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# **Hand and Rifle Grenades - Worldwide Identification Guide (U)**

**A Defense S&T Intelligence Handbook**



**Defense Intelligence Agency**



**US Army Foreign Science  
and Technology Center**

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HAND AND RIFLE GRENADES - WORLDWIDE  
IDENTIFICATION GUIDE

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## PREFACE

This handbook provides a comprehensive technical reference on hand and rifle grenades either in production or in use by military, paramilitary, or terrorist forces. It is intended to aid US operational forces as well as research and development personnel in the identification and characteristics of worldwide grenades. The publication is organized to provide technical, identification, and performance characteristics as well as an illustration of each grenade in a consistent and easy to use format. Included is information on markings and dimensions to assist in identification of unknown grenades that might be encountered throughout the world. Service Requirements addressed in this product included Army Requirement 93-067, AMC 93-AR-S-006, and Navy Requirement EODTC 87-2.

Only those grenades known, or suspected, to be in use or in ordnance inventories are included herein. The document is not intended to be a historical reference of all grenades.

Most illustrations in this document are associated with a corresponding negative number. A negative number listing can be found as an appendix to the handbook. Users can request prints of the illustrations by citing the desired negative numbers and the handbook's DST number in a request addressed to Commander, US Army Foreign Science and Technology Center, ATTN: IAFSTC-PO, 220 Seventh Street, NE., Charlottesville, VA 22901-5396.

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Constructive criticism, comments, or suggested changes are encouraged and should be forwarded to the Defense Intelligence Agency, Washington, DC 20340-6150 (ATTN: PAG-1C).

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## SUMMARY

Hand and rifle grenades have been a part of the battlefield for several hundred years. Most countries of the world have designed and produced indigenous grenades or have purchased grenades from other external sources. The proliferation of grenades in both countries of origin and loading types has produced an extensive quantity throughout the world.

While originally designed and produced for military forces, hand and rifle grenades are found in ever increasing numbers in the inventories of paramilitary and terrorist organizations. Because of their extensive numbers, identification of the country of origin and the loading of an unknown grenade can be difficult. This handbook is intended to assist in this problem.

The handbook provides an illustration of each grenade accompanied by a brief description of the technical and limited performance characteristics. The grenades are grouped by country of origin, and markings information is provided in both the photographs and text to assist in proper identification of the grenade. Each system description is presented in a consistent manner to allow easier use of the document by the reader.

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SECTION I  
INTRODUCTION (U)

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1. General (U)

a. (U) One of the first references to a "hand bomb" was in the first half of the 16th century. Grenades have been used in one form or another since that time. The extensive numbers and types of hand and rifle grenades produced and used in the world indicate their popularity in military, civil, and terrorist/guerrilla organizations. This also makes it very difficult to assess the model numbers and types of grenades currently in use worldwide. This handbook provides technical data on grenades currently used. It is not all-inclusive as there are grenades which have insufficient data for coverage and older grenades no longer in general use that may be found in limited numbers in low-intensity conflict regions.

b. (U) Grenades have always been an important part of any tactical scenario ranging from major wars to individual terrorist attacks. They present a significant threat to personnel and materiel in open terrain, protective positions, and urban warfare. Yet, even with this popularity and long history there are considerable differences in the philosophies of manufacture and tactical employment of grenades. Some countries currently use and produce hand grenades with World War II designs; others have adopted more modern plastic-bodied grenades. Some countries do not use rifle grenades, while others rely heavily on them.

c. (U) Regardless of the radical developmental and design changes made in ordnance over the years, the grenade has remained a fairly stable and

viable part of the individual soldier's tactical arsenal. While there is little or no standardized criteria for grenade design or use, grenades still fill a tactical need for the individual soldier by providing short-range, area coverage, lethal or incapacitating weapons. While other ordnance may come and go from the tactical scene, grenades will no doubt continue to be a primary weapon for the individual soldier.

## 2. Grenade Types (U)

a. (U) Antipersonnel grenades have historically been broken into two classifications, the low-lethality "offensive" grenade and the potentially high-lethality "defensive" grenade. These two designs were developed for specific tactical usages with the intent of maximizing their tactical performance while protecting the soldier from self-inflicted injuries.

b. (U) The offensive grenade can best be described as a blast grenade designed to produce little or no intended fragmentation. Offensive grenades have been made with cardboard, plastic, or very thin metal bodies. The intent is to have no fragmentation, but there is still a minor hazard from fragments of the fuze body or the lightweight body components. These grenades can be thrown by a soldier on the offensive where he may not be able to seek cover. If thrown accurately, the blast of the grenade is lethal or incapacitating to the enemy, but the soldier throwing the grenade is beyond the blast/fragmentation range. Because of improved grenade designs (see paragraph 2d), many countries no longer produce or use separate offensive grenades.

c. (U) The defensive grenade, on the other hand, is designed for the soldier to throw from a protected defensive position against attacking enemy troops. It produces a highly lethal pattern of fragments. The fragments are derived from heavy cast metal bodies, pre-engraved fragmentation sleeves/liners, or preformed fragments placed in the explosive fill or body

of the grenade. Because of the velocity of the fragments from the grenade they might well be lethal to the thrower if he were not protected. This casualty range is normally about 12 to 15 meters from the point of detonation.

d. (U) In earlier days of hand grenade design, the distinction between these two types was well defined. Modern designs, however, have made the distinction almost a mute point. Newer plastic-bodied grenades, for example, are precisely engineered to produce a controlled fragmentation pattern and range with a safety radius generally less than the distance the soldier can throw the grenade. This theoretically always places him outside of the kill-zone of his own grenade if he can not seek cover; however, he is still well-advised to minimize his exposure. Grenades of this construction have resulted in what is commonly referred to as the offensive/defensive type.

e. (U) Other types of special purpose hand grenades with self-explanatory usages include antitank/antivehicular, smoke, incendiary, illumination, lacrimatory (tear agent), signal, riot control, etc. The design, fuzing, and use of these grenades may differ rather widely but most countries of the world have these grenades in their inventories.

f. (U) Rifle grenades also vary greatly in design but follow the same basic categories found in hand grenades. The only possible exception is the distinction between offensive and defensive antipersonnel rifle grenades. Because they are projected well beyond their fragmentation range, which eliminates the possibility of injury to the soldier launching them, very few offensive, or blast, rifle grenades exist. Most antipersonnel rifle grenades are, therefore, classed as fragmentation grenades. Most rifle grenades are made of components designed strictly for that purpose. Some rifle grenades, however, combine hand grenade bodies with add-on tail boom assemblies. Only a few examples of this type are covered as rifle grenades in this handbook because of their similarity to the hand grenade, which is already covered.

g. (U) Most modern rifle grenades are designed to slip over the weapon's existing muzzle or flash suppressor thus eliminating the need for a special adapter. The use of bullet traps or bullet-thru designs have also eliminated the need for a special blank launching cartridge. The goal of these changes is to decrease the logistical requirements to employ rifle grenades and to increase the individual soldier's flexibility to convert to and from the use of rifle grenades.

### 3. Grenade Marking Practices (U)

a. (U) The number of variations in color codes and marking practices for grenades is almost as large as the number of different grenades. Practices and styles differ from country to country and, over the passage of time, even within the same country. It is, therefore, not practical to attempt to cover a complete picture of grenade color codes and markings in this document.

b. (U) The base color code for grenades may be used to denote the type of grenade by loading. Many countries use a variety of shades of dark green to indicate explosive or fragmentation loadings. Shades of gray have also been used for the same loading. Similarly, the following base colors are often associated with the these loadings:

Light gray	Smoke, lacrimatory, incendiary
White	Illumination, smoke, riot control, explosive
Yellow	Explosive
Blue	Practice
Dark green	Explosive, illumination, antitank, antivehicle
Light green	Smoke, incendiary

Black	Fragmentation, antivehicle, antiarmor, illumination
Red	Incendiary, explosive
Dark rust	Explosive
Dark gray	Explosive
Brown	Explosive

c. (U) Quite often a colored band (or series of bands) and/or colored markings are associated with the following fillers:

Yellow	Explosive
Brown	Smoke, explosive
White	Illumination, explosive
Red	Incendiary, explosive
Green	Lacrimatory

d. (U) This is not meant to imply that only these colors have been used. It is also not meant to lead one to believe that color codes are a positive form of identification of the loading. There is no international standard for marking practices. For example, many countries use a basic olive drab base color and black markings on a variety of grenade loadings.

e. (U) An even more confusing aspect of markings are the various manufacturer's codes, abbreviations, and lot numbers found on worldwide grenades. Many grenades will show a series of letters and numbers or all numbers that indicate the manufacturing facility, date of manufacture, and specific lot number for that particular item. Unfortunately, there is no standard in the sequencing of these three entries or the method in which they are expressed. Even within one country, the same three entries can be found listed in different sequences.

#### 4. Explanation of Handbook Contents (U)

a. (U) This publication contains, where possible, a photograph or drawing of each grenade discussed. The grenades included represent many countries of the world, but it is not intended to be an all inclusive listing. Many older grenades no longer in production have not been included. Some of the grenades shown, however, while no longer in production were included because they are still encountered.

b. (U) In order to reduce duplicative coverage, grenades copied from other countries designs are included only under the originating country. For example, the Soviet-designed F-1, RKG-3, RGD-5, and RG-42 grenades have been manufactured and adopted by numerous countries of the world. Coverage of these grenades will be only under the former Soviet Union and not, for example, Poland, Hungary, etc. Exceptions to this policy will be those cases where different model numbers were assigned for the grenades, for example China in the case of the previously mentioned grenades.

c. (U) The following format has been used in the preparation of this study:

- Country: (The country of original design and manufacture.)
- Model: (The model number as it is known in the country of origin.)
- Type: (Type by employment, i.e., hand or rifle; and type by loading, i.e., fragmentation, smoke, antitank, etc.)
- Length: (Overall length of the grenade to include the fuze and/or fins.)

- Diameter: (Major diameter of the grenade.)
- Weight: (Weight of the complete grenade.)
- Filler: (Main filler by type and weight.)
- Fuze: (Fuze by type of function. Because of the interchangeability and frequent design changes in fuzes, no attempt was made to list by fuze designator all fuzes known to be used on each grenade.)
- Fuze Delay: (The firing and/or arming delay, as applicable to the particular fuze.)
- Construction: (Details of the design, for example, materials used, number of fragments, and unique design features.)
- Color Code/Markings: (The basic body color of the grenade and the color of the markings found on it.)
- Range/Terminal Effects: (The range of rifle grenades. The typical throwing range of hand grenades (less than 20 meters) is not included. Also included is the performance to be expected of all grenades at the time of functioning.)
- Remarks: (Any specific remarks about the grenade not addressed above.)

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## SECTION II

## HAND AND RIFLE GRENADES (U)

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COUNTRY: Argentina

MODEL: GME-FMK 2 MOD 0

TYPE: Hand, fragmentation

LENGTH: 110 mm (fuzed)

DIAMETER: 50 mm

WEIGHT: 295 g

FILLER: RDX/TNT 79 g

FUZE: Spring-loaded detonator with a fixed firing pin in the base of the fuze.

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Spherical cast steel body. No internal or external serrations. Aluminum fuze body.

COLOR CODE/MARKINGS: Grenade body and fuze are painted olive drab. Markings are in yellow. The cap on the fuze is black with a yellow band around it.

RANGE/TERMINAL EFFECTS: Throwing range 30 to 50 meters. Lethal range 7 meters. Produces more than 850 fragments.

REMARKS: Can be fitted with a tail boom for use as a rifle grenade, designated the GEEF 50.



COUNTRY: Argentina

MODEL: FMK 5 MOD 0

TYPE: Hand, smoke

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 645 g

FILLER: HC smoke mixture

FUZE: Striker release

FUZE DELAY: 1 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 50 s emission time.



COUNTRY: Argentina

MODEL: FMK 5 MOD 1

TYPE: Hand, tear agent

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 465 g

FILLER: CN

FUZE: Striker release

FUZE DELAY: 1 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 15 s emission time



1

COUNTRY: Argentina  
MODEL: FMK 5 MOD 2  
TYPE: Hand, tear agent  
LENGTH: 140 mm  
DIAMETER: 60 mm  
WEIGHT: 465 g  
FILLER: CS  
FUZE: Striker release  
FUZE DELAY: 1 s  
CONSTRUCTION: Cylindrical  
COLOR CODE/MARKINGS: Unknown  
RANGE/TERMINAL EFFECTS: 15 s emission time.



COUNTRY: Argentina

MODEL: GEEF 50

TYPE: Rifle,  
fragmentation

LENGTH: Unknown

DIAMETER: 50 mm

WEIGHT: 480 g

FILLER: RDX/TNT

FUZE: Spring-loaded detonator with a fixed firing pin in the base of the fuze.

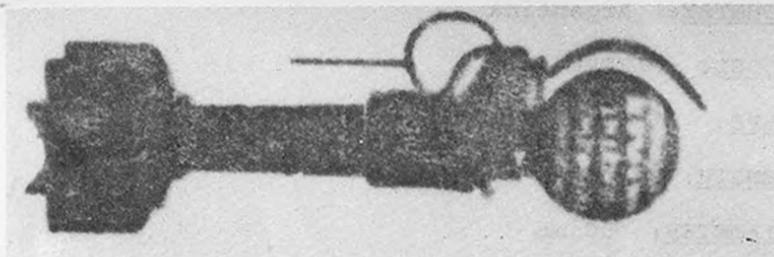
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Spherical cast steel body. No internal or external serrations. Aluminum fuze body and rifle adaptor.

COLOR CODE/MARKINGS: Olive drab with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal range 7 meters. Produces more than 850 fragments. Firing range of between 50 to 170 meters.

REMARKS: A GME FMK 2 MOD. 0 fragmentation grenade affixed to an adaptor.



COUNTRY: Argentina

MODEL: GIEFPF 50

TYPE: Rifle, fragmentation

LENGTH: Unknown

DIAMETER: 50 mm

WEIGHT: 355 g

NO ILLUSTRATION AVAILABLE

FILLER: RDX/TNT

FUZE: Impact

FUZE DELAY: NA

CONSTRUCTION: Steel body

COLOR CODE/MARKINGS: Olive drab with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal range 7 meters. Produces more than 850 fragments.

REMARKS: A GME FMK 2 MOD. 0 fragmentation grenade affixed to an adaptor to allow for rifle launching. The adaptor contains a special impact fuze.

COUNTRY: Argentina

MODEL: PDEF 40 FMK 3 MOD 0

TYPE: Rifle,  
antipersonnel/antitank



LENGTH: 330 mm

DIAMETER: 40 mm

WEIGHT: 508 g

FILLER: RDX/TNT

FUZE: Integral base detonating

FUZE DELAY: NA

CONSTRUCTION: Aluminum ogive. Steel body. Copper cone. Plastic fins.

COLOR CODE/MARKINGS: Olive green body and fins. Black and yellow markings.

RANGE/TERMINAL EFFECTS: Penetrates 125 mm of steel. Secondary fragmentation effect from the steel body.

REMARKS: Launched by a special 7.62x51-mm grenade blank.

COUNTRY: Argentina

MODEL: PAF 62 FMK 1 MOD 0

TYPE: Rifle, antitank

LENGTH: 420 mm

DIAMETER: 62 mm

WEIGHT: 740 g

FILLER: RDX/TNT

FUZE: Integral base detonating

FUZE DELAY: NA

CONSTRUCTION: Aluminum body. Copper cone. Plastic fins.

COLOR CODE/MARKINGS: Olive drab body and fin assembly. Black and yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 350 meters. Penetrates 100 mm of armor.

REMARKS: Launched with a special 7.62x51-mm grenade blank.



COUNTRY: Argentina

MODEL: FMK 9 MOD 0

TYPE: Rifle, smoke

LENGTH: 140 mm

DIAMETER: 60 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 655 g

FILLER: HC smoke mixture

FUZE: Unknown

FUZE DELAY: 2 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 100 to 120 meter maximum range. 50 s emission time.

COUNTRY: Argentina

MODEL: FMK 9 MOD 0

TYPE: Rifle, tear agent

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 475 g

FILLER: CN

FUZE: Unknown

FUZE DELAY: 2 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 100 to 120 meter maximum range. 15 s emission time.

REMARKS: The FMK 5 MOD 1 with an adaptor for rifle launching.

NO ILLUSTRATION AVAILABLE

COUNTRY: Argentina

MODEL: FMK 9 MOD 2

TYPE: Rifle, tear agent

LENGTH: 140 mm

DIAMETER: 60 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 475 g

FILLER: CS

FUZE: Unknown

FUZE DELAY: 2 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 100 to 120 meter maximum range. 15 s emission time.

REMARKS: The FMK 5 MOD 2 grenade with an adaptor for rifle launching.

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COUNTRY: Australia

MODEL: F 1

TYPE: Hand, defensive

LENGTH: 90 mm

DIAMETER: 68 mm

WEIGHT: 370 g

FILLER: RDX, 62 g

FUZE: Striker release

FUZE DELAY: 0.0 to 5 s per customer needs

CONSTRUCTION: Plastic body. Steel balls placed inside the grenade body. Has a wave shaper to optimize the fragmentation pattern.

COLOR CODE/MARKINGS: Olive green with a smooth yellow plastic band and white markings. Yellow band can be removed for camouflage purposes.

RANGE/TERMINAL EFFECTS: Throwing range of over 35 meters. Lethal radius of 6 meters and a casualty radius of 15 meters. Safety radius of 30 meters.

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation. Also carries the designation ADI-MK 2.



COUNTRY: Australia

MODEL: Unknown

TYPE: Hand, offensive

LENGTH: 90 mm

DIAMETER: 68 mm

WEIGHT: 220 g

FILLER: RDX

FUZE: Striker release

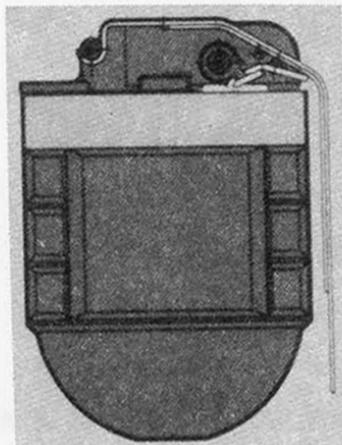
FUZE DELAY: 0.0 to 5 s per customer needs.

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Olive green with a serrated yellow plastic band and white markings. Yellow band can be removed for camouflage purposes.

RANGE/TERMINAL EFFECTS: Can be thrown approximately 35 meters.

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation.



COUNTRY: Australia

MODEL: F 2

TYPE: Hand, smoke

LENGTH: 125 mm

DIAMETER: 63 mm

WEIGHT: 525 g

FILLER: Smoke mixture, 275 g

FUZE: Striker release

FUZE DELAY: Normally 0.5 s

CONSTRUCTION: Aluminum body.

COLOR CODE/MARKINGS: Light green with black markings. Colored disks corresponding to the smoke color cover the emission holes on the top of the grenade body.

RANGE/TERMINAL EFFECTS: Smoke emission time ranges from 15 to 100 s depending on customer requirements.

REMARKS: Fuze can be replaced by the F1A1 demolition firing device to permit emplacement for pressure, pressure release, or tension release methods of initiation as a boobytrap. Available in red, blue, green, yellow, yellow-orange, and orange.



COUNTRY: Australia

MODEL: Unknown

TYPE: Hand, colored smoke

LENGTH: 110 mm

DIAMETER: 68 mm

WEIGHT: 220 g

FILLER: Smoke mixture

FUZE: Striker release

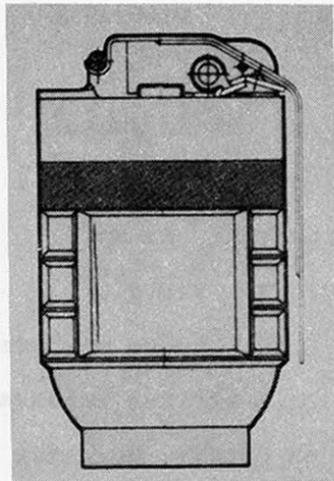
FUZE DELAY: 0.0 to 5 s per customer needs.

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation.



COUNTRY: Australia

MODEL: Unknown

TYPE: Hand, white phosphorous

LENGTH: 110 mm

DIAMETER: 68 mm

WEIGHT: 220 mm

FILLER: White phosphorous

FUZE: Striker release

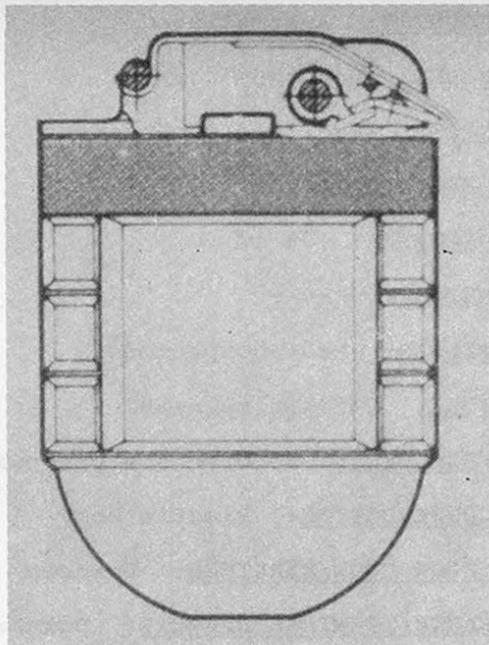
FUZE DELAY: 0.0 to 5 s per customer needs

CONSTRUCTION: Plastic body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation.



COUNTRY: Australia

MODEL: Unknown

TYPE: Hand, red phosphorous

LENGTH: 110 mm

DIAMETER: 68 mm

WEIGHT: 220 g

FILLER: Red phosphorous

FUZE: Striker release

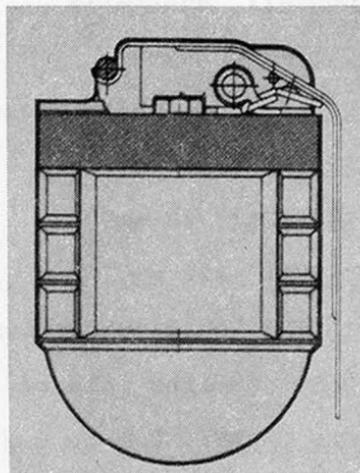
FUZE DELAY: 0.0 to 5 s per customer needs

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation. For use in hot tropical climates because of its high melting point of 650° C (compared to 41° C for white phosphorous).



COUNTRY: Australia

MODEL: Unknown

TYPE: Hand, incendiary

LENGTH: 110 mm

DIAMETER: 68 mm

WEIGHT: 370 g

FILLER: Thermite mixture

FUZE: Striker release

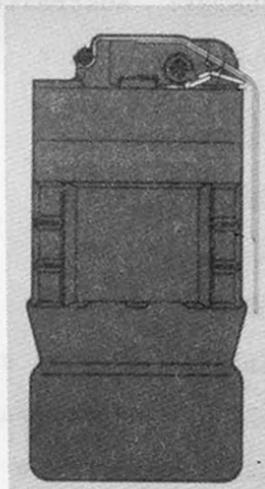
FUZE DELAY: 0.0 to 5 s per customer needs

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be used with the F1A1 demolition firing device as a boobytrap with pressure, pressure release, or tension release methods of initiation. The grenade is fit with a flotation device so that it can be used to ignite fuel.



COUNTRY: Australia

MODEL: ADI-MK 4

TYPE: Rifle,  
fragmentation

LENGTH: 265 mm

DIAMETER: 68 mm

WEIGHT: 615 g

FILLER: RDX, 62 g

FUZE: Base detonating, impact

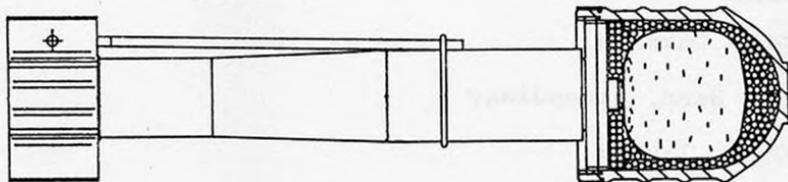
FUZE DELAY: None

CONSTRUCTION: Plastic grenade body and tail fins. Aluminum tail boom. The fuze is located in the tail boom.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: The range is approximately 180 meters. Lethal radius of 15 meters. Safety radius of 30 meters.

REMARKS: Uses the standard F-1 ADI (Australian Defence Industries) grenade with the fuze assembly removed. This rifle grenade adapter can be fit on all of the various ADI family of hand grenades.



## AUSTRIA

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(Reverse Blank)

COUNTRY: Austria

MODEL: SHG 60

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 575 g

FILLER: Plasticized PETN

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece plastic body with four stepped ridges. Approximately 4000 steel balls, each about 2.5 mm in diameter surround the explosives. Plastic fuze body.

COLOR CODE/MARKINGS: Grenade and fuze bodies are olive green.

RANGE/TERMINAL EFFECTS: Lethal radius of about 10 meters.

REMARKS: A wave shaper is present to optimize the fragment dispersion.



COUNTRY: Austria

MODEL: HG PL-61

TYPE: Hand, defensive

LENGTH: 111 mm

DIAMETER: 60 mm

WEIGHT: 540 g

FILLER: Plasticized PETN, 70 g

FUZE: DT-32, striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Textured plastic body with four circumferential ribs. Some grenades were also produced without the textured skin. Approximately 2500 uniform pieces of steel wire are embedded in a plastic liner matrix.

COLOR CODE/MARKINGS: Olive green grenade body. Yellow fuze body. No stenciled markings. "PL-61" is molded into the grenade body.

RANGE/TERMINAL EFFECTS: Danger radius of 12 to 15 meters.



COUNTRY: Austria

MODEL: HdGr 69

TYPE: Hand, defensive

LENGTH: 116 mm

DIAMETER: 60 mm

WEIGHT: 485 g

FILLER: Plasticized PETN, 65 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Textured plastic body with four circumferential ribs. Approximately 3500 steel pellets with diameters ranging from 2.5 to 3 mm are embedded in a plastic liner. Plastic fuze body.

COLOR CODE/MARKINGS: Olive green grenade body. Yellow fuze body. No stenciled markings on the grenade body. "HdGR69" and "ARGES" are embossed into the grenade body.

RANGE/TERMINAL EFFECTS: Lethal radius of 10 meters. Safety radius of 20 meters.

REMARKS: No longer in production in Austria; is produced in Malaysia.



COUNTRY: Austria

MODEL: HdGr O 69

TYPE: Hand, offensive

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 220 g

FILLER: Plasticized PETN, 65 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Smooth plastic body. No fragments.  
Plastic fuze body.

COLOR CODE/MARKINGS: Olive green grenade body. Yellow fuze body. "HdGr O 69" and "ARGES" embossed on the grenade body.

RANGE/TERMINAL EFFECTS: No fragmentation hazard except for fuze parts. Blast damage at short ranges.



COUNTRY: Austria

MODEL: HdGr 72

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 485 g

FILLER: Plasticized PETN, 65 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Textured plastic grenade body with four circumferential ribs. About 3500 steel balls, each with a diameter ranging from 2.5 to 3 mm, are embedded in a plastic liner.

COLOR CODE/MARKINGS: Both the grenade and fuze bodies are olive green. There are no stenciled markings on the grenade body. "HdGr/72" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: Danger radius of 10 meters.



COUNTRY: Austria

MODEL: HdGr O 73

TYPE: Hand, offensive

LENGTH: 92 mm

DIAMETER: 57 mm

WEIGHT: 150 g

FILLER: Plasticized PETN, 40 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Textured plastic grenade body. No fragments present.

COLOR CODE/MARKINGS: Both the grenade and fuze bodies are olive green. There are no stenciled markings on the grenade body. "HdGr O 73" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: Blast damage occurs at short ranges. No lethal fragments except for fuze parts at close ranges.



COUNTRY: Austria

MODEL: HdGr 73

TYPE: Hand, defensive

LENGTH: 91 mm

DIAMETER: 57 mm

WEIGHT: 355 g

FILLER: Plasticized PETN, 37 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Plastic grenade body with a series of raised ridges that divide the surface into a series of rectangles. An inner plastic liner contains approximately 2600 steel pellets ranging in size from 2.5 to 3 mm in diameter.

COLOR CODE/MARKINGS: The grenade and fuze bodies are olive green. There are no stenciled markings. "HdGr 73" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: 10 meter danger radius.



COUNTRY: Austria

MODEL: Spl HGr 77

TYPE: Hand, defensive

LENGTH: 96 mm

DIAMETER: 63 mm

WEIGHT: 470 g

FILLER: Plasticized PETN, 70 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body divided into rectangular patterns by raised ridges. A plastic liner contains approximately 5500 steel pellets ranging in size from 2 to 2.3 mm.

COLOR CODE/MARKINGS: The grenade and fuze bodies are both olive green.

RANGE/TERMINAL EFFECTS: Danger radius thought to be 10 to 12 meters.

REMARKS: An offensive version can be produced if a need arises.



COUNTRY: Austria

MODEL: HdGr 78

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 520 g

FILLER: Plasticized PETN, 70 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Textured plastic grenade body with four circumferential ribs. A plastic liner contains approximately 6500 steel pellets ranging from 2 to 2.3 mm in diameter.

COLOR CODE/MARKINGS: The grenade and fuze bodies are olive green. There are no stenciled markings. "HdGr 78" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The grenade contains a "wave shaper" which the manufacturer claims will increase the overall effectiveness considerably.



COUNTRY: Austria

MODEL: HGr O 79

TYPE: Hand, offensive

LENGTH: 95 mm

DIAMETER: 57 mm

WEIGHT: Unknown

FILLER: Plasticized PETN, 40 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Textured plastic grenade body. No fragments present.

COLOR CODE/MARKINGS: The bodies of the grenade and fuze are olive green. There are no stenciled markings on the grenade body. "Spl HGr O 79" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: There is no fragmentation hazard except for fuze components. Blast damage will occur at short ranges.



COUNTRY: Austria

MODEL: HGr 79

TYPE: Hand, defensive

LENGTH: 96 mm

DIAMETER: 58 mm

WEIGHT: 370 g

FILLER: Plasticized PETN, 45 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with a series of raised ridges creating a rectangular surface pattern. An inner plastic liner contains approximately 4000 steel balls ranging in size from 2 to 2.3 mm in diameter.

COLOR CODE/MARKINGS: The bodies of both the grenade and the fuze are olive green. There are no stenciled markings on the grenade body. "Spl HGr 70" and "ARGES" are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Austria

MODEL: HdGr 80

TYPE: Hand, mini, defensive

LENGTH: 76 mm

DIAMETER: 40 mm

WEIGHT: 223 g

FILLER: Plasticized PETN, 13 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with either three circumferential ribs or a pattern of rectangles created by a series of raised ridges. A plastic liner contains approximately 1300 steel balls ranging in diameter from 2 to 2.3 mm.

COLOR CODE/MARKINGS: Both the grenade and fuze bodies are olive green. There are no stenciled or raised markings on the grenade body.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: NOTE: The illustration shows the grenade resting on a display plate, which is not a part of the grenade itself.



COUNTRY: Austria

MODEL: Spl HGr 80

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 585 g

FILLER: Plasticized PETN, 75 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic grenade body with five stepped ridges. Approximately 4000 steel balls are embedded in the plastic body. Plastic fuze body.

COLOR CODE/MARKINGS: The grenade and fuze bodies are olive green. No known markings.

RANGE/TERMINAL EFFECTS: 10-meter lethal radius; -100-meter safety radius

REMARKS: This grenade has also carried the designation EHG (explosive hand grenade).



COUNTRY: Austria

MODEL: Spl HGr 84

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 61 mm

WEIGHT: 490 g

FILLER: Plasticized PETN, 96 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Smooth plastic grenade body with four circumferential ridges. Approximately 5000 steel balls with diameters ranging from 2 to 2.3 mm are embedded in a plastic liner. The fuze body is plastic.

COLOR CODE/MARKINGS: The grenade and fuze bodies are olive green. "Spl HGr 84" and "ARGES" are embossed on the grenade body. There are no stencilled markings.

RANGE/TERMINAL EFFECTS: Danger radius of 10 meters.

REMARKS: Improved version of the HdGr 78.



COUNTRY: Austria

MODEL: Spl HGr O 84

TYPE: Hand, offensive

LENGTH: 115 mm

DIAMETER: 61 mm

WEIGHT: Unknown

FILLER: Plasticized PETN

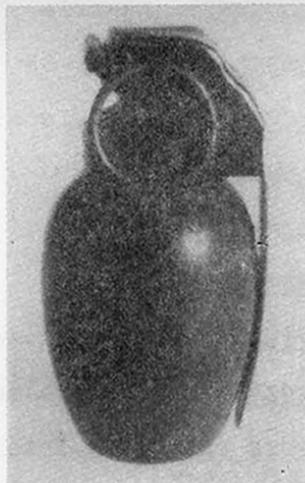
FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Smooth plastic body without ridges. No fragments present. Plastic fuze body.

COLOR CODE/MARKINGS: Grenade and fuze bodies are olive green. There are no stencilled markings on the grenade body. The manufacturer's name and grenade designator are embossed on the grenade body.

RANGE/TERMINAL EFFECTS: No fragment hazard except from fuze components. Blast damage at short range.



COUNTRY: Austria

MODEL: Spl HGr 85

TYPE: Hand, defensive

LENGTH: 96 mm

DIAMETER: 57 mm

WEIGHT: 350 g

FILLER: Plasticized PETN, 50 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with a series of ridges dividing the surface into a rectangular pattern. A plastic liner has approximately 3500 steel balls, ranging in diameter from 2 to 2.3 mm, embedded in it. The fuze body is plastic.

COLOR CODE/MARKINGS: Both the grenade and fuze bodies are olive green.

RANGE/TERMINAL EFFECTS: Danger radius of 10 meters.

REMARKS: Improved version of the HGr 79.



COUNTRY: Austria

MODEL: Spl HGr O 85

TYPE: Hand, offensive

LENGTH: 96 mm

DIAMETER: 57 mm

WEIGHT: 350 g

FILLER: Plasticized PETN

FUZE: Striker release

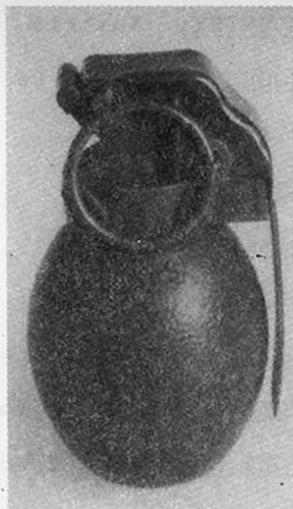
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with a textured surface and no ridges. No fragments. Plastic fuze body.

COLOR CODE/MARKINGS: The grenade and fuze bodies are olive green. There are no stencilled markings on the grenade body. The manufacturer's name and grenade model number are embossed in the grenade body.

RANGE/TERMINAL EFFECTS: No fragment hazard except from fuze components. Blast damage at short ranges.

REMARKS: Improved HGr O 79.



COUNTRY: Austria

MODEL: Spl HGr 86

TYPE: Hand, mini, defensive

LENGTH: 77 mm

DIAMETER: 43 mm

WEIGHT: 180 g

FILLER: Plasticized PETN, 17 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with a series of ridges creating a pattern of rectangles on the surface. Approximately 1600 steel balls ranging in size from 2 to 2.3 mm embedded in a plastic liner. The fuze body is plastic.

COLOR CODE/MARKINGS: The fuze and grenade bodies are olive green. Black stenciled markings include the manufacturer's name and grenade designator.

RANGE/TERMINAL EFFECTS: Danger radius of approximately 10 meters.

REMARKS: Improved HdGr 80. Also supplied in a smooth skinned offensive version.



COUNTRY: Austria

MODEL: SHG

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 62 mm

WEIGHT: 580 g

FILLER: Plasticized PETN or Composition B, 60 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Approximately 4500 steel balls with a diameter of about 2.3 mm are embedded in the two-piece plastic grenade body. The fuze body is plastic.

COLOR CODE/MARKINGS: The bodies of the grenade and fuze are olive green.

RANGE/TERMINAL EFFECTS: Danger radius of about 20 meters.

REMARKS: The grenade contains a wave shaper to optimize the explosive wave and the fragmentation pattern.



COUNTRY: Austria

MODEL: Nwk 60

TYPE: Hand, smoke

LENGTH: 109 mm

DIAMETER: 75 mm

WEIGHT: 751 g

FILLER: HC smoke mixture

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Olive green grenade body with yellow markings.

RANGE/TERMINAL EFFECTS: Burn time of approximately 150 s.



COUNTRY: Austria

MODEL: HC-75

TYPE: Hand, smoke

LENGTH: 108 mm

DIAMETER: 73 mm

WEIGHT: 570 g

FILLER: HC smoke mixture

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Light green body. Gray label with black markings.

RANGE/TERMINAL EFFECTS: Smoke generation time of approximately 120 s.



COUNTRY: Austria

MODEL: IHG

TYPE: Hand, incendiary

LENGTH: 135 mm

DIAMETER: 67 mm

WEIGHT: 320 g

FILLER: Red phosphorous, 260 g

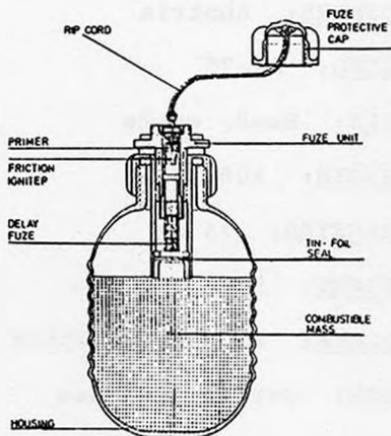
FUZE: Pull friction

FUZE DELAY: 1.5 to 2.5 s

CONSTRUCTION: Plastic grenade body with a series of circumferential ridges and grooves.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Burning temperature of about 1200° C



COUNTRY: Austria

MODEL: LHG 40

TYPE: Hand, illuminating

LENGTH: 145 mm

DIAMETER: 57 mm

WEIGHT: 500 g

FILLER: Illumination mixture

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: 35 to 45-s burn time. Illuminates a 300-meter diameter circular area to 280 000 cd. Both yellow and white illumination colors are available.



COUNTRY: Austria

MODEL: RzStoWfKpr 85

TYPE: Hand, tear agent

LENGTH: 145 mm

DIAMETER: 60 mm

WEIGHT: 340 g

FILLER: CN

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Gray body with a red band and red markings.

RANGE/TERMINAL EFFECTS: Burn time of approximately 120 seconds.



COUNTRY: Austria

MODEL: SGG 84

TYPE: Rifle, fragmentation

LENGTH: 260 mm

DIAMETER: 78 mm

WEIGHT: 650 g

FILLER: Plasticized PETN, 96 g

FUZE: Striker release

FUZE DELAY: 5 to 7 s

CONSTRUCTION: Spl HGr 84 mounted in an adaptor. Smooth plastic grenade body with four circumferential ridges. Approximately 5000 steel balls with diameters ranging from 2 to 2.3 mm embedded in a plastic liner. The fuze body is plastic.

COLOR CODE/MARKINGS: The bodies of the grenade and fuze are olive green. "Spl HGr 84" and "ARGES" are embossed on the grenade body. There are no stencilled markings on the grenade body. The adaptor is olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 200 meters with a 7.62x51-mm rifle or 135 meters with a 5.56x45-mm rifle.

REMARKS: Fuze delay longer to permit longer ranges. Uses blank cartridge.



COUNTRY: Austria

MODEL: SGG 85

TYPE: Rifle, fragmentation

LENGTH: 245 mm

DIAMETER: 71 mm

WEIGHT: 495 g

FILLER: Plasticized PETN, 50 g

FUZE: Striker release

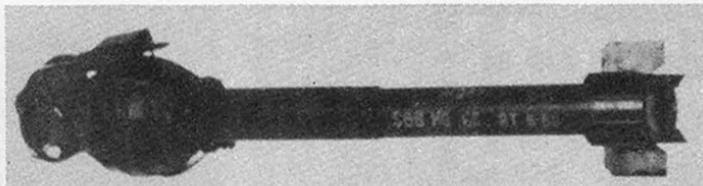
FUZE DELAY: 5 to 7 s

CONSTRUCTION: Plastic grenade body with ridges creating a pattern of rectangles. About 3500 steel balls (2 to 2.3 mm diameter) embedded in the body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 250 meters from a 7.62x51-mm rifle or 200 meters from a 5.56x45-mm rifle. A booster in the adaptor for the 5.56x45-mm rifle increases the range to 220 meters. Danger radius of about 10 meters.

REMARKS: Spl HGr 85 grenade with an adaptor (with or without a bullet trap).



COUNTRY: Austria

MODEL: SGG 86

TYPE: Rifle, fragmentation

LENGTH: 220 mm

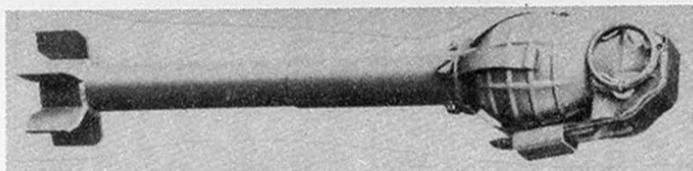
DIAMETER: 61 mm

WEIGHT: 295 g

FILLER: Plasticized PETN, 17 g

FUZE: Striker release

FUZE DELAY: 5 to 7 s



CONSTRUCTION: Plastic grenade body with rectangular pattern of ridges. About 1600 steel balls (2- to 2.3-mm diameter) embedded in a plastic liner.

COLOR CODE/MARKINGS: The fuze and grenade bodies are olive green. Stenciled markings should include the manufacturer's name and grenade designator.

RANGE/TERMINAL EFFECTS: 380 meter maximum range from a 7.62x51-mm rifle or 280 meters from a 5.56x45-mm rifle. A booster in the adaptor for the 5.56x45-mm rifle increases the range to 300 meters. 10 meter danger radius.

REMARKS: The Spl HGr 86 mounted in an adaptor. Can be provided with or without a bullet trap and a booster.

(Reverse Blank)

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COUNTRY: Belgium

MODEL: NR 7

TYPE: Hand, offensive

LENGTH: 110 mm

DIAMETER: 50 mm

WEIGHT: 157 g

FILLER: TNT, 78 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Plastic grenade body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: No fragments produce except those from fuze components. Blast damage at short ranges.

REMARKS: This body is used with a fragmentation sleeve to create the NR-8 defensive grenade. Also designated the PRB-7 or "Polyvalent" grenade.



COUNTRY: Belgium

MODEL: NR 8

TYPE: Hand, defensive

LENGTH: 114 mm

DIAMETER: 48 mm

WEIGHT: 455 g

FILLER: TNT, 78 g

FUZE: Striker release

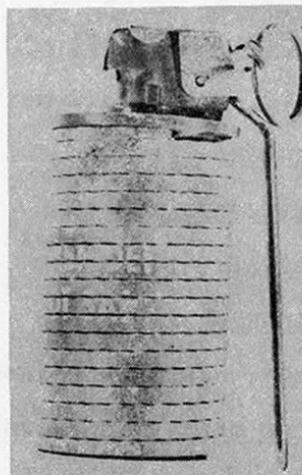
FUZE DELAY: Unknown

CONSTRUCTION: Plastic bodied grenade with an external slide-on fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The NR 7 offensive grenade with a fragmentation sleeve. Also designated the PRB-8 or "Polyvalent" grenade.



COUNTRY: Belgium

MODEL: M62BG

TYPE: Hand, offensive

LENGTH: 97 mm

DIAMETER: 49 mm

WEIGHT: Unknown

FILLER: TNT/saltpeter, 50 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Sheet metal

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: No lethal fragments except for possible fuze components. Blast damage at short ranges.



COUNTRY: Belgium

MODEL: M63BG

TYPE: Hand, defensive

LENGTH: 95 mm

DIAMETER: 49 mm

WEIGHT: 621 g

FILLER: TNT/saltpeter, 50 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Preserrated steel body.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Belgium

MODEL: FRAG-C M72

TYPE: Hand, fragmentation

LENGTH: 75 mm

DIAMETER: 50 mm

WEIGHT: 230 g

FILLER: Composition B, 60 g

FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Plastic body with approximately 900 preformed fragments surrounding the explosive charge.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Lethal radius of 9.5 meters. Safety radius of 20 meters.

REMARKS: An offensive version without preformed fragments can be provided by the manufacturer.



COUNTRY: Belgium

MODEL: PRB-103

TYPE: Hand, offensive

LENGTH: 151 mm

DIAMETER: 40 mm

WEIGHT: 243 g

FILLER: TNT, 80 g

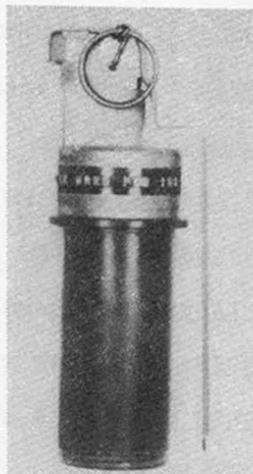
FUZE: Impact

FUZE DELAY: 1 to 1.5 s (arming delay)

CONSTRUCTION: Plastic body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: No lethal fragments except for fuze components.  
Blast damage at short ranges.



COUNTRY: Belgium

MODEL: PRB-103

TYPE: Hand, defensive

LENGTH: 154 mm

DIAMETER: 50 mm

WEIGHT: 563 g

FILLER: TNT, 80 g

FUZE: Impact

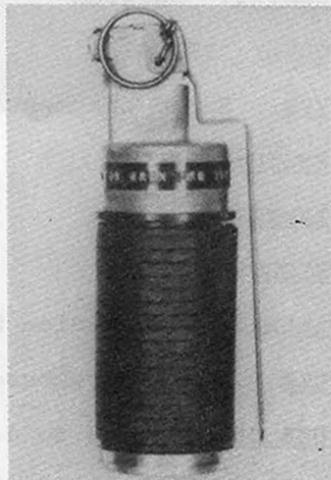
FUZE DELAY: 1 to 1.5 s (arming delay)

CONSTRUCTION: Plastic body with a slip-on fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal radius of 12 meters. Safety radius of 40 meters.

REMARKS: Can be modified for use as a rifle grenade.



COUNTRY: Belgium

MODEL: PRB 423

TYPE: Hand, fragmentation

LENGTH: 82 mm

DIAMETER: 50 mm

WEIGHT: 230 g

FILLER: Composition B, 60 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with the external surface divided in a pattern of rectangles by a series of ridges. Fragmentation liner with approximately 900 steel fragments, each weighing about 0.01 g. Also included in the body are 52 small steel balls each weighing about 1 g.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Lethal radius of 9 meters. Safety radius of 20 meters.



COUNTRY: Belgium

MODEL: PRB 446

TYPE: Hand, offensive

LENGTH: 82 mm

DIAMETER: 50 mm

WEIGHT: 250 g

FILLER: Composition B, 85 g

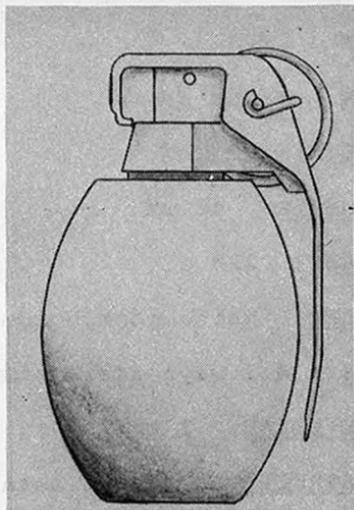
FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Smooth plastic body. Contains no fragments.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Minimal fragments except for fuze components. Blast damage at short ranges.



COUNTRY: Belgium

MODEL: M48

TYPE: Hand, smoke

LENGTH: 111 mm

DIAMETER: 48 mm

WEIGHT: 220 g

FILLER: White phosphorous

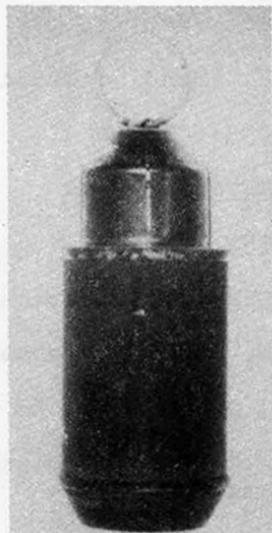
FUZE: All ways acting impact

FUZE DELAY: 2 to 3 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Green with black markings

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Belgium

MODEL: HE-RFL-35 BTU-4,  
M261

TYPE: Rifle, fragmentation

LENGTH: 244 mm

DIAMETER: 35 mm

WEIGHT: 338 g

FILLER: Composition B, 42 g

FUZE: Base detonating

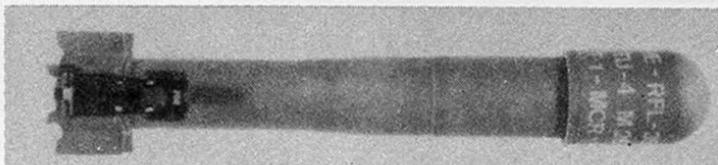
FUZE DELAY: 4 s

CONSTRUCTION: Steel body. Aluminum tail boom and fin assembly.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Designed to penetrate doors, windows, brush, etc. prior to detonation. Maximum range of 300 meters. Lethal radius of 10 meters. Produces over 300 fragments.

REMARKS: Bullet trap present. Also known as the HE-RFL-35 x 40 BTU-4.



COUNTRY: Belgium

MODEL: HE-RFL-35 BTU-4, M261A1

TYPE: Rifle, fragmentation

LENGTH: 259 mm

DIAMETER: 35 mm

WEIGHT: 407 g

FILLER: Composition B, 62.5 g

FUZE: Base detonating

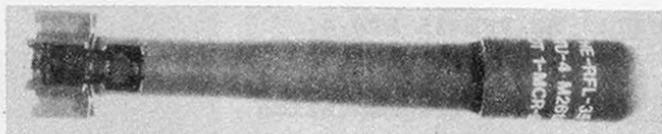
FUZE DELAY: 4 s

CONSTRUCTION: Steel body. Aluminum tail boom and fins assembly.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Effective range of 200 meters. Produces over 300 fragments. Lethal radius of 10 meters.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: HE-RFL-35 BTU, M262

TYPE: Rifle, fragmentation

LENGTH: 288 mm

DIAMETER: 35 mm

WEIGHT: 405 g

FILLER: Composition B, 54.5 g

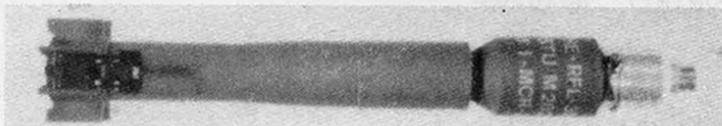
FUZE: Point detonating

FUZE DELAY: None

CONSTRUCTION: Steel body. Aluminum tail boom and fins assembly.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 400 meters. Produces over 300 fragments. Lethal radius of 10 meters. Effective radius of 20 meters.



COUNTRY: Belgium

MODEL: HEAT/APERS-35 BTU  
M263

TYPE: Rifle,  
antivehicle/antipersonnel



LENGTH: 287 mm

DIAMETER: 35 mm

WEIGHT: 438 g

FILLER: Composition A5, 48 g

FUZE: Point initiating, base detonating

FUZE DELAY: None

CONSTRUCTION: Steel body with aluminum tail boom and fin assembly. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 200 meters. Produces over 300 fragments. Lethal radius of 8 meters. Maximum effective radius of 15 meters. Penetration of 65 mm or armor plate or 160 mm of concrete.

REMARKS: Has a bullet trap incorporated.

COUNTRY: Belgium

MODEL: DS-RFL-35 BTU M278

TYPE: Rifle,  
stun/disorientating

LENGTH: 321 mm

DIAMETER: 35 mm

WEIGHT: 360 g

FILLER: Pyrotechnic/flash mixture

FUZE: Pyrotechnic

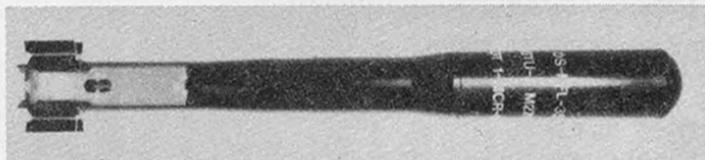
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum and plastic body. Loaded with a black powder expelling charge and three pyrotechnic flash and sound submunitions.

COLOR CODE/MARKINGS: Black with white markings.

RANGE/TERMINAL EFFECTS: Effective range of 150 meters. Expels three submunitions which function to produce a 5 to 10 ms flash of over 5 million cd and a sound level of over 175 dB.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: BULLET THRU  
AP

TYPE: Rifle,  
antipersonnel

LENGTH: 189 mm  
(closed)/290 mm  
(telescoped)

DIAMETER: 39 mm

WEIGHT: 320 g

FILLER: Unknown

FUZE: Impact

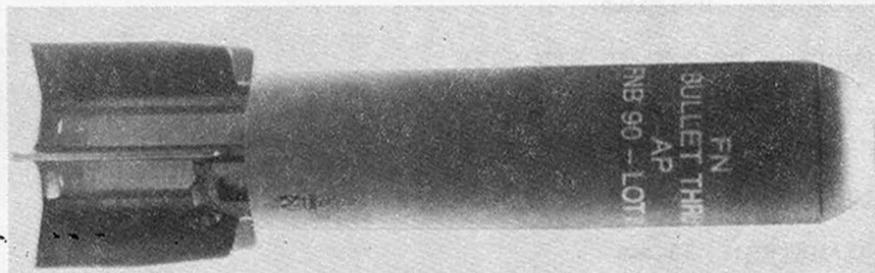
FUZE DELAY: Unknown

CONSTRUCTION: Plastic grenade body. Aluminum fin assembly telescopes into the grenade body for carrying and during flight. A hollow tube along the axis of the grenade allows the bullet to pass through.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range: 7.62x51-mm rifle = 400 meters;  
5.56x45-mm rifle = 300 meters. Lethal radius of 10 meters.

REMARKS: The grenade is manually extended prior to firing.



COUNTRY: Belgium

MODEL: BULLET THRU  
AV

TYPE: Rifle,  
antivehicle

LENGTH: 230 mm

DIAMETER: 42 mm

WEIGHT: 330 g

FILLER: Unknown

FUZE: Impact

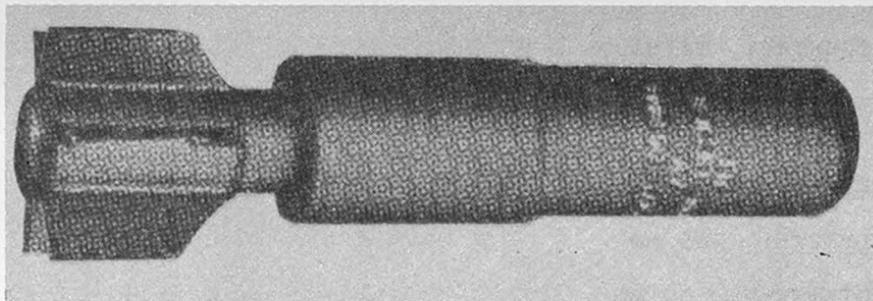
FUZE DELAY: None

CONSTRUCTION: Plastic grenade body. Aluminum boom with plastic fins. A tube along the grenade axis allows the bullet to pass through.

COLOR CODE/MARKINGS: Black with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range: 7.62x51-mm rifle = 175 meters; 5.56x45-mm rifle = 150 mm. Penetration of 120 mm of steel or 220 mm of concrete.

REMARKS: Although a part of the bullet-thru family of grenades, this grenade does not telescope.



COUNTRY: Belgium

MODEL: BULLET THRU  
SMK

TYPE: Rifle, smoke

LENGTH: 265 mm

DIAMETER: 40 mm

WEIGHT: 370 g

FILLER: Smoke mixture

FUZE: Pyrotechnic

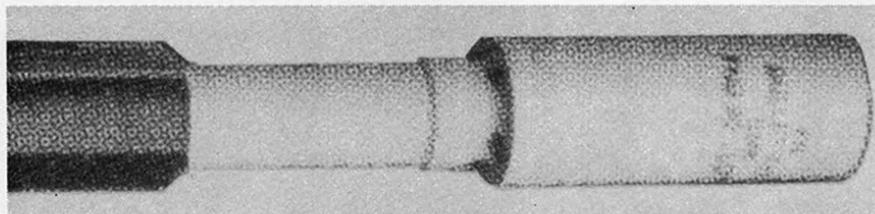
FUZE DELAY: 1.5 s

CONSTRUCTION: Plastic grenade body. Aluminum boom with plastic fins. A tube along the grenade axis allows the bullet to pass through.

COLOR CODE/MARKINGS: Light green with black markings or light green with white markings.

RANGE/TERMINAL EFFECTS: Maximum range: 7.62x51-mm rifle = 300 meters; 5.56x45-mm rifle = 250 meters. Emission time of 70 s.

REMARKS: Although a part of the bullet-thru family of grenades, this grenade does not telescope.



COUNTRY: Belgium

MODEL: BULLET THRU  
ILL

TYPE: Rifle,  
illumination

LENGTH: 298 mm

DIAMETER: 40 mm

WEIGHT: 330 g

FILLER: Illumination mixture

FUZE: Pyrotechnic

FUZE DELAY: 3.5 s

CONSTRUCTION: Plastic grenade body. Aluminum boom with plastic fins. A hollow tube along the axis of the grenade allows the bullet to pass through during launch.

COLOR CODE/MARKINGS: White with black markings.. ..

RANGE/TERMINAL EFFECTS: Burns at an intensity of 80 000 cd for 33 s.

REMARKS: Although a part of the bullet-thru family of grenades, this grenade does not telescope.



COUNTRY: Belgium

MODEL: HE-RFL-35x40 BTU

TYPE: Rifle, fragmentation

LENGTH: 288 mm

DIAMETER: 40 mm

WEIGHT: 387 g

FILLER: Composition B, 54 g

FUZE: Point detonating

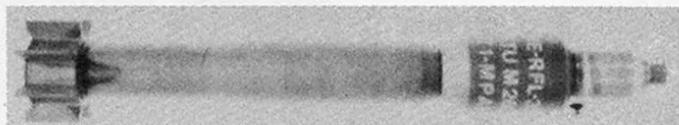
FUZE DELAY: None

CONSTRUCTION: Steel body with aluminum tail boom and fin assembly.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 400 meters. Effective range of 200 meters. Produces over 300 fragments. Lethal radius of 5 meters. Effective radius of 20 meters.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: ARP-RFL-40 BTU, M260

TYPE: Rifle, antiarmor

LENGTH: 330 mm

DIAMETER: 40 mm

WEIGHT: 392 g

FILLER: Composition A3, 64 g

FUZE: Point detonating

FUZE DELAY: None

CONSTRUCTION: Steel grenade body. Aluminum tail boom and fin assembly.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 400 meters. Penetration of 140 mm armor plate or 300 mm of concrete.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: SMK-WP-RFL-40 BTU-4,  
M288

TYPE: Rifle,  
incendiary/smoke

LENGTH: 289 mm

DIAMETER: 40 mm

WEIGHT: 423 g

FILLER: White phosphorous, 128 g

FUZE: Pyrotechnic delay

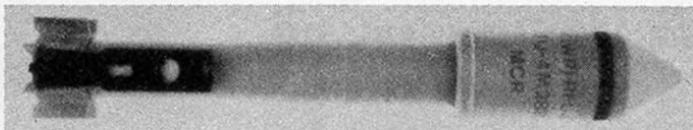
FUZE DELAY: 4 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Light green with a red band and yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Effective range of 200 meters. Disperses burning phosphorous in a 6 meter radius.

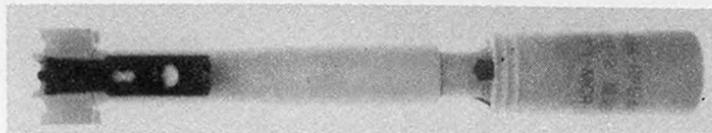
REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: SMK-RFL-40 BTU-2,  
M258

TYPE: Rifle, smoke  
generating



LENGTH: 308 mm

DIAMETER: 40 mm

WEIGHT: 480 g

FILLER: Smoke mixture, 188 g

FUZE: Pyrotechnic

FUZE DELAY: 2 s

CONSTRUCTION: Aluminum body, tail boom and fin assembly.

COLOR CODE/MARKINGS: Light green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Effective range of 200 meters. Smoke duration of 80 s.

REMARKS: Has a bullet trap incorporated.

COUNTRY: Belgium

MODEL: SMK-RFL-40 BTU

TYPE: Rifle, smoke  
generating

LENGTH: 304 mm

DIAMETER: 40 mm

WEIGHT: 456 g

FILLER: Smoke mixture, 175 g

FUZE: Unknown

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body, tail boom and fin assembly.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Effective range of 200 meters. Smoke duration of 80 s. White, red, green, and yellow smoke available.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: PFL-RFL-40 BTU-4,  
M259



TYPE: Rifle, illuminating

LENGTH: 359 mm

DIAMETER: 40 mm

WEIGHT: 450 g

FILLER: Illumination mixture, 65 g

FUZE: Pyrotechnic

FUZE DELAY: 4 s

CONSTRUCTION: Aluminum body, tail boom and fin assembly.

COLOR CODE/MARKINGS: White with black markings.

RANGE/TERMINAL EFFECTS: Height of flare release approximately 85 meters.  
Illuminates for 30 to 35 s at an intensity of 100,000 cd.

REMARKS: Has a bullet trap. Previously known as the PFL-RFL-40 BTU.

COUNTRY: Belgium

MODEL: CS-RFL-40 BTU-2,  
M294



TYPE: Rifle, riot control

LENGTH: 338 mm

DIAMETER: 40 mm

WEIGHT: 410 g

FILLER: CS pellets, 120 g

FUZE: Pyrotechnic

FUZE DELAY: 2 s

CONSTRUCTION: Aluminum body, tail boom and fin assembly.

COLOR CODE/MARKINGS: Gray with red bands and markings.

RANGE/TERMINAL EFFECTS: Effective range of 250 meters (7.62x51-mm rifle) or 175 meters (5.56x45-mm rifle).

REMARKS: Bullet trap present. CS dispersion duration of 30 s. Contains a black powder expelling charge.

COUNTRY: Belgium

MODEL: CN-RFL-40 BTU-2, M295

TYPE: Rifle, riot control

LENGTH: 304 mm

DIAMETER: 40 mm

WEIGHT: 440 g

FILLER: CN pellets, 165 g

FUZE: Pyrotechnic

FUZE DELAY: 2 s

CONSTRUCTION: Aluminum body, tail boom and fin assembly.

COLOR CODE/MARKINGS: Gray with red bands and markings.

RANGE/TERMINAL EFFECTS: Maximum range 150 meters. Emission duration of 30 s.

REMARKS: Has a bullet trap incorporated.



COUNTRY: Belgium

MODEL: AP 1640 S

TYPE: Rifle, antipersonnel

LENGTH: 245 mm

DIAMETER: 45 mm

WEIGHT: 345 g

FILLER: 45 g, type unknown

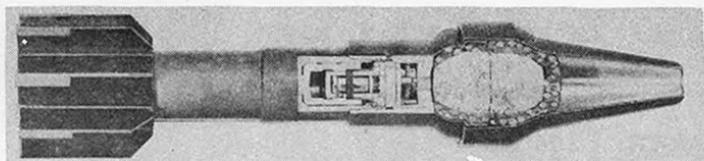
FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Sheet metal body. Aluminum boom and fin assembly. 800 steel pellets surround the explosive charge.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Maximum range of 500 meters. Lethal radius of approximately 8 meters.



COUNTRY: Belgium

MODEL: AP 1640 N

TYPE: Rifle, antipersonnel

LENGTH: 290 mm

DIAMETER: 45 mm

WEIGHT: 360 g

FILLER: 45 g, type unknown

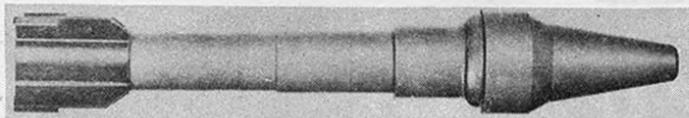
FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Sheet metal body. Aluminum boom and fin assembly contains a bullet trap. 800 steel pellets surround the explosive charge.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Maximum range of 550 meters. Lethal radius of approximately 8 meters.



COUNTRY: Belgium

MODEL: PRB-103  
"Polyvalent"

TYPE: Rifle,  
fragmentation

LENGTH: 296 mm

DIAMETER: 50 mm

WEIGHT: 665 g (as fired)

FILLER: TNT, 80 g

FUZE: Impact

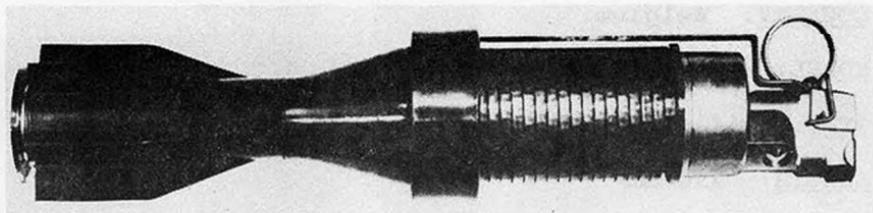
FUZE DELAY: 1 to 1.5 s (arming delay)

CONSTRUCTION: Plastic grenade body with a spiral, pre-engraved steel fragmentation sleeve slipped over it. Plastic tail boom and fin assembly.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 250 to 275 meters. Lethal radius of 12 meters. Safety radius of 40 meters.

REMARKS: The PRB-103 hand grenade with screw-on tail boom and fin assembly.



COUNTRY: Belgium

MODEL: HE-RFL-55 LR BTU,  
M287

TYPE: Rifle, fragmentation,  
long range

LENGTH: 304 mm

DIAMETER: 55 mm

WEIGHT: 790 g

FILLER: TNT, 105 g

FUZE: Point detonating

FUZE DELAY: None

CONSTRUCTION: Steel projectile body. Rocket motor and pop-up fins affixed to the base.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 700 meters. Lethal radius of 15 meters. Effective radius of 30 meters. Produces over 500 fragments.

REMARKS: For use with a 5.56x45-mm rifle. Previously designated the HE-RFL-55 LR BTU.



COUNTRY: Belgium

MODEL: HE-RFL 55 BT 7.62 LR

TYPE: Rifle, fragmentation,  
rocket assisted

LENGTH: 301 mm

DIAMETER: 55 mm

WEIGHT: 825 g

FILLER: Composition B, 158 g

FUZE: Point detonating

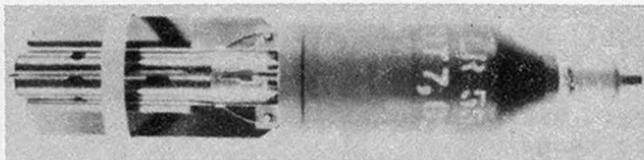
FUZE DELAY: None

CONSTRUCTION: Steel projectile body. Rocket motor and pop-up fins affixed to the base.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 650 meters. Lethal radius of 10 meters. Effective radius of 30 meters.

REMARKS: For use with a 7.62x51-mm rifle. Later designated HE-RFL-55 LR BTU.



COUNTRY: Belgium

MODEL: HE-RFL 55 BT 5.56 LR

TYPE: Rifle, fragmentation,  
rocket assisted

LENGTH: 301 mm

DIAMETER: 55 mm

WEIGHT: 780 g

FILLER: Composition B, 158 g

FUZE: Point detonating

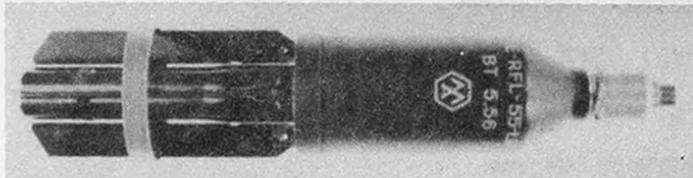
FUZE DELAY: None

CONSTRUCTION: Steel projectile body. Rocket motor and pop-up fins affixed to the base.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 650 meters. Lethal radius of 10 meters. Effective radius of 30 meters.

REMARKS: For use with a 5.56x45-mm rifle. Later designated HE-RFL-55 LR BTU.



COUNTRY: Belgium

MODEL: SMK (WP)-RFL-55-LR BTU M280

TYPE: Rifle, smoke/incendiary

LENGTH: 304 mm

DIAMETER: 55 mm

WEIGHT: 790 g

FILLER: White  
phosphorous

FUZE: Impact

FUZE DELAY: None

CONSTRUCTION: Steel body. Rocket motor and pop-up fins attached to the base.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of about 700 meters.

REMARKS: Has a bullet trap. Extended range grenade.



COUNTRY: Belgium

MODEL: SMK (TTC)-RFL-55-LR BTU M281

TYPE: Rifle, smoke

NO ILLUSTRATION AVAILABLE

LENGTH: 304 mm

DIAMETER: 55 mm

WEIGHT: 790 g

FILLER: Titanium tetrachloride

FUZE: Impact

FUZE DELAY: None

CONSTRUCTION: Steel body. Rocket motor and pop-up fins attached to the base.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of about 700 meters.

REMARKS: Identical to the SMK (WP)-RFL-55-LR BTU M280/rifle grenade except for the filler. Has a bullet trap. Extended range grenade.

COUNTRY: Belgium

MODEL: ILLUM-RFL-55 BTU M297

TYPE: Rifle, illumination

LENGTH: 321 mm

DIAMETER: 55 mm

WEIGHT: 790 g

FILLER: Illumination mixture

FUZE: Pyrotechnic delay

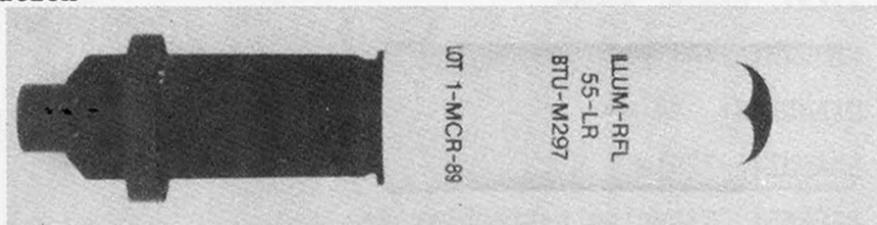
FUZE DELAY: Unknown

CONSTRUCTION: Steel body. Rocket motor and pop-up fins attached to the base.

COLOR CODE/MARKINGS: White with black markings.

RANGE/TERMINAL EFFECTS: Maximum range of about 550 meters. Illuminates an area of about 300 meters in diameter for about 30 seconds at a peak intensity of 200 000 candelas

REMARKS: Has a bullet trap. Extended range grenade.



COUNTRY: Belgium

MODEL: 58 AP-AV-N and 58  
AP-AV-S

TYPE: Rifle, antipersonnel,  
antivehicle

LENGTH: 380 mm

DIAMETER: 58 mm

WEIGHT: 557 g (58 AP-AV-N)  
515 g (58 AP-AV-S)

FILLER: Unknown

FUZE: Base detonating

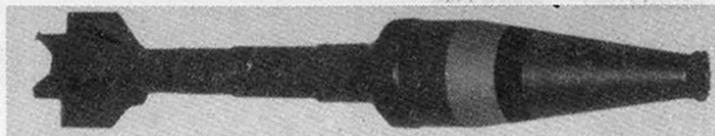
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and tail boom assembly. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with a black over yellow band.

RANGE/TERMINAL EFFECTS: Lethal personnel radius of 15 meters. Average armor plate penetration of 40 mm.

REMARKS: The "N" in the designator signifies use with a 5.56x45-mm rifle (has a bullet trap), while the "S" denotes use with a 7.62x51-mm rifle (no bullet trap). Serrated tip to ensure the fuze functions at high incidence angles.



COUNTRY: Belgium

MODEL: 58 AC-N and 58 AC-S

TYPE: Rifle, antitank

LENGTH: 385 mm

DIAMETER: 58 mm

WEIGHT: 537 g (58 AC-N)  
502 g (58 AC-S)

FILLER: Unknown

FUZE: Base detonating

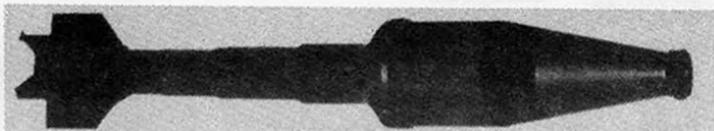
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and tail boom assembly. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with a black band.

RANGE/TERMINAL EFFECTS: Maximum effective range of 80 to 100 meters. Penetration of 250 mm of armor plate (at 0°) or 1100 mm of concrete.

REMARKS: The "N" in the designator signifies use with a 5.56x45-mm rifle (has a bullet trap), while the "S" denotes use with a 7.62x51-mm rifle (no bullet trap). Serrated tip ensures the fuze functions at high incidence angles.



COUNTRY: Belgium

MODEL: 58 FUM-N and 58 FUM-S

TYPE: Rifle, smoke

LENGTH: 380 mm

DIAMETER: 58 mm

WEIGHT: 500 g (58 AP-AV-N)  
470 g (58 AP-AV-S)

FILLER: Titanium tetrachloride

FUZE: Base detonating

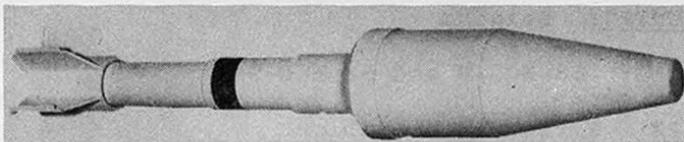
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and tail boom assembly.

COLOR CODE/MARKINGS: White body with a brown band on the boom assembly.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Smoke duration of 30 s.

REMARKS: The "N" in the designator signifies use with a 5.56x45-mm rifle (has a bullet trap). The "S" denotes use with a 7.62x51-mm rifle (no bullet trap).



COUNTRY: Belgium

MODEL: 58 ECL-N and 58 ECL-S

TYPE: Rifle, illumination

LENGTH: Unknown

DIAMETER: 58 mm

WEIGHT: 500 g (58 AP-AV-N)  
470 g (58 AP-AV-S)

FILLER: Illumination mixture

FUZE: Pyrotechnic

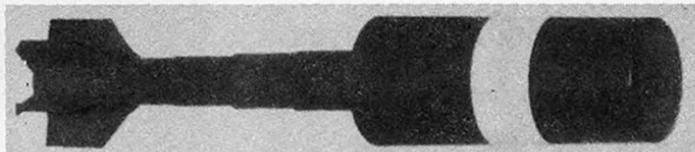
FUZE DELAY: 3.5 s

CONSTRUCTION: Aluminum body and tail boom assembly.

COLOR CODE/MARKINGS: Olive green body with a white band. Light brown band on the boom assembly.

RANGE/TERMINAL EFFECTS: Maximum range of 250 meters.

REMARKS: The "N" in the designator signifies use with a 5.56x45-mm rifle (has a bullet trap). The "S" denotes use with a 7.62x51-mm rifle (no bullet trap).



COUNTRY: Belgium

MODEL: HE-RFL-60 JET HP

TYPE: Rifle, fragmentation,  
rocket assisted

LENGTH: 300 mm

DIAMETER: 60 mm

WEIGHT: 515 g

FILLER: Composition B, 150 g

FUZE: Point detonating

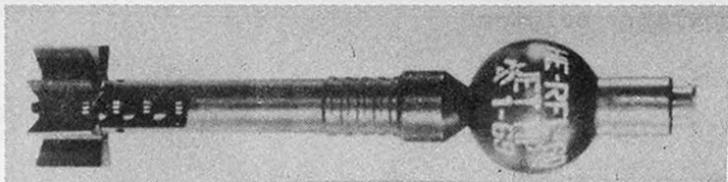
FUZE DELAY: None

CONSTRUCTION: Steel body with internal serrations. Aluminum boom and tail assembly.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 650 meters. A lethal radius of 8 meters. Maximum effective radius of 50 meters. Produces over 500 fragments.

REMARKS: Contains a built-in rocket motor with 13.7 g of double-base propellant. Also designated the HE RFL-60 N.



COUNTRY: Belgium

MODEL: 65AC 28R2

TYPE: Rifle, antitank

LENGTH: 420 mm

DIAMETER: 65 mm

WEIGHT: 735 g

FILLER: Unknown

FUZE: Base detonating

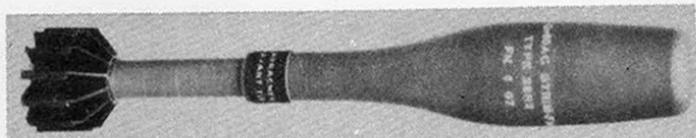
FUZE DELAY: None

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 120 meters. Penetration of 300 mm of armor plate.

REMARKS: Uses special grenade blank cartridge.



COUNTRY: Belgium

MODEL: HEAT-RFL-73 N

TYPE: Rifle, antitank

LENGTH: 367 mm

DIAMETER: 73 mm

WEIGHT: 725 g

FILLER: PETN, 379 g

FUZE: Point detonating, spit-back

FUZE DELAY: None

CONSTRUCTION: Aluminum body, tail boom and fins. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 260 meters. Effective range of 100 meters against a moving target or 150 meters against a stationary target. Penetration of 300 mm of armor plate or over 600 mm of concrete.



COUNTRY: Belgium

MODEL: ENERGA  
HEAT-RFL-75-N

TYPE: Rifle, antitank

LENGTH: 376 mm

DIAMETER: 75 mm

WEIGHT: 655 g

FILLER: PETN, 328 g

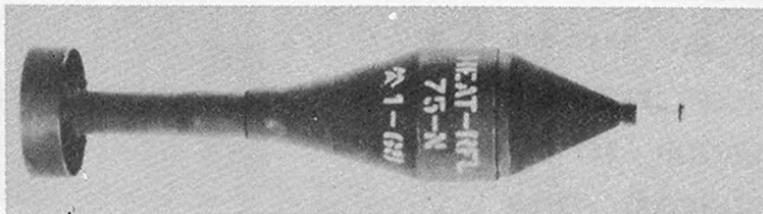
FUZE: Point detonating

FUZE DELAY: Superquick

CONSTRUCTION: Aluminum body and tail boom assembly. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 100 meters. Maximum range of 260-275 meters. Will penetrate 275 mm of armor plate or 600 mm of concrete.



COUNTRY: Belgium

MODEL: HEAT-RFL-75 JET HP

TYPE: Rifle, antitank,  
rocket-assisted

LENGTH: 421 mm

DIAMETER: 75 mm

WEIGHT: 660 g

FILLER: PETN, 300 g

FUZE: Point detonating

FUZE DELAY: Superquick

CONSTRUCTION: Aluminum grenade body. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 200 meters. Maximum range of 550 meters. Penetration of 275 mm of armor plate or 600 mm of concrete.

REMARKS: Rocket motor burns for approximately 50 ms.



COUNTRY: Belgium

MODEL: HEAT-RFL-75UV

TYPE: Rifle, antitank

LENGTH: 382 mm

DIAMETER: 75 mm

WEIGHT: 685 g

FILLER: Unknown

FUZE: Point initiating, base detonating

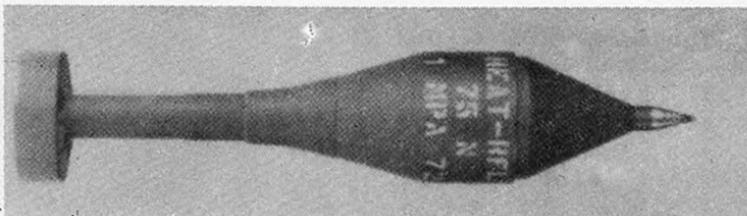
FUZE DELAY: None

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 260 meters. Effective range of 75 meters against a moving target and 100 meters against a fixed target. Penetration of 275 mm of armor plate or 600 mm of concrete.

REMARKS: Uses a special blank cartridge for launching.



COUNTRY: Belgium

MODEL: AR-RFL-75

TYPE: Rifle, anti-riot

LENGTH: 222 mm

DIAMETER: 75 mm

WEIGHT: 300 g

FILLER: NA

FUZE: NA

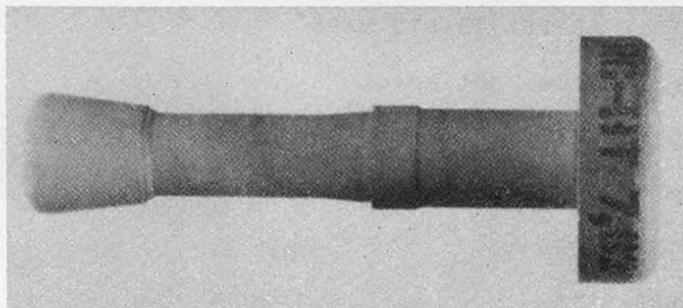
FUZE DELAY: NA

CONSTRUCTION: Rubber nose section.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 150 meters. Effective range of about 75 meters.

REMARKS: Non-lethal. Has a bullet trap.



COUNTRY: Belgium

MODEL: AR-RFL-75 BTU M296

TYPE: Rifle, anti-riot

LENGTH: 175 mm

DIAMETER: 75 mm

WEIGHT: 320 g

FILLER: NA

FUZE: NA

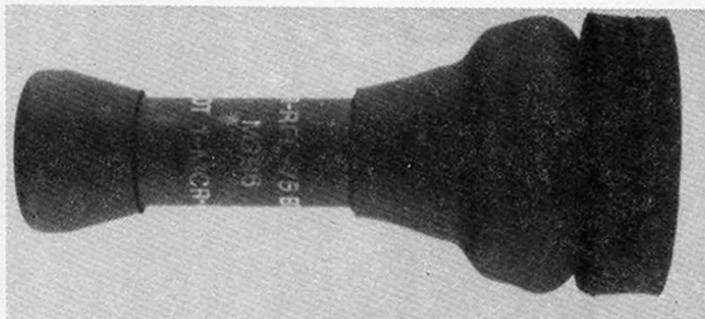
FUZE DELAY: NA

CONSTRUCTION: Body made of rubber.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 75 meters. Impact velocity at 75 meters of 30 m/s. Designed to be nonlethal.

REMARKS: Has an incorporated bullet trap.



COUNTRY: Belgium

MODEL: NR438 A3

TYPE: Launched,  
antitank

LENGTH: 342 mm

DIAMETER: 51 mm

WEIGHT: 785 g

FILLER: Composition B, 135 g

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: The tail boom and an enclosed piston assembly capture the sound and flash of launch.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 800 meters. Lethal radius of 16 meters to 20 meters.

REMARKS: Contains 2.35 g of propellant. Capable of silent firing from several reloadable launch platforms. Known as the JET-SHOT or FLY-K systems.



COUNTRY: Belgium

MODEL: NR440 A3

TYPE: Launched,  
illumination

LENGTH: 410 mm

DIAMETER: 48 mm

WEIGHT: 663 g

FILLER: Illumination mixture

FUZE: Pyrotechnic time

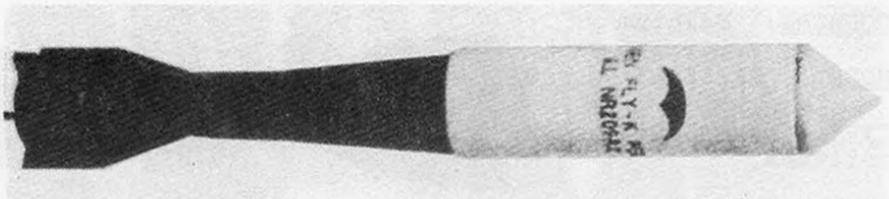
FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: White with black markings

RANGE/TERMINAL EFFECTS: Maximum range of at illumination candle expulsion is 550 meters. Burning duration of 20 s at an intensity of 350 000 cd.

REMARKS: Contains 2.4 g of propellant. Capable of silent firing from several reloadable launch platforms. Known as the JET-SHOT or FLY-K systems.



COUNTRY: Belgium

MODEL: NR439 A3

TYPE: Launched,  
smoke-incendiary

LENGTH: 342 mm

DIAMETER: 51 mm

WEIGHT: 740 g

FILLER: Unknown, 180 g

FUZE: Base

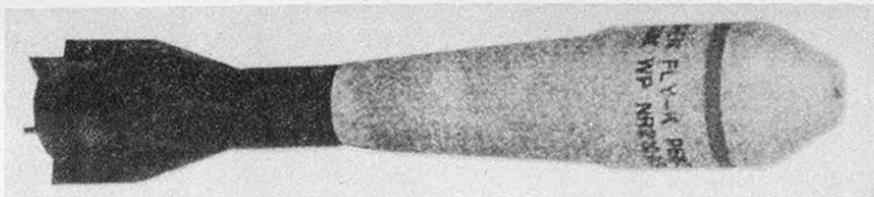
FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Light green with red markings

RANGE/TERMINAL EFFECTS: Effective range of 800 meters.

REMARKS: Contains 2.35 g of propellant. Capable of silent firing from several reloadable launch platforms. Known as the JET-SHOT or FLY-K systems.



(Reverse Blank)

BRAZIL

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(Reverse Blank)

COUNTRY: Brazil

MODEL: Unknown

TYPE: Hand, offensive

LENGTH: 125 mm

DIAMETER: 41 mm

WEIGHT: 116 g

FILLER: TNT (flaked), 35 g

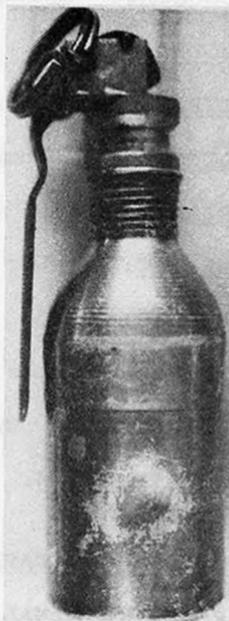
FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body.

COLOR CODE/MARKINGS: Unpainted

RANGE/TERMINAL EFFECTS: No lethal fragments except for possible fuze components. Blast damage at short ranges.



COUNTRY: Brazil

MODEL: DMB

TYPE: Hand, fragmentation

LENGTH: 118 mm

DIAMETER: 49 mm

WEIGHT: 645 g

FILLER: TNT

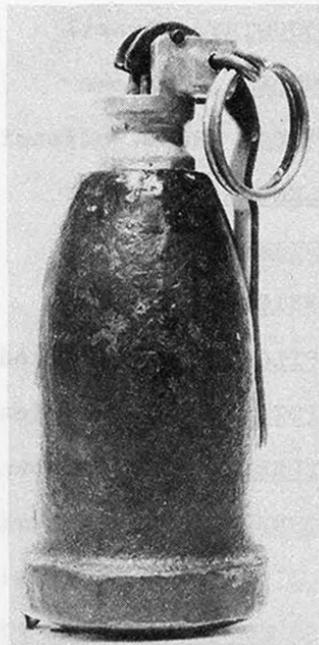
FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Cast iron body with large internal serrations.

COLOR CODE/MARKINGS: Dark rust red body color.

RANGE/TERMINAL EFFECTS: Unknown.



COUNTRY: Brazil

MODEL: M3

TYPE: Hand, offensive/defensive

LENGTH: 96 mm

DIAMETER: 40 mm offensive  
47 mm defensive

WEIGHT: 220 g offensive  
415 g defensive

FILLER: Composition B, 90 g

FUZE: Striker release

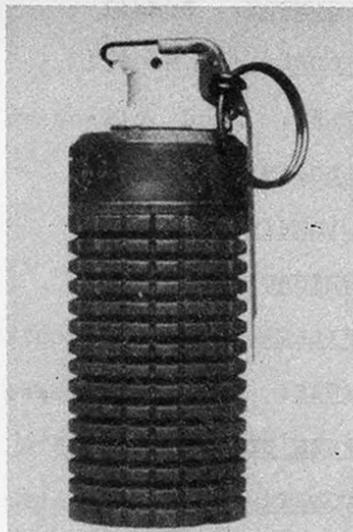
FUZE DELAY: 4.5 to 5.5 s

CONSTRUCTION: The offensive grenade has a body made of plastic and sheet metal. An externally pre-serrated fragmentation sleeve fits over the body to convert it to a defensive grenade.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Minimum damage from the offensive grenade. Lethal radius of defensive grenade is 8 meters. Produces approximately 245 fragments.

REMARKS: Similar in appearance to a dual-purpose grenade manufactured in Chile.



COUNTRY: Brazil

MODEL: GR M QT/1

TYPE: Hand, offensive

LENGTH: 97 mm

DIAMETER: 39 mm

WEIGHT: 240 g

FILLER: 50/50 Pentolite, 90 g

FUZE: Striker release

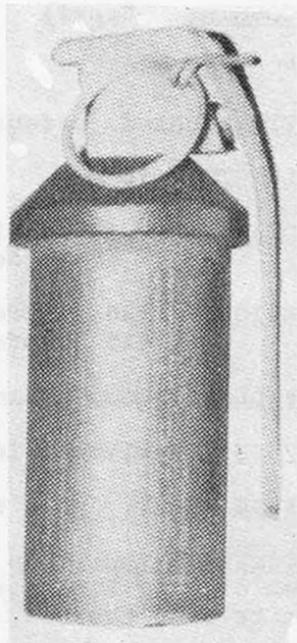
FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: No lethal fragments except for possible fuze components. Blast damage at close ranges.

REMARKS: Also known as the MB-315. Defensive version made by the addition of a fragmentation sleeve.



COUNTRY: Brazil

MODEL: GR M QT/1

TYPE: Hand, defensive

LENGTH: 97 mm

DIAMETER: 47 mm

WEIGHT: 480 g

FILLER: 50/50 Pentolite, 90 g

FUZE: Striker release

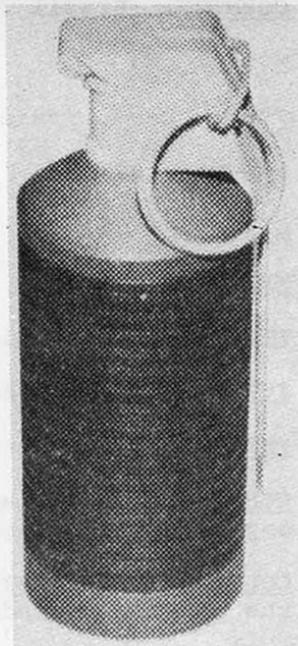
FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic body with a steel pre-engraved fragmentation sleeve over it.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces about 300 fragments.  
Lethal radius of 9 meters.

REMARKS: Offensive version of the same grenade with a fragmentation sleeve.



COUNTRY: Brazil

MODEL: M4

TYPE: Hand, fragmentation

LENGTH: 87 mm

DIAMETER: .51 mm

WEIGHT: 241 g

FILLER: Composition B, 75 g

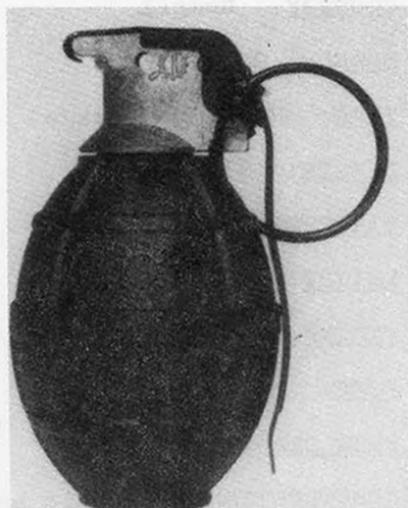
FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic body with a coiled, pre-engraved wire fragmentation sleeve inside.

COLOR CODE/MARKINGS: Unknown color. The manufacturer's logo is embossed into the plastic grenade body.

RANGE/TERMINAL EFFECTS: Lethal radius of 9.5 meters. Safety radius of 30 meters. A minimum of 800 fragments are produced.



COUNTRY: Brazil

MODEL: M5-CEV

TYPE: Hand, colored smoke

LENGTH: 157 mm

DIAMETER: 63 mm

WEIGHT: 600 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 60 s.

REMARKS: Available in white, red, yellow, brick, blue, and green smoke colors.



COUNTRY: Brazil

MODEL: MB-309/TI

TYPE: Hand, smoke

LENGTH: 175 mm

DIAMETER: 67 mm

WEIGHT: 550 g

FILLER: Smoke mixture, 350 g

FUZE: Striker release

FUZE DELAY: 4.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 120 s.



COUNTRY: Brazil

MODEL: MB-502

TYPE: Hand, smoke

LENGTH: 146 mm

DIAMETER: 67 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 510 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 2 to 4.5 s

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 100 to 135 s.

COUNTRY: Brazil

MODEL: M3-CEV

TYPE: Hand, lachrymatory

LENGTH: 120 mm

DIAMETER: 36 mm

WEIGHT: 115 g

FILLER: CN, 15 g  
Smoke mixture, 55 g

FUZE: Striker release

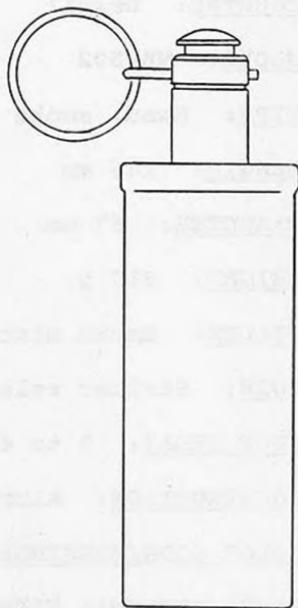
FUZE DELAY: 2.5 to 4.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 60 to 150 s.

REMARKS: Adapters are available to allow this grenade to be fired from revolvers.



COUNTRY: Brazil

MODEL: M5-CEV

TYPE: Hand, lachrymatory

LENGTH: 157 mm

DIAMETER: 63 mm

WEIGHT: 600 g

FILLER: CN, 50 g  
Smoke mixture, 170 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces a smoke cloud with CN carried in it. Burning duration of 50 to 110 s.



COUNTRY: Brazil

MODEL: M2-CEV

TYPE: Rifle,  
antivehicle/  
antipersonnel

LENGTH: 323 mm

DIAMETER: 40 mm

WEIGHT: 550 g

FILLER: Pentolite or Composition B, 90 g

FUZE: Base detonating

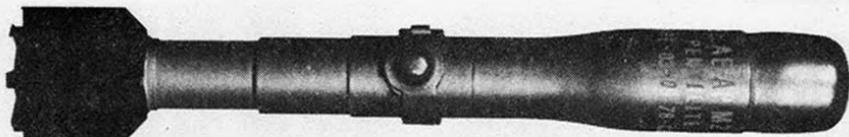
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum and steel body. Aluminum tail boom and fin assembly. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Produces over 450 fragments. Maximum range of 380 to 400 meters. Can penetrate 50 mm to 70 mm of steel.

REMARKS: Uses a special blank launching cartridge which is shipped with the grenade.



COUNTRY: Brazil

MODEL: M3-CEV

TYPE: Rifle,  
antipersonnel/  
antivehicle

LENGTH: 405 mm

DIAMETER: 65 mm

WEIGHT: 800 g

FILLER: Composition B or Pentolite, 265 g

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum and steel body. Aluminum tail boom and fin assembly.  
Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 260 meters. Will penetrate 75 mm  
to 100 mm of steel plate.

REMARKS: Requires a special launching blank, which is supplied with the  
grenade. When fitted with the Model SIG fuze, the grenade model number  
changes to the M5-CEV.

(Reverse Blank)



BULGARIA

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RGO-78 Hand, Fragmentation (U) .....	II-129
RGN-86 Hand, Fragmentation (U) .....	II-130

(Reverse Blank)

COUNTRY: Bulgaria

MODEL: RGO-78

TYPE: Hand, fragmentation

LENGTH: 120 mm

DIAMETER: 57 mm

WEIGHT: 450 g

FILLER: TNT, 85 g

FUZE: Striker release

FUZE DELAY: 3.2 to 4 s

CONSTRUCTION: Two sheet metal hemispheres joined by a roll crimp. Approximately 850 steel balls are embedded in a plastic liner.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: An effective casualty radius of 20 meters.

REMARKS: Can be found with several fuzes to include a copy of the Soviet designed UZRGM fuze or a Western-style Model DRM or Model DVM-78 fuze. Similar in appearance to the RGD-5 except for six short longitudinal ribs on each of the body halves.



COUNTRY: Bulgaria

MODEL: RGN-86

TYPE: Hand, fragmentation

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 265 g

FILLER: TNT, 57 g

FUZE: Striker release

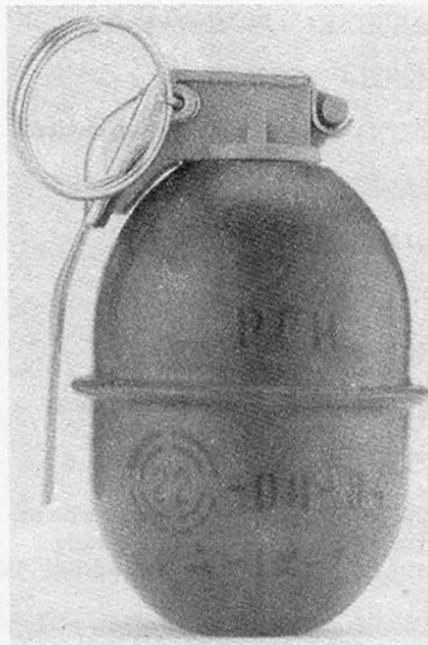
FUZE DELAY: 3.2 to 4 s

CONSTRUCTION: Two sheet metal hemispheres joined by a roll crimp. Preformed steel fragments are contained in the grenade body. The grenade body is smooth except for the roll crimp.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: An effective casualty radius of 50 meters.

REMARKS: Reported as using the DVM-78 fuze, but may also be found with a copy of the Soviet designed UZRGM fuze or the Western-style Model DRM. Similar in appearance to the RGD-5.



CANADA

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C2A1 Hand, Colored Smoke (U) .....	II-134

(Reverse Blank)

COUNTRY: Canada

MODEL: CIA2

TYPE: Hand, smoke

LENGTH: 145 mm

DIAMETER: 65 mm

WEIGHT: 539 g

FILLER: HC smoke mixture, 368 g

FUZE: Striker release

FUZE DELAY: 2 to 4 s

CONSTRUCTION: Cylindrical metal body with a rounded base.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Produces smoke for a minimum of 60 s.



COUNTRY: Canada

MODEL: C2A1

TYPE: Hand, colored smoke

LENGTH: 137 mm

DIAMETER: 61 mm

WEIGHT: Unknown

FILLER: Colored smoke mixture, 180 g

FUZE: Striker release

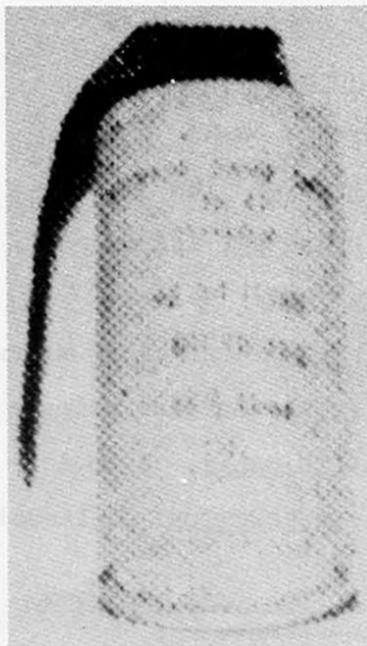
FUZE DELAY: In excess of 5 s

CONSTRUCTION: Cylindrical sheet metal body with roll crimped ends. Emission holes in the top. Plastic bodied fuze.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Produces smoke for a minimum of 60 s.

REMARKS: Produced in violet, green, red, and yellow smoke loadings. This grenade is also known as the No. 83 MK 2/1.



CHILE

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EC-10 Hand, Underwater (U).....	II-140

(Reverse Blank)

COUNTRY: Chile

MODEL: G.M. 78-F7

TYPE: Hand, offensive/defensive

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 178 g (offensive)  
334 g (defensive)

FILLER: TNT, 87 g

FUZE: Striker release

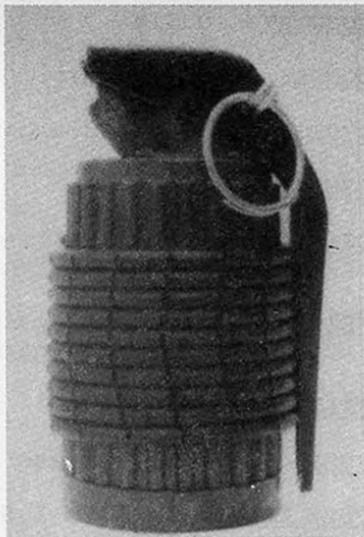
FUZE DELAY: 3 to 5 s

CONSTRUCTION: Plastic body with a removable preserrated, coiled steel fragmentation sleeve.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective radius of 10 meters. Safety radius of 30 meters.

REMARKS: Fragmentation sleeve divided into approximately 150 sections. Can be fit with fuzes for use as a land mine designated as the MAPP 78-F2.



COUNTRY: Chile

MODEL: Dual Purpose

TYPE: Hand, antipersonnel, antivehicle

LENGTH: 121 mm

DIAMETER: 40 mm (offensive)  
47 mm (defensive)

WEIGHT: 215 g (offensive)  
450 g (defensive)

FILLER: TNT, 100 g

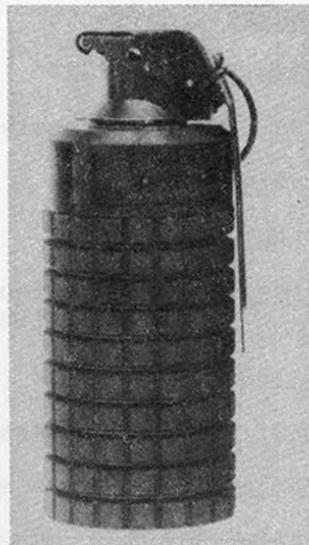
FUZE: Striker release

FUZE DELAY: 4.5 to 5.5 s

CONSTRUCTION: Body has a plastic top and sheet metal body. Removable steel fragmentation sleeve. Copper shaped-charge cone in the base of the grenade.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Primarily blast damage from the offensive grenade. Lethal radius of about 8 meters from the defensive grenade. Produces about 240 fragments. A penetration of about 45 mm of steel can be achieved.



COUNTRY: Chile

MODEL: Mini

TYPE: Hand, fragmentation

LENGTH: 79 mm

DIAMETER: 53 mm

WEIGHT: 320 g

FILLER: TNT, 70 g

FUZE: Striker release

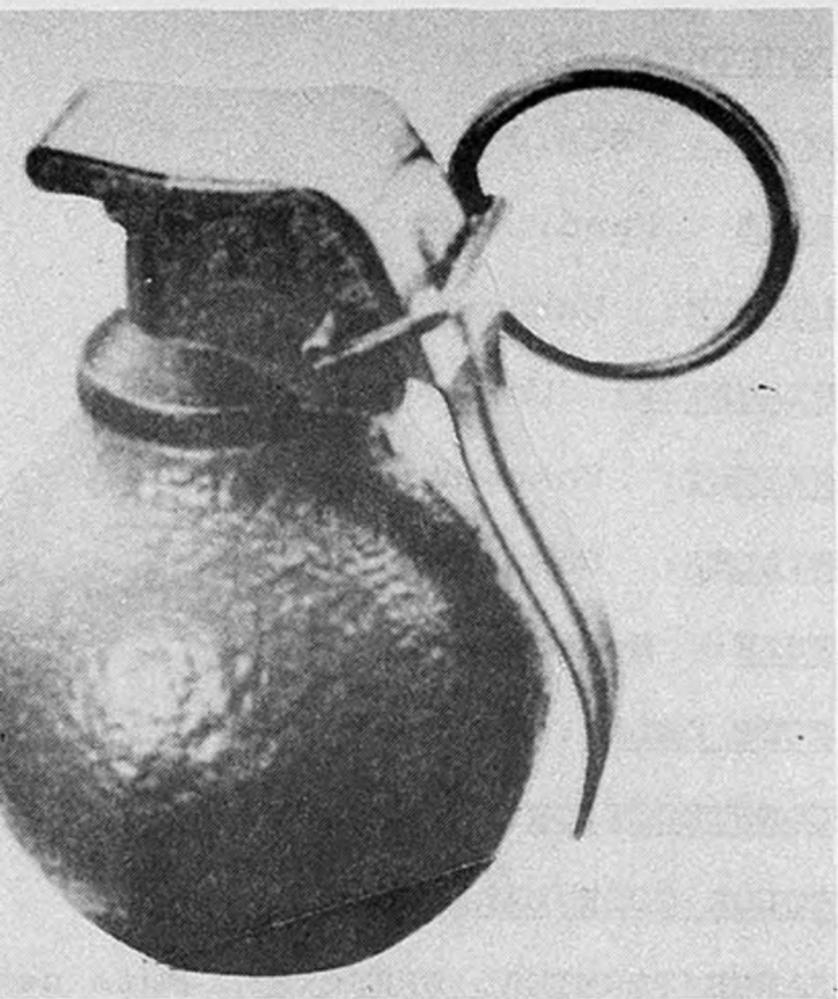
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Cast iron

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Silent and smokeless fuze.



... 1/2 ...

COUNTRY: Chile

MODEL: EC-10

TYPE: Hand, underwater

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: Unknown

FILLER: Unknown

FUZE: Hydrostatic

FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Fuze settings available from 4 to 12 meters in depth. Incapacitating radius of 30 meters.



## CHINA

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(Reverse Blank)

COUNTRY: China

MODEL: Type 1

TYPE: Hand, fragmentation

LENGTH: 186 mm

DIAMETER: 55 mm

WEIGHT: 600 g

FILLER: TNT 50 g

FUZE: Striker release

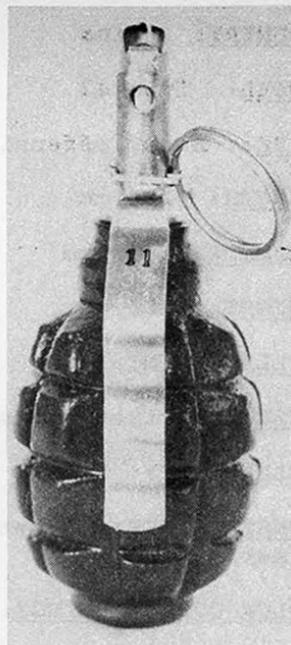
FUZE DELAY: 3 to 4 s

CONSTRUCTION: Cast iron body with large external serrations.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Lethal range of 20 meters.

REMARKS: Copy of the Soviet-designed F-1.



COUNTRY: China

MODEL: Type 42

TYPE: Hand, offensive

LENGTH: 120 mm

DIAMETER: 55 mm

WEIGHT: 400 g

FILLER: TNT 115 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Sheet metal body with an fragmentation liner.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Although designated as an offensive grenade, it does have a fragmentation liner and will produce lethal fragments at ranges of less than 5 meters.

REMARKS: Copy of the Soviet-designed RG-42.



COUNTRY: China

MODEL: M 46

TYPE: Hand,  
fragmentation

LENGTH: 142 mm

DIAMETER: 51 mm

WEIGHT: 487 g

FILLER: TNT, 49 g

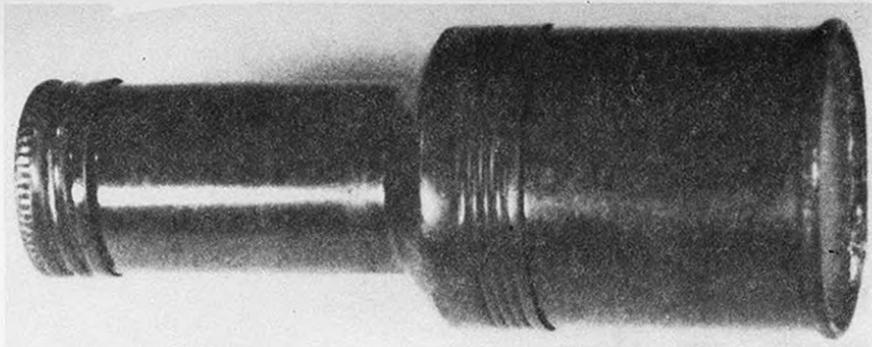
FUZE: Pull friction

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Sheet steel body with a layer of cut rod fragments embedded in a tar-like matrix between the explosive filler and the body. A screw-on sheet steel handle is affixed to the body. The screw-on fuze cap on the end of the handle has been encountered in both plastic and steel.

COLOR CODE/MARKINGS: Examples have been encountered olive green with no markings and olive green with black markings.

RANGE/TERMINAL EFFECTS: Approximately 160 fragments.



COUNTRY: China

MODEL: Type 59

TYPE: Hand, defensive

LENGTH: 115 mm

DIAMETER: 54 mm

WEIGHT: 308 g

FILLER: TNT, 110 g

FUZE: Striker release

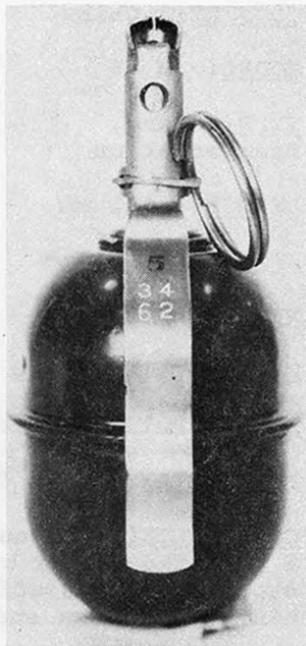
FUZE DELAY: 3 to 4 s

CONSTRUCTION: Two-piece sheet metal body.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Lethal radius of 10 to 15 meters.

REMARKS: Copy of the RGD-5.



COUNTRY: China

MODEL: Type 73

TYPE: Hand, fragmentation

LENGTH: 88 mm

DIAMETER: 42 mm

WEIGHT: 190 g

FILLER: Unknown

FUZE: Percussion

FUZE DELAY: 0.5 to 1 s

CONSTRUCTION: Two-piece sheet metal body enclosing a layer of about 580 steel balls.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective casualty radius of 7 meters.

REMARKS: This model has been seen with a tail fin assembly affixed for use as a rifle grenade, but it is not known if production was ever undertaken.



COUNTRY: China

MODEL: Type 77-1

TYPE: Hand, stick, fragmentation

LENGTH: 173 mm

DIAMETER: 49 mm

WEIGHT: 380 g

FILLER: TNT, 70 g

FUZE: Pull friction

FUZE DELAY: 2.8 to 4 s

CONSTRUCTION: Cast iron body with a plastic handle and sheet metal or plastic fuze cover cap.

COLOR CODE/MARKINGS: Black body with black markings on the olive green handle.

RANGE/TERMINAL EFFECTS: Produces about 270 fragments with a lethal radius of about 7 meters.



COUNTRY: China

MODEL: Type 82-1

TYPE: Hand, fragmentation

LENGTH: 100 mm

DIAMETER: 48 mm

WEIGHT: 260 g

FILLER: Unknown

FUZE: Pull friction

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Cast steel body with internal serrations. Short plastic or wooden handle with a sheet metal cap.

COLOR CODE/MARKINGS: Dark green with black markings or black with white markings.

RANGE/TERMINAL EFFECTS: Produces about 250 fragments. Lethal radius of 6.5 meters. Safety radius of 30 meters.



COUNTRY: China

MODEL: Type 82-2S

TYPE: Hand, fragmentation

LENGTH: 85 mm

DIAMETER: 48 mm

WEIGHT: 260 g

FILLER: TNT, 62 g

FUZE: Striker release

FUZE DELAY: 2.8 to 3.8 s

CONSTRUCTION: Steel body with internal serrations. A plastic cover fits over the fuze during transportation.

COLOR CODE/MARKINGS: Black body. Olive green plastic cap.

RANGE/TERMINAL EFFECTS: Produces about 280 fragments. Lethal radius of 6 meters. Safety radius of 30 meters.



COUNTRY: China

MODEL: Type 82-3

TYPE: Hand, fragmentation

LENGTH: 75 mm

DIAMETER: 48 mm

WEIGHT: 250 g

FILLER: TNT, 60 g

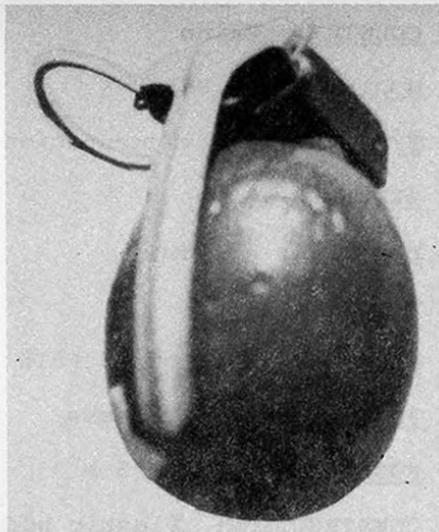
FUZE: Striker release

FUZE DELAY: 2.8 to 3.8 s

CONSTRUCTION: Cast steel body with internal serrations.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Produces about 300 fragments. Lethal radius of 6 meters. Safety radius of 27 meters.



COUNTRY: China

MODEL: Type 86P

TYPE: Hand, fragmentation

LENGTH: 90 mm

DIAMETER: 52 mm

WEIGHT: 260 g

FILLER: Plasticized PETN

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Plastic body with an inner layer of about 1600 steel balls, each with a diameter of between 2.5 and 3 mm.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Lethal radius of 6 meters.  
Safety radius of 25 meters.



COUNTRY: China

MODEL: Type 3  
(Copper)

TYPE: Hand,  
antitank

LENGTH: 362 mm

DIAMETER: 70 mm

WEIGHT: About 3 kg

FILLER: RDX/TNT

FUZE: Base detonating, impact

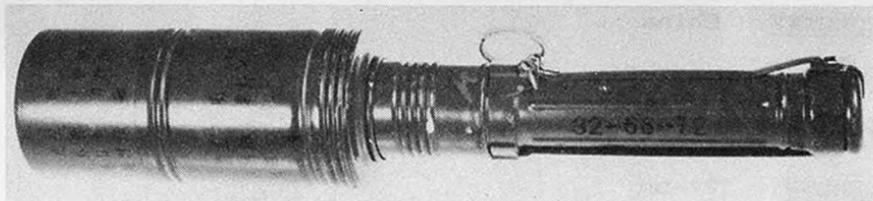
FUZE DELAY: None

CONSTRUCTION: Sheet metal body and handle. Copy of the Soviet-designed RKG-3M with a copper shaped-charge liner. Spring-loaded stabilization chute pops out of the end of the handle when the grenade is thrown.

COLOR CODE/MARKINGS: Olive green body with black markings.

RANGE/TERMINAL EFFECTS: About 300 mm penetration in structural steel.

REMARKS: Shipped without the detonator installed.



COUNTRY: China

MODEL: FB 891

TYPE: Hand, riot control

LENGTH: 104 mm

DIAMETER: 56 mm

WEIGHT: 130 g

FILLER: Rubber balls and powder

FUZE: Striker release

FUZE DELAY: 1.5 to 2.5 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: White with black markings.

RANGE/TERMINAL EFFECTS: Stuns within 5 meters.  
Safety radius of 15 meters.



COUNTRY: China

MODEL: FB 892

TYPE: Hand, riot control

LENGTH: 98 mm

DIAMETER: 54 mm

WEIGHT: 120 g

FILLER: Flash powder

FUZE: Striker release

FUZE DELAY: 1.5 to 2.5 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: White body with black markings

RANGE/TERMINAL EFFECTS: Stuns within 5 meters.  
Safety radius of 15 meters.



COUNTRY: China

MODEL: Type 67

TYPE: Rifle,  
antitank

LENGTH: 415 mm

DIAMETER: 70 mm

WEIGHT: 785 g

FILLER: Unknown

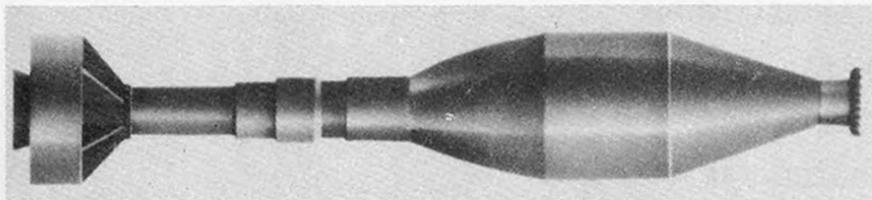
FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Direct fire range of 50 meters.



COUNTRY: China

MODEL: Unknown

TYPE: Rifle,  
antitank

LENGTH: 410 mm

DIAMETER: 60 mm

WEIGHT: 560 g

FILLER: Unknown

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Direct fire range of 70 meters.



COUNTRY: China

MODEL: Unknown

TYPE: Rifle,  
antitank

LENGTH: 390 mm

DIAMETER: 60 mm

WEIGHT: 650 g

FILLER: Unknown

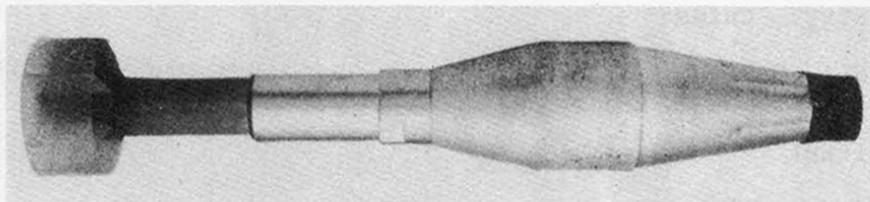
FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Direct fire range of 50 to 70 meters depending on the rifle fired from.



COUNTRY: China

MODEL: Unknown

TYPE: Rifle,  
fragmentation

LENGTH: 312 mm

DIAMETER: 60 mm

WEIGHT: Unknown

FILLER: Unknown

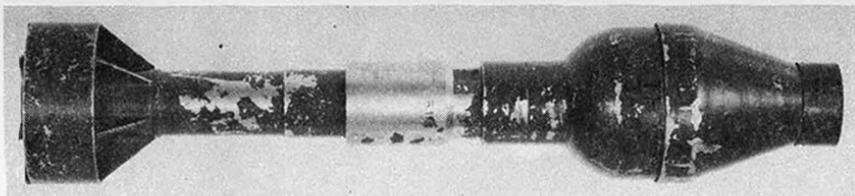
FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Steel antiricochet nose piece on the forward end. The grenade body, boom and tail fins are all made of aluminum. Small steel balls are embedded in a plastic liner surrounding the explosive.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Unknown



(Reverse Blank)

CZECHOSLOVAKIA  
(Former)

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RG-86 Hand, Offensive/Defensive (U) .....	II-165

(Reverse Blank)

COUNTRY: Czechoslovakia (former)

MODEL: Model 34

TYPE: Hand, offensive

LENGTH: 78 mm

DIAMETER: 50 mm

WEIGHT: 340 g

FILLER: TNT, 100 g

FUZE: Impact, all-ways-acting

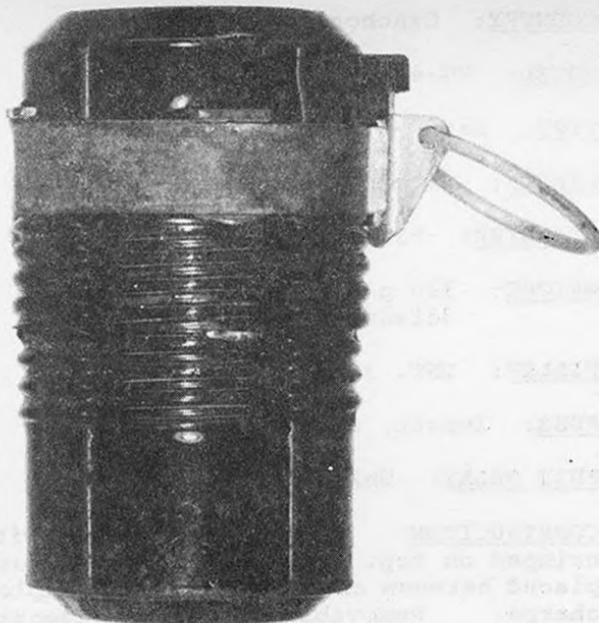
FUZE DELAY: Unknown

CONSTRUCTION: Two-piece sheet steel body which threads together in the center. Upper half of the body contains the fuze.

COLOR CODE/MARKINGS: Black with red markings.

RANGE/TERMINAL EFFECTS: Effective radius of 13 meters.

REMARKS: Can be fitted with a fragmentation sleeve, which increases the effective firing radius to 25 meters.



COUNTRY: Czechoslovakia (former)

MODEL: RG-4

TYPE: Hand, offensive/defensive

LENGTH: 84 mm

DIAMETER: 53 mm

WEIGHT: 320 g offensive  
defensive weight unknown

FILLER: TNT, 105 g

FUZE: Impact, all-ways-acting

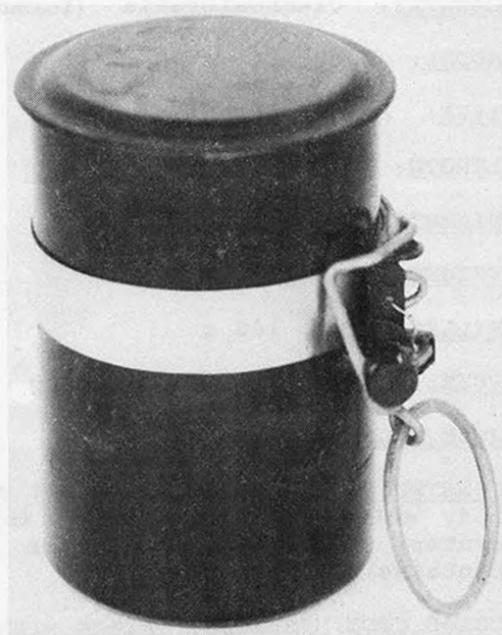
FUZE DELAY: Unknown

CONSTRUCTION: Sheet steel body with a crimped on top. Centrally located fuze is placed between an upper and lower explosive charge. Removable steel fragmentation sleeve used.

COLOR CODE/MARKINGS: Black with red markings.

RANGE/TERMINAL EFFECTS: Fragmentation radius of 13 meters for the offensive grenade and 25 meters for the defensive model.

REMARKS: Improved version of the Model 34.



COUNTRY: Czechoslovakia (former)

MODEL: RG-86

TYPE: Hand, offensive/defensive

LENGTH: 117 mm

DIAMETER: 61 mm

WEIGHT: 430 g

FILLER: Plastic explosive, 42 g

FUZE: Impact, self-destruct

FUZE DELAY: 1.2 s arming delay

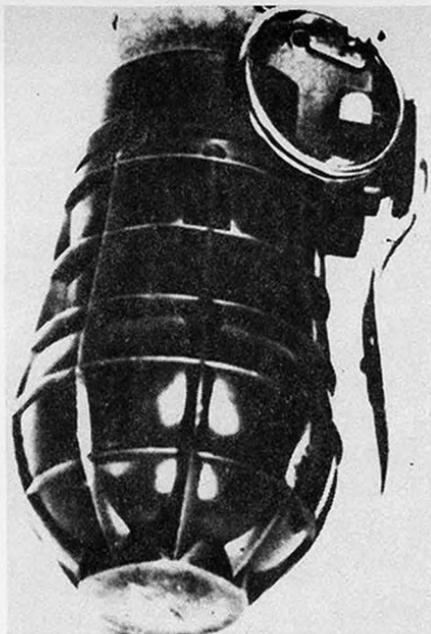
CONSTRUCTION: Plastic body with a unique tear-drop shape. About 1900 preformed fragments enclosed in the body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Functions on sand, snow, and tall grass. Lethal radius 4.5 meters. Safety radius 25 meters.

REMARKS: The fuze impact element will not arm for the first 1.2 s after releasing the grenade. The grenade will function on impact between 1.2 and 4.6 s after release. Self-destruct occurs between 3.2 to 4.6 s after release, which means the grenade may self-destruct before impact with the target.

(Reverse Blank)



DENMARK

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M 53 Hand, Smoke (U).....	II-170

(Reverse Blank)

COUNTRY: Denmark

MODEL: M 54

TYPE: Hand, offensive

LENGTH: 95 mm

DIAMETER: 57 mm

WEIGHT: 540 g

FILLER: TNT, 180 g

FUZE: Striker release

FUZE DELAY: Unknown

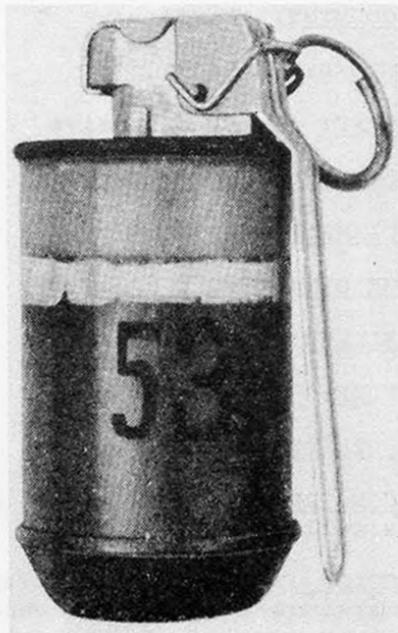
CONSTRUCTION: Two-piece sheet steel body joined by a roll crimp.

COLOR CODE/MARKINGS: Parkerized body with black markings and a yellow band.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Denmark  
MODEL: M 53  
TYPE: Hand, smoke  
LENGTH: Unknown  
DIAMETER: Unknown  
WEIGHT: 225 g  
FILLER: White phosphorus, 180 g  
FUZE: Striker release  
FUZE DELAY: 4 to 5 s  
CONSTRUCTION: Sheet metal body  
COLOR CODE/MARKINGS: Unknown  
RANGE/TERMINAL EFFECTS: Burning time of about  
30 s.



EAST GERMANY  
(Former)

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(Reverse Blank)

COUNTRY: East Germany  
(former)

MODEL: AZ-58-K-100

TYPE: Hand, antitank

LENGTH: 285 mm

DIAMETER: 94 mm

WEIGHT: 850 g

FILLER: RDX/wax, 375 g

FUZE: Base detonating

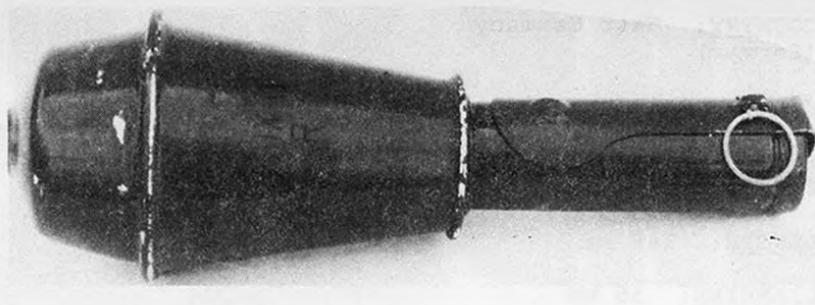
FUZE DELAY: None

CONSTRUCTION: Sheet metal body. Copper shaped-charge cone. Small stabilization drogue parachute inside the handle.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Penetrates 150 mm to 175 mm of armor plate.

REMARKS: No longer in production in Germany. Hungary is now marketing this grenade as the 58-K-100.



COUNTRY: East Germany  
(former)

MODEL: Unknown

TYPE: Rifle,  
fragmentation

LENGTH: 148 mm

DIAMETER: 55 mm

WEIGHT: Unknown

FILLER: TNT, 110 g

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Sheet  
metal body. Plastic  
and aluminum screw-on  
fin assembly.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Unknown range. Effective fragment range of 15 to 20 meters. Safety radius of 30 meters.

REMARKS: Uses the Soviet-designed RGD-5 fragmentation grenade body. A heavy cast metal-bodied practice version also exists.



EGYPT

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HOSSAM Hand, Antitank (U).....	II-181

(Reverse Blank)

COUNTRY: Egypt

MODEL: 36 mil

TYPE: Hand, defensive

LENGTH: 102 mm

DIAMETER: 61 mm

WEIGHT: 600 g

FILLER: TNT, 60 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Heavy cast-iron body. Threaded filler plug on the side and a removable base to allow insertion of the detonator.

COLOR CODE/MARKINGS: Gray with a red band.

RANGE/TERMINAL EFFECTS: Produces about 40 fragments. Lethal radius of between 30 and 100 meters.

REMARKS: Copy of the British No. 36M (Mills Bomb) hand grenade.



COUNTRY: Egypt

MODEL: No. 2

TYPE: Hand,  
defensive

LENGTH: 84 mm

DIAMETER: 51 mm

WEIGHT: 320 g

FILLER: TNT, 105 g

FUZE: Impact,  
all-ways-acting

FUZE DELAY: None

CONSTRUCTION: Sheet  
metal body.

COLOR CODE/MARKINGS: Grenades have either a white or yellow body with black markings or a black body with white markings.

RANGE/TERMINAL EFFECTS: Fragmentation radius of about 25 meters.

REMARKS: Copy of the Czechoslovak-designed RG-4.



COUNTRY: Egypt

MODEL: 169AP

TYPE: Hand, training

LENGTH: 144 mm

DIAMETER: 70 mm

WEIGHT: 185 g

FILLER: Unknown

FUZE: Friction

FUZE DELAY: Unknown

CONSTRUCTION: Paper body tied with string to a wooden handle. A cloth strip glued to the base of the wooden handle has a rough coating on it, which is used to ignite the fuze.

COLOR CODE/MARKINGS: Tan body with black markings.

RANGE/TERMINAL EFFECTS: Safety range of 30 meters: Used to provide a simulated grenade explosion without hazardous fragments.

REMARKS: Identified by the Egyptians as a strong noise-producing grenade.



COUNTRY: Egypt

MODEL: 169AT

TYPE: Hand, training

LENGTH: 105 mm

DIAMETER: 60 mm

WEIGHT: 370 g

FILLER: Unknown

FUZE: Friction

FUZE DELAY: Unknown

CONSTRUCTION: Cardboard body with a wooden handle. Friction sensitive material is placed on the end of the handle and covered with a removable cloth strip.

COLOR CODE/MARKINGS: Tan body with black markings.

RANGE/TERMINAL EFFECTS: Safety range of 30 meters. Used to provide a simulated grenade explosion without hazardous fragments.

REMARKS: Identified by the Egyptians as a weak noise-producing training grenade.



COUNTRY: Egypt

MODEL: HOSSAM

TYPE: Hand, antitank

LENGTH: 192 mm

DIAMETER: 63 mm

WEIGHT: 570 g

FILLER: RDX/TNT, 140 g

FUZE: Point initiating-base detonating  
(spitback)

FUZE DELAY: None

CONSTRUCTION: Clamshell plastic body encloses a cloth stabilizer and the inner grenade body with a shaped-charge cone.

COLOR CODE/MARKINGS: The plastic has been observed in a variety of colors to include dark green, tan, mottled light green, dark gray, and mottled gray.

RANGE/TERMINAL EFFECTS: Penetration of about 120 mm of armor plate or 400 mm of concrete. Will not arm for the first 5 meters of flight.

REMARKS: The illustration shows two different external configurations of the grenade.

(Reverse Blank)



## FRANCE

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COUNTRY: France

MODEL: M.O.

TYPE: Hand, offensive/riot control

LENGTH: 100 mm

DIAMETER: 58 mm

WEIGHT: 250 g

FILLER: Unknown

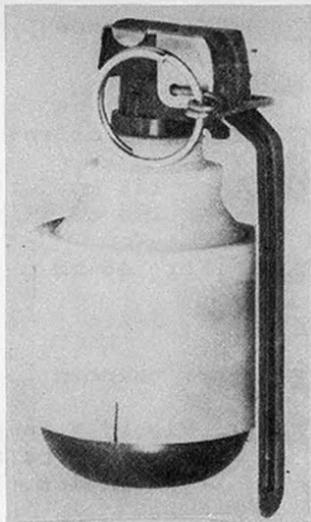
FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Plastic grenade body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Blast only. The fuze functions the grenade delay train and then separates from the grenade body so as not to become a fragment.



COUNTRY: France

MODEL: M

TYPE: Hand, offensive

LENGTH: 128 mm (with M1e 1935 fuze)  
150 mm (with PFA5 fuze)

DIAMETER: 48 mm

WEIGHT: 262 g

FILLER: Unknown

FUZE: M1e 1935 is a striker release.  
PFA5 can be set to delay, delay/impact,  
or impact.

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body with no fragmentation sleeve.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: Can be fit with a fragmentation sleeve (model MD) and a tail boom for use as a rifle grenade (model MDF).



COUNTRY: France

MODEL: MD

TYPE: Hand, defensive

LENGTH: 128 mm (with Mle 1935 fuze)  
150 mm (with PFA5 fuze)

DIAMETER: 48 mm

WEIGHT: 414 g

FILLER: Unknown

FUZE: Mle 1935 is a striker release.  
PFA5 can be set to delay, delay/impact,  
or impact.

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body with a slip-on steel fragmentation sleeve.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: A danger radius of about 20 meters. Produces approximately 400 fragments each weighing about 0.3 gram.

REMARKS: This is the model M with a fragmentation sleeve. It can also be fit with a tail boom assembly for use as a rifle grenade (model MDF).



COUNTRY: France

MODEL: OF-37

TYPE: Hand, offensive

LENGTH: 96 mm

DIAMETER: 60 mm

WEIGHT: 180 g

FILLER: TNT, 80 g

FUZE: Striker release

FUZE DELAY: 4 to 7 s

CONSTRUCTION: Two-piece, sheet-aluminum body joined by a roll crimp.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges. Little fragmentation effect.



COUNTRY: France

MODEL: D 37

TYPE: Hand, defensive

LENGTH: 95 mm

DIAMETER: 55 mm

WEIGHT: 540 g

FILLER: TNT, 60 g

FUZE: Striker release

FUZE DELAY: 4 to 7 s

CONSTRUCTION: Cast-iron body.

COLOR CODE/MARKINGS: Yellow with black markings.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: France

MODEL: DF 37

TYPE: Hand, defensive

LENGTH: 100 mm

DIAMETER: 55 mm

WEIGHT: 540 g

FILLER: TNT, 56 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Cast-iron body with an aluminum fuze well.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Effective fragment radius of 15 to 20 meters.



COUNTRY: France

MODEL: DF 37/46

TYPE: Hand, defensive

LENGTH: 100 mm

DIAMETER: 55 mm

WEIGHT: 540 g

FILLER: TNT, 56 g

FUZE: Striker release

FUZE DELAY: 4.5 to 5 s

CONSTRUCTION: Cast iron body with an aluminum fuze well.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Effective fragment radius of 15 to 20 meters.



COUNTRY: France  
MODEL: Unknown  
TYPE: Hand, offensive  
LENGTH: 101 mm  
DIAMETER: 47 mm  
WEIGHT: 174 g  
FILLER: Unknown, 50 g  
FUZE: Striker release  
FUZE DELAY: 5 s  
CONSTRUCTION: Plastic body.  
COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: Can be fit with a fragmentation sleeve to produce a defensive grenade. Has an interrupted firing train with a 5-meter arming distance. Produced by Losfeld-Industries. Can be adapted for use as a rifle grenade.



COUNTRY: France

MODEL: Unknown

TYPE: Hand, defensive

LENGTH: 101 mm

DIAMETER: 47 mm

WEIGHT: 322 g

FILLER: Unknown, 50 g

FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Plastic body with a steel fragmentation sleeve placed over it.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Danger radius of 20 meters. Produces approximately 480 fragments, each weighing about 0.2 gram.

REMARKS: Has an interrupted firing train with a 5-meter arming distance. Produced by Losfeld-Industries. Can be adapted for use as a rifle grenade.



COUNTRY: France

MODEL: Unknown

TYPE: Hand, offensive

LENGTH: 100 mm

DIAMETER: 50 mm

WEIGHT: 220 g

FILLER: TNT, 150 g

FUZE: Striker release

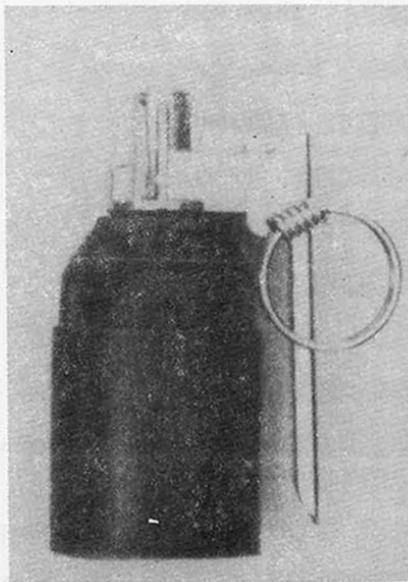
FUZE DELAY: Unknown

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: Not adopted in France, but marketed to other countries.



COUNTRY: France

MODEL: Unknown

TYPE: Hand, offensive

LENGTH: 120 mm

DIAMETER: 55 mm

WEIGHT: 310 g

FILLER: TNT, 225 g

FUZE: Striker release

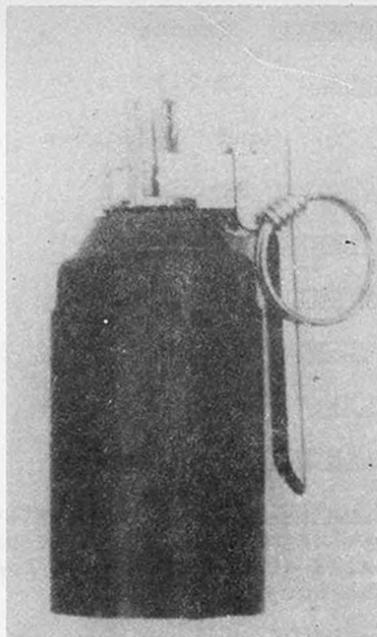
FUZE DELAY: Unknown

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: Not adopted in France, but marketed to other countries.



COUNTRY: France

MODEL: LU 213

TYPE: Hand, defensive

LENGTH: 94 mm

DIAMETER: 52 mm

WEIGHT: 280 g

FILLER: Composition B, 90 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic grenade body. A prefragmented steel sleeve together with steel balls at the upper and lower ends are placed inside the body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Safety radius of 22 meters. Lethal radius of 9 meters. Approximately 1100 fragments are produced.



COUNTRY: France

MODEL: LU 216

TYPE: Hand, offensive

LENGTH: 94 mm

DIAMETER: 52 mm

WEIGHT: 190 g

FILLER: Composition B, 110 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic grenade body. No fragments present.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges..



COUNTRY: France

MODEL: E2

TYPE: Hand, lachrymatory

LENGTH: 175 mm

DIAMETER: 56 mm

WEIGHT: 345 g

FILLER: CS, 150 g

FUZE: Striker release

FUZE DELAY: 2.5 s

CONSTRUCTION: Cylindrical cardboard body with metal ends contains two separate metal containers of agent.

COLOR CODE/MARKINGS: Gray with red markings.

RANGE/TERMINAL EFFECTS: Emission duration of 30 to 50 s.



COUNTRY: France

MODEL: Type 188 Mle F5

TYPE: Hand, colored smoke

LENGTH: 142 mm

DIAMETER: 55 mm

WEIGHT: 400 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 2.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke emission duration of 120 s.

REMARKS: Red, green, or yellow smoke available.



COUNTRY: France

MODEL: Type 254

TYPE: Hand, colored smoke

LENGTH: 125 mm

DIAMETER: 55 mm

WEIGHT: 260 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 2.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces smoke for a period of 50 s.

REMARKS: Red, green, or yellow smoke available.



COUNTRY: France

MODEL: OF 51

TYPE: Hand, white phosphorous

LENGTH: 112 mm

DIAMETER: 60 mm

WEIGHT: 440 g

FILLER: White phosphorous, 212 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece sheet metal body joined in the center. Filler plug in the base.

COLOR CODE/MARKINGS: Gray body with a red band.

RANGE/TERMINAL EFFECTS: Produces dense smoke cloud.



COUNTRY: France

MODEL: Mle 60

TYPE: Hand, white phosphorous

LENGTH: 108 mm

DIAMETER: 63 mm

WEIGHT: 423 g

FILLER: White phosphorous, 233 g

FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Two-piece sheet metal body joined at the base. Resembles a small jug.

COLOR CODE/MARKINGS: Gray body with a red band and red markings.

RANGE/TERMINAL EFFECTS: Produces dense smoke cloud. Safety range of 30 meters.



COUNTRY: France

MODEL: Type 241

TYPE: Hand, blinding

LENGTH: 120 mm

DIAMETER: 50 mm

WEIGHT: 100 g

FILLER: Flash compound

FUZE: Pressure, pyrotechnic

FUZE DELAY: 1.5 s

CONSTRUCTION: Plastic body  
(Model F1 training body).

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces an intense flash  
(5 000 000 cd) lasting for only a few hundredths of a  
second.



COUNTRY: France

MODEL: Type 46

TYPE: Hand, stun

LENGTH: 100 mm

DIAMETER: 55 mm

WEIGHT: 130 g

FILLER: Flash compound

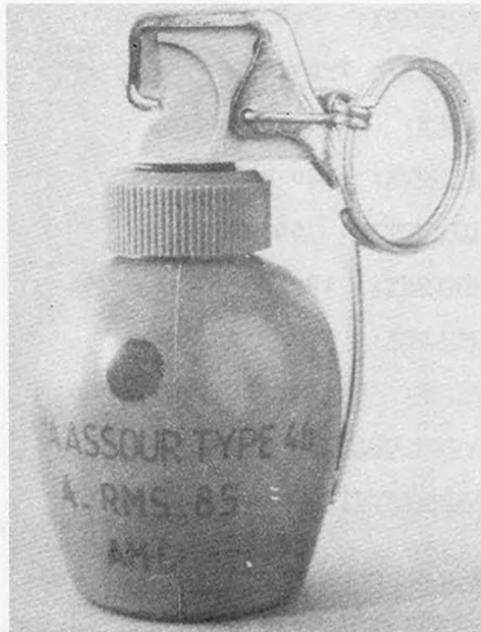
FUZE: Striker release

FUZE DELAY: 1.5 s to 2.0 s

CONSTRUCTION: Plastic body  
(Model F1 training body).

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces a sound level of over 156 dB at 15 meters.



COUNTRY: France

MODEL: AP 500

TYPE: Rifle,  
antipersonnel

LENGTH: 325 mm

DIAMETER: 34 mm

WEIGHT: 500 g

FILLER: Unknown

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Serrated steel body. Plastic fins.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal radius of 11 meters. Maximum range of 400 to 530 meters.

REMARKS: May or may not have a bullet trap.



COUNTRY: France

MODEL: GR FL AP AV

TYPE: Rifle,  
antipersonnel/  
antivehicle



LENGTH: 360 mm

DIAMETER: 38 mm

WEIGHT: 525 g

FILLER: Composition B, 90 g

FUZE: Base detonating

FUZE DELAY: 5- to 14-meter flight time arming delay

CONSTRUCTION: Prefragmented warhead body contains a shaped charge. Contains a bullet trap.

COLOR CODE/MARKINGS: Olive green with yellow markings. Has also been seen with an olive green body, yellow markings, and a yellow band. The fins are sometimes black.

RANGE/TERMINAL EFFECTS: Maximum effective range of 380 meters. Perforates about 100 mm of armor plate. Produces approximately 900 fragments

REMARKS: Has a visual safe/arm indicator.

COUNTRY: France

MODEL: BTRG AC

TYPE: Rifle,  
antitank

LENGTH: 385 mm

DIAMETER: 40 mm

WEIGHT: 415 g

FILLER: Unknown

FUZE: Base detonating

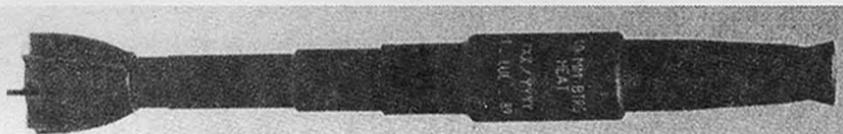
FUZE DELAY: None

CONSTRUCTION: Flared antiricochet nose. Has a bullet trap incorporated.

COLOR CODE/MARKINGS: Olive green with a black and a brown band.

RANGE/TERMINAL EFFECTS: Maximum direct-fire effective range of 100 meters when fired from a 5.56x45-mm rifle. Indirect fire maximum range of 360 meters. Perforates about 220 mm of armor plate.

REMARKS: Can be fired from a 5.56x45-mm, 7.62x39-mm, or 7.62x51-mm rifle.



COUNTRY: France

MODEL: BTRG AP/AV

TYPE: Rifle,  
antivehicle/  
antipersonnel

LENGTH: 350 mm

DIAMETER: 40 mm

WEIGHT: 405 g

FILLER: Unknown

FUZE: Base detonating

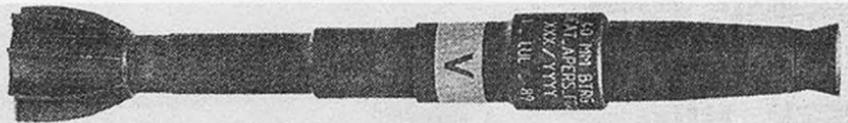
FUZE DELAY: None

CONSTRUCTION: Flared antiricochet nose. Has a bullet trap incorporated.

COLOR CODE/MARKINGS: Olive green with a yellow and a brown band.

RANGE/TERMINAL EFFECTS: Maximum effective direct fire range of 100 meters or indirect fire range of 380 meters when fired from a 5.56x45-mm rifle. Perforates about 100 mm of armor plate. Lethal fragment radius of 12 meters. Produces about 400 fragments, each with an average weight of 0.17 g.

REMARKS: Can be fired from a 5.56x45-mm, 7.62x39-mm, or 7.62x51-mm rifle.



COUNTRY: France

MODEL: BTRG AP

TYPE: Rifle,  
antipersonnel

LENGTH: 360 mm

DIAMETER: 40 mm

WEIGHT: 360 mm

FILLER: Unknown

FUZE: Unknown

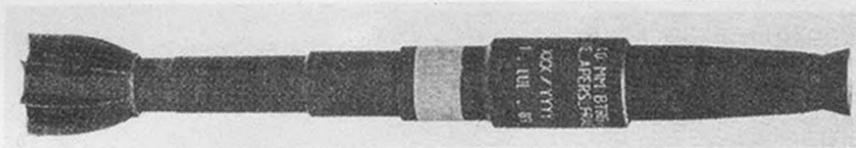
FUZE DELAY: None

CONSTRUCTION: Flared antiricochet nose. Has a bullet trap incorporated.

COLOR CODE/MARKINGS: Olive green with a yellow and a brown band.

RANGE/TERMINAL EFFECTS: Maximum effective direct fire range of 100 meters or indirect fire range of 380 meters when fired from a 5.56x45-mm rifle. Lethal fragment radius of 12 meters. Produces about 470 fragments, each with an average weight of 0.17 g.

REMARKS: Can be fired from a 5.56x45-mm, 7.62x39-mm, or 7.62x51-mm rifle.



COUNTRY: France

MODEL: BTRG AP/R

TYPE: Rifle,  
antipersonnel/delay

LENGTH: 305 mm

DIAMETER: 40 mm

WEIGHT: 405 g

FILLER: Unknown

FUZE: Delay

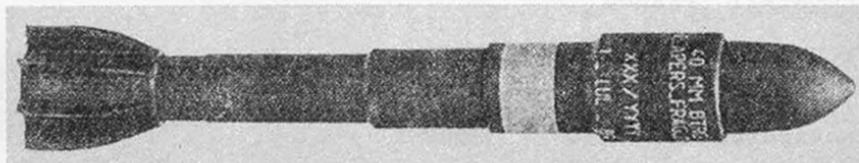
FUZE DELAY: Unknown

CONSTRUCTION: Has a bullet trap incorporated.

COLOR CODE/MARKINGS: Olive green with a yellow and a brown band.

RANGE/TERMINAL EFFECTS: Maximum effective direct fire range of 100 meters or indirect fire range of 380 meters when fired from a 5.56x45-mm rifle. Lethal fragment radius of 12 meters. Produces about 470 fragments, each with an average weight of 0.17 g.

REMARKS: Designed to permit penetration of doors, windows, etc., prior to functioning.



COUNTRY: France

MODEL: BTRG FUM

TYPE: Rifle, smoke

LENGTH: 292 mm

DIAMETER: 40 mm

WEIGHT: 410 g

FILLER: Smoke mixture

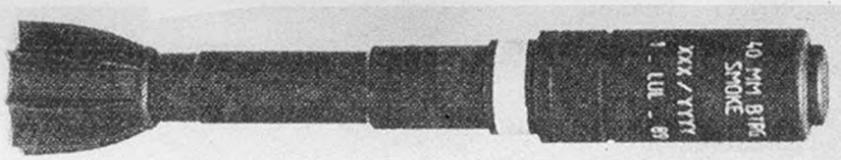
FUZE: Pyrotechnic

FUZE DELAY: None

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Olive green with a white and a brown band.

RANGE/TERMINAL EFFECTS: Covers an area of 40 m<sup>2</sup> to 100 m<sup>2</sup> for a duration of 40 seconds. Begins to produce smoke at a height of 200 meters when fired at a 45° angle.



COUNTRY: France

MODEL: BTRG ECL

TYPE: Rifle,  
illumination

LENGTH: 306 mm

DIAMETER: 40 mm

WEIGHT: 390 g

FILLER: Pyrotechnic mixture

FUZE: Pyrotechnic delay

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and boom assembly. Has a bullet trap.

COLOR CODE/MARKINGS: Olive green with a white and a brown band.

RANGE/TERMINAL EFFECTS: Produces an illumination of 90 000 cd for a period of 30 s. to 40 s.



COUNTRY: France

MODEL: GR 58 AC

TYPE: Rifle,  
antitank

LENGTH: 390 mm

DIAMETER: 58 mm

WEIGHT: 535 g

FILLER: Composition B

FUZE: Base detonating

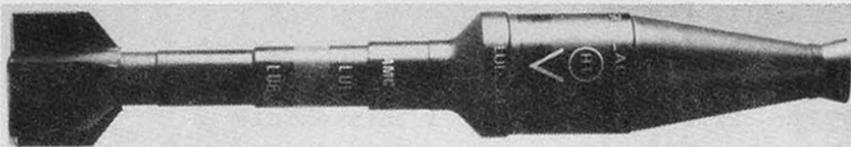
FUZE DELAY: None

CONSTRUCTION: Flared nose section to prevent ricochet.

COLOR CODE/MARKINGS: Dark green with yellow markings and a brown band around the tail boom. Also can be found with a dark green body and a black band around the warhead.

RANGE/TERMINAL EFFECTS: Penetrates about 250 mm of armor plate. Operational range of 100 meters.

REMARKS: Provided with and without a bullet trap.



COUNTRY: France

MODEL: GR 58 AP/AV

TYPE: Rifle, antipersonnel/antivehicle

LENGTH: 390 mm

DIAMETER: 58 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 550 g

FILLER: Composition B

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Flared nose to prevent ricochet.

COLOR CODE/MARKINGS: Dark green with yellow markings and a brown band around the tail boom. Also can be found with a dark green body and both yellow and black bands around the warhead.

RANGE/TERMINAL EFFECTS: Penetrates about 60 mm of armor plate. Lethal fragment radius of 15 meters.

REMARKS: Can be provided with or without a bullet trap.

COUNTRY: France

MODEL: GR 58 FUM

TYPE: Rifle, smoke

LENGTH: 387 mm

DIAMETER: 58 mm

WEIGHT: 550 g

FILLER: Titanium tetrachloride

FUZE: Base ignition

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and tail fin assembly.

COLOR CODE/MARKINGS: Light green with black markings and a brown band around the tail boom. Also can be found with a white body and a brown band around the tail boom.

RANGE/TERMINAL EFFECTS: Operational range of 250 meters. Produces dense white smoke for a period of 30 s.

REMARKS: Is available with or without a bullet trap.



COUNTRY: France

MODEL: GR 58 FUM  
SRI

TYPE: Rifle, smoke

LENGTH: 392 mm

DIAMETER: 58 mm

WEIGHT: 550 g

FILLER: Smoke mixture

FUZE: Base ignition

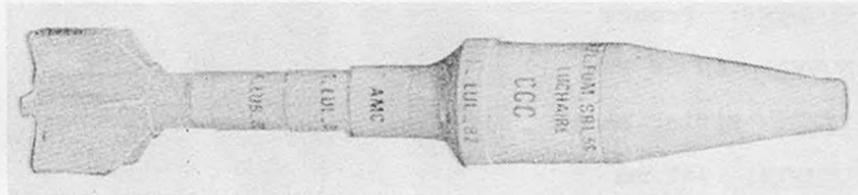
FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body and fin assembly.

COLOR CODE/MARKINGS: Light green with black markings and red "C's" on the grenade body.

RANGE/TERMINAL EFFECTS: Produces a red target marking smoke at an operational range of about 250 meters for approximately 30 seconds.

REMARKS: Available with or without a bullet trap.



COUNTRY: France

MODEL: GR 58 ECL

TYPE: Rifle, illumination

LENGTH: Unknown

DIAMETER: 58 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 500 g

FILLER: Illumination mixture

FUZE: Pyrotechnic

FUZE DELAY: 3.5 s

CONSTRUCTION: Aluminum body and tail boom assembly.

COLOR CODE/MARKINGS: Dark green body with a white band on the warhead and a brown band on the tail boom.

RANGE/TERMINAL EFFECTS: Maximum range of 250 meters. Burns at an intensity of 150 000 cd for approximately 20 s.

COUNTRY: France

MODEL: GR AP/AV  
1000

TYPE: Rifle,  
antipersonnel/  
antivehicle

LENGTH: 450 mm

DIAMETER: 58 mm

WEIGHT: 980 g

FILLER: Unknown

FUZE: Base detonating

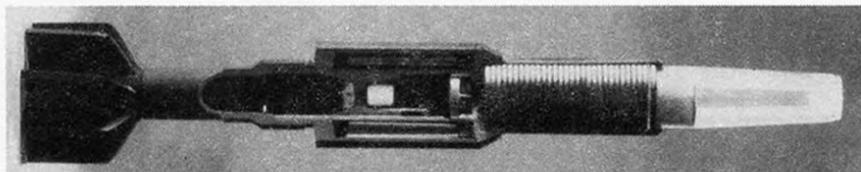
FUZE DELAY: None

CONSTRUCTION: Aluminum body with a pre-engraved fragmentation liner surrounding the shaped-charge warhead.

COLOR CODE/MARKINGS: Dark green body with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 150 meters (flat trajectory) for antivehicle use or 1000 meters as an antipersonnel grenade. Penetrates about 60 mm of armor plate. Produces approximately 1000 fragments each weighing 0.18 g.

REMARKS: Fired from rifles as well as a portable three-barreled launcher.



## GERMANY

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(Reverse Blank)

COUNTRY: Germany

MODEL: M-DN 61

TYPE: Hand, fragmentation

LENGTH: 88 mm

DIAMETER: 57 mm

WEIGHT: 317 g

FILLER: Plasticized PETN, 50 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body enclosing approximately 4300 steel balls, each with a diameter of 2 to 2.3 mm.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger range of about 75 meters.

REMARKS: Interrupted firing train and a flap valve between the delay element and the detonator provide fuze safety.



COUNTRY: Germany

MODEL: M-DN 11

TYPE: Hand, fragmentation

LENGTH: 97 mm

DIAMETER: 60 mm

WEIGHT: 467 g

FILLER: Plasticized PETN, 43 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body contains approximately 3800 steel balls, each with a diameter of 2.5 to 3 mm.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger range reportedly 100 meters.

REMARKS: Interrupted firing train and a flap valve between the delay element and the detonator provide fuze safety.



COUNTRY: Germany

MODEL: M-DN 21

TYPE: Hand, fragmentation

LENGTH: 85 mm

DIAMETER: 50 mm

WEIGHT: 224 g

FILLER: Plasticized PETN, 45 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body containing about 2200 small steel balls, each with a diameter of 2 to 2.3 mm.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger radius of about 45 meters.

REMARKS: Identical to the M-DN 31 except for the number of steel balls. Interrupted firing train and a flap valve between the delay element and the detonator provide fuze safety.



COUNTRY: Germany

MODEL: M-DN 31

TYPE: Hand, fragmentation

LENGTH: 85 mm

DIAMETER: 50 mm

WEIGHT: 247 g

FILLER: Plasticized PETN, 35 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body containing approximately 3000 small steel balls, each with a diameter of 2 to 2.3 mm.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger radius of about 60 meters.

REMARKS: Identical to the M-DN-21 except for the number of steel balls. Interrupted firing train and a flap valve between the delay element and the detonator provide fuze safety.



COUNTRY: Germany

MODEL: DM 51

TYPE: Hand, offensive

LENGTH: 100 mm

DIAMETER: 37 mm

WEIGHT: 499 g

FILLER: Plasticized PETN, 60 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Hexagonal shaped plastic body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: Can be fit with a fragmentation sleeve to create a defensive grenade. The grenade bodies can be joined end-to-end to form a breaching charge.



COUNTRY: Germany

MODEL: DM 51

TYPE: Hand, defensive

LENGTH: 107 mm

DIAMETER: 57 mm

WEIGHT: 789 g

FILLER: Plasticized PETN, 60 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body containing about 6500 small steel balls, each with a diameter of 2 to 2.3 mm, fit over a DM 51 offensive grenade body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger radius of 35 meters.



COUNTRY: Germany

MODEL: DM-24

TYPE: Hand, incendiary/smoke

LENGTH: 133 mm

DIAMETER: 67 mm

WEIGHT: 340 g

FILLER: Red phosphorous, 225 g

FUZE: Unknown

FUZE DELAY: Unknown

CONSTRUCTION: Hard plastic body designed to break on impact to allow the red phosphorous filler to spread.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Burns for about 5 minutes at a temperature of 1200° C. Produces a blinding flash and dense smoke, which causes a severe cough.

REMARKS: No explosive components in the fuze or grenade body.



COUNTRY: Germany

MODEL: DM-109

TYPE: Hand, underwater, acoustic signal

LENGTH: 140 mm

DIAMETER: 54 mm

WEIGHT: 400 g

FILLER: Tetryl, 55 g

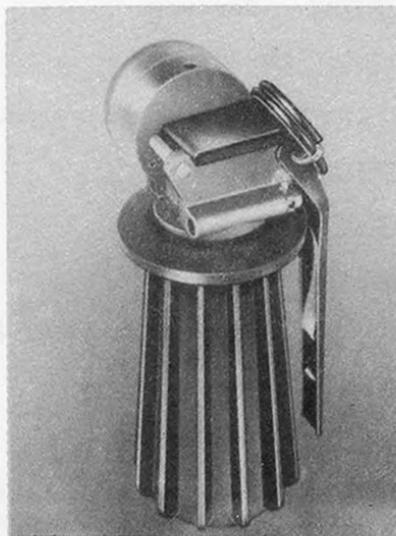
FUZE: Hydrostatic

FUZE DELAY: 2.4 s arming delay,  
4 s firing delay

CONSTRUCTION: Plastic body with no fragments present. One large hydrostatic pressure sensor present on the fuze.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: The fuze will normally function at a depth of between 7 to 10 meters. If it does not reach this depth, it will function after the 4 s firing delay elapses. Used as an underwater signal or stun grenade.



COUNTRY: Germany

MODEL: DM-119

TYPE: Hand, underwater, acoustic signal

LENGTH: 140 mm

DIAMETER: 54 mm

WEIGHT: 433 g

FILLER: Tetryl, 55 g

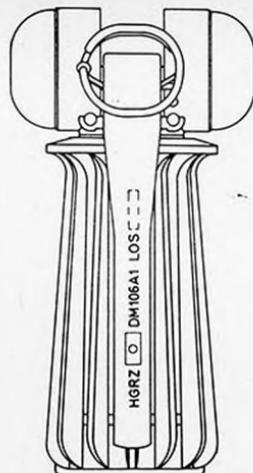
FUZE: Hydrostatic

FUZE DELAY: 2.4 s arming delay,  
4 s firing delay

CONSTRUCTION: Plastic body with no fragments present.  
Two large hydrostatic pressure sensor present on the fuze.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: The fuze will normally function at a depth of between 7 to 10 meters. If it does not reach this depth, it will function after the 4 s firing delay elapses. Used as an underwater signal or stun grenade.



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GREECE

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(Reverse Blank)

COUNTRY: Greece

MODEL: EM 01

TYPE: Hand, defensive

LENGTH: 91 mm

DIAMETER: 57 mm

WEIGHT: 355 g

FILLER: Plasticized PETN, 37 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Plastic body with a layer of approximately 2600 steel pellets, each with a diameter ranging from 2.5 to 3 mm, between the body and the explosive filler.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Lethal radius of 15 meters.

REMARKS: A copy of the Austrian Hd Gr 73 made under license in Greece.



COUNTRY: Greece

MODEL: EM 02

TYPE: Hand, offensive

LENGTH: 92 mm

DIAMETER: 57 mm

WEIGHT: 140 g

FILLER: Plasticized PETN, 37 g

FUZE: Striker release

FUZE DELAY: 3 to 5 seconds

CONSTRUCTION: Plastic body with a lemon skin surface texture. No fragmentation elements present in the grenade body.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.

REMARKS: A copy of the Austrian Hd Gr O 73 made under license in Greece.



COUNTRY: Greece

MODEL: EM 04

TYPE: Hand, colored smoke

LENGTH: 145 mm

DIAMETER: 60 mm

WEIGHT: 450 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 2.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: The grenade body is painted the color of the smoke. Markings in black.

RANGE/TERMINAL EFFECTS: Smoke duration of 100 to 140 s.

REMARKS: White, blue, green, red, yellow, and violet smoke available.



COUNTRY: Greece

MODEL: EM 04

TYPE: Hand, smoke fog

LENGTH: 145 mm

DIAMETER: 66 mm

WEIGHT: 650 g

FILLER: HC smoke mixture

FUZE: Striker release

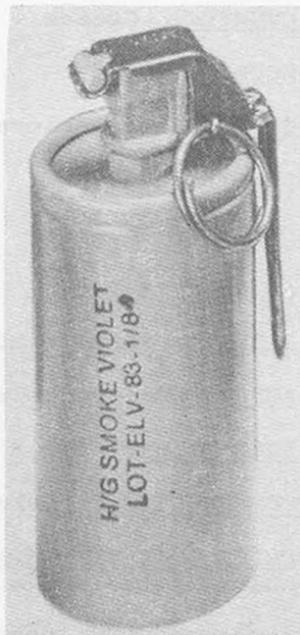
FUZE DELAY: 2.5 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Smoke duration of 90 to 150 s.

REMARKS: White smoke.



COUNTRY: Greece

MODEL: EM 06

TYPE: Hand, stun

LENGTH: 120 mm

DIAMETER: 42 mm

WEIGHT: 250 g

FILLER: Flash powder

FUZE: Striker release

FUZE DELAY: 1.5 s

CONSTRUCTION: Aluminum body with circular perforations. Contains two separate compartments linked by a short delay.

COLOR CODE/MARKINGS: Dark green with yellow markings.

RANGE/TERMINAL EFFECTS: Produces two distinct, loud reports and flashes designed to incapacitate individuals.



COUNTRY: Greece

MODEL: EM 14

TYPE: Rifle,  
defensive

LENGTH: 275 mm

DIAMETER: 57 mm

WEIGHT: 510 g

FILLER: Plasticized PETN, 37 g

FUZE: Impact with a pyrotechnic arming delay.

FUZE DELAY: Unknown

CONSTRUCTION: Plastic body with a layer of approximately 2600 steel pellets, each with a diameter ranging from 2.5 to 3 mm, between the body and the explosive filler. Fuze located in the boom assembly. A bullet deflector present to prevent the accidental use of a bulletted cartridge from detonating the grenade on the rifle.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Danger radius of 15 meters. Maximum range of 360 meters.

REMARKS: The body is a standard EM 01 defensive hand grenade. The grenade is shipped with a special grenade blank cartridge.



COUNTRY: Greece

MODEL: EM 10

TYPE: Rifle,  
defensive

LENGTH: 235 mm

DIAMETER: 62 mm

WEIGHT: 555 g

FILLER: Plasticized PETN, 37 g

FUZE: Striker release

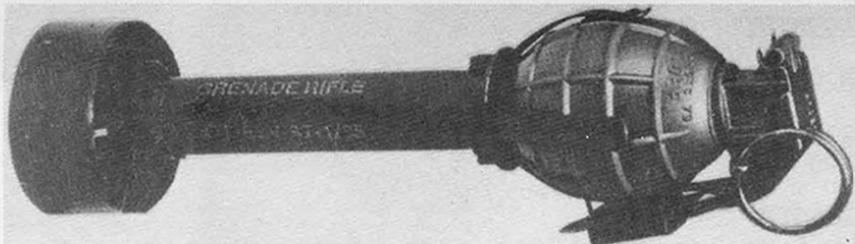
FUZE DELAY: 5.5 to 7.5 s

CONSTRUCTION: Plastic body with a layer of approximately 2600 steel pellets, each with a diameter ranging from 2.5 to 3 mm, between the body and the explosive filler. A setback slip-ring on the grenade holder holds the fuze safety lever in the safe position until the grenade is launched.

COLOR CODE/MARKINGS: Dark green with yellow markings.

RANGE/TERMINAL EFFECTS: Danger radius of 15 meters. 300 meter maximum range.

REMARKS: Uses the standard EM 01 defensive hand grenade in a launcher adaptor. The grenade is shipped with a special grenade blank cartridge.



COUNTRY: Greece

MODEL: EM 12

TYPE: Rifle, smoke fog

LENGTH: 290 mm

DIAMETER: 66 mm

WEIGHT: 560 g

FILLER: HC smoke mixture

FUZE: Striker release

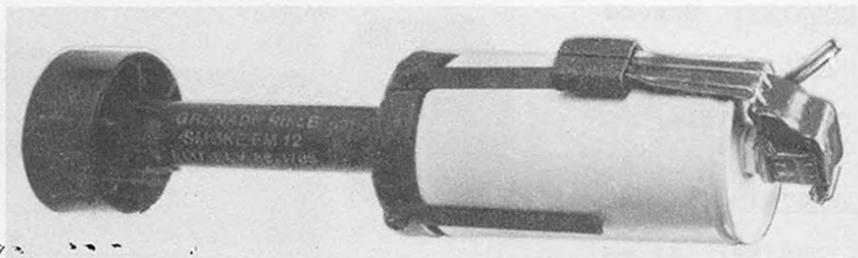
FUZE DELAY: 4 to 6.5 s

CONSTRUCTION: Smoke fog grenade affixed to a launcher adaptor. A setback slip-ring holds the fuze safety lever in the safe position until the grenade is launched.

COLOR CODE/MARKINGS: The grenade is light green with black markings. The launcher adaptor is dark green with yellow markings.

RANGE/TERMINAL EFFECTS: Smoke duration of 90 to 150 s. Maximum range of 150 meters.

REMARKS: White smoke. Standard EM 04 smoke fog grenade. The grenade is shipped with a special grenade blank cartridge.



HUNGARY

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(Reverse Blank)

COUNTRY: Hungary

MODEL: KGR

TYPE: Hand, fragmentation

LENGTH: 195 mm

DIAMETER: 51 mm

WEIGHT: 427 g

FILLER: Unknown, 38 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Plastic body with a circumferential seam and a series of longitudinal ridges to aid in grasping the grenade. Approximately 4250 steel fragments, each with a diameter of 2.4 to 2.6 mm, are embedded in the plastic body. Plastic fuze body.

COLOR CODE/MARKINGS: Olive green grenade and fuze bodies.

RANGE/TERMINAL EFFECTS: Lethal range 12 meters.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi, which apparently also was instrumental in the grenade design. In addition to the fuze with the unique profile shown here, the grenade has also been seen with a more conventionally configured fuze head and safety handle.



COUNTRY: Hungary

MODEL: M-42

TYPE: Hand,  
offensive, stick

LENGTH: 202 mm

DIAMETER: 48 mm

WEIGHT: 353 g

FILLER: TNT, 134 g

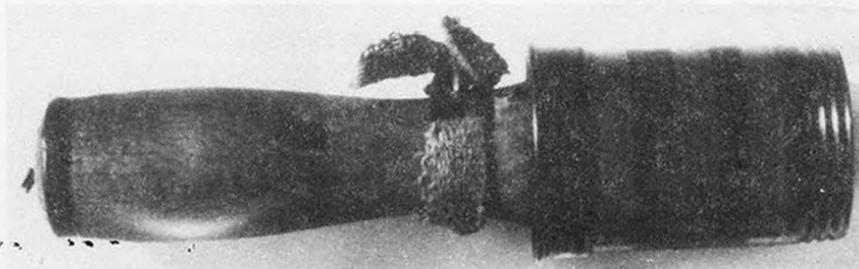
FUZE: Striker-initiated pyrotechnic.

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Sheet-steel body affixed to a wooden handle. After the safety pin is removed, the grenade body is allowed to move forward on the handle allowing for fuze initiation. The grenade is originally shipped without the detonator in place. The upper edge of the body is threaded to allow the attachment of more than one body to the handle.

COLOR CODE/MARKINGS: Either a black body with three red bands or a black body with three white bands (old markings).

RANGE/TERMINAL EFFECTS: Minimal fragmentation hazard. Blast damage at short ranges.



COUNTRY: Hungary

MODEL: HT

TYPE: Rifle,  
fragmentation

LENGTH: 210 mm

DIAMETER: 51 mm

WEIGHT: 372 g

FILLER: Unknown, 38 g

FUZE: Base detonating

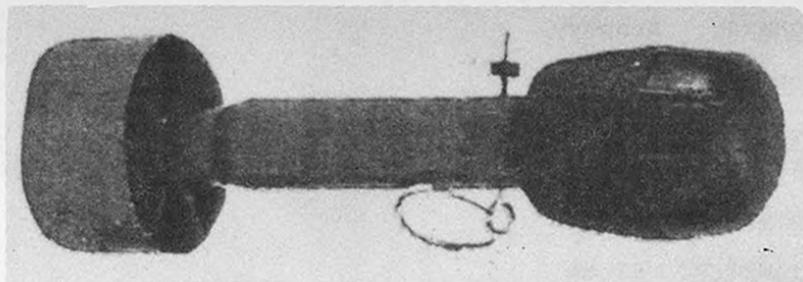
FUZE DELAY: Unknown

CONSTRUCTION: Plastic body from the KGR hand grenade with a circumferential seam and a series of longitudinal ridges. Approximately 4250 steel fragments are embedded in the plastic body.

COLOR CODE/MARKINGS: Olive green grenade and tail boom assembly.

RANGE/TERMINAL EFFECTS: Effective range of 150 meters. Lethal range 12 meters.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi, which apparently also was instrumental in the grenade body design.



COUNTRY: Hungary

MODEL: RT

TYPE: Rifle,  
fragmentation

LENGTH: 305 mm

DIAMETER: 51 mm

WEIGHT: 372 g

FILLER: Unknown, 38 g

FUZE: Base detonating

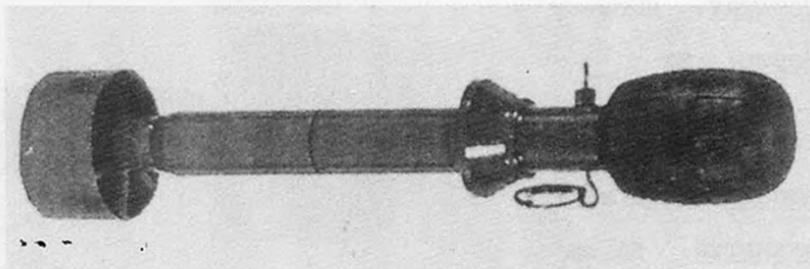
FUZE DELAY: Unknown

CONSTRUCTION: Plastic body from the KGR hand grenade with a circumferential seam and a series of longitudinal ridges. Approximately 4250 steel fragments are embedded in the plastic body. A rocket motor with forward mounted ventureries in is the tail boom assembly.

COLOR CODE/MARKINGS: Olive green grenade and tail boom assembly.

RANGE/TERMINAL EFFECTS: Effective range of 450 meters. Lethal range 12 meters.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi, which apparently also was instrumental in the grenade body design.



COUNTRY: Hungary

MODEL: GK

TYPE: Rifle, antitank

LENGTH: Unknown

DIAMETER: 62 mm

WEIGHT: 500 g

FILLER: Unknown

FUZE: Base detonating

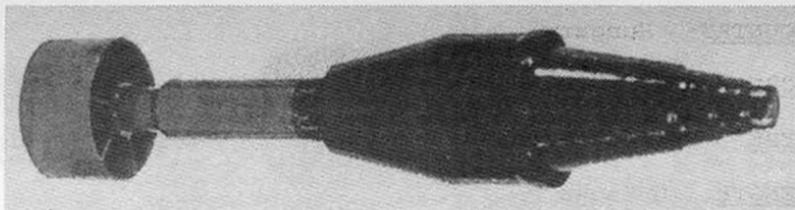
FUZE DELAY: None

CONSTRUCTION: Aluminum body with a stepped ogive.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 100 meters. Penetration of about 180 mm of armor or 460 mm of reinforced concrete.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi. The warhead is similar in appearance to the earlier PGK.



COUNTRY: Hungary

MODEL: KK

TYPE: Rifle, antitank

LENGTH: Unknown

DIAMETER: 50 mm

WEIGHT: 380 g

FILLER: Unknown

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Cylindrical metal body with a mushroom-shaped head.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 125 meters. Penetration of about 180 mm of armor or 300 mm of reinforced concrete.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi.



COUNTRY: Hungary

MODEL: PGK

TYPE: Rifle,  
antitank

LENGTH: 407 mm

DIAMETER: 62 mm

WEIGHT: 455 g

FILLER: RDX/wax, 190 g

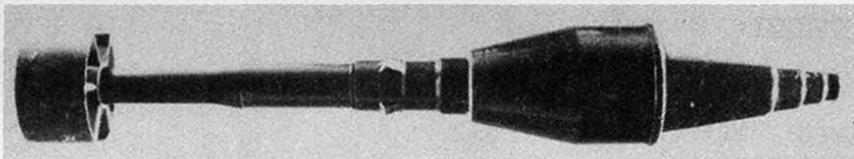
FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Aluminum body with a steel tail boom. Plastic fins. Copper shaped-charge cone. A small rocket motor is in the forward portion of the tail boom to provide additional grenade range. Four canted venturies are located on the forward end of the tail boom.

COLOR CODE/MARKINGS: Dark green body with black markings. Green fins.

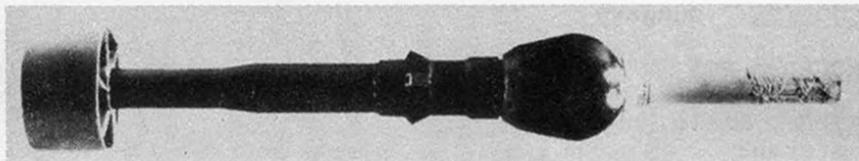
RANGE/TERMINAL EFFECTS: Range of about 400 meters. Average armor plate penetration of 200 mm.



COUNTRY: Hungary

MODEL: PGR

TYPE: Rifle,  
antipersonnel



LENGTH: 381 mm

DIAMETER: 50 mm

WEIGHT: 381 g

FILLER: TNT, 60 g

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Steel body and tail boom. Plastic fins. A small rocket motor is in the forward portion of the tail boom to provide additional grenade range. Four canted venturiers are located on the forward end of the tail boom.

COLOR CODE/MARKINGS: Dark green body with black markings. Green fins.

RANGE/TERMINAL EFFECTS: Range of about 400 meters.

REMARKS: A 105-mm long white plastic standoff probe can be snapped onto a small lug on the nose of the grenade.

COUNTRY: Hungary

MODEL: KD

TYPE: Rifle, smoke

LENGTH: Unknown

DIAMETER: 62 mm

WEIGHT: 560 g

FILLER: Unknown smoke mixture

FUZE: Unknown

FUZE DELAY: Unknown

CONSTRUCTION: Cylindrical metal body with a roll crimp at the base.

COLOR CODE/MARKINGS: Olive green with four yellow bands.

RANGE/TERMINAL EFFECTS: Effective range of 125 meters. Burn time of 30 seconds.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi.



COUNTRY: Hungary

MODEL: KF

TYPE: Rifle,  
lacrimatory

LENGTH: Unknown

DIAMETER: 62 mm

WEIGHT: 420 g

FILLER: Unknown tear agent

FUZE: Unknown

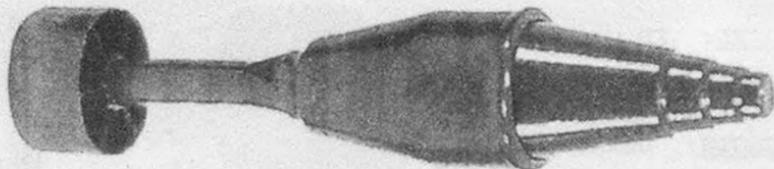
FUZE DELAY: Unknown

CONSTRUCTION: The grenade body is similar in appearance to the GK and PGK antitank rifle grenades.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Effective range of 150 meters. Burn time of 30 seconds.

REMARKS: Being marketed in a cooperative effort with the Italian firm of Fiocchi.



INDONESIA

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(Reverse Blank)

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COUNTRY: Indonesia

MODEL: GT-5PE A2

TYPE: Hand, fragmentation

LENGTH: 107 mm

DIAMETER: 50 mm

WEIGHT: 430 g

FILLER: TNT

FUZE: Striker release

FUZE DELAY: 4 to 6 s

CONSTRUCTION: Cast-iron preserrated body. The fuze has a plastic plug in the top of the safety handle, which can be removed to insert the fuze detonator.

COLOR CODE/MARKINGS: Olive green with a yellow band.

RANGE/TERMINAL EFFECTS: Produces approximately 1050 fragments. Lethal radius of about 15 meters.

REMARKS: A projection adaptor is available to allow the grenade to be launched from a rifle.



(Reverse Blank)

IRAN

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(Reverse Blank)

COUNTRY: Iran

MODEL: Unknown

TYPE: Hand, defensive

LENGTH: 97 mm

DIAMETER: 58 mm

WEIGHT: 430 g

FILLER: Plasticized PETN, 45 g

FUZE: Striker release

FUZE DELAY: 2.5 s

CONSTRUCTION: Plastic grenade body with about 3800 steel balls, ranging in diameter from 2.5 to 3 mm, embedded in the plastic.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: This appears to be a copy of the German M-DN-11 defensive grenade. The markings on the safety handle of the fuze are in English and reflect German manufacture.



COUNTRY: Iran

MODEL: SA-100

TYPE: Rifle, fragmentation

LENGTH: 232 mm

DIAMETER: 57 mm

WEIGHT: 575 g

FILLER: Plastic explosive, 43.6 g

FUZE: Base detonating, impact

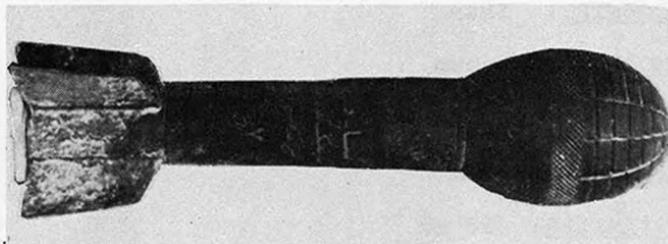
FUZE DELAY: None

CONSTRUCTION: Plastic grenade body with an aluminum tail boom and plastic fins. Brass fuze body. The forward end of the outer grenade body is divided into a series of rectangles by grooves cut into the plastic. Just below this pattern, on the major diameter of the body, is a circumferential knurled band. A large number of steel balls, each with a diameter of about 3.0 mm, are embedded into a plastic liner inside the grenade body.

COLOR CODE/MARKINGS: Black body with white markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: It is assumed that since the patterned texture of the grenade body does not add to fragmentation production it aids in gripping the body so it can be fitted with another fuze as a hand grenade also.



## ISRAEL

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(Reverse Blank)

COUNTRY: Israel

MODEL: M26A2

TYPE: Hand, fragmentation

LENGTH: 107 mm

DIAMETER: 61 mm

WEIGHT: 425 g

FILLER: Composition B, 155 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Sheet-steel body with an inner spirally wrapped, pre-engraved fragmentation liner.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Casualty radius of 10 to 15 meters. Produces about 1000 fragments.

REMARKS: Copy of the US M26A2 grenade made under a US license agreement.



COUNTRY: Israel

MODEL: No. 14

TYPE: Hand, offensive

LENGTH: 135 mm

DIAMETER: 64 mm

WEIGHT: 325 g

FILLER: Flaked TNT, 200 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Laminated paper body with sheet metal ends.

COLOR CODE/MARKINGS: Olive drab body with white markings.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges.



COUNTRY: Israel

MODEL: No. 5

TYPE: Hand, colored smoke

LENGTH: 150 mm

DIAMETER: 62 mm

WEIGHT: 450 g

FILLER: Smoke mixture, 295 g

FUZE: Striker release

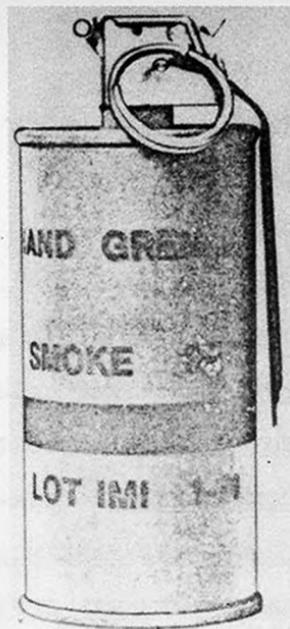
FUZE DELAY: 1 to 3 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 45 to 85 s.

REMARKS: Available in red, yellow, green, and blue smoke.



COUNTRY: Israel

MODEL: No. 5

TYPE: Hand, white smoke

LENGTH: 150 mm

DIAMETER: 62 mm

WEIGHT: 800 g

FILLER: HC smoke mixture, 610 g

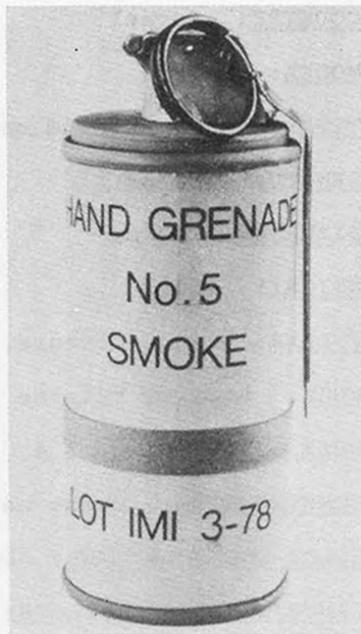
FUZE: Striker release

FUZE DELAY: 1 to 3 s

CONSTRUCTION: Tin-plated, sheet-metal body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke duration of 90 to 130 s.



COUNTRY: Israel

MODEL: M 15

TYPE: Hand, WP smoke

LENGTH: 145 mm

DIAMETER: 60 mm

WEIGHT: 450 g

FILLER: White phosphorous, 250 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces a thick screening smoke and provides an additional incendiary capability.



COUNTRY: Israel

MODEL: MA/AP 30

TYPE: Rifle,  
antipersonnel

LENGTH: 300 mm

DIAMETER: 30 mm

WEIGHT: 430 g

FILLER: Composition B, 49 g

FUZE: Base detonating

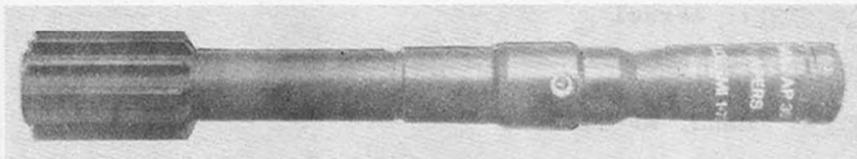
FUZE DELAY: Unknown

CONSTRUCTION: Steel fragmentation body, aluminum tail fin boom, plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Maximum range of 400 meters with a 7.62x51-mm rifle or 350 meters with a 5.56x45-mm rifle. Produces about 400 fragments which will penetrate about 8 mm of armor plate.

REMARKS: Has a bullet deflector to the rear of the fuze in case a bullet cartridge is fired with the grenade affixed to the rifle. Two windows on the tail boom give a visual indication of the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AP 30

TYPE: Rifle,  
antipersonnel

LENGTH: 320 mm

DIAMETER: 30 mm

WEIGHT: 490 g

FILLER: Composition B

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Steel fragmentation body, aluminum tail fin boom, plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 to 350 meters with a 5.56x45-mm rifle. Produces about 400 fragments. Lethal radius of/about 9 meters.

REMARKS: Has both a bullet trap and bullet deflector to the rear of the fuze. Two windows on the tail boom give a visual indication of the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: MA/AP 65

TYPE: Rifle,  
antipersonnel

LENGTH: 300 mm

DIAMETER: 60 mm

WEIGHT: 600 g

FILLER: Composition B, 146 g

FUZE: Base detonating

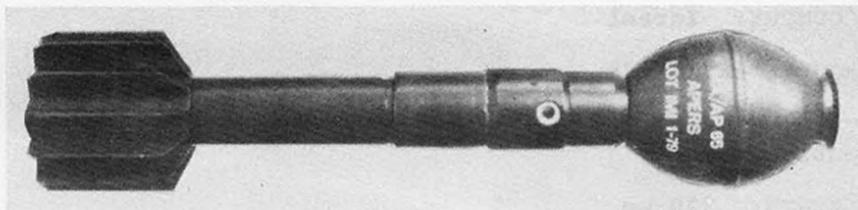
FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal, two-piece body with an internal spiral wrapped steel fragmentation liner. Aluminum tail boom with plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Produces about 1100 fragments. Maximum range of 300 meters when fired from a 7.62x51-mm rifle or 250 meters from a 5.56x45-mm rifle. Lethal radius of 18 meters.

REMARKS: Copy of US M-26 grenade body affixed to a boom assembly with a bullet deflector to the rear of the fuze. Two windows on the boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AP 65

TYPE: Rifle,  
antipersonnel

LENGTH: 320 mm

DIAMETER: 60 mm

WEIGHT: 630 g

FILLER: Composition B

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal, two-piece body with an internal spiral wrapped steel fragmentation liner. Aluminum tail boom with plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Produces about 1100 fragments./ Maximum range of 200 to 250 meters from a 5.56x45-mm rifle. Lethal radius of 18 meters. Fragments will penetrate about 13 mm of armor plate.

REMARKS: Copy of US M-26 grenade body affixed to a boom assembly. Has both a bullet trap and bullet deflector. Two windows on the tail boom show the armed/unarmed condition. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: MA/AP 67

TYPE: Rifle,  
antipersonnel

LENGTH: 290 mm

DIAMETER: 64 mm

WEIGHT: 600 g

FILLER: Composition B

FUZE: Base detonating

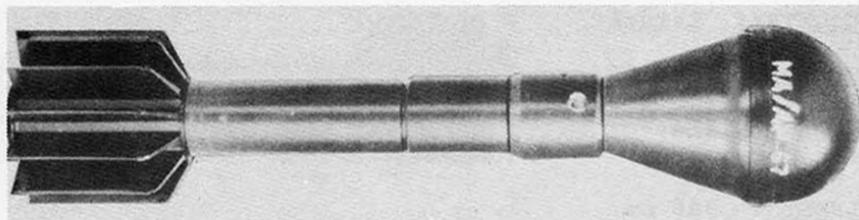
FUZE DELAY: Unknown

CONSTRUCTION: Steel fragmentation body. Aluminum tail boom with plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Produces over 1000 fragments with a lethal range of about 25 meters. Maximum range of 300 meters with a 7.62x51-mm rifle or 200 to 250 meters from a 5.56x45-mm rifle. Fragments penetrate 13 mm of armor plate.

REMARKS: Has a bullet deflector. Two windows on the tail boom show the armed/unarmed condition. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AP 67

TYPE: Rifle,  
antipersonnel

LENGTH: 310 mm

DIAMETER: 64 mm

WEIGHT: 635 g

FILLER: Composition B

FUZE: Base detonating

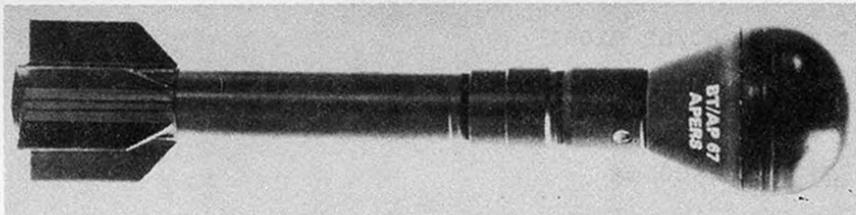
FUZE DELAY: Unknown

CONSTRUCTION: Pre-engraved steel fragmentation body. Aluminum tail boom with plastic fins.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Produces over 1000 fragments with a lethal range of about 25 meters. Maximum range of 240 meters from a 5.56x45-mm rifle.

REMARKS: Has both a bullet trap and bullet deflector to the rear of the fuze. Two windows on the tail boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AP M1091

TYPE: Rifle,  
antipersonnel

LENGTH: 320 mm

DIAMETER: 41 mm

WEIGHT: 480 g

FILLER: Composition A3 Type II

FUZE: Base detonating

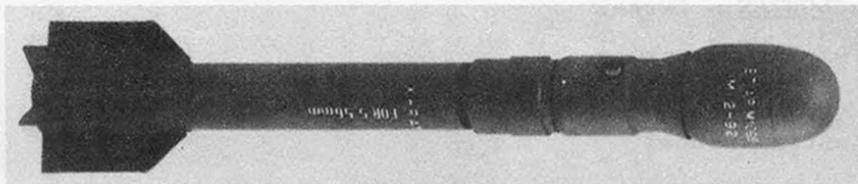
FUZE DELAY: Unknown

CONSTRUCTION: Pre-engraved steel fragmentation body. Aluminum tail boom with plastic fins.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Produces fragments with a lethal range of about 11 meters. Maximum range of 280 meters from a 5.56x45-mm rifle.

REMARKS: Has both a bullet trap and bullet deflector to the rear of the fuze. Two windows on the tail boom show the armed/unarmed condition of the fuze.



COUNTRY: Israel

MODEL: MA/AT 52

TYPE: Rifle, antitank

LENGTH: 380 mm

DIAMETER: 50 mm

WEIGHT: 450 g

FILLER: Composition B, 110 g

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum and steel grenade body with a copper shaped-charge cone. Aluminum tail boom with plastic fins. A serrated antiricochet ring on the nose of the grenade prevents ricochet and subsequent dud firing.

COLOR CODE/MARKINGS: Black with white markings.

RANGE/TERMINAL EFFECTS: Maximum range of 380 meters with a 7.62x51-mm rifle or 320 meters with a 5.56x45-mm rifle. Penetrates about 150 mm of armor plate.

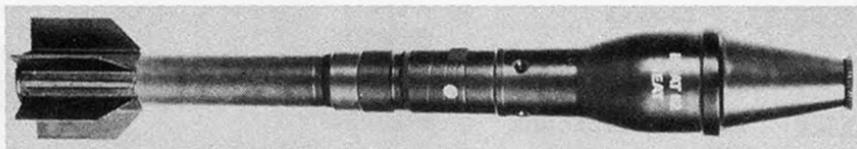
REMARKS: Has a bullet deflector to the rear of the fuze. Two windows on the tail boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AT 52

TYPE: Rifle,  
antitank



LENGTH: 400 mm

DIAMETER: 50 mm

WEIGHT: 510 g

FILLER: Composition B

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum and steel grenade body with a copper shaped-charge cone. Aluminum tail boom with plastic fins. A serrated antiricochet ring on the nose of the grenade prevents ricochet and subsequent dud firing.

COLOR CODE/MARKINGS: Black with white markings.

RANGE/TERMINAL EFFECTS: Maximum range of 270 to 320 meters with a 5.56x45-mm rifle. Penetrates about 150 mm of armor plate.

REMARKS: Has both a bullet trap and bullet deflector. Two windows on the tail boom show the armed/unarmed condition. Functions at impact angles as low as 15°.

COUNTRY: Israel

MODEL: BT/AP-AT 43

TYPE: Rifle,  
antipersonnel/antivehicle

LENGTH: 407 mm

DIAMETER: 43 mm

WEIGHT: 575 g

FILLER: Unknown

FUZE: Base detonating

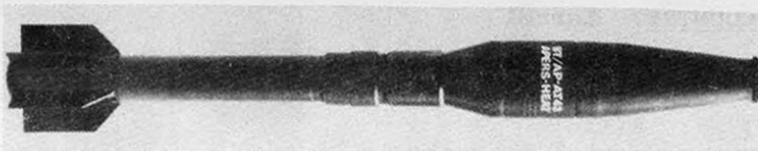
FUZE DELAY: Unknown

CONSTRUCTION: Pre-engraved steel fragmentation body, copper shaped-charge cone, aluminum tail boom and plastic fins.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Penetration of about 200-mm of armor plate. Produces about 600 fragments with a lethal radius of approximately 15 meters. Maximum range of 220 to 280 meters from a 5.56x45-mm rifle.

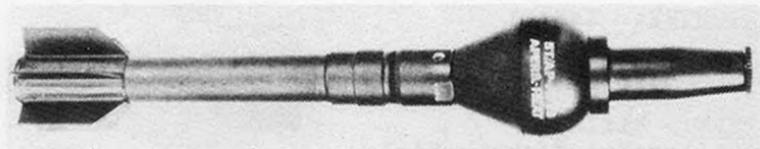
REMARKS: Has both a bullet trap and bullet deflector. Two windows on the tail boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.



COUNTRY: Israel

MODEL: BT/AP-AT 68

TYPE: Rifle,  
antipersonnel/antivehicle



LENGTH: 380 mm

DIAMETER: 64 mm

WEIGHT: 660 g

FILLER: Unknown

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Pre-scored steel fragmentation body, aluminum tail boom, and plastic fins.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Penetrates about 85 mm of armor plate. Produces about 1000 fragments with a lethal radius of 20 meters. Maximum range of 220 meters from a 5.56x45-mm rifle.

REMARKS: Has both a bullet trap and bullet deflector to the rear of the fuze. Two windows on the tail boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.

COUNTRY: Israel

MODEL: BT/AT 44

TYPE: Rifle,  
antipersonnel/  
antivehicle



LENGTH: 405 mm

DIAMETER: 41 mm

WEIGHT: 490 g

FILLER: Composition A5

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Pre-engraved steel fragmentation body, copper shaped-charge cone, aluminum tail boom and plastic fins.

COLOR CODE/MARKINGS: Black with white markings

RANGE/TERMINAL EFFECTS: Penetration of about 160-mm of armor plate. Produces fragments with a lethal radius of approximately 10 meters. Maximum range of 280 meters from a 5.56x45-mm rifle.

REMARKS: Has both a bullet trap and bullet deflector. Two windows on the tail boom show the armed/unarmed condition of the fuze.

COUNTRY: Israel

MODEL: SGF 40

TYPE: Rifle, smoke

LENGTH: 250 mm

DIAMETER: 50 mm

WEIGHT: 440 g

FILLER: HC smoke mixture

FUZE: Pyrotechnic

FUZE DELAY: 4 s

CONSTRUCTION: Aluminum body and tail boom with plastic fins.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Maximum range of 380 meters with a 7.62x51-mm rifle or 270 to 340 meters from a 5.56x45-mm rifle. Smoke duration of about 60 to 68 s.

REMARKS: Bullet deflector present in the tail boom.



COUNTRY: Israel

MODEL: BT/SGF 40

TYPE: Rifle, smoke

LENGTH: 280 mm

DIAMETER: 50 mm

WEIGHT: 490 g

FILLER: HC smoke mixture, 110 g

FUZE: Pyrotechnic

FUZE DELAY: 3.5 s to 4 s

CONSTRUCTION: Aluminum body and tail boom with plastic fins.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Maximum range of 380 meters with a 7.62x51-mm rifle or 330 meters from a 5.56x45-mm rifle. Smoke duration of about 60 to 68 s.

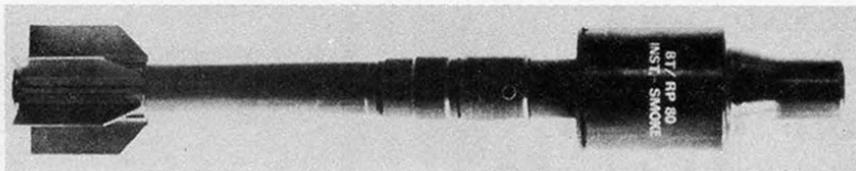
REMARKS: Bullet trap present in the tail boom.



COUNTRY: Israel

MODEL: BT/RP 80

TYPE: Rifle, smoke,  
instantaneous



LENGTH: 380 mm

DIAMETER: 56 mm

WEIGHT: 550 g

FILLER: Red phosphorous, 210 g

FUZE: Base detonating

FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Red with white markings

RANGE/TERMINAL EFFECTS: The grenade detonates on impact spreading and igniting the red phosphorous filler. A smoke screen approximately 10 by 25 meters is generated. Also has an incendiary effect to about 5 meters. Smoke duration of about 20 s. Maximum range of 300 meters from a 5.56x45-mm rifle.

REMARKS: Has both a bullet trap and bullet deflector to the rear of the fuze. Two windows on the tail boom show the armed/unarmed condition of the fuze. Functions at impact angles as low as 15°.

COUNTRY: Israel

MODEL: BT/SGI 50

TYPE: Rifle,  
illuminating

LENGTH: 350 mm

DIAMETER: 50 mm

WEIGHT: 560 g

FILLER: Pyrotechnic mixture, 120 g

FUZE: Base, pyrotechnic

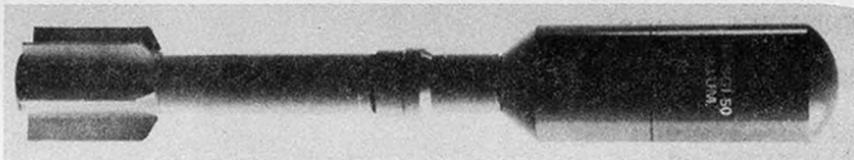
FUZE DELAY: 3.5 s to 4 s

CONSTRUCTION: Aluminum body and tail boom with plastic fins. Contains a parachute flare.

COLOR CODE/MARKINGS: Yellow with black markings

RANGE/TERMINAL EFFECTS: The flare provides over 100 000 cd illumination for a period of 35 to 40 s. Maximum range of 270 meters from a 5.56x45-mm rifle. Ejects at an altitude of about 150 meters.

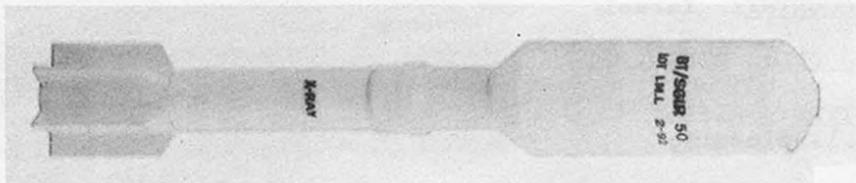
REMARKS: A bullet trap is present in the tail boom.



COUNTRY: Israel

MODEL: BT/SGIR 50

TYPE: Rifle,  
illuminating  
infrared



LENGTH: 350 mm

DIAMETER: 50 mm

WEIGHT: 560 g

FILLER: Pyrotechnic mixture

FUZE: Base, pyrotechnic

FUZE DELAY: 3.5 s to 4 s

CONSTRUCTION: Aluminum body and tail boom with plastic fins. Contains a parachute flare.

COLOR CODE/MARKINGS: White with black markings

RANGE/TERMINAL EFFECTS: The flare provides over 100 000 cd illumination for a period of 35 to 40 s. Produces an infrared wavelength of 0.7 to 1.1 micrometers. Maximum range of 250 meters from a 5.56x45-mm rifle.

REMARKS: A bullet trap is present in the tail boom.

COUNTRY: Israel

MODEL: BT/SGIN 50

TYPE: Rifle,  
incendiary

LENGTH: 350 mm

DIAMETER: 50 mm

WEIGHT: 560 g

FILLER: Incendiary mixture

FUZE: Base, pyrotechnic

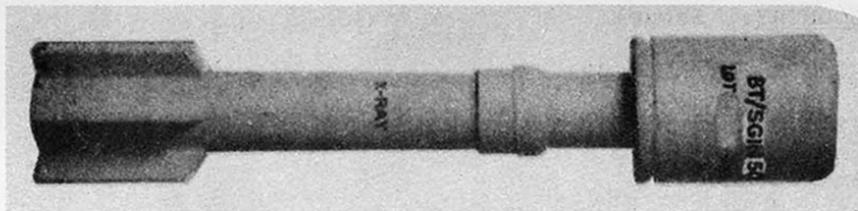
FUZE DELAY: 3.5 s to 4 s

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Yellow with black markings

RANGE/TERMINAL EFFECTS: Produces an incendiary effect lasting a minimum of 30 s. Maximum range of 250 meters from a 5.56x45-mm rifle.

REMARKS: A bullet trap is present in the tail boom.



COUNTRY: Israel

MODEL: BT/RPIN 80

TYPE: Rifle,  
incendiary,  
instantaneous

LENGTH: 380 mm

DIAMETER: 56 mm

WEIGHT: 550 g

FILLER: Red phosphorous

FUZE: Base detonating

FUZE DELAY: 3.5 s to 4 s

CONSTRUCTION: Body construction unknown. Has viewing ports to examine fuze condition.

COLOR CODE/MARKINGS: Red with yellow markings

RANGE/TERMINAL EFFECTS: Produces an incendiary effect for a minimum of 20 s. Produces a dense smoke cloud covering an area about 10 meters by 20 meters. Has an incendiary effect to a radius of 7 meters. Maximum range of 250 meters from a 5.56x45-mm rifle.

REMARKS: A bullet trap and bullet deflector are present in the tail boom.



COUNTRY: Israel

MODEL: ARG/AP 50

TYPE: Rifle, antipersonnel ambush

LENGTH: 275 mm

DIAMETER: 53 mm

WEIGHT: 640 g

FILLER: Flechettes

FUZE: None

FUZE DELAY: None

CONSTRUCTION: Metal body with no fuze or explosives. Bullet-through design allows use of bulletted cartridge. Cartridge propellant gas ignites a propellant charge which launches the 150 to 160 flechettes.

COLOR CODE/MARKINGS: Black specimens with white markings have been seen.

RANGE/TERMINAL EFFECTS: Presents a 20° cone of flechettes with an effective range from 0 to 50 meters. The flechettes will penetrate 22 mm of pine.

REMARKS: The grenade is fit over the muzzle of the weapon and does not leave the weapon. Gas from the propellant charge pushes the cap from the end of the grenade body and disperses the flechettes.



(Reverse Blank)

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**ITALY**

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COUNTRY: Italy

MODEL: S.R.C.M. Model 35

TYPE: Hand, fragmentation

LENGTH: 80 mm

DIAMETER: 55 mm

WEIGHT: 200 g

FILLER: TNT, 50 g

FUZE: Impact, all-ways-acting

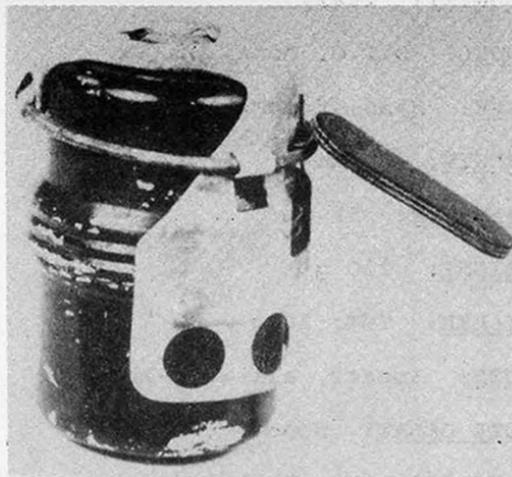
FUZE DELAY: None

CONSTRUCTION: Aluminum body and wind tab. Internal fragmentation liner. Rubber tab on the pull ring.

COLOR CODE/MARKINGS: Several color combinations have been used on this grenade: red body with a plain aluminum tab; plain body with red tab; and black body with plain tab. There may also be a yellow band on the body. Early grenades had the manufacturer's name "SOCIETA ROMANA" embossed on the grenade.

RANGE/TERMINAL EFFECTS: Casualty radius of 10 to 12 meters.

REMARKS: This grenade with an unpainted aluminum body and a red tab without the embossed letters "SOCIETA ROMANA" was encountered in Europe in 1992.



COUNTRY: Italy

MODEL: O.T.O. Model 35

TYPE: Hand, fragmentation

LENGTH: 87 mm

DIAMETER: 55 mm

WEIGHT: 210 g

FILLER: TNT, 70 g

FUZE: Impact, all-ways-acting

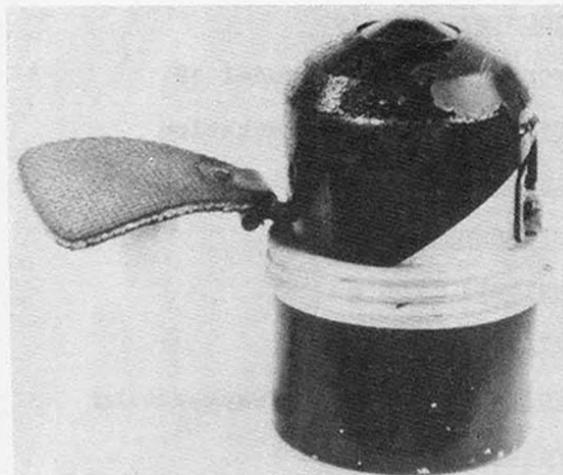
FUZE DELAY: None

CONSTRUCTION: Two-piece aluminum body with a large aluminum tab over the top of the grenade. Internal fragmentation liner. An oblong rubber pull tab attaches to a safety device inserted in the side of the grenade.

COLOR CODE/MARKINGS: Red lower body half, plain aluminum upper body half, and a red tab. The base of the body has a raised "OTO" entwined logo embossed in the aluminum.

RANGE/TERMINAL EFFECTS: Casualty radius of 10 to 12 meters.

REMARKS: This is a World War II era grenade design that has recently been encountered in Africa.



COUNTRY: Italy

MODEL: MU-50

TYPE: Hand, fragmentation

LENGTH: 70 mm

DIAMETER: 46 mm

WEIGHT: 140 g

FILLER: TNT, 46 g

FUZE: Striker release

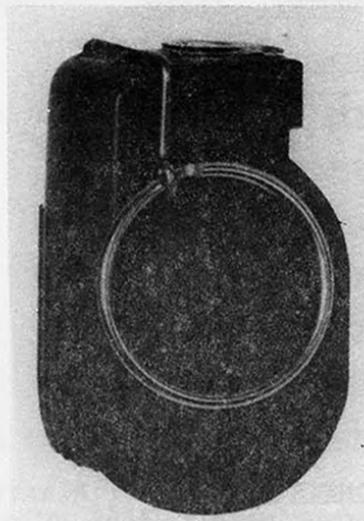
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with approximately 3000 steel balls surrounding the explosive filler. A plastic plug in the top of the fuze safety handle allows insertion of the fuze detonator prior to use.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Safety radius of 20 meters. Lethal radius of less than 5 meters.

REMARKS: Can be fit with an adaptor for firing from a rifle.



COUNTRY: Italy

MODEL: MU-50G

TYPE: Hand, fragmentation

LENGTH: 70 mm

DIAMETER: 46 mm

WEIGHT: 145 g

FILLER: TNT, 46 g

FUZE: Striker release

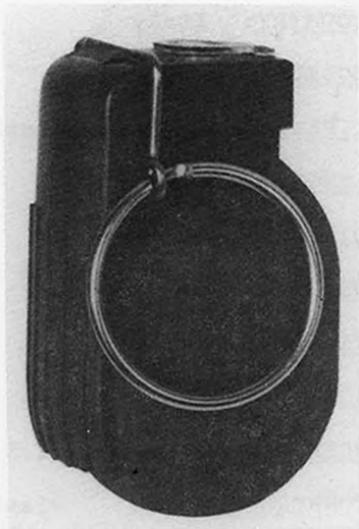
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with approximately 1400 steel balls surrounding the explosive filler. A plastic plug in the top of the fuze safety handle allows insertion of the fuze detonator prior to use.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Safety radius of 20 meters. Lethal radius of 5 meters.

REMARKS: Can be fit with an adaptor for firing from a rifle.



COUNTRY: Italy

MODEL: OD/82

TYPE: Hand, fragmentation

LENGTH: 83 mm

DIAMETER: 59 mm

WEIGHT: 290 g

FILLER: Composition B, 112 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade body with a large wrap-around pull tab. An oval rubber tab is fastened to the safety pin to aid in removal. Approximately 70 g of steel fragments (each weighing 0.05 g) are embedded in the explosive filler.

COLOR CODE/MARKINGS: Olive green body with a yellow band.

RANGE/TERMINAL EFFECTS: Safety radius of 20 meters. Lethal radius of 5 meters.



COUNTRY: Italy

MODEL: VS-MK-83

TYPE: Hand, smoke

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 250 to 350 g (depends on the color)

FILLER: Smoke mixture, 100 to 200 g  
(depending on the color)

FUZE: Pull friction igniter

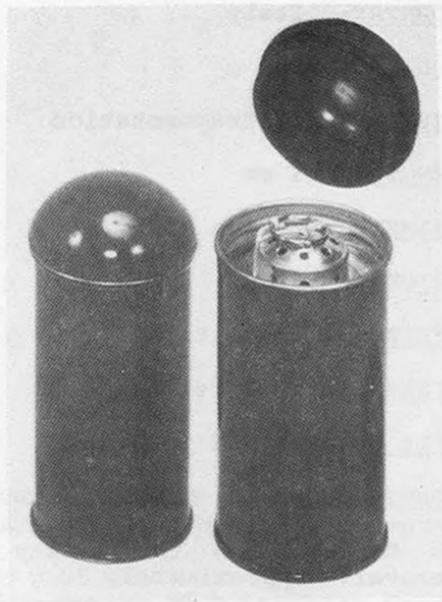
FUZE DELAY: 3 s

CONSTRUCTION: Metal cylindrical body with a  
screw-on, rounded, plastic cover.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Smoke duration of  
about 70 s.

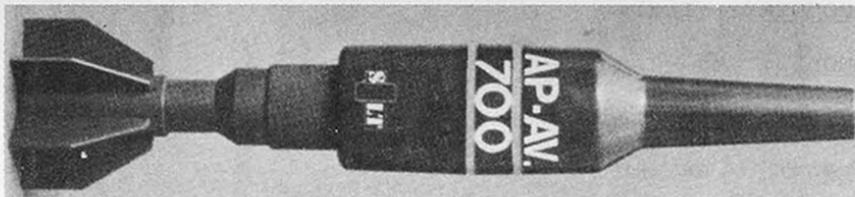
REMARKS: White, red, green, yellow, orange, blue-violet, and grey colors  
available.



COUNTRY: Italy

MODEL: AP/AV 700

TYPE: Spigot,  
antipersonnel/  
antivehicle



LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 930 g

FILLER: Unknown

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Steel balls surround the shaped-charge warhead. Bullet trap in the tail boom.

COLOR CODE/MARKINGS: Green grenade body with yellow bands and white markings.

RANGE/TERMINAL EFFECTS: Effective range of 150 to 700 meters. Penetrates about 120 mm of armor plate. Effective casualty radius of 15 meters.

REMARKS: Fired from a portable, three-barrel launcher.

COUNTRY: Italy

MODEL: M5

TYPE: Hand, lachrymatory

LENGTH: 88 mm

DIAMETER: 48 mm

WEIGHT: 124 g

FILLER: CN or CS, 80 g

FUZE: Friction ignition

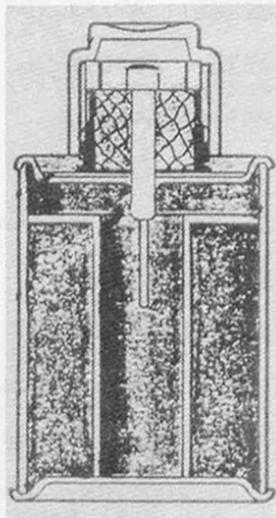
FUZE DELAY: 3 s

CONSTRUCTION: Single metal canister with a covered fuze. The cover is removed and used to strike against the fuze to ignite it.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Dissemination duration of about 20 s.

REMARKS: Can also be loaded with white, red, yellow, blue, or green smoke mixture.



COUNTRY: Italy

MODEL: M6

TYPE: Hand, lachrymatory

LENGTH: 90 mm

DIAMETER: 56 mm

WEIGHT: 185 g

FILLER: CN or CS, 80 g

FUZE: Friction ignition

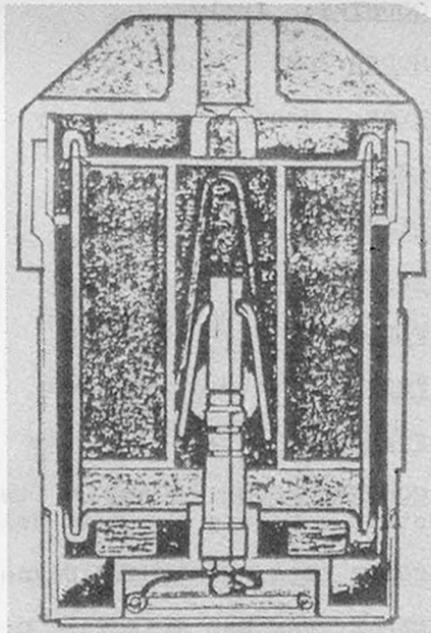
FUZE DELAY: 3 s

CONSTRUCTION: Plastic body with a cover held in place by an adhesive strip.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Dissemination duration of about 30 s.

REMARKS: Can also be loaded with white, red, yellow, blue, or green smoke mixture. Comes with adaptor rod to allow firing from a rifle.



COUNTRY: Italy

MODEL: M7

TYPE: Hand, lachrymatory

LENGTH: 140 mm

DIAMETER: 56 mm

WEIGHT: 300 g

FILLER: CN or CS, 80 g

FUZE: Friction ignition

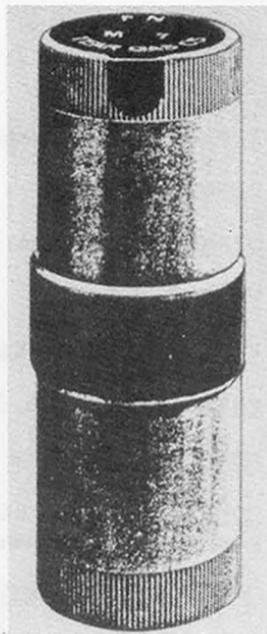
FUZE DELAY: 3 s

CONSTRUCTION: Plastic two-piece body with an adhesive strip covering the fuze pull lanyard.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Dissemination duration of about 30 s.

REMARKS: Can also be loaded with white, red, yellow, blue, or green smoke mixture. Separates into two halves when the grenade functions.



COUNTRY: Italy

MODEL: M 60

TYPE: Hand/rifle, smoke

LENGTH: 140 mm (hand)/340 mm (rifle)

DIAMETER: 64 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 420 g white smoke (hand)  
300 g colored smoke (hand)  
570 g white smoke (rifle)  
450 g colored smoke (rifle)

FILLER: Smoke mixture

FUZE: Friction ignition

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Metal body with a screw-on, plastic cap.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Dissemination time of about 90 s.

REMARKS: White, grey, red, orange, green, blue, and black smoke available.  
Add-on tail fins convert the grenade for launching from a 7.62x51-mm rifle.

COUNTRY: Italy

MODEL: M 60F

TYPE: Hand/rifle, smoke

LENGTH: 171 mm (hand)/390 mm (rifle)

DIAMETER: 72 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 320 g (hand)/520 g (rifle)

FILLER: Smoke mixture

FUZE: Friction ignition

FUZE DELAY: 3 to 7 s

CONSTRUCTION: Plastic body and screw-on end cap.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Dissemination time of 30 s to 60 s.

REMARKS: Also can be loaded with CS or CN lachrymatory agents. Add-on tail fin used to convert to a rifle grenade.

MALAYSIA

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MK III Hand, Smoke (U).....	II-306

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COUNTRY: Malaysia

MODEL: HE HG 79

TYPE: Hand, fragmentation

LENGTH: 96 mm

DIAMETER: 57 mm

WEIGHT: 365 g

FILLER: PETN, 40 g

FUZE: Striker release

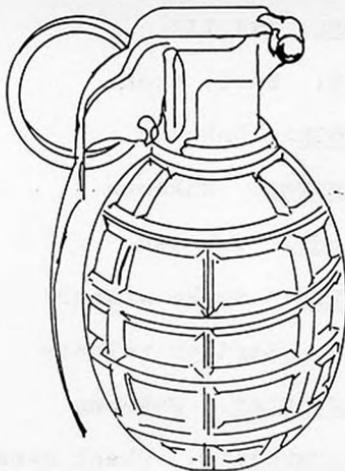
FUZE DELAY: 3.5 to 5.5 s

CONSTRUCTION: Plastic body with a minimum of 4400 steel pellets embedded in it.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Lethal radius of 5 meters.

REMARKS: This grenade is actually assembled from components of the ARGES HGr 79 supplied to Malaysia by Austria.



COUNTRY: Malaysia

MODEL: MK III

TYPE: Hand, smoke

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: Unknown

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Light green body

RANGE/TERMINAL EFFECTS: Smoke emission time of more than 40 s.

REMARKS: Red, yellow, green, or blue smoke available.



NETHERLANDS

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NR 12 Hand, Incendiary (U).....	II-314

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COUNTRY: Netherlands

MODEL: NR20 C1

TYPE: Hand, fragmentation

LENGTH: 103 mm

DIAMETER: 60 mm

WEIGHT: 390 g

FILLER: Composition B, 150 g

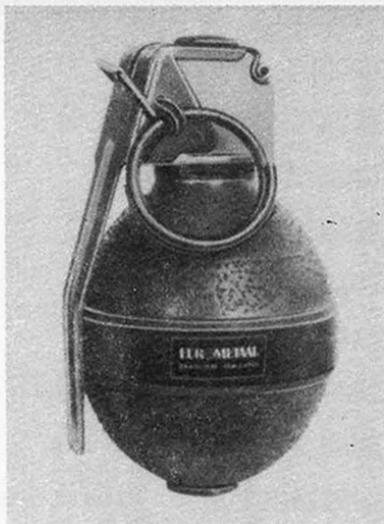
FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Plastic body with an inner lining of steel balls.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Lethal radius of 5 meters. Safety range of 15 to 20 meters. Produces about 2100 fragments resulting in an average of six perforations per m<sup>2</sup> in 1.5 mm thick mild steel at a distance of 5 meters.



COUNTRY: Netherlands

MODEL: NR 17

TYPE: Hand, offensive

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 475 g

FILLER: TNT, 205 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Netherlands

MODEL: NR 23

TYPE: Hand, smoke

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 500 g

FILLER: White phosphorous

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Cylindrical thick metal body with welded on top.

COLOR CODE/MARKINGS: Light green with a yellow band and red markings.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Netherlands

MODEL: NR 7C2

TYPE: Hand, smoke

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 660 g

FILLER: HC smoke mixture

FUZE: Striker release

FUZE DELAY: 1 to 3 s

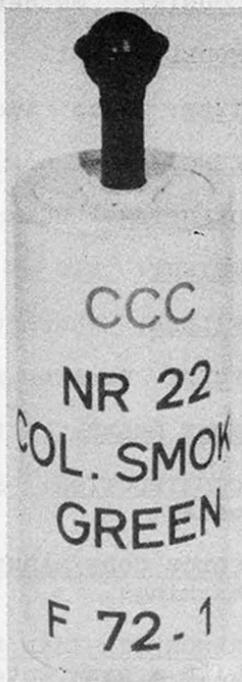
CONSTRUCTION: Sheet metal body with roll crimped ends.

COLOR CODE/MARKINGS: Light green with brown markings.

RANGE/TERMINAL EFFECTS: Burn time of about 50 seconds.



COUNTRY: Netherlands  
MODEL: NR 22  
TYPE: Hand, colored smoke  
LENGTH: Unknown  
DIAMETER: Unknown  
WEIGHT: 495 g  
FILLER: Smoke mixture  
FUZE: Pull friction  
FUZE DELAY: 4 to 5 s  
CONSTRUCTION: Sheet metal body with a roll crimped top.  
COLOR CODE/MARKINGS: Light green with brown markings and "CCC" in the color of the smoke.  
RANGE/TERMINAL EFFECTS: Burn time of 70 to 110 seconds.  
REMARKS: Yellow, red, and green smoke available.



COUNTRY: Netherlands

MODEL: NR 12

TYPE: Hand, incendiary

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 820 g

FILLER: Thermitite

FUZE: Striker release

FUZE DELAY: 1 to 3 s

CONSTRUCTION: Sheet metal body with two roll crimped ends.

COLOR CODE/MARKINGS: Red with a brown band and white markings.

RANGE/TERMINAL EFFECTS: Burn time of about 40 seconds with a peak intensity of about 2200°C.



NORTH KOREA

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COUNTRY: North Korea

MODEL: Unknown

TYPE: Hand, fragmentation

LENGTH: 128 mm

DIAMETER: 54 mm

WEIGHT: 600 g

FILLER: TNT, 60 g

FUZE: Striker release

FUZE DELAY: 3.2 to 4.2 s

CONSTRUCTION: Cast aluminum body with 140 to 150 cast iron balls embedded in it.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Effective casualty radius of about 20 meters.

REMARKS: A variation also reported with a plastic body.



COUNTRY: North Korea

MODEL: Unknown

TYPE: Hand, fragmentation

LENGTH: 128 mm

DIAMETER: \*See remarks below

WEIGHT: 370 g

FILLER: Composition B, 55 g

FUZE: Striker release

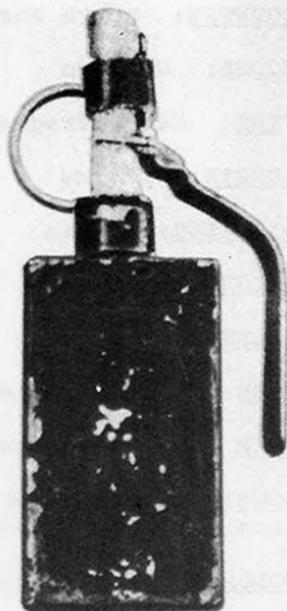
FUZE DELAY: 3.2 to 4.2 s

CONSTRUCTION: Sheet steel body with about 130 steel balls in a cavity between the outer wall and the explosive filler.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Effective casualty radius of 20 meters.

REMARKS: The grenade body is actually a 42x27x76-mm shaped rectangular box.



COUNTRY: North Korea

MODEL: Unknown

TYPE: Hand, lacrimatory

LENGTH: 190 mm

DIAMETER: 65 mm

WEIGHT: 350 g

FILLER: CS mixture/TNT

FUZE: Pull friction

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Sheet- steel body with a wooden handle. Small explosive burster to disseminate the CS filler.

COLOR CODE/MARKINGS: Light bluish/green with a red band and the letters "CS".

RANGE/TERMINAL EFFECTS: Can be thrown about 20 meters. Produces a 10-meter diameter coverage area.

REMARKS: The grenade is a copy of a Vietnamese grenade used during the Vietnam War period. (NOTE: The illustration is of a Vietnamese grenade, but it is apparently almost identical to the North Korean version.)

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PAKISTAN

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(Reverse Blank)

COUNTRY: Pakistan

MODEL: No. 36M MK 1

TYPE: Hand, fragmentation

LENGTH: 102 mm

DIAMETER: 59 mm

WEIGHT: 765 g

FILLER: TNT, 66 g

FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Cast-iron body with external serrations. A threaded filler plug is located on the side of the body, and a removable base plug allows insertion of the detonator prior to use.

COLOR CODE/MARKINGS: Blackened body with a red band and yellow markings

RANGE/TERMINAL EFFECTS: Produces approximately 25 fragments. Casualty radius of 18 meters.

REMARKS: Copy of the British No. 36M Mills bomb.



COUNTRY: Pakistan

MODEL: P-1 MK1

TYPE: Hand, fragmentation

LENGTH: 115 mm

DIAMETER: 60 mm

WEIGHT: 485 g

FILLER: PETN, 65 g

FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Plastic body with approximately 3500 steel balls between it and the explosive filler.

COLOR CODE/MARKINGS: Olive green with yellow markings and either a red or yellow band.

RANGE/TERMINAL EFFECTS: Casualty radius of 20 meters.

REMARKS: Copy of the Austrian ARGES HdGr 69. Possibly from Austrian-provided components since the "ARGES" name and nomenclature are embossed into the plastic grenade body.



COUNTRY: Pakistan

MODEL: P-2 MK1

TYPE: Rifle,  
antitank

LENGTH: 425 mm

DIAMETER: 75 mm

WEIGHT: 765 g

FILLER: RDX/wax

FUZE: Point initiating/base detonating

FUZE DELAY: None

CONSTRUCTION: The grenade has a small rocket motor in the tail boom for increased range.

COLOR CODE/MARKINGS: Olive green with yellow markings and either a red or yellow band.

RANGE/TERMINAL EFFECTS: Effective range of 200 meters. Penetration of about 75 mm of armor plate.

REMARKS: Copy of the Belgian Super Energa rifle grenade.



COUNTRY: Pakistan

MODEL: \*See remarks below

TYPE: Hand, target indication, smoke

LENGTH: 127 mm

DIAMETER: 65 mm

WEIGHT: 1000 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Sheet-metal body.

COLOR CODE/MARKINGS: The background color of the grenade body corresponds with the smoke color. Markings are in black or white depending on the background color.

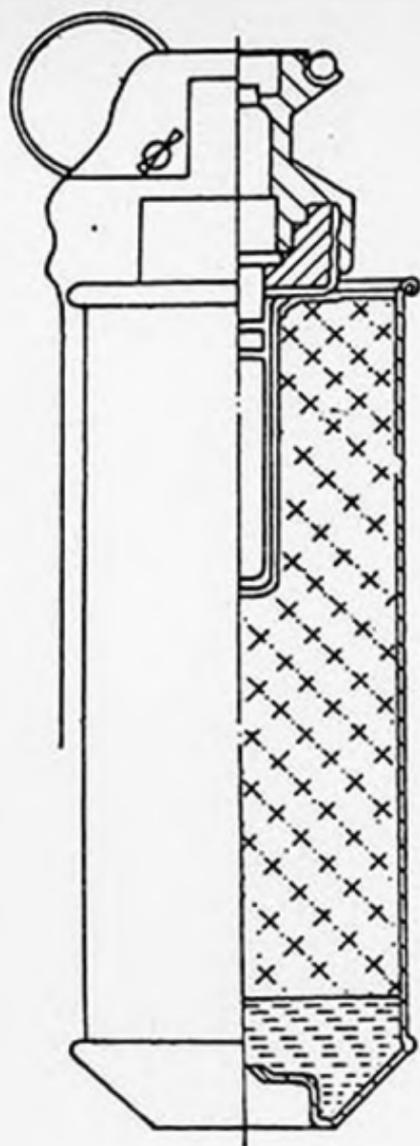
RANGE/TERMINAL EFFECTS: Smoke emission time of 90 to 120 s.

REMARKS: Exists in a series of smoke colors, each with its own model number: white P4 MK1; blue P5 MK1; green P6 MK1; orange P7 MK1; red P8 MK1; and yellow P9 MK1.



COUNTRY: Pakistan  
MODEL: WP P1 MK1  
TYPE: Hand, white phosphorous  
LENGTH: 150 mm  
DIAMETER: 62 mm  
WEIGHT: 460 g  
FILLER: White phosphorous  
FUZE: Striker release  
FUZE DELAY: 4 s  
CONSTRUCTION: Sheet-metal body.  
COLOR CODE/MARKINGS: Unknown  
RANGE/TERMINAL EFFECTS: Unknown  
REMARKS: Non-bursting grenade.

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PHILIPPINES

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M 76 Rifle, Fragmentation (U) .....	II-332

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COUNTRY: Philippines

MODEL: M211

TYPE: Rifle,  
fragmentation

LENGTH: 250 mm

DIAMETER: 40 mm

WEIGHT: Unknown

FILLER: Composition B

FUZE: Impact superquick

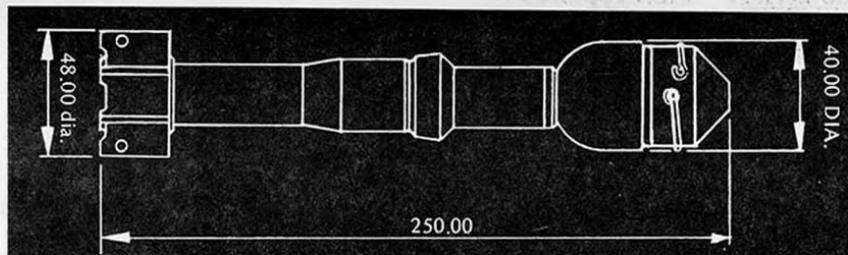
FUZE DELAY: None

CONSTRUCTION: About 200 pre-cut metal fragments surround the explosive filler.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Casualty radius of about 7 meters.

REMARKS: Has a bullet trap in the tail boom.



COUNTRY: Philippines

MODEL: M 76

TYPE: Rifle, fragmentation

LENGTH: 248 mm

DIAMETER: 40 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 325 g

FILLER: Unknown

FUZE: Impact

FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters. Produces about 500 fragments with a lethal radius of 5 meters. Maximum effective radius of 15 meters.

POLAND

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F-IN-60 Rifle, Antipersonnel (U).....	II-339

(Reverse Blank)

COUNTRY: Poland

MODEL: Model 31

TYPE: Hand, fragmentation

LENGTH: 112 mm

DIAMETER: 57 mm

WEIGHT: 600 g

FILLER: TNT

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Cast-iron body with large external serrations.

COLOR CODE/MARKINGS: Black body with no markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Similar in appearance to the Soviet-designed F-1.



COUNTRY: Poland  
MODEL: RGO  
TYPE: Hand, fragmentation  
LENGTH: 114 mm  
DIAMETER: 57 mm  
WEIGHT: 500 g  
FILLER: RDX/wax, 60 g  
FUZE: Striker release  
FUZE DELAY: 3 to 4 s  
CONSTRUCTION: Two-piece, sheet-metal body.  
COLOR CODE/MARKINGS: Olive green  
RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Poland

MODEL: RGZ-89

TYPE: Hand, offensive

LENGTH: 98 mm

DIAMETER: 59 mm

WEIGHT: 380 g

FILLER: A-IX-1, 110 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Ribbed plastic body which contains a coiled, serrated Duralumin wire.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Lethal radius of 5 meters. Safety radius of 25 meters. Produces about 700 fragments, each weighing about 0.13 g.



COUNTRY: Poland

MODEL: PGN-60

TYPE: Rifle,  
antitank

LENGTH: 405 mm

DIAMETER: 68 mm

WEIGHT: 580 g

FILLER: Composition B, 218 g

FUZE: Base detonating

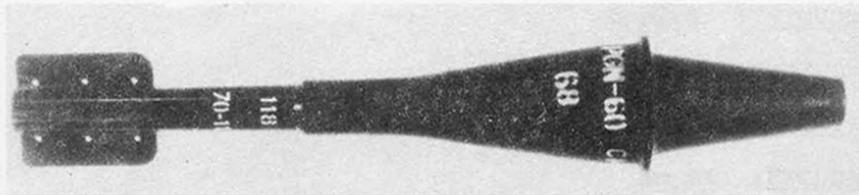
FUZE DELAY: None

CONSTRUCTION: Aluminum body and tail boom with steel fins. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with black markings. A large yellow label with black print may be affixed to the ogive of the warhead.

RANGE/TERMINAL EFFECTS: Will penetrate approximately 120 mm of armor plate. Maximum range of about 100 meters.

REMARKS: Cannot be fired from Western-designed rifles having a 22-mm diameter flash suppressor because the tail boom opening is only 20-mm in diameter.



COUNTRY: Poland

MODEL: F-IN-60

TYPE: Rifle,  
antipersonnel

LENGTH: 270 mm

DIAMETER: 55 mm

WEIGHT: 633 g

FILLER: TNT, 45 g

FUZE: Base detonating

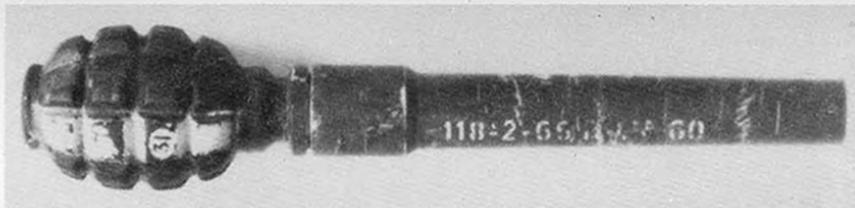
FUZE DELAY: None

CONSTRUCTION: Cast-iron grenade body (F-1 body) attached to an aluminum tail boom.

COLOR CODE/MARKINGS: Black or olive green with a white band on the grenade body. Stenciling in black or white depending on location and body color.

RANGE/TERMINAL EFFECTS: Maximum effective range of 200 meters. Lethal range of about 20 meters.

REMARKS: Cannot be fired from Western-designed rifles having a 22-mm diameter flash suppressor because the tail boom opening is only 20-mm in diameter.



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PORTUGAL

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COUNTRY: Portugal

MODEL: M 312

TYPE: Hand, fragmentation

LENGTH: 109 mm

DIAMETER: 67 mm

WEIGHT: 450 g

FILLER: Composition B, 150 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece, sheet-steel body with a serrated coiled fragmentation liner.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Effective radius of 11 meters. Safety radius of 30 meters. Produces about 900 fragments, each weighing about 0.13 g.

REMARKS: Copy of the US M 26A1. Some examples have been observed carrying the M 26A1 designation.



COUNTRY: Portugal

MODEL: M 313

TYPE: Hand, fragmentation

LENGTH: 96 mm

DIAMETER: 63 mm

WEIGHT: 370 g

FILLER: PETN, 51 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece plastic body with two layers of approximately 1800 steel balls in a resin matrix placed between the body and the explosive filler.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Effective radius of 9 meters. Safety radius of 20 meters. Average fragment weight of 0.11 g.



COUNTRY: Portugal

MODEL: M 314

TYPE: Hand, fragmentation

LENGTH: 103 mm

DIAMETER: 74 mm

WEIGHT: 575 g

FILLER: PETN, 58 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece smooth plastic body. About 6500 preformed fragments between the body and the explosive filler.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Effective radius of 8 meters. Safety radius of 20 meters. Average fragment size of 0.06 g.

REMARKS: Similar to the M 313, but larger in size and containing more fragments.



COUNTRY: Portugal

MODEL: M 321

TYPE: Hand, offensive

LENGTH: 126 mm

DIAMETER: 59 mm

WEIGHT: 295 g

FILLER: TNT, 190 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Plastic body.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Blast damage at short ranges. Safety radius of 30 meters.



COUNTRY: Portugal

MODEL: M/962

TYPE: Hand, offensive

LENGTH: 127 mm

DIAMETER: 48 mm

WEIGHT: 295 g

FILLER: TNT, 190 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Casualty radius of about 2 meters. Safety radius of 40 meters.



COUNTRY: Portugal

MODEL: O

TYPE: Hand, offensive

LENGTH: 150 mm

DIAMETER: 48 mm (widest part)

WEIGHT: 260 g

FILLER: Composition B

FUZE: Impact, delay, or delay/impact

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body with no fragmentation sleeve

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Blast damage at short range.

REMARKS: Can be fit with a fragmentation sleeve to form the model OD defensive hand grenade and additionally with a tail boom to form the model ODE rifle grenade.



COUNTRY: Portugal

MODEL: OD

TYPE: Hand, defensive

LENGTH: 150 mm

DIAMETER: 48 mm

WEIGHT: 415 g

FILLER: Composition B

FUZE: Impact, delay, or delay/impact

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic body with a slip-on, plastic-covered fragmentation sleeve

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: A danger radius of about 20 meters. Produces approximately 400 fragments, each weighing about 0.3 gram.

REMARKS: Can be used without the fragmentation sleeve to form the Model O offensive hand grenade or with a tail boom to form the Model ODE rifle grenade.



COUNTRY: Portugal

MODEL: M 362

TYPE: Hand, smoke, white phosphorous

LENGTH: 134 mm

DIAMETER: 61 mm

WEIGHT: 480 g

FILLER: White phosphorous, 220 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Metal body.

COLOR CODE/MARKINGS: Light green with a red band and yellow markings or light green with a yellow band and red markings.

RANGE/TERMINAL EFFECTS: Burns for a period of about 60 s.



COUNTRY: Portugal

MODEL: GWP

TYPE: Hand, incendiary

LENGTH: 140 mm

DIAMETER: 55 mm

WEIGHT: 750 g

FILLER: White phosphorous

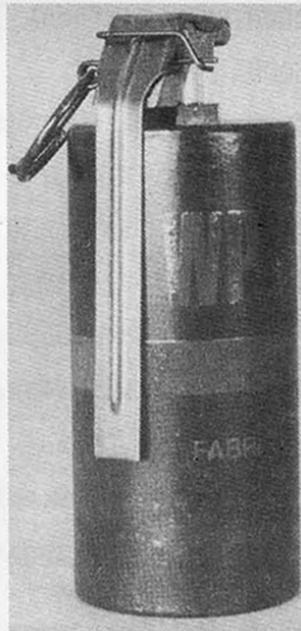
FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Metal body.

COLOR CODE/MARKINGS: Olive green with a green band and green markings.

RANGE/TERMINAL EFFECTS: Covers an area of about 40 meters in diameter.



COUNTRY: Portugal

MODEL: GRP

TYPE: Hand, incendiary

LENGTH: 142 mm

DIAMETER: 55 mm

WEIGHT: 560 g

FILLER: Red phosphorous

FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Metal body

COLOR CODE/MARKINGS: Olive green with a red band and red markings.

RANGE/TERMINAL EFFECTS: Burns for a period of about 30 s and covers an area 30 meters in diameter.



COUNTRY: Portugal

MODEL: CTE

TYPE: Hand, incendiary

LENGTH: 140 mm

DIAMETER: 55 mm

WEIGHT: 580 g

FILLER: Thermite

FUZE: Striker release

FUZE DELAY: 2 s

CONSTRUCTION: Metal body

COLOR CODE/MARKINGS: Dark green with a green band and green markings.

RANGE/TERMINAL EFFECTS: Burns for approximately 40 s.  
Reaches temperatures of 3000° C.



COUNTRY: Portugal

MODEL: M 363

TYPE: Hand, colored smoke

LENGTH: 135 mm

DIAMETER: 71 mm

WEIGHT: 550 g

FILLER: Smoke mixture, 300 g

FUZE: Striker release

FUZE DELAY: 2 to 4 s

CONSTRUCTION: Sheet-metal body with emission holes on the top.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Smoke duration of a minimum of .50 s.

REMARKS: Also carries the M18 model designation. Comes in green, yellow, red, blue, and other colors.



COUNTRY: Portugal

MODEL: M 364

TYPE: Hand, colored smoke

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 280 g

FILLER: Smoke mixture, 140 g

FUZE: Striker release

FUZE DELAY: 2 to 4 s

CONSTRUCTION: Sheet-metal body with emission holes on the top.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Smoke duration of about 30 to 50 s.

REMARKS: Comes in green, blue, yellow, red, and other colors.



COUNTRY: Portugal

MODEL: M 365

TYPE: Hand, colored smoke

LENGTH: 120 mm

DIAMETER: 56 mm

WEIGHT: 180 g

FILLER: Smoke mixture, 60 g

FUZE: Striker release

FUZE DELAY: 2 to 4 s

CONSTRUCTION: Sheet-metal body with emission holes on the top.

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Smoke duration of about 20 to 40 s.

REMARKS: Comes in green, blue, yellow, red, and other colors.



COUNTRY: Portugal

MODEL: ODE

TYPE: Rifle,  
antipersonnel

LENGTH: 270 mm

DIAMETER: 48 mm

WEIGHT: 490 g

FILLER: Composition B

FUZE: Impact, impact/delay, or delay

FUZE DELAY: 4 s arming time

CONSTRUCTION: Plastic body with an external fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green with yellow markings

RANGE/TERMINAL EFFECTS: Maximum range of 440 meters.

REMARKS: Can be used as a defensive hand grenade (Model OD) with the tail boom removed. The fragmentation sleeve can also be removed to create an offensive grenade (Model O).



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SINGAPORE

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M 8 Hand, Smoke (U).....	II-365
SSG 86 Hand, Smoke/Incendiary (U).....	II-366

(Reverse Blank)

COUNTRY: Singapore

MODEL: SFG 82

TYPE: Hand, fragmentation

LENGTH: 105 mm

DIAMETER: 54 mm

WEIGHT: 300 g

FILLER: Composition B, 80 g

FUZE: Striker release

FUZE DELAY: 3.5 to 5.5 s

CONSTRUCTION: Plastic body with approximately 2800 steel balls embedded in the plastic.

COLOR CODE/MARKINGS: Olive green with yellow markings. The markings may be on an olive green stick-on label.

RANGE/TERMINAL EFFECTS: Casualty radius of 10 meters. Safety radius of 25 meters.



COUNTRY: Singapore

MODEL: SFG 75

TYPE: Hand, fragmentation

LENGTH: 93 mm

DIAMETER: 57 mm

WEIGHT: 400 g

FILLER: Composition B

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Cast-steel body with internal serrations.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Safety radius of 25 meters.

REMARKS: Copy of the US M33.



COUNTRY: Singapore

MODEL: SFG 87

TYPE: Hand, fragmentation

LENGTH: 110 mm

DIAMETER: 54 mm

WEIGHT: 300 g

FILLER: Composition B, 80 g

FUZE: Striker release

FUZE DELAY: 3.5 to 5.5 s

CONSTRUCTION: Plastic body with approximately 2000 steel balls, each with a diameter of about 2 mm, embedded in the explosive.

COLOR CODE/MARKINGS: Olive green with yellow markings. The markings may be on an olive green stick-on label.

RANGE/TERMINAL EFFECTS: Casualty radius of 10 meters. Safety radius of 25 meters.



COUNTRY: Singapore

MODEL: AFG

TYPE: Hand, anti-frogman

LENGTH: 138 mm

DIAMETER: 54 mm

WEIGHT: 320 g

FILLER: Composition B, 180 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Plastic body with no fragmentation capability.

COLOR CODE/MARKINGS: Olive green with yellow markings. The markings may be on an olive green stick-on label.

RANGE/TERMINAL EFFECTS: Lethal radius of 10 meters. Safety radius of about 30 meters. Produces a blast/shock/pressure wave in the water to kill or incapacitate divers. Detonates at a depth of 3 to 8 meters below the water surface.

REMARKS: Both the fuze and the body are made to be watertight.



COUNTRY: Singapore

MODEL: M 8

TYPE: Hand, smoke

LENGTH: 141 mm

DIAMETER: 65 mm

WEIGHT: 630 g

FILLER: HC smoke mixture

FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Sheet metal body

COLOR CODE/MARKINGS: Light green with black markings.

RANGE/TERMINAL EFFECTS: Produces a thick gray smoke for about 130 s.



COUNTRY: Singapore

MODEL: SSG 86

TYPE: Hand, smoke/incendiary

LENGTH: 118 mm

DIAMETER: 55 mm

WEIGHT: 320 g

FILLER: Red phosphorous, 220 g

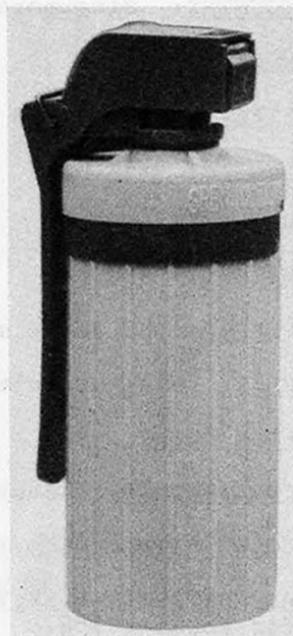
FUZE: Striker release

FUZE DELAY: 4.5 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Light green with a red band. The nomenclature is embossed into the plastic body.

RANGE/TERMINAL EFFECTS: Produces an effective smoke screen for a period of about 40 s. The fill is disseminated over a 10 meter to 20 meter radius.



SOUTH AFRICA

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COUNTRY: South Africa

MODEL: M26A6

TYPE: Hand, fragmentation

LENGTH: 113 mm

DIAMETER: 60 mm

WEIGHT: 465 g

FILLER: Composition B or RDX/TNT, 160 g

FUZE: Striker release

FUZE DELAY: 4.5 s

CONSTRUCTION: Sheet-steel body with a coiled pre-engraved fragmentation liner.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Produces over 1000 fragments with an average weight of 0.02 g. Casualty radius (50%) of 15 meters.

REMARKS: Copy of the US M26.



COUNTRY: South Africa

MODEL: No. 83 MK 3

TYPE: Hand, colored smoke

LENGTH: 143 mm

DIAMETER: 58 mm

WEIGHT: 482 g

FILLER: Smoke mixture, 175 g

FUZE: Striker release

FUZE DELAY: 1.2 to 3 s

CONSTRUCTION: Sheet-metal body.

COLOR CODE/MARKINGS: Light green with black and red markings.

RANGE/TERMINAL EFFECTS: Smoke emission time of no more than 30 s.

REMARKS: Red, green, yellow, orange, blue, and white colors available.



COUNTRY: South Africa

MODEL: M1A4

TYPE: Hand, screening smoke

LENGTH: 143 mm

DIAMETER: 58 mm

WEIGHT: 482 g

FILLER: Smoke mixture, 175 g

FUZE: Striker release

FUZE DELAY: 1.2 to 3 s

CONSTRUCTION: Sheet-metal body.

COLOR CODE/MARKINGS: Light green with black and red markings.

RANGE/TERMINAL EFFECTS: Smoke emission time of no more than 30 s.



COUNTRY: South Africa

MODEL: BST

TYPE: Hand, smoke

LENGTH: 136 mm

DIAMETER: 51 mm

WEIGHT: 420 g

FILLER: Red phosphorous, 220 g

FUZE: Striker release

FUZE DELAY: 4.5 s

CONSTRUCTION: Metal body.

COLOR CODE/MARKINGS: Light green with red markings.

RANGE/TERMINAL EFFECTS: Covers an area of 500 m<sup>2</sup>.

REMARKS: The filler is consolidated into about 2600 granules, which each disperse and burn.



COUNTRY: South Africa

MODEL: Unknown

TYPE: Hand, illumination

LENGTH: 173 mm

DIAMETER: 43 mm

WEIGHT: 480 g

FILLER: Pyrotechnic mixture, 250 g

FUZE: Striker release

FUZE DELAY: 1.5 s

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Black with white markings.

RANGE/TERMINAL EFFECTS: Burns for a minimum of 70 s. Maximum luminosity of 70 000 cd.



COUNTRY: South Africa

MODEL: M791

TYPE: Rifle,  
fragmentation

LENGTH: 305 mm

DIAMETER: 60 mm

WEIGHT: 660 g

FILLER: Composition B, 160 g

FUZE: Base detonating

FUZE DELAY: Pyrotechnic. Arms at 15 meters of flight.

CONSTRUCTION: Sheet-steel body, aluminum tail fin assembly and plastic fins. The tail boom houses both a bullet trap and a bullet deflector and a special base fuze. The body contains a spiral wrapped serrated steel fragmentation coil.

COLOR CODE/MARKINGS: Olive green with a yellow band and red and yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters from a 7.62x51-mm rifle or 210 meters from a 5.56x45-mm rifle. Produces about 1000 fragments with a casualty (50%) radius of 15 meters.

REMARKS: Copy of the US M26A6 mounted on a tail-boom assembly.



COUNTRY: South Africa

MODEL: Unknown

TYPE: Rifle,  
antitank

LENGTH: Unknown

DIAMETER: 75 mm

WEIGHT: 720 g

FILLER: RDX/wax

FUZE: Point initiating-base detonating (spit-back)

FUZE DELAY: Unknown

CONSTRUCTION: Unknown

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum range of 375 meters. Maximum effective range of 75 meters. Penetrates about 275 mm of armor plate.

REMARKS: Copy of the Energa design. Safety element isolates the spit-back element until firing setback is experienced. The detonator is carried in a container fitted to the tail boom assembly until it is needed for firing.



COUNTRY: South Africa

MODEL: M811A1

TYPE: Rifle, smoke

LENGTH: 360 mm

DIAMETER: Unknown

WEIGHT: 630 g

FILLER: Red phosphorous, 260 g

FUZE: Base detonating

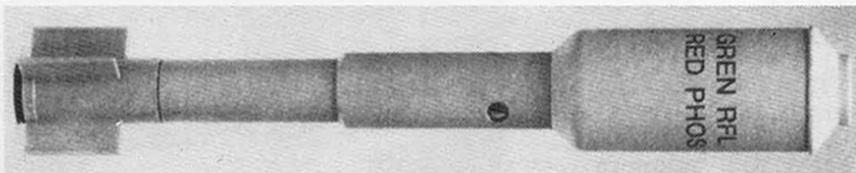
FUZE DELAY: Arms in 15 meters.

CONSTRUCTION: Sheet-steel body, aluminum tail boom, and plastic fins. Both a bullet trap and a bullet deflector are located in the tail boom.

COLOR CODE/MARKINGS: Light green with red markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters from a 7.62x51-mm rifle or 210 meters from a 5.56x45-mm rifle. Spreads over an area of 500 m<sup>2</sup>.

REMARKS: The red phosphorous fill is consolidated into small granules, which disperse and burn when the grenade is functioned.



COUNTRY: South Africa

MODEL: Unknown

TYPE: Rifle, smoke

LENGTH: 275 mm

DIAMETER: Unknown

WEIGHT: 545 g

FILLER: Smoke mixture

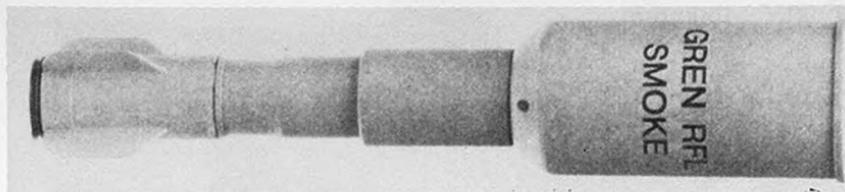
FUZE: Pyrotechnic

FUZE DELAY: 3 s

CONSTRUCTION: Sheet-steel body, aluminum tail boom, and plastic fins. Both a bullet trap and a bullet deflector are located in the tail boom.

COLOR CODE/MARKINGS: Light green with red markings.

RANGE/TERMINAL EFFECTS: Maximum range of 300 meters from a 7.62x51-mm rifle or 210 meters from a 5.56x45-mm rifle. Smoke duration of about 40 s.



COUNTRY: South Africa

MODEL: Unknown

TYPE: Rifle,  
illumination

LENGTH: 275 mm

DIAMETER: Unknown

WEIGHT: 396 g

FILLER: Illumination mixture

FUZE: Pyrotechnic

FUZE DELAY: 2.5 s

CONSTRUCTION: Sheet-steel body, aluminum tail boom, and plastic fins. Both a bullet trap and a bullet deflector are located in the tail boom. The flare is suspended by a parachute after deployment.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Maximum range of 130 meters (at 45°) from a 7.62x51-mm rifle or 100 meters (at 45°) from a 5.56x45-mm rifle. Illumination of over 100 000 cd for 30 s.



## SOUTH KOREA

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COUNTRY: South Korea

MODEL: K 400 (Previously K 75)

TYPE: Hand, fragmentation

LENGTH: 89 mm

DIAMETER: 60 mm

WEIGHT: 405 g

FILLER: Composition B, 130 g

FUZE: Striker release

FUZE DELAY: 4 to 5 s

CONSTRUCTION: Cast-steel body with internal serrations.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Casualty radius of 15 meters. Produces in excess of 1300 fragments.

REMARKS: Similar to the US M67 hand grenade.



COUNTRY: South Korea

MODEL: K 409

TYPE: Hand, stun

LENGTH: 150 mm

DIAMETER: 50 mm

WEIGHT: 285 g

FILLER: Flash powder

FUZE: Striker release

FUZE DELAY: 2.5 to 3.5 s

CONSTRUCTION: Plastic body. Contains seven individual flash capsules.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Produces a 3 to 6 s flash at a level of 55 000 to 75 000 cd.



COUNTRY: South Korea

MODEL: K-M18

TYPE: Hand, colored smoke

LENGTH: 118 mm

DIAMETER: 63 mm

WEIGHT: 520 g

FILLER: Smoke mixture, 330 g

FUZE: Striker release

FUZE DELAY: 0.7 to 2 s

CONSTRUCTION: Sheet-metal body with one emission hole in the bottom.

COLOR CODE/MARKINGS: Light green with black markings. The top is painted the color of the smoke.

RANGE/TERMINAL EFFECTS: Emits a colored smoke for a period of 50 to 90 s.

REMARKS: Available in red, yellow, green, and violet smoke colors.



COUNTRY: South Korea

MODEL: K-M8

TYPE: Hand, smoke

LENGTH: 118 mm

DIAMETER: 63 mm

WEIGHT: 710 g

FILLER: HC smoke mixture, 480 g

FUZE: Striker release

FUZE DELAY: 0.7 to 2 s

CONSTRUCTION: Sheet-metal body with four emission holes in the top of the body.

COLOR CODE/MARKINGS: White with black markings.

RANGE/TERMINAL EFFECTS: Emits a smoke for a period of 105 to 150 s.



COUNTRY: South Korea

MODEL: KM34

TYPE: Hand, smoke

LENGTH: 140 mm

DIAMETER: 60 mm

WEIGHT: 750 g

FILLER: White phosphorous

FUZE: Striker release

FUZE DELAY: 7 s

CONSTRUCTION: Cylindrical prefragmented steel body with a tapered base.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Similar to the US M34 WP smoke grenade.



COUNTRY: South Korea

MODEL: KMK1B

TYPE: Hand, illumination

LENGTH: 110 mm

DIAMETER: 55 mm

WEIGHT: 280 g

FILLER: Pyrotechnic mixture, 90 g

FUZE: Striker release

FUZE DELAY: 7 s

CONSTRUCTION: Two-piece, sheet-metal body. Upper half of the grenade body is empty.

COLOR CODE/MARKINGS: White with black markings.

RANGE/TERMINAL EFFECTS: A 35-s burn time at an intensity of 55 000 cd.

REMARKS: Copy of the US MK 1.



COUNTRY: South Korea

MODEL: KM 14

TYPE: Hand, thermite

LENGTH: 118 mm

DIAMETER: 63 mm

WEIGHT: Unknown

FILLER: Thermite mixture

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Cylindrical sheet metal body with roll crimped ends.

COLOR CODE/MARKINGS: Red with black markings.

RANGE/TERMINAL EFFECTS: Burn time of 30 to 35 seconds with a peak intensity of 2000° C. Will burn through a 12-mm thick steel plate.



COUNTRY: South Korea

MODEL: KM 7

TYPE: Hand, lacrimatory

LENGTH: 118 mm

DIAMETER: 63 mm

WEIGHT: Unknown

FILLER: CS

FUZE: Striker release

FUZE DELAY: 2 s

CONSTRUCTION: Cylindrical sheet metal body with roll crimped ends.

COLOR CODE/MARKINGS: Gray with red markings

RANGE/TERMINAL EFFECTS: Burn time of 35 seconds.



COUNTRY: South Korea

MODEL: KM 25-III

TYPE: Hand, lacrimatory

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: Unknown

FILLER: CS-1

FUZE: Striker release

FUZE DELAY: 1.5 to 3 s

CONSTRUCTION: Round plastic body.

COLOR CODE/MARKINGS: Gray with red markings

RANGE/TERMINAL EFFECTS: Burn time of 35 seconds.

REMARKS: Designed to function in the air.



루탄, KM25-Ⅲ  
다690-068

COUNTRY: South Korea

MODEL: K 44-II

TYPE: Rifle, lacrimatory

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: Unknown

FILLER: CS-1

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Cylindrical plastic body.

COLOR CODE/MARKINGS: Gray with red markings.

RANGE/TERMINAL EFFECTS: Effective range of 110 meters.

REMARKS: Fired from a cup discharger.



SOVIET UNION (former)

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(Reverse Blank)

COUNTRY: Soviet Union (former)

MODEL: RGO

TYPE: Hand, defensive

LENGTH: 145 mm

DIAMETER: 60 mm

WEIGHT: 530 g

FILLER: RDX/wax, 92 g

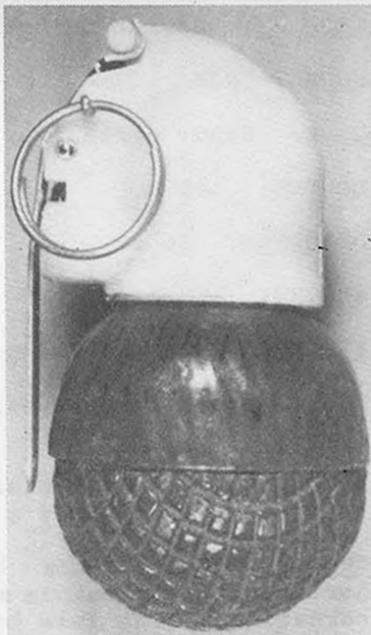
FUZE: Striker release/impact/  
self-destruct

FUZE DELAY: 1 to 2 s arming delay  
3.5 to 4 s self-destruct delay

CONSTRUCTION: The body is composed of four hemispherical steel sections joined to produce two spheres, one inside of the other. All four sections are serrated on one side only. The fuze body is plastic.

COLOR CODE/MARKINGS: Olive green with black markings

RANGE/TERMINAL EFFECTS: Produces between 900 and 950 fragments. Lethal radius of 6 meters.



COUNTRY: Soviet Union (former)

MODEL: RGN

TYPE: Hand, offensive

LENGTH: 145 mm

DIAMETER: 60 mm

WEIGHT: 310 g

FILLER: RDX/wax, 114 g

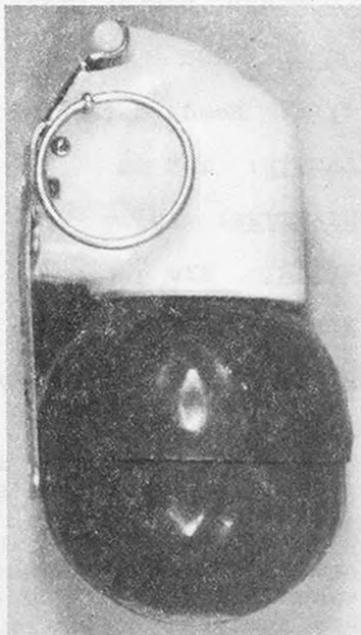
FUZE: Striker release/impact/  
self-destruct

FUZE DELAY: 1 to 2 s arming delay  
3.5 to 4 s self-destruct delay

CONSTRUCTION: The body is composed of two hemispherical aluminum sections each having internal serrations. The fuze body is plastic.

COLOR CODE/MARKINGS: Olive green with black markings

RANGE/TERMINAL EFFECTS: Produces between 800 and 850 fragments. Lethal radius of 4 meters.



COUNTRY: Soviet Union (former)

MODEL: F 1

TYPE: Hand, fragmentation

LENGTH: 127 mm

DIAMETER: 55 mm

WEIGHT: 700 g

FILLER: TNT, 45 to 50 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Cast iron with large external serrations.

COLOR CODE/MARKINGS: Black with no markings or olive green body with black markings.

RANGE/TERMINAL EFFECTS: Lethal range of 20 to 30 meters. Safety radius of close to 100 meters. These large areas are the result of the large heavy fragments produced by the breakup of the body and their resultant ability to travel farther.

REMARKS: The F-1 has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RKG-3

TYPE: Hand, antitank

LENGTH: 361 mm

DIAMETER: 65 mm

WEIGHT: 1070 g

FILLER: TNT/RDX,  
560 g

FUZE: Base detonating

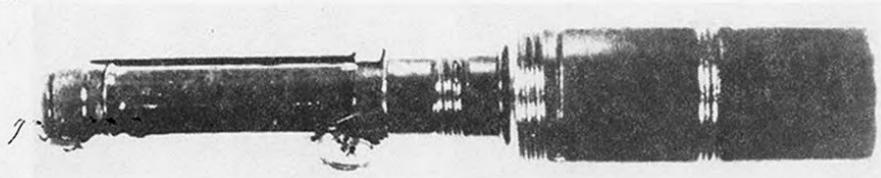
FUZE DELAY: None

CONSTRUCTION: Sheet-metal body and handle. A spring-loaded cloth stabilizer is placed in the handle. Steel shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Penetrates about 125 mm of armor plate. Effective fragmentation radius of about 20 meters.

REMARKS: The RKG-3 family of grenades has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RKG-3M

TYPE: Hand, antitank

LENGTH: 350 mm

DIAMETER: 65 mm

NO ILLUSTRATION AVAILABLE

WEIGHT: 1070 g

FILLER: RDX/TNT, 540 g

FUZE: Base detonating

FUZE DELAY: None

CONSTRUCTION: Sheet-metal body and handle. A spring-loaded cloth stabilizer is placed in the handle. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Penetration of about 165 mm of armor plate. Effective fragmentation radius of about 20 meters.

REMARKS: The RKG-3 family of grenades has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.

COUNTRY: Soviet Union (former)

MODEL: RKG-3EM

TYPE: Hand, antitank

LENGTH: 388 mm

DIAMETER: 78 mm

WEIGHT: 1090 g

FILLER: TNT/RDX,  
384 g

FUZE: Base detonating

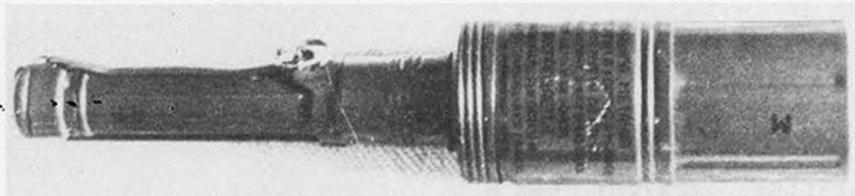
FUZE DELAY: None

CONSTRUCTION: Aluminum body and handle. A spring-loaded cloth stabilizer is placed in the handle. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Effective fragmentation radius of about 20 meters.

REMARKS: The RKG-3 family of grenades has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RKG-3YEM

TYPE: Hand, antitank

LENGTH: 384 mm

DIAMETER: 75 mm

WEIGHT: 1100 g

FILLER: Unknown

FUZE: Base  
detonating

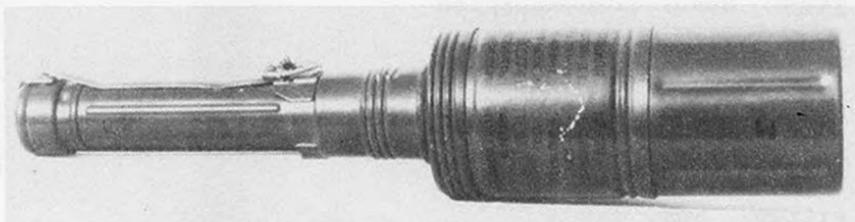
FUZE DELAY: None

CONSTRUCTION: Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Effective fragmentation radius of about 20 meters.

REMARKS: The RKG-3 family of grenades has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RGD-5

TYPE: Hand, fragmentation

LENGTH: 115 mm

DIAMETER: 57 mm

WEIGHT: 310 g

FILLER: TNT, 110 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Two-piece, sheet-steel body joined by a circumferential crimp. A fragmentation liner is present between the explosive fill and the body.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Effective range of 15 to 20 meters. Maximum fragment range of about 30 meters. Produces about 350 fragments.

REMARKS: The RGD-5 has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RG-42

TYPE: Hand, fragmentation

LENGTH: 121 mm

DIAMETER: 54 mm

WEIGHT: 435 g

FILLER: TNT, 118 g

FUZE: Striker release

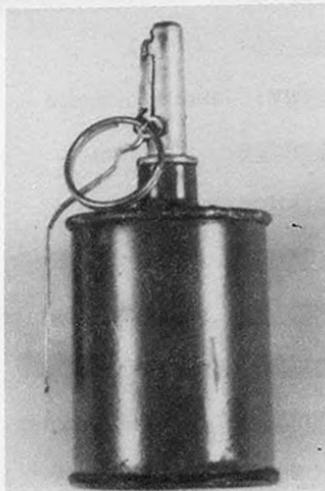
FUZE DELAY: 3.2 to 4.2 s

CONSTRUCTION: Sheet-steel body with a fragmentation liner inside.

COLOR CODE/MARKINGS: Olive green with black markings.

RANGE/TERMINAL EFFECTS: Effective fragmentation radius of 20 meters.

REMARKS: The RG-42 has been copied and produced by numerous former Warsaw Pact countries and other communist countries throughout the world.



COUNTRY: Soviet Union (former)

MODEL: RDG-1

TYPE: Hand, smoke

LENGTH: 222 mm

DIAMETER: 61 mm

WEIGHT: 500 g

FILLER: Smoke mixture

FUZE: Friction fuze

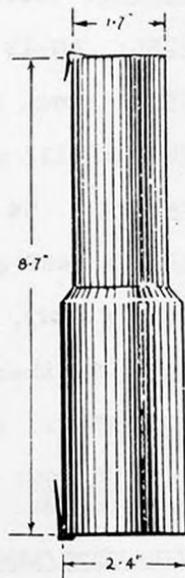
FUZE DELAY: Unknown

CONSTRUCTION: Cardboard body. Handle of either cardboard or wood.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Can be thrown to a range of about 35 meters. Smoke duration of 60 to 90 s.

REMARKS: Floats and is, therefore, used to screen river crossings.



COUNTRY: Soviet Union (former)

MODEL: RDG-2

TYPE: Hand, smoke

LENGTH: 215 mm

DIAMETER: 53 mm

WEIGHT: 500 g

FILLER: Smoke mixture

FUZE: Friction fuze

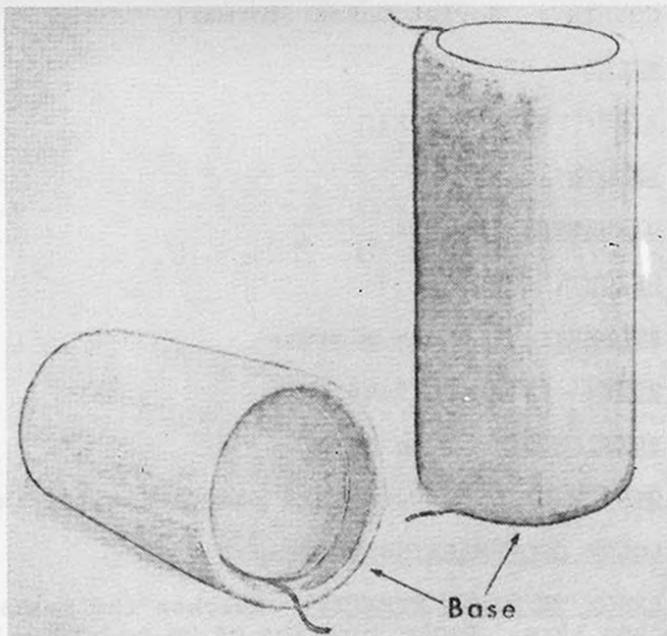
FUZE DELAY: Unknown

CONSTRUCTION: Cardboard body coated with wax for waterproofing.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Can be thrown to a range of about 35 meters. Reaches maximum smoke production level in less than 10 s. Produces a white smoke for a duration of 50 s to 90 s.

REMARKS: Will not float and is, therefore, unsuitable for water use.



COUNTRY: Soviet Union (former)

MODEL: RDG-2Ch

TYPE: Hand, smoke

LENGTH: 215 mm

DIAMETER: 53 mm

WEIGHT: 500 g

No Illustration Available

FILLER: HC smoke mixture

FUZE: Friction fuze

FUZE DELAY: 5 to 10 s

CONSTRUCTION: Cardboard body. Similar in appearance to the RDG-2Kh

COLOR CODE/MARKINGS: Gray ?

RANGE/TERMINAL EFFECTS: Reaches the maximum smoke production level in less than 10 s. Smoke duration of up to 90 s. Produces a black smoke. Covers an area of about 300 m<sup>2</sup>.

REMARKS: Provides limited cover for maneuvering troops.

COUNTRY: Soviet Union (former)

MODEL: RDG-2Kh

TYPE: Hand, smoke

LENGTH: 213 mm

DIAMETER: 53 mm

WEIGHT: 600 g

FILLER: HC smoke mixture

FUZE: Friction fuze

FUZE DELAY: 10 to 15 s

CONSTRUCTION: Cardboard body coated with wax for waterproofing.

COLOR CODE/MARKINGS: Gray ?

RANGE/TERMINAL EFFECTS: Smoke duration of about 90 s. Produces a gray smoke. Covers an area of about 300 m<sup>2</sup>.

REMARKS: Provides limited cover for maneuvering troops.



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SPAIN

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(Reverse Blank)

COUNTRY: Spain

MODEL: P.O. I

TYPE: Hand, fragmentation

LENGTH: 105 mm

DIAMETER: 62 mm

WEIGHT: 285 g (offensive)  
475 g (defensive)

FILLER: TNT, 110 g

FUZE: Impact

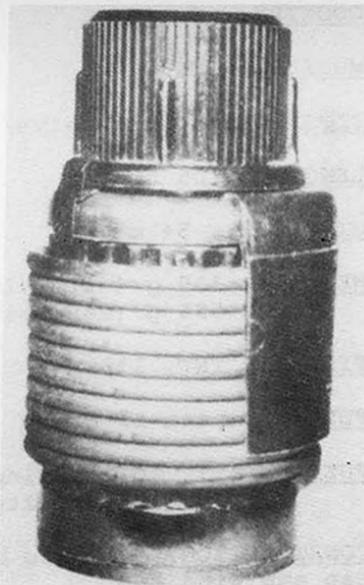
FUZE DELAY: 10 s arming delay only.

CONSTRUCTION: Plastic body with a plastic screw-on fuze cap and a large plastic wind tab. Coiled steel fragmentation sleeve can be placed on the outside of the grenade body.

COLOR CODE/MARKINGS: Black plastic components.

RANGE/TERMINAL EFFECTS: Lethal range of the grenade is less than 30 meters.

REMARKS: The fragmentation sleeve can be removed to produce an offensive grenade. If the fuze fails to function on impact, the firing pin locks in the safe condition and the grenade is safe to handle.



COUNTRY: Spain

MODEL: POMI

TYPE: Hand, offensive/defensive

LENGTH: 105 mm

DIAMETER: 54 mm

WEIGHT: 335 g (offensive)  
525 g (defensive)

FILLER: TNT, 115 g

FUZE: Impact or delay

FUZE DELAY: 10 s arming delay,  
or 4 s after impact

CONSTRUCTION: Plastic body with a screw-on plastic fuze cap and wind tab.

COLOR CODE/MARKINGS: Black body

RANGE/TERMINAL EFFECTS: Danger radius of about 30 meters.

REMARKS: A spiral wrapped external fragmentation sleeve can be added to create a defensive grenade. If both settings of the fuze fail to function, the firing pin is locked in a safe position and the grenade is safe to handle.



COUNTRY: Spain

MODEL: EA-M5

TYPE: Hand, offensive

LENGTH: 105 mm

DIAMETER: 62 mm

WEIGHT: 290 g

FILLER: TNT, 130 g

FUZE: Impact, self-destruct

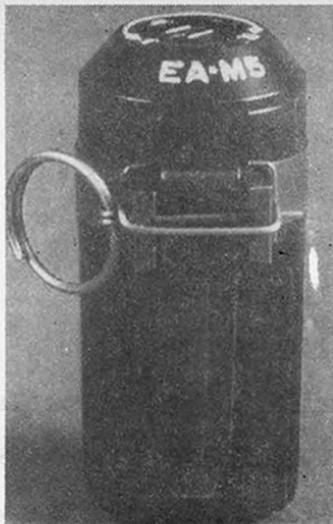
FUZE DELAY: 1 s arming delay, self-destructs in 8 s

CONSTRUCTION: Plastic body

COLOR CODE/MARKINGS: Black plastic.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be made into a fragmentation grenade (total weight 480 g) with the addition of a slip-on fragmentation sleeve.



COUNTRY: Spain

MODEL: R 1

TYPE: Hand, offensive

LENGTH: 110 mm

DIAMETER: 54 mm

WEIGHT: 220 g

FILLER: TNT, 100 g

FUZE: Striker release

FUZE DELAY: 4 to 4.5 s

CONSTRUCTION: Elongated plastic body with a series of ridges forming a pattern of squares. Plastic fuze body.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can be converted to a rifle grenade with an add-on tail boom assembly. Has a pneumatic cylinder in the fuze to increase the delay time and the delay reliability.



COUNTRY: Spain

MODEL: R 1

TYPE: Hand, defensive

NO ILLUSTRATION AVAILABLE

LENGTH: 110 mm

DIAMETER: 54 mm

WEIGHT: 395 g

FILLER: TNT, 100 g

FUZE: Striker release

FUZE DELAY: 4 to 4.5 s

CONSTRUCTION: Elongated plastic body with a series of ridges forming a pattern of squares. Plastic fuze body. Coiled steel fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The R 1 offensive grenade with the add-on fragmentation sleeve. Can be converted to a rifle grenade with an add-on tail boom assembly. Has a pneumatic cylinder in the fuze to increase the delay time and the delay reliability.

COUNTRY: Spain

MODEL: R 2

TYPE: Hand, offensive

LENGTH: 110 mm

DIAMETER: 54 mm

WEIGHT: 220 g

FILLER: TNT, 100 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4 s

CONSTRUCTION: Elongated plastic body with a series of ridges forming a pattern of squares. Plastic fuze body.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The R-2 offensive grenade without the pneumatic cylinder in the fuze. Can be converted to a rifle grenade with the addition of a tail boom assembly.



COUNTRY: Spain

MODEL: R 2

TYPE: Hand, defensive

NO ILLUSTRATION AVAILABLE

LENGTH: 110 mm

DIAMETER: 54 mm

WEIGHT: 395 g

FILLER: TNT, 100 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4 s

CONSTRUCTION: Elongated plastic body with a series of ridges forming a pattern of squares. Plastic fuze body. Coiled steel fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The R-2 offensive grenade with a slip-on fragmentation sleeve. Can be converted to a rifle grenade with the addition of a tail boom assembly. Identical to the R-1, but without the pneumatic cylinder in the fuze.

COUNTRY: Spain

MODEL: MN 1

TYPE: Hand, offensive

LENGTH: 108 mm

DIAMETER: 55 mm

WEIGHT: 298 g

FILLER: TNT, 155 g

FUZE: All ways acting/impact/delay

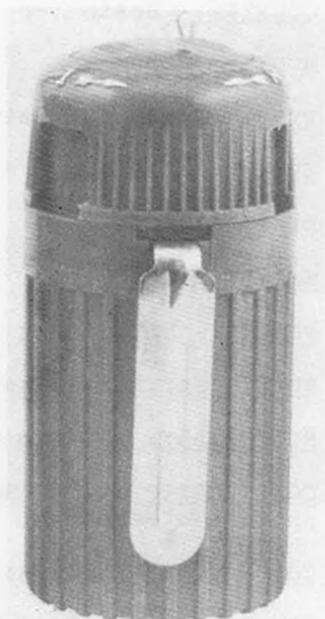
FUZE DELAY: 4 to 4.5 s

CONSTRUCTION: Cylindrical plastic body with a rounded cap. Internal fuze.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Can also be fired from a rifle with the addition of a screw-on tail fin. The fuze cap is turned to select the fuze function of impact or delay.



COUNTRY: Spain

MODEL: MN 1

TYPE: Hand, defensive

LENGTH: 108 mm

DIAMETER: 55 mm

WEIGHT: 473 g

FILLER: TNT, 155 g

FUZE: All ways acting/impact/delay

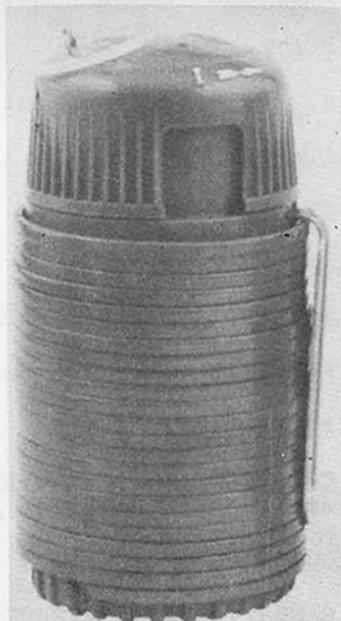
FUZE DELAY: 4 to 4.5 s

CONSTRUCTION: Cylindrical plastic body with a rounded cap. Internal fuze. Coiled steel fragmentation sleeve.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Lethal radius of 10 meters.  
Produces about 500 fragments.

REMARKS: The MN-1 offensive grenade with the addition of a slip-on coiled wire fragmentation sleeve. Can also be fired from a rifle with the addition of a screw-on tail fin. The fuze cap is turned to select the fuze function of impact or delay.



COUNTRY: Spain

MODEL: M 6

TYPE: Hand, fragmentation

LENGTH: 98 mm

DIAMETER: 65 mm

WEIGHT: 325 g

FILLER: Composition B

FUZE: Striker release

FUZE DELAY: 4 s

CONSTRUCTION: Two-piece plastic body enclosing small steel balls as preformed fragments.

COLOR CODE/MARKINGS: Olive green body.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: Threaded protrusion on the base is used to affix a tail boom assembly for use as a rifle grenade.



COUNTRY: Spain

MODEL: MB-8, MBS-9

TYPE: Hand, offensive/defensive

LENGTH: 95 mm (offensive)  
103 mm (defensive)

DIAMETER: 50 mm (offensive)  
61 mm (defensive)

WEIGHT: 171 g (offensive)  
440 g (defensive)

FILLER: "Composition B"

FUZE: Striker release

FUZE DELAY: The difference between the two grenades is primarily that the MBS-9 incorporates a 2 s arming safety time.

CONSTRUCTION: Plastic body enclosing about 5800 steel balls is fit over an inner plastic cylinder containing the explosive filler.

COLOR CODE/MARKINGS: Olive green body with yellow markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The outer body with the fragments can be removed to produce an offensive grenade.



COUNTRY: Spain

MODEL: R-41

TYPE: Hand, offensive/defensive

LENGTH: 115 mm

DIAMETER: 61 mm

WEIGHT: 400 g

FILLER: TNT, 130 g

FUZE: Striker release

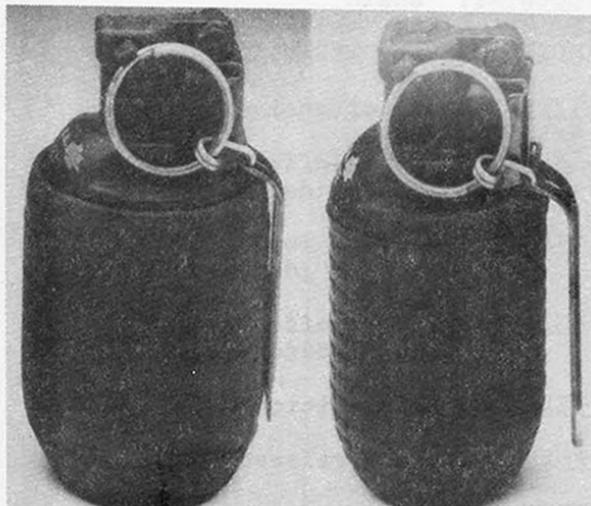
FUZE DELAY: 3.5 to 4.5 s including  
a 1.2 s arming delay

CONSTRUCTION: Slide-on plastic  
fragmentation sleeve contains about  
3500 steel balls, each with a diameter of 2 mm. Inner plastic body holds the  
explosives.

COLOR CODE/MARKINGS: Olive green

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The fragmentation sleeve can be removed to produce an offensive  
grenade (right view above).



COUNTRY: Spain

MODEL: MR H1

TYPE: Hand, colored smoke

LENGTH: 140 mm

DIAMETER: 55 mm

WEIGHT: 360 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 12 s

CONSTRUCTION: Sheet-metal body.

COLOR CODE/MARKINGS: Gray with markings and a single band in the color of the smoke.

RANGE/TERMINAL EFFECTS: Smoke emission time of about 90 s.

REMARKS: Available in red, green, yellow, or blue smoke.



COUNTRY: Spain

MODEL: E.A. H1

TYPE: Hand, smoke

LENGTH: 107 mm

DIAMETER: 45 mm

WEIGHT: 275 g

FILLER: HC smoke mixture, 180 g

FUZE: Striker release

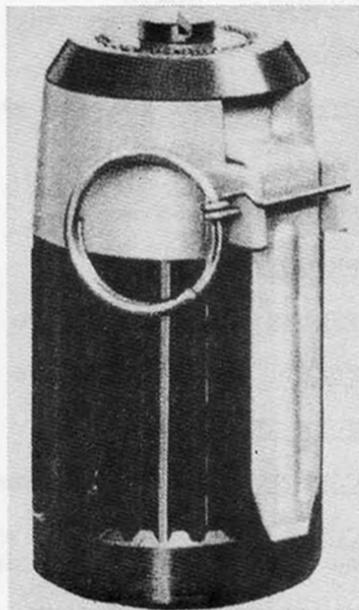
FUZE DELAY: Unknown

CONSTRUCTION: Plastic body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke emission time of 90 s.

REMARKS: Can be adapted for rifle firing.



COUNTRY: Spain

MODEL: BS

TYPE: Hand, colored smoke

LENGTH: 102 mm

DIAMETER: 53 mm

WEIGHT: 156 g

FILLER: Smoke mixture

FUZE: Pull friction

FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal body. A hinged pull tab on the top of the grenade is used to remove a cover over the pull ring used to initiate the grenade fuse.

COLOR CODE/MARKINGS: Olive green with markings in the color of the smoke.

RANGE/TERMINAL EFFECTS: Unknown.

REMARKS: Known colors include red, green, and yellow smoke.



COUNTRY: Spain

MODEL: BL

TYPE: Hand, smoke/tear

LENGTH: 102 mm

DIAMETER: 53 mm

WEIGHT: 298 g

FILLER: Smoke mixture and tear agent.

FUZE: Pull friction

FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal body. A hinged pull tab on the top of the grenade is used to remove a cover over the pull ring used to initiate the grenade fuse.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: Unknown.



COUNTRY: Spain

MODEL: BO

TYPE: Hand, screening smoke

LENGTH: 102 mm

DIAMETER: 53 mm

WEIGHT: 326 g

FILLER: Smoke mixture

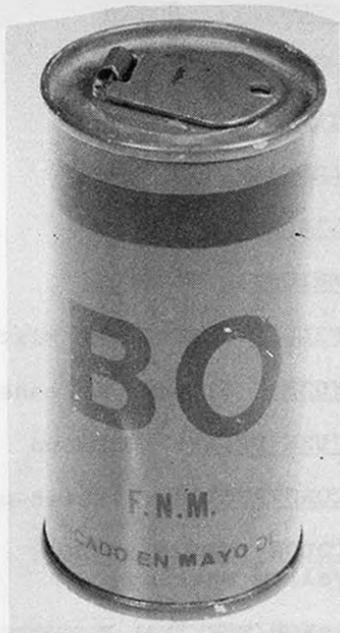
FUZE: Pull friction

FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal body. A hinged pull tab on the top of the grenade is used to remove a cover over the pull ring used to initiate the grenade fuse.

COLOR CODE/MARKINGS: Olive green with red markings.

RANGE/TERMINAL EFFECTS: Unknown.



COUNTRY: Spain

MODEL: Unknown

TYPE: Hand, smoke

LENGTH: 237 mm

DIAMETER: 86 mm

WEIGHT: 1978 g

FILLER: HC smoke mixture, 1786 g

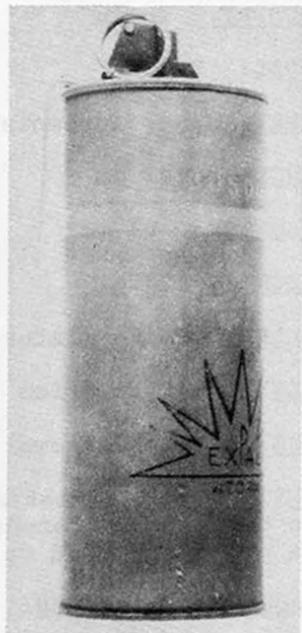
FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal body

COLOR CODE/MARKINGS: Gray with a yellow band and yellow markings.

RANGE/TERMINAL EFFECTS: Unknown



COUNTRY: Spain

MODEL: GWP

TYPE: Hand, incendiary

LENGTH: 140 mm

DIAMETER: 55 mm

WEIGHT: 750 g

FILLER: White phosphorous

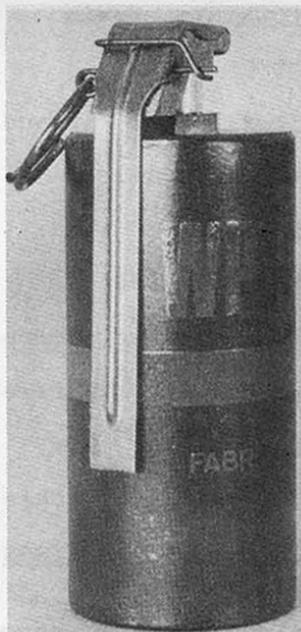
FUZE: Striker release

FUZE DELAY: 5 s

CONSTRUCTION: Sheet-metal body.

COLOR CODE/MARKINGS: Olive green with a green band and green markings.

RANGE/TERMINAL EFFECTS: Covers an area of about 40 meters in diameter.



COUNTRY: Spain

MODEL: GRP

TYPE: Hand, incendiary

LENGTH: 142 mm

DIAMETER: 55 mm

WEIGHT: 560 g

FILLER: Red phosphorous

FUZE: Striker release

FUZE DELAY: 2 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Olive green with a red band and red markings.

RANGE/TERMINAL EFFECTS: Burns for a period of 30 s.  
Covers a 30 meter diameter area.



COUNTRY: Spain

MODEL: CTE

TYPE: Hand, incendiary

LENGTH: 140 mm

DIAMETER: 55 mm

WEIGHT: 580 g

FILLER: Thermite

FUZE: Striker release

FUZE DELAY: 2 s

CONSTRUCTION: Sheet-metal body

COLOR CODE/MARKINGS: Olive green with a green band and green markings.

RANGE/TERMINAL EFFECTS: Burns for 40 s at a temperature of 3000° C.



COUNTRY: Spain

MODEL: Instalaza FT.I M61

TYPE: Rifle,  
antitank

LENGTH: 395 mm

DIAMETER: 64 mm

WEIGHT: 700 g

FILLER: Unknown, 335 g

FUZE: Point initiating, base detonating

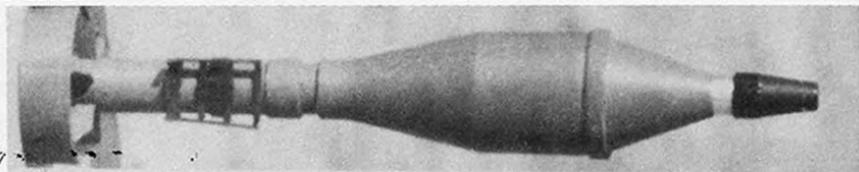
FUZE DELAY: None

CONSTRUCTION: Aluminum body and tail boom with plastic fins. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green body with yellow markings.

RANGE/TERMINAL EFFECTS: Effective range of about 100 meters. Maximum range of 300 meters. Penetrates about 250 mm of armor plate or 480 mm of concrete.

REMARKS: Provided with a special grenade blank cartridge.



COUNTRY: Spain

MODEL: FT.II M63B

TYPE: Rifle,  
antitank/  
antipersonnel

LENGTH: 333 mm

DIAMETER: 40 mm

WEIGHT: 500 g

FILLER: Unknown, 88 g

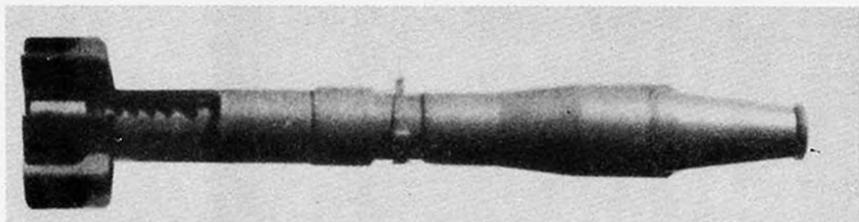
FUZE: Point initiating/base detonating

FUZE DELAY: None

CONSTRUCTION: Aluminum and steel body, aluminum tail boom, and plastic fins.

COLOR CODE/MARKINGS: Olive green body

RANGE/TERMINAL EFFECTS: Effective antitank range of 175 meters and 425 meters for personnel. Penetration of about 130 mm of armor plate. Produces about 600 fragments with a lethal radius of 6 meters and an effective radius of 30 meters.



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SWEDEN

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FFV 915 Rifle, Smoke (U).....	II-437

(Reverse Blank)

COUNTRY: Sweden

MODEL: M/56

TYPE: Hand, fragmentation

LENGTH: 100 mm

DIAMETER: Unknown

WEIGHT: 580 g

FILLER: TNT, 190 g

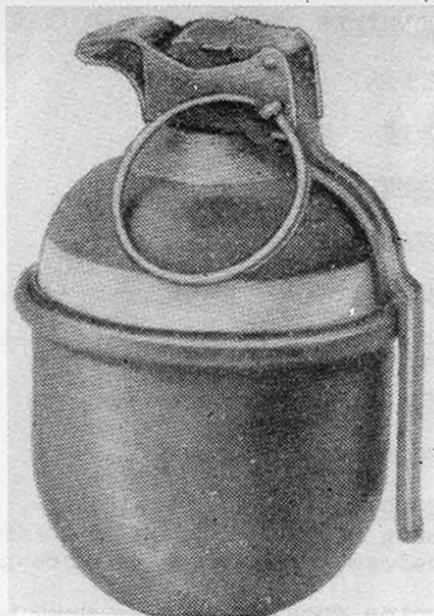
FUZE: Striker release

FUZE DELAY: 3 s

CONSTRUCTION: Two-piece steel body. The fuze has a cover that must be raised after the safety pin is removed and before the grenade is thrown.

COLOR CODE/MARKINGS: Gray body with a yellow band.

RANGE/TERMINAL EFFECTS: Casualty radius of 5 meters.



COUNTRY: Sweden

MODEL: M/56

TYPE: Hand, smoke

LENGTH: 106 mm

DIAMETER: 57 mm

WEIGHT: 490 g

FILLER: White phosphorus, 280 g

FUZE: Striker release

FUZE DELAY: 3 s

CONSTRUCTION: Steel body. The fuze has a cover that must be raised after the safety pin has been removed and before the grenade is thrown.

COLOR CODE/MARKINGS: Gray body with light gray markings and a light gray band.

RANGE/TERMINAL EFFECTS: Smoke duration of up to 15 s.



COUNTRY: Sweden

MODEL: FFV 915

TYPE: Rifle, smoke

LENGTH: 272 mm

DIAMETER: Unknown

WEIGHT: 570 g

FILLER: Titanium dioxide and hexachloroethane, 320 g

FUZE: Base, gas initiated

FUZE DELAY: 3.8 s

CONSTRUCTION: Unknown.

COLOR CODE/MARKINGS: Gray body with a light gray band.

RANGE/TERMINAL EFFECTS: Smoke duration of 50 s. Maximum range of 300 meters.

REMARKS: No bullet trap or deflector, requires a special blank cartridge to launch.



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SWITZERLAND

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H.G. 85 Hand, Fragmentation (U).....	II-442

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COUNTRY: Switzerland

MODEL: H.G. 43

TYPE: Hand,  
offensive

LENGTH: 285 mm

DIAMETER: 60 mm

WEIGHT: 600 g

FILLER: TNT, 380 g

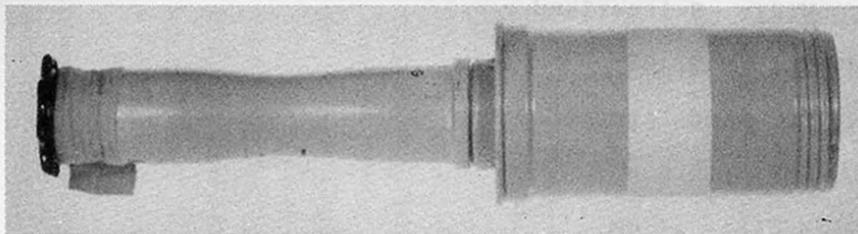
FUZE: Pull friction

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum grenade body with a wooden handle. A removable metal cap on the end of the handle covers a ceramic ring attached to the pull string of the fuze. The threaded end of the grenade body allows the attachment of additional bodies. A slip-on fragmentation sleeve converts the body to a defensive grenade.

COLOR CODE/MARKINGS: Gray body with black markings and a black fuze cap. A single band, possibly light gray in color, is found on the grenade body.

RANGE/TERMINAL EFFECTS: Blast danger only from the offensive version. Danger radius of 30 meters with the fragmentation sleeve.



COUNTRY: Switzerland

MODEL: H.G. 85

TYPE: Hand, fragmentation

LENGTH: Unknown

DIAMETER: 64 mm

WEIGHT: 465 g

FILLER: Composition B, 160 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Two-piece cast-iron body pre-engraved on the interior surface. Produces about 1800 fragments.

COLOR CODE/MARKINGS: Olive drab body

RANGE/TERMINAL EFFECTS: Danger radius of 30 meters

REMARKS: This grenade uses a copy of the US M 67 grenade body and the German DM-82 fuze with a unique flared safety handle. All components are now made in Switzerland.



TAIWAN

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Unknown Hand, Lachrymatory (U).....	II-447

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COUNTRY: Taiwan

MODEL: Type 67 (T 67)

TYPE: Hand, fragmentation

LENGTH: 940 mm

DIAMETER: Unknown

WEIGHT: 360 g

FILLER: Composition B, 60 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Cast-iron body with large external serrations. Filler plug in the base of the grenade. Similar in appearance to US MK II, but with a shorter neck portion.

COLOR CODE/MARKINGS: Olive green body

RANGE/TERMINAL EFFECTS: Lethal radius of 10 to 15 meters.



COUNTRY: Taiwan

MODEL: MK 2

TYPE: Hand, fragmentation

LENGTH: 1130 mm

DIAMETER: 57 mm

WEIGHT: 586 g

FILLER: TNT, 49 g

FUZE: Striker release

FUZE DELAY: 3 to 5 s

CONSTRUCTION: Cast-iron body with large external serrations. Identical in appearance to US MK II. No filler plug in the base of the grenade.

COLOR CODE/MARKINGS: Olive green body

RANGE/TERMINAL EFFECTS: Lethal radius of 10 to 15 meters.



COUNTRY: Taiwan

MODEL: Unknown

TYPE: Hand, lachrymatory

LENGTH: 125 mm

DIAMETER: Unknown

WEIGHT: 310 g

FILLER: CS mixture, 125 g

FUZE: Striker release

FUZE DELAY: 1.5 to 2.5 s

CONSTRUCTION: Spherical rubber body.

COLOR CODE/MARKINGS: Black body with a gray band and red markings.

RANGE/TERMINAL EFFECTS: Burns and disperses CS for a period of about 6 seconds.



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THAILAND

Page

Unknown Rifle, Fragmentation (U) ..... II-451

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COUNTRY: Thailand

MODEL: Unknown

TYPE: Rifle,  
fragmentation

LENGTH: 180 mm

DIAMETER: 45 mm

WEIGHT: 247 g

FILLER: Pentolite, 29 g

FUZE: Point detonating

FUZE DELAY: None

CONSTRUCTION: Incorporates a bullet trap in the tail boom assembly. Contains about 300 steel balls, each with a diameter of 3 mm.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Maximum effective range of 300 meters.

REMARKS: One of a family of rifle grenades including airburst and antiarmor loadings.



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UNITED KINGDOM

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COUNTRY: United Kingdom

MODEL: No. 36M

TYPE: Hand, defensive

LENGTH: 102 mm

DIAMETER: 61 mm

WEIGHT: 600 g

FILLER: TNT, 60 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Heavy cast-iron body with external serrations. Threaded filler plug on the side and a removable base plug to allow insertion of the detonator.

COLOR CODE/MARKINGS: Darkened brown unpainted body with a red and a green band.

RANGE/TERMINAL EFFECTS: Lethal radius of between 30 and 100 meters. Produces about 40 fragments.

REMARKS: Known as the Mills bomb.



COUNTRY: United Kingdom

MODEL: L2A2

TYPE: Hand, fragmentation

LENGTH: 106 mm

DIAMETER: 60 mm

WEIGHT: 395 g

FILLER: RDX/TNT, 170 g

FUZE: Striker release

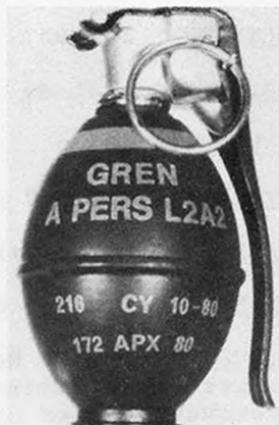
FUZE DELAY: 4 to 5 s

CONSTRUCTION: Two-piece sheet-steel body with a spiral wrapped fragmentation sleeve inside.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal radius of 10 meters. Produces about 1200 fragments.

REMARKS: Copy of the US M26. Being replaced by the Model RO 01A1, which is basically a product improved L2A2.



COUNTRY: United Kingdom

MODEL: E105

TYPE: Hand, fragmentation

LENGTH: 130 mm

DIAMETER: 50 mm

WEIGHT: 580 g

FILLER: RDX, 51 g

FUZE: Silent, electrically initiated

FUZE DELAY: 4 to 4.5 s

CONSTRUCTION: Aluminum body containing an epoxy matrix holding approximately 2000 iron balls. A separate section contains the electrical fuze.

COLOR CODE/MARKINGS: Olive green with a yellow band and yellow markings.

RANGE/TERMINAL EFFECTS: Lethal range of 5 meters. Safety range of 20 meters.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E101

TYPE: Hand, screening smoke

LENGTH: 134 mm

DIAMETER: 50 mm

WEIGHT: 460 g

FILLER: Smoke mixture, 270 g

FUZE: Silent, electrically initiated

FUZE DELAY: 4 s to 4.5 s

CONSTRUCTION: Aluminum body containing six separate smoke capsules that deploy independently.

COLOR CODE/MARKINGS: Light green body with white markings.

RANGE/TERMINAL EFFECTS: Smoke emission time of about 25 s.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E120 series

TYPE: Hand, colored smoke

LENGTH: 134 mm

DIAMETER: 50 mm

WEIGHT: 300 g

FILLER: Smoke mixture, 150 g

FUZE: Silent, electrically initiated

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Light green with black markings and the letters "CCC" in the color of the smoke.

RANGE/TERMINAL EFFECTS: Smoke duration of about 60 s.

REMARKS: Available in red (E120), white (E121), green (E123), blue (E124), yellow (E125), purple (E126), orange (E127), and sand (E128) smoke colors. The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E108

TYPE: Hand, incendiary

LENGTH: 134 mm

DIAMETER: 50 mm

WEIGHT: 530 g

FILLER: Incendiary mixture, 400 g

FUZE: Silent, electrically initiated

FUZE DELAY: 1 to 2 s

CONSTRUCTION: Aluminum body.

COLOR CODE/MARKINGS: Red with black markings.

RANGE/TERMINAL EFFECTS: Burns for a period of 50 to 70 s at a temperature of 2700° C.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E160

TYPE: Hand, lachrymatory

LENGTH: 134 mm

DIAMETER: 50 mm

WEIGHT: 300 g

FILLER: CS, 150 g

FUZE: Silent, electrically ignited

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Light gray with a red band and black markings.

RANGE/TERMINAL EFFECTS: Emission time of about 30 s.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E165

TYPE: Hand, lachrymatory, multiple

LENGTH: 134 mm

DIAMETER: 50 mm

WEIGHT: 310 g

FILLER: CS, 150 g

FUZE: Silent, electrically initiated

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body contains 14 submunitions filled with CS.

COLOR CODE/MARKINGS: Light gray with a red band and black markings.

RANGE/TERMINAL EFFECTS: Emission time of about 30 s.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E180

TYPE: Hand, stun

LENGTH: 104 mm

DIAMETER: 50 mm

WEIGHT: 150 g

FILLER: Flash powder, 12 g

FUZE: Silent, electrically initiated

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body with one submunition.

COLOR CODE/MARKINGS: Olive green with white markings.

RANGE/TERMINAL EFFECTS: A flash-bang effect is generated at a distance of 1 to 1.5 meters from the thrower.

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: E182

TYPE: Hand, stun, multiple

LENGTH: 104 mm

DIAMETER: 50 mm

WEIGHT: 175 g

FILLER: Flash powder, 8 g

FUZE: Silent, electrically initiated

FUZE DELAY: The first submunition functions within 2 s of initiation, with the remainder functioning over a period of 3 to 4 s.

CONSTRUCTION: Aluminum body with 16 submunitions.

COLOR CODE/MARKINGS: Black with white markings and a brown band or olive green with white markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The fuze is without a percussion element and is, therefore, silent and flashless. The safety lever does not separate from the grenade.



COUNTRY: United Kingdom

MODEL: G60/09

TYPE: Hand, assault sound

LENGTH: 100 mm

DIAMETER: 68 mm

WEIGHT: 190 g

FILLER: Pyrotechnic mixture, 32.5 g

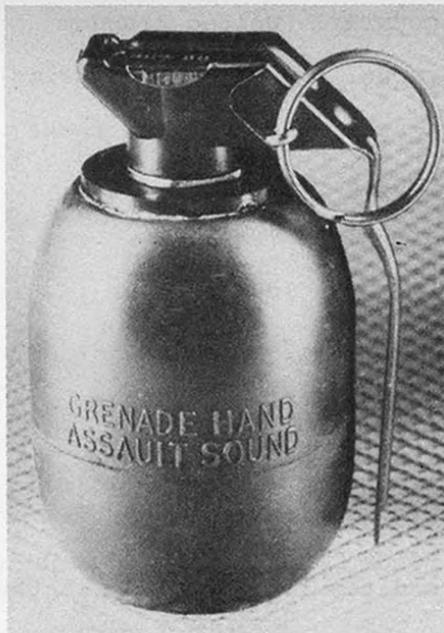
FUZE: Silent striker release

FUZE DELAY: The first submunition functions within 0.75 s of grenade release.

CONSTRUCTION: Rubber body with a bursting charge and seven submunitions.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: The seven submunitions will function sequentially after they have been scattered. Each produces a loud flash and sound report to stun individuals.



COUNTRY: United Kingdom

MODEL: No. 83 N 100 series

TYPE: Hand, colored smoke

LENGTH: 135 mm

DIAMETER: 63 mm

WEIGHT: 300 g

FILLER: Smoke mixture, 190 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Light green with black markings and the letters "CCC" in the color of the smoke.

RANGE/TERMINAL EFFECTS: Emission time of 35 s.

REMARKS: Available in red (N 101), white (N 102), green (N 103), blue (N 104), yellow (N 105), purple (N 106), and orange (N 107) smoke colors.



COUNTRY: United Kingdom

MODEL: No. 83 N 110

TYPE: Hand, screening smoke

LENGTH: 135 mm

DIAMETER: 63 mm

WEIGHT: 440 g

FILLER: Smoke mixture, 306\5 g

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Aluminum body.

COLOR CODE/MARKINGS: Light green with white markings.

RANGE/TERMINAL EFFECTS: Emission time of about 30 s.



COUNTRY: United Kingdom

MODEL: MK 3/4

TYPE: Hand, smoke

LENGTH: 135 mm

DIAMETER: 60 mm

WEIGHT: Unknown

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: Unknown

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS:

REMARKS: Red, green, blue, yellow, orange, purple, black, and white smoke colors available.



COUNTRY: United Kingdom

MODEL: L49A1

TYPE: Hand, colored smoke

LENGTH: 135 mm

DIAMETER: 55 mm

WEIGHT: 350 g

FILLER: Smoke mixture

FUZE: Striker release

FUZE DELAY: 2 to 4 s

CONSTRUCTION: Unknown materials. A screw-on cap covers a pull lanyard used to release the cocked striker of the fuze.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Smoke emission time of 45 s.

REMARKS: Red, blue, green, and orange smoke colors available.



COUNTRY: United Kingdom

MODEL: L13A1

TYPE: Hand, anti-riot

LENGTH: 175 mm

DIAMETER: 66 mm

WEIGHT: 550 g

FILLER: CS

FUZE: Striker release

FUZE DELAY: 2 to 2.4 s

CONSTRUCTION: Rubber body containing 23 separate CS charges.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Emission time of about 12 s.  
Covers an area approximately 15 meters in diameter.



COUNTRY: United Kingdom

MODEL: No. 83 N 201

TYPE: Hand, lachrymatory

LENGTH: 135 mm

DIAMETER: 63 mm

WEIGHT: 340 g

FILLER: CS, 205 g

FUZE: Striker release

FUZE DELAY: 2 to 3 s

CONSTRUCTION: Aluminum body

COLOR CODE/MARKINGS: Gray with a red band and black markings.

RANGE/TERMINAL EFFECTS: Emission time of about 25 s.



COUNTRY: United Kingdom

MODEL: N 225

TYPE: Hand, anti-riot

LENGTH: 175 mm

DIAMETER: 66 mm

WEIGHT: 630 g

FILLER: CS, 200 g

FUZE: Striker release

FUZE DELAY: 0.5 to 1 s

CONSTRUCTION: Rubber body containing 23 aluminum submunitions.

COLOR CODE/MARKINGS: Black with a red band and white markings.

RANGE/TERMINAL EFFECTS: Burns for about 25 s.



VIETNAM

Page

Unknown Hand, Fragmentation (U)..... II-475

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COUNTRY: Vietnam

MODEL: Unknown

TYPE: Hand, fragmentation

LENGTH: 65 mm

DIAMETER: 55 mm

WEIGHT: 291 g

FILLER: Plastic explosive, 55 g

FUZE: Impact, all-ways-acting

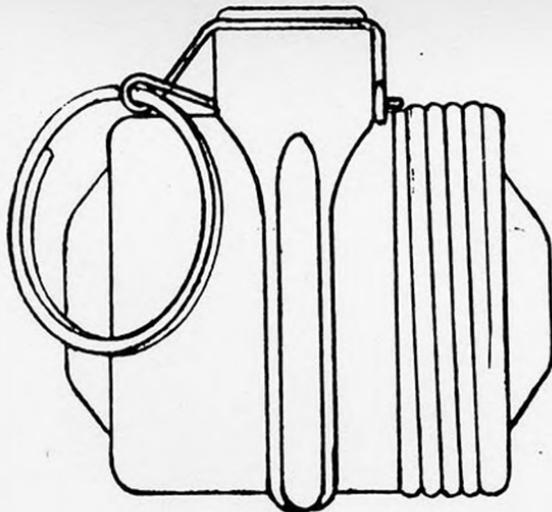
FUZE DELAY: Unknown

CONSTRUCTION: Sheet-metal body with an internal fuze and two hemispherical fragmentation liners, each sealed by a plastic cap with a tube extending down into the hemisphere. One tube holds a fixed firing pin, the other a detonator. A spring separates them until impact. A safety fork under the fuze handle also separates the hemispheres.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Unknown

REMARKS: The markings on this grenade translate to "Mobile Checkpoint N6, Route 12-0-81-V," which have no significance in identifying the grenade.



(Reverse Blank)

II-475

## YUGOSLAVIA (former)

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(Reverse Blank)

COUNTRY: Yugoslavia (former)

MODEL: BPM 50P3

TYPE: Hand, fragmentation

LENGTH: Unknown

DIAMETER: Unknown

WEIGHT: 550 g

FILLER: TNT

FUZE: Striker release

FUZE DELAY: 3.5 s to 4.5 s

CONSTRUCTION: Cast-iron body with internal serrations.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Lethal fragmentation radius of 20 meters. Danger radius of 200 meters.



COUNTRY: Yugoslavia (former)

MODEL: ROB-M52

TYPE: Hand, fragmentation

LENGTH: 100 mm

DIAMETER: 55 mm

WEIGHT: 553 g

FILLER: TNT, 50 g

FUZE: Pressure

FUZE DELAY: 4.5 s

CONSTRUCTION: Cast-iron body with internal serrations. Brass or aluminum fuze cap.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Can be thrown an average of 30 to 40 meters. Effective fragmentation radius of 15 meters.

REMARKS: Fuze emits a rustling sound while burning.



COUNTRY: Yugoslavia (former)

MODEL: BR-M52P3

TYPE: Hand, fragmentation

LENGTH: 108 mm

DIAMETER: 55 mm

WEIGHT: Unknown

FILLER: TNT, 50 g

FUZE: Striker release

FUZE DELAY: 3.5 s to 4.5 s

CONSTRUCTION: Cast-iron body with internal serrations.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Can be thrown an average of 30 to 40 meters. Effective fragmentation radius of 15 meters.

REMARKS: The original M52 grenade body with the fuze from the M 75. This grenade was also noted as being designated the M 57 in one Yugoslav document.



COUNTRY: Yugoslavia (former)

MODEL: ROB-M69

TYPE: Hand, fragmentation

LENGTH: 80 mm

DIAMETER: 50 mm

WEIGHT: About 500 g

FILLER: TNT, 100 g

FUZE: Pressure

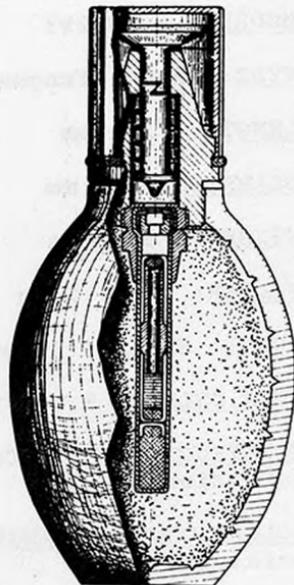
FUZE DELAY: 4 to 5 s

CONSTRUCTION: Steel body with internal serrations

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: About 100 to 145 fragments produced.

REMARKS: Replaced the ROB M 52. The body is the same as that of the ROB M 52. The fuze is silent during functioning. This grenade has also been modified to accept the striker release fuze used in the M 75.



COUNTRY: Yugoslavia (former)

MODEL: M 75

TYPE: Hand, defensive

LENGTH: 89 mm

DIAMETER: 57 mm

WEIGHT: 355 g

FILLER: PETN, 38 g

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade and fuze body. Approximately 3000 steel balls embedded in a plastic matrix contained inside the plastic grenade body.

COLOR CODE/MARKINGS: Black plastic components. Yellow markings. Some markings embossed into the plastic.

RANGE/TERMINAL EFFECTS: Fragments will cause wounds to a distance of 30 meters. Lethal range of 12 meters.

REMARKS: Grenades can be encountered with both Cyrillic and English embossed markings. Copy of the Austrian PL 63. A practice version also exists. A modified fuze exists with a deep dimple in the safety handle over the striker. This dimple was added because of a redesign of the striker.



COUNTRY: Yugoslavia (former)

MODEL: M 75

TYPE: Hand, offensive

LENGTH: 104 mm

DIAMETER: 57 mm

WEIGHT: Unknown

FILLER: Unknown

FUZE: Striker release

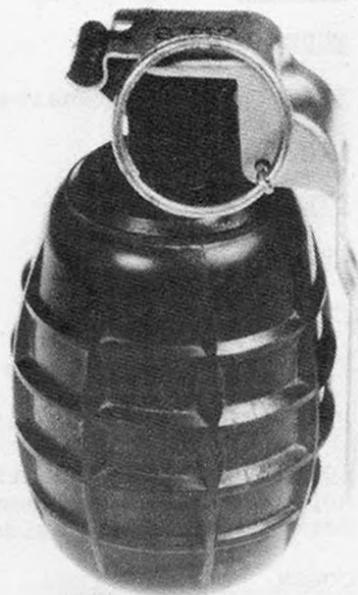
FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade and fuze body. No fragments present.

COLOR CODE/MARKINGS: Black plastic components. Lot markings embossed into the base of the grenade body.

RANGE/TERMINAL EFFECTS: Blast damage at close range. No fragments except for possible fuze components.

REMARKS: A modified fuze exists with a deep dimple in the safety handle over the striker. This dimple was added because of a redesign of the striker.



COUNTRY: Yugoslavia (former)

MODEL: Unknown

TYPE: Hand, fragmentation

LENGTH: 107 mm

DIAMETER: 55 mm

WEIGHT: Unknown

FILLER: Plastic explosive

FUZE: Striker release

FUZE DELAY: 3.5 to 4.5 s

CONSTRUCTION: Plastic grenade and fuze body. Preformed fragments in the form of steel balls are inside the plastic grenade body.

COLOR CODE/MARKINGS: Black or dark green plastic body. Yellow plastic fuze body. The markings "BIM" were embossed on the base of one grenade encountered.

RANGE/TERMINAL EFFECTS: Unknown Lethal range of 12 meters.

REMARKS: This is an improvised grenade produced to support the civil war in the former Yugoslavia. The fuze is a practice fuze with a live detonator added. One reference refers to the grenade as the "Volkshgr" or "people's hand grenade."



COUNTRY: Yugoslavia (former)

MODEL: BRK M 79

TYPE: Hand,  
antitank

LENGTH: 397 mm

DIAMETER: 76 mm

WEIGHT: 1150 g

FILLER: Composition B, 400 g

FUZE: Integral, base detonating

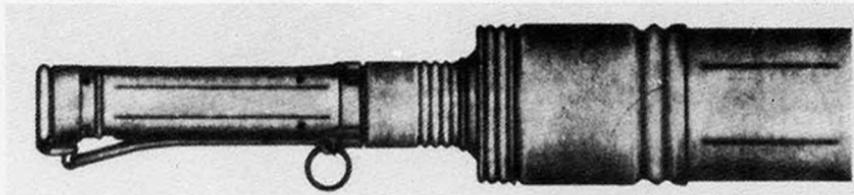
FUZE DELAY: NA

CONSTRUCTION: Sheet-metal body. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with yellow markings.

RANGE/TERMINAL EFFECTS: Throwing range of about 25 meters. Penetrates 220 mm of armor plate.

REMARKS: Copy of the Soviet-designed RKG-3. Parachute stabilized. Shipped with the fuze not installed.



COUNTRY: Yugoslavia (former)

MODEL: BRD M-83

TYPE: Hand, white smoke

LENGTH: 130 mm

DIAMETER: 80 mm

WEIGHT: 1000 g

FILLER: HC smoke mixture, 700 g

FUZE: Striker release

FUZE DELAY: 2.5 to 3.5 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Burn time of approximately 180 seconds.

REMARKS: Similar in appearance to the M-83 colored smoke grenades with a striker release fuze.



COUNTRY: Yugoslavia (former)

MODEL: BRD M-83

TYPE: Hand, colored smoke

LENGTH: 148 mm

DIAMETER: 60 mm

WEIGHT: 400 g

FILLER: Smoke mixture, 240 g

FUZE: Striker release or pull friction

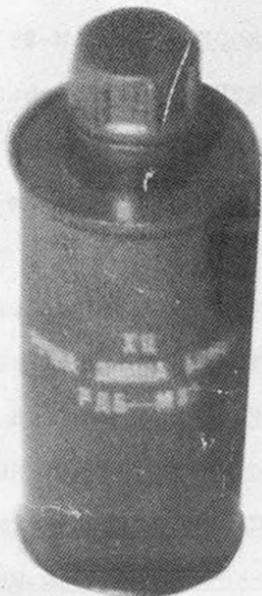
FUZE DELAY: 2.5 to 3.5 s

CONSTRUCTION: Sheet metal body.

COLOR CODE/MARKINGS: Color of the grenade body is the color of the smoke.

RANGE/TERMINAL EFFECTS: Burn time of approximately 50 to 70 seconds.

REMARKS: Identical in appearance to the M-83 white smoke grenades. Available in red, yellow, or green smoke.



COUNTRY: Yugoslavia (former)

MODEL: BRS M 79 AG-1

TYPE: Hand, riot control

LENGTH: 148 mm

DIAMETER: 57 mm

WEIGHT: 450 g

FILLER: CS/Smoke mixture, 280 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Gray body with a yellow band

RANGE/TERMINAL EFFECTS: Can be thrown approximately 20 to 30 meters. 60-s emission time.

REMARKS: Burning type



COUNTRY: Yugoslavia (former)

MODEL: BRS M 79 AF-1

TYPE: Hand, riot control

LENGTH: 106 mm

DIAMETER: 74 mm

WEIGHT: 236 g

FILLER: CS1, 112 g

FUZE: Striker release

FUZE DELAY: 3 to 4 s

CONSTRUCTION: Spherical rubber body

COLOR CODE/MARKINGS: Black with a red band

RANGE/TERMINAL EFFECTS: Can be thrown up to 30 meters.

REMARKS: Bursting type containing about 4 g of explosives.



COUNTRY: Yugoslavia (former)

MODEL: M 65

TYPE: Hand, underwater, antidiversionsary

LENGTH: 265 mm

DIAMETER: 81 mm

WEIGHT: 1643 g

FILLER: Unknown type, 400 g

FUZE: Hydrostatic

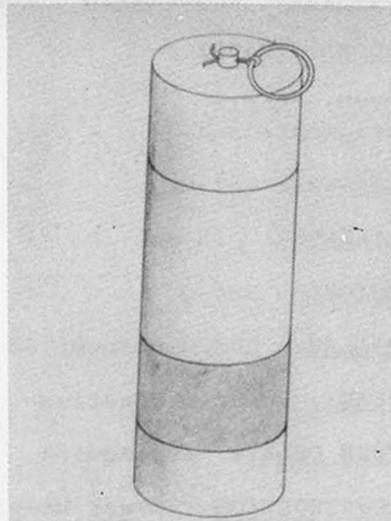
FUZE DELAY: NA

CONSTRUCTION: Cylindrical

COLOR CODE/MARKINGS: Unknown

RANGE/TERMINAL EFFECTS: Produces explosive concussion effect. Fuze activates at a depth of 2.5 to 3.5 meters.

REMARKS: Fuze will not function out of the water.



COUNTRY: Yugoslavia (former)

MODEL: M60P1

TYPE: Rifle,  
fragmentation

LENGTH: 307 mm

DIAMETER: 30 mm

WEIGHT: 520 g

FILLER: RDX/aluminum, 60 g

FUZE: Point detonating

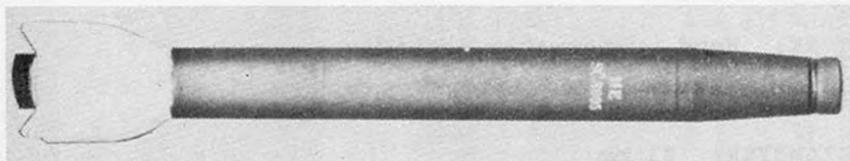
FUZE DELAY: Superquick

CONSTRUCTION: Steel body. Duraluminum fuze and boom. Plastic fins.

COLOR CODE/MARKINGS: Olive green with yellow markings. White fins.

RANGE/TERMINAL EFFECTS: Maximum of 410 meter range (45° elevation). 50-meter fragmentation radius.

REMARKS: Design specification calls for a minimum of 200 fragment penetrations through 20-meter-thick boards in a 20-meter-diameter pattern at a height of 1.5 meters. Fuze arms in approximately 1 meter. Requires special 7.62x39-mm or 7.92x57-mm grenade blank for launching.



COUNTRY Yugoslavia (former)

MODEL: M60

TYPE: Rifle,  
antitank

LENGTH: 390 mm

DIAMETER: 60 mm

WEIGHT: 610 g

FILLER: RDX/TNT,  
240 g

FUZE: Integral base detonating

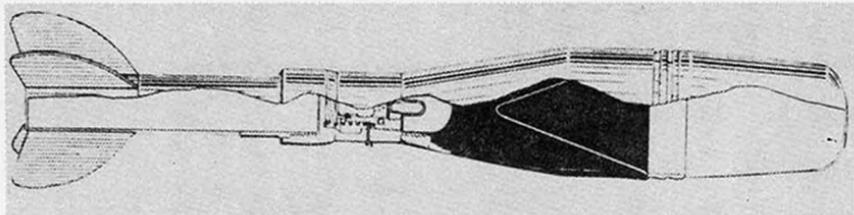
FUZE DELAY: NA

CONSTRUCTION: Duraluminum body, fuze, and boom assembly. Plastic fins. Copper shaped-charge cone.

COLOR CODE/MARKINGS: Olive green with yellow markings. White fins.

RANGE/TERMINAL EFFECTS: Maximum range of 330 meters (45° elevation). Penetrates 200 mm of armor plate or 0.5 meter of concrete at 100 meters.

REMARKS: Minimum impact angle required for fuze functioning is 27°. Requires special 7.62x39-mm or 7.92x57-mm grenade blank for launching.



COUNTRY: Yugoslavia (former)

MODEL: M62

TYPE: Rifle,  
smoke

LENGTH: 330 mm

DIAMETER: 40 mm

WEIGHT: 475 g

FILLER: HC smoke  
mixture, 200 g

FUZE: Integral base

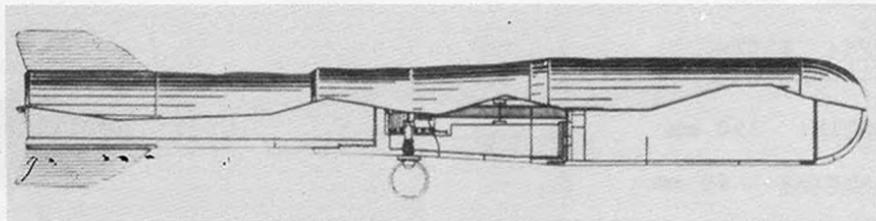
FUZE DELAY: 7.5 s

CONSTRUCTION: Duraluminum body, fuze, and boom assembly. Plastic fins.

COLOR CODE/MARKINGS: Olive green with yellow markings. White fins.

RANGE/TERMINAL EFFECTS: Maximum range of 350 meters (45° elevation). Smoke emission for 70 to 100 s.

REMARKS: Requires special 7.62x39-mm or 7.92x57-mm grenade blank for launching.



COUNTRY: Yugoslavia (former)

MODEL: M62

TYPE: Rifle,  
illumination

LENGTH: 330 mm

DIAMETER: 40 mm

WEIGHT: 450 g

FILLER: Illumination mixture, 100 g

FUZE: Integral base

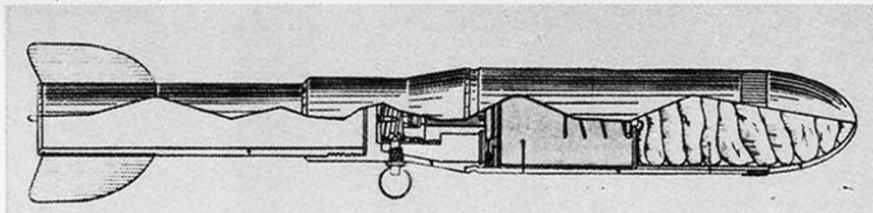
FUZE DELAY: 4.3 to 5.1 s

CONSTRUCTION: Duraluminum body, fuze, and boom assembly. Plastic fins.

COLOR CODE/MARKINGS: Olive green with yellow markings. White fins.

RANGE/TERMINAL EFFECTS: The parachute is deployed at about 200 meters when the grenade is fired at a 45° elevation. Flare burns for a minimum of 24 s at a minimum of 20 000 Cd.

REMARKS: Requires special 7.62x39-mm or 7.92x57-mm grenade blank for launching.



(Reverse Blank)

## NEGATIVE LISTING

Argentina

GME-FMK 2 MOD. 0	Hand, frag
FMK 5 MOD 0	Hand, smoke
FMK 5 MOD. 1	Hand, tear
FMK 5 MOD. 2	Hand, tear
GEEF 50	Rifle, frag
GIEPPF 50	Rifle, frag
PDEF 40 FMK 3 MOD. 0	Rifle, AP/AT
PAF 62 FMK 1 MOD. 0	Rifle, AT
FMK 9 MOD. 0	Rifle, smoke
FMK 9 MOD. 0	Rifle, tear
FMK 9 MOD. 2	Rifle, tear

Australia

F1	Hand, frag
Unknown	Hand, offensive
F2	Hand, smoke
Unknown	Hand, colored smoke
Unknown	Hand, WP
Unknown	Hand, RP
Unknown	Hand, incendiary
ADI-MK 4	Rifle, fragmentation

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U-INT.002949  
U-INT.002987  
U-INT.002986  
U-INT.002985  
U-INT.002903  
No illustration  
U-INT.002904  
U-INT.002905  
No illustration  
No illustration  
No illustration

U-INT.002948  
U-INT.002953  
U-INT.002959  
U-INT.002954  
U-INT.002955  
U-INT.002957  
U-INT.002956  
No negative no.

Austria

SHG 60	Hand, defensive	U-INT.001472
HG PL-61	Hand, defensive	U-INT.001483
HdGr 69	Hand, defensive	U-INT.001461
HdGr O 69	Hand, offensive	U-INT.001462
HdGr 72	Hand, defensive	U-INT.001463
HdGr O 73	Hand, offensive	U-INT.001528
HdGr 73	Hand, defensive	U-INT.001485
Spl HGr 77	Hand, defensive	U-INT.001508
HdGr 78	Hand, defensive	U-INT.001458
HGr O 79	Hand, offensive	U-INT.001468
HGr 79	Hand, defensive	U-INT.001510
HdGr 80	Hand, mini, defensive	U-INT.001509
Spl HGr 80	Hand, defensive	U-INT.001472
Spl HGr 84	Hand, defensive	U-INT.001469
Spl HGr O 84	Hand, offensive	U-INT.002944
Spl HGr 85	Hand, defensive	U-INT.002945
Spl HGr O 85	Hand, offensive	U-INT.002946
Spl HGr 86	Hand, mini, defensive	U-INT.001471
SHG	Hand, defensive	U-INT.001472
Nwk 60	Hand, smoke	U-INT.002940
HC-75	Hand, smoke	U-INT.002941
IHG	Hand, incendiary	U-INT.002952
LHG 40	Hand, illuminating	U-INT.002943
RzStoWfKpr 85	Hand, tear	U-INT.002942
SGG 84	Rifle, frag	U-INT.002963
SGG 85	Rifle, Frag	U-INT.002961
SGG 86	Rifle, frag	U-INT.002906

Belgium

NR 7	Hand, offensive	U-INT.001517
NR 8	Hand, defensive	U-INT.001516
M62BG	Hand, offensive	U-INT.002962
M63BG	Hand, defensive	U-INT.002960
FRAG-C M72	Hand, frag	U-INT.002938
PRB-103	Hand, offensive	U-INT.001515
PRB-103	Hand, defensive	U-INT.001514
PRB 423	Hand, frag	533092
PRB 446	Hand, offensive	U-INT.001521
M48	Hand, smoke	U-INT.002964
HE-RFL-35 BTU-4, M261	Rifle, frag	U-INT.002922
HE-RFL-35 BTU-4, M261A1	Rifle, frag	U-INT.002935
HE-RFL-35 BTU, M262	Rifle, frag	U-INT.002933
HEAT/APERS-35 BTU, M263	Rifle, AV/AP	U-INT.002934
DS-RFL-35 BTU, M278	Rifle, stun	U-INT.002879
Bullet thru AP	Rifle, APERS	U-INT.002907
Bullet thru AV	Rifle, AV	U-INT.002910
Bullet thru SMK	Rifle, smoke	U-INT.002909
Bullet thru ILL	Rifle, illum	U-INT.002908
HE-RFL-35x40 BTU	Rifle, frag	U-INT.002929
ARP-RFL-40 BTU. M260	Rifle, antiarmor	U-INT.002921
SMK-WP-RFL-40 BTU-4 M288	Rifle, incen/smoke	U-INT.002923
SMK-RFL-40 BTU-2, M258	Rifle, smoke generating	U-INT.002924
SMK-RFL-40 BTU	Rifle, smoke generating	U-INT.002930
PFL-RFL-40 BTU-4, M259	Rifle, illum	U-INT.002925
CS-RFL-40 BTU-2, M294	Rifle, riot control	U-INT.002927
CN-RFL-40 BTU-2, M295	Rifle, riot control	U-INT.002926
AP 1640 S	Rifle, APERS	U-INT.002899
AP 1640 N	Rifle, APERS	U-INT.002900
PRB-103 "Polyvalent"	Rifle, frag	U-INT.003413

Belgium (Continued)

HE-RFL-55 LR BTU, M287	Rifle, frag	U-INT.002928
HE-RFL-55 BT 7.62 LR	Rifle, frag	U-INT.002931
HE-RFL-55 BT 5.56 LR	Rifle, frag	U-INT.002932
SMK(WP) -RFL-55-LR BTU M280	Rifle, Smoke/Incendiary	U-INT.004000
SMK(TTC) -RFL-55-LR BTU M281	Rifle, Smoke	No illustration
ILLUM-RFL-55 BTU M297	Rifle, Illumination	U-INT.004001
58 AP-AV-N/58 AP-AV-S	Rifle, APERS/AV	U-INT.002882
58 AC-N/58 AC-S	Rifle, AT	U-INT.002881
58 FUM-S/58 FUM-N	Rifle, smoke	U-INT.002884
58 ECL-N/58 ECL-S	Rifle, illum	U-INT.002887
HE-RFL-60 JET HP	Rifle, frag	U-INT.002896
65AC 28R2	Rifle, AT	U-INT.002888
HEAT-RFL-73 N	Rifle, AT	U-INT.002894
ENERGA HEAT-RFL-75-N	Rifle, AT	U-INT.002897
HEAT-RFL-75 JET HP	Rifle, AT	U-INT.002893
HEAT-RFL-75UV	Rifle, AT	U-INT.002892
AR-RFL-75	Rifle, anti-riot	U-INT.002895
AR-RFL-75 BTU, M296	Rifle, anti-riot	U-INT.002880
NR438 A3	Launched, antitank	U-INT.003789
NR440 A3	Launched, illumination	U-INT.003791
NR 439 A3	Launched, smk-incen	U-INT.003790

Brazil

Unknown	Hand, offensive	U-INT.003271
DMB	Hand, defensive	U-INT.003256
M3	Hand, off/def	U-INT.001473
GR M QT/1	Hand, offensive	U-INT.001478

## Brazil (Continued)

GR M QT/1	Hand, defensive
M4	Hand, frag
M5-CEV	Hand, colored smoke
MB-309/TI	Hand, smoke
MB-502	Hand, smoke
M3-CEV	Hand, tear
M5-CEV	Hand, tear
M2-CEV	Rifle, AV/APERS
M3-CEV	Rifle, APERS/AV

## Bulgaria

RG0-78	Hand, frag
RGN-86	Hand, offensive

## Canada

C1A2	Hand, smoke
C2A1	Hand, smoke

## Chile

G.M. 78-F7	Hand, off/def
Dual Purpose	Hand, APERS/AV
Mini	Hand, frag
EC-10	Hand, underwater

## China

Type 1	Hand, frag
Type 42	Hand, frag

U-INT.001479  
U-INT.001474  
U-INT.003239  
U-INT.003325  
No illustration  
U-INT.003241  
U-INT.003240  
U-INT.003285  
U-INT.003286

U-INT.003800  
U-INT.003799

U-INT.003876  
U-INT.003878

U-INT.001542  
U-INT.001475  
U-INT.003456  
U-INT.003233

U-INT.003201  
U-INT.003202

## China (Continued)

M 46	Hand, frag, stick
Type 59	Hand, defensive
Type 73	Hand, frag
Type 77-1	Hand, frag, stick
Type 82-1	Hand, frag
Type 82-2S	Hand, frag
Type 82-3	Hand, frag
Type 86P	Hand, frag
Type 3 (copper)	Hand, antitank
FB 891	Hand, riot control
FB 892	Hand, riot control
Type 67	Rifle, AT, 70 mm
Unknown	Rifle, AT, 60 mm
Unknown	Rifle, AT, 60 mm
Unknown	Rifle, frag

## Czechoslovakia

Model 34	Hand, offensive
RG-4	Hand, off/def
RG-86	Hand, off/def

## Denmark

M 54	Hand, offensive
M 53	Hand, smoke

U-INT.003203  
U-INT.003204  
U-INT.001153  
U-INT.001152  
U-INT.001151  
U-INT.001154  
U-INT.001155  
U-INT.002723  
U-INT.003802  
U-INT.003199  
U-INT.003200  
U-INT.003337  
U-INT.003338  
U-INT.003339  
No. negative no.

U-INT.003272  
U-INT.002719  
U-INT.003181

U-INT.003226  
U-INT.003273

East Germany (Former)

AZ-58-K-100	Hand, AT
Unknown	Rifle, fragmentation

Egypt

36 mil	Hand, defensive
No. 2	Hand, off/def
169AP	Hand, training
169AT	Hand, training
HOSSAM	Hand, AT

France

M.O.	Hand, offensive/riot
M	Hand, offensive
MD	Hand, defensive
OF-37	Hand, offensive
D 37	Hand, defensive
DF 37	Hand, defensive
DF 37/46	Hand, defensive
Unknown	Hand, offensive
Unknown	Hand, defensive
Unknown	Hand, offensive
Unknown	Hand, offensive
LU 213	Hand, defensive
LU 216	Hand, offensive
E2	Hand, tear
Type 188 M1e F5	Hand, colored smoke
Type 254	Hand, colored smoke
OF 51	Hand, WP smoke

U-INT.003281

U-INT.003543

U-INT.003813

No negative no.

No negative no.

No negative no.

U-INT.001488

U-INT.001524

U-INT.001526

U-INT.001525

U-INT.003232

U-INT.002724

U-INT.003284

U-INT.003275

U-INT.001476

U-INT.001477

U-INT.001522

U-INT.001523

U-INT.001519

U-INT.001520

U-INT.003229

U-INT.003180

U-INT.003179

U-INT.003280

France (Continued)

Mle 60	Hand, WP smoke
Type 241	Hand, blinding
Type 46	Hand, stun
AP 500	Rifle, APERS
GR FL AP AV	Rifle, APERS/AV
BTRG AC	Rifle, AT
BTRG AP/AV	Rifle, APERS/AV
BTRG AP	Rifle, APERS
BTRG AP/R	Rifle, APERS/delay
BTRG FUM	Rifle, smoke
BTRG ECL	Rifle, illum
GR 58 AC	Rifle, AT
GR 58 AP/AV	Rifle, APERS/AV
GR 58 FUM	Rifle, smoke
GR 58 FUM SRI	Rifle, smoke
GR 58 ECL	Rifle, illum
GR AP/AV 1000	Rifle, APERS/AV

Germany

M-DN 61	Hand, frag
M-DN 11	Hand, frag
M-DN 21	Hand, frag
M-DN 31	Hand, frag
DM 51	Hand, offensive
DM 51	Hand, defensive
DM-109	Hand, underwater
DM-119	Hand, underwater
DM-24	Hand, incen/smoke

U-INT.003812  
U-INT.003806  
U-INT.003810  
U-INT.003227  
U-INT.003279  
U-INT.003363  
U-INT.003359  
U-INT.003360  
U-INT.003361  
U-INT.003362  
U-INT.003364  
U-INT.003278  
No illustration  
U-INT.003352  
U-INT.003349  
No illustration  
U-INT.003277

U-INT.001502  
U-INT.001501  
U-INT.001503  
U-INT.001504  
U-INT.001498  
U-INT.001499  
U-INT.001493  
U-INT.001549  
U-INT.003330

Greece

EM 01	Hand, defensive	U-INT.001603
EM 02	Hand, offensive	U-INT.001602
EM 04	Hand, smoke, color	U-INT.003346
EM 04	Hand, smoke, fog	U-INT.003341
EM 06	Hand, stun	U-INT.003228
EM 14	Rifle, defensive	U-INT.003350
EM 10	Rifle, defensive	U-INT.003353
EM 12	Rifle, smoke, fog	U-INT.003351

Hungary

KGR	Hand, frag	U-INT.004004
M-42	Hand, offensive, stick	U-INT.003270
HT	Rifle, frag	U-INT.003993
RT	Rifle, frag	U-INT.003994
GK	Rifle, AT	U-INT.003995
KK	Rifle, AT	U-INT.003996
PGK	Rifle, AT	U-INT.002729
PGR	Rifle, APERS	U-INT.002727
KD	Rifle, Smoke	U-INT.003998
KF	Rifle, Lacrimatory	U-INT.003997

Indonesia

GT-5PE A2	Hand, frag	U-INT.002673
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Iran

Unknown	Hand, defensive	U-INT.001481
SA-100	Rifle, fragmentation	U-INT.003455

Israel

M26A2	Hand, frag	U-INT.003283
No. 14	Hand, offensive	531449
No. 5	Hand, colored smoke	U-INT.003274
No. 5	Hand, white smoke	U-INT.003328
M 15	Hand, WP	U-INT.003289
MA/AP 30	Rifle, APERS	U-INT.003290
BT/AP 30	Rifle, APERS	U-INT.003215
MA/AP 65	Rifle, APERS	U-INT.003288
BT/AP 65	Rifle, APERS	U-INT.003216
MA/AP 67	Rifle, APERS	U-INT.003291
BT/AP 67	Rifle, APERS	U-INT.003217
BT/AP M1091	Rifle, APERS	U-INT.003866
MA/AT 52	Rifle, AT	U-INT.003292
BT/AT 52	Rifle, AT	U-INT.003218
BT/AP-AT 43	Rifle, APERS/AT	U-INT.003219
BT/AP-AT 68	Rifle, APERS/AT	U-INT.003222
BT/AT-44	Rifle, APERS/AV	U-INT.003865
SGF 40	Rifle, smoke	U-INT.003293
BT/SGF 40	Rifle, smoke	U-INT.003223
BT/RP 80	Rifle, smoke, instant.	U-INT.003224
BT/SGI 50	Rifle, illum	U-INT.003225
BT/SGIR 50	Rifle, illum, IR	U-INT.003867
BT/SGIN 50	Rifle, incen.	U-INT.003868
BT/RPIN 80	Rifle, incen., inst.	U-INT.003869
ARG/AP 50	Rifle, flechette	U-INT.003870

Italy

S.R.C.M. Model 35	Hand, frag	U-INT.003212
O.T.O. Model 35	Hand, frag	U-INT.003877

## Italy (Continued)

MU-50	Hand, frag
MU-50G	Hand, frag
OD/82	Hand, frag
VS-MK-83	Hand, smoke
AP/AV 700	Hand, APERS/AV
M5	Hand, tear
M6	Hand, tear
M7	Hand, tear
M 60	Hand/rifle, smoke
M 60F	Hand/rifle, smoke

## Malaysia

HE HG 79	Hand, frag
MK III	Hand, smoke

## Netherlands

NR20 C1	Hand, frag
NR 17	Hand, offensive
NR 7C2	Hand, smoke
NR 23	Hand, smoke
NR 22	Hand, colored smoke
NR 12	Hand, incendiary

## North Korea

Unknown	Hand, frag
Unknown	Hand, frag
Unknown	Hand, lacrimatory

U-INT.001529

"

U-INT.002716

U-INT.003214

U-INT.003211

U-INT.003807

U-INT.003809

U-INT.003808

No illustration

No illustration

U-INT.001548

U-INT.003244

U-INT.001495

U-INT.001460

U-INT.004005

U-INT.004006

U-INT.003999

U-INT.004002

U-INT.001489

U-INT.003210

No. negative no.

## Pakistan

No. 36M MK 1	Hand, frag
P 1 MK1	Hand, frag
P-2 MK1	Rifle, AT
P4 thru P9	Hand, smoke
WP P1 MK1	Hand, WP

## Philippines

M211	Rifle, frag
M 76	Rifle, frag

## Poland

Model 31	Hand, frag
RGO	Hand, frag
RGZ-89	Hand, offensive
PGN-60	Rifle, AT
F-IN-60	Rifle, APERS

## Portugal

M 312	Hand, frag
M 313	Hand, frag
M 314	Hand, frag
M 321	Hand, offensive
M/962	Hand, offensive
O	Hand, offensive
OD	Hand, defensive
M 362	Hand, smoke
GWP	Hand, incen

U-INT.003541

U-INT.001530

U-INT.002725

U-INT.002726

U-INT.003242

U-INT.003243

No illustration

U-INT.003334

U-INT.003213

U-INT.003814

U-INT.002730

U-INT.003287

U-INT.003208

U-INT.001534

U-INT.001533

U-INT.001532

U-INT.001480

U-INT.001465

U-INT.001464

U-INT.003209

U-INT.003418

Portugal (Continued)

GRP	Hand, incen
CTE	Hand, incen
M 363	Hand, colored smoke
M 364	Hand, colored smoke
M 365	Hand, colored smoke
ODE	Rifle, APERS

Singapore

SFG 82	Hand, frag
SFG 75	Hand, frag
SFG 87	Hand, frag
AFG	Hand, underwater
M 8	Hand, smoke
SSG 86	Hand, smoke/incen

South Africa

M26A6	Hand, frag
No. 83 MK 3	Hand, colored smoke
M1A4	Hand, screening smoke
BST	Hand, smoke
Unknown	Hand, illum
M791	Rifle, frag
Unknown	Rifle, AT, 75 mm
M811A1	Rifle, smoke, RP
Unknown	Rifle, smoke
Unknown	Rifle, illum

U-INT.003251  
U-INT.003252  
U-INT.003205  
U-INT.003206  
U-INT.003207  
U-INT.003230

U-INT.001531  
U-INT.003198  
U-INT.001496  
U-INT.001497  
U-INT.003269  
U-INT.003347

U-INT.003194  
U-INT.003343  
U-INT.003342  
U-INT.003196  
U-INT.003192  
U-INT.003247  
U-INT.003329  
U-INT.003246  
U-INT.003248  
U-INT.003245

South Korea

K 400	Hand, frag	U-INT.003268
K 409	Hand, stun	U-INT.003266
K-M18	Hand, colored smoke	U-INT.003264
K-M8	Hand, smoke	U-INT.003265
KM34	Hand, smoke	U-INT.004003
KMK1B	Hand, illum	U-INT.003263
KM 14	Hand, thermite	U-INT.004013
KM 7	Hand, lacrimatory	U-INT.004012
KM 25-III	Hand, lacrimatory	U-INT.004011
K 44-II	Rifle, lacrimatory	U-INT.004010

Soviet Union (former)

RGO	Hand, defensive	U-INT.002722
RGN	Hand, offensive	U-INT.002721
F 1	Hand, frag	U-INT.000469
RKG-3	Hand, AT	U-INT.003262
RKG-3M	Hand, AT	No illustration
RKG-3EM	Hand, AT	U-INT.003261
RKG-3YEM	Hand, AT	U-INT.003260
RGD-5	Hand, frag	U-INT.003259
RG-42	Hand, frag	U-INT.000471
RDG-1	Hand, smoke	U-INT.003327
RDG-2	Hand, smoke	U-INT.003326
RDG-2Ch	Hand, smoke	No illustration
RDG-2Kh	Hand, smoke	U-INT.003941

Spain

P.O. I	Hand, frag
POMI	Hand, off/def
EA-M5	Hand, offensive
R1	Hand, offensive
R1	Hand, defensive
R2	Hand, offensive
R2	Hand, defensive
MN1	Hand, offensive
MN1	Hand, defensive
M 6	Hand, frag
MB-8/MBS-9	Hand, off/def
R-41	Hand, off/def
MR H1	Hand, colored smoke
E.A. H1	Hand, smoke
BS	Hand, smoke
BL	Hand, smoke/tear
BO	Hand, smoke
Unknown	Hand, smoke
GWP	Hand, incen
GRP	Hand, incen
CTE	Hand, incen
Instalaza FT.I M61	Rifle, AT
FT.II M63B	Rifle, AT/APERS

Sweden

M/56	Hand, frag
M/56	Hand, smoke
FFV 915	Rifle, smoke

U-INT.001541  
U-INT.001538  
U-INT.001599  
U-INT.004009  
No illustration  
U-INT.004009  
No illustration  
U-INT.004008  
U-INT.004007  
U-INT.001535  
U-INT.001543  
U-INT.001536  
U-INT.001537  
U-INT.003258  
U-INT.003249  
U-INT.003798  
U-INT.003796  
U-INT.003797  
U-INT.003257  
U-INT.003234  
U-INT.003235  
U-INT.003236  
U-INT.003169  
U-INT.003267

U-INT.003816  
U-INT.003875  
U-INT.003803

Switzerland

HG 43	Hand, AT	U-INT.003805
HG 85	Hand, frag	U-INT.003804

Taiwan

Type 67	Hand, frag	No negative no.
MK 2	Hand, frag	No negative no.
Unknown	Hand, lacrimatory	U-INT.003788

Thailand

Unknown	Rifle, frag.	U-INT.003815
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United Kingdom

No. 36M	Hand, defensive	No negative no.
L2A2	Hand, frag	U-INT.003253
E105	Hand, frag	U-INT.003183
E101	Hand, screening smoke	U-INT.003182
E120 series	Hand, colored smoke	U-INT.003185
E108	Hand, incen	U-INT.003184
E160	Hand, tear	U-INT.003186
E165	Hand, tear	U-INT.003187
F180	Hand, stun	U-INT.003189
E182	Hand, stun	U-INT.003188
G60/09	Hand, Assault sound	U-INT.003801
No. 83 N 100 series	Hand, colored smoke	U-INT.003190
No. 83 N 110	Hand, screening smoke	U-INT.003191
MK 3/4	Hand, smoke	U-INT.003250
L49A1	Hand, colored smoke	U-INT.003255

United Kingdom (Continued)

L13A1	Hand, anti-riot
No. 83 N 201	Hand, tear
N 225	Hand, anti-riot

Vietnam

Unknown	Hand, frag
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Yugoslavia

BPM 50P3	Hand, frag
ROB M 52	Hand, frag
BR-M52P3	Hand, frag
ROB-M69	Hand, frag
M 75	Hand, frag
M 75	Hand, offensive
Unknown	Hand, frag
BRK M 79	Hand, AT
BRD M-83	Hand, white smoke
BRD M-83	Hand, colored smoke
BRS M 79 AG-1	Hand, anti-riot
BRS M 79 AF-1	Hand, anti-riot
M 65	Hand, underwater
M60P1	Rifle, frag
M60	Rifle, AT
M62	Rifle, smoke
M62	Rifle, illum

(Reverse Blank)

U-INT.003254  
U-INT.003345  
U-INT.003344

U-INT.003404

U-INT.003811  
U-INT.003177  
U-INT.003454  
U-INT.003176  
U-INT.003175  
U-INT.003792  
No negative no.  
U-INT.003170  
No negative no.  
No negative no.  
U-INT.003221  
U-INT.003174  
U-INT.001550  
U-INT.003168  
U-INT.003171  
U-INT.003173  
U-INT.003172

GLOSSARY OF TERMS

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The terms below are selected from the text and represent some which may not be familiar to the reader.

- All-ways-acting fuze ... An impact fuze designed to function regardless of the orientation of the fuze when it strikes the target.
- Antivehicle grenade .... Designed to destroy or disable non-armored or very lightly armored vehicles through the use of shaped-charge (or similar type) warheads or fragmentation. The warhead is not large enough to be effective against most armored vehicles.
- ARGES ..... Acronym for the Austrian company Armaturen-Gesellschaft m.b.H., producers of an extensive line of plastic bodied hand grenades.
- Base detonating ..... A fuze, located in the base of the ordnance item, designed to function as the result of impact with the target or the passage of a predetermined delay time.
- Blast grenade ..... Another name for an offensive grenade, which see.

- Bullet deflector ..... A hardened metal component with an angled surface placed to the rear of the explosive train of a rifle grenade normally intended to be launched by a special blank cartridge. It is designed to deflect an inadvertently fired bullet so that it will not impact sensitive explosive components and cause a premature detonation.
- Bullet thru ..... A rifle grenade design with a longitudinal cavity to allow passage of a bullet through the grenade without impacting explosive components or the grenade body. This allows the use of bulletted ammunition to launch rifle grenades safely.
- Bullet trap ..... A specially designed rifle grenade component designed to trap or break up a bullet before it can impact on sensitive explosive components. It allows the use of bulletted ammunition to launch the grenade safely.
- Candela ..... A unit of luminous intensity equal to 1/60 of the luminous intensity of one square centimeter of a black body at the temperature of solidification of platinum. Synonymous with candle power. Used to measure the light output of illumination devices.

Casualty radius ..... The distance from the point of detonation at which there is a predetermined probability the ordnance will cause disabling wounds on personnel. The distance is greater than the lethal radius. The levels of probability differ from country to country. Some countries use a set of casualty criteria establishing degrees of incapacitating wounds. Examples of these would be wounds that resulted in incapacitation within 5 minutes, wounds which would result in eventual incapacitation without regard to a time limit, or wounds resulting in incapacitation in 5 seconds.

CN ..... Chemical agent fill (chloroacetophenone) that causes irritation of the eyes, skin, and upper respiratory passages. No permanent effects. Used for riot control or disorientation.

Concussion grenade ..... Another name for an offensive grenade, which see.

CS ..... Chemical agent fill (o-chlorobenzylidene malononitrile) that causes irritation of the eyes, skin, and upper respiratory passages. No permanent effects. Used for riot control or disorientation.

Defensive grenade ..... Designed to kill or incapacitate through the use of fragmentation. Should be used from a protected defensive position to protect the thrower.

Energia design .....	A rifle grenade design configuration developed by the Belgians.
Fragmentation grenade ..	A grenade designed to produce lethal fragments. Because of the unpredictable range of the fragments the thrower is required to be under protective cover. It is primarily used in defensive operations and is often called a "defensive grenade."
Fragmentation liner ....	An internal liner used in grenade bodies that contains preformed metal fragments. Can take on several configurations such as coiled notched wire or steel balls embedded in a plastic matrix.
Fragmentation sleeve ...	An external, normally removable, grenade component containing preformed fragments. Can take on several configurations such as coiled notched wire or steel balls embedded in a plastic matrix.
HC smoke mixture .....	A smoke-producing filler material consisting of a mixture of grained aluminum, zinc oxide, and hexachlorethane. Burning of the mixture produces a dense whitish/gray screening smoke.
Hydrostatic fuze .....	A fuze that functions underwater at predetermined depths as a result of the ambient fluid pressure exerted on the fuze sensor. Normally found on blast grenades.

Lacrimatory .....	A chemical agent of the tear gas type.
Lethal radius .....	The distance from the point of detonation at which there is a predetermined probability the ordnance will destroy a target or kill a person. The levels of probability differ from country to country.
Offensive grenade .....	A blast-type grenade designed to kill or incapacitate without the use of fragmentation. Can be thrown without protective cover with no fear of injury.
Parkerized .....	A process used to inhibit rust formation on iron or steel. Achieved by dipping the metal in an acid phosphate solution to form a phosphate surface coating. The process also produces a surface without a high degree of polish or light reflectivity.
Point initiating, base detonating (PIBD) fuze.	A fuze with the initiating components, possibly a piezoelectric crystal, in the nose of the ordnance and the detonating components in the base of the explosive charge. Designed to function on target impact.
Polyvalent .....	A name given to a series of Belgian grenades by the manufacturer to denote the multiple uses the grenade offers. It can be altered to produce an offensive, defensive, or rifle grenade.

Preformed fragment .....

Fragments formed into their final shape before detonation of the explosive charge. They are mechanically held in the proper orientation around the explosive charge. Can take on several configurations such as coiled notched wire or steel balls embedded in a plastic matrix. They produce a more controlled and predictable fragmentation pattern than serrated cast-metal bodies.

Pull friction fuze .....

A fuze design with a string or wire coated with a friction compound or an ignition material passing through a surface coated with the other of the two materials. The rapid and steady pulling of the string or wire causes the two materials to rub together, igniting the ignition source and functioning the fuze.

Red phosphorous .....

A smoke producing chemical filler with incendiary side effects. It is a solid, and unlike white phosphorous will not spontaneously ignite on contact with the atmosphere. It must be initiated by a burning source.

Serrated .....

A term used to describe the body of a cast fragmentation grenade with a pattern of grooves cast into it to provide potentially weakened joints. On detonation, the intent is to facilitate fragment formation by causing the separation of the body into a predetermined number of fragments along the weakened joints. In reality, however, the resultant separations and resultant number of fragments are very unpredictable.

Stick grenade .....

A type of grenade with a long handle, often made of wood, attached to allow a better grip for throwing the grenade.

Striker release fuze ...

The typical Western-style grenade fuze where a spring-loaded cocked striker is held in place by a safety handle and pull pin. When the pin is removed and the grenade thrown, the spring pushes the striker forward forcing the safety handle off as it moves to impact the fuze primer.

Thermite .....

A chemical agent fill for incendiary munitions. Normally composed of approximately 73% ferric oxide and 27% granular aluminum. Under favorable conditions the burning reaction of thermite may produce a temperature of about 2500°C.

Titanium Tetrachloride  
(FM) .....

A smoke-producing chemical agent. It is a liquid that spontaneously provides a heavy screening smoke when exposed to the atmosphere. The smoke is corrosive and irritating to the nose and throat but is normally not a serious hazard in the concentrations found in a smoke cloud.

Wave shaper .....

An insert or core of inert material or an explosive with a different detonation rate used to alter the shape of the warhead detonation wave. Typically used to enhance the performance of shaped-charge warheads.

White phosphorous .....

A smoke-producing chemical filler with incendiary side effects. A solid at normal temperature, it is dispersed by an explosive burster where it spontaneously ignites on contact with the atmosphere.

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P003	NPIC/IEG/SOUTHEAST ASIA	1
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P079	STATE INR/PMA	1
P090	NSA/E3234/HCY COLL	5

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E500	310 TSS/DOUL	2
E702	9 AIS/AITL	1
E706	HQ AIA/DOAR	1
E800	542 OSS/IN	1
F001	USTRANSCOM/J2A	1
H002	JAC/IMB	3
H299	UCIRF(USAREUR)	3
H300	ODCS IN (USAREUR)	3
H301	7TH ARMY TNG CMD	2
H310	USASETAF	2
H350	7TH SOSC	2
H524	HQ V CORPS	1
H527	HQ 1ST ARMORED DIV	1
H704	7450 TIS/IML	1
I005	USCINCCENT	1
J402	TENTH MAR	1
J502	COMSECONDFLT	1
J515	AIC	1
J522	NAVBASE GTMO	1
J599	MCSFBNLANT	1
J618	SIXTH MAR	1
J705	EODGRU TWO	1
K101	HQ PACAF/INXU	1
K150	COMEODGRU ONE	1
K151	EODTEU ONE	1
K152	EODMU ONE	1
K153	EODMU THREE	1
K155	EODMU NINE	1
K300	JICPAC/RSIL	2
K302	CDRUSARPAC	1
K303	1STBN 1SFGA	2

K304	45TH SPT GP
K305	25TH INF DIV
K306	4TH SOSC
K342	2ND INF DIV
K344	6TH INF DIV (L)
K520	LFTCPAC
L051	STRATJIC/PDSE
M005	USCINCSO
N005	USCINCSOC
N010	HQ AFSOG
N011	USAF SPEC OPS SCH
N015	COMNAVSPECWARCOM
N019	NAVSPECWARCEN
N020	USASFC
N021	USAJKFSWC
N025	DCSINT ARSOC
N105	1ST MI CO 1ST SFGA
N110	5TH SFG(A)
N115	3RD SFG(A)
N120	7TH SFG(A)
N125	10TH SFG(A)
N130	75TH INF RANGR REG
N131	1ST BN(R) 75TH INF
N132	2D BN(RNG) 75INF
N140	11TH SFG(A)
N145	12TH SFG(A)
N160	19TH SFG (A)
N165	20TH SFG (ABN)
N190	361ST CA BDE
N196	413TH CIVIL AFFAIRS BN
N197	478TH CAB (UW/FID)
N201	486TH CIVIL AFFAIRS BN

N302	NAVSPECWARU FOUR	1
N410	SEAL TEAM ONE	1
Q008	ONI 3311	2
Q591	FSTC-IAFSTC-ICB	1
Q593	IAFSTC-IF	1
R205	USCG ICC	1
W091	HQ ACC/INAA	1
W115	2D ACR (L)	1
W162	102 ARRS (ANG)/DOI	1
W215	1ST INF DIV	1
W225	3RD ARM CAV REGT	1
W300	18TH ABN CORPS	1
W325	82ND ABN DIV	1
W421	RTS-I (NC)	1
W431	CTF BULLIS	1
W440	SIXTH US ARMY	1
W500	THIRD US ARMY	1
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