



## LEADERSHIP IN CANNON DESIGN

TAKING RESPONSIBILITY IN A CHANGING WORLD

 RHEINMETALL

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Today's Rheinmetall medium-calibre cannon portfolio is based on the products of the very reputable and highly-regarded companies Oerlikon and Mauser. Rheinmetall continues to build on their tradition of providing cannons of exceptional firepower, precision and reliability. Rheinmetall is proud to present its current family of medium-calibre cannons in the 20 mm to 35 mm calibre range. The cannons retain their firepower, precision and reliability even under extreme environmental conditions. They have excellent mass-to-performance ratios, compact designs, long service lives and reduced recoil forces to name a few of the factors that

make our cannons ideally suited for any ground, naval or air application. Our cannons are designed with the user in mind. For example service members can fieldstrip without special tools and our replacement-part packages reflect our extensive in-service experience.

Together with a wide range of available ammunition types and calibres, in-house firing ranges, vast engineering capabilities and service organisations, Rheinmetall is the ideal partner to fulfil current and future cannon needs.

TECHNICAL DATA						
Name	Calibre	Rate of fire (Rounds/min)	Rate of fire rapid single shot	Barrel length (cal.)	Recoil force (kN)	Recoil travel max (mm)
KAE	20 mm x 128	1,000	100 – 300	85	14	10
KBA	25 mm x 137	600	175	80	24	34
BK27	27 mm x 145	1,700	Single shot	63	28	1
					9	28
KCA	30 mm x 173	1,350	100 – 300	75	50	21
MK30/2-ABM	30 mm x 173	600	Single shot	90	18	45
WOTAN30	30 mm x 173	200	Single shot	87	45	55
WOTAN35	35 mm x 228	200	Single shot	*	*	*
KDC	35 mm x 228	550	Single shot	90	25	55
KDG	35 mm x 228	1,000	200	90	22	40

TECHNICAL DATA					
Name	Cannon mass (kg) with barrel	Function type	Air burst	Muzzle velocity full-calibre (m/s)	Muzzle velocity sub-calibre (m/s)
KAE	95	Gas-operated	–	1,050	–
KBA	112	Gas-operated	–	1,100	1,400
BK27	102	Gas-operated revolver	–	1,000	1,100
KCA	142	Gas-operated revolver	X	1,030	–
MK30/2-ABM	198	Gas-operated	X	1,100	1,400
WOTAN30	259	Externally driven	X	1,100	1,400
WOTAN35	*	Externally driven	X	1,100	1,400
KDC	430	Gas-operated	X	1,180 (ABM 1,050)	1,400
KDG	405	Gas-operated revolver	X	1,180 (ABM 1,050)	1,400

TECHNICAL DATA				
Name		Weight of complete round without belt link (g)	Projectile weight full-calibre (g)	Ignition
KAE	Belt feed	337	125	Mechanical
KBA	Belt feed	500	180	Mechanical
BK27	Belt feed and linkless	516	260	Electrical
KCA	Belt feed	830	360	Mechanical
MK30/2-ABM	Belt feed	830	360	Mechanical
WOTAN30	Belt feed	830	360	Mechanical
WOTAN35	Belt feed	1,550 (ABM 1,770)	550 (ABM 750)	Mechanical
KDC	Linkless	1,550 (ABM 1,770)	550 (ABM 750)	Mechanical
KDG	Linkless	1,550 (ABM 1,770)	550 (ABM 750)	Mechanical

#### RHEINMETALL'S FAMILY OF MEDIUM-CALIBRE CANNONS



### 20 mm x 128 KAE

The KAE is the ideal cannon for modern remote weapon stations. It is based on the proven and widely-used KAA design and incorporates an electrical trigger device and a cannon control unit. One can select a highly precise, rapid-single-shot mode (100–300 rds/min) in addition to the standard 1,000 rds/min burst mode.



It is an exceptionally rugged weapon, insensitive to cold weather, sludge or water and can be fieldstripped without special tools.

**Typical installation:** Oerlikon Fieldranger 20, Oerlikon Searanger 20, GAM-B01 Naval mount



### 25 mm x 137 KBA

The KBA is used for surface air defence, naval vessel and armoured fighting vehicle applications. It features a high rate of fire and an instantaneous ammunition selection between two belts and can fire the whole range of full and sub-calibre 25 mm x 137 ammunition. With more than five thousand cannons delivered, the KBA is combat proven and is currently



in service with numerous nations. Like the KAE, one can fieldstrip the KBA without any special tools.

**Typical installation:** Oerlikon Fieldranger 25, Oerlikon Searanger 25, Dardo IFV, Frecca IFV, Leonardo Hitfist turret, Leonardo Spallacia naval mount



### 27 mm x 145 BK27

The BK27 is a gas-operated cannon with linked or linkless ammunition. It combines low weight (approx. 100 kg) with a high rate of fire (1,700 rds/min). It can be used both for aircraft and vessels. It is qualified for Eurofighter, Gripen and Tornado and for the German Navy as the MLG27 system. With more than 3,000 systems sold, the BK27 is one of the



most successful aircraft guns on the market.

**Typical installation:** Aircraft applications: Eurofighter Typhoon, Saab Gripen and Gripen NG, Tornado and C-295 based gunships. Naval applications: Rheinmetall MLG27 Light Naval Gun System



### 30 mm x173 KCA

The KCA cannon is a gas-operated cannon with a linked feed system combining high firepower and low weight. It is qualified for the installation on aircraft and can be used in ground based



air defence systems (e.g. with air burst ammunition).

**Typical installation:** RCWS30, Viggen Aircraft



### 30 mm x173 MK-30/2 ABM

The best possible combination of a high rate of fire and state-of-the-art ammunition technology makes the MK30-2/ABM an uncompromising and reliable weapon system. With a range of 3,000 meters the MK30-2/ABM delivers maximum effectiveness against land-, air- and sea targets.



The MK30-2/ABM is the main armament of the new German Puma infantry fighting vehicle.

**Typical installation:** Puma IFV, Lance turret, TORC30



### 30 mm x173/35 mm x228 WOTAN30/WOTAN35

The WOTAN30 is an externally-driven, medium-calibre cannon with a rate of fire of 200 rds/min. Easy to handle and highly reliable, the WOTAN30 can destroy a wide variety of targets making it the perfect choice for arming modern IFVs and other vehicles. The WOTAN35 is the latest development of the

new WOTAN family and due to the bigger calibre features longer range and deeper penetration than 30 mm cannons.

**Typical installation:** Rheinmetall Lance turret and naval applications.



### 35 mm x 228 KDC

The KDC is the combat-proven and reliable workhorse of ground-based air defence. With more than 4,000 cannons delivered to date it is in worldwide service. One can enhance it with a programming base for AHEAD air burst ammunition. The KDC operates with a linkless ammunition system and is



an extremely rugged weapon and insensitive to cold and adverse weather. One can fieldstrip it without any special tools.

**Typical installation:** GDF Twin Gun family, GDM-A naval mount



### 35 mm x 228 KDG

The KDG revolver cannon is a gas operated cannon with a linkless feed system. It combines a high firepower with precise accuracy. The cannon is completely remote-controlled, the integrated fibre-optical sensor system supports the fully digital control of the cannon. The KDG cannon is mainly used with the Rheinmetall AHEAD ammunition giving the user outstanding performance on a wide range of targets. It is fully qualified according to STANAG 4516 and has redundant



safety circuits. The maintenance of the cannon is simple and the KDG has undergone extensive qualifications and complete life cycle firing tests.

**Typical installation:** MANTIS C-RAM system, Oerlikon Revolver Gun MK2 and MK3, Oerlikon Skyranger mobile air defence system, Oerlikon Millennium naval gun



## YOUR PARTNER FOR MEDIUM-CALIBRE WEAPONS AND AMMUNITION

Decades of experience in the design, development and production of medium-calibre automatic cannons and ammunition have resulted in a number of modern and precise weapon systems that are installed in numerous ground, naval or air applications around the globe.

As a leading systems company for research, development and production of automatic cannons and ammunition, Rheinmetall offers a customer-oriented service portfolio that, among other services, includes Consulting, Spare Part Solutions, Maintenance and Integrated Logistic Support. When it comes to medium-calibre weapons and ammunition you can rely on Rheinmetall.

## AMMUNITION

Rheinmetall provides a comprehensive medium-calibre ammunition portfolio for its own and other cannons. The portfolio covers a broad range of mission profiles and targets and allows minimizing the number of required ammunition types balancing performance with logistics.

The ammunition combines a high penetration performance, versatility, reliability, low dispersion and handling safety. Corresponding target practice and drill rounds complete the portfolio.

The Air Burst Munition (ABM) features precise muzzle velocity compensation per round and can be used in programmed and un-programmed mode. In programmed mode each round delivers highly effective tungsten carbide sub-projectiles to a larger area and achieves a very high kill probability per round. In un-programmed mode it features a high penetration capability against urban targets and lightly armoured vehicles

(attack helicopters, BTR80). This ABM ammunition can also be used in the air defence (AHEAD) and in the ground role (KETF).

Besides state-of-the-art and widely used HEI and APFSDS-T ammunition Rheinmetall also offers (Semi) Armor Piercing Pyrotechnically Induced Effect (SAPPIE & APPIE) rounds. These all-purpose rounds perform similarly to HEI against 'soft' targets but can additionally take out harder targets.

### Rheinmetall Medium-Calibre Ammunition Portfolio:

20 mm x 128  
 25 mm x 137  
 27 mm x 145  
 30 mm x 173  
 35 mm x 228  
 ...and other calibres



**Rheinmetall Waffe Munition GmbH**

**Branch Mauser Oberndorf**

Werkstrasse 2

78727 Oberndorf, Germany

**Rheinmetall Air Defence AG**

Birchstrasse 155

8050 Zurich, Switzerland

[info@rheinmetall-defence.com](mailto:info@rheinmetall-defence.com)

[www.rheinmetall.com](http://www.rheinmetall.com)