

# Cryoport Express® Cryogenic HV3 Shipping System - *Technical Specifications*

The Cryoport Express® Cryogenic HV3 Shipping System complies with all current airline regulations, has robust wheels and a handle to enhance mobility, and can stack and nest for efficient storage capacity.

## Ordering Information

<b>CXHV3SPGP</b>	Cryoport Express® Cryogenic HV3 Shipping System
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## Product Specifications

<b>Temperature Range</b>	-150°C or colder
<b>Static Hold Time</b>	Up to 13 days
<b>Dynamic Hold Time</b>	Up to 10 days
<b>Exterior Dimensions</b>	22 L x 22 W x 28 H in 55.88 x 55.88 x 71.12 cm
<b>Interior Chamber</b>	8.5 in / 21.59 cm diameter 12 in / 30.48 cm height Note: Max commodity height 11.5 in / 29 cm
<b>Weight - Dry</b>	69 to 73 lb / 31 to 33 kg
<b>Weight - Charged</b>	88 to 92 lb / 40 to 42 kg

## Payload Capacity

<p><b>Capacity - Canes</b> Each cane holds 5 vials</p> <ul style="list-style-type: none"> <li>6 Safepak® bags - 15 canes per bag (75 cryovials per bag, 450 cryovials total)</li> <li>100 canes (2.0 ml per vial)</li> <li>4 metal canisters (500 cryovials total)</li> <li>Max packout can hold up to 500 cryovials</li> </ul>
<p><b>Capacity - Boxes</b></p> <ul style="list-style-type: none"> <li>5 standard cryovial boxes (5 x 5 x 2 in / 127 x 127 x 51 mm)</li> <li>1 Safepak® 1800 with optional Cryostrap®</li> <li>1 Safepak® XL with optional Cryostrap®</li> <li>1 metal cryovial box rack (5 boxes per rack)</li> </ul>
<p><b>Capacity - Blood Bag Cassettes</b></p> <ul style="list-style-type: none"> <li>9 blood bag cassettes (up to 750 ml); additional quantities depending on blood bag cassette size</li> <li>1 Safepak® Soft System 1800</li> <li>1 Safepak® XL with optional Cryostrap®</li> <li>1 metal blood bag cassette rack</li> </ul>






## Condition Monitoring Solutions

<b>Smartpak™ Condition Monitoring System</b>	<ul style="list-style-type: none"> <li>○ Records near real-time information</li> <li>○ Track shipment's location</li> <li>○ Records temperature, pressure, anti-tamper, orientation, humidity, and shock</li> <li>○ Unsurpassed analytics contributes to the preservation of the shipped materials</li> <li>○ Assists with planning, enroute mitigation, and reporting</li> </ul>
<b>Cryoportal® Logistics Management System</b>	<ul style="list-style-type: none"> <li>○ Maintains data recorded by the Smartpak™ and provides 24/7 access to a shipment's location and condition</li> <li>○ Integrates ordering, tracking, paperwork, and communications</li> <li>○ Enhanced Security/GAMP Compliance (CRF 21 Part 11)</li> <li>○ Audit logging system captures all changes made in the database</li> <li>○ Built to uphold latest industry standards in web security and cross-site scripting prevention</li> <li>○ Cryoport® and Smartpak™ utilize the Live View® interface to display mobile-friendly data for “on-the-go” experience</li> </ul>

## Regulatory Testing

<b>ISTA 3A</b>	<p>This test simulates typical shipping activity by subjecting the shipping systems to the worst-case scenarios associated with shipping and distribution.</p>
<b>ISTA 7E</b>	<p>This test evaluates the thermal performance of insulated shipping containers, with or without refrigerants, under controlled laboratory conditions. It uses pre-defined seasonal temperature profiles to replicate real-world distribution scenarios, ensuring the package maintains required temperature ranges. It is applicable to products up to 150 pounds.</p>
<b>ISTA 6-FedEx-A</b>	<p>General procedures simulating FedEx air and ground shipping environments for testing packaged products weighing up to 150 lbs. which includes drop, impact, compression, and vibration tests.</p>
<b>IP32</b>	<p>Ingress Protection (IP) testing is performed to establish the effectiveness of the shipping system to block solids such as dust and liquids from entering the shipper.</p>
<b>IATA CAT B</b>	<p>The testing evaluates the adequacy of the packaging to protect the payload (a Category B infectious substance) during a simulated distribution test, which includes drop, leakproofness, pressure differential, thermal shock, and vibration assessments, in accordance with the IATA Packing Instruction 650, Category B Infectious Substance Testing procedure.</p>

## Compatible Accessories

	<p><b>ACC-9123   Smartpak II®</b></p> <p>The Smartpak II® condition monitoring system provides near real-time cellular transmission tracking and reporting of location, temperature, pressure, humidity, orientation, and light.</p>
	<p><b>SET-1000   Safepak® Soft System 1800</b></p> <p>This system includes a Tyvek bag with integrated absorbent material used for secondary containment of infectious substances. This is a one-time use product. Set includes Safepak® 1800 Bag, SoftRack™, and HV Sleeve (not pictured).</p> <ul style="list-style-type: none"> <li>○ 1 SoftRack™ <ul style="list-style-type: none"> <li>• Holds up to 8 blood bag cassettes (Any combination of 50 ml, 250 ml, and 500 ml blood bag cassettes)</li> </ul> </li> </ul>
	<p><b>SET-1001   Safepak® System 1800</b></p> <p>This system includes a Tyvek bag with integrated absorbent material used for secondary containment of infectious substances. This is a one-time use product. Set includes Safepak® 1800 Bag and HV Sleeve (not pictured).</p> <ul style="list-style-type: none"> <li>○ Holds 5 standard cryovial boxes (5 W x 5 L x 2 H in / 127 x 127 x 51 mm)</li> </ul>
	<p><b>ACC-9139   Safepak®</b></p> <p>Tyvek bag with integrated absorbent material used for secondary containment of infectious substances. This is a one-time use product.</p> <ul style="list-style-type: none"> <li>○ Holds up to 15 cryovial canes</li> <li>○ Holds up to 2, 65 mm goblets</li> <li>○ Holds up to 2 Cryoport cryovial boxes (5.75 W x 2 L x 2 H in / 146 x 51 x 51 mm)</li> </ul>
	<p><b>ACC-9140   Safepak® XL</b></p> <p>Tyvek bag with integrated absorbent material used for secondary containment of infectious substances. This is a one-time use product.</p> <ul style="list-style-type: none"> <li>○ Holds up to 15 Cryoport cryovial boxes (5.75 W x 2 L x 2 H in / 146 x 51 x 51 mm); up to 400 ml</li> <li>○ Holds up to 9 blood bag cassettes - for additional security, we recommend using a Cryostrap®</li> <li>○ Holds 1 ACC-8905 metal rack</li> <li>○ Holds up to 5 standard cryovial boxes (5 W x 5 L x 2 H in / 127 x 127 x 51 mm)</li> </ul>

## Compatible Accessories



### ACC-9141 | Cryostrap®

Alternative to metal racks and compatible with Safepak® System.

- Hold up to 9 blood bag cassettes
- Hold up to 5 standard cryovial boxes (5 W x 5 L x 2 H in / 127 x 127 x 51 mm)
- Hold up to 12 Cryoport cryovial boxes (5.75 W x 2 L x 2 H in / 146 x 51 x 51 mm)



### ACC-9122 | Blood Bag Cassette Rack

Reusable blood bag cassette rack for blood bags.

- Holds up to 9 blood bag cassettes
- Blood bag cassette sizes up to 11 W x 6 L x 0.5 D in / 279.4 x 152.4 x 12.7 mm
- Minimum blood bag cassette width is 5.5 in / 140 mm



### ACC-8905 | Cryovial Box Rack

Reusable box rack for cryovials.

- Holds up to 5 standard cryovial boxes
- Standard cryovial box sizes up to 5 W x 5 L x 2 H in / 127 x 127 x 51 mm
- Minimum box width is 5.5 in / 140 mm



### ACC-9043 | Cryovial Box

Cryovial box with insert.

- Holds up to 30 cryovials
- Up to 2.0 ml



### ACC-9053 | Canister

Reusable stainless-steel canister for specialty canes.

- Holds up to 25 specialty canes
- Cryoport Express® High Volume Shipping Systems can accommodate up to 4 metal canisters for a total of 100 canes for an overall total of up to 500 cryovials per shipment

## Compatible Accessories



### ACC-9033 | Cryovial Cane

Snap cryovials into place to create a protective seal that will remain intact during liquid nitrogen cooling.

- Holds up to 5 cryovials
- Up to 2.0 ml



### ACC-9052 | Cane Sleeve

Clear cryo-proof protective sleeve for ACC-9033 standard canes.

- Holds 1 cryovial cane



### ACC-9160 | Serialized Seal

Serialized blue tamper-evident seal that helps identify if shipment may have been compromised.

Document Approvals for MKT-30172 v3.0

Task: Approvers Approval Verdict: Approve changes & release Approval to be made Effective	Allison Gerber, Vice President - Marketing (agerber@cryoport.com) Approval 04-Sep-2025 17:21:10 GMT+0000
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Task: QA Approval Verdict: Approve changes & release QA Approval to be made Effective	Gregory Amano, Director - Quality Assurance (gamano@cryoport.com) Quality Assurance Approval 05-Sep-2025 17:10:36 GMT+0000
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