



Celsius S³ System

Freeze-Thaw Systems



Key Features

- Scale-up
- Scale-down
- Stability studies
- Development studies

Ease of Use

The CryoPilot Control Unit provides automated operation and data collection. The Celsius S³ System freezes and thaws from 1 to 10 product samples per run. Celsius-Paks are available in 30 mL and 100 mL with different filling port and thermowell configurations.

Improved Process Validation

Celsius S³ System offers excellent batch to batch reproducibility and consistent product stability after freezing, thawing and storing. The Celsius S³ System provides documented and reproducible freeze-thaw processes, thus facilitating validation of your freeze-thaw operations.

The Celsius S³ is the only small-volume Controlled Freeze-Thaw System in disposable containers that is scalable to production volume. This system is a tool to execute freeze-thaw process development and stability studies using a minimal amount of product.

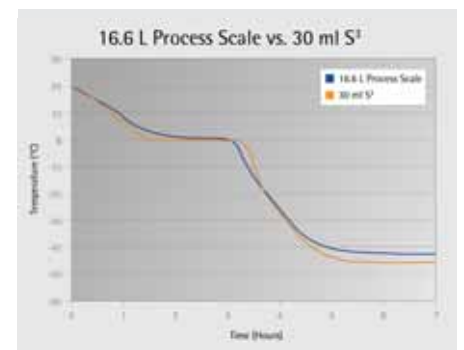
Scalability

The Celsius S³ System models a 16.6 L pilot-scale and 100 L production system with a minimal amount of product. Using the same freeze and thaw pathlength and identical materials of construction in all Celsius-Pak containers, the Celsius S³ System ensures unmatched scalability between all scale systems.

Specifications	Celsius S ³ Freeze-Thaw	Unit CryoMixer Jr.
Dimensions	With mounting base 16.75" x 14" x 21" (42.5 cm x 35.6 cm x 53.3 cm)	19.75" x 23" x 3.5" (50.2 cm x 58.4 cm x 8.9 cm)
Weight	40 lb (18 Kg)	52 lb (24 Kg)
Electrical	N/A	EU: 230 V, 50 Hz, 5 A, 1 Phase USA: 110 V, 60 Hz, 5 A, 1 Phase
Exterior Material	302/304 Stainless Steel Shell; Clear	PVC Enclosure Hood

Specifications	CryoPilot	Control Unit
Dimensions	18.5" x 16.75" x 28.5"	(470 mm x 426 mm x 724 mm)
Weight	205 lb (93 Kg)	
Exterior Material	304 Stainless Steel and PVC	
Heat Transfer Fluid (HTF)	Dow Syltherm HF	
Temperature Range	CryoPilot nominal: +40°C to -70°C	
Power Requirements	EU: 230 V, 50 Hz, 16 A breaker minimum, 1 Phase USA: 230 V, 60 Hz, 20 A breaker minimum, 1 Phase	

Typical Celsius Freeze Profile



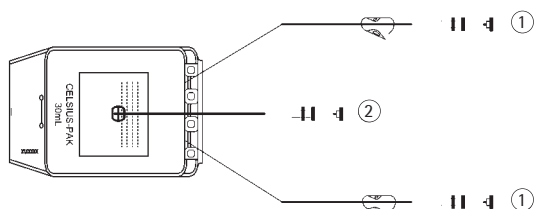
Specifications	30 mL Celsius-Pak	100 mL Celsius-Pak
Film	S71	S71
Product Contact Layer	EVAM ^{®1}	EVAM ^{®1}
Gas Et Moisture Barrier Layer	EVA/EVOH/EVA ²	EVA/EVOH/EVA ²
External Robust, Handling Layer	EVA	EVA

1. Ethylene Vinyl Acetate Monomaterial
2. EVA-Ethylene Vinyl Acetate, EVOH-Ethylene Vinyl Alcohol. A type III DMF is on records with the FDA.

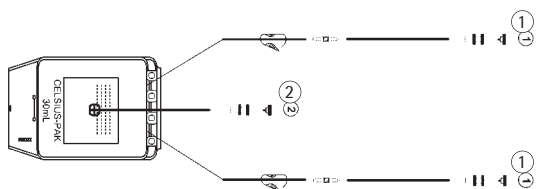
Celsius S³ System



Ordering information



Part Number	Old Part Number	Description	Tubing	Port 1	Port 2	Qty/Box
FZB103484	DB-00030-4	Celsius-Pak 30 mL with Thermowell	EVA	1/4" × 5/16" × 10 cm (4") Female LL + plug, pinch clamp	Thermowell sealed end tube 3/16" × 1/4" × 10 cm (4") Female LL + plug	10
FZB103494	DB-00100-8	Celsius-Pak 100 mL with Thermowell	EVA	1/4" × 5/16" × 10 cm (4") Female LL + plug, pinch clamp	Thermowell sealed end tube 3/16" × 1/4" × 10 cm (4") Female LL + plug	10



Part Number	Old Part Number	Description	Tubing	Port 1	Port 2	Qty/Box
FZB103492	DB-00030-6	Celsius-Pak 30 mL with Thermowell and C-Flex	EVA + Clear C-Flex 374	1/8" × 1/4" × 15 cm (6") + Female LL + plug, pinch clamp	Thermowell sealed end tube 3/16" × 1/4" × 10 cm (4") Female LL + plug	10
FZB103498	DB-00100-3	Celsius-Pak 100 mL with Thermowell and C-Flex	EVA + Clear C-Flex 374	1/8" × 1/4" × 15 cm (6") + Female LL + plug, pinch clamp	Thermowell sealed end tube 3/16" × 1/4" × 10 cm (4") Female LL + plug	10

Some configurations are made to order. Specifications and material are subject to change.

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