CONTHERM *Scientific Limited*

TECHNICAL MEMORANDUM **PRODUCT :STEAM INJECTOR** **No : 0096**

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FROM : Contherm Scientific Ltd **DATE :** 01/09/2005
TO : ALL AGENTS

SUBJECT: Replacing Consumable coil on latest steam Injector Units on PRECISION Cabinets

If the cabinet is fitted with the Steam Injection System for humidity control there will be a Steam Module located at the rear of the cabinet. The water used **must** be distilled or deionised to minimise the risk of blockage to the injector coil, additionally it is strongly recommended that waste water be taken directly to a drain and NOT be recirculated. The consumable steam injector coil should typically be replaced every 12months.

The latest larger bore swaged end coil is simpler in design and should be treated as a consumable item – being replaced about every 12 months.

Consumable Long Coil (P2005)

Replacing the LONG (P2005) Consumable Injector Coil.

These units can be identified by the fact that the steam module water INLET enters at the RHS underneath the steam module and the steam Injector Module Cover is held in place by two screws only.

- Ensure all electrical power is removed from the chamber by tripping the RCD breaker and removing the plug from the wall socket.
- Allow 60 minutes for the temperature of the Steam Injector heater to cool so that it can be safely handled. The steam Module is located at the rear of the cabinet outside wall.
- Remove the two front screws holding the Steam Module cover to the steam module and carefully lift the cover clear off the module.

- Disconnect the water inlet pipe by loosening the hose clip at the bottom of the injector coil.
- Disconnect the steam outlet pipe by loosening the steam outlet hose clip.

The Consumable larger bore injector coil has swaged ends on the coil. The new arrangement does away with several fittings on the outlet side, simplifying the system and minimising the risk of water leaks.

- Lift off the top piece of fibreglass insulation to expose the top of the Injector heater.
- Remove the top cover from the injector heater (test carefully first to ensure that the heater is not too hot to handle before attempting removal) by removing the two OUTSIDE screws (do NOT loosen the centre screw) and carefully lift the top cover free of the heater module (note that the regulating thermostat capillary is trapped under the top cover).
- Firmly tap the end of the bottom end to try and knock the injector coil upwards (it lifts out from the top) until it comes free of the heater block.
- Replace the injector coil with a new unit and reverse the above procedure to reassemble ensuring that the fibreglass insulation is reinstated and the capillary correctly located under the top Injector heater cover.
- Replace the Steam Injector Module outer cover (clips on bottom first, then top, then two screws hold it in place).
- Plug the cabinet back into the power outlet and Turn the RCD main switch back on.
- Prime the injector system using diagnostic No3 until the pump is fully primed with water (usually indicated by the loud buzzing noise abating.).
- Test the humidity operation and inspect for any obvious leaks.

We strongly recommend that the water used by the steam injection system is NOT recirculated, this results in a MUCH longer injector coil life.

NB: Use **ONLY** distilled or deionised water for the steam modules, using any other type of water will greatly reduce the operating life of the injection coil.