M231/ M232A1 MACS

Modular Artillery Charge System

ENERGETICS | PROPELLANTS

PROPELLING CHARGES FOR 155MM ARTILLERY PROJECTILES

General Dynamics Ordnance and Tactical Systems is the manufacturer of the M231 and M232A1 Modular Artillery Charge System for the U.S. Army and Marines Corps.

The M231/M232A1 MACS was developed as the propelling charge system for use in all currently-fielded 155mm howitzer systems. It uses a "build-a-charge," incremental-based system, which consists of two configurations of modular charges: the M231, which is used either singularly (zone 1) or in pairs (zone 2); and the M232A1, which is used in combinations of three to five charges to provide zones 3, 4 and 5.

MACS is more efficient than the currently fielded four-charge system. Its two-charge design has no excess or unused increments to dispose of, and eliminates the need to cut and/or retie bag charges. MACS rigid structure, symmetrical shape and low weight, support maximum flexibility in tactical logistics.

SPECIFICATIONS

Modular Artillery Charge System	Consists of the M231 and M232A1 propelling charges, and is compatible with M198 and M777 lightweight towed howitzers. MACS is also compatible with M109A3/A4/A5/A6/A7 self-propelled howitzers.
Performance	A "build a charge" concept that eliminates the need to dispose of unused cartridges
Production Capabilities	General Dynamics Ordnance and Tactical Systems has existing certified production facilities
Logistics	Provides increased operational flexibility and reduced support costs

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727 578 8100

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