5-inch 62-caliber Mk 45 Mod 4 Naval Gun System

The 5-inch (127mm) 62-caliber Mk 45 Mod 4 Naval Gun System from BAE Systems is in U.S. Navy service worldwide and is ready to significantly enhance Naval Surface Fire Support (NSFS) and overall mission performance.

Originally designed for the land attack mission, Mk 45 Mod 4 major upgrades include a 62-caliber barrel, strengthened gun and mount subsystems, advanced control system enhancement, and a reduced signature, low maintenance gun shield.

**Lethality** – The combat-proven Mk 45 Naval Gun provides ships with an effective weapon for anti-surface, strike, fire support, and anti-air warfare missions using the full range of U.S. Navy 5-inch ammunition.

**Command and Control** – Fully stabilized automatic aiming, combined with rapid system response to Gun Computing System commands, ensures the gun delivers maximum accuracy.

**Survivability** – The Mk 45 Mod 1 passed the U.S. Navy’s stringent MIL-STD-901 barge shock test. Throughout its
Specifications

**Loading-pointing-operation**  Fully automatic

**Ready service complement**  20 conventional rounds

**Muzzle velocity of surface round**  2,700 ft/sec

**Gun system weight (w/o fluids/lower hoist)**  53,770 lbs/24,389 kg

**Train**

Preset limits  +170 deg from stow

Velocity  30 deg/sec

Acceleration  38 deg/sec²

**Elevation**

Preset limits  -15 deg, + 65 deg

Velocity  20 deg/sec

Acceleration  31 deg/sec²

**Ship power supply**  440 volts 60 Hz 3 phase

**Maintenance and availability**

Operability tests and scheduled maintenance  1.6 hours

Regunning time  1.0 hour

Availability (inherent)  99.6 %

continuing evolution, design experts at BAE Systems have optimized Mk 45 Naval Gun System resistance to shock loading by continually applying lessons learned from the latest in transient finite structural analysis technology as well as extensive shipboard and barge shock test evaluations.

**Sustainability** – BAE Systems applies over 35 years of Mk 45 experience, with life-cycle support to over 250 shipboard applications in the U.S. Navy and 10 allied fleets worldwide.

**High Energy Capability** – U.S. Navy development tests have proven Mk 45 Mod 4 supports the higher breech pressures and associated requirements to fire extended range projectiles.