

SUGGESTED SHOPPING LIST TO PRODUCE A 9X19MM BARREL WITH ECM-RIFLING

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<u>ITEMS:</u>	<u>COST:</u>
- SALT	0,10€
- WATER	1€
- BUCKET	10€
- ADJUSTABLE POWER SUPPLY	45€
- WATER PUMP	15€
- PVC HOSE	8€
- HOSE CLAMPS	8€
- WATER PUMP POWER SUPPLY	5€
- BARE COPPER WIRE	4€
- ALLIGATOR CLIPS	4€
- PIPE FITTING	2€
- ROUND STEEL STOCK	8€
- BRAKE CLEANER	2€
- METAL FILE	5€
- MULTIMETER	5€
- ZIP TIES	1€
- JB WELD (STEEL REINFORCED 2-PART EXPOY)	10€
- HONING BRUSH	6€
POWER DRILL, ANGLE GRINDER/HACKSAW, PLIERS	ASSUMED TO BE IN POSSESSION/BORROWED

TOTAL COST ESTIMATE DEPENDING ON ALREADY OWNED TOOLS: 100€ - 150€ / 120 -170 \$

COST TO MANUFACTURE A 4.5INCH LONG 9X19MM BARREL: 10€ / 12 \$

REMEMBER THE LINKS ARE THERE JUST AS A SUGGESTED OPTION.

YOU MAY FIND CHEAPER AND BETTER OPTIONS FOR THE COMPONENTS LISTED, THAT YOU CAN BUY LOCALLY WHICH WON'T NEED 2-6 WEEKS TO BE SHIPPED FROM CHINA

MAKE SURE YOU READ THE MAIN ECM-GUIDE MULTIPLE TIMES BEFORE ORDERING ANY OF THESE ITEMS LISTED. YOU NEED TO UNDERSTAND WHY YOU NEED THEM BEFORE ORDERING!

- Adjustable Power Supply – Specification: **30V, 10Amps or more**
 - LINK: <https://www.banggood.com/LONG-WEI-LW-K3010D-110V-or-220V-30V-10A-Adjustable-Digital-DC-Power-Supply-Switching-Power-Supply-p-1121229.html>
 - ALTERNATIVE LINK: <https://www.aliexpress.com/item/32622955006.html>



- Barrel Stock - Pre Hardened steel, **16mm** outer diameter, **8 - 8.6mm** inner diameter
 - LINK: <https://www.aliexpress.com/item/32961960932.html>



NOTE:

The yield strength of the barrel material should be at least upwards of 70 000 PSI if you intend to use the barrel in a FGC-9 with shaft collars around the chamber section of the barrel. Ideally it should have yield strength upwards of **110000 PSI**.

The example linked is made out of hardened 40CR steel at a yield strength of around 113.000 PSI.

Going with steel material with a yield strength lower than 70K PSI is dangerous.

- Round steel stock – **6mm / 0.250” OD**, At least 500mm long
 - Make sure it has no coating of any sort.
 - Ideally get bare pure carbon steel.
 - Make sure it isn't hardened. No tool steel.



- Salt
 - You'll need around 304 grams of regular cooking salt.



- Water
 - You'll need 11.3 liters of water (3 gallons). You can use tap water, but tap water will add a variety of additives that may or may not change the cutting rate of the fluid.



- 30 Liter / 8 gallon bucket



- Insulated wiring – **14 AWG** or thicker
 - LINK: <https://www.aliexpress.com/item/32670550601.html>
 - At least 3 meters of each red and black insulated wire.



- Alligator Clips
 - LINK: <https://www.aliexpress.com/item/4000067889084.html>



- Pump – Specification: **12V**, 2x barb connectors for **10mm** or 3/8" hoses
 - LINK: <https://www.aliexpress.com/item/32892744512.html> ("Model C")



- Pump power source – Specification: **12V, 3Amps** - Cut off device end and splice to pump
 - LINK: <https://www.aliexpress.com/item/32917600770.html>



- PVC Hose – Specification: **10mm or 3/8" Inner Diameter**
 - LINK: <https://www.aliexpress.com/item/32847461775.html>
(Choose: 10x13mm)

Note: 10x12mm will not work because the walls would be too thin.



- 1x Thread to Barb Pipe/Hose fitting - **1/2" BSP** or NPT thread to **10mm or 3/8" barb**
 - LINK: <https://www.aliexpress.com/item/32717425594.html>

Note: A decent 3D-printable fitting is included in the alternative files folder but it is more prone to breakage.



- Hose clamps – Specification: Slit screw adjustable for **10-16,13-19,16-25 mm** diameter
 - LINK: <https://www.aliexpress.com/item/32846719797.html>
(10pcs - 10-16 + 10pcs - 13-19 + 10pcs 16-25)



- Multimeter

- LINK: <https://www.aliexpress.com/item/32887493467.html>



- Bare **20AWG** or 0.8mm bare copper wire

- LINK: <https://www.aliexpress.com/item/32960510357.html>

BEWARE:

**MAKE ABSOLUTELY SURE THAT THE COPPER WIRE IS BARE !
YOU CAN EASILY BE FOOLED AND BUY COPPER WIRE THAT HAS A
COATING. THIS WILL RUIN ANY ATTEMPT AT ECM-RIFLING !**



- Metal file

- LINK: <https://www.aliexpress.com/item/32894289029.html>



- Brake cleaner
 - Can be found in the car section of hardware stores



BEWARE:

IT IS VERY IMPORTANT TO CLEAN THE BORE OF THE BARREL WITH BRAKE CLEANER BEFORE ATTEMPTING TO ECM AS WELL AS MULTIPLE TIMES DURING THE ECM BORING, CHAMBERING AND RIFLING PROCESS.

NOTE: AFTER YOU MADE YOUR BARREL, KEEP YOUR BARREL BORE ALWAYS OILED WITH FIREARMS OIL/ LUBRICANT AFTER SHOOTING OR CLEANING!

- Zip ties
 - LINK: <https://www.aliexpress.com/item/32789978170.html>



- JB Weld or any similar 2-part steel reinforced epoxy
 - Can be found on Ebay/Amazon or local hardware store



- Patches of cloth
 - Rip pieces off old cotton shirts or similar fabric
 - Push those cloth pieces through the barrel to clean the bore
 - Before and during the ECM process



- Ø9mm FLEX-HONE or Ø10mm Chinese copy of it (OPTIONAL)
 - **SHIPPED FROM US:** <https://www.ebay.com/itm/353398420218>
 - **SHIPPED FROM US:** <https://www.enginehones.com/9m320sc.html>
 - **ALIEXPRESS ALTERNATIVE(Go with 10mm Option):**
<https://www.aliexpress.com/item/4000979682541.html>



- RTV Silicone Sealant (OPTIONAL)
 - **LINK:** <https://www.aliexpress.com/item/4000053034662.html>
 - Can be found in the car section of hardware stores
 - Sold as high temperature silicone sealant for oil pans/oil gaskets on cars



- Anti Mosquito/Insect mesh/screen (OPTIONAL)
 - **LINK:** <https://www.aliexpress.com/item/4001186075351.html>
 - Used on its own or in conjunction with the filter paper



- Coffee filter paper (OPTIONAL)
 - Used on its own or in conjunction with the mesh

