

RoSS Plate Freeze-Thaw Unit

Freeze-Thaw Your Drug Substance

- In various sizes of Allegro® single-use biocontainer bags
- Fully automated and controlled
- With highest possible speed and accuracy
- For best product stability results
- From small-scale to large-scale
- Fully scalable up to 232 L

RoSS.pFTU is a plate-based freeze-thaw unit for any scale and batch size. Based on plates, the freezing and thawing time is controlled and rapid.

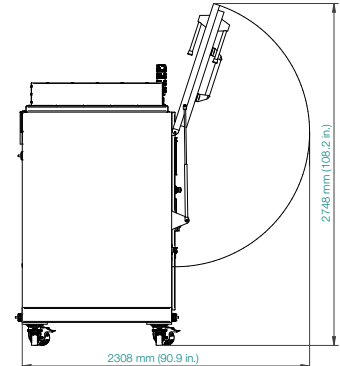
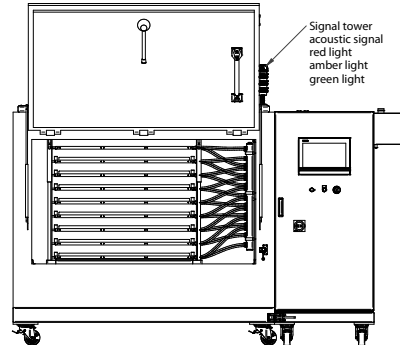
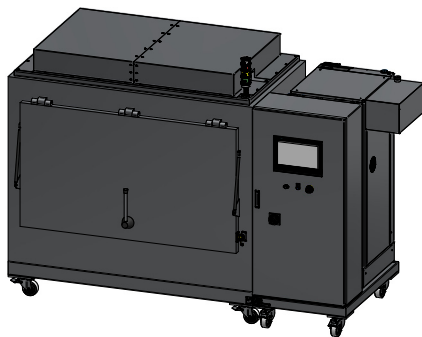
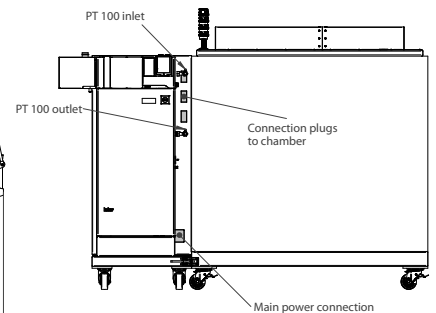
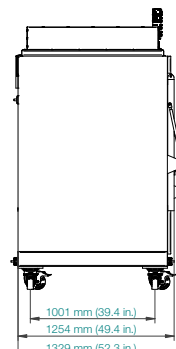
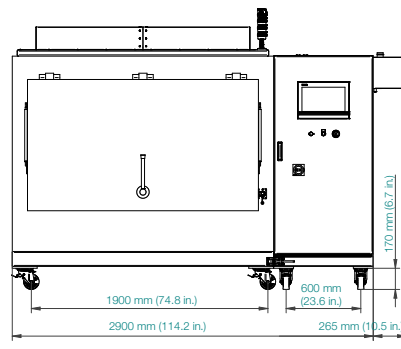
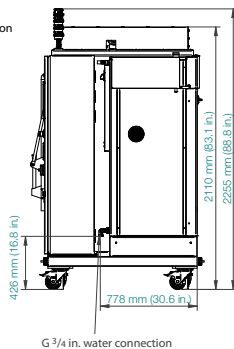
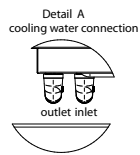


Table 1

Specification for RoSS.pFTU system when used with Allegro single-use biocontainer bags

Attribute	Specification
Allegro single-use biocontainer bags	Allegro 0.5 L - 20 L nominal filling volume
Full load	Up to 232 L (depending on biocontainer bag type and size)
Partial fill	Any volume possible
Minimum temperature	-80 °C
Cooling media (inside freezing plates)	Silicone thermo-oil
Cooling option temperature control unit (TCU)	Water or external chiller
Sound pressure level \pm 4 dB (A)	64 dB (A)
TCU tap water consumption for cooling	Up to 790 L/h* at 15 - 20 °C or via external chiller (available on demand)
Electricity	EU/CN: 400 V, 3 - 40 A, 50 Hz, US: 480 V, 3 - 35 A, 60 Hz
Minimum/maximum ambient temperature	+15 to +25 °C
Maximum relative humidity	75%
Dimensions (W x D x H)	Minimum: 3165 x 1329 x 2255 mm (124.5 x 53.3 x 88.8 in.)
Net weight	2200 kg
Waste heat to surrounding	TCU approx. 200 W/h, cabinet approx. 200 W/h

*A temporary maximum of 790 L/h tap water feed for cooling/heat emission transfer purposes is required at peak temperature performance times.



RoSS.pFTU with a maximum loading of 16 x LGRFREEZE20L

Table 2

Freeze process specifications

Attribute	Specification
Volume capacity	16 x 20 L RoSS shells
Proposed freezing time	7 hours
Proposed freezing temperature	-80 °C

Table 3

Thawing process specifications

Attribute	Specification
Volume capacity	16 x 20 L RoSS shells
Proposed thaw time	9 hours
Proposed thaw temperature	+20 °C

**Corporate Headquarters**

Port Washington, NY, USA
+1-800-717-7255 toll free (USA)
+1-516-484-5400 phone

European Headquarters

Fribourg, Switzerland
+41 (0)26 350 53 00 phone

Asia-Pacific Headquarters

Singapore
+65 6389 6500 phone

Visit us on the Web at www.pall.com/biotech
Contact us at www.pall.com/contact

Pall Corporation has offices and plants throughout the world. To locate the Pall office or distributor nearest you, visit www.pall.com/contact.

The information provided in this literature was reviewed for accuracy at the time of publication. Product data may be subject to change without notice. For current information consult your local Pall distributor or contact Pall directly.

© Copyright 2022, Pall Corporation. Pall, , and Allegro are trademarks of Pall Corporation. ® Indicates a trademark registered in the USA. •RoSS is a trademark of Single Use Support GmbH.