



LILLNORD

next generation cooling technologies

TAILOR MADE PROVING

PROVERS, RETARDER PROVING,
FREEZER PROVING AND FLEXBAKER-UV FOR DOUGH

Customized units for racks



IN MATTERS OF PROVING AND REFRIGERATION TECHNOLOGY YOU CAN DEPEND ON THE WELL-KNOWN LILLNORD QUALITY

Cooling down dough pieces is not simply a matter of adding coldness to them. On the contrary, heat must be extracted from them. Letting cold air be "blown" across the pieces does this.

As dough pieces are extremely sensitive products, it is paramount to make the highest demands on the refrigeration technology and the refrigeration system employed.

If these demands are not satisfied, there is the risk of dehydration of the dough pieces and of non-uniformity of the products. Thus it is essential to attune the capacity, the air circulation, the relative humidity and the controls / the supervision etc. to each other in order to provide an optimal refrigeration solution as regards product quality and practicality.

Thanks to our experience and innovative skills LILLNORD constantly sets new standards for the conditioning and storage of dough pieces. We guarantee professional guidance incl. a special analysis of requirements, and an individual solution tailored to suit the requirements of your bakery.

Owing to our more than 50 years of experience with the development and production of freezing and proving equipment in close cooperation with bakers and the raw material suppliers world-wide, we guarantee you state-of-the-art equipment.



TOPLINE FREEZER PROVER (-20°C/+45°C)

Why invest in a LILLNORD TOPLINE unit?

The **freezer prover** is a product concept especially developed by LILLNORD for storing dough, not just from day to day, but up to 3-4 days – without any loss of quality. On the production side, this offers a new flexibility on a daily basis due to the time shift between dough and baking off. The obvious consequence is a considerable improvement of the profitable efficiency, since working hours can be shifted from the more expensive (and for the employees more troublesome) night or early morning to day time.

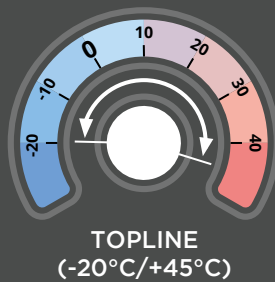
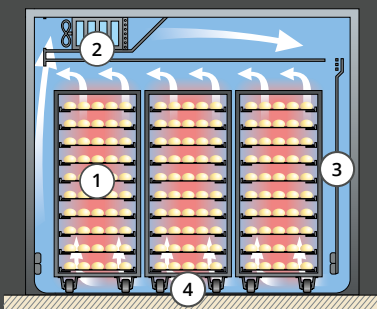
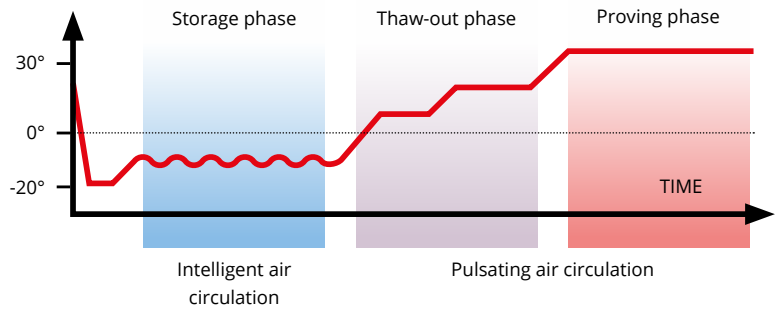
A few advantages:

- Better development of flavor and taste
- Fully proven goods at the start of a working day
- Reduction of staff and production costs
- Positive shift in costs from nighttime to daytime

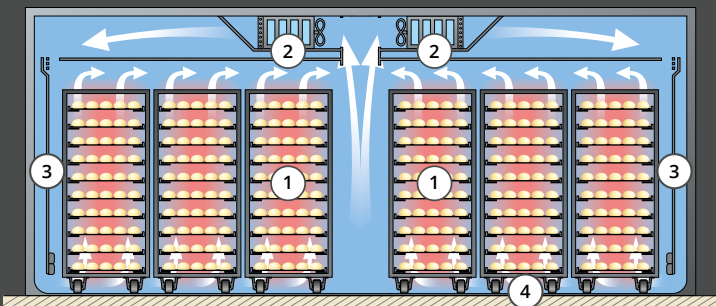


LILLNORD cares about the environment and has developed the following:

- Intelligent fan control for optimized off-time for compressor, steam and heating
- Optimal settings for minimized energy consumption in every working step (freezing, storage, thaw-up, floor- and door heating)
- Heat recovery of compressor
- Optimized water consumption
- Insulated steam container
- Extended wall insulation
- Frequency controlled compressor



- 1 Optimal storage climate without dry-out
- 2 Intelligent air circulation
- 3 Airwall with pressure distribution
- 4 3mm floor in stainless steel with fluted moulding



A few plus factors:

- Electromagnetic steam system without any mechanical or electronic parts
- Easy maintenance with adjustable cleaning
- LED light in the room through automatic door sensor
- PID-regulation with extremely accurate and uniform control and supply of humidity and temperature
- Frequency-controlled, automatic fan speed control

SEMILINE RETARDER PROVER (-3°C/+45°C)

Why invest in a LILLNORD SEMILINE unit?

A retarder prover is a product concept especially developed at LILLNORD for storing small dough pieces and danish pastry from day to day – **without any loss of quality**. The unit can also be used for thawing or proving larger dough pieces, coming in frozen or cooled down, enduring longer cooling periods. On the production side, this offers a new flexibility on a daily basis due to the time shift between dough making (during the day on day one) and baking off in the morning on the next day. From a computer point of view, the SemiLine retarder prover is equipped like a TopLine freezer prover, which means we can guarantee the same optimal bread quality of a freezer prover for this retarder prover. It is however **NOT** possible to use it as a freezer prover unit for storing goods several days, as it does not provide the cooling technique of a freezer prover.

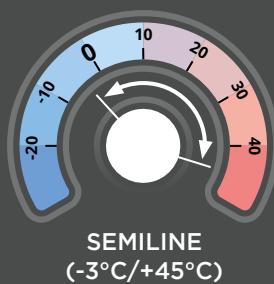
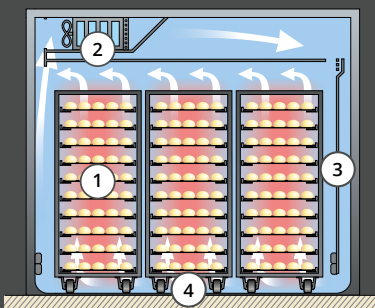
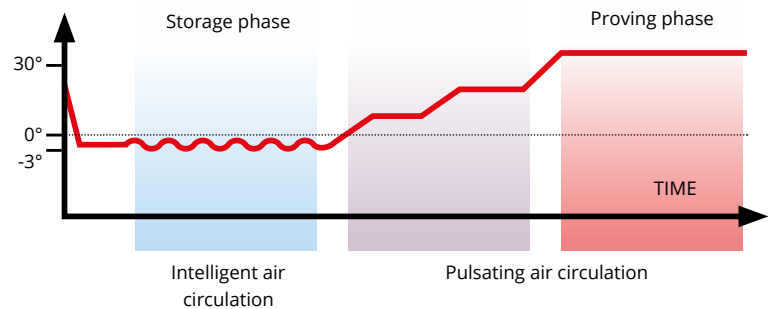
A few advantages:

- Better development of flavor and taste
- Fully proven goods at the start of a working day
- Reduction of staff and production costs
- Positive shift in costs from nighttime to daytime

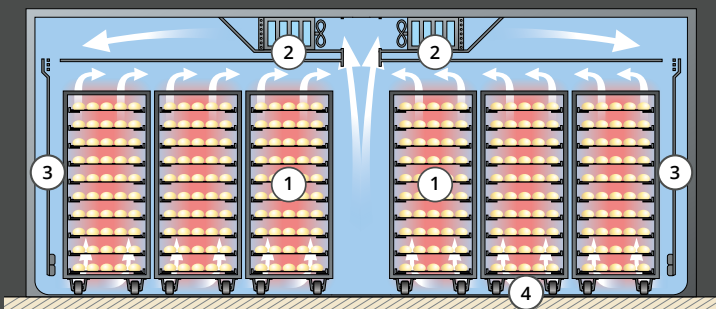


LILLNORD cares about the environment and has developed the following:

- Intelligent fan control for optimized off-time for compressor, steam and heating
- Optimal settings for minimized energy consumption in every working step (freezing, storage, thaw-up, floor- and door heating)
- Heat recovery of compressor
- Optimized water consumption
- Insulated steam container
- Extended wall insulation
- Frequency controlled compressor



- 1 Optimal storage climate without dry-out
- 2 Intelligent air circulation
- 3 Airwall with pressure distribution
- 4 3mm floor in stainless steel with fluted moulding (as option)



A few plus factors:

- Electromagnetic steam system without any mechanical or electronic parts
- Easy maintenance with adjustable cleaning
- LED light in the room through automatic door sensor
- PID-regulation with extremely accurate and uniform control and supply of humidity and temperature
- Frequency-controlled, automatic fan speed control

LUXLINE PROVER (+20°C/+45°C)

Why invest in a LILLNORD LUXLINE unit?

With our air conditioning we guarantee an effective and homogenous proving of all types of yeast dough and danish pastry, either directly at dough production or from a dough controller with automatic defrosting.

PID-REGULATION AND STEAM SYSTEM

LILLNORD has chosen to develop a PID-regulation for the control of temperature and humidity.

- Ensures uniform climatic conditions
- Ensures uniform product size
- Electrically produced steam
- No mechanical components within the steam container
- Ensures reliability

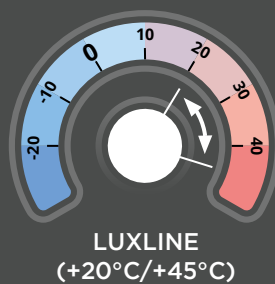
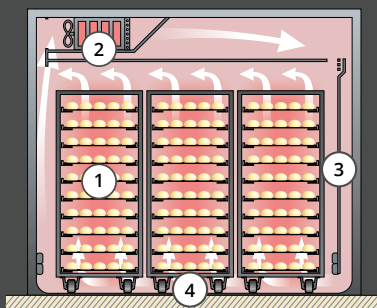
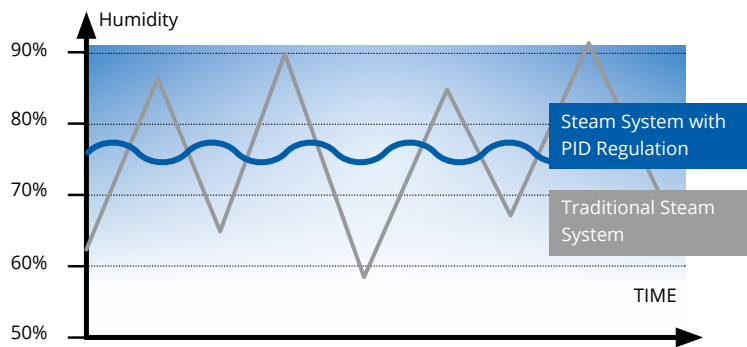
A few plus factors:

- Electromagnetic steam system without any mechanical or electronic parts
- Easy maintenance with adjustable cleaning
- LED light in the room through automatic door sensor
- PID-regulation with extremely accurate and uniform control and supply of humidity and temperature
- Frequency-controlled, automatic fan speed control

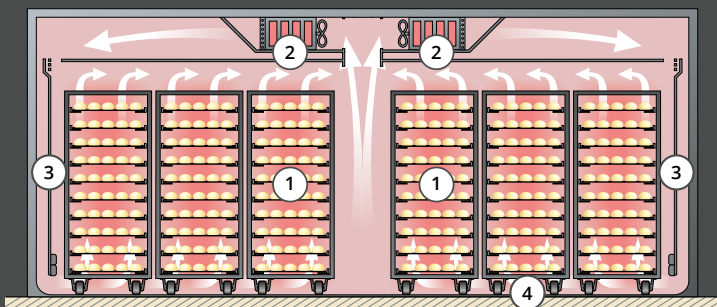


LILLNORD cares about the environment and has developed the following:

- Intelligent fan control for optimized off-time for steam and heating
- Optimal settings for minimized energy consumption in every working step (proving, floor and door heating)
- Optimized water consumption
- Insulated steam container
- Extended wall insulation



- 1 Optimal proving climate without dry-out
- 2 Intelligent air circulation
- 3 Airwall with pressure distribution
- 4 3mm floor in stainless steel with fluted moulding (as option)



A few plus factors:

- Electromagnetic steam system without any mechanical or electronic parts
- Easy maintenance with adjustable cleaning
- LED light in the room through automatic door sensor
- PID-regulation with extremely accurate and uniform control and supply of humidity and temperature
- Frequency-controlled, automatic fan speed control

FLEXBAKER LONGTIME PROVING (-3°C/+15°C)

Why invest in a LILLNORD FLEXBAKER dough unit?

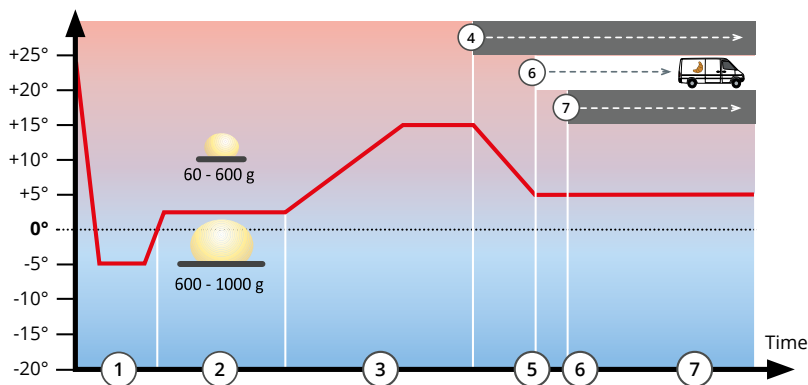
The FlexBaker unit with recovery is a product concept especially developed by LILLNORD for long-term proving of all bread types – without any loss of quality.

At the requested time, the dough pieces will be proved to a preprogrammed standby temperature, at which they can be stored for 4 to 8 hours until bake off. This concept offers a unique flexibility in the usual procedures of baking off in the bakery with remarkably speedy response rates. This provides the opportunity for a wide variety of freshly baked off bread during the entire opening hours of the shop, thus optimizing the capacity of the oven. Last but not least the unit provides a more economic planning of the working hours in the bakery, shifting the preparation of dough to the daytime hours.

Efficiency / economization is one thing. The most important is though, not to lessen the bread quality, but even to increase the taste experience, the flavor and the texture. Furthermore dough products can be shipped to branch shops, since the dough has reached a strong structure with high stability in the long proving phase.

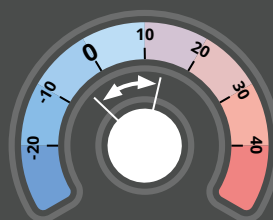
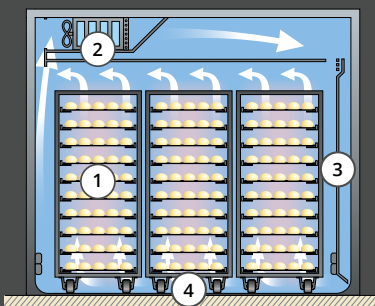


FlexBaker makes it possible to keep ready proven products on stand-by for up to 10 hours before baking-off.



- ① **Cooling down:** 0°C to -5°C / Duration: 1 to 3 hours
- ② **Storage temperature:** -2°C to +5°C
- ③ **Recovery and proving phase:**
FlexBaker: Program 11 to 15
Proving phase: +10°C to +18°C / 70 to 95% rH
Duration: 2 to 4 hours
- ④ **Baking off (own shop)**
Big dough pieces: (600-1000 g) 1 to 6 hours
Small dough pieces: (60 til 599 g) 1 to 10 hours
- ⑤ **Soft Cooling:** +3°C to +8°C / Duration: 1 to 3 hours
- ⑥ **Transport**
- ⑦ **Baking off (branch)**

One LILLNORD chamber - 6 process stages; Cooling down; Storage; Recovery (Thaw-Out); Proving; SoftCooling; Stand-By (ready proven)

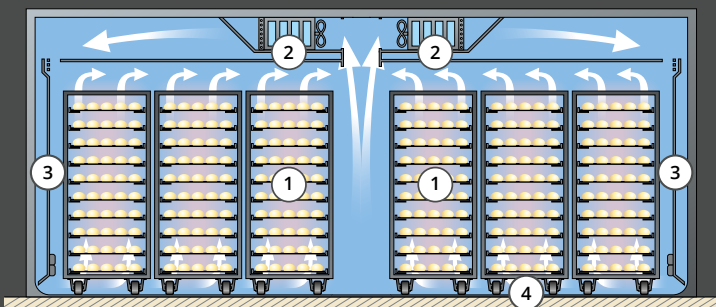


FLEXBAKER FOR RACKS (-3°C/+15°C)

- ① Optimal storage climate without dry-out
- ② Intelligent air circulation
- ③ Airwall with pressure distribution
- ④ 3mm straight floor in stainless steel (as option)

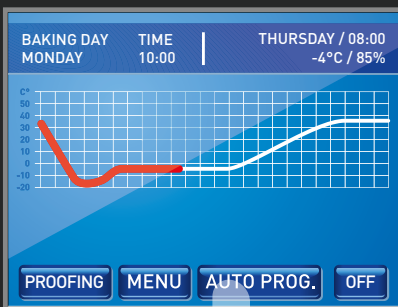
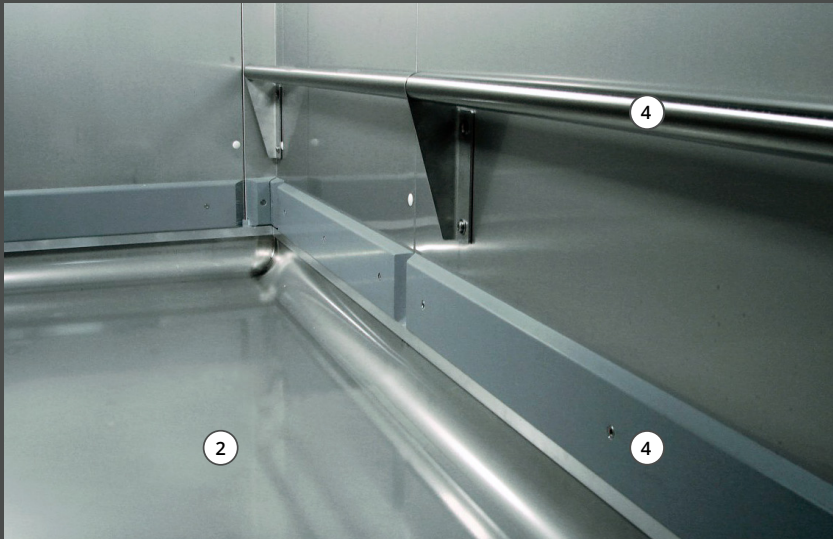
A few plus factors:

- Electromagnetic steam system without any mechanical or electronic parts
- Easy maintenance with adjustable cleaning
- LED light in the room through automatic door sensor
- PID-regulation with extremely accurate and uniform control and supply of humidity and temperature
- Frequency-controlled, automatic fan speed control



SUPREME QUALITY STANDARDS:

- 1 Interior in stainless steel
- 2 3 mm stainless steel floor with fluted moulding, 19 mm water-repellent, PP-sub-floor as well as adjustable heating (Standard for TopLine, optional extra for all other unit types)
- 3 Triple, energy-saving glazing (Optional extra for LuxLine)
- 4 Interior / exterior stainless steel tubular bumper rail (TopLine - SemiLine) Interior / exterior, PVC bumper rail (LuxLine)
- 5 Hinges with lift-up/lower function (Optional extra for LuxLine)
- 6 Front in stainless steel, type Leinen.
- 7 Touch Screen Computer
- 8 LED light



Color Touch Screen Computer

- Userfriendly design
- User manual inside computer for easy reach
- Digital directions for use within easy reach
- Digital fault finding within easy reach
- Error log viewer (max 120 registrations)
- Quick and easy to set / reset temperature and humidity
- Adjustment of floor heating (option in prover and retarder prover)
- USB logging functions available
- Easy to set function of steam container

LILLNORD PRODUKTPALETTE

PROVING AND REFRIGERATION TECHNOLOGIES

PLUG & PLAY UNITS & SEMI PLUG & PLAY UNIT – INDUSTRIAL UNITS



TopLine – Freezer prover

SemiLine – Retarder prover

LuxLine – Prover

BakerLine – Dough freezer

Flexbaker-UV – Longtime storage of prebaked bread

CoolLine – Coldroom with high humidity and dry cooling

FlexLine – Semiautomatic and dough freezer

ShockLine/Semi-ShockLine – Shock freezer

PG1000 - Plug-in climator

Plug & Play units racks and trays

Maryline – Freezer prover

Maryline – Retarder prover

Maryline – Prover

Maryline – FlexBaker UV

Semi Plug & Play units for racks

SmartLine – Freezer prover

SmartLine - Retarder prover

SmartLine – Prover

Smartline – FlexBaker-UV

RackLine – Automatic conveyor system for racks

StraightLine
(for trays)
with shocker

Module based
refrigeration
for trays



StraightLine High
(for trays) without
shocker

Module based
refrigeration
for trays



LILLNORD
next generation cooling technologies



Tel.: (+45) 87 80 31 30 · info@lillnord.com · www.lillnord.com