



VACGEN

Assembly Guide

Omniax X&Y Bellows Removal

AS0017

VGS03-02T17



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DISCLAIMER

This Assembly Guide should be used in conjunction with the owner's manual where available, and is intended as a guide only as there may be variations between versions and therefore must be used at the Owner's Risk. For more detailed assistance, please contact our Support desk +44 (0) 1323 379 335 or support@vacgen.com.

HEALTH AND SAFETY

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Revision	Date	Comment	Initials
1			
2			
3			

Unit A, Swallow Business Park
Diamond Drive, Lower Dicker
Hailsham, East Sussex
BN27 4EL, UK



Remove Omniax X & Y Bellows Assembly Serial Number from MX97 (Year 1997)

Once the manipulator is removed from system, great care should be taken to support it while on the bench. Use the blue transit/handle bar if you still have it.

This can be done by leaving the "Z" bellows still fixed the knee and the feedthrough assembly left untouched with the drive fitted.

1. Remove the wiring from the Sample Holder.
2. Remove the Cooling Box from the Sample Holder (if fitted).
3. Remove the Sample Holder.
4. Protect the wires and cooling by covering with a bag.
5. On the end of the Support Tube (sample end) make sure the heads of the screws that hold the end nose on, do not protrude beyond the diameter of the tube. If the screw heads do, then the Support Tube will not slide through the Support Bearing without damaging the Mica Filled PTFE bearings shells. If these screws do protrude, then these will need to be removed for the next stage of disassembly. NOTE: With the screws removed, the Nose will now be free to move so take care not to twist this Nose Assembly.
6. Remove the lower "Z" Bellows Flange Nuts (M8), to release "Z" Bellows Flange from the Table Flange.
7. Make sure the "Z" stage is very well supported for the next steps. Remove 8 Cap Head Bolts holding the "Z" Stage Base Casting to the X&Y Table Top. NOTE: The "Z" Stage is also located by two Dowel Pins, once the screws have been removed.
8. Now at least two people are required, one holding the X&Y Table and one holding the "Z" Slide Assembly. Pull the X&Y Table assembly off the "Z" Slide Assembly, guiding the Support Tube out of the PTFE bearing assembly, located in the X & Y Bellow Assembly, at the same time. This may need the X&Y Table tapping away from the "Z" Slide Assembly with a soft head hammer. The "Z" and the "X&Y" assembly will now be separated.
9. Remove the six cap head screws next to the 114mm OD table flange, to which the "Z" Bellows was fixed. This will release the flange from the Top Plate, noting the bellows will pull the top flange into the X&Y.
10. Looking up from the base flange, remove the cap headed screws holding the Bellows Can to the X&Y Table. This will release the X & Y Bellows assembly from the X&Y Slide Assembly.



11. Inside the X&Y Bellows Assembly, remove the PTFE Bearing Housing that supports the Support Tube in assembly from the X&Y Slide Assembly.
12. This is held on by four cap head screws, and it is important to note the orientation of this bearing. For reference the fixed shell is closest to the spine.
13. Refit in reverse. NOTE: The PTFE Bearing Shells are in two parts, the fixed shell should be to the back of the X&Y Table.
14. The PTFE bearing needs to be open up to allow support tube to pass back through. It may be easier to fit and the bellows assembly and slide PTFE bearing into place and then fix the housing to the X&Y bellows assembly.

