

# M231 / M232A1 MACS

American Ordnance LLC, a company of Day & Zimmermann, produces the M231 & M232A1 Modular Artillery Charge System (MACS) for the U.S. Army and other State Department approved customers.

**USE:** MACS is a replacement system for 155mm propelling charges offering simplified logistics and reducing environmental impact at a lower cost. The MACS, a modular rigid propelling charge system, was developed for use in all currently fielded 155mm howitzer systems, both self-propelled and towed.

**DESCRIPTION:** The MACS consists of two propelling charges, the M231 and the M232/M232A1, and associated packaging. The system is compatible with all current and planned 155mm field artillery weapons. MACS uses a "build-a-charge" concept in which increments are identical to all others in the same lot designation, eliminating the need to dispose of unused increments. Unused increments are retained for future use. The M231 is fired either singly (Charge-1L) or in pairs (Charge-2L) to engage targets from 3 to 11 kilometers. The M232/M232A1 is fired in groups of 3 (Charge-3H), or groups of 4 (Charge-4H) or groups of 5 (Charge-5H) to engage targets from 7 to 30 kilometers.

## SPECIFICATIONS:

	M231	M232A1
Length:	6.05 in	6.14 in
Weight:	4.25 lbs	5.85 lbs
Propellant:	PAP7993 single-base	M31A2 triple-base
NSN:	1320-01-454-4603	1320-01-526-6523



M231

M232A1



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