

Mk 13 Mod 4 Weight Data

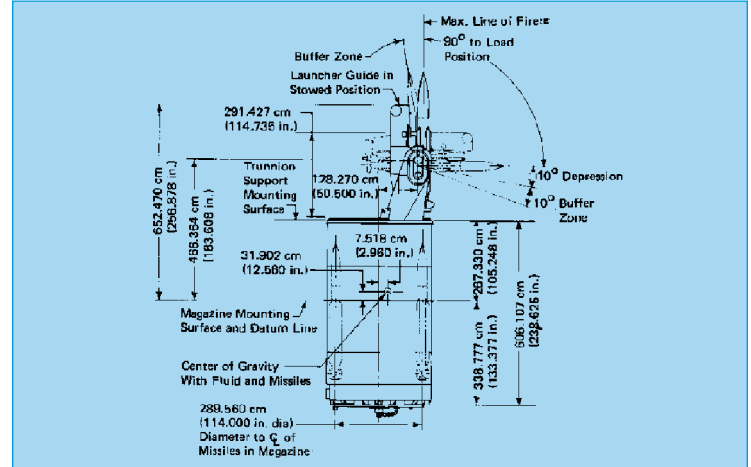
Existing capability Any mix of Standard-1 (MR), HARPOON and Standard-1 (MR) Block VI Standard-2 (MR)
 Reaction time (SM1) 7.35 seconds
 Continuous salvo rate (SM1) 8.09 seconds
 Ready service complement 40 missiles

Sprinkling System (Water) 1.476.3 liters/min (390 gal/min) at 4.92 kg/cm² (70 psig)

System Weight (No fluid) 61,102 kg (134,704 lb)

Personnel Requirements

Tactical operation 1
 Strikedown operation 8



Mk 22 Mod 0 Weight Data

Existing capability Any mix of Standard-1 (MR) and Standard-1A (MR)
 Reaction time (SM1) 8.44 seconds
 Continuous salvo rate (SM1) 7 weapons/minute
 Ready service complement 16 missiles

Sprinkling System (Water) 605.6 liters/min (160 gal/min) at 4.92 kg/cm² (70 psig)

System Weight (No weapons of fluid) 41,905 kg (92,385 lb)

Personnel Requirements

Tactical operation 2
 Strikedown operation 5

Mk 13 and Mk 22 Common Specifications

Weapon Data

Physical growth capability:
 Weight 680 kg (1,500 lb)
 Diameter 34.3 cm (13.5 in.)
 Length 4.73 m (186.0 in.)
 Misfire removal Jettison

Scheduled Maintenance 2.5 hours maximum/day

Operability Tests 26 minutes/day

Fire Control Interface Mk 74 Guided Missile Fire Control System

Signal Input Continuous function from fire control to 1X and 36X synchros

Power Requirements from Ship Supply

440 Vac 60 Hz 3 phase Standby load 20.6 kW
 Average continuous firing load 45.0 kW
 Peak running load 164.0 kW
 440 Vac 400 Hz 3 phase Weapon warmup power 4.5 kW available
 115 Vac 400 Hz 1 phase Synchro transmitter power 1.0 kW

Train and Elevation Data

	Train	Elevation
Preset limits (regulator control mechanical limit-stops)	None	-15 deg, +95 deg
Velocity (minimum)	88.5 deg/sec	49 deg/sec
Acceleration	132 deg/sec ²	135 deg/sec ²

Service Connections

Water injection system 14.06 kg/cm² (200 psig) freshwater charge at standby with saltwater firemain backup of 681.3 liters/min (180 gal/min) at 4.92 kg/cm² (70 psig)
 Strikedown and portable 1.27 cu meters/cycle (45 ft³/cycle) at 66.08 liters/second (140 cu ft/minute)
 Anti-icing system (dry steam) 154.22 kg/hr (340 lb/hr) at 1.76 kg/cm² (25 psi) absolute
 Carbon dioxide system Four 22.68° kg (50 lb) cylinders
 Air conditioning system Magazine to be maintained at 13 °C (56 °F) to 29 °C (85 °F) with relative humidity not exceeding a limit varying approximately linearly from 95% at 13 °C (56 °F) to 51% at 29 °C (85 °F)
 Nitrogen system Four cylinders 22.86° cm (9-inch) diameter by 129.54° cm (51 inches) long
 Each cylinder contains 0.042 cu meters (1.49 cu feet) charged at 13,410.56 kPa (1,800 psig)

Operating Environment for Unaffected Operation

Temperatures:
 Minimum -29 °C (-20 °F) with 40-knot wind
 Maximum 43 °C (110 °F)

Ship Application Frigates and larger vessels

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