



Innovative
Heat Treatment

124 - 6227 2nd St SE
Calgary, Alberta,
Canada, T2H1J5

Phone: (403) 980-5213
Fax. : (867) 768-3155
Email: wecare@ihttech.com
Web: innovativeheattreatment.com

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RAPTOR – PIN WELDER OPERATING MANUAL



“The
Heat Is
On”



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1.0 SPECIFICATIONS

Size:	255 mm (W) X 230 mm (H) X 310 mm (D) 8.8 " (W) X 9" (H). X 12.2" (D)
Weight approx:	7 kilos with accessories
Battery Type:	Sealed lead-acid (non-spillable) 12V 2.1Ah
Mains Supply:	110 or 230VAC (Factory preset) 50/60Hz
Weld Voltage:	Approx. 42 to 62V (Minimum to Maximum on energy scale)
Charging Time:	Approx. 6s to 60J and 20s to 250J (Following battery recharge)
Battery life:	Approx. 800 welds at 40 joules
Certifications:	EMC: EN61000-6-1:2001, EN61000-6-3:2001 LVD: EN61010-1:2001 CSA APPROVED



2.0 DESCRIPTION



Innovative Heat Treatment – RAPTOR is a heat treatment PIN Welder designed to work in conjunction with the standard heat treatment equipment.

The Raptor Stud Gun can be used as a separate modular unit or can be built into bespoke heat treatment unit.

The Raptor auto pin welder is a capacitance-discharge welding unit intended for general purpose attachment of pins and wires to work pieces. It has variable energy output to suit a range of pin or wire sizes. The Raptor auto pin welder is powered by a rechargeable battery or by connection to a 110V a.c. supply (or optional 230V a.c. supply).

3.0 FEATURES

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Hands free operation with audible count-in to 'auto-weld' Two energy ranges selectable;

1) 30 to 60 Joules

2) 125 to 250 Joules

(Rechargeable battery via mains connection)

3) Low battery LED indicator

4) Auto switch-off to conserve battery

5) Rugged cased floor standing unit

6) Hard rubber feet

7) Tool storage tray

Supplied with

Two (2) metre welding cables
with Large pot magnet

Interchangeable pliers;

A) Long-nose pliers for low range– thinner wire welding

B) Larger pliers for thicker wire/ pin welding

4.0 SAFETY PRECAUTIONS

Eye protection is recommended to guard against molten metal spatter when weld occurs.

The weld spark could be a source of ignition for flammable liquids or gases so ensure the raptor is only used in safe areas.

Avoid looking directly at bright spark when making the welded joint.

INSTRUMENT CARE






Only **charge the battery for 6 hours maximum**. Longer will degrade the battery.

The raptor unit is **NOT waterproof** so avoid water ingress to front panel. Clean front panel using slightly damp cloth or, for tough stains, use WD40 type cleaner.

5.0 FRONT PANEL CONTROLS

- On/ Off Switch: Switch On to use welder, auto charging commences
- Energy Control: Set to required Energy (J)
- Low/ High Switch: Selects 'High' or 'Low' range for Energy Control
- Wait and Ready LED indicators: When 'Ready' is reached, weld can be made
- Low Battery indicator: Steady, then flashes for 'very-low' (Unit then off to protect battery)
- Mains Indicator: Shows mains is connected & battery is charging (Maximum 6 hours!!)
- GND weld output: Negative current return (magnet)
- LOW weld output: Positive current supply for 'Low' range
- HIGH weld output: Positive current supply for 'High' Range

6.0 SPARE PARTS

	10707	3" MILD COOPER PINS
	10705	MAGNET CABLE 6.5' IN LENGHT W/ DINSE CONNECTIONS LEADS
	10706	GROUND CABLE W/ CLAMP 6.5' IN LENGHT W/ DINSE CONNECTIONS LEADS
	10703	110 VOLT POWER SUPPLY 3' IN LENGHT
	10704	WELDING CABLE 6.5' IN LENGHT