



Alu Line Maintenance Manual

Maintenance

With normal use, the portal milling machine should be lubricated every six months, but at the latest after twelve months. To do this, proceed as follows:

All greasing points

After lubricating, remove excess grease with a rag.

Note:

As a grease gun, we recommend the HIWIN grease gun set from the Sorotec online shop (item no. SM.0014). You need the slim nozzle tube to lubricate the guide carriage. Use the angled ball nozzle for the funnel-type lubricating nipples on the spindle nuts (see Fig. 1).

Common multi-purpose grease is sufficient for lubricating the spindle nuts and carriages.



Fig. 1: Angled spherical nozzle for funnel-type grease nipples

Guide carriages X-axis

- The lubricating nipples of the guide carriages are easily accessible in every position of the portal.
- Apply the lubrication on the left and right at the top and bottom, as shown in Fig. 2.



Fig. 2: Lubricating guide carriages X-axis

Spindle nut(s) X-axis

Note

Depending on the substructure, it may be necessary to provide a maintenance hatch for access to the spindle nut on machines with a center spindle and a fixed workpiece support.

- Carry out the lubrication as shown in Figs. 3 and 4.



Fig. 3: Lubricating the center spindle from above



Fig. 4: Lubricating the right X spindle (gantry version)

Guide carriages Y-axis

- The grease nipples of the upper and lower carriages are accessible from the side in every position of the Z-axis.
- Lubricate the Y-axis carriages as shown in Fig. 5.



Fig. 5: Lubricating the Y guide

Spindle nut Y-axis

- Drive the Z-axis far to the right. The lubricating nipple of the Y spindle nut can now be reached from the left through the guide profile.
- Lubricate the Y-spindle nut as shown in Fig. 6.



Fig. 6: Lubricating the Y spindle nut

Guide carriages Z-axis

- Remove the left and right Z-axis bracing plates (see Fig. 7). The lubricating nipples of the guide carriages are now easily accessible from the side.
- Lubricate the guide carriages as shown in Fig. 8.

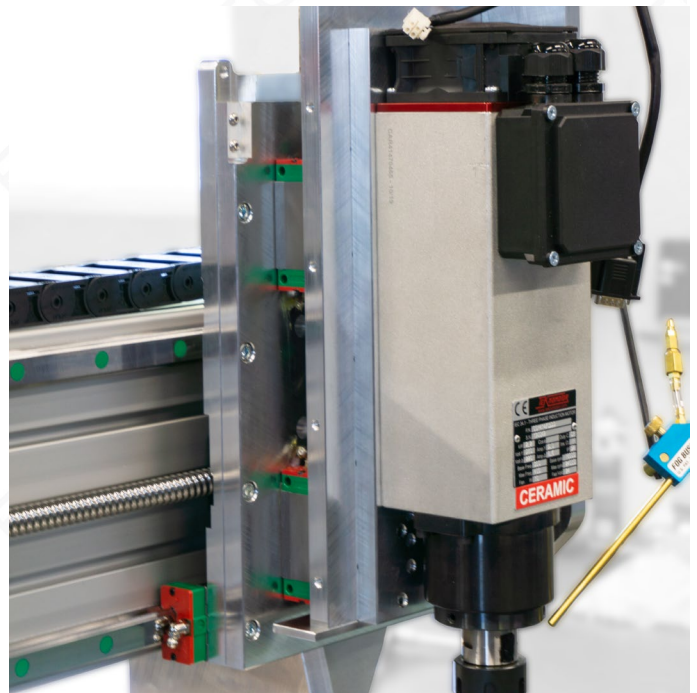


Fig. 7: Z axis after removing the left bracing plate



Fig. 8: Lubricating the left Z-guides

Spindle nut Z axis

- The grease nipple on the Z-axis spindle nut is accessible from above.
- Lubricate the Z-spindle nut as shown in Fig. 9.

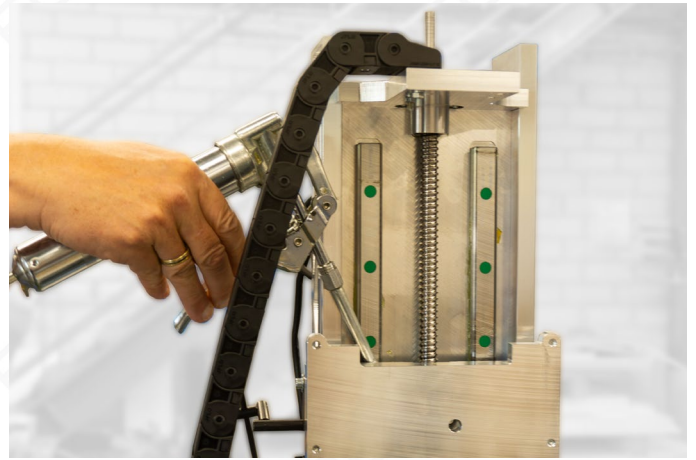


Fig. 9: Lubricate Z-axis spindle nut