## Thermo Scientific Liquid Nitrogen Transfer Vessels

Designed for storing and dispensing small amounts of liquid nitrogen, our Thermo Series includes four models with capacities from 5 to 32 L.

- Designed to bring liquid nitrogen to other cryo vessels
- Lightweight aluminum design and small neck opening insures ease of handling and low static evaporation rates
- Compact Thermo 5 and 10 dewars feature a convenient handle for pouring and for use in applications where only small quantities of liquid nitrogen are needed
- Thermo 10, 20 and 30 can be fitted with an optional self-pressurized withdrawal device to easily dispense  $LN_2$  without pouring
- Available accessories
  - Withdrawal device
  - 12 mL dipper
  - Roller base

## **convenient** LN<sub>2</sub> transfer





## > Thermo Scientific LN<sub>2</sub> Storage Vessels

	Thermo 5	Thermo 10	Thermo 20	Thermo 30
Model No.	TY509X1	TY509X2	TY509X3	TY509X4
LN <sub>2</sub> capacity (liters)	5	10	20	32
Static evaporation rates <sup>1</sup> (liters per day)	.15	.18	.18	.22
Neck diameter: in. (cm)	2.2 (5.6)	2.2 (5.6)	2 (5.0)	2.5 (6.4)
Exterior dimensions: Diameter x height: in. (cm)	8.8 x 18.2 (22.4 x 46.2)	10.3 x 21.5 (26.2 x 54.6)	8.8 x 18.2 (36.8 x 62.7)	8.8 x 18.2 (43.2 x 61.2)
Shipping weight	12 lbs. / 5.5 kg	14 lbs. / 6.4 kg	24 lbs. / 10.9 kig	30 lbs. / 13.6 kg

<sup>1</sup> Static evaporation rates based on new vessel, no heat load, and no lid openings. Rates may vary due to ambient conditions and usage.

#### > Accessories

Description	Thermo 5	Thermo 10	Thermo 20	Thermo 30
Withdrawal device	N/A	AY509X5	AY509X4	AY509X3
12 mL dipper	AY509X6	AY509X6	AY509X6	AY509X6
Wheeled accessory cart (5 in. high)	N/A	N/A	AY509X9	AY509X9

## Thermo Scientific Arctic Express Storage Systems

Our Arctic Express and Arctic Express Dual systems protect samples during shipment and storage. Featuring excellent flexibility and safety features, these systems can be used as dry shippers or laboratory cryo storage vessels.

#### Arctic Express IATA-Shipper Transport Systems

- Worldwide shipment of precious samples with safety and security; approved for UN and IATA
- Two-week holding time preserves sample integrity
- Lockable cover with internal security compartment provides protection and sample isolation
- Aluminum container with handle holds internal security compartment

#### Arctic Express Cryogenic Shipping Containers

- Innovative material absorbs liquid nitrogen to prevent spillage during shipment
- 14- and 21-day liquid nitrogen holding times allow specimens to be shipped safely
- Durable construction and sturdy base allow dry shipper to withstand rough handling
- Lockable lid prevents unauthorized entry
- · Easily transported via most common carriers
- Lightweight aluminum design and convenient pail-style handle

#### Arctic Express Dual Shipper Storage Systems

- When filled with liquid nitrogen, Arctic Express dual shippers can be used as a canister and cane storage system indefinitely with static holding times of up to 125 days
- Dual shippers hold six numbered, colorcoded, stainless steel cans, (included) which accommodate canes that hold ampoules
- Hard-shell shipping container comes standard for both Arctic Express and Dual Shippers

# safe sample shipping





### > Thermo Scientific Arctic Express LN<sub>2</sub> Vapor Shipping Systems

Model	Arctic Express 5	Arctic Express 10	Arctic Express 20	Arctic Express IATA
Catalog No.	CY50915	CY50905	CY50910	CY50920
LN <sub>2</sub> capacity (liters)	1.5	4.3	10	10
Canisters per unit	1	1	n/a	internal security compartment
Canes per canister	3	8	161	n/a
2 mL Vials per cane	3	6	6	n/a
2 mL Vial capacity	9	48	966 (bulk - 6 vials per cane) or 500 vials using 5 - 2" boxes (100-cell)	400 vials using 4 - 2" boxes (100-cell)
Total straw capacity	15	120	1610	n/a
Static holding time (days)	8	21	14	14
Neck diameter: in. (cm)	1.4 (3.5)	2 (5.0)	8.5 (21.6)	8.5 (21.6)
Exterior dimensions: Diameter x height: in. (cm)	7.3 x 13.5 (18.5 x 34.3)	8.7 x 19.4 (22.1 x 49.3)	15 x 23 (38.1 x 58.4)	15 x 23 (38.1 x 58.4)
Shipping weight	24 lbs. / 10.9 kg	29 lbs. / 13.2 kg	52 lbs. /23.6 kg	58 lbs. / 26.4 kg

## **>** Thermo Scientific Arctic Express $LN_2$ Vapor Shipping Systems

Model	Arctic Express Dual 10	Arctic Express Dual 20	Arctic Express Dual 28
Catalog No.	CK50920	CK50921	CK50922
LN <sub>2</sub> capacity (liters)	10	18.5	28
LN <sub>2</sub> capacity-absorbed (liters)	3	3	8
Canisters per unit	6	6	6
Canes per canister	5	6	21
2 mL Vial capacity (6/cane)	180	216	756
Total straw capacity (10/cane)	300	360	1260
Static holding time – shipper (days)	21	21	21
Neck diameter: in. (cm)	2 (5)	2.2 (5.6)	3.8 (9.7)
Exterior dimensions: Diameter x height: in. (cm)	10.2 x 21.6 (25.9 x 54.9)	14.5 x 25.7 (36.8 x 65.3)	18.2 x 22 (46.2 x 55.9)
Shipping weight	34 lbs. / 15.5 kg	46 lbs. / 20.9 kg	60 lbs. / 27.3 kg

 Quality Services
Available (Must be ordered with equipment)

260043 Certificate of Conformance