

APPENDIX F

NATO HAND GRENADES

This appendix provides general information on the identification, functions, and capabilities of NATO hand grenades. The North Atlantic Treaty Organization nations have an extensive inventory of grenades. This appendix describes only the more common grenades that the US soldier might encounter during joint operations.

Section I. NETHERLANDS

F-1. NR17

- Type: Offensive. (Figure F-1)
- Weight: 475 grams.
- Length: 125 millimeters.
- Diameter: 56 millimeters.
- Body Material: Plastic.
- Fuze Type: Striker release.
- Filler Material: TNT.
- Filler Weight: 205 grams.
- Fuze Delay: 3-4 seconds.
- Effective Radius: 5 meters.
- Range Thrown: 30 to 40 meters.



Figure F-1. NR17 hand grenade.

F-2. NR13C1

- Type: Fragmentation, offensive. (Figure F-2)
- Weight: 475 grams.
- Length: 143 millimeters.
- Diameter: 54 millimeters.
- Body Material: Steel.
- Filler Weight: 225 grams.
- Filler Material: High explosive.
- Fuze Type: Pyrotechnic delay.
- Fuze Delay: 5 seconds.
- Range Thrown: 30 meters.



Figure F-2. NR13C1 fragmentation hand grenade.

F-3. MARK 2

- Type: Fragmentation. (Figure F-3)
- Length: 114 millimeters.
- Diameter: 57 millimeters:
- Body Material: Cast iron.
- Filler Weight: 55 grams.
- Filler Material: TNT powdered.
- Fuze Type: Pyrotechnic delay.
- Fuze Delay: 3 seconds.

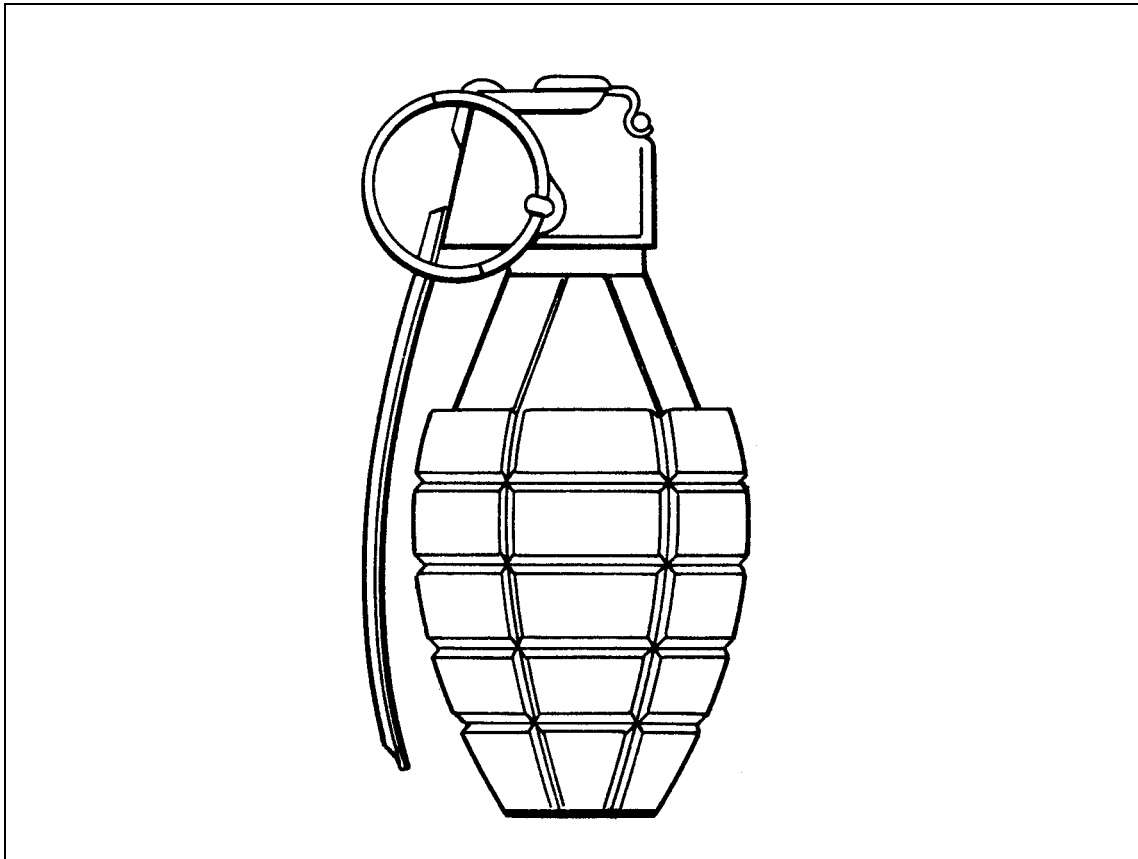


Figure F-3. Mark 2 fragmentation hand grenade.

F-4. NR1C1

- Type: Fragmentation. (Figure F-4)
- Weight: 670 grams.
- Length: 122 millimeters.
- Body Material: Cast iron.
- Filler Weight: 55 grams.
- Filler Material: TNT powdered.
- Fuze Type: Pyrotechnic delay.
- Fuze Delay: 3 seconds.

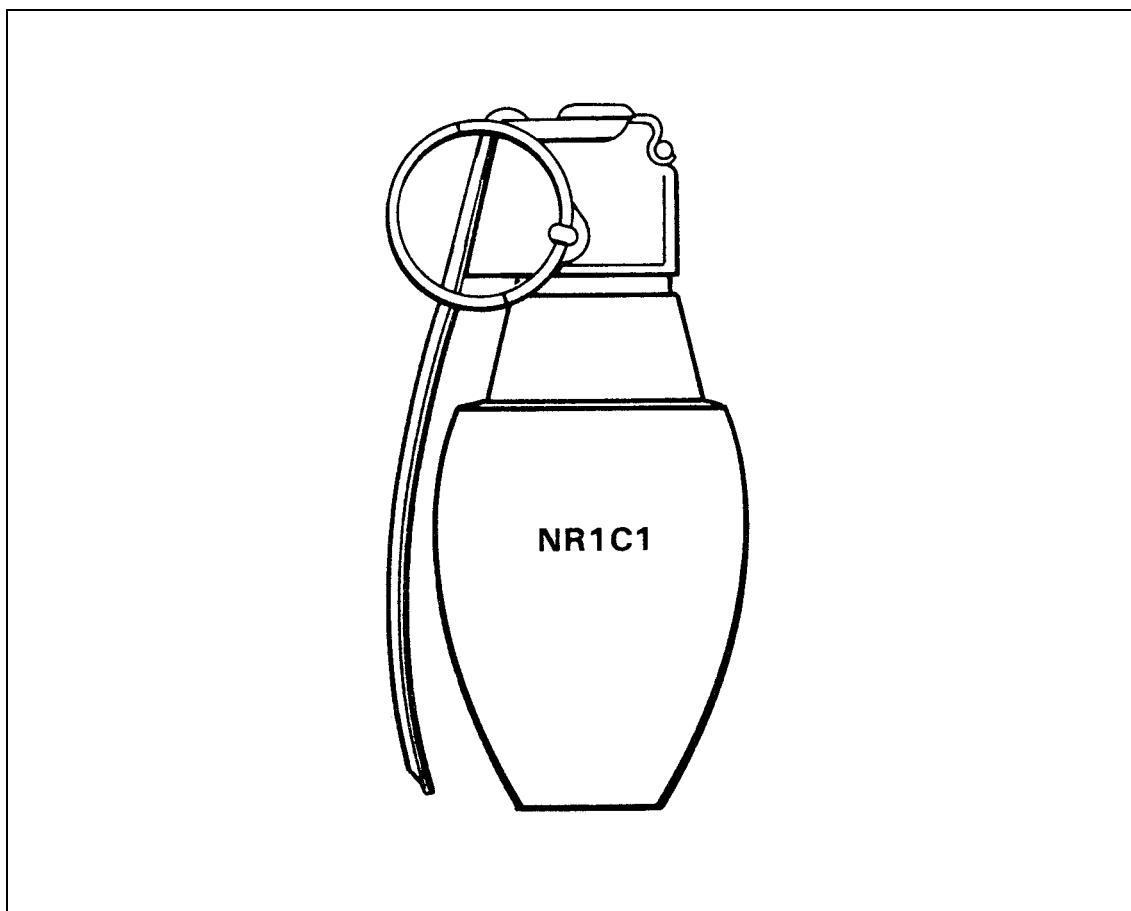


Figure F-4. NR1C1 fragmentation hand grenade.

F-5. JNS 62-65

- Type: Smoke. (Figure F-5)
- Weight: 660 grams.
- Length: 151 millimeters.
- Diameter: 63 millimeters.
- Body Material: Tinned steel.
- Filler Material: Colored smoke.
- Fuze Delay: 2 to 3 seconds.
- Burn Time: 1 to 2 minutes.

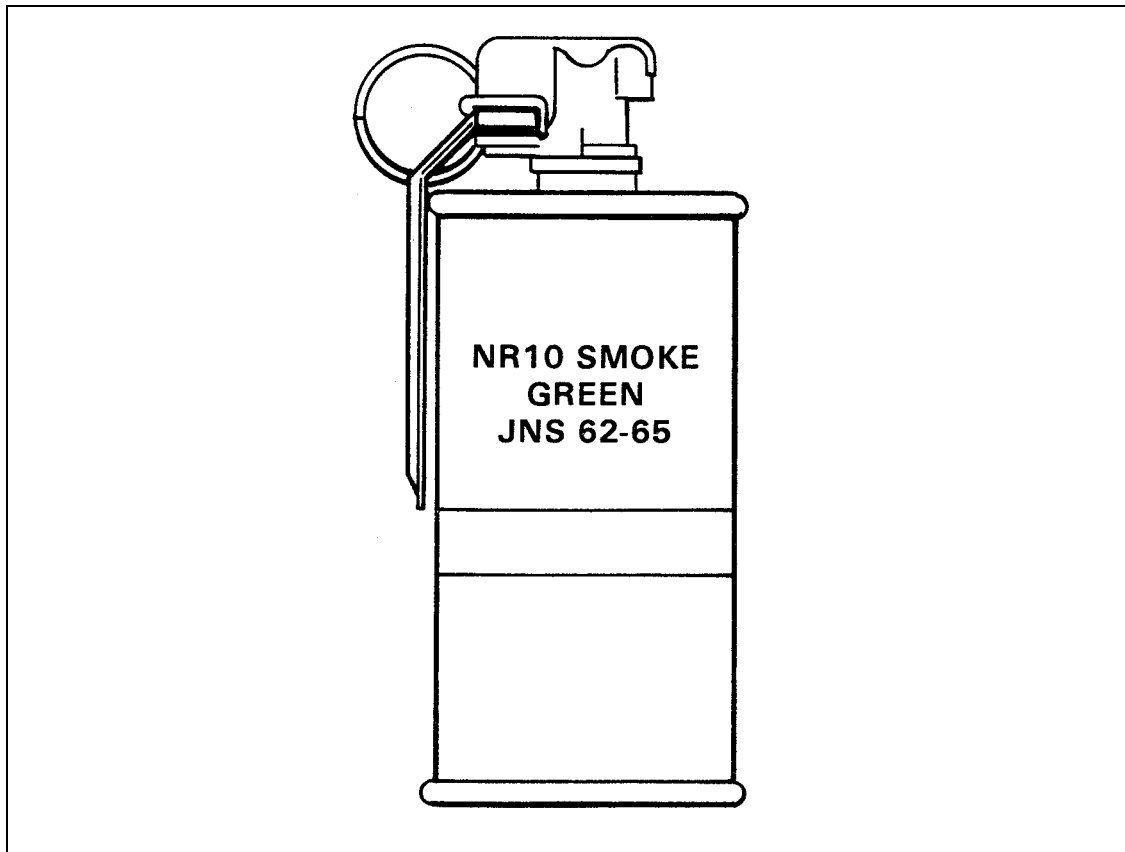


Figure F-5. JNS 62-65 smoke hand grenade.

F-6. NR12

- Type: Incendiary. (Figure F-6)
- Weight: 820 grams.
- Length: 153 millimeters.
- Diameter: 63 millimeters.
- Body Material: Tinned steel.
- Filler Material: Thermite.
- Fuze Type: Striker release.
- Fuze Delay: 1 to 3 seconds.
- Range Thrown: 40 meters.
- Burn Time: 40 seconds.
- Peak Intensity: 2200°C

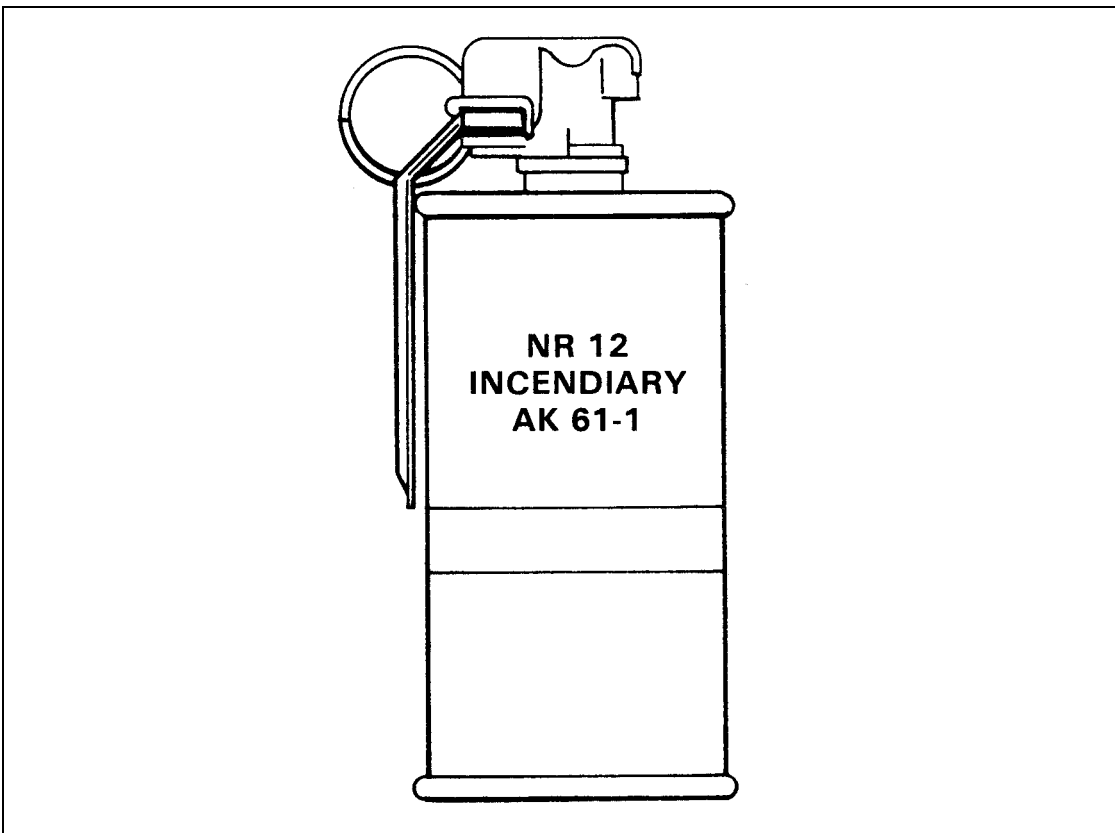


Figure F-6. NR12 incendiary hand grenade.

F-7. NR16

- Type: Smoke. (Figure F-7)
- Weight: 284 grams.
- Length: 101 millimeters.
- Diameter: 50 millimeters.
- Body Material: Tinned Steel.
- Filler Material: White phosphorus.
- Fuze Type: Delay.
- Fuze Delay: 4 seconds.
- Range Thrown: 37 meters.

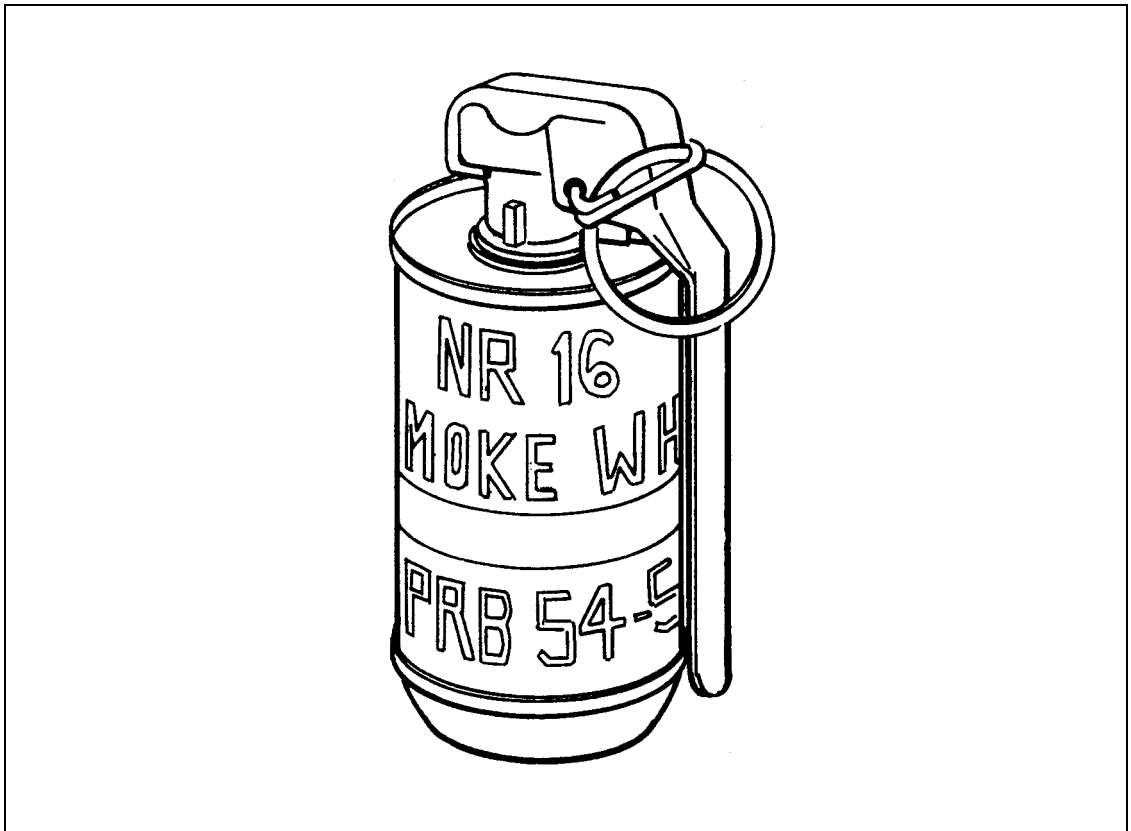


Figure F-7. NR16 smoke hand grenade.

F-8. NR20C1

- Type: Fragmentation. (Figure F-8)
- Weight: 390 grams.
- Length: 103 millimeters.
- Diameter: 60 millimeters.
- Body Material: Plastic.
- Filler Weight: 150 grams.
- Filler Material: Composition B.
- Fuze Type: Striker release.
- Fuze Delay: 3 to 4 seconds.
- Lethal Radius: 5 meters, safety range 15 to 20 meters.

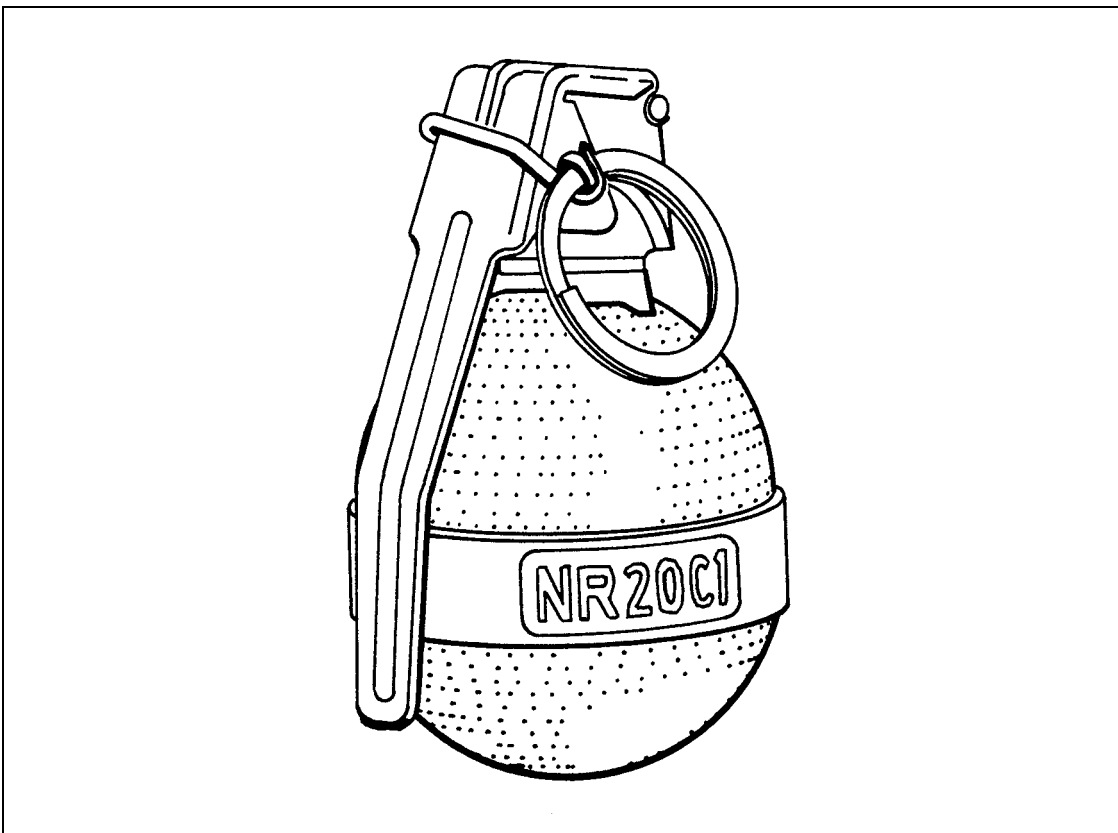


Figure F-8. NR20C1 fragmentation hand grenade.

Section II. GERMANY

F-9. DM 24/68

- Type: Incendiary smoke. (Figure F-9)
- Weight: 340 grams.
- Length: 133 millimeters.
- Diameter: 67 millimeters.
- Body Material: Plastic.
- Filler Weight: 255 grams.
- Filler Material: Red phosphorus.
- Fuze Type: Mechanical ignition.
- Fuze Delay: 2.5 seconds after ignition.
- Burn Time: 5 minutes.

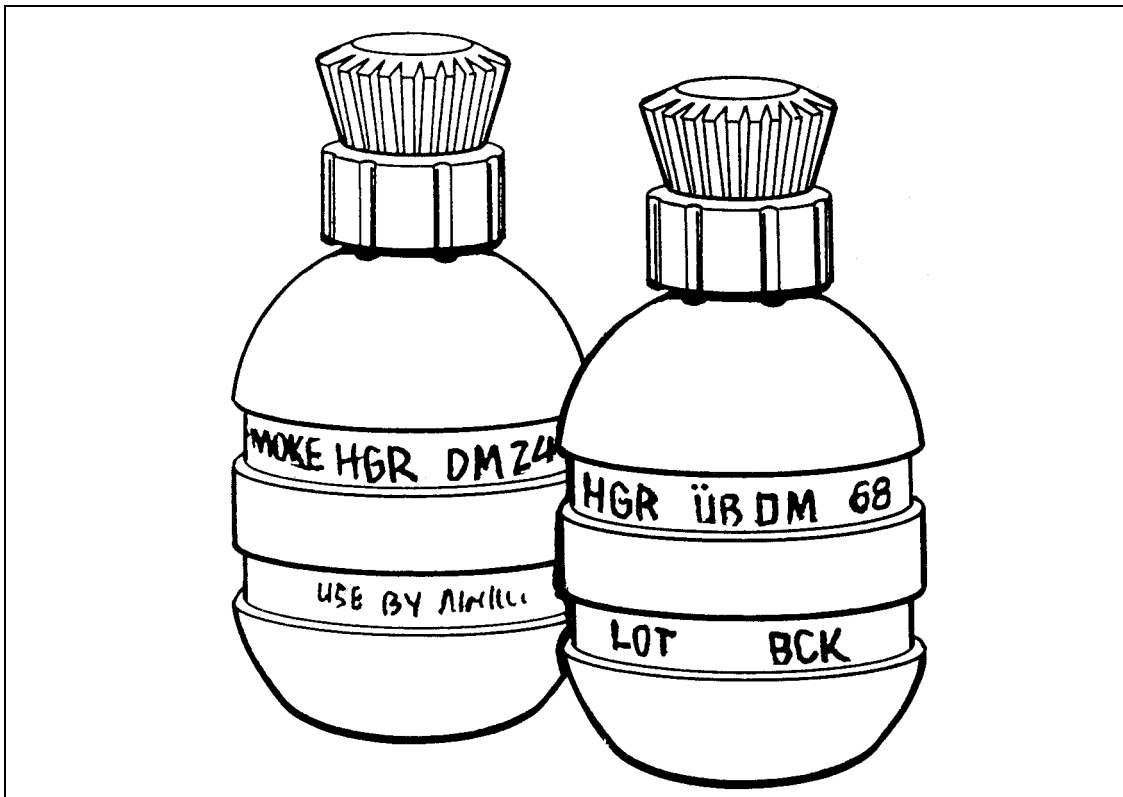


Figure F-9. DM 24/68 incendiary hand grenade.

F-10. HC DM 15

- Type: Smoke. (Figure F-10)
- Weight: 1,200 grams.
- Length: 175 millimeters.
- Diameter: 76 millimeters.
- Body Material: Hexachlorethane.
- Fuze Type: Mechanical ignition.
- Fuze Delay: 2.5 seconds after ignition.
- Burn Time: 2.5 minutes.

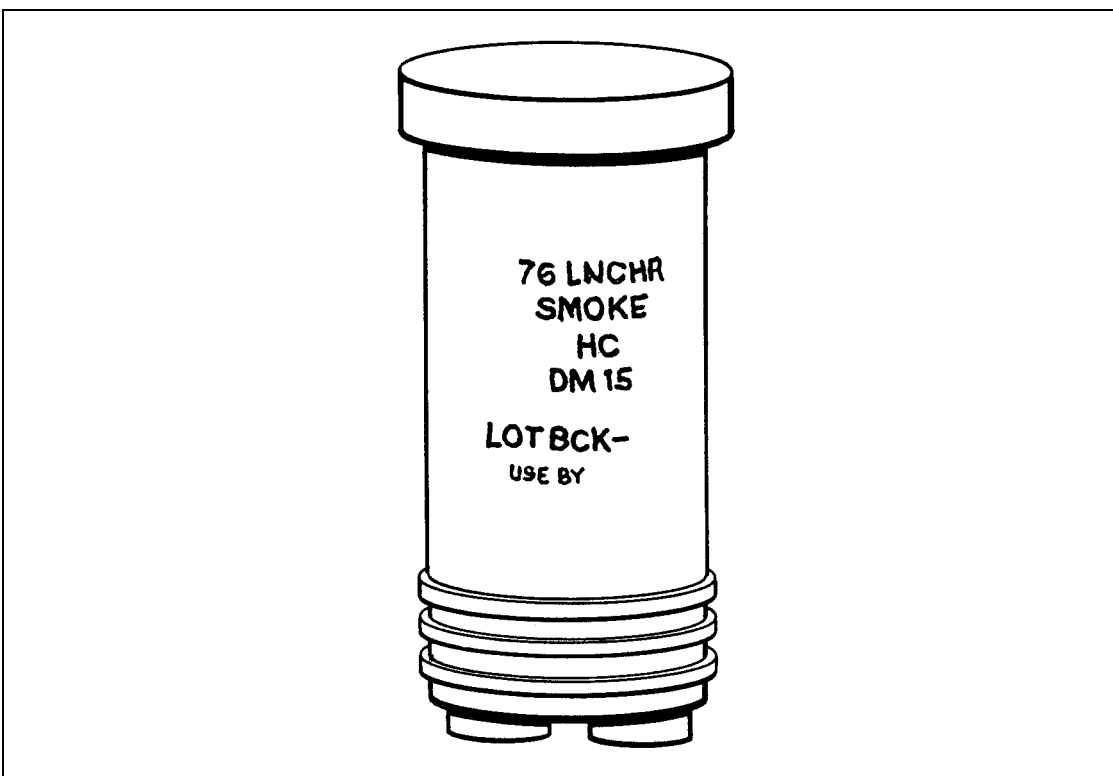


Figure F-10. HC DM 15 smoke hand grenade.

F-11. M-DN 11

- Type: Fragmentation, defensive. (Figure F-11)
- Weight: 467 grams.
- Length: 97 millimeters.
- Diameter: 60 millimeters.
- Body Material: Plastic.
- Filler Weight: 43 grams, plasticized PETN.
- Fuze Type: Striker release.
- Fuze Delay: 3.5 to 4.5 seconds.

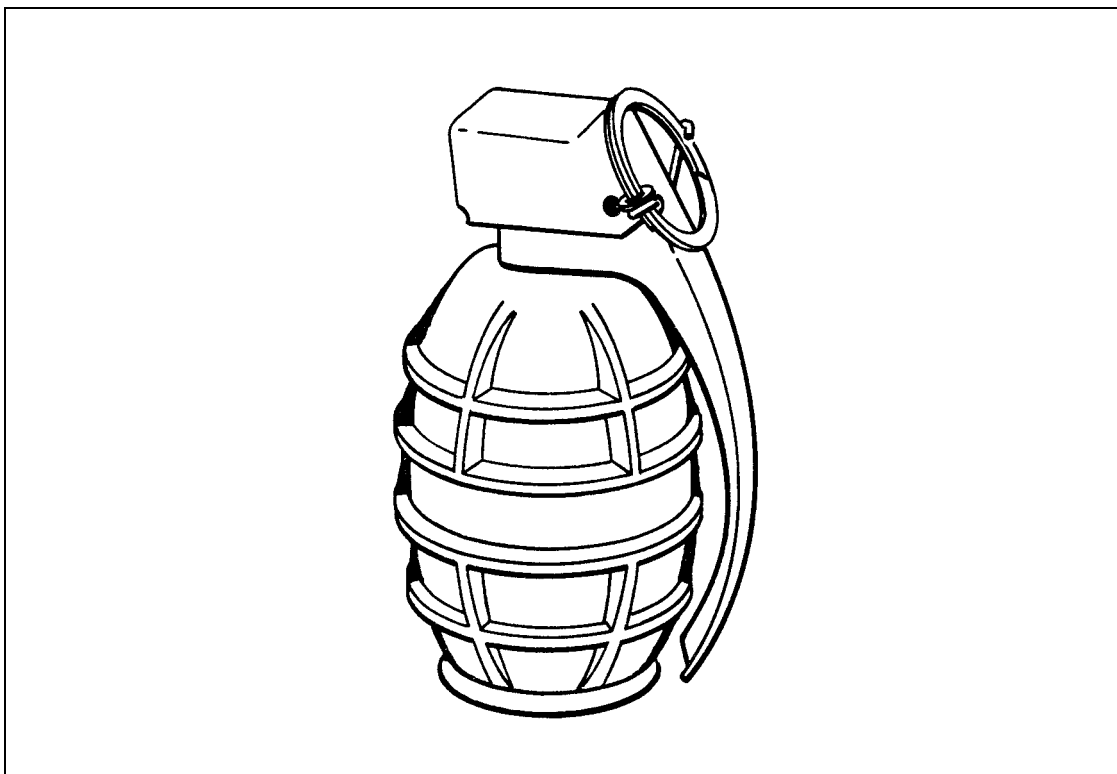


Figure F-11. M-DN 11 fragmentation hand grenade.

Section III. BELGIUM

F-12. 35X65 MECAR

- Type: Fragmentation, defensive. (Figure F-12)
- Weight: 230 grams.
- Length: 88 millimeters.
- Diameter: 35 millimeters.
- Body Material: Metal.
- Filler Material: Composition B.
- Fuze Type: Delay.
- Fuze Delay: 4 seconds.
- Range Thrown: 40 meters.
- Effective Radius: 10 meters.

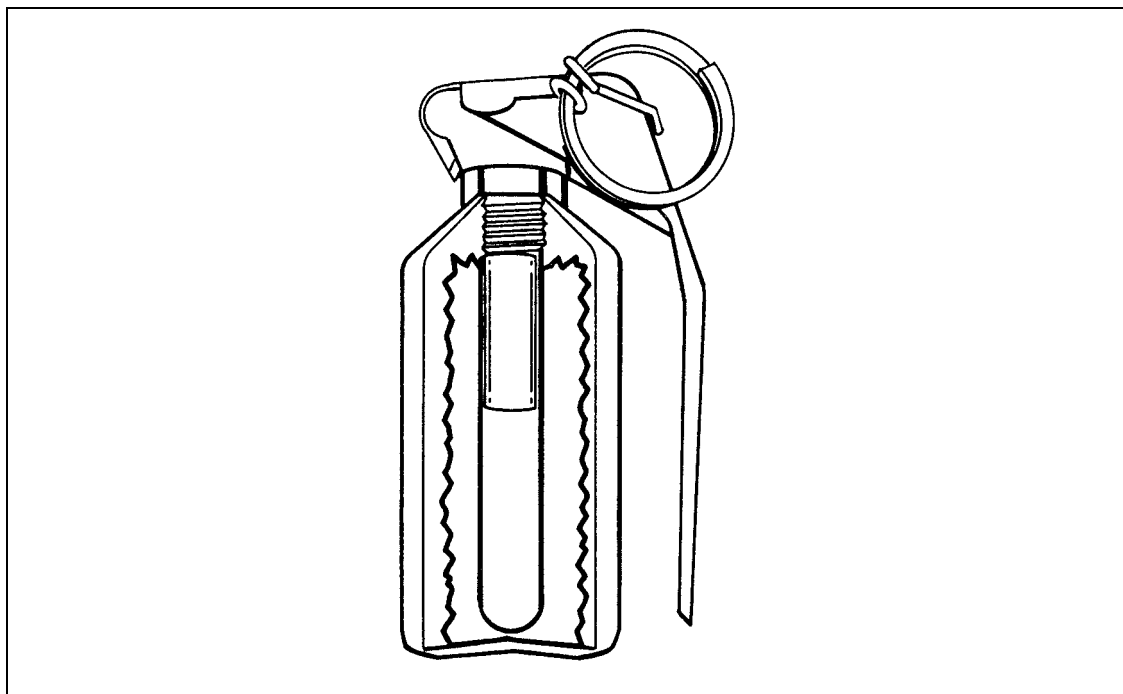


Figure F-12. 35X65 MECAR fragmentation hand grenade.

Section IV. UNITED KINGDOM**F-13. NO. 36M**

- Type: Defensive. (Figure F-13)
- Weight: 600 grams.
- Length: 102 millimeters.
- Diameter: 60 millimeters.
- Body Material: Cast iron.
- Filler Weight: TNT, 60 grams.
- Fuze Type: Striker release.
- Fuze Delay: 3.5 to 4.5 seconds.
- Range Thrown: 25 meters.
- Effective Radius: 30 to 100 meters (40 fragments).

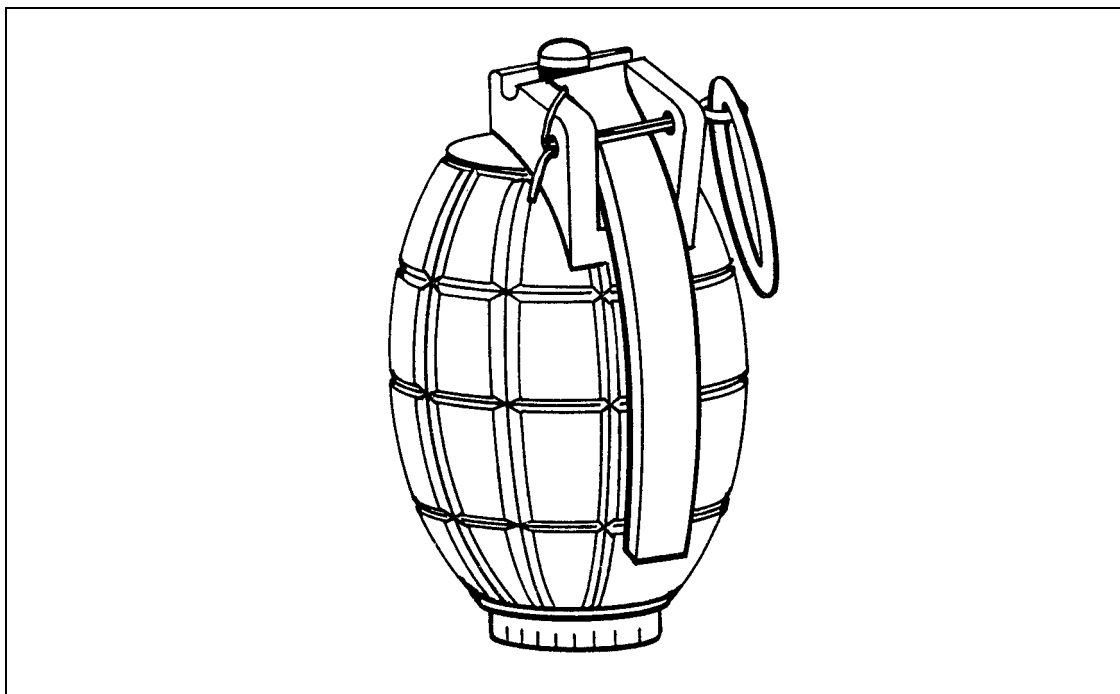


Figure F-13. No. 36M hand grenade.

F-14. PC1

- Type: Practice. (Figure F-14)
- Weight: 265 grams.
- Length: 95 millimeters.
- Diameter: 56 millimeters.
- Body Material: Soft plastic.
- Filler Weight: 80 grams.
- Filler Material: White powder.
- Fuze Type: Delay.
- Fuze Delay: 4.4 seconds + 0.5 seconds.
- Range Thrown: 40 meters.

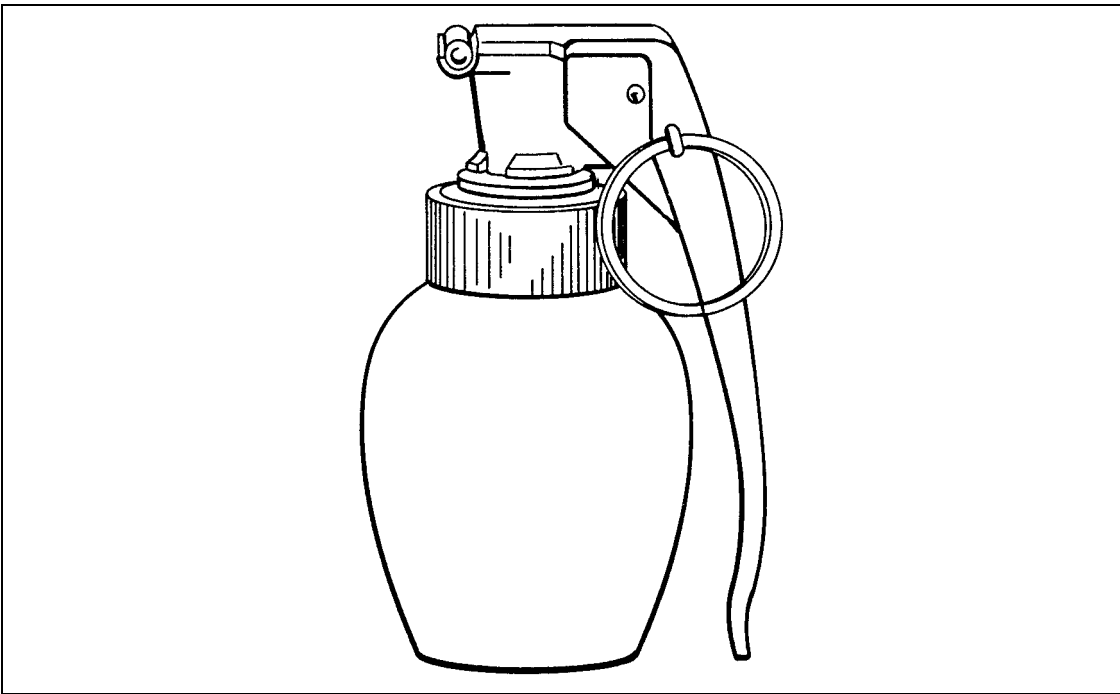


Figure F-14. PC1 practice hand grenade.

F-15. L2A2

- Type: Fragmentation. (Figure F-15)
- Weight: 395 grams.
- Length: 106 millimeters.
- Diameter: 60 millimeters.
- Body Material: Two-piece sheet-steel body with spiral wrapped fragmentation sleeve inside.
- Filler Material: RDX/TNT, 170 grams.
- Fuze Type: Striker release.
- Fuze Delay: 4 to 5 seconds.
- Range Thrown: 40 meters.
- Lethal Radius: 10 meters.

NOTE: Copy of US M26, being replaced by RO 01A1, a product improved model.

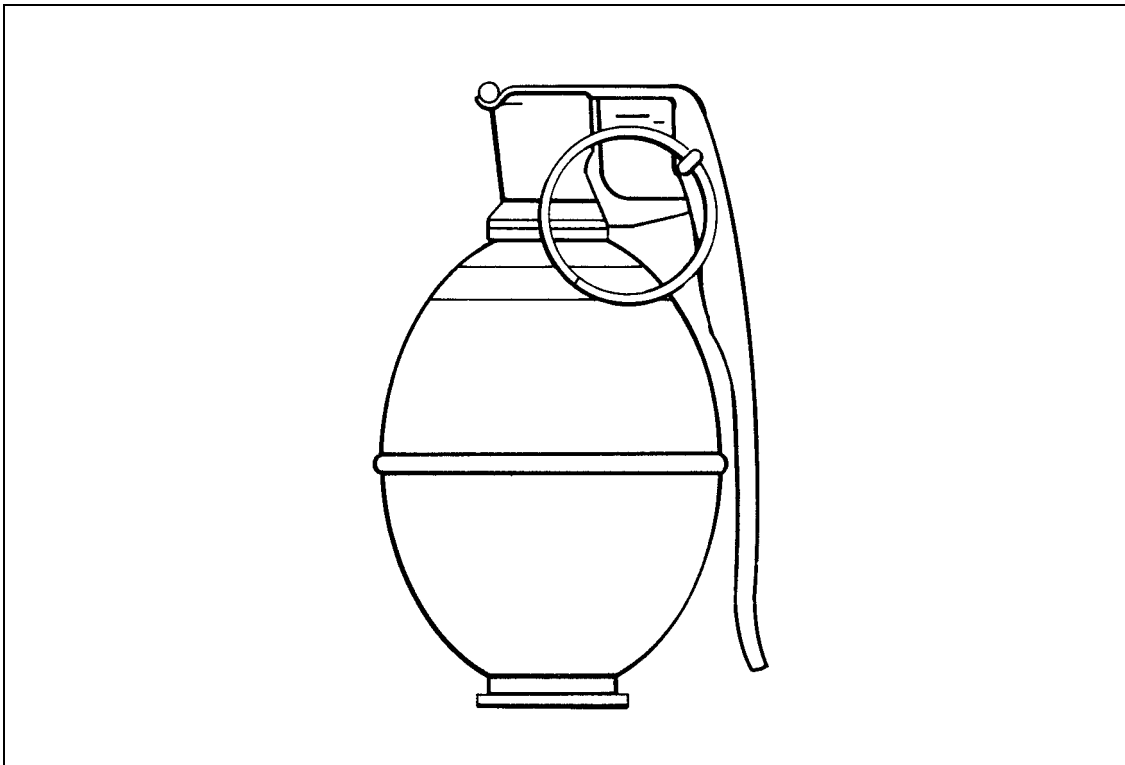


Figure F-15. L2A2 hand grenade.

F-16. NO. 83 N 201

- Type: Lachrymatory. (Figure F-16)
- Weight: 340 grams.
- Length: 135 millimeters.
- Diameter: 63 millimeters.
- Body Material: Tin.
- Filler Weight: 205 grams.
- Filler Material: CS, gas.
- Fuze Type: Striker release.
- Fuze Delay: 2 to 3 seconds.
- Range Thrown: 25 to 30 meters.
- Burn Time: About 25 seconds.

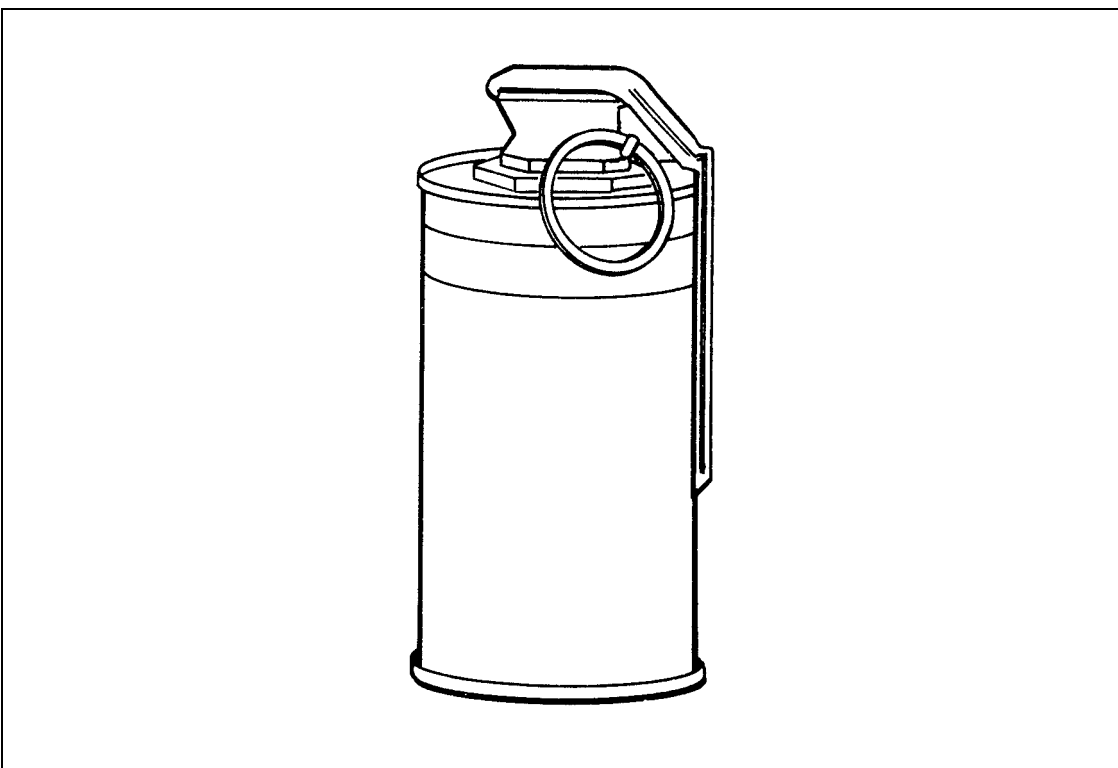


Figure F-16. No. 83 N 201 riot-control hand grenade.

F-17. RUBBER BURSTING CS

- Type: Riot control, L13A1 (N225 is similar). (Figure F-17)
- Weight: 550 Grams.
- Length: 175 millimeters.
- Diameter: 66 millimeters.
- Body Material: Rubber.
- Filler Weight: 470 grams.
- Filler Material: CS, 23 separate CS pellets.
- Fuze Type: Striker release.
- Fuze Delay: 2 to 2.4 seconds.
- Range Thrown: 25 to 35 meters.
- Burn Time: 12 seconds.
- Effective Radius: 15 meters.

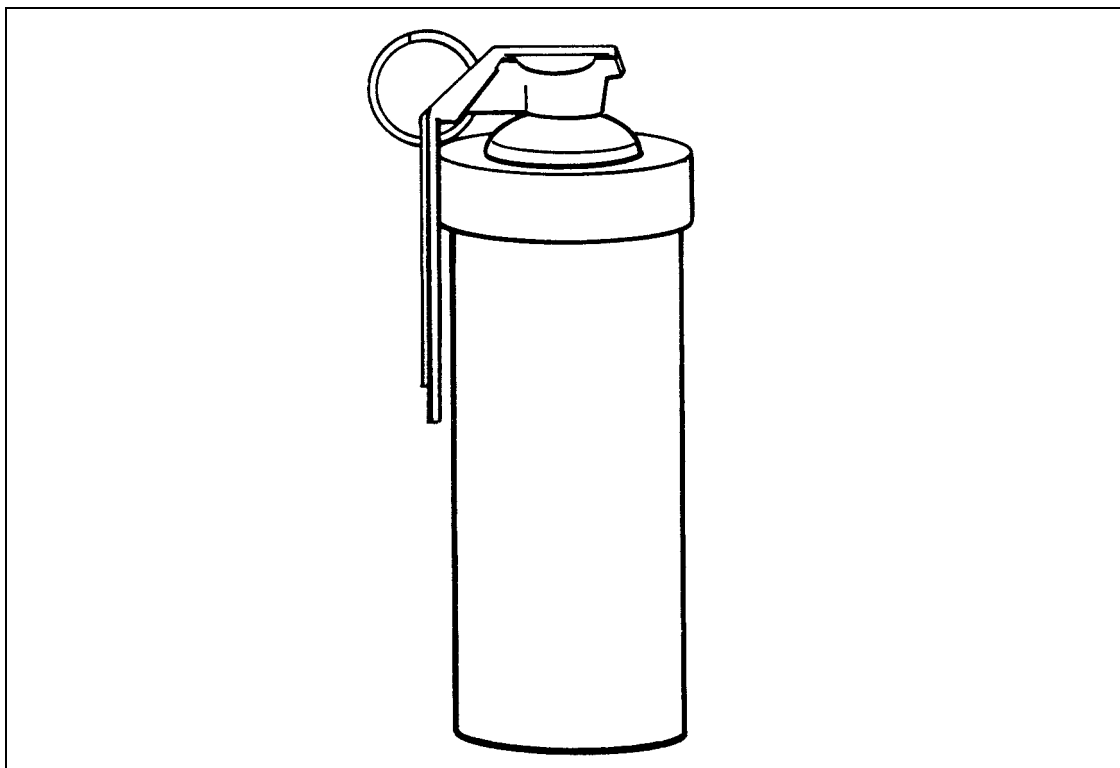


Figure F-17. Rubber bursting CS hand grenade.

Section V. AUSTRIA

F-18. SPL HGR 77

- Type: Defensive. (Figure F-18)
- Weight: 470 grams.
- Length: 96 millimeters.
- Diameter: 63 millimeters.
- Body Material: Rigid plastic.
- Filler Material: Plasticized PETN, 70 g.
- Fuze Type: Striker release.
- Fuze Delay: 3.5 to 4.5 seconds.
- Range Thrown: 45 meters.
- Effective Radius: 10 to 12 meters.

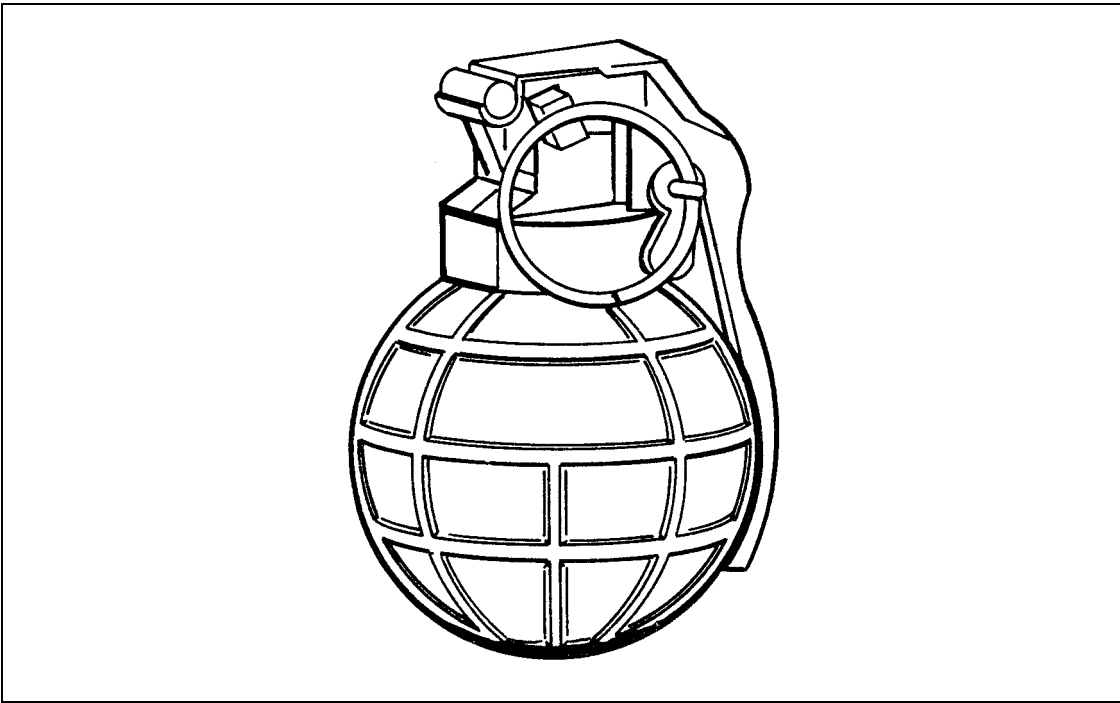


Figure F-18. Spl HGr 77 hand grenade.

F-19. HDGR 78

- Type: Defensive. (Figure F-19)
- Weight: 520 grams.
- Length: 115 millimeters.
- Diameter: 60 millimeters.
- Body Material: Plastic with steel pellets.
- Filler Weight: 70 grams.
- Filler Material: Plasticized PETN.
- Fuze Type: Striker release.
- Fuze Delay: 3 to 5 seconds.
- Range Thrown: 35 to 40 meters.
- Effective Radius: 10 meters.

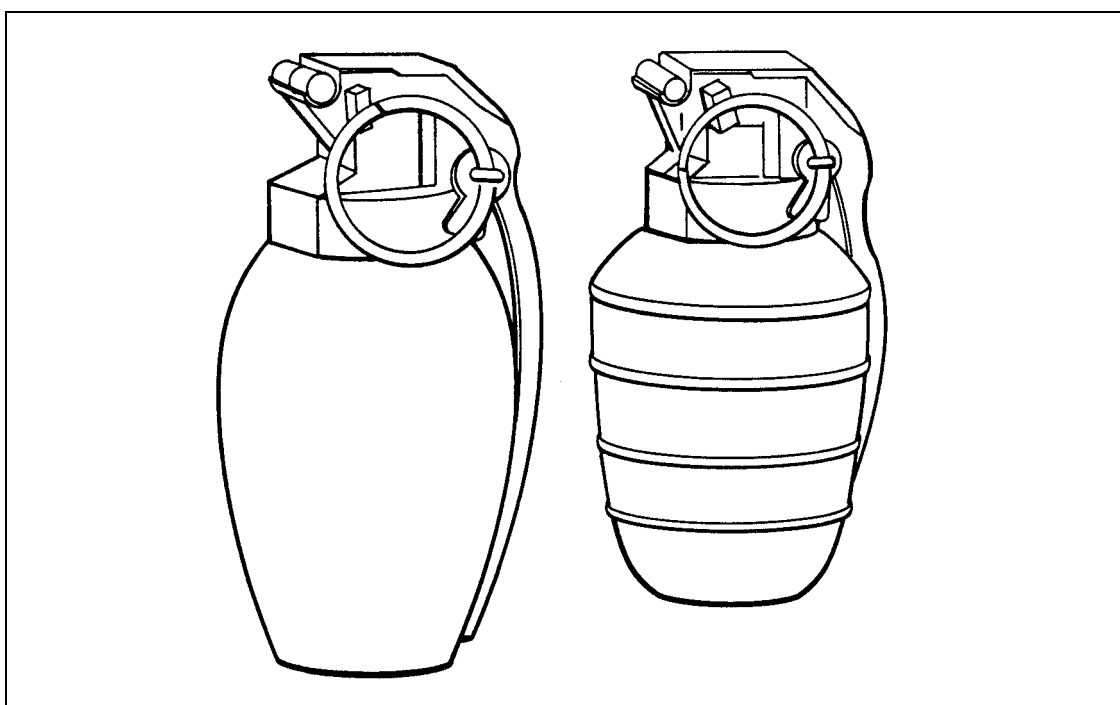


Figure F-19. HdGr 78 hand grenade.

F-20. HGR 79

- Type: Defensive. (Figure F-20)
- Weight: 370 grams.
- Length: 96 millimeters.
- Diameter: 58 millimeters.
- Body Material: Plastic.
- Filler Weight: 45 grams.
- Filler Material: Plasticized PETN.
- Fuze Type: Striker release.
- Fuze Delay: 3.5 to 4.5 seconds.
- Range Thrown: 45 meters.
- Effective Radius: 10 meters.

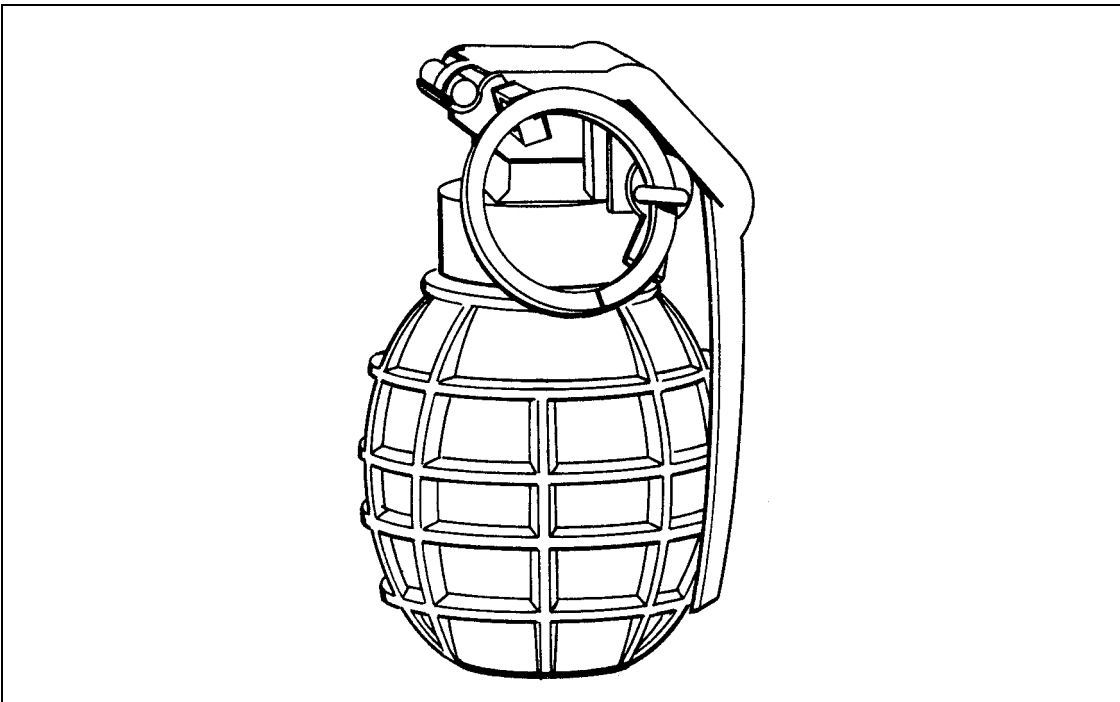


Figure F-20. HGr 79 hand grenade.

F-21. SPL HGR 84

- Type: Defensive. (Figure F-21)
- Weight: 490 grams.
- Length: 115 millimeters.
- Diameter: 61 millimeters.
- Body Material: Plastic.
- Filler Weight: 96 grams.
- Fuze Type: Striker release.
- Fuze Delay: 3.5 to 4.5 seconds nominal.
- Range Thrown: 35 to 40 meters.
- Effective Radius: 10 meters.



Figure F-21. Spl HGr 84 hand grenade.

F-22. HDGR 72

- Type: Defensive. (Figure F-22)
- Weight: 485 grams.
- Length: 115 millimeters.
- Diameter: 60 millimeter.
- Body Material: Rigid plastic.
- Filler Weight: 65 grams.
- Filler Material: Plasticized PETN.
- Fuze Type: Striker release.
- Fuze Delay: 3 to 5 seconds.
- Effective Radius: 10 meters.

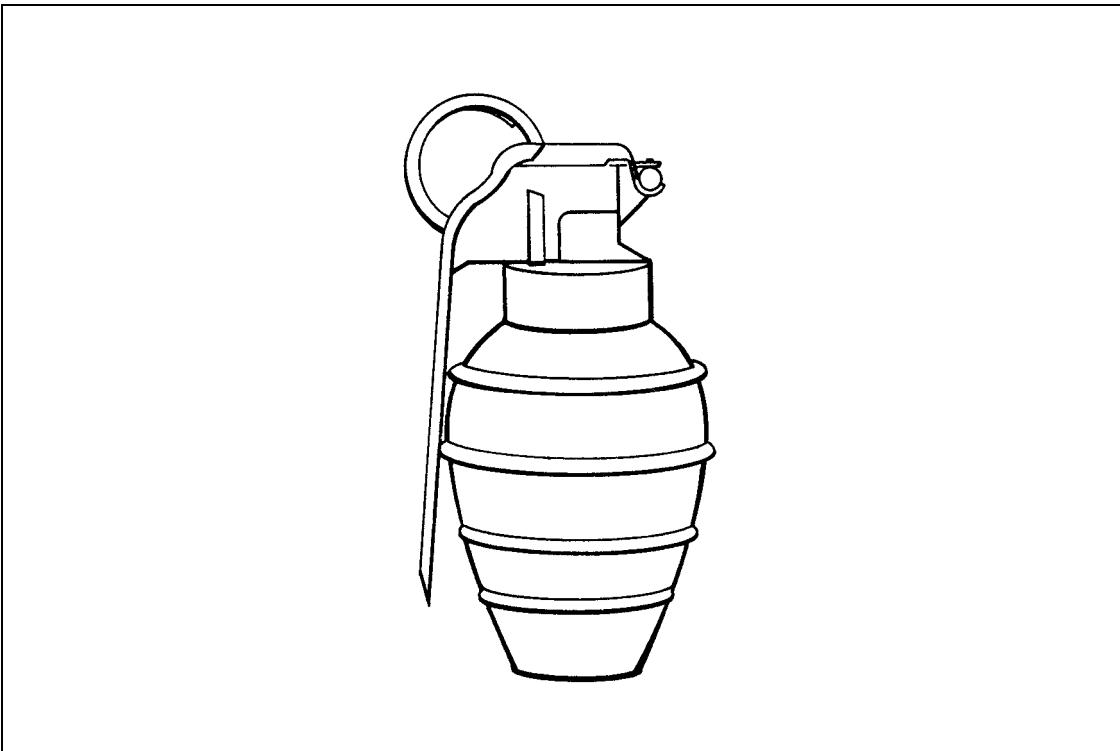


Figure F-22. HdGr 72 hand grenade.

F-23. HDGR 73

- Type: Defensive. (Figure F-23)
- Weight: 355 grams.
- Length: 91 millimeters.
- Diameter: 57 millimeters.
- Body Material: Plastic.
- Filler Weight: 37 grams.
- Filler Material: Plasticized PETN.
- Fuze Type: Striker release.
- Fuze Delay: 3 to 5 seconds.
- Effective Radius: 10 meters.

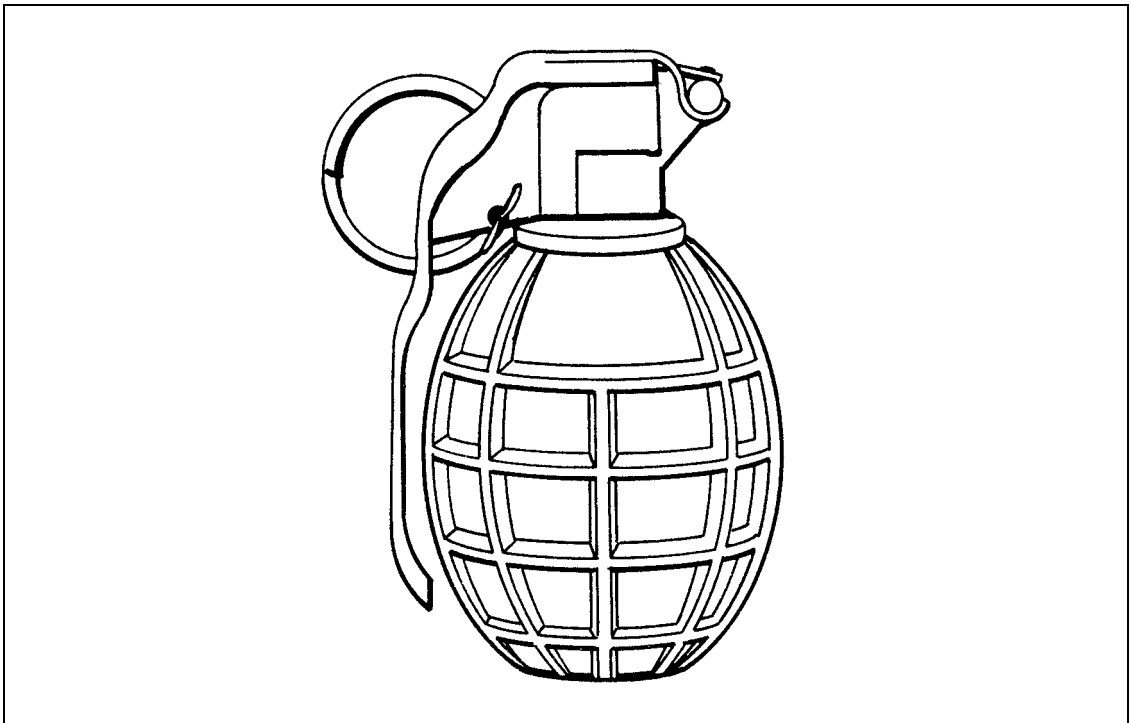


Figure F-23. HdGr 73 hand grenade.