

Marine Provision and Reefer Plant — A Spares Strategy That Survives a Voyage

cBallast Technical Sourcing · Marine refrigeration spares · issued 2026-10-03 · cballast.com/documents/marine-provision-plant-spares-strategy

Building the onboard spares inventory for provision plants and reefer systems: the failure-ranked parts list (controls, driers, valves plates, gaskets, fan motors), sea-water-specific items, documentation that satisfies class and PSC, and how quote-to-invoice sourcing consolidates mixed-OEM baskets.

Rank spares by what actually fails at sea

A provision plant's downtime list is predictable, and the spares locker should mirror it:

Priority | Items | Catalogue anchors |

Carry always | Controller or service thermostat, HP/LP switch, liquid driers, sight glass, Schrader cores/caps, PTFE rotalock gaskets, fuses, contactor + overload | 077B No. 6, P77AAA, DML 305s, SGP 6S, 1 3/4" gaskets, LC1D18+9–13 A relay |

Per installed machine class | Valve plate + gasket set, start equipment/protection module, oil charge, evaporator fan motor + blade | valve-plate families, INT69, SE 55 oil, cooler spares |

Sea-water specific | Bronze water-regulating valve, pump impeller/seals, anodes, condenser gaskets | V46BD bronze 1" (V46 guide) |

Consumables | Brazing rods, nitrogen adapters, acid test kits, UV dye, insulation tube + adhesive, cable ties, PPE | Ag 40 %, TKO kit, UV tracer, lined gloves |

The ranking logic: anything whose absence stops the plant and fits in a drawer sails with the ship; heavy rotables (compressors, coils) stage ashore at the trading pattern's hubs.

Marine-specific selection rules

Sea water = bronze/cupronickel path: every wetted valve and fitting in the raw-water train in marine-grade material; the V46 B-series exists for this and the A-series corpses in bilges prove why.

Vibration regime: double-clamped lines, heavy-duty two-piece clamps at machinery (clamp guide), vibration eliminators checked each voyage (vibration guide).

Corrosion class for fixings: A4/acid-resistant hardware in machinery spaces and weather decks — see the corrosion guide.

Low-temperature PPE and defrost discipline for provision rooms; spare defrost rods per cooler family on long trades.

Documentation that clears surveys

Class societies and port-state control read paper first: refrigerant log (charge movements, leak checks per the F-gas/MARPOL-adjacent regime the flag applies), relief-valve set pressures and change dates (relief guide), pressure-test records after repairs, and material certificates where the plant's class notation requires them. Spares themselves should arrive identified — MPN, maker, and where applicable IMPA code on the packing list — so the chief's inventory system and the purchaser's records reconcile. The catalogue's product pages carry MPN/EAN identifiers for exactly this reconciliation; the wider identifier methodology is in the sourcing guide.

Sourcing pattern

Provision-plant baskets are mixed-OEM by nature — a Frascold plate, Danfoss driers, Penn controls, LU-VE fan motors in one requisition. Quote-to-invoice consolidation (one PO, one invoice, one consolidated shipment to the agent) is the pattern that keeps such baskets manageable against a port call; request quotes against the exact part numbers from the ranked list above, state the vessel and port window, and keep substitutions explicit — an "equivalent" valve plate is only equivalent when the model-group letters say so.

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