Attachment 1

Precooled Mobile Dehumidification Unit (MDU)
Sources Sought Notice
70Z03826IE0000006

Specifications

The requested precooled MDU must meet the minimum technical and operational requirements outlined in the table below:

- Delivers 600 cubic feet per minute (CFM) of dehumidified process air in an open loop system.
- Once docked to an aircraft, the precooled MDU reduces ambient air to a target zone of 30-40% relative humidity (RH) within one (1) hour in the aircraft and automatically regulates ambient RH air to the aircraft at this target zone.
- Achieves 30-40% RH in the aircraft for a minimum of eight (8) hours per day.
- Includes test ports for processing airflow.
- Electric heat reactivation of desiccant; washable, rotary type desiccant wheel.
- Unit mounted on a mobile, towable, four-wheel trailer with capacity to support the load of structure and installed components; front and rear leaf spring suspension.
- Unit total weight not to exceed 5,000 pounds gross weight; trailer stable and capable of being towed up to 10 miles per hour.
- Tie-down provisions for air/highway transportability; tow bar (folding or collapsing) with 2.75–3.00-inch maximum ring diameter.
- Maximum overall dimensions: 80 inches (H) x 90 inches (W) x 150 inches (L) with tow bar retracted/stored; maximum 200 inches length overall (LOA) with tow bar extension.
- Manual hand parking brake(s).
- Stowage enclosure for hose duct and adapter; power cord hangar for storage/movement.
- Grounding reel with 100 feet of 3/32 inch grounding cable; cable end with alligator or hand grip grounding clip.
- Precooled MDU and trailer constructed and/or rated for outdoor, salt air environment use; Precooled MDU mainly constructed of galvanized metal or aluminum, trailer constructed of steel, stainless steel fasteners.
- Inlet weather hoods for air inlets; weather covers for all connections; corrosion resistant mesh screening for ventilation/open access points to ward off insect penetration.
- All electrical components and connections mounted above 18” from floor level for use in NFPA Class 1, Div. II environments; UL or ETL listed and approved electrical equipment.

- Power requirements: 440-480vac/3ph/60hz @ 60 amps maximum; 100 feet (SOOW) power cable (bare end, no plug); CG will provide the power cord plug for each unit upon delivery.
- Maximum noise of 85 decibels (db) @ 5 feet while operating.
- Pre-cooling system: Minimum seven (7) ton air-cooled type condensing section built into unit; R-448A refrigerant (or current EPA acceptable/allowable equivalent); pre-cooling coil for process air circuit; scroll compressors and aluminum fin/copper tube condenser coils; double wall insulated, double flanged galvanized steel construction; access panels with 180° turn compression latches; doors and access panels gasketed with neoprene.
- Standard 10” process air outlet for CG aircraft application; ambient inlet air filter, process air outlet filter, reactivation air inlet filter (all filters washable permanent synthetic or metallic).
- Process air ducting: Maximum fifty (50) feet of ten (10) inch flex duct for prolonged outdoor use; two ten (10) inch worm gear hose clamps for duct ends; supply J&B Aviation (PN: JB729SC) exhaust duct connector.
- Dock and undock to the aircraft in five (5) or fewer minutes; aircraft interface adapter (AIA) will be procured and supplied by CG unit at final delivery destination.
- Paint: Metallic trailer components, unit structure, and exterior painted white polyurethane coating 17925 (MIL-PRF-85285); purchased or pre-assembled components with pre-existing coatings do not require additional coatings; pre-applied coatings are acceptable; no repainting required for plastic, galvanized finishes, or stainless-steel components.
- Tropical rust proofing: Premium rust proofing package with corrosion preventative compound for metallic steel and aluminum components; areas such as interior, exterior, seams, welds, hidden recessed areas, and locations where dissimilar metals come in contact should be considered for additional coatings; galvanized finishes and stainless-steel components do not require this additional coating.
- Unit capable of being transported by commercial trailers, trains, and marine vessels, and must withstand impact forces encountered in shipment without damage or permanent deformation.
- Instruction, warning, and caution plates securely attached by screws, bolts, or rivets in conspicuous locations.
- Identification plate made of corrosion resistant material, permanently installed, containing: Nomenclature, Manufacturer’s Part Number, Manufacturer’s Model Number, Manufacturer’s Serial Number, Manufacturer’s Name, Manufacturer’s CAGE Code, Manufacturer’s Address, Manufacturer’s Service Phone Number, Date of Manufacture, Contract Number.
- Technical Information Package: Owner, operation, and maintenance manual(s); electrical circuit diagram(s); refrigeration diagram(s); process air diagram(s); permission to upload electronic copy of manual(s) to USCG intranet depository for local reference and storage.
- Warranty details are to be provided.