



Thermocouple fine wire welder



About Labfacility

Formed in 1971, Labfacility specialize in the field of Temperature and Process Measurement.

We are the largest UK manufacturer of both temperature sensors and thermocouple connectors

Quality & Service

Quality and Service are key elements in the continued growth of Labfacility.

Technical support is always freely available from our experienced technical sales teams and the company has ISO9001 accreditation.

Contact Details

Email
sales@labfacility.com

Website
www.labfacility.com

The Thermocouple Welder is a compact, simple-to-use instrument designed for thermocouple and fine wire welding

It is primarily designed for use by sensor manufacturers to produce commercial grade thermocouple junctions; it is ideal for producing large numbers of exposed junction thermocouples for test and development laboratories.

The L60 Thermocouple Welder is ideally suited to transducer and RTD extension lead attachment

Use of the Thermocouple Welder does not require special skills and most operatives will be capable of producing quality work with little practice.

The instrument is supplied with a full range of user accessories including a footswitch Suitable for use with wires of up to 1.1mm diameter an argon gas shield facility is included but a satisfactory thermocouple junction is produced without the need for argon.

The output energy of the L60 Thermocouple Welder can be varied up to 60 Joules.

- ◆ Simple to use Thermocouple Welder
- ◆ Designed for the production of commercial grade thermocouple junctions
- ◆ Also suitable for other fine wire work
- ◆ Front panel or footswitch operation
- ◆ Argon gas shield facility

ORDER CODES

THERMOCOUPLE WELDER	XF-1250-FAR
CARBON ELECTRODES (x5)	244-3730



Spare carbon electrodes in a pack of 5



Included Accessory's

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Supplied complete with the following accessories:

- ◆ Wire Holding Pliers & Lead
- ◆ Safety Glasses
- ◆ Magnifying Eyeglass
- ◆ Carbon Electrodes
- ◆ Spare 2A Fuse
- ◆ Argon Hose
- ◆ Mains Lead
- ◆ Footswitch for greater ease of use
- ◆ Impact clip
- ◆ Pen and plate





Accessory's - Impact Welding – Using Impact clip



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Impact welding is the term used for welding wires to a conductive metal surface. This process is common when thermocouples are required to be welded to a test piece/structure or similar application.

The impact welding clip attachment should be plugged into the black negative (-) socket on the front of the L60+ welder. The impact clip should then be attached in close proximity to where the thermocouple is required to be attached.

The thermocouple wires are then gripped in the holding pliers and pressed against the surface to which they are to be welded.

The weld switch or footswitch is then pressed triggering the L60+ welder discharge that will attach the wires to the applied surface. Once the thermocouple has been successfully welded the impact weld clip can be removed.



Accessory's - Pen and Plate Resistance Welding Accessory



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The kit consists of a Copper Plate with a black lead and a Copper tipped spring-loaded pen with appropriate red lead. The leads are terminated in 4mm banana plugs which connect to the corresponding sockets on the front of the L60+ Welder.

It is suitable for welding ribbon materials of ferrous and higher resistance metals such as Nickel & Chromium alloys. It will not weld low resistance metals such as Copper, Silver, Gold or Brass.

In use, the materials to be joined are placed on top of the other on the copper plate and the pen tip is applied with moderate pressure. The weld is then triggered by the switch on the L60+ or footswitch (if used). Test welds will determine optimum settings for material size and composition. We recommend that the Operator starts off with a Medium Energy setting and check the state of the weld. The energy setting can be increased if the weld pulls apart easily or lower if the weld is too severe. With flat materials, a pattern of welds may be made to increase the strength of the joint.

If necessary the plate can be cleaned with fine wire wool, and the welding pen tip may be cleaned with a fine grade emery cloth if necessary.

Please note that during welding done using the pen/plate Argon will not be utilised and therefore should be turned off at the front of the welder.



LABFACILITY

TEMPERATURE & PROCESS TECHNOLOGY

Specifications



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General

Energy Output 0-60 Joules
Welding Capacity Wires up to 1.1mm diameter
Duty Cycle Minimum 5-10 welds/min

Mechanical

Physical Dimensions 220mm Wide x 120mm High x 250mm Depth
Weight 4kg

Electrical

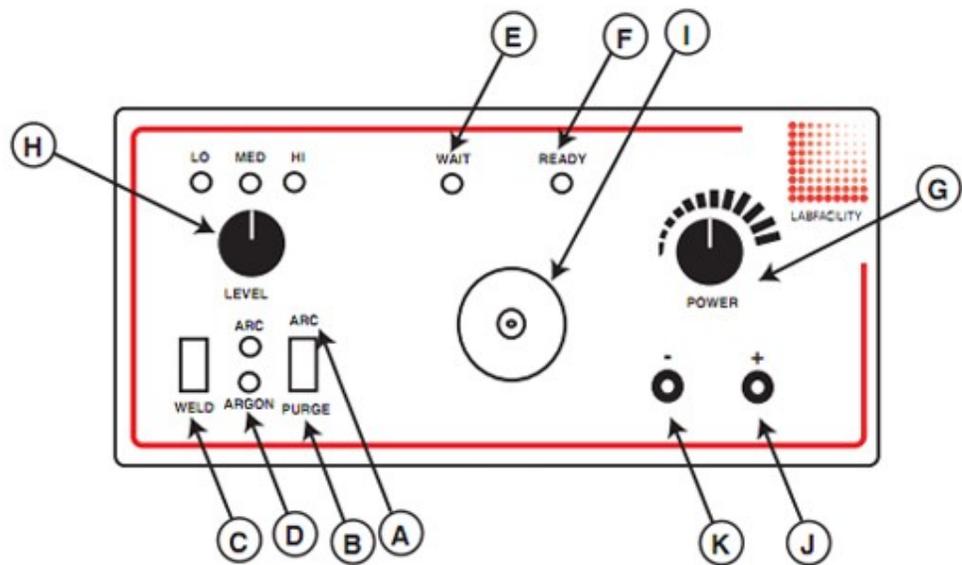
Power Supply 110-120 Vac or 220-250 Vac, 50-60Hz
Power Consumption Max 170VA dropping to 20VA during charging

Maintenance

Apart from keeping the electrode in good order, no other maintenance is required



Welder Controls



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|---|------------------|---|
| A | Arc | Argon gas and weld current controlled by the "Weld" switch. LED indication |
| B | Purge | Allows the gas line and electrode shield to be purged of air prior to a new welding period |
| C | Weld Switch | Initiates a welding operation (in "arc" mode also opens the Argon valve) |
| D | Argon LED | Indicates when the Argon control valve is open and gas is flowing |
| E | Wait LED | Glowes when weld charge is building |
| F | Ready LED | "Ready to Weld" indication |
| G | Power | Rotary control of the capacitor charge voltage |
| H | Level Selector | Selects the total capacitance available giving the following values with LED indication |
| | | "LO" = 0 to 6 Joules
"MED" = 0 to 28 Joules
"HI" = 0 to 64 Joules |
| I | Electrode Holder | Holds the replaceable carbon electrode which is accessible by removing the outer Argon Shield |
| J | Red Socket | Output socket for using the pliers supplied |
| K | Black Socket | Output socket, this provides an additional earth |