



SHIPBOARD MODULAR REFRIGERATOR (SMR) | DoD CFD

The SMR is a marine grade, commercially available, walk-in style refrigerator/freezer, suitable and approved for use on Navy ships to provide the flexibility to expand refrigerator/freezer space.

PURPOSE:

The SMR provides increased chill/freeze storage space aboard ships, to support endurance-loading requirements, reduced manpower initiatives, and the Navy's transition towards advanced foods utilized in the Navy Standard Core Menu (NSCM).

TECHNICAL CHARACTERISTICS:

The SMR utilizes lightweight, hatchable, thermally efficient, interlocking panels which can be scaled up or down to fit most shipboard spatial requirements. The SMR is currently installed and operating onboard the USS Roosevelt, USS Reagan, and USS Stennis. The SMR also contains an integrated, reliable, refrigeration system designed to operate seamlessly with shipboard power. The Refrigeration Unit (RU) is easily accessible for maintenance and/or repair and provides enough cooling capacity to easily maintain perishables at acceptable food temperatures. The base of the SMR is sealed to the galley's deck to prevent moisture buildup, improve sanitation, and reduce harborage of pests. The SMR is made of heavy duty, food grade stainless steel interior and exterior making cleaning and sanitizing easier.

SPECIFICATIONS:

- **Capacity:** 350 cu. ft.
- **Dimensions:** Length, width, and height can be tailored to fit existing shipboard Galley and storage space requirements
- **Weight:**
 - **Operating Weight:** 2160 lbs (Note: the SMR is lighter than conventional "stick-built" chill/freezer storage spaces currently used aboard legacy ships)
 - **Shipping Weight:** 2400 lbs
- **Utilities/Power:** 208/230 Volt AC converted from 440 Volt, 30 Phase AC shipboard power
- Uses environmentally safe insulation & non-ozone depleting refrigerant (R-404A); 6 Amps nominal current draw (15 Amps max.)
- **Transportation:** For shipboard use; normal transport delivery

CAPABILITY & BENEFITS:

- Provides precise temperature control for refrigerated or frozen perishables
- Based on modular nature, the SMR makes meal breakout and return processes more efficient and less costly
- Capability to add refrigerator/freezer capacity inexpensively and easily without major retrofit or re-design to legacy ship's galley or storage areas
- Can be utilized across multiple ship types (i.e. carriers, auxiliary ships and LHDs)
- Panels are modular for easy repair and replacement





- RU is easily maintainable and supportable by Navy HVAC personnel
- One SMR replaces one or several “stick-built” shipboard refrigerators
- Heavy duty hardware used for long service life

APPLICATIONS:

Provides chill/freeze storage space aboard ships in support of the advanced foods utilized in the NSCM.

POINT OF CONTACT:

DoD Combat Feeding

Phone: COMM (508) 233-4670

E-Mail: nati-amrd-nsc-ad-b@conus.army.mil



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