

It is recommended to have the complete kit H90Z00-LC-LUBEKIT which consists X/Z axis lube gun and grease tube, THK bearing lubrication gun and grease tube.

Techno grease gun: HL5600M931170

Techno Grease tube: HL5600M29903

THK Grease gun: H90Z00-MG70

THK Grease Tube: H90Z00-AFB-LF

Depending on usage visual inspection and very basic maintenance should be done every 160 hours or once month.

### **X and Z axis maintenance and lubrication:**

The X and Z axis drive components are sealed and have wipers that help protect the drive mechanics. Very little maintenance is required for these but visual inspection should be done every month to assure a build-up of dust and debris does not accumulate. Every 4 months, 4 shots of grease lubricant should be applied to each grease point of the axis. Both X and Z have 4 points. These are located on the top & bottom right and left hand sides. They have small black plastic caps covering them. To access these lubrication points, the axis should be jogged to the end of the travel where you will be able to see the grease point. In some cases these black plastic plugs may have a servo motor obstructing access to the grease point. In this case lubrication may have to be inserted through the wiper ways. To lubricate these fittings use Techno grease gun (Techno p/n: HL5600M931170) and inject (4) pumps into the grease point. Repeat for all 4 axis points. The injection of the grease into these points will lubricate the bearing and ball nut simultaneously. If, when jogging the machine, it sounds dry or rough running it is suggested to insert grease through the wipers and apply directly to the ball screw.

If the machine is 3 years or older, it is recommended to partially dismantle the axis for a more detailed inspection of the mechanics. To do this remove the black plastic cover from the opposite motor side of the axis using a #2 philip head screwdriver. This will expose the aluminum cast endplate. Using an M5 allen key, remove the socket head cap screws and carefully pull the end plate off the axis. **WARNING:** The axis end limit switch is attached to this plate so be very careful when removing so that you don't break the connections. After the plate is removed inspect the extrusion channels. A flashlight will be required to look down the channel. If there is a large build-up of debris call Techno support for further instructions.

### **Y-Axis maintenance and lubrication:**

The long ball screw under the machine should be dry and polished clean. Using rags, clean and polish the ball screw dry. Using WD40, shoot lubricant into the ballnut from both sides. Jog machine back and forth approximately 6" in both directions. If ball screw turn black or has signs of debris, polish area and repeat until it is clean. After complete jog machine back and forth the entire length of travel, about 6-8 times, to assure complete removal of WD40 lubrication and that debris is flushed out of ball nut. To lubricate the screw, apply small amount of THK Grease to the ball screw in front and back of the ballnut, about 6" length. Jog the machine back and forth (about 12 times) over the area plus another 6". This will allow the grease to penetrate the ballnut. Visually check the ball screw and make sure there is not color change to the grease. If it remains the same, polish the excess grease off the screw in the area you jogged over.

The reason you want the ball screw dry is because the grease acts like a magnet for the dust and debris to adhere to. As long as the ballnut has grease inside it, proper lubrication is provided.