





## Last update 06th February 2024

## *"MICHI"* 25KVA, FOOT OPERATED SPOTWELDER



This foot operated "MiChi" spotwelding machine is a product introduced into our range for use by hobbyists, light jobbing shops, small run wire products and prototype builders. The machine is a low-cost unit, light duty, simple/basic design. The machine uses 35mmdia brass arms, 13mmdia welding tips and water-cooled brass tip holders, the transformer is air cooled,

The machine does not use a phased heat control timer but is fitted with a rotary time out timer  $0 \sec - 1 \sec$ . Tapings are available on the transformer. Switching the power to the transformer is achieved using a standard and freely available contactor switch.

The machine can be used in 220volt or 2 phases 380volt. The machine uses a foot pedal/rocker arm with compression springs to achieve tip pressure.

The machine is a general-purpose spot-welder for home/hobbyist and light jobbing/repair. The 380volt MiChi foot Operated 20KVA spot welding machine for the spotwelding of cold rolled steel plates 1.0mm + 1.0mm, stainless steel plate 1,5mm + 1,5mm and clean mild steel round bar 6mmdia + 6mmdia.

**<u>Please Note</u>**<sup>\*</sup> this is a light duty machine and is not for use in any type of production environment.

The machine is designed, manufactured, and marketed in South Africa by West Kennett Corp. **The client will need to supply a cooling unit, as the machine does not have its own cooling unit.** The suggested cooling unit is our 351 cooling / chiller unit and can be seen on our website.

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## ELECTRICAL AND TIMER CONTROL SYSTEM

- 1) The machine is a 380volt @ 50hz machine using two of the three phases. The machine should be fed from a minimum breaker size of 60amps. The machine can be used and setup in 220volt mode single phase.
- 2) The machine is fitted with 25amp contactor system and 24vdc stepdown transformer system for the control voltages.
- 3) 20kva non encapsulated air-cooled transformer. Over temperature sensors fitted are standard in the transformer. The transformer develops approx. 8000amps at the welding points using 380volt supply and 5500amps setup for 220volt supply. The O.C.V is approx. 3.0 volts.
- 4) The machine has a plug-in time only analogue timer control. Timer type is a Lavato 32L48TPS or equivalent. The timer is a 0 to 1.0sec device. This system has no separate heat setting and uses time setting only.
- 5) The machine has a 60amp on/off switch fitted to the side of the machine. Electrical supply is either through a knockout located on the top or the side of the machine frame. The machine is fitted with a fuse and power on/off indicator lamp.
- 6) Earthing studs are located within the machine frame. An earth harness is fitted inside the machine.

## MECHANICAL SYSTEM, FRAME AND ARM LAYOUT

- The machine is fitted standard with 35mm upper and lower brass arms, has a throat depth of approx. 320mm, the gap between the upper and lower arm is approx. 320mm, the machine use brass 20mmdia Morse taper 1 water cooled tip holders and standard 13mm MT2 CuCrZr spotwelding tips.
- 2) The machine is manufactured using a laser cut and welded steel frame/base assembly with a detachable rear steel cover box. The machine in standard color is powder coat "White". The machine is approximately 1160mm high, 800mm deep and 400mm wide.
- 3) The machine is fitted with a steel iron foot pedal arm with a steel foot trap pad of approx. 100mm x 125mm.
- 4) The machine has a non-adjustable pressure spring fitted inside to achieve required tip pressure. This is factory set and cannot be adjusted.
- 5) The machine does not have height adjustment on the lower knee assembly.
- 6) The machine must be water-cooled at a minimum of 151 20l per minute with cold water not exceeding 26deg supplied at max 3bar with a pressure differential of 1,5bar over the inlet and outlet of the machine. 16mmdia Access points for water are located in the side of the machine frame.
- 7) Approximate weight of the machine 95kg.