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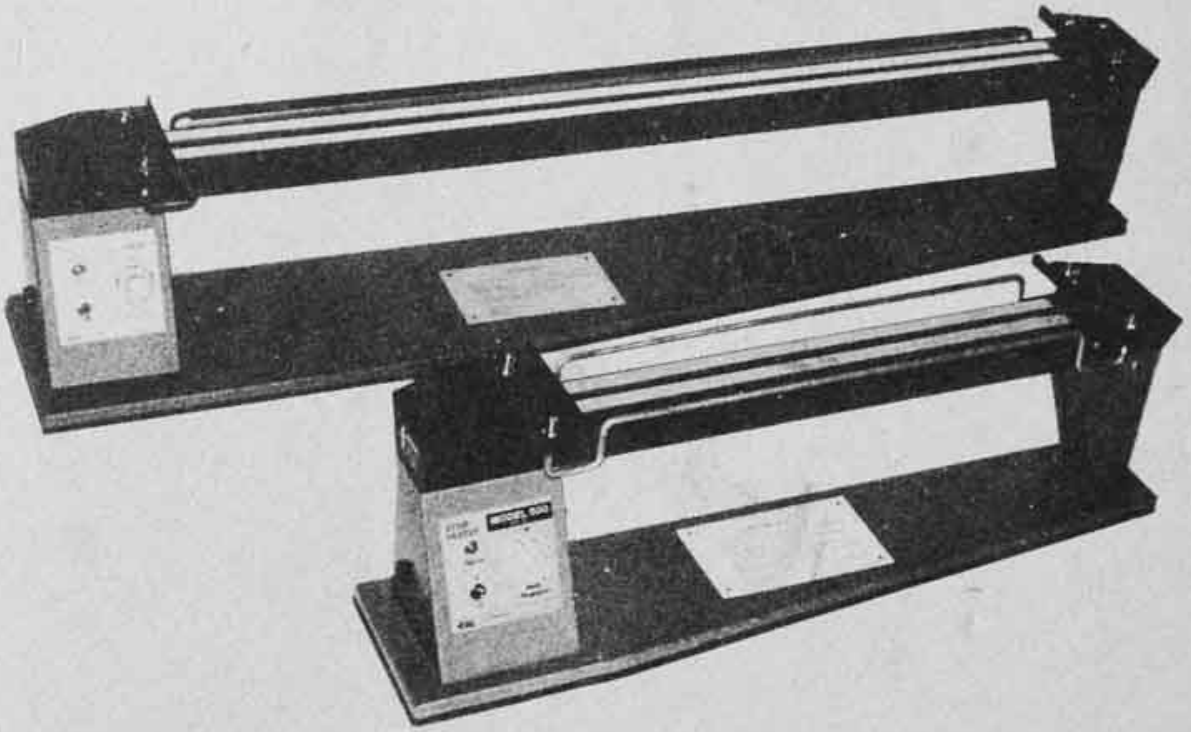
OPERATING & MAINTENANCE INSTRUCTIONS

MODELS 500, 1000 & 1250D
THERMOPLASTIC STRIP HEATERS



MANUFACTURERS OF EQUIPMENT FOR PLASTICS FORMING,
SCREEN PRINTING, WOOD VENEERING AND LAMINATING

INSTALLATION

A suitable plug is all that is required to make the heater operational, either a standard 13 amp square pin for 220-240v machines or alternatively 110-120v heaters will require a plug to conform with the relevant B.S. for low voltage supplies.
Connections must be in accordance with International Colour Coding System as follows:-

Blue = Neutral, Brown = Live, Green/Yellow = Earth.

ALL MACHINES MUST BE CONNECTED TO AN EARTHED SUPPLY

If a fused plug is fitted, a fuse should be used having a rating equal to or slightly above the rating indicated on the machine rating label.

MAINTENANCE

No regular maintenance is necessary but, after a considerable service life, the heating element may burn out & this can easily be replaced by a competent electrician. The elements used as original equipment are shown under TECHNICAL SPECIFICATION but any equivalent may be used provided that it has similar physical characteristics & does not exceed the original VA rating.

TO RENEW THE ELEMENT

1) DISCONNECT FROM MAIN ELECTRICAL SUPPLY BY REMOVING PLUG FROM SOCKET.

2) Remove screws securing the end caps (two LHS & four RHS M500 & 1000, four each end M1250D) and remove end caps complete with support bars. Remove reflectors.

3) Remove back of L.H. casing, disconnect neutral feed to element support bracket and slacken nut securing support bracket until it is free to swivel.

4) Remove nuts securing element to support brackets and in the case of the Model 500, which have adjustable length elements, the element will slide to one side allowing the L.H. support bracket to be swivelled to one side & the element drawn out. With the Model 1000 & M1250D, it will be necessary to remove the L.H. support bracket completely to free the element.

5) Replace & reassemble in reverse order. Do not overtighten element support bracket nuts as the porcelain insulators are liable to fracture. A torque loading of 6in lbs is used during original assembly. Ensure safety shield & support bracket are correctly aligned before final assembly.

THERMAL OVERLOAD (not applicable to M1250D)

A thermal overload is situated inside the RH leg secured by two pop rivets. In the event of excessive heat built-up due to prolonged operation, this will break the live feed to the element. Upon cooling, the overload will automatically reset and heater operation will revert to normal. Before dismantling a heater to locate suspected fault, ensure that the thermal switch has not operated by trying the heater again when it has cooled down. The thermal switch will break at 100°C and reset at 85°C.

TECHNICAL SPECIFICATION - ELEMENTS

All elements supplied by Heating Elements Ltd, Leicester.

Model	Voltage	Element Type	Amps	VA
500	220-240	ST 202 A	3	750
500	110-120	ST 202 A	7	755
1000	220-240	ST 18 C	6	1500
1000	110-120	ST 18 C	9	1000
1250D	220-240	Special refer to	6	1500
1250D	110-120	Special Manufacturers	9	1000

INSTRUCTIONS FOR USE

Thermoplastic sheet such as Acrylic ("Perspex" or "Oroglas"), Polystyrene, P.V.C. etc. can be shaped by first heating to soften it & then cooling it.
Our range of Thermoplastic Strip Heaters enables bends of various radii to be produced quickly & easily.

USEFUL OPERATIONAL NOTES

Adjust the support rods of the heater unit so that the plastics sheet to be heated is raised a little above the top of the heater slot. (The plastics sheet should not be allowed to touch the heater body).
The radius of the bend produced will depend upon the height of the sheet above the heater slot, the sharper the bend required the closer the sheet should be to the heater slot. (Minimum height above slot - 2mm., maximum height 10mm.)
Material thickness will dictate the energy regulator setting, thin sheets up to 2-3mm will heat quickly & the maximum setting will normally be used. As sheet thickness increases, reduce the energy regulator setting, possibly as low as No.1 for unusually thick sections (12-20mm). The lower heat settings will require a proportionately longer time to "soak", up to possibly 6-10 minutes, plastics being poor conductors of heat a section will only heat through in a given period of time, excessive heat settings will produce blisters on the face being heated. Heating from both sides reduces heating time, but is not essential when physical constriction, such as work shape, makes this impossible.

SAFETY NOTE

Height adjustment of the support rods should be carried out only when the heater is switched off & has cooled down.

TO MAKE A BEND

1. Adjust the support rods as described previously & switch on the heater.

2. Prepare material to size trimming & polishing edges, if required, before bending. Ends of a bend tend to bell outwards slightly & if this is unacceptable, a waste margin of about 12mm should be added & trimmed off after bending.

3. Mark both ends of the proposed bend line on the thermoplastic sheet using a waterproof (spirit based) felt marker or fibre tipped pen. It is **not** necessary to draw a pen line along the bend.

4. Rest the sheet on the heater support rods so that the bend marks coincide with the centre of the heater slot.
Depending on the type & thickness of plastics sheet used, it may be necessary to turn the sheet over from time to time to ensure even heating on both sides. This is not normally necessary for material of less than 1.5mm thickness.

5. As soon as the material becomes flexible along the bend line, remove it from the heater & hold it at the required angle in a simple adjustable jig until it cools & becomes rigid again.