# General

## Summary

* + 1. Establish a minimum packaging, shipping and handling quality for Suppliers of goods, including but not limited to:
			1. Preservation of goods;
			2. Acceptable use of packaging materials;
			3. Handling requirements as specified by the material manufacturers so not to damage materials or void material warranties;
			4. Required, complete documentation indicating delivery location, quantity, list of goods, and any special delivery instructions needed by the Contractor to receive the shipment.

## Reference Standards

* + 1. American Society for Testing and Materials (ASTM):
			1. ASTM D5118/D5118M-15, Standard Practice for Fabrication of Fiberboard Shipping Boxes
			2. ASTM D4728-17, Standard Test Method for Random Vibration Testing of Shipping Containers
			3. ASTM D6179-07(2014), Standard Test Methods for Rough Handling of Unitized Loads and Large Shipping Cases and Crates
			4. ASTM D642-15, Standard Test Method for Determining Compressive Resistance of Shipping Containers, Components, and Unit Loads
			5. ASTM D4169-16, Standard Practice for Performance Testing of Shipping Containers and Systems
			6. ASTM D1185-98a(2017), Standard Test Methods for Pallets and Related Structures Employed in Materials Handling and Shipping

## Administrative requirements

* + 1. All goods received including preservation and packaging materials together with package markings and documentation may be subject to inspection by the Contractor.
		2. Any costs incurred by the Owner due to delays in shipment, because of failure by the Supplier to comply with this Specification will be charged to the Supplier.

## Quality assurance of goods for shipment

* + 1. Packaging:
			1. The Supplier must ensure that the method of packaging provides effective protection against damage in handling and transport between the Supplier and the final storage of the goods.
			2. All packaging and packing materials used must be able to withstand remote field conditions, including, but not limited to significant UV exposure, moisture and extreme temperatures.
			3. Goods shall be supplied in packages clearly identifying the item number and quantity.
			4. Any package which appears to be manageable by a single person should be limited to 15kg. If the package weighs greater than 15kg then it must be easily identifiable.
		2. Preservation:
			1. The Supplier must ensure that all goods are suitably protected to prevent corrosion during handling, transport and storage.
			2. Goods that have openings must be sealed with caps, plugs or waterproof tape to prevent the ingress of dust and moisture.
			3. Goods with painted surfaces shall be suitably protected to prevent rubbing or scuffing during transport.
			4. All surfaces that are subject to corrosion must be treated with an appropriate temporary corrosion preventative.
			5. Goods that are susceptible to climatic conditions must be packed in moisture-vapour proof sealed enclosures with adequate amounts of desiccant.
		3. Marking:
			1. Each package shall be identified with the following:
				1. Item number and manufacturer’s identification and part number;
				2. Quantity as per Purchase Order unit of measure;
				3. Number of packages associated with the packing slip contents;
				4. Ship to Location and final destination.
			2. Marking should be appropriate for long term storage if required.
		4. Shipping documentation:
			1. Shipping documentation must accompany all deliveries and include as a minimum a packing list itemizing the contents of the consignment to enable a check of ordered versus delivered Products.
			2. All documents are to be securely attached to the outside of the packaged items in a weather resistant sealed envelope.
			3. A packing list shall contain no less than the following information:
				1. Purchase order number;
				2. Tag/equipment number (if applicable);
				3. Supplier’s name;
				4. Final destination;
				5. Quantity of items;
				6. Description of the contents;
				7. Supplier reference number.
		5. Hazardous and dangerous materials:
			1. The Supplier must apply the proper warning labels and markings to the hazardous and dangerous goods.
			2. The appropriate Safety Data Sheets (SDS) must accompany the shipment and transportation must be in accordance with the relevant standard and/or legislation.
		6. Air shipments:
			1. Goods that are to travel via air transportation must be packed according to International Air Transport Authority (IATA) regulations.
		7. Pre-shipment notification:
			1. Where special manual handling equipment is required at the receiving site; the Supplier must notify Contractor at the time of the order receipt or within four (4) weeks of the expected arrival date of the requirements.
		8. Product handling:
			1. Schedule early delivery of Products to enable work to be executed without delay. Before delivery, arrange for receiving at site.
			2. Deliver and store Products at site where directed by the Contractor.
			3. Deliver packaged Products, and store until use, in original unopened wrapping or containers, with manufacturer's seals and labels intact.
			4. Product handling requirements may be repeated, and additional requirements specified, in other Sections of the Specifications.

## Timber boxes, crates and skids

* + 1. The design of timber boxes and crates shall be in accordance with
		ASTM D5118.
		2. In addition, the Supplier shall ensure that all boxes and crates are either weatherproof lined or that the goods are weatherproofed prior to packing.
		3. Timber boxes, crates and skids are to be steel strapped and the straps are to be secured with crimped steel seals. Non-metallic strapping shall only be used on cartons or packages packed within the boxes or crates.
		4. Three-way corner construction reinforced with diagonals shall be used for all crates that are not plywood sheathed. Large crates must bear great superimposed loads. Top strength should be ensured through the use of frequent (not more than 1m apart) top joists. When sheathed, joists shall be placed under the sheathing. Joist supports are to be provided directly under the joist ends.
		5. For the purpose of lifting by forklift all boxes, crates and skids must be fitted with bearers having a height of no less than 100 mm high and 150 mm wide. Bearers are to permit forklift tine access from two opposite sides.
		6. Screws not nails should be used when sealing timber crates.

## Support saddles

* + 1. Where support saddles are required for the transportation of goods such as vessels, columns and exchangers they shall be designed and incorporate the following:
			1. Saddles shall be designed for the purpose of transporting the Goods and transport drawings shall be submitted for review.
			2. Where appropriate steel wrapper plates shall be supplied to distribute the load and protect the saddles.
			3. Saddles shall be fitted with lifting lugs and supplied with a steel rope or flat metal strapping to secure the saddle to the goods during lifting or transport.
			4. Subject to the transport configuration and design requirements, saddles may be either of timber or steel construction.

## Freight containers

* + 1. Freight containers are to be used in accordance with the following standards:
			1. ASTM D4728, Standard Test Method for Random Vibration Testing of Shipping Containers
			2. ASTM D6179, Standard Test Methods for Rough Handling of Unitized Loads and Large Shipping Cases and Crates
			3. ASTM D642, Standard Test Method for Determining Compressive Resistance of Shipping Containers, Components, and Unit Loads
			4. ASTM D4169, Standard Practice for Performance Testing of Shipping Containers and Systems
		2. All container movements must be accompanied by a valid container weight declaration (CWD).
		3. The CWD must contain the following information:
			1. The weight of the container (including its contents);
			2. The container number and other details to identify the container;
			3. The name and business name or details necessary to identify the container;
			4. The date of the declaration;
			5. And any other information required by the regulations (Example: DG Class, UN number etc.).

## International shipping documents

* + 1. The Supplier shall provide commercial invoice, packing list and certificate of origin for international shipping and customs clearance purposes.
		2. The commercial invoice shall contain the following as a minimum:
			1. Date of invoice;
			2. A discrete identification of “invoice” number;
			3. Shipper name and address; consignee name and address;
			4. Show complete SELLER and SOLD TO company names and addresses;
			5. Typed or machine printed in English;
			6. Full description of the goods; not to use of “Lot” or Miscellaneous”; include tag number if applicable;
			7. Minimum first six digits of harmonized tariff code;
			8. Purchase order number;
			9. Shipping Control Number (SCN) if assigned by the BUYER;
			10. Unit cost; quantity shipped; total cost; currency used;
			11. Country of origin of the goods.

# Products – not used

# Execution – not used

End of section