

# ELECTRIC KILN MAINTENANCE

Technical Tips And  
Product Information

## #16

### EACH FIRING

- Vacuum out any exploded bits of clay immediately after unpacking the kiln – pay particular attention 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 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 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 – they could be very hot. If any elements are not heating, call a qualified electrician to repair the kiln.

### ANNUALLY

- Ensure major repairs and service are done during holidays or when the kiln is not required.
- Check the kiln frame for corrosion – wire brush corroded areas and re paint with Kill Rust or rust proofing paint.

- Ensure the kiln door is sealing (check 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). Note: some cracking in brickwork is to be expected.
- If your kiln has a flat roof, ensure that the roof is not sagging into the kiln cavity. This can be propped up with a kiln shelf on very long props but will eventually need replacement.
- Check that the kiln door contact mechanism is connecting with the kiln body to complete the electric circuit. Note, as the kiln heats and expands a poor contact may become no contact and turn the kiln off mid-firing. Check the moveable screw which hangs down below the kiln door. Check it’s in the correct position and has not been bashed into a stack of unpacked shelves resting against the kiln’s exterior.
- Throw away, re-cut or break up cracked shelves for use in firing. Never 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. Have a cone temperature equivalence chart to be sure what temperature the cones are indicating.

### REPAIRS

- Contact **Industelect** 03 9877 5038 or **GE & GE Kilns** 0408 391 860 for ELECTRICAL repairs to elements, controller issues, vent systems or malfunction of electric kilns.
- Contact **Tetlow** 03 8545 8249 for brickwork repairs on electric kilns.
- Contact **Northcote Pottery** 9387 3911 for kiln controller (Harco and Stafford) tuition etc.
- Contact **Northcote Pottery** for a quote if you wish to purchase a new kiln.