

MG7020

Operating Instructions & Parts Manual



Mandus**Group**

The MG7020 Hose, Tube and Pipe Cleaning Kit

MG7020**Small Arms Gun Barrel Cleaning Kit - Includes Projectiles**

1	MGBM-1	Carrying Case
1	MG-HL-2	Small Arms Gun Barrel Launcher
1	MG-ARI	Adapter Ring
1	5.56/7.62MM	Nozzle with Straight Tube and 90 Degree Tube
1	50CAL-AH13	Nozzle - 50 Cal for projectiles
1	50CAL-AH16	Nozzle - 50 Cal for grinding projectiles
1	25MM-AH25	Nozzle - 25 MM for projectiles
1	25MM-AH32	Nozzle - 25 MM for projectiles for grinding projectiles
1	40MM-AH38	Nozzle - 40 MM for projectiles

5.56 MM

1	5.56-MG	5.56-MG Cleaning Projectile/100
1	5.56-A	5.56-MG Abrasive Cleaning Projectile/100

7.62 MM

1	7.62-MG	7.62-MG Cleaning Projectile/100
1	7.62-A	7.62-MG Abrasive Cleaning Projectile/100

50 Cal

2	50CAL-MG	50CAL-MG Cleaning Projectile/50
1	50CAL-A	50CAL-A Abrasive Cleaning Projectile/100

25 MM

2	25MM-MG	25MM-MG Cleaning Projectile/30
1	25MM-GR	25MM-GR Abrasive Grinder Cleaning Projectile/40

40 MM

2	40MM-MG	40MM-MG Cleaning Projectile/15
1	40MM-A	40MM-A Abrasive Projectile/15

To begin operation, the MG-HL-2 Launcher needs to:

- Have a ½"ID air line connected to filtered air source of 80 psi 110 psi maximum.
 - Have a selected nozzle inserted into the face plate.
 - Have a cleaning projectile loaded in the nozzle.
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AIR SOURCE

The MG-HL-2 Launchers are supplied with a ½" quick release coupling to ensure proper air flow and a unique 360 degree rotary plug for non-fatigue operator use. The recommended minimum air pressure is min 80 psi to 110 psi max. **The air pressure must not exceed 110 psi.** The air source can be a compressor or suitable nitrogen filled gas bottle (**Never use Oxygen!**). It is strongly recommended that the air line and any connection from the air source to the launcher must be no less than ½" ID. The air or inert gas such as nitrogen should always be regulated to the correct pressure and filtered to assure contaminant free air.

**SAFETY
RELEASE BAR**

Push the top of the Safety release Forward (as pictured on left) and then down (as pictured on right) to release the faceplate.

**NOZZLE**

Drop the face plate down and select a suitable nozzle and adapter ring for the application. The adapter ring, if needed, snaps into the faceplate first. Now you can slide the nozzle into the adapter ring.

PROJECTILE

Select the projectile from our sizing charts located on page 6. Insert the recommended cleaning projectile into the nozzle.



CLOSING THE FACEPLATE

Again, push the top of the safety release bar forward and then down. Close the faceplate and confirm that the safety release bar locks the faceplate into position.

SAFETY RELEASE BAR LOCKED AND READY TO FIRE POSITION

The safety release bar and faceplate must always be in the locked position prior to firing the MG-HL2 Launcher. Failure to secure faceplate and safety release bar in the locked position may cause serious injury to the operator and or damage to the launcher.



ATTACHING INSERT TUBE

Depending on the application, thread either the straight or 90 degree angle insert tube onto the nozzle. Thread tightly to ensure a good air tight seal.

OPERATION

Place the insert tube into the gun barrel. Insure a good seal and depress the trigger. Keep the trigger depressed until the projectile exits the gun barrel that you are cleaning.



Nozzles

A range of nozzles are available, allowing the Mandus Group Cleaning System to be used on different caliber barrels. Special nozzles can be made to suit specific applications.

The five stock types are:

- **MG-SS-90-STR:** Sized for 5.56 mm and 7.62mm gun barrels when using 5.56-MG/A and 7.62-MG/A projectiles.
- **MG-AH13:** Sized for .50 caliber gun barrels when using 50Cal-MG/A projectiles.
- **MG-AH16:** Sized for .50 caliber gun barrels when using 50Cal-G projectiles.
- **MG-AH25:** Sized for 25mm gun barrels when using 25mm-MG/A projectiles.
- **MG-AH32:** Sized for 25mm gun barrels when using 25mm-GR

Custom Nozzles:

We can engineer and fabricate special nozzles in your choice of material for difficult or unique applications.



Selection of Projectiles

The projectile cleans by being pressed against the internal surface of the hose, tube or pipe. This pressure is achieved as the projectile is approximately 20% to 30% larger than the internal diameter of the hose, tube or pipe. For instance, a 50mm (2") projectile is recommended for a 38mm (1-1/2") hose.

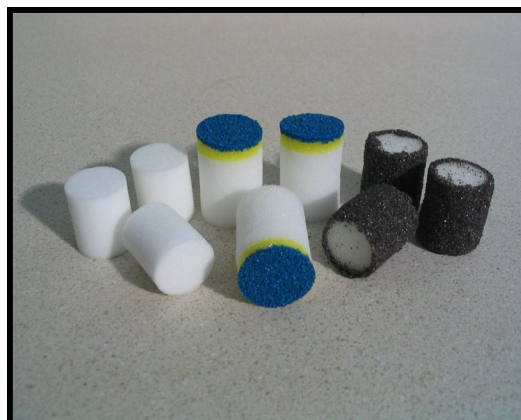
Type	Application
Cleaning (MG)	Gun Barrels with a build up of carbon, dirt oil or water. Can also be used to coat barrel with a light coat of oil.
Abrasive (A)	Removes fine particles of loose contamination and light rust.
Grinding (GR)	Gun Barrels with greater build up of dirt particles, surface rust or pitting.

NOTE: A Cleaning projectile should always be used after abrasive and grinding projectiles to verify cleanliness.

Individual circumstances may require a smaller or larger projectile. If the projectile is too large it will not leave the nozzle and if it is too small it will not clean effectively. The enormous variety in the types of couplings available today could also mean in some circumstances that the recommended size is inappropriate.

Bulk Projectiles

Mandus Group also offers Cleaning Projectiles packaged in bulk quantities. The bulk projectile program complements the Bench Mount Launchers for use in a production type atmosphere. Contact Mandus Group for pricing and package quantities.



Recommended Cleaning Procedures

5.56mm or .218-.223 inch with bolt left in:

1. Fully open bolt and either hold or lock in the open position.
2. Place 3 drops of gun oil or Cleaner, Lubricant, and Preservative (CLP) into launcher before inserting projectiles.
3. Place 3 drops of gun oil on the tip of MG-SS-90 and place into the receiver and insert nozzle tip into chamber of barrel.
4. Insure good seal of nozzle by firmly pushing launcher (MG-HL-2) forward or by releasing spring loaded bolt so bolt pushes the nozzle into the chamber.
5. Depress trigger on launcher (MG-HL2) until projectile exits the gun barrel you are cleaning.
6. If barrel is not clean repeat steps 1-5 and either use another cleaning projectile (5.56-MG) or an abrasive projectile (5.56-A). Always follow-up abrasive projectile (5.56-A) with a cleaning projectile (5.56-MG).

5.56mm or .218-.223 inch with bolt left out:

1. Remove bolt.
2. Place 3 drops of gun oil or CLP into launcher before inserting projectiles.
3. Place 3 drops of gun oil on the tip of MG-SS-STR and push STR nozzle through the rear of the receiver (the location of removed bolt) and insert nozzle tip into chamber of barrel.
4. Push launcher firmly forward to insure tight seal of nozzle in chamber of barrel.
5. Depress trigger on launcher (MG-HL2) until projectile exits the gun barrel you are cleaning.
6. If barrel is not clean repeat steps 1-5 and either use another cleaning projectile (5.56-MG) or an abrasive projectile (5.56-A). Always follow-up abrasive projectile (5.56-A) with a cleaning projectile (5.56-MG).

Barrel only cleaning 7.62mm/.300 inch through 25mm/.984 inch:

1. Firmly hold barrel
2. Use the proper launcher (see reference chart on page 6) for the barrel size being cleaned.
3. Place 3 drops of gun oil or CLP into the nozzle before inserting projectile.
4. Place 3 drops of gun oil or CLP onto the tip of nozzle and insert nozzle into chamber of barrel.
5. Depress trigger on launcher (MG-HL2) until projectile exits the gun barrel you are cleaning.
6. If barrel is not clean repeat steps 1-5 and either use another cleaning projectile or an abrasive projectile. Always follow-up abrasive projectile with a cleaning projectile.

MG7020 Reference Chart

Gun Barrel Sizes	Nozzles	Projectiles	Projectiles Bulk
5.56mm or .218-.223	MG-SS-90 or STR	5.56-MG Cleaning Projectile	5.56-MG-B Cleaning Projectile Bulk
		5.56-A Abrasive Projectile	N/A
7.62mm or .300	MG-SS-90 or STR	7.62-MG Cleaning Projectile	7.62-MG-B Cleaning Projectile Bulk
		7.62-A Abrasive Projectile	N/A
12.7mm or .500	MG-AH13	50Cal-MG Cleaning Projectile	50Cal-MG-B Cleaning Projectile Bulk
		50Cal-A Abrasive Projectile	N/A
	MG-AH16	50Cal-G Grinding Projectile	N/A
25mm or .984	MG-AH25	25mm-MG Cleaning Projectile	25mm-MG-B Cleaning Projectile Bulk
		25mm-A Abrasive Projectile	N/A
	MG-AH32	25mm-GR Grinding Projectile	N/A