

Title: RMG 0.50 – The Rheinmetall Machine Gun, the answer to all combat situations

Abstract Text: The Browning M2 0.50 caliber (12.7mm) machine gun is the standard heavy machine gun for almost all Western military forces. Developed in 1918, the M2 is the primary infantry support weapon in most warfighting scenarios. The M2 has been so successful that almost no development work on alternative 0.50 caliber weapons has been performed in the last thirty years.

In 2008, the Mauser branch of Rheinmetall Waffe Munition (RWM) decided to create a new, externally powered 0.50 caliber machine gun. The new gun, the RMG.50 Rheinmetall Machine Gun is an innovative advance that delivers better ballistic performance than any other heavy machine gun in a package that is more than 50% lighter than either the M2 or the DShK. Key characteristics of the RMG.50 include:

Operating Modes: electrically operated (externally driven mode) or battery operated drive (emergency "dismounted" mode) Single or Dual Feed System: up to two ammo types can be fed simultaneously Four Firing Modes: Automatic (user selectable rate of fire, up to 600 rounds/min), Burst (user selectable burst length), Single and Sniper Shot ("locked bolt" precision mode) Environmental Immunity: completely sealed operating system is impervious to environmental intrusion (sand, dust, moisture, etc.) Advanced Barrel Technology: High performance barrel (68K psi operating pressure) mates with a gapless barrel bearing to ensure high accuracy and no user-level maintenance (i.e. no head space or timing adjustment). Molecular-level Coatings: all weapon system parts use an impregnated molecular-level coating that results in reduced corrosion and friction, minimal cleaning time and dramatically extended service intervals. Ammunition: The standard M2 ammunition can be used, but a PELE-FAP ammunition, and an ammunition with the performance of the current 14.5mm System is available with Rheinmetall.

The RMG fulfills the fighting requirements of the latest ground, air or naval platforms; the weapon system can be adapted to fit into all existing Remote Control Weapon Stations (RCWS), used in ground vehicle pintle or cupola mounts, employed as a coaxially mounted machine gun in armored turrets, integrated into a pod or airframe for helicopter and airplane operations, and – in a revolutionary first for an electrically driven gun - can also be used "dismounted" in its self-powered "ground mode".

With a total system weight of roughly 25 kg (including remote control) the new RMG is half the weight of a tripod-mounted M2. This reduced system weight allows the user to either carry more ammunition or to reduce the overall weight load on the host platform; a feature especially important for aircraft or other weight sensitive platforms. The RMG.50 system was complete developmental testing in 2011, qualification will be finalized in 2012 and the RMG.50 will be fielded in 2013.

The high performance of the new developed 0.50 PELE-FAP round was demonstrated to multiple international customers in November 2010. This ammunition can be used in each 0.50 weapon. To increase the performance of the new RMG.50, Rheinmetall is currently in the development of a high performance ammunition. The key features are an increase in velocity, in weight. The performance of this special ammunition is higher than the ammunition which will be used out of the 14.5mm system. This type can only be used out of the new RMG.50 system. All Rheinmetall ammunitions will strictly without High Explosives, but destroyed into fragments by hitting material targets.