

INSTALLATION GUIDE

LUBE CUBE COOLANT KIT

PURPOSE

This document gives instructions on installing the Lube Cube Coolant Kit on the following Tormach mills:

- 1100M
- 1100MX
- 770M
- 770MX (sold **before** December 2025, with serial numbers beginning with **MF**)



IMPORTANT! This kit isn't compatible with 770MX mills sold **after** December 2025 (with serial numbers beginning with **ML**).

- PCNC 1100
- PCNC 770
- PCNC 440

PRODUCT INFORMATION

Product:

- Lube Cube Coolant Kit (230 Vac) for 1100M/1100MX (PN 55154)
- Lube Cube Coolant Kit (115 Vac) for 770M/770MX* (PN 55155)
- Lube Cube Coolant Kit (115 Vac) for PCNC Mills (PN 55156)

INSTALLATION

Required Items and Tools

- 5 mm hex wrench
- 11 mm wrench
- 15 mm wrench
- Phillips screwdriver
- Snips
- Thread seal tape

Assemble the Lube Cube

1. Apply thread seal tape to the 1/4 in. NPT push-to-connect fitting, and then install it into the solenoid using a 15 mm wrench.

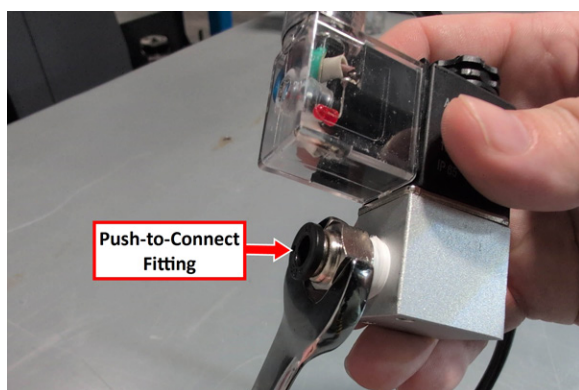


Figure 1: Installing the push-to-connect fitting into the solenoid.

2. Apply thread seal tape to the 1/4 in. NPT barbed fitting, and then install it into the solenoid using a 15 mm wrench.

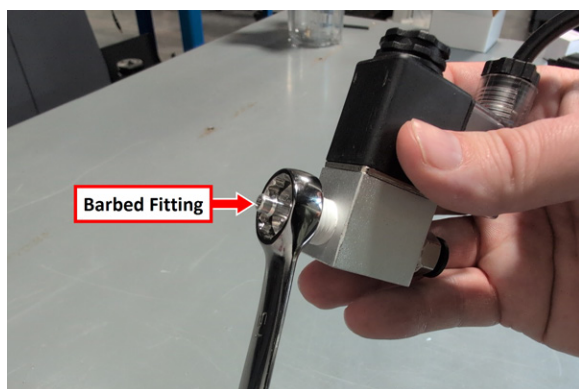


Figure 2: Installing the barbed fitting into the solenoid.

INSTALLATION

3. Install the solenoid onto the solenoid mounting bracket with two M4 × 5 mm Phillips head screws using a screwdriver.

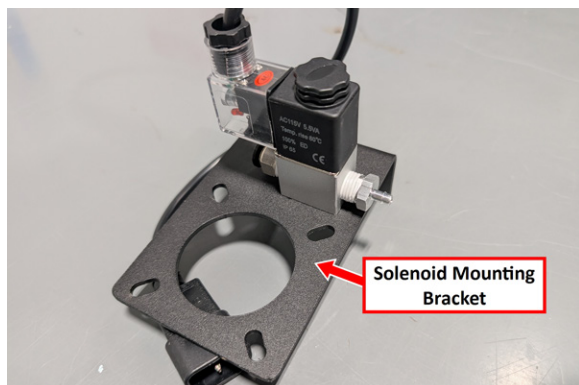


Figure 3: Solenoid installed onto the solenoid mounting bracket.

4. Mount the solenoid and bracket assembly onto the top of the canister with four M6 socket head cap screws using a 5 mm hex wrench. Make sure that the barbed fitting is pointed towards the pressure regulator.

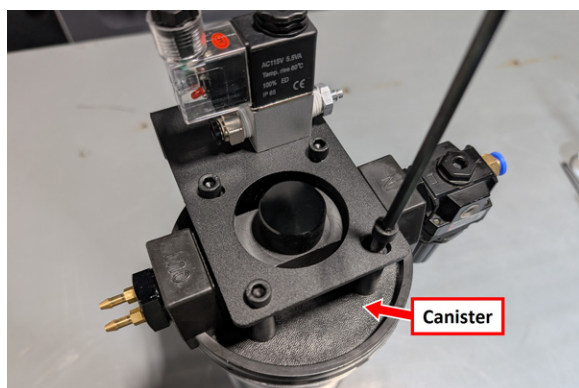


Figure 4: Installing the solenoid mounting bracket onto the canister.

5. Apply thread sealant tape to the threads of the pressure gauge, and then install it into the air pressure regulator using an 11 mm wrench.



Figure 5: Installing the pressure gauge onto the air pressure regulator.

INSTALLATION

6. Install one end of the short blue tubing into the pressure regulator and the other end of the tubing onto the barbed fitting on the solenoid.

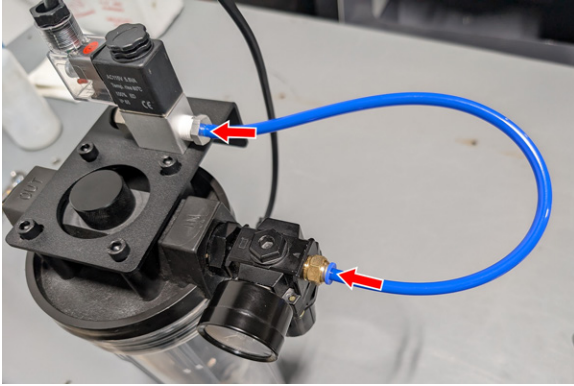


Figure 6: Blue tubing installed between the pressure regulator and the solenoid.

7. Prepare the duplex tubing:
 - Split the tubes apart on one end and connect them to the barbed outlet fittings on the canister.



Figure 7: Duplex tubing connected to the canister.

- On the opposite end, separate the tubes approximately 5 in. back from the end.
8. Identify which tube connects to the canister fitting labeled **Cool**. Trace that tube to the loose end and cut approximately 3 in. from the end. Set aside the removed section.
 9. Install the brass check valve onto the tube connected to the **Cool** fitting. Make sure that the arrow on the valve points away from the canister.

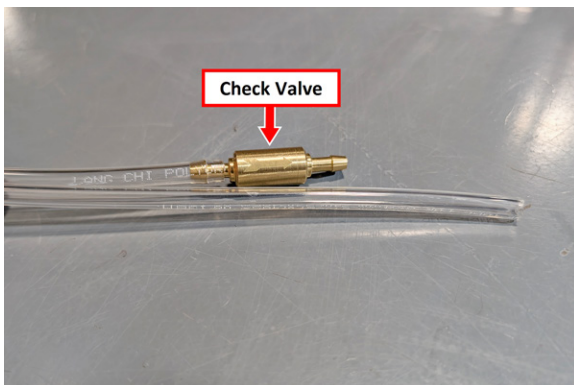


Figure 8: Check valve installed onto the previously cut tubing.

INSTALLATION

10. Install the removed tubing section onto the other end of the check valve.
11. Trim the longer of the two tubes so that both tubes are equal in length.

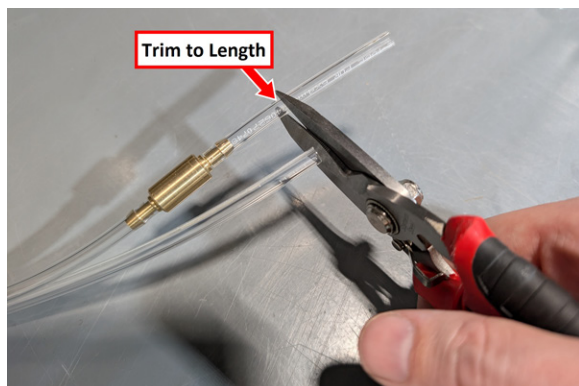


Figure 9: Trimming the duplex tubing to length.

12. Connect the duplex tubing to the flow control block. The tube with the check valve connects to the barbed fitting labeled **Cool**.

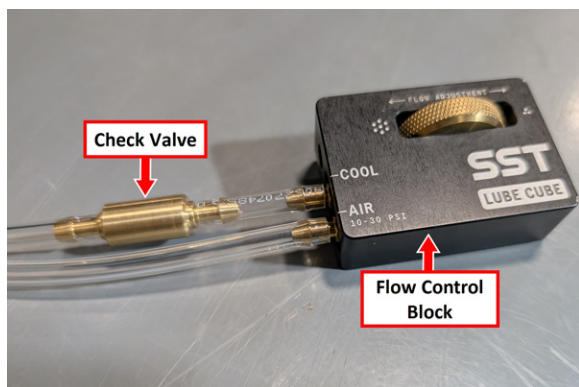


Figure 10: Duplex tubing connected to the flow control block.

13. Install the spray nozzle into the flow control block.

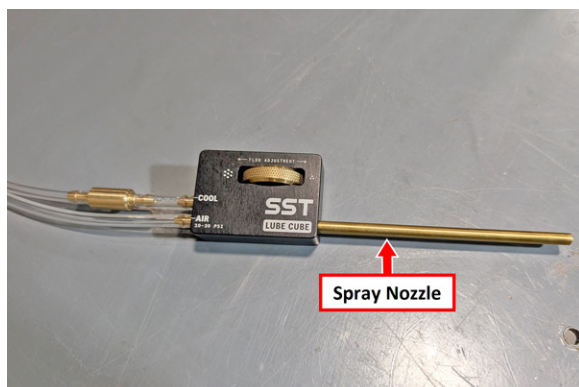


Figure 11: Spray nozzle installed on the flow control block.



Note: Thread seal tape isn't required because this port is sealed.

INSTALLATION

14. Connect one end of the 1/4 in. black polyurethane tubing into the push-to-connect fitting on the solenoid valve.

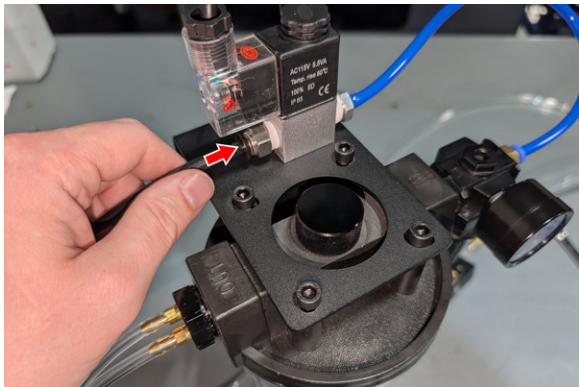


Figure 12: Connecting one end of the 1/4 in. black tubing to the soleoid.

15. Install the push-to-connect tee fitting onto the loose end of the 1/4 in. black tubing.



Figure 13: Tee fitting installed on the loos end of the 1/4 in. black tubing.

16. Thread the magnetic base into the bottom of the flow control block.

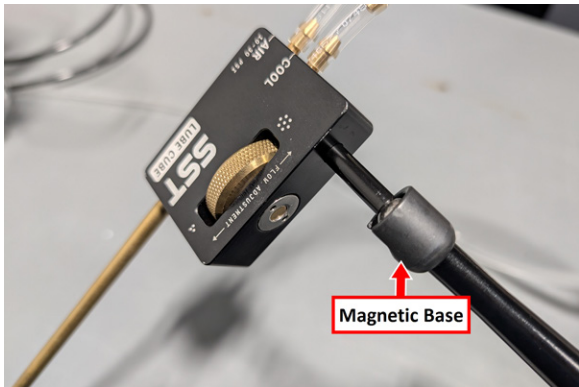


Figure 14: Magnetic base threaded onto the flow control block.

17. You've completed the assembly of the Lube Cube. Go to "Install the Lube Cube on the Machine" (below).

Install the Lube Cube on the Machine

Depending on which machine you're installing the Lube Cube on, the installation varies.

1100M, 1100MX, 770M, and 770MX (MF Serial Number) Mills	8
PCNC 1100, PCNC 770, and PCNC 440 Mills	9

1100M, 1100MX, 770M, and 770MX (MF Serial Number) Mills



IMPORTANT! This kit isn't compatible with 770MX mills sold **after** December 2025 (with serial numbers beginning with **ML**).

1. On the back of the chip pan below the electrical cabinet, locate the two threaded M5 holes. Mount the canister to the chip pan using two M5 button head cap screws.

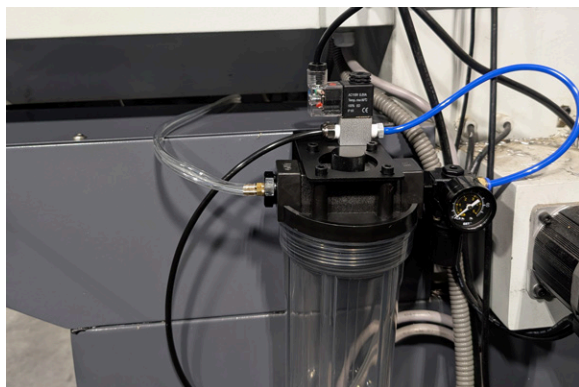


Figure 15: Lube Cube mounted on the back of the chip pan.

2. Route the solenoid power cable to the outside of the electrical cabinet, and connect it to the **Coolant Pump Power** outlet.
3. Unthread the magnetic base from the bottom of the flow control block. Then, route the flow control block underneath the electrical cabinet and into the enclosure.
4. Reinstall the threaded magnetic base into the flow control block.
5. Mount the flow control block to the machine table or the spindle head sheet metal using the magnetic base.
6. You've completed the installation of the Lube Cube on your machine. Go to "Make Air Connections" (on the next page).

PCNC 1100, PCNC 770, and PCNC 440 Mills

1. Hang the canister onto the back of the chip pan using the solenoid mounting bracket.
2. Depending on which machine you're installing the Lube Cube on, do one of the following:
 - **PCNC 1100 or PCNC 770** Route the loose end of the solenoid power cable to the power connection panel (under the electrical cabinet), and plug it into the **Coolant** outlet.

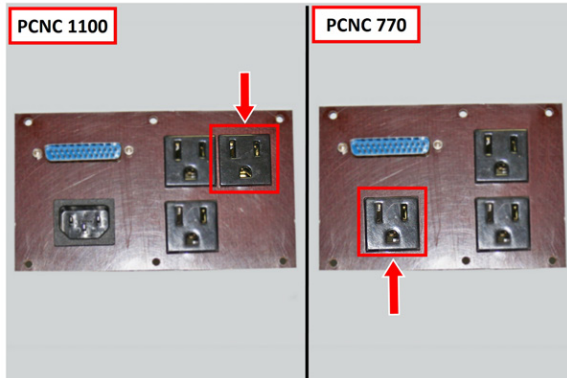


Figure 16: Coolant outlets on the power connection panels.

- **PCNC 440** Route the loose end of the solenoid power cable to the electrical cabinet, and plug it into the cord end.

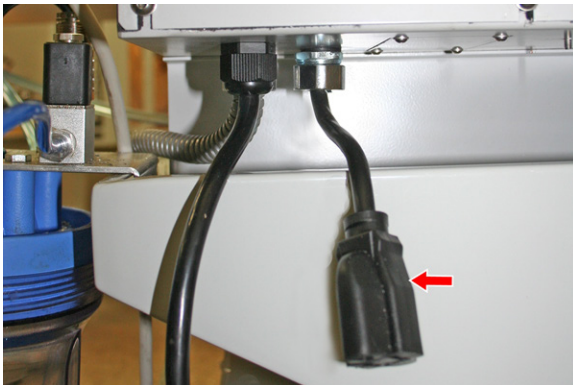


Figure 17: Cord end on the bottom of the electrical cabinet.

3. Route the flow control block and the magnetic base underneath the electrical cabinet and into the enclosure.
4. Mount the flow control block to the machine table or the spindle head sheet metal using the magnetic base.
5. You've completed the installation of the Lube Cube on your machine. Go to "Make Air Connections" (below).

Make Air Connections



Note: The Lube Cube is designed to operate at high volume and low pressure (10–30 psi), consuming approximately 0.7–2.0 cfm.

1. Locate the air supply line from your compressor.
2. Use the tee fitting installed on the 1/4 in. black tubing to splice into the air supply line.