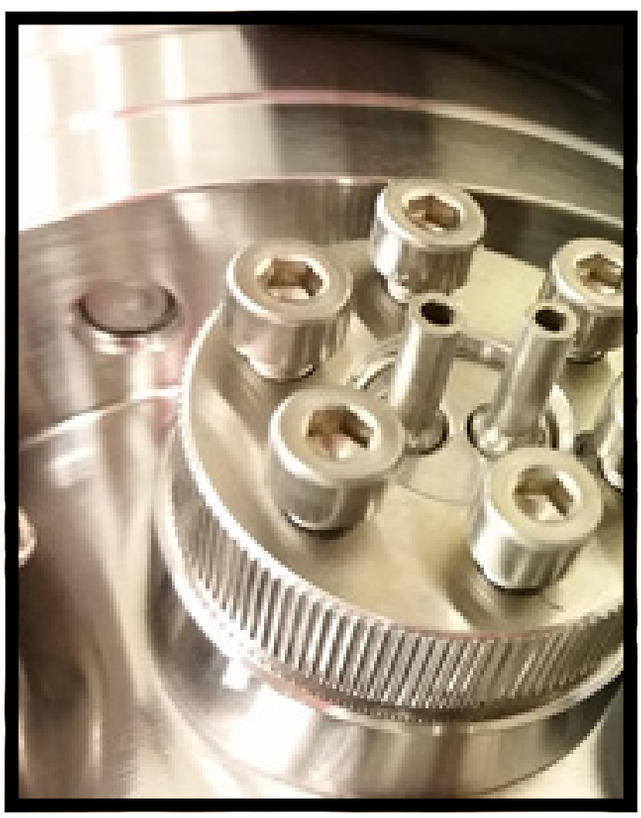
VACGEN

Assembly Guide

Omniax Cooling Replacement
AS0020

VGS03-02T20



Helping you make the next leap forward

www.vacgen.com

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 maybe 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

All repairs and services should be carried out by a qualified engineer, usinig the correct tools and procedures to carry out the repair. VACGEN are not liable for any errors within the assembly guides which may cause inconsistencies during repair.

The Goods, especially chemicals, may be dangerous if not properly used or stored and the appropriate precautions taken. The Customer accordingly agrees that it shall take all such steps as are reasonably practicable or usual to eliminate or reduce any risk to health and/or safety to which use of the Goods may give rise and acknowledges that where the Goods are manufactured to a design supplied by the Customer, the Company will not undertake any research as to the risks to health and/or safety which may arise from use or storage of the Goods. Where the Goods are manufactured to a design supplied by the Customer, the Customer shall comply with all the duties which may be implied at law on a designer and/or manufacturer of the Goods.

Revision	Date	Comment	Initials
1			
2			
3			

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

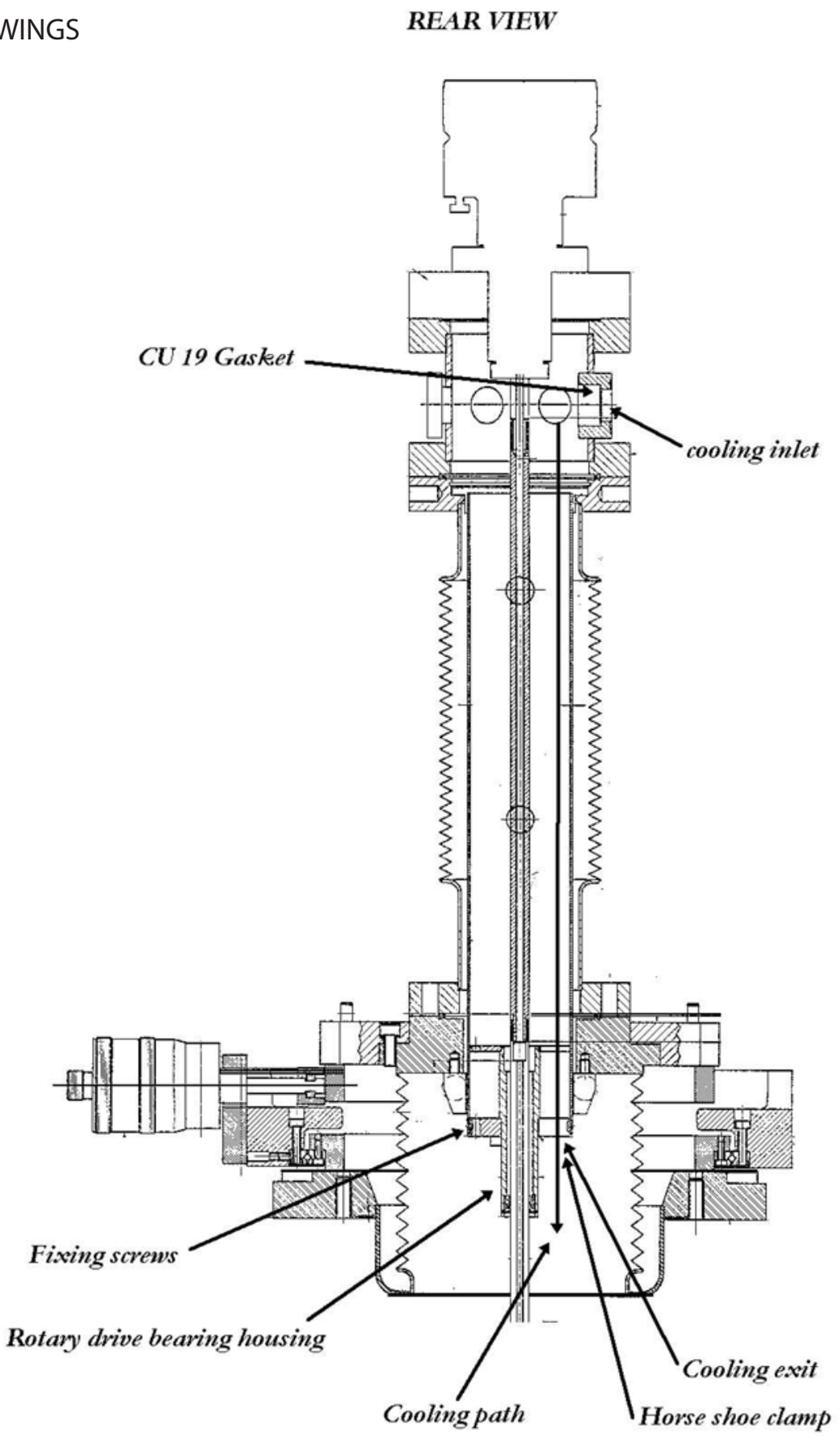
Omniax Cooling Repair or Replacement

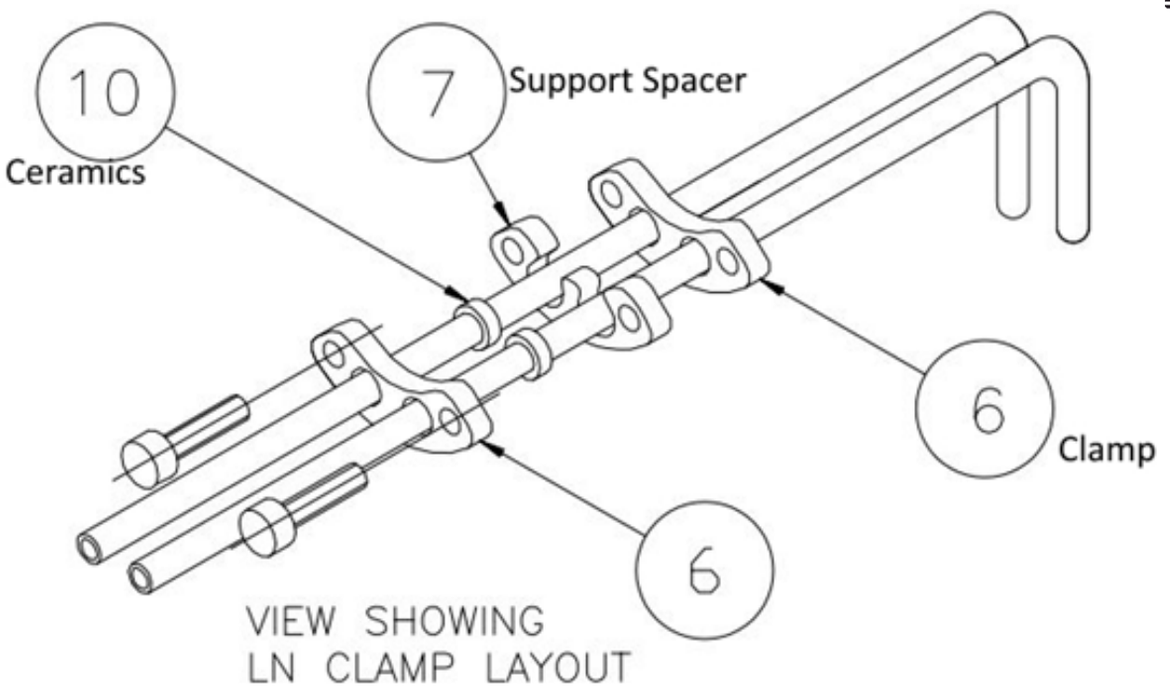
Once the manipulator is removed from system, great care should be taken to support it while on the bench.

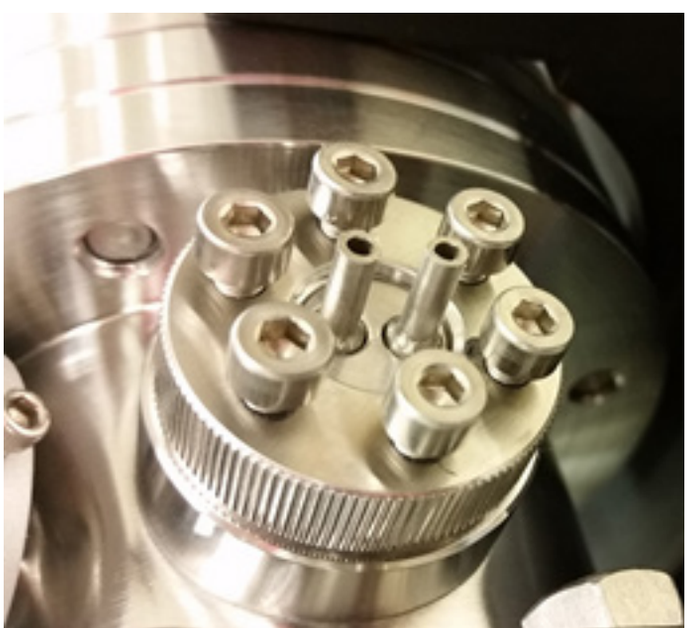
1. Remove Cooling Box from the Sample Holder.
2. Remove Sample Holder from Drive Shaft (And Azimuthal if fitted), but leave the wires attached. Support the Sample Holder while the Rotary Drive is removed (if fitted).
3. Remove the Power/Thermocouple Feedthroughs, carefully noting the wiring positions, especially the Thermocouple wire.
4. Check for clips at Sample End of the Support Tube, holding the Power and Thermocouple Wires in place where they come out of the Support Tube. Remove as required and very carefully pull the wires out, still attached to sample holder.
5. Remove the Rotary Drive (if fitted) with Chamber Adaptor Flange. (You can now see into the feedthrough chamber)
6. Undo the six Clamp Ring Screws (Just a couple of turns) on the Cooling Exhaust/Inlet Flange
7. Unscrew and remove the Locking Ring.
8. Push the cooling into the chamber space. This may require moderate force and a slight bending of the Cooling tube.
9. Release the two screws holding the Horse Shoe Clamp, holding the Cooling Downpipe Tubes at the sample end.
10. Undo the Counter Sunk Screws holding the Nose Housing at the end of the Support Tube and pull out until free. NOTE: You will need the pull the Cooling Tubes down with the Nose Housing, until the Nose Housing is free from the Support Tube.
11. Carefully pull the Cooling Coil Assembly up and out of Support Tube through the Feedthrough Chamber. NOTE: If you have a 32mm Support Tube, then you need to coil the Cooling Coil up slightly, to get it up the bore of the Support Tube.
12. Refit in reverse. NOTE: YOU MUST REPLACE THE COOLING GASKET.
    Using a punch, carefully push the gasket (ZCU19) into the chamber.

Fit new gasket on the INSIDE of the Chamber Port Cooling Inlet, then hand tighten the Locking Ring and the do up the 6 screws, until sealed.

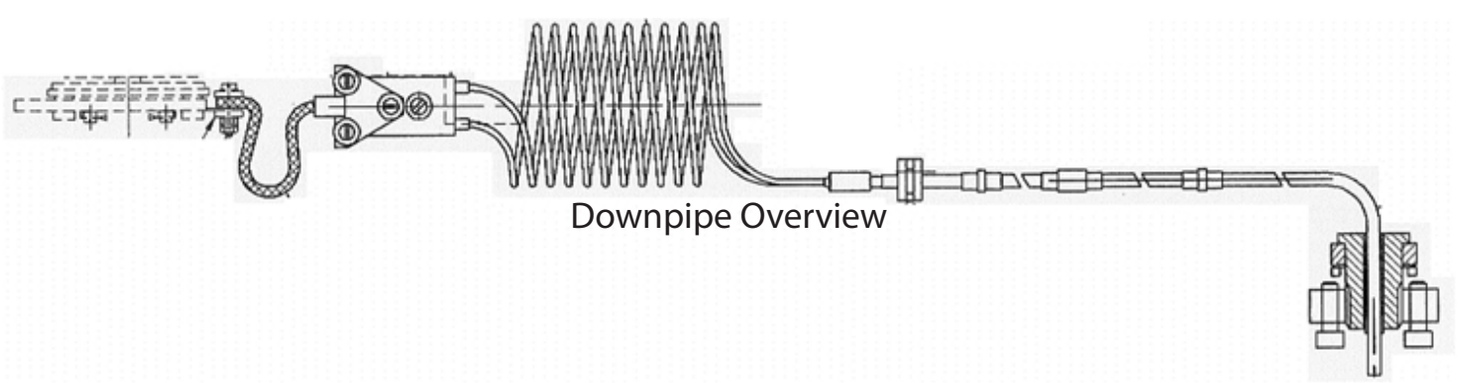
DRAWINGS


REAR VIEW
CU 19 Gasket
cooling inlet
Fixing screws
Rotary drive bearing housing
Cooling path
Horse shoe clamp
Cooling exit





Exhaust/Inlet for Cooling



Downpipe Overview

Option Two

NOTE: If you do not need the cooling and it is leaking, use the following procedure.
There is no need to remove the sample holder wiring, making this a very easy fix.

You will require a Blanking Plug: OMCOOLBL

1) Remove Cooling Box from the Sample Holder.
2) Remove Sample Holder from Drive Shaft (And Azimuthal if fitted),

NOTE: Leave the wires attached.
Support the Sample Holder while the Rotary Drive is removed (if fitted)

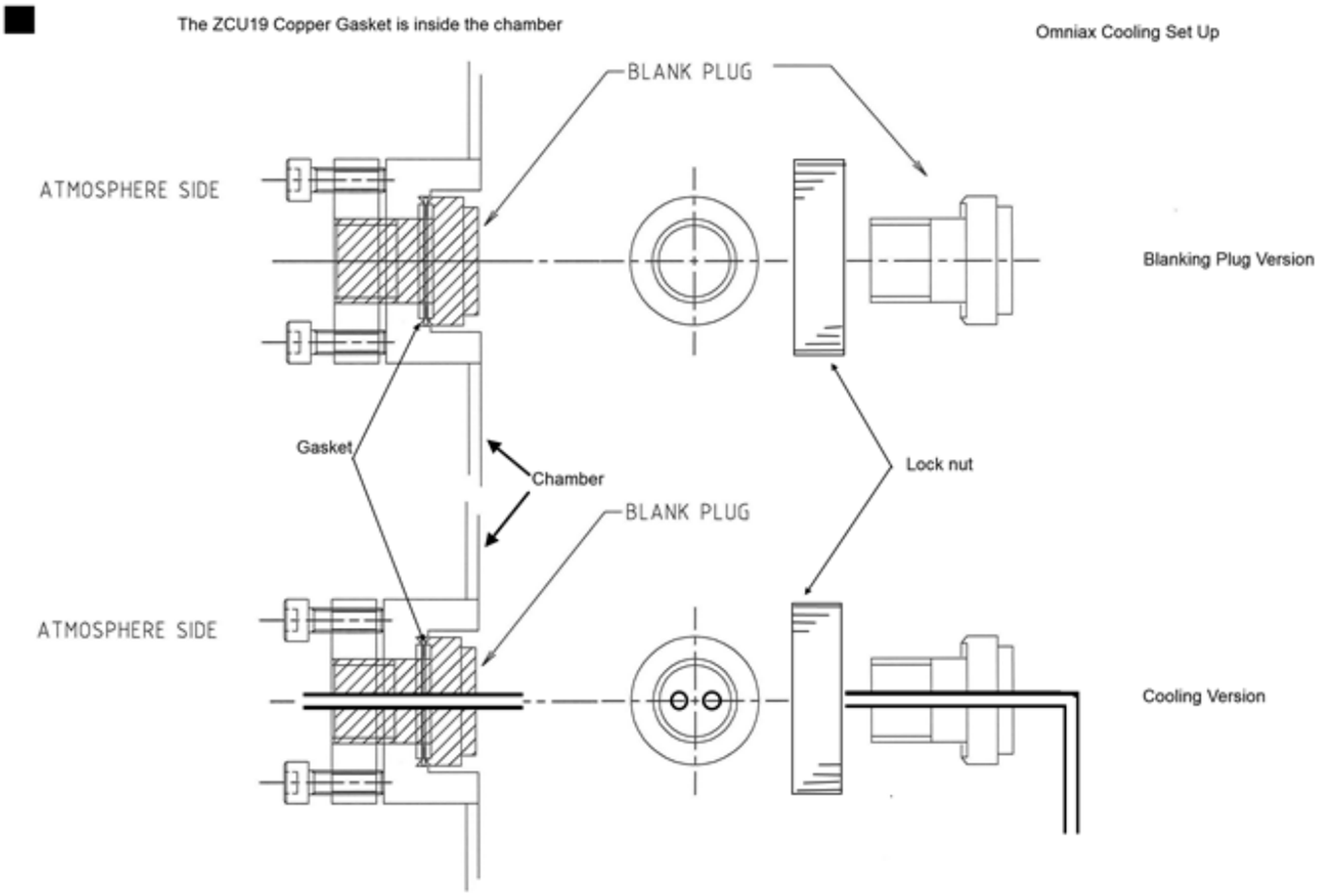
3) Remove the Rotary Drive (if fitted) with Chamber Adaptor Flange. (You can now see into the feedthrough chamber)
4) Undo the six Clamp Ring Screws (Just a couple of turns) on the Cooling Exhaust/Inlet Flange
5) Unscrew and remove the Locking Ring.
6) Push the cooling into the chamber space. This may require moderate force and a slight bending of the Cooling tube.
7) Release the two screws holding the Horse Shoe Clamp, holding the Cooling Downpipe Tubes at the sample end.
8) Push down the Cooling Tubes slightly to get at the tube weld as shown in the drawing.
9) Very carefully hacksaw through as per the drawing, making sure you do not catch the wiring.

Also be careful where the metal filings fall.

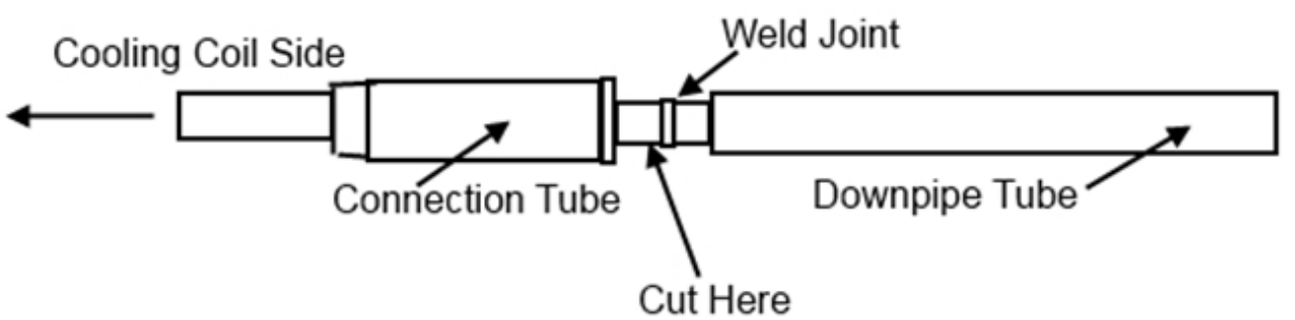
10) Pull the Cooling Downpipes back up and out of the top chamber.
11) Replace the cooling gasket, by pushing into the feedthrough chamber.
12) Fit new gasket onto blanking plug
13) Fit blanking plug and clamp ring finger tight
14) Do up screws a few turns to create vacuum seal

15) Refit Drive and sample holder in reverse

NOTE: YOU MUST REPLACE THE COOLING GASKET.
Using a punch, carefully push the gasket (ZCU19) into the chamber.
Fit new gasket on the INSIDE of the Chamber Port Cooling Inlet, then hand tighten the Locking Ring and the do up the 6 screws, until sealed.



Special Cooling Assembly



Cutting Information for Option 2