



GLOBAL FREIGHT CONSOLIDATION

FLEXIBILITY AND CONTROL ADVANTAGES

WHITE PAPER



C.H. ROBINSON
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IN BRIEF

Air and ocean consolidation can provide strategic benefits for shippers. This white paper explores global consolidation options and the outcomes companies can expect when consolidating their freight.

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It's not always possible for companies to fill an entire container with their own export freight. Both small organisations that cannot wait to fill a container, and large ones with high value cargo, may have between 1 and 15 pallets to ship at a time. Air and ocean carriers require shippers to work with freight consolidators to accommodate small volume shipping needs.

Consolidators accept complementary freight from multiple shippers and combine this freight into less than container load (LCL) boxes for ocean shipping or Unit Load Devices (ULD) for air. The entire LCL or ULD is tendered to the ocean and air carriers for transport.

Companies of any size can use consolidation service, but it is particularly useful for organisations with lean supply chains or those that operate in just in time (JIT) environments. These companies use logistics efficiencies from freight forwarders, consolidators and 3PLs to move smaller quantities of material more frequently; they make a strategic decision to spend more on shipping so they can spend less on inventory, storage, returns and other costs.

This white paper looks at the process of air and ocean consolidation options that are available, and the role that consolidation can play in global supply chain strategy.

If a shipper's global supply chain has tight transit times or fast changes in demand—or high inventory costs—they can consider freight consolidation options.

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Frequently asked questions about global freight consolidation

Many companies ask these questions to build their understanding of consolidation as a global supply chain strategy.

WHAT OPTIONS ARE THERE FOR AIR AND OCEAN FREIGHT CONSOLIDATION?

Air and ocean consolidators have certain service practices in common. Both can purchase capacity by block space agreement. That is, they reserve committed ULD space from the airlines or vessel space from ocean carriers; they pay for this space, whether they use it or not. And, both combine compatible cargo from many customers onto containers and tender it to air and ocean carriers.

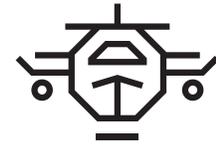
Whether air or ocean consolidation is the right choice for a shipment depends on the required service level and transit time. Air offers faster transit times at a higher cost than ocean. Ocean is slower, but is more cost effective than air. Yet, even within these basic parameters, there are more options to explore.

Air freight consolidation

Shippers use consolidated air when they need a faster option than ocean consolidation, but do not need direct service (next flight out). Air consolidation offers more favorable pricing than direct service, in exchange for a slower transit time.

Virtually all air freight is consolidated. Airlines only accept freight from freight forwarders or consolidators. It is not feasible for airlines to individually load 500 cartons onto an aircraft in the compressed timeframes between landing and takeoff. They require that freight be loaded onto a ULD—essentially a 244 x 318 cm (96 x125 inch) cookie sheet that slides into racking—which makes it easy to load a plane. Forwarders consolidate freight from multiple companies on a ULD and tender it as a built unit to the airline or tender freight from multiple shippers to the airline, and the airline builds the ULDs. Air freight pricing is calculated on a per kilo basis and is charged based on whichever is the greater of the gross weight or the volume weight.

Any freight that moves either on a passenger aircraft or a cargo plane must also be screened by a certified cargo screening facility (CCSF), which can either be independently owned or run by the airline. Forwarders can only screen the cargo if they have a



Consider options beyond your current approach to air freight.

Adjust your supply chain to accommodate consolidated air more often to achieve cost savings and improved efficiency. Air forwarders often offer consolidated air freight at a reduced cost. Savvy customers utilise this reduced pricing to cut their own costs. Air forwarders may offer a discounted price for consolidated freight because they are able to leverage multiple customers, thereby improving both load factor and pallet utilisation.

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screening machine, as well as certified individuals to screen export cargo and a secure area where freight can be held between screening and loading. Freight forwarders or consolidators without screening machines must have the airlines or a third party screen the cargo for an additional fee.

Ocean freight consolidation

Freight forwarders typically have strategic consolidation hubs on the continents they serve, and sailing schedules for ocean shipping between major ports and terminals.

There are faster and slower ocean transportation options. Some ocean freight goes to direct port of call; these shipments experience a shorter transit time than other ocean options, at a higher cost. Or, ocean shipments can stop at multiple ports of call. This service costs less than direct port of call, but the more vessel stops there are, the longer the transit, and the greater potential there is for supply chain delays and disruption. (See page 6 for more on dealing with unexpected changes.)

In spite of the slower transit times in ocean transportation, some forwarders buy committed container space on the fastest vessel options at a higher rate. That enables shippers to obtain the space they need, when they need it. In addition, forwarders may pre-book containers and truckload carriers to help freight move more smoothly, even when there are seasonal capacity issues.

Buyer's consolidation (also known as vendor assembly)

Large shippers with high volumes of freight coming from multiple suppliers can work with their freight forwarder to set up a buyer's consolidation program. This type of program consolidates freight into a single bill of lading, which can result in lower handling fees, freight costs, customs fees and final delivery charges. It also allows for flexibility to make last minute switches from an ocean to an air shipment, and provides greater control to decide when orders ship and how they move. Increased visibility is required to track every detail, from supplier name and a description of the goods, to size of shipment and date received.



Only pay for the space that's used.

Less than container load can be the ideal solution if the service provider has the ability to execute. If the service provider does not have the scale or a large enough customer base to consolidate products in a specific lane, the freight may sit at the port, waiting for someone else's products. Make sure the service provider has enough density in the needed lanes to speed up LCL shipments—not slow them down.

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IS IT POSSIBLE TO ACCOMMODATE UNEXPECTED CHANGES IN ROUTING FREIGHT?

A good freight forwarder distinguishes itself best, not when everything is going well, but when things go wrong. Reputable forwarders with experience in more than one type of transportation can help reduce unexpected supply chain failures and provide options if disruption does occur.

Forwarders proactively control the loading at origin, the transit while moving inland, and unloading at destination. Their in-house container loading can reduce or avoid unnecessary cargo handling and help prevent damage. But even before consolidation, a good forwarder can identify and photograph cargo that is not seaworthy. In this situation, for example, they can ask the shipper for disposition instructions—accept the freight as is or send it back to the supplier to reinforce packaging—preventing damage at origin.

As long as freight has not already been consolidated and tendered to ocean or air carriers, some forwarders can even accommodate sudden changes to shipping plans. For example, a shipper may have 10 pallets scheduled for ocean consolidation, but decides one pallet needs expediting; skilled forwarders can pull the pallet in this situation and switch the shipment to air.

Or, a shipper may advise that some freight is running late, but still needs to ship. In these cases, the forwarders may offer later cutoffs for ocean freight. With expertise in ground transportation on multiple continents, they may even be able to offer more flexibility and options to address unusual requirements.

WHY CONSOLIDATE?

Companies utilise air and ocean consolidation to achieve these goals:

Reliability

Providers commit to specific transit times and regular sailing schedules. This is especially attractive to smaller companies, who know their freight will move consistently without having to wait to fill the container.

Flexibility

A full-service international forwarder—one with multiple freight services and cargo screening capabilities—can load goods from

many shippers in their own facility. Up to 24 hours before loading on ship or plane, shippers can change how the goods should move—great for accommodating unexpected demand.

Control

Companies can review and understand the forwarder's schedule to learn about their shipping options.

Freight safety

Damage is always a concern, even if the shipper loads the product at its own facility. Skilled freight forwarders pick up the product, bring it to a warehouse, and load it. They use best practices to block and brace effectively and build containers to minimise damage.

WHAT COMMODITIES SHOULD AND SHOULDN'T BE CONSOLIDATED?

Most types of freight can be consolidated:

- ❑ Packaged or crated merchandise on pallets and skids.
- ❑ General merchandise.
- ❑ Textiles, garments, technology, cell phones, cell phone accessories, automotive parts.
- ❑ Freight for any other industry with a high level of inventory and a sense of urgency (for companies whose inventory carrying costs may outweigh the cost of transportation).

Commodities that do not make good consolidation candidates include:

- ❑ Fragile, bulky, low volume products. Consolidated freight must be able to withstand some handling.
- ❑ Temperature controlled product.
- ❑ Commodities especially prone to customs exams. Cars, boats and jet skis can be delayed in customs while VIN numbers are checked, holding up the entire container.
- ❑ Hazmat freight, such as lithium batteries that contain corrosives and acids, is not suitable for air consolidation, and should not be combined with other freight.
- ❑ Perishable and live animals.

Space availability

Some freight may seem an unlikely candidate for consolidation with other cargo, like very heavy pumps and hydraulics with jagged edges that aren't crated. Perhaps the pumps are too tall to put regular cargo above them, and they weigh too much to put them on top of other cargo. A skilled freight forwarder can sometimes combine this type of dimensional, dense freight with lightweight cargo like pillows or mannequins, placing them on top of the pumps and hydraulics to maximise the use of the container.

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Questions to ask before selecting a freight forwarder

- 1. Do they run their own consolidations?** The forwarder must have high enough volumes to combine freight from many customers at once, or they are unlikely to be running their own consolidation program.
- 2. Do they screen air freight consolidations?** A few forwarders can screen cargo, according to European Union requirements. To do so, they must have a screening machine, certified individuals to screen export cargo and a secure area where freight can be held between screening and loading. Also ask the forwarder if they charge for screening services.
- 3. What are their average transit times for LCL consolidations in specific lanes?** Forwarders may offer direct consolidation to certain locations, at transit times that can approach the times for full container load. For example, a forwarder that has a deconsolidation warehouse in Antwerp may be able to ship a container from Auckland to Antwerp and use available transshipment services to move cargo to Amsterdam, Rotterdam or other cities, as required.
- 4. Can they easily accommodate unexpected routing changes of consolidated freight?** If your business experiences frequent routing anomalies—the need for late cutoffs for freight, unexpected demand or a need to expedite—make sure the freight forwarder is flexible enough to accommodate such changes.



ABOUT US

At C.H. Robinson, [we see things differently](#). We believe in accelerating global trade to drive the world's economy. Using the strengths of our people, processes, and technology, we help our customers work smarter, not harder. As one of the world's largest third party logistics providers (3PL), we provide a broad portfolio of logistics services, fresh produce sourcing, and managed services through our global network. In addition, the company, our Foundation, and our employees contribute annually to a variety of organisations.

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