

# Model 73

## Servo Motor Driven Weld Head



*73 opposed weld head*



*73-Z, pincer weld head for automation*

Designed for use in automation or benchtop welding, Amada Miyachi's Model 73 and Model 73-Z weld heads offer fast, repeatable electrode motion control for a wide range of resistance welding applications. The Model 73 **weld head** is an easy-to-program, state-of-the-art servo motor controller that allows precise programming of electrode position and speed for up to 31 different weld schedules. The 73-Z pincer weld head has self centering electrode clamping and floating mechanism to ensure the part is centered between the electrodes every time.

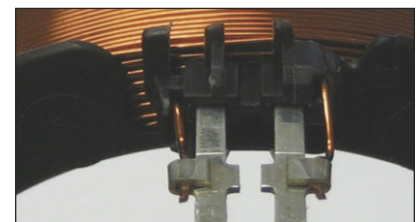
### KEY FEATURES

- Programmable speed and positions
- Controlled servo motor actuation eliminates overforce
- Force range 15 lbs to 110 lbs.
- Durable and robust head design
- Displacement and force options
- Remote control I/O and PC communication
- Machine builder module – a module option without a lower electrode or extrusion provides convenient machine mounting
- Fast follow-up – less weld splash, more consistent welds
- Easy programming – fast, efficient schedule adjustment
- “Soft-touch” part clamping – minimizes impact force – allows verification of part alignment prior to welding

### TYPICAL APPLICATIONS



*Terminal connections for sensors*

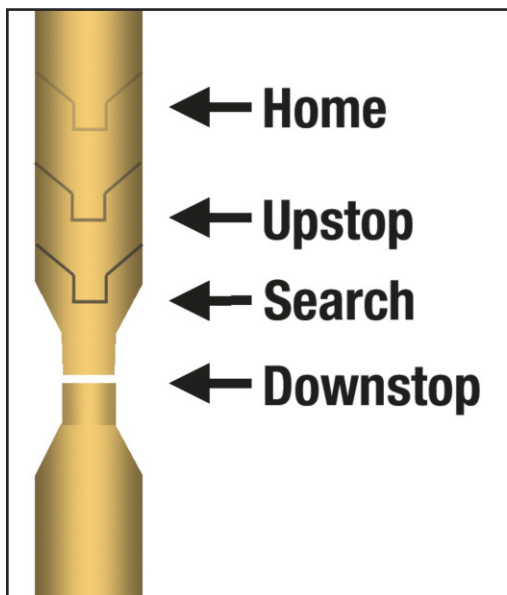


*Magnet wire to tang termination*



*Joining of stamped sub-assemblies*

## SERVO MOTOR DRIVEN WELD HEAD



Programmable electrode positions – accurate to .004”

- The “Home” position allows for easy access during maintenance.
- The electrode is in the “Upstop” position in the “Ready” state.
- The first level of the footswitch moves the electrode down to the “Search” position at a programmable “Soft-touch” speed.
- The second level of the footswitch applies the pre-set welding force, with no overforce.
- The programmable “Downstop” inhibits welding if parts are not present.

### TECHNICAL SPECIFICATIONS

Model number	73 Head/73-Z Head
Force range	15 - 110 lbs
Weld force method	Spring force setting
Actuation method	Servo motor
Electrode stroke	1.75 in
Throat depth	3.9 in (100 mm) / N/A
Number of schedules	31
Electrode speed	Start point to mid point - 8 selectable speeds by schedule (20-125 mm/s) Mid point to weld point - 4 selectable speeds by schedule (5 - 30 mm/s)
Squeeze time setting	10 settings (0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 ms)
Hold time setting	8 settings (100, 200, 300, 400, 500, 1000, 2000 ms, external END signal)
Power supply	100-240 VAC $\pm$ 10%, 50/60 Hz
Welding current	7500 A

### WEIGHT & DIMENSIONS

	Model 73 Head	Model 73-Z Head	Controller
Dimensions (L x W x H)	10.8 in X 6.8 in X 18.4 in (274 mm x 173 mm x 468 mm)	23.9 in x 5 in x 5.9 in (606.3 mm x 129 mm x 148 mm)	9.6 in x 2.5 in x 6.1 in (243.8 mm x 63.5 mm x 154.9 mm)
Weight	35.2 lbs (16 kg)	19.25 lbs (8.7kg)	6.6 lbs (3 kg)



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