

It's a Thermatool!

...Produce Quality Spiral Fintube More Efficiently with a Solid State Welder



Achieve These Benefits

- Smoother Output/Improved Weld Quality
- Weld More Alloys More Efficiently
- Run Higher RPM's at Lower Kilowatts
- Less Arcing and Sparking/Improved Contact Life
- Use Less Power and Water
- Improved Safety/Less Floor Space
- Reduction in Scrap

**...Every Spiral Fintube
Producer that has bought one
has bought more!**



304 Fin Welded to 304 Tube

Specifications and Performance Data

SPECIFICATIONS

SOLID STATE SPIRAL FIN TUBE CONTACT WELDING SYSTEMS

HF Generator:

Output Power Rating	CFS 200 (200 KW) 200 KW to Calorimetric Load
Welding Frequency	400 KHz Nominal
Ripple	<1%
Efficiency	80% Efficient from Line to Load
Description	4 Pairs of MOS FET Power Modules in RF 12 Enclosure
Size	662mm (26 in) x 2199mm (87 in) x 1045mm (41 in) High

CFS 300 (300 KW)

Output Power Rating	300 KW to Calorimetric Load
Welding Frequency	400 KHz Nominal
Ripple	<1%
Efficiency	80% Efficient from Line to Load
Description	6 Pairs of MOS FET Power Modules in RF 12 Enclosure
Size	662mm (26 in) x 2199mm (87 in) x 1045mm (41 in) high

DC Power Supply and Control Cabinet:

Input Power	300 KVA at 0.88 Power Factor at Full Power Output
Input Voltage	480 VAC, 50/60 Hz, 3 Phase, $\pm 6\%$ Line Variation, Others available
PLC Type	Allen Bradley SLC 500 Standard, Others Available
Description	PS 2 Enclosure with Internal Power Line Transformer
Size	2275mm (90 in) x 880mm (35in) x 2000mm (79 in) high

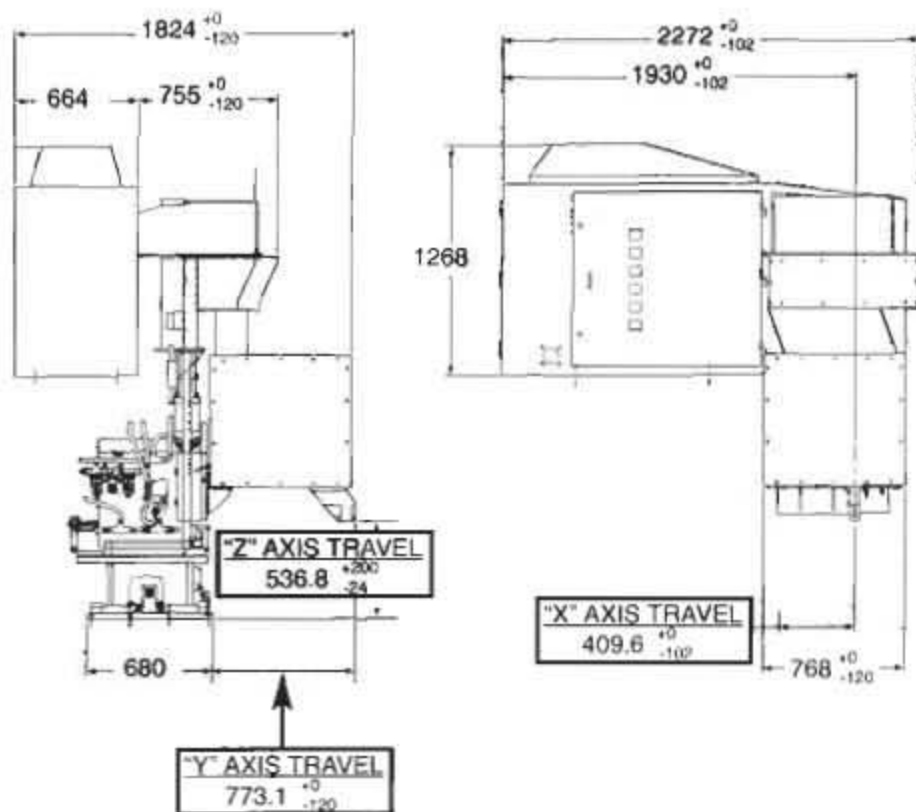
Input Power	440 KVA at 0.88 Power Factor at Full Power Output
Input Voltage	480 VAC, 50/60 Hz, 3 Phase, $\pm 6\%$ Line Variation, Others available
PLC Type	Allen Bradley SLC 500 Standard, Others Available
Description	PS 2 Enclosure with Internal Power Line Transformer
Size	2275mm (90 in) x 880mm (35in) x 2000mm (79 in) high

Cooling System:

Raw Water Input	181.0 liters/min (48 USgpm) at 30°C (86° F)
Raw Water Pressure	3.4 Bar (50 psi)
Closed Loop Water type	Demineralized, deionized water, pH between 7.5 and 8.5 Conductivity below 50 micro-Siemens/cm
Closed Loop Temperature	34°C (95°F) Exit Temperature 45°C (113°F) Inlet Temperature Maximum
Temperature Regulator	Primary water circuit flow regulating valve

Raw Water Input	211.7 liters/mm (56 USgpm) at 30°C (86° F)
Raw Water Pressure	3.4 Bar (50 psi)
Closed Loop Water type	Demineralized, deionized water, pH between 7.5 and 8.5 Conductivity below 60 micro-Siemens/cm
Closed Loop Temperature	36°C (95°F) Exit Temperature 45°C (113°F) Inlet Temperature Maximum
Temperature Regulator	Primary water circuit flow regulating valve.

PHYSICAL DIMENSIONS (in millimeters)



Solid State Welder Benefits

- **Power Efficiency** - the greatly increased output efficiency of the Solid State welder results in major power cost savings.
- **Reliability** - the elimination of expensive finite life components such as the vacuum tube, RF output transformer and tank capacitors adds to increased reliability and uptime, and a significant reduction in maintenance costs.
- **Improved DC Ripple** - smoother output wave shape than can be achieved with a vacuum tube welder – less weld spatter and forge tooling wear.
- **Water Efficiency** - the Solid State welder uses approximately 60% less water than vacuum tube units.
- **Safety** - Solid State welders operate at much lower voltages than vacuum tube units - not exceeding 1200 volts at full power - assuring added safety for operators and maintenance personnel.
- **Floor Space** - Solid State welders are extremely compact, occupying minimal space. The power supply can be placed up to 1,000 feet away from the mill.
- **Improved contact wear** - due to less arcing.
- **Reduction in scrap** - due to improved automatic Speed Power Control, reducing unwelded fin areas when stopping and starting.

Inductotherm Heating & Welding Technologies Ltd
Thermatool House
Crockford Lane, Basingstoke,
Hampshire, RG24 8NA England.

Tel: +44 (0) 1256 335533
Fax: +44 (0) 1256 467224
Email: info@ihwtech.co.uk
www.inductotherm-hwt.co.uk

