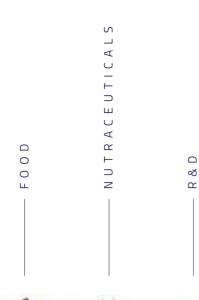


DON'T FREEZE YOUR BUSINESS DON'T LET YOUR POTENTIAL DRY UP FREEZE DRY INSTEAD!



TECHNOLOGY IS MEANT TO SERVE, ELSE IS AN UNCALLED -FOR EXPENSE

Our range of highly specialised equipment covers a wide scope of industrial uses at different scales. Different models of our freeze dryers, for instance, may well serve food, pharmaceutical or cosmetic producers at the beginner's scale for product development and as a simulation of a fully developed production unit.

FOOD PROCESSING

Coffee / Fruit and juice / Vegetables / Meat / Fish and Seafood /Eggs / Dairy

DAIRY INDUSTRY

Milk / Cheese / Crear Yogurt / Ice cream

PET FOOD

NUTRACEUTICALS

Antioxidants / Algae / Aloe vera Bean and vegetable sprouts /Echinacea Seeds / Tea / Wheatgrass/ Probiotics

PHARMACEUTICAL

Vaccines and antibodies / Penicillin Blood plasma / Proteins / Enzymes Hormones / Viruses and bacteria

RESEARCH

Vaccines and antibodies / Antibiotics Blood plasma / Proteins / Enzymes Hormones /Viruses and bacteria Active pharmaceutical ingredients Pathological samples and cultures

DOCUMENT RECOVERY

FLORAL

TAXIDERMY

Hunting and fishing trophies Museums and collectors Preserving deceased pets



WHAT IS THE USE OF ENGINEERING IF IT DOES NOT SOLVE PROBLEMS?



In an ideal world we would work only on one-off solutions: understand the need, appreciate the limitations and offer a bespoke solution for researchers and manufacturers alike to succeed in their R&D endeavours. As it happens, we do a lot of that, but we are best known for our products and their applications.

We have been born into a family of suppliers of high-tech equipment for academia and business. For forty years now at Gellert Engineering we develop technologies to manage humidity, pressure, temperature, vacuum and luminance. Our loyal clients value us for:

- > OUR DRIVE FOR INNOVATIVE SOLUTIONS
- > OUR EXPERIENCE IN PROCURING FOR INDUSTRY AND ACADEMIA, AND
- > OUR RELIABILITY AS QUALITY MACHINERY MAKERS

R&D AND QUALITY CONTROL: INDISPENSABLE NOW MORE THAN EVER!

There is no better way to establish a competitive edge or stay true to your reputation, but for a top-notch laboratory, and for that you need equipment up to the task. We have been working with researches in the academic and business world since 1981 and we can fully appreciate their needs.

CUSTOM-MADE SOLUTIONS

No projects are too small for us, because all new ideas deserve to be studied. Although our current range of solutions covers a broad spectrum of applications, we acknowledge that new designs, projects or ideas require tailor-made solutions. We often assist our customers in the development of these one-offs or unique solutions.

Less water. More value.



CRYO 5™



CRYO 10™



CRYO 20™



CRYO 40™

LABORATORY / HORECA [5kg]

CRYO 5™

lce condenser	
capacity:	5kg
Ice condenser	
performance:	5kg/24hr
Ice condenser	
temperature:	-50 °C
Chamber volume:	65 L
Shelf dimensions:	535x165 mm
	(B x T)
Number of shelves:	6+1
Shelf area:	0,529 m²
Shelf spacing: 10) mm - 215 mm
Shelf temperature:	up to +50 C
Material (Chamber & condenser):	
st. steel 304 or 316	

Accessories:

 Electromagnetic pressure control and stop valve
Manifold horizontal with rubber valves for connection of 4 round flasks

LABORATORY / HORECA [10kg]

CRYO 10™

lce condenser	
capacity:	10kg
lce condenser	
performance:	10kg/24hr
lce condenser	
temperature:	-50 °C
Chamber volume:	100 L
Shelf dimensions:	535x330 mm
	(B x T)
Number of shelves:	6 + 1
Shelf area:	1,058 m²
Shelf spacing: 10	mm - 215 mm
Shelf temperature:	up to +50°C
Material (Chamber &	condenser):
st. st	eel 304 or 316
Accessories:	

 Electromagnetic pressure control and stop valve
Manifold horizontal with rubber valves for connection of 4 round flasks

PILOT [20kg] CRYO 20™

Ice condenser		
capacity:	20kg	
lce condenser		
performance:	18kg/24hr	
Ice condenser		
temperature:	-50 °C	
Chamber volume:	300 L	
Shelf dimensions:	500x700 mm	
	(B x T)	
Number of shelves:	6 + 1	
Shelf area:	1,95 m²	
Shelf spacing:	40 mm	
Shelf temperature:		
	35°C to +50°C	
Shelf temperature accuracy:		
	max. ±1 °C	
Ice condenser cooling system: Air cooled		
Shelf cooling system:		
(see ice condenser cooling system)		
Unit dimensions:		
1878 x 1082 x 1062	mm (H x W x D)	

PILOT [40kg]

CRYO 40™

lce condenser	
capacity:	40kg
lce condenser	
performance:	38kg/24hr
lce condenser	
temperature:	-50 °C
Chamber volume:	650 L
Shelf dimensions:	500x700 mm
	(B x T)
Number of shelves:	6 + 1
Shelf area:	4 m²
Shelf spacing:	40 mm
Shelf temperature:	
	-35°C to +50°C
Shelf temperature accuracy:	
	max. ±1 °C
lce condenser cooling system: Air cooled	
Shelf cooling system:	
(see ice condenser cooling system)	
Unit dimensions:	
1878 x 1082 x 1062	2 mm (H x W x D)

Laboratory lyophilizers are suitable for laboratories as well as for small productions. Operation and programming are done through the integrated PLC, while with the AUTODRY function, even inexperienced users can easily complete the process successfully. A manifold is optionally available for lyophilization in bottles. **Pilot** lyophilizers are suitable for product development but also for the production of small quantities. They simulate the operation of industrial units and the user can transfer the developed recipe on larger commercial freeze dryers.



COMMERCIAL [100kg]

CRYO 100™

lce condenser	
capacity:	100kg
lce condenser	
performance:	80kg/24hr
lce condenser	
temperature:	-65°C
Chamber volume:	3000 L
Shelf dimensions: 8	00x2000 mm
	(B x T)
Number of shelves:	7 + 1
Shelf area:	10 m²
Shelf spacing:	40 mm
Shelf temperature:-35°C to +50°C	
for ice condenser at	: -50 °C
Shelf temperature	
accuracy:	max. ±1 °C
Ice condenser cooling system:	
Air cooled (optionally water cooled)	
Shelf cooling system:	
(see ice condenser cooling system)	
Unit dimensions:	
1300x2400 mm (diam x D)	

COMMERCIAL [300kg]

CRYO 300™

lce condenser	
capacity:	300kg
lce condenser	
performance:	280kg/24hr
lce condenser	
temperature:	-65°C
Chamber volume:	7500 L
Shelf dimensions: 12	00x2000 mm
	(B x T)
Number of shelves:	12 + 1
Shelf area:	29m²
Shelf spacing:	40 mm
Shelf temperature:-35°C to +50°C	
for ice condenser at	-50 °C
Shelf temperature	
accuracy:	max. ±1 °C
Ice condenser cooling system:	
Air cooled (optionally water cooled)	
Shelf cooling system:	
(see ice condenser cooling system)	
Unit dimensions:	
2000x3000 mm (dia	m x D)
(see ice condenser cooling system)	

COMMERCIAL [600kg]

CRYO 600™

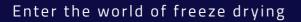
lce condenser	
capacity:	600kg
lce condenser	
performance:	580kg/24hr
lce condenser	
temperature:	-65°C
Chamber volume:	15000 L
Shelf dimensions:	1200x4000 mm
	(B x T)
Number of shelve	s: 12 + 1
Shelf area:	58 m²
Shelf spacing:	40 mm
Shelf temperature:-35°C to +50°C	
for ice condenser	at -50 °C
Shelf temperature	<u>1</u>
accuracy:	max. ±1 °C
Ice condenser cooling system:	
Air cooled (optionally water cooled)	
Shelf cooling system:	
(see ice condenser cooling system)	
Unit dimensions:	
2000x6000 mm (diam x D)

COMMERCIAL [1000kg]

CRYO 1000™

lce condenser	
capacity:	1000kg
lce condenser	
performance:	900kg/24hr
lce condenser	
temperature:	-65°C
Chamber volume:	7500 L
Shelf dimensions: 12	
	(B x T)
Number of shelves:	18 + 1
19+1 or 12+1 also ava	
Shelf area:	86,4 m²
91,2 m² or 57,6 m² als	so available
1 0	•5mm (41mm)
40mm(36mm)	
or 80mm(76mm) also	o available
Shelf temperature:-3	35°C to +50°C
for ice condenser at	-50 °C
Shelf temperature	
accuracy:	max. ±1 °C
Ice condenser cooling system:	
Air cooled (optionally hybrid)	
Shelf cooling system:	
(see ice condenser cooling system)	
Unit dimensions:	
5000x6000 mm (W x D)	

Commercial lyophilizers can be manufactured according to customer's specifications. They follow the single chamber technology and the cooling of the system can be assisted by a hybrid water system while the chamber can have a second door to export the product to a clean room. The system can be placed in a container for increased mobility.







SCALE UP -THE REASONABLE WAY TO TEST AND INTEGRATE NEW TECHNOLOGIES

Let's talk new business!

If you are about to start a new line of products and a new production line for them, you will most probably benefit by our scale-up strategy.

Since we are developers ourselves and not solely equipment manufacturers, we can work with you on specific applications for your concept and secure a custom, sustainable, high ROI solution.

Over the years we have helped hundreds of producers to achieve their plans by offering:

- > PROTOTYPE DEVELOPMENT
- > UNIT INTEGRATION
- > COMPLETE SYSTEM DEVELOPMENT
- > EXISTING UNIT REDESIGN
- > EXISTING UNIT OVERHAULING

GELLERT Engineering

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