



WESTKEN

THE WEST KENNETT CORPORATION

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50KVA "SERIES 90" **AIR OPERATED PEDESTAL SPOT WELDER.**



The machine is designed, manufactured and marketed in South Africa by West Kennett Corp. The machine is a 50KVA Pedestal Welder 380/400v @ 50Hz for the spot welding assembly of cold rolled mild steel parts approximately 2mm to 2mm. Stainless steel 3mm to 3mm and clean round bar up to 16mm finished thickness.

ELECTRICAL AND CONTROL SYSTEM:

Machines come standard fitted with solid-state "Masterweld" programmable digital timer control with weld on/off and an eight program rotary select switch. The timing system is a fifteen program, six channel digital device

Thyristor units are water-cooled semi-pack 140 Amp with thermo protection mounted into a service exchange firing package. Power board consists of the incoming 380/400-Volt power bolts, thyristor pack, trigger module, spike suppression resistor and the 110 & 24 Volt step-down transformer all protected by a poly carbonate transparent cover.

The welder has dual hand start switches and single foot switch start with a lock out selector switch for either hand or foot start.

An 80amp rotary cam isolator switch with lockout facility mounted within its own safety enclosure inside the machine is operated through a cutout in the door.



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The machine is fitted with a water-cooled transformer fully encapsulated with thermostat protection. The transformer output (max 14500amps) is adjusted by the timer control system which has stepless adjustment from 10 percent to 100 percent. (Please note cooling unit is sold separately)

MECHANICAL SYSTEM:

The steel fabrication top arm is bolted to the mainframe upright. Top tip holder support is a brass casting with a front brass clamp. There is height adjustment available on the 60mmdia bottom arm assembly manufactured from brass. The lower knee is a brass casting mounted to a 50mm upright brass bar.

The machine is fitted with an 80mm diameter barrel air cylinder with a stroke of approximately 80mm. The maximum tip pressure is 250kg@7 bar. An anti-twist system is fitted to the upper head. The throat depth is approximately 550mm. The machine is also fitted with a 16mm x 100mm laminated shunt.

Electrode tips are water-cooled 16mm standard MT2 (Morse Taper No 2) fitted into 25mmdia tip holders.

The pedestal covers one piece design with swing door for access. No pedestal parts are fitted to the covers enabling the covers to be removed and machine to be worked on without cables / pipes being disconnected thus allowing total access to all machine parts.

The machine stands 1470mm high from floor to cylinder top, 1000mm deep from the tips to the back of the machine and 400mm wide on the base plate with cover box of 290mm wide.

AIR SYSTEM, SOLENOID AND FRL UNIT:

Air equipment consists of a 1/4" filter-regulator-lubricator set supplying air to a 5/2 I.S.O 24vdc air solenoid. Flow restrictors are fitted for control of the head speed. All air pipes are fitted into quick couplers using high pressure nylon tubing.

GENERAL DISCLAIMERS:

West Kennett Corporation is not liable for damages resulting from, or attributable to the non-compliance of the user of the procedures and recommendations in this manual. Failure to observe these instructions may cause serious injury or death and may result in the warranty being declared null and void.

Read and understand the entire contents of this user manual, with special emphasis on the safety instructions and procedures throughout the user manual, before installing, operating, or maintaining this equipment. This machine and user manual is for use only by persons trained and experienced in the safe operation of welding equipment. Do not allow unqualified persons to install, operate, or maintain this machine. Contact your distributor if you do not fully understand this user manual. Wear safety clothing and always use safety equipment.



If you are not sure, please phone and ask, we will help.

West Kennett Corporation retains the right to modify, improve, and upgrade our products at any time without prior notice due to ongoing improvements of our products and services.

And finally,

This is another in a set of documents that hopefully will help you understand the equipment better. There will be a more in-depth study of the timer, air system, cooling system and how and why a weld takes place.

Look on our website www.westken.co.za for the following:

- 1) Introduction to set-up of Westken spotwelding timers for newcomers & others.
- 2) Cooling water for welding machines.
- 3) Explanation of clever words & terms concerning Resistance welding & timer systems.
- 4) Introduction to Spotwelding for newcomers and others.
- 5) Introduction & a basic explanation to Timer control systems.
- 6) Manuals for other machines in our range of equipment.

If you have any questions concerning the above or others question concerning resistance welding, please do not hesitate to contact one of our really clever people at **Westken**. Try the following people who might be able to give a helping hand or some good advice. Remember they do it almost every day, I am talking resistance welding.

Really technical stuff concerning the mechanical and electrical layout and workings of the machines:

..... Mr. Stuart Dorling. tech@westken.co.za

Stuff concerned with machining the copper, brass, soldered type electrodes etc and the setup manufacturing or usage of machinery.

..... Mr. Jaco Truter. info@westken.co.za

When you can get stuff and how much stuff costs

..... Ms. Laroshelle Pryor admin@westken.co.za

