

# PMN-1 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/41f2e79bec4808b5544e3c99ae96ce89>

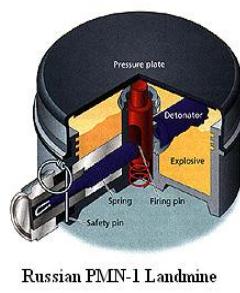
Tiers:



Domain: Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

Proliferation: Cambodia, Laos (People's Democratic Republic), Myanmar, Russian Federation, Ukraine, Viet Nam

Origin: Russia (RUS)



## Notes

The design of the PMN-1 mine dates from the late 1950s. It is particularly deadly because it contains an unusually large explosive filling when compared to most other anti-personnel landmines. For comparison, most anti-personnel blast mines (e.g. the VS-50) contain around 50 grams of high explosive, which typically destroys all or part of a victim's foot. In marked contrast, a PMN-1 contains 249 grams of explosive which can easily destroy a victim's entire leg (frequently requiring amputation high above the knee) in addition to inflicting severe injuries on the adjacent limb, which may also require some form of amputation due to blast injury. The majority of anti-personnel mine victims (e.g. those who step on an M14 mine containing 29 grams of explosive) have a very high probability of survival, though inevitably they suffer permanent disability regarding their gait. However, the amount of explosive inside a PMN-1 mine is so large that the risk of victims dying is significantly greater and, assuming that they survive their injuries, the degree of disability inflicted is much more severe. These mines are palm sized and cylindrical in shape. The PMN-1 has a bakelite case (brown or black in color) with a black rubber

## For Training Use Only

pressure-plate and contains TNT explosive. The PMN-1 mine is armed by removing a steel ring-pull at the end of the horizontal fuze. When in position, the pin on the end of the ring-pull holds a spring-loaded striker back from the stab-detonator. Pulling out the ring-pull starts an arming delay, which comprises a thin steel wire (held under tension by the spring-loaded striker) which must cut through a small strip of lead before it is freed. The process of cutting through the lead strip takes between 2 and 12 minutes, depending on ambient temperature. After the wire has completely cut through the lead strip, the spring-loaded striker is freed and slides forward a few millimeters before stopping, blocked by the sliding gate of the pressure plate mechanism. At this point the mine is fully armed i.e. the only thing holding back the spring-loaded striker from the stab-detonator is a weak creep-spring on the pressure plate mechanism. Subsequently, any downward pressure on the pressure plate (i.e. when someone steps on the mine) overcomes the upward pressure of the creep-spring and pushes down the sliding gate that holds back the spring-loaded striker. This action frees the striker which flips forward into the stab detonator, firing both it and the adjacent tetryl booster which triggers detonation of the main TNT explosive filling. It is not a blast resistant mine.

## System

**Height:** 57

**Diameter:** 112

**Main charge weight:** 240 g TNT (initiated by a 9 gram tetryl booster)

**Total Weight:** 600

**Fuze:** MD-9 (stab-sensitive)

**Operating pressure:** 5.8 kg

## Image Sources

**Notes:** <https://www.popularmechanics.com/military/a44737062/spider-boots-may-save-ukraine-from-russia-mine-warfare/>; <https://www.buymilsurp.com/soviet-russia-pmn1-bakelite-landmine-p-5098.html>;

[https://en.m.wikipedia.org/wiki/File:PMN\\_\(rechts\)\\_und\\_PMN\\_2.jpeg](https://en.m.wikipedia.org/wiki/File:PMN_(rechts)_und_PMN_2.jpeg);

# OZM-4 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/c3ba0feffa3a3e379e4c96fde9664d2a>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation, Viet Nam

**Origin:** Russia (RUS)



**CUT-AWAY  
OZM-4 LANDMINE  
INERT CLASSROOM TRAINING AID**

FUNCTIONAL  
CUT-AWAY  
FUZE &  
LIFTING CHARGE /  
WIRE TETHER



## Notes

The OZM-3, OZM-4 and OZM-72 are Soviet manufactured bounding type anti-personnel mines. (fragmentation-barrier mine , in the Russian and other post-Soviet armies as informally called "frog mine" or "witch" ) They are normally painted olive green, and issued with a spool of tripwires and two green painted wooden or metal stakes for affixing the tripwires. Both OZM-3 and OZM-4 have cast iron fragmenting bodies while the OZM-72 also contains preformed steel fragments, and all three are issued with empty fuze wells, so a variety of fusing options are possible. The mines can be activated by a variety of fuzes, including electronic fuzes or command initiation, although they are most commonly fitted with an MUV booby trap switch which is activated by a tripwire. On firing, a metal base plate remains in the ground, while the mine body is thrown up by a small lifting charge, but remains attached to a strong wire tether. When the end of the tether is reached at a height of approximately 0.5 m, the main charge explodes and scatters fragments of the casing across a wide area. OZM mine may sometimes be

laid directly on top of an MS-3 mine. The MS-3 is an anti-handling device which closely resembles a PMN mine, except that it has a "blister" on top and operates purely as a pressure-release boobytrap. Lifting an OZM mine (without rendering safe the MS-3 placed underneath) will trigger detonation.

## System

**Country of Manufacturer:** Russia

**Emplacement Method:** manual

**Diameter:** 75 mm

**Height:** 120

**Weight:** 5.4

**Armor Penetration / Kill Mechanism:** bounding fragmentation

**Casing Material:** Cast Iron

**Fragmentation Charge (TNT):** 170

**Length of the sensor target (one-way):** 13

**Sensor sensitivity:** 1–17 kg

**Radius of guaranteed lethal destruction:** 13

**Temperature usage range:** -60 to +60 Degrees Celsius

## Image Sources

**Notes:** [https://www.jmu.edu/cisr/\\_pages/research/iraq-oig/08-landmine.pdf](https://www.jmu.edu/cisr/_pages/research/iraq-oig/08-landmine.pdf); INA;

# PMD-6 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/a91084ca8f373a27d5dc5e2bfadc522d>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Myanmar, Russian Federation

**Origin:** Russia (RUS)



**PMD-6**  
**INERT REPLICA AP BOX MINE**  
**CUT-AWAY TRAINING AID**



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## Notes

The PMD-6, PMD-7 and PMD-57 series mines are Soviet Union blast-type anti-personnel mines that consist of a wooden box with a hinged lid with a slot cut into it. The slot presses down against a retaining pin, which holds

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back the striker. When sufficient pressure is applied to the lid of the box the retaining pin moves, allowing the striker to hit the detonator. The mines typically have an operating pressure of 1 to 10 kg. All the mines in the series use MOV series fuzes. As with other wooden box mines, the mine has a relatively short lifetime since the box is vulnerable to rotting and splitting, disabling the mine. It is, however, more dangerous than conventional metal mines, as it cannot be found with a metal detector. The mines are sometimes used with mortar bombs in place of the normal explosive blocks. Variants PMD-6 - original version of the mine, first used in the 1939 Winter War between the Soviet Union and Finland. PMD-6M - slightly larger version of the mine, with a leaf spring installed inside the box to increase operating pressure, which allows safer handling during minelaying. PMD-6F - a version used extensively during the Siege of Leningrad, with an ammonium nitrate/fuel oil (ANFO) main charge. PMD-7 - smaller version of the mine, using a cylindrical main charge. PMD-7ts - consists of a solid wooden block hollowed out to accept the main charge and fuse. PMD-57 - A later, larger box mine, using a larger warhead.

## **System**

**Country of Manufacture:** Russia Namibia Serbia

**Emplacement Method:** manual

**Length:** 196

**Width:** 87

**Height:** 50

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range (meter):** 1

**Detectability/ Composition:** detectable wood metal in fuze

**Anti-Handling:** possible

**Fuze Type/Self Neutralize:** pressure, tripwire (1 kg) self-neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT: .20 Total: .40

**Operating Pressure:** 1 to 10 kg

**Comment:** Probing for low pressure threshold fuze is dangerous

## Image Sources

**Notes:** [https://en.m.wikipedia.org/wiki/File:PMD-6\\_2\\_\(ORDATA\).jpg](https://en.m.wikipedia.org/wiki/File:PMD-6_2_(ORDATA).jpg);

<https://www.zhihu.com/question/264446131/answer/285276391>; <https://www.worthpoint.com/worthopedia/pmd-inert-landmine-wooden-replica-1914230049>;

# OZM-3 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/f67ba63f8ec260edbdecc761450153f0>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation

**Origin:** Russia (RUS)



**OZM-3**  
Soviet Bounding Mine  
Inert Replica Training Aid



## Notes

The OZM-3 are Soviet manufactured bounding type anti-personnel mines. (fragmentation-barrier mine , in the Russian and other post-Soviet armies as informally called "frog mine" or "witch" ) They are normally painted olive green, and issued with a spool of tripwires and two green painted wooden or metal stakes for affixing the tripwires. Both OZM-3 and OZM-4 have cast iron fragmenting bodies while the OZM-72 also contains preformed steel fragments, and all three are issued with empty fuze wells, so a variety of fusing options are possible. The mines can be activated by a variety of fuzes, including electronic fuzes or command initiation, although they are most commonly fitted with an MUV booby trap switch which is activated by a tripwire. On firing, a metal base plate remains in the ground, while the mine body is thrown up by a small lifting charge, but remains attached to a strong wire tether. When the end of the tether is reached at a height of approximately 0.5 m, the main charge explodes and scatters fragments of the casing across a wide area. OZM mine may sometimes be laid directly on

top of an MS-3 mine. The MS-3 is an anti-handling device which closely resembles a PMN mine, except that it has a "blister" on top and operates purely as a pressure-release boobytrap. Lifting an OZM mine (without rendering safe the MS-3 placed underneath) will trigger detonation.

## System

**Emplacement Method:** manual

**Diameter:** 75

**Height:** 120

**Weight:** 3.2

**Armor Penetration / Kill Mechanism:** bounding fragmentation

**Effective Range:** max: 25 lethal: 10 min: 0 bound height 1.5 to 2.4 m

**Detectability/ Composition:** Easy metal

**Anti-Handling:** possible no 2nd fuze well

**Fuze Type/Self Neutralize:** tripwire (2 to 5 kg) or cmd detonated (electrical) or pressure self-neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT: .075 Total: 3

**Comment:** not waterproof

## Image Sources

**Notes:** <https://inertproducts.com/product/ozm-3-soviet-bounding-mine-inert-replica/>; <https://cat-uxo.com/explosive-hazards/landmines/ozm-3-landmine>;  
[https://en.m.wikipedia.org/wiki/File:OZM\\_3,\\_4\\_und\\_72.jpg](https://en.m.wikipedia.org/wiki/File:OZM_3,_4_und_72.jpg);

# PMN-2 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/7e1103dbc12316b9b209ec84426309c3>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation, Ukraine

**Origin:** Russia (RUS)

## PMN2 MINE



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## Notes

The PMN-2 is a plastic-cased, pressure operated, anti-personnel blast mine (including a complex arming-delay and blast resistance mechanism). Made in the former Soviet Union, it has been found in Afghanistan, Angola, Azerbaijan, Cambodia, Chechnya, Eritrea, Ethiopia, Georgia, Honduras, Lebanon, Mozambique, Nicaragua, Tajikistan and Thailand. The mine has a body that is usually green plastic (occasionally brown) with a black rubber cross on top. The PMN-2 detonator is integral but the booster charge screws into the base. The HE charge is entirely on the side of the mine opposite the arming pin (it is lacquered black in the picture above). To destroy the mine with a small explosive charge, the charge must be placed on the side adjacent to the HE charge. Although a complex mine (which often means 'unreliable') the PMN-2 remains functional in most ground conditions for many years.

## System

**Emplacement Method:** manual mechanical

**Diameter:** 125

**Height:** 54

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range:** limited

**Detectability/ Composition:** plastic easy-metal content

**Anti-Handling:** possible

**Fuze Type/Self Neutralize:** pressure-15 kg self neutral: no

**Explosive Type & Weight/Total Weight (kg):** TG-40: .115 Total: .450

**Fuze:** MD-9 (stab-sensitive)

**Comment:** Successor to PMN. Blast resistant

## Image Sources

**Notes:** [https://nolandmines.com/explosive\\_hazards/minesPMN2.htm](https://nolandmines.com/explosive_hazards/minesPMN2.htm);

[https://nolandmines.com/explosive\\_hazards/minesPMN2.htm](https://nolandmines.com/explosive_hazards/minesPMN2.htm); <https://www.quora.com/How-can-you-know-that-you-entered-a-mine-field-if-there-aren-t-any-signs>;

# PTKM-1R Russian Anti-Vehicle Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/775ff50993d8834af599b987cd35e177>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The PTKM-1R Russian Anti-Vehicle Mine is a top-attack anti-vehicle landmine was recently employed in Ukraine. The PTKM-1R is distinct from conventional anti-vehicle mines in its ability to attack the top of an armored vehicle. The top of a tank or other armored fighting vehicle (AFV) is typically fitted with thinner armor than its front or sides—hence the top is almost always the most vulnerable aspect of an armored vehicle.

## System

**Alternate Designation:** PTKM-1R

**Type:** Top-Attack Anti-Vehicle Mine

**Manufacturer:** Rosoboronexport JSC

**Sensors:** The PTKM-1R's transporter-launcher is equipped with acoustic and seismic sensors that detect a target by the sound it makes and the ground vibrations it induces. The target is identified by comparing a target's acoustic and seismic signature with an internal database. The two sets of sensors allow the mine to detect a target vehicle at a distance of 100 meters. Once the target is within 50 meters (and not closer than 5 meters), the necessary flight path of the warhead is calculated. Next, the unit is tilted towards the target and the submunition launched. The submunition is projected to approximately 30 m above the ground. Using infrared and radar sensors, the submunition scans the ground and, once it is over the target, engages it.

**Explosively Formed Penetrator (EFP):** The submunition employs an Explosively Formed Penetrator (EFP) to engage the target. An EFP is a metal slug that is formed and accelerated towards a target by an explosion. The PTKM-1R's EFP is reported to be able to defeat up to 70 mm of armor.

**Armor Penetration:** 70 mm

**Self-Destruction Time:** 1 - 10 days

**Note:** The PTKM-1R is distinct from conventional anti-vehicle mines in its ability to attack the top of an armored vehicle. The top of a tank or other armored fighting vehicle (AFV) is typically fitted with thinner armor than its front or sides—hence the top is almost always the most vulnerable aspect of an armored vehicle.

## **Dimensions**

**Length:** INA

**Height:** 510 mm

**Diameter:** 220 mm

**Weight:** 19.9 kg

**Explosive Fill Weight:** 2.8 kg

## Image Sources

**Notes:** <https://forum.cartridgecollectors.org/t/ptkm-1r-top-attack-anti-tank-mine/47485>;  
<https://armamentresearch.com/russian-ptkm-1r-top-attack-anti-vehicle-mine-documented-in-ukraine-2022/>;

# POB-Pilka Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/58c647bf668ce6163a4017a6f0b0ae1c>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The POB-Pilka Russian Anti-Personnel Mine is a high-explosive (HE), anti-personnel (AP), bounding fragmentation landmine.

## System

**Alternate Designation:** POB-Pilka

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Fuze:** The POB-Pilka can be fuzed and initiated by any of the MUV series of landmine fuzes.

**Firing Device :** With the use of the NM electrical firing device, the FOB-Pilka can be initiated by command or alternatively as part of the penalty when used within a NVU-P type system.

**Deployment :** The landmine is installed on the surface or buried in the ground so that the upper plane of the main body is flush with the ground.

**Note :** The landmine is used both independently and can also be included as an explosive device as part of the NVU-P landmine control system.

## **Dimensions**

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/pob-pilka-landmine;>

# POM-1S Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/522dba86915cca3fdb5dc543662e1652>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## **Notes**

The POM-1 and POM-1S are ground or aircraft dispensed, scatterable, electro and hydro mechanically armed, anti disturbance, antipersonnel (APERS) landmines. The POM-1S also incorporates a self-destruct feature. Both mines deploy eight 6.00-meter (19.69-feet)-long tripwires. The POM-1 and POM-1S are identical in external appearance.

## System

**Country of Manufacturer:** Russia

**Emplacement Method:** remote-surface (UMZ, helicopter, PKM portable)

**Length:** 80

**Width:** 80

**Height:** 80

**Armor Penetration (mm)/ Kill Mechanism:** fragmentation

**Effective Range:** 4

**Detectability/ Composition:** Visual

**Anti-Handling:** yes

**Fuze Type/Self Neutralize:** tripwires, S=Self-destruct

**Explosive Type & Weight/Total Weight (kg):** .1 Total: .750

**Comment:** copy of US BLU-42B

## Image Sources

**Notes:** [https://cat-uxo.com/explosive-hazards/landmines/blu-42-landmine/](https://cat-uxo.com/explosive-hazards/landmines/blu-42-landmine;)

# PMK-40 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/274790ef62c9f5ab69e1286e06e1d8ab>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Viet Nam

**Origin:** Russia (RUS)



## Notes

The PMK-40 Russian Anti-Personnel Mine is a high-explosive (HE), anti-personnel (AP), blast landmine.

## System

**Alternate Designation:** PMK-40

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Fuze :** Its fuze is a simple mechanical firing device that is activated by pressure on the lid. This causes a lever to rotate which releases the spring-loaded striker against the percussion cap.

**Note:** The PMK-40 is a small, round, waxed cardboard case landmine that resembles a shoe polish can in shape and size.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://heroesandgenerals.fandom.com/wiki/PMK-40>;

# MOB Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/c4e3f0e9ee2d825b394ce8e34524bcf9>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The MOB Russian Anti-Personnel Mine is a high-explosive (HE), directional, anti-personnel (AP), landmine.

## System

**Alternate Designation:** MOB

**Type:** Anti-Personnel Mine

**Manufacturer:** Modular Fragmentation Munition

**Configuration :** Current observations indicate three MOB landmines are supplied as part of a kit for use in a single, double, or triple configuration utilizing various mounting brackets, tripods, and clamps as supplied within the kit. In addition, performed fragmentation blocks and various aiming devices are provided.

**Composition :** OLA-8T indicates its composition is Octogen 77%, Aluminum 8% and compound LD-70 (polyacrylic polymer stabilizer) 15%.

**Rate of Detonation :** The rate of detonation is 8,430 m/s at a density of 1.84g/cm<sup>3</sup>.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://forum.guns.ru/forummessage/216/2825588.html>;

# PMK-1 Russian Portable Mining Kit

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/df7fc1096056a974218b98d2d10434f5>

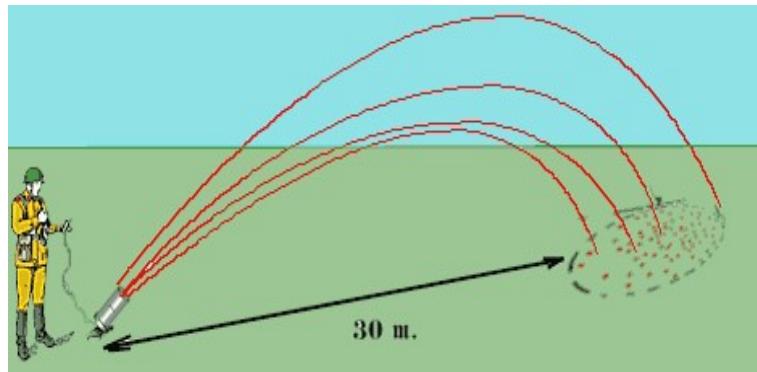
**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PMK-1 Russian Portable Mining Kit is the simplest remote mining system available to combined arms units. It can be used by infantry and armor personnel to install anti-infantry and anti-tank landmines before their front lines, both ahead of time and in direct combat. This improves the tactical options available to combined arms units. The kit is composed of a primitive baseplate, a PM-4 demolitions device, 2 cable lengths (50 meters each) and a bag. Total weight is 2.6 kilograms. The baseplate is a small sheet of metal with a launch base attached to it at 45 degrees and equipped with an electric contact. Attached to this will be containers with anti-tank or AP mines for firing. The principle of operation is simple: once the mine casing is attached, the metal contacts are linked between the baseplate and the casing. Once an electric signal is sent from the demolitions device or other current source, a powder charge is ignited in the casing, and the mines are thrown out to 30-35 meters. The different types of cases differ only in their markings. Their size is identical. The KSF-1 case holds 72 PFM-1 mines. The KSF-1S-0.5 holds 36 PFM-1 and 36 PFM-1S mines. The KSF-1S hold 64 PFM-1S mines. The KSO-1 holds 8 POM-1 AP mines. The KPOM-1 holds 4 POM-2 AP mines. The KPTM-3 holds 1 PTM-3 AT mine. The

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KPTM-1 holds 3 PTM-1 AT mines. The mines are thrown out to form an ellipse. For example a KSF-1 or KSO-1 case form an ellipse 8-10 meters wide and 18-20 meters long. PFM mines fall about 0.6-2 meters from each other, allowing for a 30-50% chance of striking. POM mines fall at 1.5-7 meters from each other, but their cables stretch out to 2 meters and enable a 70% chance of striking. AT mines are thrown out to a distance of 100 meters and form an ellipse of a similar size. Given how AT minefields permit a gap of 9-12 meters between mines, the methods of installing AT minefields and AP minefields are similar. A one-line minefield can be installed by moving along a trench and launching one charge every 8-10 meters, or by simultaneous launch from a row of PKM devices. This can also be done by a centralized control panel linked to any number of devices. Multiple-layer minefields can be installed by moving the launch line backwards after every launch. At minimum it must be moved back 30 meters to avoid the minefields overlapping. Density can be improved by firing 2-3 or more casings from a given location. The value of the system is its simplicity. It allows mining from concealment and installing minefields by surprise, at any time and any place.

## System

**Alternate Designation:** PMK-1

**Date of Introduction:** INA

**Type:** Portable Mining Kit

**Manufacturer:** INA

**Proliferation:** INA

**In Service:** INA

**Crew:** 1

**Kit:** The kit is composed of a primitive baseplate, a PM-4 demolitions device, 2 cable lengths (50 meters each) and a bag.

## Dimensions

**Length:** INA

**Diameter:** INA

**Height:** INA

**Weight:** 2.6 kg

## Main Weapon System

### Launcher

**Base Plate:** The baseplate is a small sheet of metal with a launch base attached to it at 45 degrees and equipped with an electric contact. Attached to this will be containers with anti-tank or AP mines for firing.

**Operation:** The principle of operation is simple: once the mine casing is attached, the metal contacts are linked between the baseplate and the casing. Once an electric signal is sent from the demolitions device or other current source, a powder charge is ignited in the casing, and the mines are thrown out to 30-35 meters.

**Maximum Range:** 35 m

### Mines

**KSF-1 Case:** The KSF-1 case holds 72 PFM-1 mines.

**KSF-1S-0.5:** The KSF-1S-0.5 holds 36 PFM-1 and 36 PFM-1S mines.

**KSF-1S:** The KSF-1S hold 64 PFM-1S mines.

**KSO-1:** The KSO-1 holds 8 POM-1 AP mines

**KPOM-1:** The KPOM-1 holds 4 POM-2 AP mines

**KPTM-3:** The KPTM-3 holds 1 PTM-3 AT mine

**KPTM-1:** The KPTM-1 holds 3 PTM-1 AT mines.

## Image Sources

**Notes:** INA; <https://community.battlefront.com/topic/124305-recent-combat-vids-from-ukraine/page/4/>;

# PFM-1 (Green Parrot) Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/387786684ec478d076a4327b905db408>

Tiers:



Domain: Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

Proliferation: Afghanistan, Russian Federation, Ukraine

Origin: Russia (RUS)



## Notes

PFM-1 (Green Parrot) Russian Anti-Personnel Mine is a liquid high explosive (HE), plastic, scatterable, anti-personnel blast landmine sometimes known as the butterfly landmine. In Afghanistan, the PFM-1 is known as the Green Parrot. The PFM-1 has a plastic body and is filled with approximately 37grams of liquid explosive. The fuze is hydraulic pressure operated and incorporates an arming delay. The landmine is normally colored green, Khaki brown, or sand-brown. The landmine has a thin wing and a thicker wing with the thicker wing containing the liquid explosive. The PFM-1 landmine is a reverse-engineered copy of the American BLU-43. A self-destruct variant of this landmine, the PFM-1S, is intended to randomly self-destruct over a period of time. A PFM-1 training landmine is distinguishable from the live version by the presence of the Cyrillic character 'Y' cut into the plastic. While the nominal period for 85% self-destruct is 40 hours, the landmine remains functional for far longer. Additional images and technical information are available to CAT-UXO members.

## System

**Country of Manufacture:** Russia

**Emplacement Method:** remote-surface (UMZ, MRL, helicopter, PKM portable)

**Length:** 120

**Width:** 61

**Height:** 120

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range:** 1

**Detectability/ Composition:** visual plastic

**Anti-Handling:** no

**Fuze Type/Self Neutralize:** pressure (5 kg) Self-destruct: 85% over 40 hr

**Explosive Type & Weight/Total Weight (kg):** liquid plastic-VS-6D: .040 Total: .070

**Operating Pressure:** 5-25

**Comment:** copy of US BLU-43B

## Image Sources

**Notes:** <https://www.pinterest.com/pin/783556035176182338/>;

<https://www.iwm.org.uk/collections/item/object/30021997>;

[https://en.m.wikipedia.org/wiki/File:Russische\\_Schmetterlingsmine\\_PFM-1.jpg](https://en.m.wikipedia.org/wiki/File:Russische_Schmetterlingsmine_PFM-1.jpg);

# TMK-2 Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/7f15755ce349bdefeeb2875e1dd158b5>

Tiers:



Domain: Land, Infantry Weapons, Landmines, Anti-Tank Landmines

Proliferation: Russian Federation

Origin: Russia (RUS)



## Notes

The TMK-2 is a Soviet steel cased anti-tank mine. It uses a tilt-rod fuze combined with a shaped charge to attack the belly of vehicles as they pass over the mine. It was originally designed in 1955, but is now obsolete. The mine consists of a case shaped like two truncated cones joined at the base. The MVK-2 tilt rod assembly is held to one side of the mine. The lower truncated cone contains the main charge, and dished metal charge liner. When a vehicle passes over the mine, the tilt rod is bent by 24 to 36 degrees, which allows retaining balls holding the striker to escape, which is driven by a spring into the MD-7M detonator. This then ignites a detonator cord, which

carries the detonation wave into the main body of the mine and the DUM-2 detonator, fixed at the bottom of the main charge. The main charge is triggered, and the blast wave travels around a wave shaper, which improves the efficiency of the shaped charge. The resulting blast can penetrate between 60 and 110 millimeters of armor depending on if the slightly less powerful TNT, or the more powerful TG-50 explosive is used. It is found in Afghanistan, Angola, Azerbaijan, Eritrea, Ethiopia, Iraq, Mozambique and Namibia.

## **System**

**Country of Manufacture:** FSU

**# of User Countries:** 13+

**Emplacement Method:** manual, Tilt-rod

**Length:** D max: 301 D min: 75

**Width:** D max: 301 D min: 75

**Height:** 262 w/o

**Armor Penetration (mm)/ Kill Mechanism:** 250 RHAE belly attack plate charge

**Effective Range:** 1

**Detectability/ Composition:** Easy Metal

**Anti-Handling:** Possible

**Fuze Type/Self Neutralize:** tilt rod (8-12kg) self-destruct or neutral: no

**Explosive Type & Weight/Total Weight (kg):** TG-50, TNT Total: 12.5

**Operating Pressure:** 8 to 12 kg tilt

## **Image Sources**

**Notes:** <http://saper.isnet.ru/mines/tmk-2.html>; <https://e-derslik.edu.az/books/444/units/unit-1/page96.xhtml>;  
<https://defensegr.wordpress.com/2015/08/06/narkh-at-tmk-2/>;

# TM-46 Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/3194fa870f2560f48cdb3635832d1d5a>

Tiers:



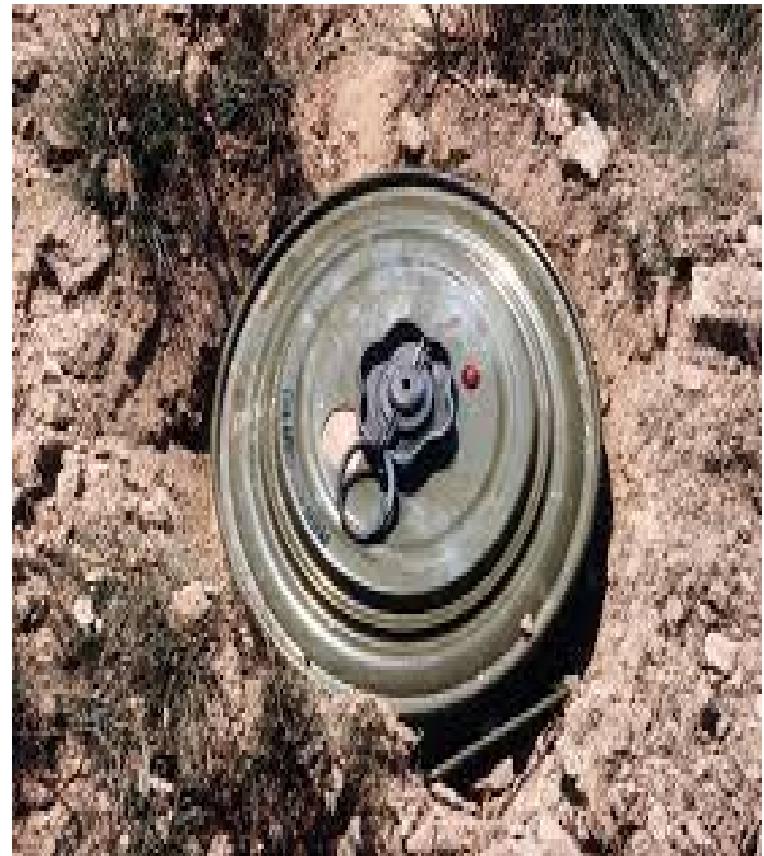
**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation, Viet Nam

**Origin:** Russia (RUS)



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## Notes

The TM-46 mine is a large, circular, metal-cased Soviet anti-tank mine. It uses either a pressure fuze or tilt-rod, which is screwed into the top. Anti-tank mines with this type of fuze were capable of inflicting much more damage to armored vehicles. The TMN-46 is a variant of the mine fitted with a secondary fuze well on the bottom (where it cannot be seen) which is slightly offset from the center of the mine. This secondary fuze well can be fitted with a

pull-fuze which functions as an anti-handling device. The mine was used by the North Vietnamese forces during the Vietnam War, and is found in many countries in Africa, the Middle East and South East Asia. Because the TM-46 has a metal casing, it is very easy to detect with a mine detector. However, mine fields containing TM-46s may have also been sown with minimum metal mines, e.g. the PMA-2.

## **System**

**Country of Manufacturer:** Russia

**Emplacement Method:** manual, mechanical

**Diameter:** 306

**Height (mm):** 94

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range (meter):** 1

**Detectability/ Composition:** easy to detect, sheet metal

**Anti-Handling:** TMN-46 yes

**Fuze Type/Self Neutralize:** pressure (180/132 kg), tilt rod neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT, amatol 2.9 kg Total: 5.7 kg

**Operating Pressure:** 120–400 kg (21 kg tilt pressure)

**Comment:** The TM-46 and TMN-46 are identical except for the additional fuze well

## **Image Sources**

**Notes:** [https://en.wikipedia.org/wiki/Anti-tank\\_mine](https://en.wikipedia.org/wiki/Anti-tank_mine); <https://cat-uxo.com/explosive-hazards/landmines/dm-11-av-landmine>;

# TM-62 Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/b137730b83a5a96486adac5eba16e41b>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



**INERT TM-62  
WITH REPLICA MVP-62M FUZE**



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## Notes

TM-62 is the designation for a series of Soviet anti-tank blast mines. The mines have a central fuze and typically have a 7.5 kg explosive charge, however, they vary greatly in detail. The mines can be laid manually or automatically from a mine laying machine including the PMR-1, PMR-2 wheeled towed mine layers, the GMZ tracked minelaying vehicle, and the VMR-2 helicopter mine laying system. In a static test, the TM-62M proved capable of penetrating the hull of a Centurion tank, killing the simulated crew of animals inside. The TM-62 series of mines can be fitted with the same fuzes as the TM-72 series of mines, which include MVN-72 and MVN-80 fuzes which are vibration and magnetism sensitive. Variants TM-62M - The TM-62M uses a circular metal case. It is the most widely employed of the TM-62 series of mines. TM-62B - The TM-62B paper or cardboard case and is basically a block of cast explosive with a fuze set into the center. TM-62D - The TM-62D uses a wooden case. TM-62P, TM-62P2, TM-62P3 - all 3 types use plastic cases. However, the TM-62P and TM-62P2 mine cases

have ribbed sides, whereas the TM-62P3 has a smooth casing. TM-62T - The TM-62T has a fabric and epoxy casing, with a central fuze. Fuzes MVZ-62 MVCh-62 - The MVCh-62 uses a clockwork arming delay of 30 to 120 seconds. MVN-62 MVN-72 - The MVN-72 fuze uses a combination of electronics and clockwork, after an initial arming delay the magnetic influence fuze is enabled, powered by a 1.5 V battery. MVN-80 - The MVN-80 is an improved version of the MVN-72 fuze. VM-62Z MVP-62 - The MVP-62 uses a pneumatic bellows arming delay of 20 to 300 seconds. The delay mechanism uses a minimum of metal making it difficult to detect when used with one of the minimum metal cases. MVP-62M ZN-97 - magnetic influence fuze (made in Poland). Note: magnetic influence fuzes give full-width attack i.e. any part of the target vehicle passing over the mine will trigger detonation, not just the track or wheels. However, since magnetic fuzes are electronic, their operational life relies on battery power. Ultimately the battery will run down, after which the mine no longer functions. In contrast, a purely mechanical fuze (usually triggered via a belleville spring) gives a much longer operational life e.g. mines planted 50 years previously will still detonate if a target vehicle drives over them.

## **Variants**

**TM-62M:** Metallic case

**TM-62P:** Plastic case

**TM-62B:** Caseless

**TM-62D:** Wooden

## **System**

**Alternative Designations:** none

**Date of Introduction:** 1960

**Shape:** Circular

**Color:** Green

**Length:** 110

**Height:** 101.8

**Diameter:** 320

**Total Weight:** 8.5

**Maximum:** 20

**Minimum:** None

**Fuze types (Pressure, seismic, magnetic):** Yes

**Actuation Force:** 200 /150 to 550

**Resistant to Explosive Neutralization:** Yes

**Operating Pressure:** 150 to 550 kg

**Explosive Content:** 7.5 kg of TNT (although sometimes combinations of RDX/TNT/Aluminium or Amatol mixes are used)

## Performance

**Armor Penetration:** 27

**Effect:** Blast

**Effective Range:** 1

**Self-Destruct:** No

**Underwater Emplacement:** Yes

**Remotely detonated:** Yes

**Detonation Height:** N/A

## Explosive Composition

**Type:** Pentryt

**Weight:** 7.5 to 8.3

**Booster:** Yes

**Weight:-** 0.75

## **Image Sources**

**Notes:** <https://en.wikipedia.org/wiki/TM-62>; <https://www.mkds-training.com/product/inert-tm-62-landmine-with-replica-mvp-62-fuze/>; <https://caliber.az/en/post/162325/>;

# TM-83 Russian Anti-Tank Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/2fbb304ec70ef512b8ff193052b35b6f>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The TM-83 Russian Anti-Tank Mine is a Soviet off-route shaped charge anti-tank mine, first shown publicly in 1993, and developed in 1983. The mine consists of a large Misznay Schardin effect warhead and is activated using its infra-red and seismic sensors.

## System

**Alternate Designation:** TM-83

**Type:** Anti-Tank Mine

**Manufacturer:** INA

**Detonator :** 2.7 kg

**Charge :** 9.6 kg of TG-40 (60/40 RDX/TNT - very similar to Composition B)

**Action Time :** 30 days until a battery change is required

**Sensor Sensitivity :** Seismic sensor: 200-250 m (tank); Infra-red sensor: 90-120 m (tank)

**Shelf Life :** 10 years

## **Dimensions**

**Length :** 45.5 cm

**Width :** 37.7 cm

**Weight:** 28.1 kg

## **Image Sources**

**Notes:** [https://en.wikipedia.org/wiki/TM-83\\_mine](https://en.wikipedia.org/wiki/TM-83_mine); <https://cat-uxo.com/explosive-hazards/landmines/tm-83-landmine>;

# TM-57 Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/30d3e6ffe892969c2fb5f9f43064c2fe>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Eastern Asia, Middle Africa, North Korea (Democratic People's Republic of Korea), Northern Africa, Russian Federation, Southern Africa, Southern Asia, Viet Nam, Western Africa

**Origin:** Russia (RUS)



## Notes

The TM-57 mine is a large, circular Soviet metal-cased blast anti-tank mine. It can either be triggered by pressure or a tilt-rod fuze. Development of the TM-46 mine is found in Africa, the Middle East, and South East Asia. The TM-57 has a larger main charge and improved fusing compared to the earlier TM-46. It is circular with a metal case and a central fuze well. A secondary MUV or VPF fuze can be fitted on the side of the mine, which serves as an anti-handling device. The tilt rod fuze gives the mine improved resistance to blast; it is activated when it is forced to a deflection of 25 to 30 degrees. A training version of the mine that produces smoke is designated the TM-60.

## System

**Country of Manufacturer:** Russia

**Emplacement Method:** manual, mechanical, chute

**Diameter:** 316

**Height:** 101

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range:** 1

**Detectability/ Composition:** easy, sheet metal

**Anti-Handling:** yes

**Fuze Type/Self Neutralize:** pressure (200/2.5/.5- 6 kg) delayarmed, tilt rod, pull (booby trap) neutralize:no

**Explosive Type & Weight/Total Weight (kg):** TNT or TGA 60/24/16: 6.3 Total: 8.47

**Operating Pressure:** 120–400 kg or 21 kg tilt.

## **Image Sources**

**Notes:** <https://www.counteroffensive.news/p/the-russian-mines-slowing-ukraines>;

[https://en.wikipedia.org/wiki/TM-57\\_mine](https://en.wikipedia.org/wiki/TM-57_mine); <https://cat-uxo.com/explosive-hazards/landmines/tmm-1-landmine>;

# TMD-B Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/50412e4fc642d27bb864d67d7d8157f6>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** North Korea (Democratic People's Republic of Korea), Russian Federation

**Origin:** Russia (RUS)



## Notes

The TMD-B Russian Anti-Vehicle Mine is a high-explosive (HE), square-shaped, wooden-bodied, anti-vehicle (AV), landmine that is designed to damage or destroy a vehicle by its blast effect, copied by several other countries such as China (Model 1951/Type 51) and the former Yugoslavia (TMD-1 and 2).

## System

**Alternate Designation:** TMD-B

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The box, which forms the body of the landmine, contains the explosive charge and a central cast TNT block to act as a booster. The TMD-B is constructed using nails or glue and it has a cloth or leather carrying handle screwed or stapled to the side.

**Fuze:** The booster has a central detonator well that accepts an MV-5 pressure fuze fitted with an MD-2 stab-sensitive detonator assembly. The fuze used is the MV-5 mechanical pressure which is made of steel.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tmd-b-landmine;>

# YaM Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/9c1a89672663321914c672c21b489b9a>

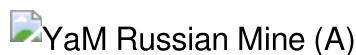
**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The YaM Russian Anti-Vehicle Mine is a series of high-explosive (HE), non-metallic, wooden box, anti-vehicle, blast landmines that use a MUV pull/pressure-actuated fuze. The YaM-5 (anti-tank mine 5 kilograms) was first produced, followed by the YaM-10 a scaled-up version of the YaM-5 with other variants including the YaM-5K, 5M and 5U.

## System

**Alternate Designation:** YaM

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The YaM landmine consists of a rectangular wooden box with a hinged lid that overlaps the front of the landmine.

**Fuze:** A slot in the hinged lid's side through which a MUV pull fuze is placed. A nail is placed horizontally through the loop of the MUV fuze's striker retaining pin and two loops on the bottom of the lid's slot. Downward pressure on the lid forced the nail downwards, withdrawing the striker retaining pin detonated the landmine.

**Pressure Bar:** A wooden pressure bar is sometimes used on the edge of the lid above the slot.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/yam-landmine;>

# PMZ-40 Russian Multi-Purpose Landmine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/9fee287056299de7b2fb9f039fb5b112>

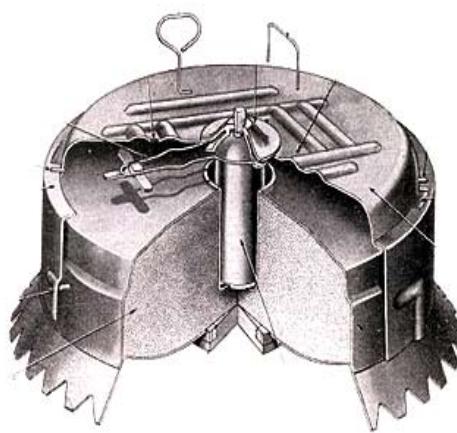
**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Other Types of Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PMZ-40 was a circular metal-cased Soviet multi-purpose landmine used during the Second World War. It was similar in design to the earlier Finnish Panssarimiina m/36 which was used during the Winter War. The mine had a serrated lower edge that allowed it to be deployed on sheet ice. The pressure plate was held over the fuse by four sheer bolts, rotating the pressure plate allows it to rest directly on the fuse, making it sensitive enough to be used as an anti-personnel mine. The mine proved to be too dangerous to use, and was replaced by the TM-41 anti-tank mine.

## System

**Emplacement Method:** manual

**Length:** D: 280 mm

**Width:** INA

**Height:** 120 mm

**Kill Mechanism:** blast

**Effective Range:** contact

**Detectability/ Composition:** Easy, steel

**Anti-Handling:** possible no 2nd fuze well or AD features

**Fuze Type/Self Neutralize:** pressure (225 AT or 68 AP) self-destruct or neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT 3.6 Total: 9

**Comment:** The AP/AT feature allows a single type mine to be used in a mixed minefield. Preferable in roadblocks. Replaced by the TM- 41 AT mine.

## **Image Sources**

**Notes:** <http://saper.isnet.ru/mines-2/pmz-40.html>; <https://www.pinterest.com/pin/708261478873053276/>;

# PVM Russian Anti-Helicopter Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/8ba328caca80f866aed2d7e4721d299c>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Helicopter Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PVM Russian Anti-Helicopter Mine is a high-explosive (HE), shaped-charge (SC), combined acoustic-infrared actuated, anti-helicopter landmine designed to attack helicopters and low-flying aircraft.

## System

**Alternate Designation:** PVM

**Type:** Anti-Helicopter Mine

**Manufacturer:** INA

**Acoustic Sensor :** The sensitivity of the acoustic sensor is no more than 0.6 decibels, which makes it possible to detect and confidently select the noise of the motors of a motor-hang-glider at a distance of 0.6 km, a helicopter up to 3.2 km.

**Noise Selection System :** The noise selection system makes it possible to distinguish the sound of an aeroplane engine or a helicopter against the background noise of ground-based engines, explosions and firing. If the noise is recognized as the noise of an airborne motor, then when the target approaches a distance of less than 1

km, the warhead turns toward the target and the infrared sensors of the target (4-6 sensors) are activated, which determine the exact direction and distance to the target.

**Target Area :** When a target enters the affected area (a hemisphere with a radius of 150 meters), the landmine detonates producing a shaped-charge (SC) moving at a speed of about 2500 km / h hits the target.

**Note :** The combination of simultaneous operation of acoustic and infrared sensors eliminates the response of landmines to thermal anti-missile traps fired by the target.

## **Dimensions**

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://en.topwar.ru/30331-a-pulya-to-dyryavaya.html>;

# OZM-72 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/e8ae1f4399d3eaaf4987930072da47fb>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation, Ukraine

**Origin:** Russia (RUS)



**OZM-72 AP Bounding Mine**

Inert Replica Training Aid



## Notes

The OZM-3, OZM-4 and OZM-72 are Soviet manufactured bounding type anti-personnel mines. (fragmentation-barrier mine , in the Russian and other post-Soviet armies as informally called "frog mine" or "witch" ) They are normally painted olive green, and issued with a spool of tripwires and two green painted wooden or metal stakes for affixing the tripwires. Both OZM-3 and OZM-4 have cast iron fragmenting bodies while the OZM-72 also contains preformed steel fragments, and all three are issued with empty fuze wells, so a variety of fusing options are possible. The mines can be activated by a variety of fuzes, including electronic fuzes or command initiation,

## For Training Use Only

although they are most commonly fitted with an MUV booby trap switch which is activated by a tripwire. On firing, a metal base plate remains in the ground, while the mine body is thrown up by a small lifting charge, but remains attached to a strong wire tether. When the end of the tether is reached at a height of approximately 0.5 m, the main charge explodes and scatters fragments of the casing across a wide area. OZM mine may sometimes be laid directly on top of an MS-3 mine. The MS-3 is an anti-handling device which closely resembles a PMN mine, except that it has a "blister" on top and operates purely as a pressure-release boobytrap. Lifting an OZM mine (without rendering safe the MS-3 placed underneath) will trigger detonation.

## System

**Country of Manufacturer:** Russia

**Emplacement Method:** manual

**Diameter:** 108

**Height:** 172

**Weight:** 5

**Armor Penetration / Kill Mechanism:** bounding fragmentation

**Casing Material:** Cast Iron

**Fragmentation Charge (TNT):** 660

**Sensor Sensitivity:** 1–17 kg

**Radius of guaranteed lethal destruction:** 25

**Temperature usage range:** -60 to +70 Degrees Celsius

**Number of preformed steel fragments:** 2,400 pcs.

## Image Sources

**Notes:** <https://www.pinterest.com/pin/708261478873202623/>; INA;

[https://twitter.com/CAT\\_UXO/status/496745935444385795](https://twitter.com/CAT_UXO/status/496745935444385795);

# MON-100 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/75de6518e308454cbb4945f257d6282e>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation, Ukraine, Viet Nam

**Origin:** Russia (RUS)



## Notes

The MON-100 Russian Anti-Personnel Mine body has a smooth, well finished appearance with a webbing handle mounted on the upper edge. It is usually attached to a mounting shackle by wing nuts on either side of the mine body (the shackle is connected to a spike for securing the mine to buildings, trees etc.). The concave face of the mine has a detonator cavity in its center (this is the side aimed at the target).

## System

**Alternate Designation:** MON-100

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Color :** Olive Green

**Explosive Content :** 2 kg TNT

**Fuse #1:** Command detonated using PN manual inductor attached by demolition cable to an EDP-R electric detonator.

**Fuse #2:** MUV Series Mechanical Pull; MVE-72 Electric Breakwire (battery powered); VP13 Seismic Controller (battery powered).

## Dimensions

**Length :** INA

**Width :** 82.5 mm

**Height :** INA

**Diameter :** 236 mm

**Total Weight :** 5 kg

## Image Sources

**Notes:** <https://en.wikipedia.org/wiki/MON-100>;

# PMN-4 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/89d7cd67fa6ed7045718545d80c91868>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The PMN-4 is a delay-armed, pressure-fired blast-mine. The pressure-plate is black and the body is reddish-brown or khaki. The black rubber pressure-plate has a plastic pressure "spider" concealed underneath, shaped like flower-petals. The diameter of the mine is 95mm and the height is 46mm. The explosive charge weight is 55 grams. This comprises 52 grams of 'TG-40' (a 40/60 TNT/RDX mixture) plus a 3 gram pentolite booster. The total weight of the mine is 300 grams. PMN-4 mines contain a significant amount of metal components, so they are readily detectable with a mine detector. Details of the fuze mechanism are scarce, though given that the PMN-4 was designed during the early 1980s, it is logical to assume that the fuze is more sophisticated and/or reliable than the fuze in the PMN-2 (a mid-1970s design) to compensate for having a smaller explosive filling with significantly reduced destructive power. Similarly, the PMN-4 is almost certainly a blast resistant mine due to the

design of the flower-shaped pressure "spider" under the pressure-plate.[2] Cross-sectional diagrams of the PMN-4 showing its components support the view that the PMN-4 is a more sophisticated design than the PMN-2.Examples of the PMN-4 have been encountered in Ukraine and Southern Syria.

## **Variants**

**PMN-1:** The design of the PMN-1 mine dates from the late 1950s. It is particularly deadly because it contains an unusually large explosive filling when compared to most other anti-personnel landmines. For comparison, most anti-personnel blast mines (e.g. the VS-50) contain around 50 grams of high explosive, which typically destroys all or part of a victim's foot. In marked contrast, a PMN-1 contains 249 grams of explosive which can easily destroy a victim's entire leg (frequently requiring amputation high above the knee) in addition to inflicting severe injuries on the adjacent limb, which may also require some form of amputation due to blast injury. The majority of anti-personnel mine victims (e.g. those who step on an M14 mine containing 29 grams of explosive) have a very high probability of survival, though inevitably they suffer permanent disability regarding their gait. However, the amount of explosive inside a PMN-1 mine is so large that the risk of victims dying is significantly greater and, assuming that they survive their injuries, the degree of disability inflicted is much more severe. These mines are palm sized and cylindrical in shape. The PMN-1 has a bakelite case (brown or black in colour) with a black rubber pressure-plate and contains TNT explosive.

**PMN-2:** The PMN-2 mine casing is made from injection-molded plastic. In general, the color is leaf-green, but occasionally brown examples may be encountered. The top of the mine has a black rubber X-shaped pressure plate. The filling is an RDX/TNT based explosive that is quite similar to Composition B. As with the PMN-1, the PMN-2 has an unusually large explosive filling when compared to many other anti-personnel landmines.

## **System**

**Country of Manufacturer:** Russia

**Emplacement Method:** manual, chute

**Diameter:** 95

**Height (mm):** 46

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Explosive Charge Weight:** 55

**Total Weight:** 300

## **Image Sources**

**Notes:** [https://en.m.wikipedia.org/wiki/File:27th\\_Independent\\_Sevastopol\\_Guards\\_Motor\\_Rifle\\_Brigade\\_\(181-27\).jpg](https://en.m.wikipedia.org/wiki/File:27th_Independent_Sevastopol_Guards_Motor_Rifle_Brigade_(181-27).jpg); <https://www.syriahr.com/en/212080/>;

# POM-2 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/1014f90c7383c0df3f0726ddc41ab841>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## **Notes**

The POM-2 Russian Anti-Personnel Mine is a high-explosive (HE), scatterable, tripwire actuated, anti-personnel (AP), fragmentation, self-destruct landmine designed to be dispersed/ejected from a variety of airborne and ground delivery systems.

## **System**

**Alternate Designation:** POM-2

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Design :** It has a cylindrical cast-steel body with tripwire dispensers and a central fuzing system. The carrier munition KPOM-2 is a tubular metal canister containing 4 landmines and a pyrotechnic delay which is ignited to begin the landmine arming sequence and the deployment of the streamer drogues.

**Operation :** Once dispensed from the delivery system, the landmine is armed and various components are ejected. After landing six spring-loaded metal fins bring the landmine into an upright position. After a few seconds, the top is ejected allowing the release of 4 spring-loaded spools of plastic tripwire. The tripwires are attached to an arm on the striker release mechanism.

## **Dimensions**

**Length :** INA

**Diameter :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://www.wikidata.org/wiki/Q2044463>;

# PMM-3 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/6cb769b17491ea7a097c3aad3c89185f>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PMM-3 Russian Anti-Personnel Mine is a high-explosive (HE), pressure-actuated, anti-personnel (AP), blast landmine.

## System

**Alternate Designation:** PMM-3

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Main Charge :** This metallic landmine consists of a main charge container (bottom) and a pressure plate lid (top).

**Fuze:** The fuze, which is screwed into the centre of the main charge container, consists of an inverted U-shaped metal leaf spring, a striker and a percussion detonator.

**Safety Pin :** A safety pin projects through a hole in the side of the lid and charge container and into the fuze assembly. This pin separates the striker and the percussion detonator.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight:** INA

## Image Sources

**Notes:** INA;

# MON-200 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/0f7957351adee5be58b6ee4ca5b1a38f>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The MON-200 is a directional type anti-personnel mine designed and manufactured in Soviet Union. It is an enlarged version of the MON-100 mine. Because of its large size, this directional blast mine can also be used against light-skinned vehicles and helicopters.

## System

**Country of Manufacture:** FSU Bulgaria

**Emplacement Method:** manual

**Diameter:** 431

**Height:** 130

**Armor Penetration (mm)/ Kill Mechanism:** directional fragmentation 900 pieces

**Effective Range:** 200 m

**Detectability/ Composition:** visual metal case

**Anti-Handling:** possible but not likely

**Fuze Type/Self Neutralize:** electrical, self-neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT: 12 kg Total: 25 kg

**Operating Pressure:** INA

**Comment:** Larger version of MON-100 Also effective against LAVs

## Image Sources

**Notes:** [https://cat-uxo.com/explosive-hazards/landmines/mon-200-landmine/](https://cat-uxo.com/explosive-hazards/landmines/mon-200-landmine;)

# MON-50 Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/fca3b60934245acdae5560d79e5eb646>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The MON-50 is a claymore shaped (rectangular, slightly concave), plastic bodied, directional type of anti-personnel mine designed and manufactured in the Soviet Union. It is designed to wound or kill by explosive fragmentation. The mine is similar to the American M18 Claymore with a few differences. It has folding scissor type legs for supporting and aiming, but it also has an attachment point on the bottom for connecting a special clamp/spike which can be attached to wood, metal etc. It has a peep sight centered on the top which is flanked by two detonator cavities. The mine contains 700g of RDX (PVV-5A) to propel approximately 540 or 485 fragments to a lethal range of 50 meters in a 54° arc (spread of 45 meters at 50 meter range). The fragments can be steel balls (540) or short steel rods (485) depending on the variant. The MON-50 is usually command actuated using a

## **For Training Use Only**

PN manual inductor and an EDP-R electric detonator. It can also be actuated by a variety of booby trap (BT) switches including the MUV series pull; the MVE-72 electric brake wire; or the VP13 seismic controller. The MON 50 will usually be mounted above ground level on the surface or up in trees to give the greatest dispersion of fragments. It is waterproof and will function effectively from +50 to -50 °C (it can be buried in snow as long as the pack in front of the mine doesn't exceed 10 cm, any more will greatly reduce the mine effectiveness). The mine can be located visually or with metal detectors under most field conditions. Depending on its actuation method the MON-50 may be resistant to blast overpressure from explosive breaching systems like the Giant Viper and M58 MICLIC. The MON-50 is currently manufactured in Russia and also manufactured for export in Bulgaria. The MON 50 is widely used in many parts of the world. It comes in a two pouch cloth bandolier which holds all the components for securing and command actuating the mine. It may also come packed in a VKPM-2 set which contains 4 mines complete with miscellaneous fuzes, control panel and wire. The mine has conventional or advanced seismic influence fusing. It is a hand laid directional fragmentation mine which is normally command actuated (always secure command wires). The MON-50 is known to be used with the VP13 seismic controller which prevents close approach for any clearance operations, or to a variety of BT fuzes. On detonation the mine will normally propel lethal fragmentation to a range between 40 and 60 meters, although the actual hazard range for these types of mines can be as high as 300 metres based on US Army tests of the M18A1 "Claymore" (this is directly in front of the mine, fragmentation range and density drop off to 125 meters to the sides and rear of these mines).

## **System**

**Country of Manufacturer:** Russia

**Emplacement Method:** manual

**Length:** 220

**Width:** 45

**Height:** 105

**Armor Penetration (mm)/ Kill Mechanism:** directional fragmentation 485 pieces.

**Effective Range:** width of kill zone @ 50m=45

**Detectability/ Composition:** visual plastic case

**Anti-Handling:** possible

**Fuze Type/Self Neutralize:** electric cmd, tripwire, tension, tension release self-neutralize: no

**Explosive Type & Weight/Total Weight (kg):** RDX: .70 Total: 20

**Fuse #1:** Command detonated using PN manual inductor attached by demolition cable to an EDP-R electric detonator.

**Fuse #2:** (one of the following) MUV Series Mechanical Pull MVE-72 Electric Breakwire (battery powered) VP13 Seismic Controller (battery powered)

**Comment:** Copy of US M18A1 claymore Chopped wire fragments (5x5mm).

## Image Sources

**Notes:** [https://www.reddit.com/r/ukraine/comments/t26pry/stay\\_away\\_from\\_these\\_anti\\_personnel\\_mines/](https://www.reddit.com/r/ukraine/comments/t26pry/stay_away_from_these_anti_personnel_mines/);  
[https://en.m.wikipedia.org/wiki/File:Non\\_armed\\_mon50\\_anti-personnel\\_clustermine.jpg](https://en.m.wikipedia.org/wiki/File:Non_armed_mon50_anti-personnel_clustermine.jpg);

# POMZ-2M Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/2983a846b706825ddfce973eb64fc2ec>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Cambodia, Myanmar, North Korea (Democratic People's Republic of Korea), Russian Federation, Viet Nam

**Origin:** Russia (RUS)



## Notes

The POMZ-2M is a stake-mounted anti-personnel fragmentation mine made in the former Soviet Union. The body of the mine is a cast-iron thick-walled tube with five rows of cast fragmentation "chunks". This is usually mounted on a short wooden stake. Because the mine is easy to copy, dimensions and color may vary. The body of the mine is usually painted olive green. The wooden stakes may be green, brown or unpainted. The POMZ-2M has a threaded hole in the top into which its fuze is screwed. The mine has been copied in many countries.

## System

**Country of Manufacturer:** Russia

**Emplacement Method:** stake mine manual

**Length:** 107

**Height:** 60

**Armor Penetration (mm)/ Kill Mechanism:** fragmentation

**Effective Range:** Max: 8 Min: 0

**Detectability/ Composition:** visual, detection cast iron

**Anti-Handling:** possible

**Fuze Type/Self Neutralize:** tripwire (1 kg force) self-neutralize: no

**Explosive Type & Weight/Total Weight (kg):** TNT: 75 Total: 1.7

**Comment:** Normally emplaced on stake 30 cm above ground. Fuze delay arm Underwater: no

## Image Sources

**Notes:** [https://www.globalsecurity.org/military/library/report/2002/iraq-osgjs-eod\\_10-landmines.pdf](https://www.globalsecurity.org/military/library/report/2002/iraq-osgjs-eod_10-landmines.pdf);  
[https://bemil.chosun.com/nbrd/bbs/view.html?b\\_bbs\\_id=10044&num=203482](https://bemil.chosun.com/nbrd/bbs/view.html?b_bbs_id=10044&num=203482);  
[https://nolandmines.com/explosive\\_hazards/minesPOMZ2M.htm](https://nolandmines.com/explosive_hazards/minesPOMZ2M.htm);

# POM-2S Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/f74f1241ff4858ae3dc45481dfb2a88a>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The Russian POM-2S is a scatterable, anti-personnel, fragmentation landmine. It has a cylindrical cast-steel body with tripwire dispensers and a central fusing system. Surrounding the fusing system is the main charge of TNT. Once dispensed from the delivery system, the landmine is armed and various components are ejected. After landing six spring-loaded metal fins bring the landmine into an upright position. After a few seconds, the top is blown off allowing the release of 4 spring-loaded spools of plastic tripwire. The tripwires are attached to an arm

of the striker release mechanism. Tripping a wire rotates the arm and the spring-loaded striker releases onto the central stab-sensitive detonator assembly. Only 300g of force is required to release the mechanism.

## **System**

**Country of Manufacturer:** Russia

**Emplacement Method:** Remote-surface (UMZ, helicopter, PKM portable) cylinder:

**Length:** 60

**Height:** INA

**Armor Penetration (mm)/ Kill Mechanism:** fragmentation

**Effective Range:** 16

**Detectability/ Composition:** visual, readily

**Anti-Handling:** no

**Fuze Type/Self Neutralize:** tripwires (.2 kg) Self-destruct: 4 to 100 hr

**Explosive Type & Weight/Total Weight (kg):** TNT: .14 Total: 1.6

## **Sources**

**Images:** <https://cat-uxo.com/explosive-hazards/landmines/pom-2-landmine>;

<https://commons.wikimedia.org/wiki/File:POM-2S.jpg>

# OZM-160 (O3M-160) Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/e0da550a4e506295517121b9c58d7bd9>

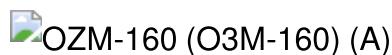
**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The OZM-160 (O3M-160) Russian Anti-Personnel Mine is a high-explosive (HE), electrically initiated, cylindrical, anti-personnel (AP), bounding landmine designed to be buried and command initiated that is designed to wound or kill by its fragmentation.

## System

**Alternate Designation:** OZM-160; O3M-160

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Projectile :** The projectile is made from thick cast iron, with a blunt nose and a felt sealing ring around the ogive. TNT is cast into the nose of the projectile with a pressed TNT slab behind, sealed into position with a base plug.

**Fuzing Assembly :** The propellant and fusing assembly contain a 200g black powder propelling charge and a coiled tether wire attached to the fuze.

**Note :** OZM-160 consists of a tubular steel barrel, a propellant and fuze assembly and a purpose-built projectile.

## Dimensions

**Length :** INA

**Diameter :** INA

**Weight :** 45 kg

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/ozm-160-landmine;>

# PMN-3 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/710aa52d63d5825735cb80656057d943>

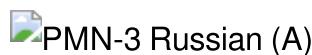
**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PMN-3 Russian Anti-Personnel Mine is a high-explosive (HE), circular plastic-bodied, delay armed, battery-powered, electronic, anti-disturbance, self destruct, pressure or tilt actuated, anti-personnel (AP), landmine which externally looks like the PMN-2 anti-personnel (AP) landmine and is intended to impede landmine clearance.

## System

**Alternate Designation:** PMN-3

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Self-Destruct :** The landmine is not a replacement for the PMN-2 but an upgrade with the addition of an anti-disturbance and self destruct (12 hours to 8 days) feature, to be used in association with the PMN-2.

**Battery :** Prior to arming a battery is installed in the landmine.

**Safety Pin:** To arm the landmine the safety pin is pulled, closing the switch which applies power to the safe separation timer and the self-destruct time is selected.

**Separation Timer :** The safe separation timer LED now flashes for 4.5 minutes +/- 1.5 minutes then goes out.

The delay continues until the safe separation time of 8.5 minutes +/- 1.5 minutes has expired.

## **Dimensions**

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/pmn-3-landmine;>

# POM-3 (Medallion) Russian Anti-Personnel Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/0227c9a8174e3e2d9075e9c8b05ac857>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The POM-3 Russian Anti-Personnel Mine is a high-explosive (HE), scatterable, anti-personnel (AP), bounding fragmentation, self-destruct landmine designed to be dispersed/ejected from a variety of airborne and ground delivery systems. On dispersal from its container, the landmine is orientated by the use of a parachute. The POM-3 uses a proximity seismic fuze with a self-destruct time of either 8 or 24hrs. Once in a suitable position, a

seismic rod sensor is forced into the ground. It is intended to bury itself into the ground to a depth of its body height. If it lands on hard ground, six spring-loaded feet deploy and position the landmine in an upright position.

## System

**Alternate Designation:** POM-3; Medallion Russian

**Type:** Anti-Personnel Mine

**Manufacturer:** INA

**Fuze:** The POM-3 uses a proximity seismic fuze

**Killing Radius:** 16 m. On sensing a suitable seismic signature the base unit ejects a fragmentation charge into the air that contains metal fragmentation rings that detonate sending fragmentation out to a lethal radius of 16 meters.

**Dispersal:** On dispersal from its container, the landmine is orientated by the use of a parachute.

**Soft Ground:** If it lands in soft ground, it is intended to bury itself into the ground to a depth of its body height.

**Hard Ground:** If it lands on hard ground, six spring-loaded feet deploy and position the landmine in an upright position.

**Self-Destruct Time:** 8-24 hours

## Dimensions

**Length:** INA

**Width:** INA

**Weight:** INA

## Image Sources

**Notes:** <https://www.hrw.org/news/2022/03/29/ukraine-russia-uses-banned-antipersonnel-landmines>; <https://cat-uxo.com/explosive-hazards/landmines/pom-3-landmine>;

# MON-90 Russian Anti-Personnel Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/6f28202ebd868464dfbe7ee285b51f37>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Personnel Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The MON-90 Russian Anti-Personnel Mine is a Claymore-shaped, plastic bodied, directional type of anti-personnel mine designed in the Soviet Union. It is designed to wound or kill by fragmentation. The mine is similar in appearance to the MON-50, but is approximately twice the size with a much greater depth.

## System

**Name :** MON-90

**Type :** Anti-Personnel Mine

**Manufacturer :** INA

**Color :** Olive Green

**Explosive Content :** 6.2 kg RDX (PVV-5A) explosive

**Fuze #1:** Command detonated using PN manual inductor attached by demolition cable to an EDP-R electric detonator.

**Fuze #2:** MUV Series Mechanical Pull; MVE-72 Electric Breakwire (battery powered); VP13 Seismic Controller (battery powered)

## Dimensions

**Length :** 345 mm

**Width :** 153 mm

**Height :** 202 mm

**Total Weight :** 12.1 kg

## Image Sources

**Notes:** <https://www.wikiwand.com/en/MON-90>; <https://inertproducts.com/product/mon-90-russian-directional-ap-mine/>;

# TM-72 Russian Anti-Tank Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/6236b0b8dfb1e7e86a2bdc915a989c63>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The TM-72 Russian Anti-Tank Mine is a Soviet cylindrical metal-cased anti-tank mine. It is normally used with the MVN-72 or MVN-80 magnetic influence fuzes, which give it a full width attack capability.

## System

**Alternate Designation:** TM-72

**Type:** Anti-Tank Mine

**Manufacturer:** INA

**Filling :** TNT/RDX mix

**Filling Weight :** 2.5 kg

**Detonation Mechanism :** various typically MVN-72, MVN-80 magnetic influence fuzes

## Dimensions

**Diameter :** 250 mm

**Height :** 80 mm

**Weight :** 6 kg

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-72-landmine>; [https://en.wikipedia.org/wiki/TM-72\\_mine](https://en.wikipedia.org/wiki/TM-72_mine);

# DTKM-1R Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/dd66205b8e8633b9e9b13fa785c7cf26>

Tiers:



Domain: Land, Infantry Weapons, Landmines, Anti-Tank Landmines

Proliferation: Russian Federation

Origin: Russia (RUS)



## Notes

The DTKM-1R Russian Anti-Tank Mine is capable of selecting what armored vehicle to hit, it chooses only those equipment that meet the specified parameters in terms of noise and ground vibration.

## **System**

**Alternate Designation:** DTKM-1R

**Type:** Anti-Tank Mine

**Manufacturer:** INA

**Installation :** It is installed manually, at a distance of 5 to 50 m from the probable route of the target making it quite difficult to detect.

**Sensors :** The transporter-launcher is equipped with acoustic and seismic sensors, the combat element is equipped with infrared and radar sensors.

**Explosive Weight :** 2.8 kg

**Range :** When the target comes within 50 m radius from the mine, the seismic sensor commands to launch the combat element. The combat element follows a ballistic trajectory and its sensors - thermal and radar - scan the earth's surface. When the sensors detect the target the warhead is detonated and strikes the target from above.

**Armor Penetration :** 70 mm

**Self-Destruction Time :** 1-10 days

## **Dimensions**

**Height :** 510 mm

**Diameter :** 220 mm

**Weight :** 19.9 kg

## **Image Sources**

**Notes:** <https://roe.ru/eng/catalog/land-forces/engineer-equipment/ptkm-1r/>;

# TM-89 Russian Anti-Tank Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/6dd8dfc2969e3929762928a40ce5b9cc>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-89 Russian Anti-Tank Mine is a Russian anti-tank mine first publicly shown in 1993. The mine uses a Misznay Schardin effect warhead capable of producing a 60 mm diameter hole in 100 mm of armor. The mine is fitted with a two-channel magnetic influence fuze, and can be laid from the GMZ-3 mine layer or by the VMR-2 helicopter mine layer.

## System

**Alternate Designation:** TM-89

**Type:** Anti-Tank Mine

**Manufacturer:** INA

**Explosive Content :** 6.7 kg of TG-40 (60% RDX 40% TNT)

**Fuze:** The two-channel magnetic influence fuze is supplied factory-fitted to the landmine and has a built-in power supply. It is supplied with a red protective fuze cover for use with the GMZ-3 minelayer, and a black cover for use with the VMR-2 helicopter landmine dispenser.

**Armor Delay :** 20 and 700 seconds.

**Operation :** The landmine may be laid either manually or mechanically.

## **Dimensions**

**Diameter :** 320 mm

**Height :** 131 mm

**Weight :** 11.5 kg

## **Image Sources**

**Notes:** <https://cat-uxo.com/uxo-types/landmines/tm-89-landmine;>

# TM-41 Russian Anti-Tank Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/1d53f5d0c2359573601bbf86c5473445>

Tiers:



Domain: Land, Infantry Weapons, Landmines, Anti-Tank Landmines

Proliferation: North Korea (Democratic People's Republic of Korea), Russian Federation

Origin: Russia (RUS)



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## Notes

## For Training Use Only

The TM-41 was a circular, metal-cased Soviet anti-tank landmine used during the Second World War. The mine's case consisted of a short cylinder with the entire top surface being used as a pressure plate. The mine has a carrying handle on the side of the mine. It was normally painted olive drab and was broadly similar to the larger, later, TM-44 mine. The mine could be waterproofed with washers and laid underwater, where it can remain operational for two months. Pressure on the pressure plate resulted in lock balls being forced out of position, releasing a striker, which triggers a detonator, then a booster and then the mine's main charge. The mine was used with anti-handling devices. A Chinese copy of the mine was also produced.

## System

**Country of Manufacturer:** Russia/Cambodia

**Emplacement Method:** manual

**Length:** 252

**Height:** 145

**Armor Penetration (mm)/ Kill Mechanism:** blast

**Effective Range:** contact

**Detectability/ Composition:** Metal

**Anti-Handling:** No

**Fuze Type/Self Neutralize:** pressure (160 kg no)

**Explosive Type & Weight/Total Weight (kg):** TNT: 4 Total: 5.4

**Activation Pressure:** 160

**Comment:** Can be used underwater

## Image Sources

**Notes:** [https://www.imfdb.org/wiki/TM-41\\_anti-tank\\_mine](https://www.imfdb.org/wiki/TM-41_anti-tank_mine); <https://cat-uxo.com/explosive-hazards/landmines/tm-41-landmine>;

# TEMP 30 Russian Anti-Tank Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/a1cb5ea6fdc6549c5a294db4049b86c6>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TEMP 30 Russian Anti-Tank Mine is a high-explosive anti-tank (HEAT), shaped-charge, top attack, off-route landmine.

## System

**Alternate Designation:** TEMP 30

**Type:** Anti-Tank Mine

**Manufacturer:** INA

**Composition :** The entire system is mounted in a steel box that is placed or buried adjacent to the target's path.

**Acoustic and Seismic Sensors :** With the lid opened, acoustic sensors are positioned at the front end while the rocket assembly is raised into the armed position. Both acoustic and seismic sensors are used to identify the target and launch the fin-stabilized rocket.

**Warhead :** The warhead section contains two shaped-charge warheads of the same type used in the TEMP-20 anti-helicopter landmine.

**Note:** The purpose of the system is to attack armored vehicles where they are most vulnerable, through the thin top armor. These are angled at 10° to one another and initiated by a 2-channel infra-red sensor to project explosively formed projectiles (EFPs) down onto the target.

## **Dimensions**

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/temp-30-landmine;>

# PTM-3 Russian Anti-Tank Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/2d1dffeb35fc704d693a6e4e781a906>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Tank Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PTM-3 is a Soviet scatterable anti-tank mine that can be deployed either by hand, vehicle, artillery, or helicopter. The mine's case is configured to produce a shaped charge effect on five sides. Once deployed the mine arms itself after sixty seconds. The mine uses a magnetic influence fuze that detonates the mine when a vehicle passes over it. It is also reported to have an anti-handling device which is sensitive to movement.

## System

**Country of Manufacturer:** Russia

**# of User Countries:** 12+

**Emplacement Method:** remote-surface: UMZ, helicopter, PKM portable inf

**Length:** 330

**Width:** 84

**Height:** INA

**Armor Penetration (mm)/ Kill Mechanism:** 70 mm: penetrates tank belly & destroys running gear

**Effective Range:** 1

**Detectability/ Composition:** visual mine detectors cause detonation plastic

**Anti-Handling:** Yees

**Fuze Type/Self Neutralize:** proximity, magnetic self-destruct: yes-16 to 24 hrs

**Explosive Type & Weight/Total Weight (kg):** TG-40: 1.8 Total: 5

## **Image Sources**

**Notes:** <https://en.topwar.ru/187890-pravka-potuhshaja-nadezhda-minnyj-zagraditel-i-52.html>;

[https://twitter.com/Euan\\_MacDonald/status/683561276040167424](https://twitter.com/Euan_MacDonald/status/683561276040167424);

[https://twitter.com/CAT\\_UXO/status/485384597065441280](https://twitter.com/CAT_UXO/status/485384597065441280);

# MPM (Type 158) Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/a6bbec68f6f0e7c8bcd91011bf711649>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The MPM Russian Anti-Vehicle Mine is mechanical-actuated, delay-armed/fired limpet mine, also known as the Type 158 intended for demolition and sabotage, a copy of the British Mk III.

## System

**Alternate Designation:** MPM; Type 158

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Body :** The limpet mine has a Bakelite body with an open fuze slot at one end and magnets on the flat side for attachment to steel targets.

**Fuze:** The VZD-3M fuze, which is clipped into place beneath a spring-steel strip, uses a lead-shear delay mechanism similar to that in the Russian PMN landmine. MUV-2, MUV-3 and MUV-4 fuzes, fitted with MD-2 detonator assemblies can also be used. The VZD-3M fuze is supplied with a small bag containing a selection of lead strips for different time delays.

**Note #1:** The limpet mine can also be used on land and may incorporate a tripwire.

**Note #2:** The limpet mine has a webbing carrying strap and a magnetic keeper plate that can be strapped to non-magnetic targets.

## **Dimensions**

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/naval-devices;>

# TM-35 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/0c1990bf9056a2dff0e198c738900e38>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-35 Russian Anti-Vehicle Mine is a high-explosive (HE), metal cased, pressure-actuated, anti-vehicle (AV) landmine, that uses the Russian MUV fuze.

## System

**Alternate Designation:** TM-35

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Composition :** The landmine has a metal wire handle fixed to two metal tabs welded on one side of the landmine body.

**Fuze:** The fuze-well is covered with a small pivoting, metal cover.

**Pressure Plate :** This raised pressure plate is secured to the landmine body by two metal tabs on each side of the landmine casing and attached to the landmine base. The landmine has a single pressure bolt located in the center of the pressure plate and a single fuze-well which is located between the two arms of the carry handle.

**Note :** The TM-35 landmine is one of the earliest Russian metallic landmines. Unlike the upgraded TM-38, the previous TM-35 did not have the four diagonal raised ridges on the pressure plate running from corner to corner to add rigidity.

## **Dimensions**

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** [https://cat-uxo.com/explosive-hazards/landmines/tm-35-landmine/](https://cat-uxo.com/explosive-hazards/landmines/tm-35-landmine;);

# TM-56 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/6f68ce107347b9f8a78ba556cc7591ca>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-56 Russian Anti-Vehicle Mine is a high-explosive (HE), circular, sheet metal-bodied, anti-vehicle (AV), landmine that is designed to damage or destroy a vehicle by its blast effect.

## System

**Alternate Designation:** TM-56

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Fuze :** The primary fuze used with the landmine is an MV-56, pressure fuze. The landmine also uses one of the MUV series of fuzes as a secondary fuze.

**Note #1:** The top of the landmine has a stepped appearance with a large diameter fuze protruding from the centre. The bottom of the landmine is crimped to the rest of the landmine body and has 7 radial strengthening ribs and 1 or 2 filler plugs.

**Note #2:** The TM-56 has one anti-disturbance fuze cavity located in the side and a metal carrying handle spot welded to the bottom.

## **Dimensions**

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-56-landmine;>

# TM-62B Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/1c7ac2b2e143abbf8efc5ec014234015>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-62B Russian Anti-Vehicle Mine is a high-explosive (HE), large, caseless, anti-vehicle (AV), blast landmine, which may be laid mechanically or by hand.

## System

**Alternate Designation:** TM-62B

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Fuze:** TM-62B is basically a large disc of explosive with a Bakelite fuze well and booster cast into the center of the mine. The booster is sealed into place with a Bakelite disc and the well is threaded to accept the MVP-62, MVP-62M, and a variety of other TM-62 fuzes. MVP-62 is a minimum-metal fuze that uses a spring-loaded striker and a bellows-type arming delay. The TM-62 series can therefore also accept the MVN-72 and MVN-80 magnetic influence fuzes.

**Handle :** TM-62B has a loop of webbing running through holes in the landmine body to serve as a carrying handle.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-62b-landmine;>

# MZM-2 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/9dd3ac1d1c1308b5167228e930301538>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The MZM-2 Russian Anti-Vehicle Mine is a high-explosive (HE) landmine and main charge intended for use against large vehicles and trains.

## System

**Alternate Designation:** MZM-2

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Fuze :** The associated fuze is designated the VMZM-2 which is located on the top of the main charge and is 205mm in diameter and has a height of 120mm.

**Fuze Battery :** The fuze is battery powered and has an arming delay of 10 to 180 minutes and has a firing delay of 1 to 180 days.

**Note #1:** It is also used as a demolition main charge.

**Note #2:** The landmine can be remotely or manually armed and functions by delay, vibration, tilt or attempting to open the cover.

## **Dimensions**

**Diameter :** 205 mm

**Height :** 385 mm

**Weight :** INA

## **Image Sources**

**Notes:** INA;

# TM-62D Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/d14588f8650e0af94d6650d8f01f3be8>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-62D Russian Anti-Vehicle Mine is a high-explosive (HE), wooden boxed, pressure-actuated blast landmine part of the TM-62 series of anti-vehicle (AV) landmines.

## System

**Alternate Designation:** TM-62D

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**History :** The series, which are a further development of the earlier TM-46 and TM-57, consists of the same basic landmine fitted with different cases. These include TM-62B (caseless), TM-62D (wooden case), TM-62M (metal case), TM-62P/P2 (red/brown plastic case), TM-62P3 (green plastic case) and the TM-62T (resin/fabric case).

## Dimensions

**Length :** 295 mm

**Width :** 340 mm

**Height :** 178 mm

**Weight :** INA

## **Image Sources**

**Notes:** INA;

# AKS Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/42912189b97bebf78d6c2df278c6573b>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The AKS Russian Anti-Vehicle Mine is a tilt-rod actuated, anti-vehicle (AV), blast landmine. The interior of this landmine is similar to that of the Russian TM-38.

## System

**Alternate Designation:** AKS

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Tilt Rode :** When the tilt-rod is added, the overall height of the landmine is 850mm.

**Safety Pin:** A safety pin is inserted in the base of the tilt-rod mast to prevent premature detonation.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** When the tilt-rod is added, the overall height of the landmine is 850mm.

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/aks-landmine;>

# TM-62P2 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/cc76e8e3fc8533d2bb3d04240998475c>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-62P2 Russian Anti-Vehicle Mine is a high-explosive (HE), pressure-actuated, plastic casing, low metal content, anti-vehicle (AV), landmine designed to render enemy tracked and wheeled vehicles unserviceable by its blast effect.

## System

**Alternate Designation:** TM-62P2

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The basic landmine has a cylindrical body with a stepped upper surface with a centrally threaded fuze well, which is sealed with a threaded plug during transit.

**Fuze:** These landmines can be fitted with a variety of different fuze systems, including pressure and magnetic influence. In the case of a pressure fuze, the pressure plate shears with the weight being transferred to the striker, which in turn activates the detonator.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-62p2-landmine;>

# TM-62T Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/54abd6f657140b7315c964fc74382fb2>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-62T Russian Anti-Vehicle Mine is a high-explosive (HE), resin and fabric case, non-metallic, anti-vehicle (AV) landmine designed to render enemy tracked and wheeled vehicles unserviceable by its blast effect.

## System

**Alternate Designation:** TM-62T

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The basic landmine has a cylindrical body with a stepped upper surface with a centrally threaded fuze well, which is sealed with a threaded plug during transit.

**Fuze :** These landmines can be fitted with a variety of different fuze systems, including pressure and magnetic influence. In the case of a pressure fuze, the pressure plate transfers weight to the striker, which in turn activates the detonator.

## Dimensions

**Diameter : INA**

**Height : INA**

**Weight : INA**

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-62t-landmine;>

# TMD-44 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/fb2e9bee8da549a971698cb17672b122>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TMD-44 Russian Anti-Vehicle Mine is a high-explosive (HE), square-shaped, wooden-bodied, anti-vehicle (AV), landmine that is designed to damage or destroy a vehicle by its blast effect.

## System

**Alternate Designation:** TMD-44

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The TMD-44 is constructed using nails or glue and it has a cloth or leather carrying handle screwed or stapled to the side.

**Fuze:** The fuze used is the MV-5 mechanical pressure which is made of steel. The major difference from the TMD-B is that it has a circular bakelite fuze cavity cap centered on the top instead of a hinged wooden slat.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tmd-44-landmine;>

# TM-35M Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/a09990cd9a777995c294c588c6435472>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-35M Russian Anti-Vehicle Mine is a high-explosive (HE), metal cased, pressure-actuated, anti-vehicle (AV) landmine, that uses the Russian MUV fuze.

## System

**Alternate Designation:** TM-35M

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Fuze:** A sliding door at each end gives access to the fuze wells.

**Pressure Plate :** The pressure lid contains two pressure bolts, one at each end of the lid, each positioned over a fuze actuating lever.

**Note :** The TM-35M is a modification and elongated version of the TM-35.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-35m-landmine;>

# PTM-1 (PGMDM) Russian Anti-Vehicle Mine

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/a18b624e94788c586f9fde166edca02b>

Tiers:



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Afghanistan, Czech Republic, Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

PTM-1 (PGMDM) Russian Anti-Vehicle Self-Destruct Mine also known as PGMDM (ПГМДМ - Protivo-Gutsenitsnaja Mina Distantionava Minirovaniya) a dispenser ejected Scatterable anti-vehicle, self-destruct, blast landmine. The mine is OD green.

## Variants

**PTM1-G (MVDM-G fuze):** The MVDM-G fuze operates in a similar way to the MVDM, except that the arming rod also releases the hydraulic SD mechanism. Should the mine fail to function under pressure, the hydraulic SD system will release a striker to initiate the mine between 3 hours and 40 hours after deployment, dependent mainly on temperature.

**PTM-1S (MVDM fuze):** This is the Russian PTM-1S (ПТМ-1С) also known as PGMDM (ПГМДМ - Protivo-Gutsenitsnaja Mina Distantionava Minirovaniya) a dispenser ejected scatterable, anti-vehicle, self-destruct, blast landmine. The landmine is green with a plastic casing. The landmine can be scattered from helicopters or submunition warheads from the BM-21 (122mm) or the Uragan (220mm) rocket systems.

## System

**Alternate Designation:** PTM-1; PGMDM

**Type:** Anti-Vehicle Self-Destruct Mine

**Manufacturer:** INA

**Emplacement Method:** Remote-surface: UMZ, MRL, aircraft, PKM portable inf

**Type of Explosive:** PVV-12M or PVV-12S (PTM-1); PVV-12S-1 (PTM1-G)

**Fuze Designation:** MVDM or MVDM-G

**Operating Pressure:** 150–400 kg

**Delay:** 60–100 second delay, which allows the mine to settle before arming.

**Neutralisation Capability:** This mine cannot be neutralised. This mine should never be approached within the SD period (ie less than 40 hours after deployment).

**Disarming Capability:** The mine cannot be disarmed. This mine should never be approached within the SD period (ie less than 40 hours after deployment).

**Destruction Method:** The disposal method recommended by the Russian military is destruction by projectile attack (vehicle-mounted machine gun).

## Dimensions

**Length:** 337 mm

**Width:** 70 mm

**Height:** 69 mm

**Explosive Weight:** 1.1 kg

**Total Weight:** 1.6 kg

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/ptm-1s-landmine;>

<https://www.iwm.org.uk/collections/item/object/30022000> ;

# PTM-4 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/77333bc0485aa58e061490136de54911>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The PTM-4 Russian Anti-Vehicle Mine is a high-explosive (HE), scatterable, shaped-charge (SC), magnetically influenced, anti-vehicle (AV) landmine.

## System

**Alternate Designation:** PTM-4

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Unit:** The PTM-4 landmine consists of a steel elongated casing in the form of a semi-cylinder, that includes a non-contact fuze with a magnetic target sensor, a pyrotechnic retardation ring, an executive detonating mechanism, a programmable electronic self-destruct (SD) and the main explosive charge.

**Fuze:** The PTM-4 uses a programmable VT-14 self-destruct (SD) fuze.

**Arming Mechanism :** 40-80 second delay arming mechanism

**Self-Destruct Time:** Self-destruct (SD) times varying from 8, 12, 24, 48 hours to 120 days.

**Note #1:** Two PTM-4 landmines are delivered within the KPTM-4 cassette (9.6kg) via various landmine laying systems including helicopters.

**Note #2:** It has a fabric spring-loaded cover for orientation in flight and correct orientation once on the ground.

**Note #3:** During the movement of an armoured vehicle, it causes a magnetic disturbance that the PTM-4 perceives and classifies as the movement of heavy equipment and initiates the fuze.

## **Dimensions**

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://inertproducts.com/product/ptm-4-russian-av-at-mine/>;

# TM-62P3 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/66e6162f6c554e96a8fef4ac2111207e>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-62P3 Russian Anti-Vehicle Mine is a high-explosive (HE), circular, anti-vehicle (AV), blast landmine designed to render enemy-tracked and wheeled vehicles unserviceable by its blast effect.

## System

**Alternate Designation:** TM-62P3

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The basic landmine has a cylindrical body with a stepped upper surface with a centrally threaded fuze well, which is sealed with a threaded plug during transit.

**Fuze:** These landmines can be fitted with a variety of different fuze systems, including pressure and magnetic influence. In the case of a pressure fuze, the pressure plate transfers weight to the striker, which in turn activates the detonator.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://russialist.org/russia-lays-mines-at-industrial-level-ahead-of-ukrainian-counteroffensive/>;

# ADM-8 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/9a3bb968f31499149d4dba4a32db12fa>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation, Ukraine

**Origin:** Russia (RUS)



## Notes

The ADM-8 Russian Anti-Vehicle Mine is intended for use against large vehicles, trains and as a demolition main charge.

## System

**Alternate Designation:** ADM-8

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Fuze:** The electronic fuze is battery powered and can be remotely or manually armed. The fuze has selective features that allow it to function on magnetic influence, time delay, tilt or if an attempt is made to remove the cover.

## Dimensions

**Diameter :** 220 mm

**Height :** 250 mm

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/adm-8-landmine;>

# TM-62M Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/5caaefea396bb8e5bf8de4118f01d768>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Armenia, Belarus, Bulgaria, Georgia, North Korea (Democratic People's Republic of Korea), Poland, Russian Federation, South Korea (Republic of Korea), Ukraine, Viet Nam

**Origin:** Russia (RUS)



## Notes

The TM-62M Russian Anti-Vehicle Mine is a high-explosive (HE), large, metal-cased, anti-vehicle (AV), blast landmine which may be laid mechanically or by hand. The landmine is part of the TM-62 series, further developed from the TM-46 and TM-57 to offer improved capability and greater flexibility.

## System

**Alternate Designation:** TM-62M

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The cylindrical body has a stepped top surface with a centrally threaded fuze well, sealed with a threaded plug during transit.

**Fuze :** In addition to a conventional pressure fuze (MVCh-62), the landmine accepts a variety of other fuzes that give it a full-width attack capability against vehicles. The fuze well is the same size as the one in the TM-72. The TM-62M will, therefore, accept the MVN-72 and MVN-80 magnetic influence fuzes.

## For Training Use Only

**Note:** Unlike previous models, the landmine body is filled to the surface with explosives and does not have a collapsible pressure plate.

**Explosive Content :** 7.5 kilograms (17 lb) of TNT (although sometimes combinations of RDX/TNT/Aluminum or Amatol mixes are used)

**Operating Pressure :** 150 to 550 kilograms

## Dimensions

**Diameter :** 320 mm

**Height :** 128 mm

**Weight :** 9.5 kg

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tm-62m-landmine;>

# MZU-S Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/cc573a864b42c684c7130e7bce9efc48>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The MZU-S Russian Anti-Vehicle Mine is a high-explosive (HE), blast anti-vehicle (AV) landmine used against rail lines, highways and other military or industrial installations.

## System

**Alternate Designation:** MZU-S

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Explosive Charge:** The landmine contains a large explosive charge in the bottom portion of the cylinder with the upper small cylinder containing the landmine's electronics.

**Firing Method:** The method of firing the landmine is possibly seismic or magnetic, or a combination of both.

**Self-Destruct Delay Time:** 1 to 60 days.

## Dimensions

**Length :** INA

**Diameter :** INA

**Weight:** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/mzu-s-landmine;>

# TM-62P Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/01fb13e9992cddb59e7c68a3524511ac>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation, South Korea (Republic of Korea)

**Origin:** Russia (RUS)



## Notes

The TM-62P Russian Anti-Vehicle Mine is a high-explosive (HE), pressure-actuated, plastic casing, low metal content, anti-vehicle (AV), landmine designed to render enemy tracked and wheeled vehicles unserviceable by its blast effect.

## System

**Alternate Designation:** TM-62P

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The basic landmine has a cylindrical body with a stepped upper surface with a centrally threaded fuze well, which is sealed with a threaded plug during transit.

**Fuze:** These landmines can be fitted with a variety of different fuze systems, including pressure and magnetic influence. In the case of a pressure fuze, the pressure plate shears with the weight being transferred to the striker, which in turn activates the detonator.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/fuzes/mvch-62-fuze;>

# TMD-40 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/e3e56af7a0b953021bfa78c710db6822>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TMD-40 Russian Anti-Vehicle Mine is a high-explosive (HE), elongated, wooden, pressure-actuated, anti-vehicle (AV), blast landmine that is very similar to the TM-39 and TM-40 landmines produced in the 1940s.

## System

**Alternate Designation:** TMD-40

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**TNT:** The 3.2kg of TNT is placed in the wooden box in the form of seven 400-gram and four 100-gram packages of explosive.

**Fuze :** The two MUV fuzes are located toward the two ends of the landmine case. Pressure is transmitted to the fuzes by two seesaw devices. Access to the fuze compartment is provided by sliding doors on both ends of the landmine case.

**Pressure Plate:** The TMD-40 pressure plate has bevelled edges, which collapse under a 250kg load.

## Dimensions

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tmd-40-landmine;>

# TMB-1 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/2f164c23c38b4c2e491a51fea5235a42>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TMB-1 Russian Anti-Vehicle Mine is a high-explosive (HE), low metal content, pressure-actuated, anti-vehicle (AV), blast landmine.

## System

**Alternate Designation:** TMB-1

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The TMB anti-tank landmine is encased in tar-impregnated cardboard, sealed with tape and a coating of asphalt. The landmines are made of tar-impregnated cardboard, coated with asphalt and have a blue glass pressure plug. This landmine is designed to make electronic detection difficult, if not impossible.

**Fuze:** The fuze may be cadmium steel (MV-5) or plastic (MV-5K).

**Note:** This landmine is frequently used along with metal or wooden landmines to remain armed and undetected in a supposedly cleared minefield.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** 6.6 kg

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tmb-1-landmine;>

# TMK-2 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/27b3df6d2b7158b458d8aca00a87b6f6>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The TMK-2 Russian Anti-Vehicle Mine is a high-explosive (HE), steel-cased, shaped-charged (SC), anti-vehicle (AV), landmine, designed to defeat the belly armor of a tank utilizing an Explosively Formed Projectile (EFP).

## System

**Alternate Designation:** TMK-2

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Design :** The upper half of the landmine is a hollow truncated cone, its only function is to keep earth and debris away from the shaped-charge (SC) to allow it to function correctly. The bottom half of the landmine, also a truncated cone, contains the dished charge liner and the explosive.

**Charge :** The charge has a wave-shaper set into the explosive and a detonator well entering the booster horizontally at the base of the landmine.

**TNT :** The landmine contains either 6.5kg (14.3lbs) TG-50 or a 6.0kg (13.2lbs) of TNT.

**Fuze :** The landmine uses an MVK-2 tilt-rod fuzing system designed to initiate on contact with the belly of an armoured vehicle, giving the landmine a full-width attack capability.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/tmk-2-landmine;>

# TM-38 Russian Anti-Vehicle Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/d1b135975482986a90a915ae72571bb6>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Anti-Vehicle Landmines

**Proliferation:** North Korea (Democratic People's Republic of Korea), Russian Federation

**Origin:** Russia (RUS)



## Notes

The TM-38 Russian Anti-Vehicle Mine is a high-explosive (HE), metal cased, pressure-actuated, anti-vehicle (AV) landmine, that uses the Russian MUV fuze that is also produced in North Korea and copied by the Chinese.

## System

**Alternate Designation:** TM-38

**Type:** Anti-Vehicle Mine

**Manufacturer:** INA

**Pressure Plate :** This raised pressure plate is secured to the landmine body by two metal tabs on each side of the landmine casing and attached to the landmine base. The landmine has a single pressure bolt located in the centre of the pressure plate and a single fuze-well which is located between the two arms of the carry handle.

**Composition :** The landmine has a metal wire handle fixed to two metal tabs welded on one side of the landmine body.

**Fuze :** The fuze-well is covered with a small pivoting, metal cover.

**Note :** The TM-38 was an upgrade of the previous TM-35 having four diagonal raised ridges on the pressure plate running from corner to corner that added rigidity.

## **Dimensions**

**Length:** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** [https://cat-uxo.com/explosive-hazards/landmines/tm-38-landmine/](https://cat-uxo.com/explosive-hazards/landmines/tm-38-landmine;);

# MZU-2 Russian Anti-Disturbance Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/1db94989b35b70c3eb665e022b3164f1>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Other Types of Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The MZU-2 Russian Anti-Disturbance Mine is a high-explosive (HE), electronic, delayed-action (30 minutes to 144 hours), seismic, or anti-disturbance actuated landmine, which is intended to be used in the mining of roads and railroads, against structures and as a boobytrap.

## System

**Alternate Designation:** MZU-2

**Type:** Anti-Disturbance Mine

**Manufacturer:** INA

**Deployment :** The landmine is reported to have a functional life of 10 days and can be expected to be with an auxiliary explosive charge.

**Arming:** Prior to arming the landmine, the correct function setting is made and, if required, a radio-control cable or the VZD-144Ch timer is added. To arm the landmine the arming pin is removed, starting the arming delay which runs for 60-70 seconds. At the end of this time, electrical circuits are closed and power is applied to the landmine. The anti-removal circuit is also activated.

**Radio Device :** It is used in conjunction with a PD-420 radio control device or with a VZD-144Ch timer.

**Batteries :** The batteries, MD-5M detonator and the explosive charge are now installed and the landmine is ready for arming.

## **Dimensions**

**Length :** INA

**Width:** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/mzu-2-landmine;>

# UMKZ Russian Limpet Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/689a2da5e6ca4a0e3f79a6bb3a2cfc29>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Other Types of Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The UMKZ Russian Limpet Mine is a high-explosive (HE) time delay limpet mine intended for demolition and sabotage that can be used on land or sea.

## System

**Alternate Designation:** UMKZ

**Type:** Limpet Mine

**Manufacturer:** INA

**Design :** This is a magnetic limpet mine that contains a delayed-armed, mechanical anti-lift device and has a secondary fuze well that makes provision for the use of an additional delay action fuze.

**Yoke:** The yoke consists of two strips connected by a leaf spring that presses the U-EN against the main charge case from above.

**Note #1:** Four side springs (hooks), fixed on the slats, serve to set the charge on non-steel objects. Installation of the charge on steel elements is made with the help of magnets.

**Note #2:** Eight charges are completed with five detonating remote control devices.

## **Dimensions**

**Length :** INA

**Width :** INA

**Height :** INA

**Weight :** INA

## **Image Sources**

**Notes:** <https://cat-uxo.com/explosive-hazards/naval-devices/umkz-limpet-mine;>

# UDSh Russian Training Mine

**WEG Location:** <https://odin.tradoc.army.mil/WEG/Asset/252346ac133c2dcf2f1bd7577bdfaa41>

**Tiers:**



**Domain:** Land, Infantry Weapons, Landmines, Other Types of Landmines

**Proliferation:** Russian Federation

**Origin:** Russia (RUS)



## Notes

The UDSH Russian Training Mine is a smoke dispensing landmine used in training to indicate a landmine has functioned or to simulate a chemical landmine.

## System

**Alternate Designation:** UDSh

**Type:** Smoke Dispensing Training Mine

**Manufacturer:** INA

**Design :** The key distinguishing features are the prominent fuze and the green plastic fuze cap. The UDSH smoke generator/pot can easily be mistaken for a TM-62M anti-vehicle (AV) landmine. UDSH is usually stenciled in black on the side.

**Discharge :** The smoke pot can be initiated electronically or manually and discharges smoke for 8 - 10 minutes.

**Note:** UDSh ‘Unifitsirovannaya Dymovaya Shashka’ literally translates as ‘Unified Smoke Block’.

## Dimensions

**Diameter :** INA

**Height :** INA

**Weight :** INA

## Image Sources

**Notes:** <https://cat-uxo.com/explosive-hazards/landmines/udsh-landmine;>