



WELDING systems

for
collision
repair
specialists





High Frequency Inverter Welders

Blackhawk welding machines are capable of producing unequalled performance by following these strategies:

Using Adapted Power Components

The loss of power produced by the electrical components in the welder is reduced to its minimum in order to minimize current need.

Integrating a New Power Transformer Design

The power transformer is the component that contributes the most to the performance of spot welders. AMH® has designed it such as to minimize losses of energy due to electrical resistance and induction.

Generating Electrical Impulses With Controlled Power Curve Slopes

- To minimize the expulsion of material during fusion by gradually heating the metal.
- To eliminate excessive startup currents which can cause the circuit breakers of the electrical lines to open prematurely.
- To eliminate the mechanical stress generated by the electromagnetic forces on all the components of the secondary circuit of the power transformer.
- To increase the electronic power components life while minimizing their heating to allow better performance.

Direct Input Of Welding Current

The desired welding current (amps) can be specified directly via the control panel.

Automated Real Time Control Of Current

The real time control of current is always active and carries out an automatic adjusting in order to keep the output current constant.

Open Circuit Protection

Before welding, the open circuit protection detects all bad contacts between the electrodes, which can cause undesired electrical arcing.

Input Voltage Drop Detection

An integrated line drop detection circuit verifies the input voltage levels in order to guarantee the adequate operation of the welding machine. This feature protects the unit when it is used on an inappropriate electrical network.

Clamping Force Measurement

The CPS800HF sensors and software enables the reading of the clamping force at the tips.



WEL 700 & 750

Key Features

Primary Voltage Control

A Microprocessor eliminates any fluctuation of incoming power. Welding power cannot be affected by drops or surges in incoming power.

Steep Welding Power Slope

Steep welding power slope allows the machine to reach the desired peak amperage faster (600 to 700 ms versus 1,200 to 1,400 ms in some other machines) results in a smaller heat affected area and less distortion of the metal.

Electronic Microprocessor Power Up

"Powering Up" electronically by microprocessor, rather than by mechanical means, eliminates the need for multi-stage switches to turn the machine on and breakers to protect the shop electrical system. There can be no accidental surge or drop when the machine is turned on and off. There are no special precautions for plugging and unplugging the machine.

Automatic Instant Capacitor Drain

Automatic drainage of the capacitors in 1/500th of a millisecond eliminates any danger of electric shock from a stored charge. There is no need to manually or mechanically drain the capacitors.

Low-to-High Frequency Conversion Control

Low frequency-to-high frequency conversion control reduces loss of frequency and impedance for built in power stability and a lower maximum heat range for the transformer. Welding power is more consistent and the duty cycle is longer.

Auto-Correction of Output Power

Auto-correction of output power is achieved through systematic monitoring of welding cable and transformer temperatures by the microprocessor. As temperatures rise and output power begins to fall, the microprocessor demands more power from the transformer so that welds remain consistent. The 200th weld has the same strength as the 20th.

Automatic Double Pulse Function

Automatic "Double Pulse" function delivers a very short but powerful initial pulse is immediately followed by the longer standard welding pulse to permit the welding of advanced high strength steels and heavily coated steels.

Safety Certified

Safety Certified by: CE, CSA (NRTL/C) National Research Testing Laboratory tested to ULC specifications.

OEM Approved

Approved by: Ford, General Motors, Chrysler, Renault, Peugeot, Citroen, and Toyota Europe.

WEL 700
Model No. 28.CPS713





Collision repair solutions that help you profit today and prepare for tomorrow.

WEL 800 Specifications

Main Characteristics

Inverter power supply	208-230V, 50/60 Hz, 3 ph
Welding frequency	2000 Hz
Welding current type	DC (rectified)
Welding current (max)	14,000 amps
Dimensions (HxWxL)	
	54x31x34 (130x79x86 cm)
Net weight	543 lbs (246kg)
Main cable (8m)	8ga + ground
Thermo protection	
	Included
Air cooling	
	Inside unit and gun cables
Liquid cooling (clamp)	
	Cables and electrodes

Liquid Cooling Unit

Cooling unit with liquid intercooling	Included
Cooling liquid	Glycol
Basic cooling temperature	86
Welding cables liquid cooling	Included
Electrode arms liquid cooling	Included
Electrode tips liquid cooling	Included

Model 28.CPS803HF

C-Type Welding Clamp

Electrode force 8bar-100mm	550 daN
116 psi- 4po	1236 lb/p
Welding cables Ø	185 mm2
Welding cables length	8' (2.5m)

Single Sided Gun

Welding and ground cables length	8' (2.5m)
Welding cables Ø	127 mm ²

Accessories

Trolley	Included
Welding cables balancer	Included
Quick pull slide hammer and tools	Included
Accessory tray	Included

WEL 700 Specifications

Power supply requirements	203-230V 3 Phase
Main frequency	50/60 HZ
Welding current	DC
Welding current regulation	auto (microprocessor)
Max welding current	10,000 Amps
Main fuse	50 Amp slow blow
Nominal power /50% ED	70 KVA
Main cable dia/length	10.65mm ² (8ga), 6.7mm ² (10ga), 8.5 m (25")

Power supply requirements	203-230V 3 Phase
Main frequency	50/60 HZ
Welding current	DC
Welding current regulation	auto (microprocessor)
Max welding current	12,000 Amps
Main fuse	50 Amp slow blow
Nominal power /50% ED	70 KVA
Main cable dia/length	10.65mm ² (8ga), 6.7mm ² (10ga), 8.5 m (25")

Model 28.CPS713

Welding frequency	2000 HZ
Operating air pressure	80 - 116 PSI (6 to 8 bar)
Electrode force	798 lbs force (C Clamp)
Electrode arms dia	20 mm
Electrode tips dia	15.5 mm
Welding cable dia/length	136mm ² /2.5 (8") air cooled
Dimensions H/W/L	900 / 445 / 700 (35" / 18" / 28")
Weight	280 lbs. (127kg)

Model 28.CPS763

Welding frequency	2000 HZ
Operating air pressure	80 - 116 PSI (6 to 8 bar)
Electrode force	1,000 lbs force
Electrode arms dia	20 mm
Electrode tips dia	15.5 mm
Welding cable dia/length	136mm ² /2.5 (8") air cooled
Dimensions H/W/L	900 / 445 / 700 (35" / 18" / 28")
Weight	280 lbs. (127kg)



1-877-4-TAG-TOOL or (1-877-482-4866) www.BlackhawkCollisionRepair.com

BLACKHAWK / 309 Exchange Avenue / Conway, AR 72032