

**NORTHCOTE POTTERY SUPPLIES**  
**TECHNICAL TIPS AND PRODUCT INFORMATION #17**

## **ELECTRIC KILN MAINTENANCE**

### **EACH FIRING**

- Vacuum out any exploded bits of clay immediately after unpacking the kiln – particular attention should be paid to the element tracks in electric kilns.
- Each full shelf should have only 3 (not 4) props per shelf.
- Never allow kiln elements to have glaze/clay melt onto them – they will burn out very quickly.
- Kiln shelves should be batt washed every few months, but any spots of drippy glaze should be ground off or covered with batt wash immediately.
- Ensure that no glaze has melted on brickwork – dig the offending area out immediately with a sharp knife before it becomes 'cancerous' and eats into the brickwork, eventually destroying your kiln's insulation.
- NEVER fire an electric kiln to 1300°C; always go to 1280°C max.
- Ensure the thermocouple (equivalent to a thermometer) is not broken or cracked or pushed into the wall of the kiln before starting any firing.

### **MONTHLY**

- Send any 'bad' shelves for cleaning (grinding). Re- batt wash them once they're clean. Allow shelves to fully dry before firing (1-2 days) or they will crack in the first firing.
- Touch-test all electric elements are operating by turning your kiln on for 5 minutes, then run your hand NEAR but NOT ON the individual elements (usually 2 rows = 1 element) to feel for radiant warmth. Do not touch the elements directly – they could be very hot. If any elements are not heating, call a suitably qualified electrician immediately to repair the kiln.

### **ANNUALLY**

- Ensure that major repairs and service are done during holidays or when the kiln is not required.
- Check the kiln frame for corrosion – wire brush any corroded areas and re paint with Kill Rust or some other rust proofing paint.
- Ensure the kiln door is sealing well (best done when the kiln is at top temperature and glowing red-orange) and that any ceramic fibre seals are refreshed if necessary.
- Check the extent of kiln brick cracking and elements which may have dropped out of their tracks (a suitable electrician can 'pin' these back into place with Kanthal wire). NB some cracking in brick work is to be expected.
- If your kiln has a flat roof, ensure that the roof is not sagging down into the kiln cavity as it ages. This can be propped up with a kiln shelf on very long props if necessary, but will eventually need replacement.
- Check that the kiln door contact mechanism is connecting with the kiln body to complete the electric circuit. Remember that as the kiln heats and expands a poor contact may become no contact and turn the kiln off mid-firing. This usually involves checking the moveable screw, which hangs down below the kiln door. Check that it is in the correct position and has not been bashed into a stack of unpacked shelves resting against the exterior of the kiln body.
- Throw away, re-cut or break up any cracked shelves for use in firing. Never continue to operate with cracked shelves.
- Check your thermocouple is accurate by firing at least one firing per year with a set of 3 pyrometric cones placed near your thermocouple. Ensure that you have a cone temperature equivalence chart to be sure what temperature the cones are indicating.

### **REPAIRS**

- Contact GE & GE Kilns on 03 9752 0559 for ELECTRICAL repairs to elements, controller issues, vent systems or malfunction on electric kilns.
- Contact Northcote Pottery on 9387 3911 for kiln controller (Harco and Stafford) service/repairs, tuition etc.
- Contact Tetlow 03 8545 8249 for brickwork repairs on electric kilns.
- CONTACT NORTHCOTE POTTERY FOR A QUOTE IF YOU ARE CONSIDERING PURCHASING A NEW KILN

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**MON - FRI 9.00AM TO 5.00PM SAT 9.00AM TO 4.00PM SUN CLOSED**

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