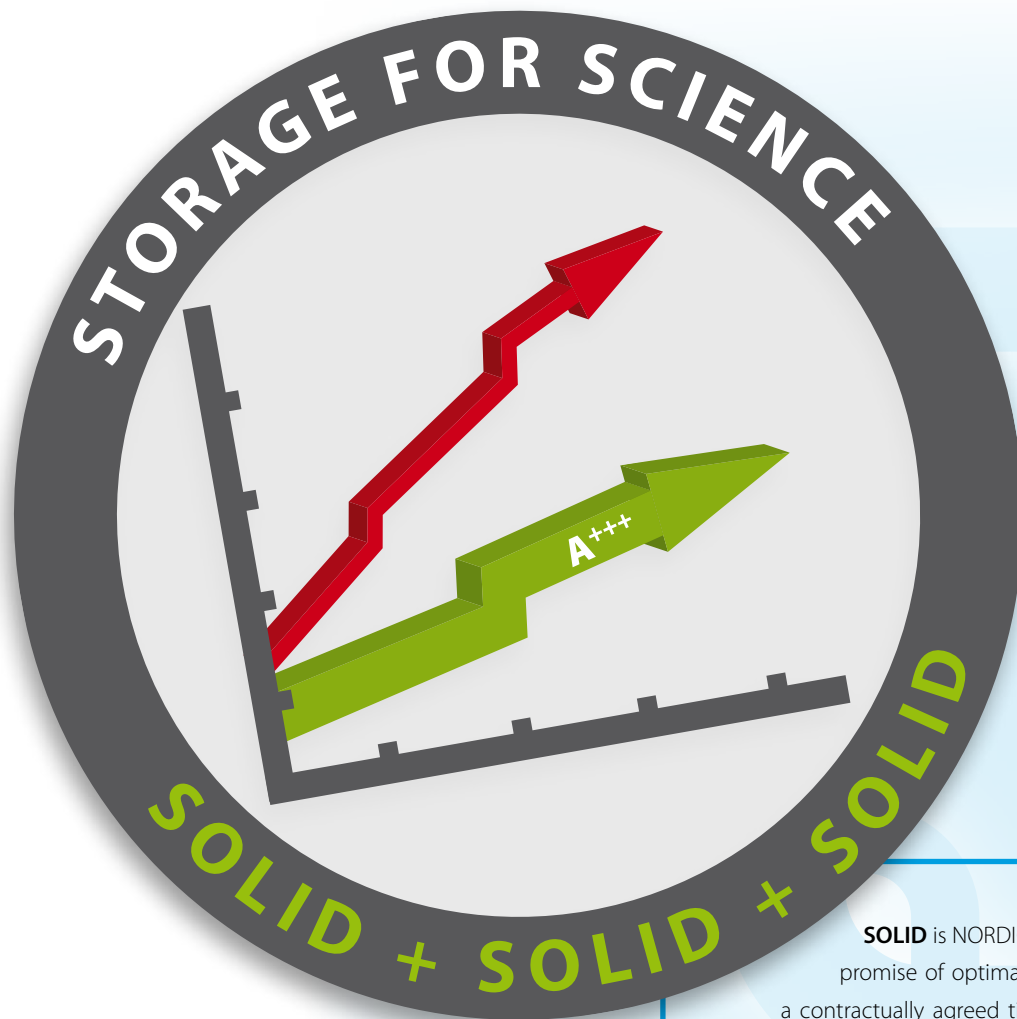




nordic

STORAGE FOR SCIENCE BV



**SOLID** is NORDIC's way of making good on the promise of optimal total cost of ownership, with a contractually agreed timeframe for return on investment. This cost recovery is achieved through extreme savings in energy consumption and exceptionally low costs for diagnosis and maintenance.

Not to mention the impressive service life, which is backed by a 15-year warranty. **SOLID**, of course.



**Gerard van Herwijnen:**

”**SOLID** stands for continuity and partnership; our clients rely on solid technology and maintenance.”

**Jos van den Berg:**

”If you are no longer improving, you are no longer good.” To my way of thinking, **SOLID** means continuous innovation in the areas of technology, maintenance, and sustainability. It’s the natural approach to achieve all our goals.”

**Daphne Hofhuis:**

”A deal is a deal. **SOLID** means reliability in the day-to-day activities: only making promising you know you can make good on and then doing what you promise.”

**Arno Wouters:**

”**SOLID** is progress, growth, and development of technology, equipment, people, and applications. Because only the best – which also implies the most sustainable – always pays for itself.”

## SAFE AND ECONOMICAL



NORDIC Storage for Science is a total concept for ultra-safe storage in scientific environments, developed by B.E.R.G. Industrial Climate Control BV and Bronson Incubator Services BV.

NORDIC offers a sustainable, safe industrial solution for short- and long-term storage of samples at ultra-low temperatures (-40 °C/-86 °C/-150 °C).

The new concept is unique among its kind, ultra-safe, and offers many advantages over the current, relatively small units.

- Up to 78% energy savings: very friendly for both the environment and the budget
- Full redundancy of all technical and refrigeration aspects, providing 100% backup
- Small footprint (1,890 litres per 1.1 m<sup>2</sup>)
- Natural refrigerants
- Significantly less icing in the compartments, achieved through climate control in the room
- Reduced temperature fluctuation, achieved through frequency controlled industrial refrigeration compressors
- Remote telemetric monitoring of the technical installation (24/7)
- Temperature monitoring, recording, and fault notification
- Backup options, based on CO<sub>2</sub> and N<sub>2</sub>
- Modular construction
- Waste heat recovery
- Optional connection to heat pump systems
- 15-year full warranty



# CONSTRUCTION & MANAGEMENT



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Reduced burden on the environment and the budget – this is the guiding principle behind the construction and management of NORDIC infrastructure in scientific environments. NORDIC installations have a contractually agreed return-on-investment timeframe, which is mainly made possible by the ultra-low power consumption and very manageable costs for maintenance and service. Practice has proven that maintenance, energy, replacement parts, and fault notifications can all be reduced by 75% in real-world use.

A NORDIC installation requires no additional cooling for the room and discharges waste heat to a separate area (outside the room in which it is installed).

For construction and installation NORDIC offers significant advantages:

- The technical aspects of NORDIC installations are always completely redundant. This unique NORDIC concept guarantees optimal continuity in the event of a disaster.
- NORDIC installations offer the possibility of waste heat recovery; one option is discharge to other rooms, and another option is utilization for the building's heating system and other heat consumers (e.g. heat pumps).
- The compact, modular construction of the ultra-low temperature concept and centralization of the storage, results in a very low footprint of just 1,890 litres per 1.1 m<sup>2</sup>.

## APPLICATION & TECHNOLOGY

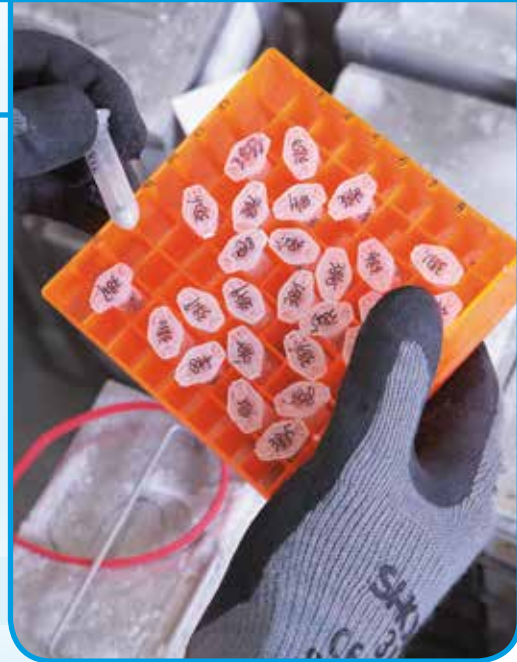
Ultra-safe protection for important, often costly material – for many scientific environments this is the decisive reason to choose a NORDIC central storage solution. With conventional freezers, failures too often lead to an overly rapid rise in temperature, resulting in destruction of the material.

In a NORDIC system this drawback is inconceivable. That is to say, complete failure is almost unheard of, because NORDIC installations are built with 100% redundancy. The primary and backup systems are always active, running in parallel. Should a complete failure nevertheless occur, a NORDIC installation equipped with the optional, unique buffer system will continue to keep the temperature within the required margins much longer.



## APPLICATION & TECHNOLOGY

A quote from a satisfied NORDIC client: 'We know from measurements that when a traditional, stand-alone freezer is opened the temperature inside immediately shoots up to -55 °C. It takes a long time before it drops back to -80 °C again. We conducted measurements on the new NORDIC facility and were pleased to see that the temperature line never wavers from the setpoint.'



Another advantage seen in daily use is the considerably reduced build-up of ice. These improvements are achieved through climate control of the entire room.

With this design, icing of storage systems and specimen tubes is generally greatly reduced. The heat produced by the compressors is used to dehumidify the air. Because low humidity is maintained in the climate-controlled environment, minimal condensation occurs in the freezers when they are briefly open.

# MISSION, VISION AND STRATEGY



## MISSION

NORDIC seeks to be an innovative developer and manufacturer and a **SOLID** partner for sustainable, energy-saving equipment for storage of organic and non-organic material at extremely low temperatures.

## VISION

Extreme conditions and the highest quality expectations of the most authoritative experts in the scientific community... the union of these two worlds is the sweet spot where development and use of sustainable installations is and remains a fascinating challenge. NORDIC intends to excel in continuously bringing together these seemingly opposed worlds.

## STRATEGY

NORDIC captivates through its performance. We want to be an active partner in discussions with our clients, reliable in our agreements and reliable in the deployment of our trained, knowledgeable staff. NORDIC seeks to secure a sustainable future by working hand-in-hand with ambassadors representing every partner in the chain.



# THE WORLD AROUND US

To paraphrase a famous saying, 'We borrow the earth from our children.' This reminds us of the importance of conserving the world around us.



Storage at extremely low temperatures intrinsically involves the consumption of tremendous amounts of energy. Furthermore, due to the extreme operating conditions this equipment often requires intensive maintenance and frequent replacement of parts.

NORDIC stands for **SOLID**. Sustainability is the common thread that runs through everything we think and do. NORDIC Storage for Science is **SOLID**. Storage at extremely low temperatures with a number of exclusive benefits:

- Ultra safe in terms of technology and continuity.
- Energy consumption is extremely low, minimizing environmental impact.
- Maintenance and replacement are performed by expert technicians, trained to maximize sustainability and energy savings.
- Work activities are continuously monitored and documented – prevention prevents repetition.

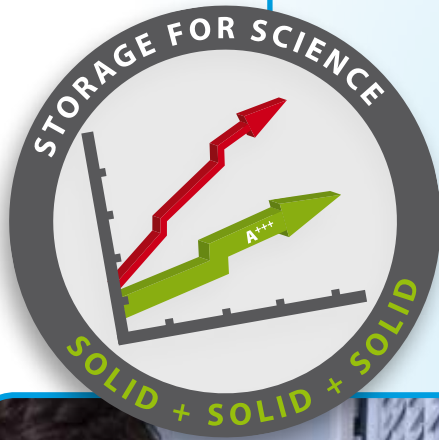
**The planet we live on is our only home.**

# SERVICE

NORDIC sees Service & Preventive Maintenance, in addition to low power consumption, long service life, and minimization of fault notifications, as important cornerstones of a sustainable approach.

Troubleshooting and first-line repair are performed remotely, via telemetrics, whenever possible. This eliminates the inconvenience of technician call-out, at all hours of the day, often accompanied by considerable expense. And as an additional benefit, this NORDIC concept means no additional environmental impact.

NORDIC has developed proprietary remote management technology that saves time, improves efficiency, is cost-friendly, and provides reliable accessibility. Maintenance is monitored precisely, so parts replacement is mainly preventive.



## B.E.R.G. INDUSTRIAL CLIMATE CONTROL BV

***There is no path to sustainability; sustainability is the path***

B.E.R.G. Industrial Climate Control BV has been active as a specialist in the design, installation, and maintenance of extremely energy-efficient refrigeration and freezing equipment and heat pumps for more than 40 years. All B.E.R.G. installations comply with the strictest PED and STEK standards.

B.E.R.G. installations are used in many different environments, from scientific to bio-medical, and from laboratory to industrial cold stores.

Every B.E.R.G. installation is custom designed and made to measure, with a focus on SUSTAINABILITY, which includes highly energy-efficient operation, minimization of costs for service, maintenance and replacement, and warranty coverage of up to 25 years.

**B.E.R.G.**  
Industrial Climate Control BV

## BRONSON INCUBATORS BV

***Quote: Simon Carmiggelt (1913-1987) once said: 'What makes our climate so fascinating is that it can produce four seasons in a single week.'***

### **CUSTOM CLIMATE, now and in the future**

Bronson is an organization that is focused on the development, production, sales, service and maintenance of laboratory equipment such as heating and cooling incubators, incubator walls, refrigerators, freezers, test cabinets, and plant growth cabinets and chambers.

Bronson equipment is known for its professional, robust appearance and multifunctionality, making it suitable for a wide range of applications in your laboratory or production environment.

  
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INCUBATOR SERVICES BV

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