



Allegro™ 3D Transportation Totes



For 100 and 200 L Allegro Biocontainers Systems

Transportation of liquids is a crucial need for the bio/pharmaceutical manufacturer. Safely moving finished product across the plant or around the planet, receiving in-process buffers or even WFI, requires a robust, certified, fluid containment system.

Pall provides shipping industry-certified, fully integrated and flexible solutions for transportation of 100 or 200 L Allegro single-use biocontainer systems. Fill volumes as low as 50 L can safely be transported.

Allegro transportation totes can be used in any stage of the biomanufacturing process for transport of product or process fluids in Allegro biocontainers within or outside of your facility. The Allegro transportation totes have been validated and

subjected to strict controls to ensure robust secure containment during transportation.

The stainless steel tote features:

- ▶ Gasket sealed lid
- ▶ Gasket-sealed chamber underneath to contain and safely transport outlet piping and attached fittings
- ▶ Foam protection pad system with tension strap retained distribution plate to prevent liquid movement
- ▶ Secure clamping of biocontainer outlet port providing best in class protection
- ▶ Tubing and top port segregation to prevent attached fittings or even filters from contacting the biocontainer during transit

Features and Benefits



Installed biocontainers are protected from gross environmental ingress into the tote, reducing the need for cleandown when the tote is brought back into the facility after transport. Lids and tube protection chambers are all gasket sealed.

The biocontainer with process liquid is secured using robust, simple to use mechanical features:



Bottom outlet port securely clamped and clamps locked into place ensuring no possible lateral or up and down movement of the port-biocontainer joint



Outlet piping connections and system components protected by locking, gasket-sealed stainless steel door



Biocontainer protected by foam pad, with distribution plate rigidly holding biocontainer. Distribution plate has slide-lock orifice to secure inlet port attachment tubing, fittings and separate them from the biocontainer



Straps secure distribution plate in position, providing securing force on biocontainer to prevent movement and any liquid "surge" during transport conditions



Locking, gasket-sealed lids provide protection against gross ingress of contaminants to the upper chamber during transit. Upper chamber safely contains inlet port fittings and assemblies away from contact with the biocontainer



Allegro Tote Transport

Between external manufacturing sites, Allegro totes can be easily loaded in road transportation once the Allegro biocontainer system securing steps have been taken.

Allegro transportation totes have transport-friendly features such as stainless steel pockets for shipping labels or papers.



Within the plant, Allegro transportation totes may be moved on the accessory trolley. Trolleys have 2 locking swivel castors and 2 fixed wheels.

Validation and Support

Pall provides comprehensive validation and testing support for the transport solutions. Please talk to your Pall representative with specific details of your application so we can provide a suitable feedback and system design concepts for your application.

Certification and Qualification

The Allegro 200 L Transportation Tote and biocontainer (the whole system) have passed the International Safe Transit Association (ISTA) 3H test procedure at ambient temperature (23 ± 2° C) for road transportation, and the United Nations Economic Commission for Europe (UNECE) standards and test criteria for transportation of dangerous goods.. Allegro Transportation Totes are manufactured under a Quality Management System certified to ISO 9001.

Technical Specifications

	Allegro 200 L Transportation Tote	Allegro Transportation Tote Trolley
Material of Construction	304 stainless steel	Frame - 304 Stainless steel Wheels - polyamide
Surface Finish	2 micron / 2B Brushed Finish	n/a
Weight	93.5 kg (206 lb)	11.7 kg (26 lb)
Dimensions	826 x 618 x 1000 mm (33 x 25 x 40 in.)	820 x 620 x 232 mm (32 x 25 x 9 in.)
Clearance (for lifting device)	205 mm (8 in.)	155 mm (6 in.)
Stacking Ability	3 x tote (empty) 2 x tote (full)	Totes must not be stacked on a trolley

Note: Totes must not be stacked during transportation.

Minimum Recommended Filling Volume

With 200 L Allegro biocontainer	100 L
With 100 L Allegro biocontainer	50 L

Ordering Information

Description	Part Number
Allegro 200 L stainless steel transportation tote (includes straps and one foam pad)	LGRTRN200L
Allegro 200 L stainless steel trolley for tote	LGRTRNTRL200L
Recommended Spare Parts	
Allegro 200 L foam pad (6 pack)	LGRTRNFP200L
Allegro 200 L straps (set of 2)	LGRTRNS200L



¹ ISTA (3H)

The International Safe Transit Association (ISTA) Test Procedure 3H is a general simulation test for mechanically handled bulk loads. It is intended for bulk loads of the same product but it can also be considered for mixed loads. It can be used to evaluate the protective performance of bulk transport systems related to vibrations, shocks and other stresses normally encountered during handling and transportation, as well as to evaluate interior dunnage (void supports). The test levels are based on general data and may not represent any specific distribution system. The package and product are considered together and not separately. Some conditions of transit, such as moisture, pressure or unusual handling, may not be covered.

² UNECE Part 6

The United Nations Economic Commission for Europe (UNECE) Part 6 Recommendations on the Transport of Dangerous Goods, Annex Part 6: Requirements for the construction and

testing of packagings, intermediate bulk containers (IBCs), large packagings, portable tanks, multiple-element gas containers (MEGCs) and bulk containers, prescribe mechanical handling tests including

- ▶ Vibration testing
- ▶ Bottom lift tests – Forklift
- ▶ Stacking tests
- ▶ Internal pressure test
- ▶ Leak test

³ Warning Note: If a hazardous substance is being transported, it is the user's responsibility to ensure compliance with hazardous goods transport legislation. Please contact your Pall representative for more details

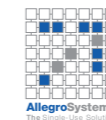


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