

LyoAir series Laboratory freeze dryer

Optimize and simplify your freeze-drying process

Taking advantage of the experience and knowledge in freeze drying, Antech offers LyoAir series ready-to-use freeze-drying system, fully equipped with universal drying package & vacuum pump.

LyoAir series freeze dryers are compact in design, high-efficiency in performance, smart in operation, and dependable in daily use.



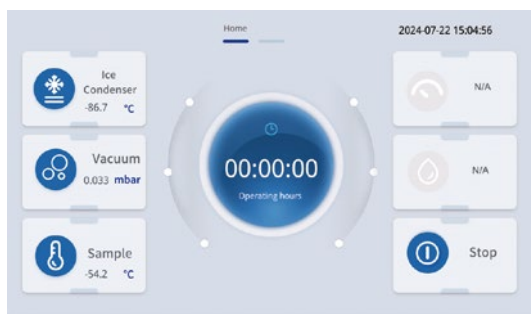
► Innovative features

- Compact, high-performance laboratory systems with a small footprint
- 7" touch screen installed with LyoBasic operating system
- Built-in ice condenser coils for higher efficiency
- Low noise level: 48 dB(A)
- High quality vacuum pump

► LyoBasic touch screen control system

7" touch screen controller, installed with LyoBasic operating system, assisting users to simplify the freeze-drying process.

- Display of ice condenser temperature and vacuum degree
- Product temperature display according to sublimation pressure curve
- Historical data recorder for convenient analysis of processing
- Password access protection



► **Advanced cooling system**

- -55°C: single compressor system, high efficiency
- -85°C: 2-compressor cascade system, cold trap temperature reaches -85°C within 10 minutes
- SECOP brand compressor for durable use

► **Optimized flange seal**

- Flat surface & L-shaped sealing ring design, no need for extra manual pressure
- Vacuum grease not required, easier to use and clean
- Proven excellent sealing performance for long-term use



► **Choose the system fits your application best!**

Product designation format

LyoAir **4** **S/M**
 Product series Ice capacity (in kg) Temperature level

► **Ice capacity**

| Max. ice capacity | Performance | Models |
|-------------------|-------------|----------------------|
| 4 kg | 4 kg/24h | LyoAir 4S, LyoAir 4M |

► **Temperature level**

| Temperature level | Temperature | Cooling system | Typical application area |
|-------------------|-------------|-----------------------|-----------------------------------|
| S | -55°C | 1 compressor | Aqueous products |
| M | -85°C | 2 compressors cascade | Products with low freezing points |

*For vacuum controlled freeze drying process, please choose LyoPro series.
 *For organic solvent application, please choose LyOrganic series freeze dryers.

► **The UNIVERSAL package with special price**

Start your lyophilization with our universal package, which offers both manifolds and shelves, fulfilling most applications for successful processes every day.

► **The LyoAir Series with UNIVERSAL package contains:**

- LyoAir freeze dryer main machine
- Vacuum gauge
- Acrylic chamber with 8 rubber connection valves (flask optional)
- 4-layer shelves with unique ShelFlex™ design
- Vacuum pump & vacuum hose



► **ShelFlex™ design**

Unique ShelFlex™ design, various configurations with different number of shelves and spacing are available.

| Shelves | | | | |
|---------------|--------|--------|---------------------|---------|
| Configuration | Number | Φ | Area | Spacing |
| 1 | 2 | 265 mm | 0.10 m ² | 140 mm |
| 2 | 3 | 265 mm | 0.15 m ² | 105 mm |
| 3 | 4 | 265 mm | 0.20 m ² | 70 mm |
| 4 | 8 | 265 mm | 0.40 m ² | 35 mm |

*For configuration 4, another 4 pcs of shelves to be ordered as optional.

► **Advantages**

- All-inclusive package, avoid confusion in accessory selection
- ShelFlex™ design, adjustable shelf number and spacing with flexibility
- Cost-effective, fulfill more applications with lower cost
- Fast delivery, UNIVERSAL package always in stock for urgent demand

► **Various freeze-drying packages for different applications**



| No. | Manifold | | Shelves | | | | Stopper |
|-----|-----------------------------|--------|---------|---------------------|---------|---|---------|
| | Number of connection valves | Number | Φ | Area | Spacing | | |
| ① | 8 | 4 | 265 mm | 0.20 m ² | 70 mm | - | |
| ② | 8 | 2 | 265 mm | 0.10 m ² | 140 mm | ● | |
| ③ | - | 4 | 265 mm | 0.20 m ² | 70 mm | - | |
| ④ | - | 2 | 265 mm | 0.10 m ² | 140 mm | ● | |
| ⑤ | 8 | - | - | - | - | - | |

*Package 1, also named as "universal package", is recommended and supplied as standard configuration.

● Basic equipment - Not available

► Specification



| Model | | LyoAir 4S | LyoAir 4M |
|--------------------------|------------------------------------|----------------------|----------------------|
| Basic | Type | Desktop | Desktop |
| Ice condenser | Temperature | -55°C | -85°C |
| | Max. ice capacity | 4 kg | 4 kg |
| | Chamber volume | 6.5 L | 6.5 L |
| | Performance | 4 kg/24h | 4 kg/24h |
| Control | Display | 7" touch screen | 7" touch screen |
| | Operating system | LyoBasic | LyoBasic |
| | Ice condenser temperature display | ● | ● |
| | Product temperature sublimation | ● | ● |
| | Vacuum degree display | ● | ● |
| | Vacuum gauge type | Thermocouple | Thermocouple |
| | Vacuum control | - | - |
| | Vacuum venting | Manual | Manual |
| | Hot gas defrosting | - | - |
| Cooling system | Number of compressor | 1 | 2 |
| | Compressor brand | SECOP | SECOP |
| Power | Voltage (V/Hz) | 220/50;220/60;120/60 | 220/50;220/60;120/60 |
| | Rated power | 900 W | 1400 W |
| Noise level | Freeze dryer | 48 (dB) | 48 (dB) |
| Dimensions | Main unit (W x D x H) | 400*430*550 mm | 400*430*550 mm |
| Weight | Main unit | 47 kg | 60 kg |
| Universal drying package | Drying chamber | Acrylic | Acrylic |
| | Shelves | 4 | 4 |
| | Number of rubber connection valves | 8 | 8 |
| | Flask | ○ | ○ |
| Vacuum pump | Vacuum pump | ● | ● |
| | Oil mist filter | ● | ● |
| | Vacuum pump hose | ● | ● |

The data provided refers to the base unit with ambient conditions of +10 °C to +25 °C.
Subject to change without prior notice.

● Basic equipment ○ Optional