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# McAllister Technical Services

*Manufacturers of surface analytical instruments and devices*

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**THANK YOU** for your purchase of MTS' EVAP-A Evaporator. It is the finest of its kind available. We appreciate the confidence you have placed in our company. Under normal conditions it will provide years of trouble-free service.

EVAP-A, is a filament-style metal evaporator with a type C thermocouple attached directly to the filament for extra-sensitive temperature control. An integral shutter allows the evaporation source to be fully closed, fully open, or for a pinhole aperture to minimize over spray and reduce deposition rate.

The material to be evaporated, usually in wire form, is wound around the filament for close thermal contact. The filament is then heated by passing a current and monitoring the temperature via the thermocouple. The filament assembly is easily removed for service or replacing the evaporant.

## Leak Check Certificate

Model

Date

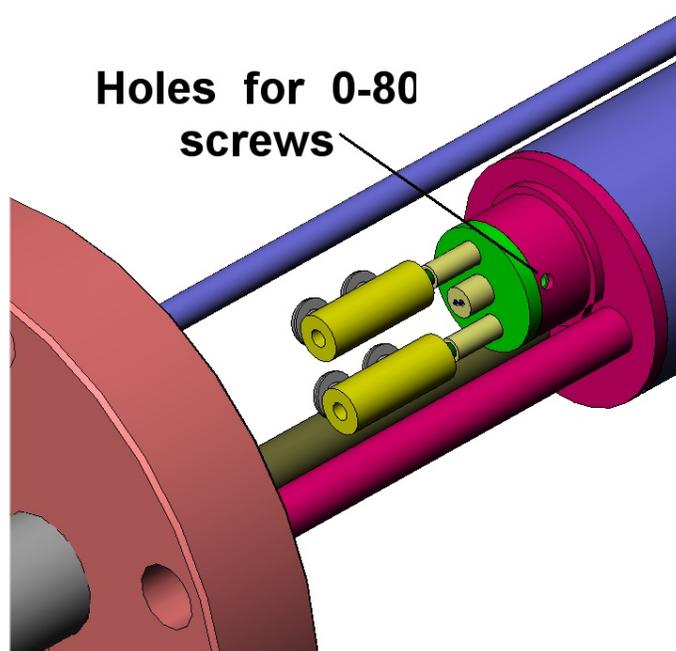
Job #

Checked by

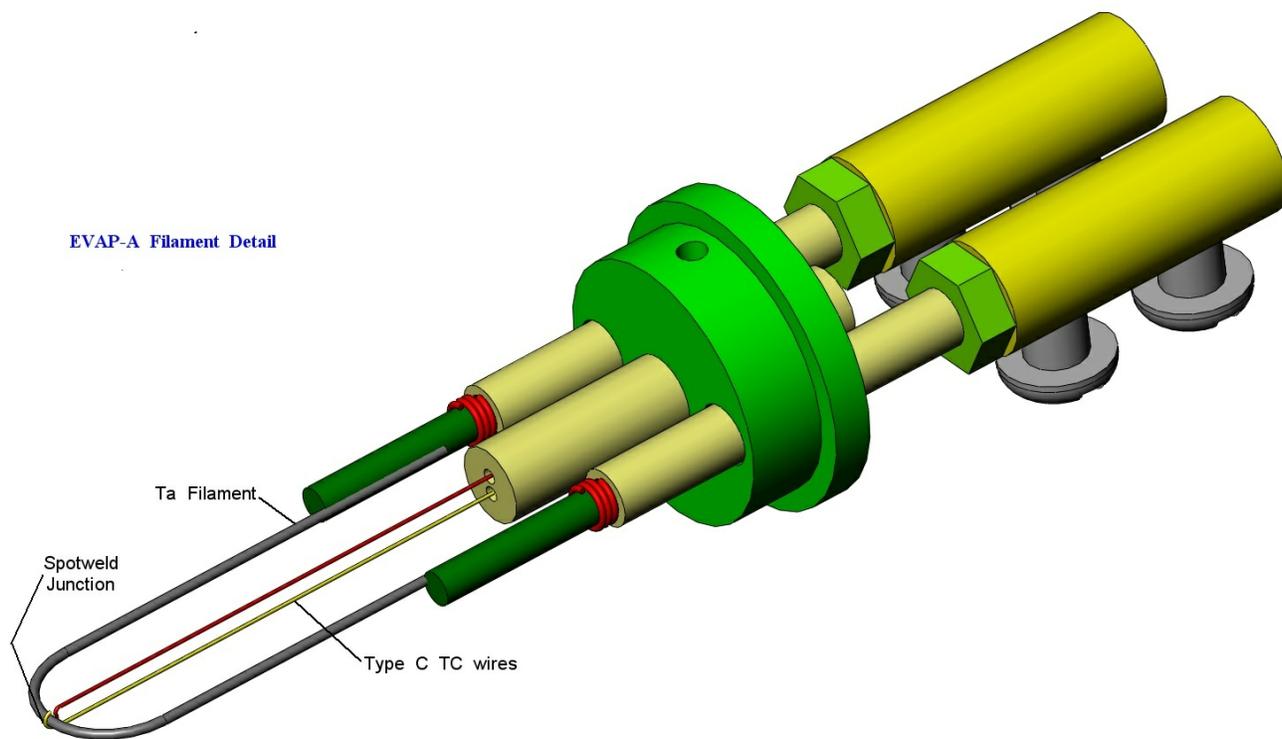
EVAP-A \_\_\_\_\_

This is to certify that the above-referenced product has been checked on a Helium Mass Spectrometer leak detector having a sensitivity of \_\_\_\_\_ X 10<sup>-</sup>\_\_\_\_\_ std. cc/sec and has been found to have no measurable leak.

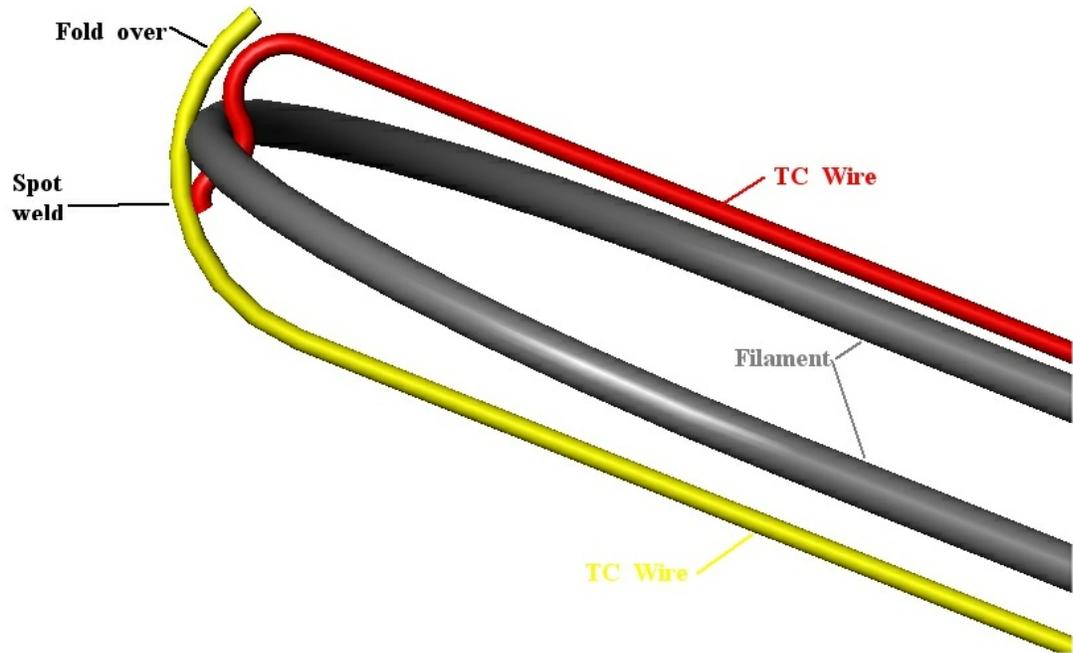
To remove the filament assembly, disconnect the power and TC wires between the flange and back of the water jacket. Remove the 2 0-80 screws and slide the filament assembly towards the flange. The complete filament assembly is shown in the next graphic, below.



EVAP-A Filament Detail



The TC wires are bent to make firm contact, but to not be welded to the filament. If the TC wires must be removed or replaced, a lap joint as shown below allows the filament to be replaced without need to re-spot weld the tiny TC wires.



As with any piece of ultra-high vacuum equipment, clean tools and gloves should be used

when handling this device. Do not bake out the evaporator to above 150 degrees C without removing the water lines, electrical connectors and blowing out the water jacket.

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