

**Background: Two pressure filters with a connecting pipe system of stainless steel.**

### Cooling water for milk separation

In connection with milk separation and heat treatment, it is important that the water is free of salts to avoid malfunctions and failures of technical equipment such as pumps and heat exchangers. To this end, a softening plant with subsequent reverse osmosis system was installed in the dairy, thereby removing 98% of the salts in the water.

### Water for CIP system

CIP cleaning of membrane systems in connection with whey production requires access to demineralized water of high quality. For this purpose, a compact unit was chosen comprising a reverse osmosis system with pre-treatment built on the same stainless steel frame, ready for use. The concept offers many advantages, including:

- A complete and standardized solution that simplifies dimensioning and purchasing.
- Frame assembly with all internal piping and electrical connections made

in our factory to ensure quick and safe installation.

- The entire system is pressure tested and function tested electrically before shipment.
- Compact and space-saving design.

Taken together, the solutions from EUROWATER mean that the dairy will have a better product optimization and processing as well as an optimized use of resources in terms of water and electricity. The water treatment solutions therefore contribute positively to the dairy's total operating costs and competitiveness.

### Pure water treatment since 1936

EUROWATER has many years of experience within the fields of developing, manufacturing, selling and servicing complete water treatment plants for waterworks, heat and power plants, hospitals and industrial companies. The main applications are boiler water, process water, cooling water, rinse

water and drinking water. EUROWATER has more than 330 highly qualified employees at 23 sales and service offices around Europe. ■

**Compact reverse osmosis system with pre-treatment - ready for use.**



**Reliable water treatment**  
– for the food and beverage industry

Hygiene, safety and product quality are important issues in food and beverage production. EUROWATER has decades of experience in dimensioning, producing, installing and servicing water treatment plants for a demanding industry.

Find your local EUROWATER office  
– visit [eurowater.com](http://eurowater.com)

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PURE WATER TREATMENT