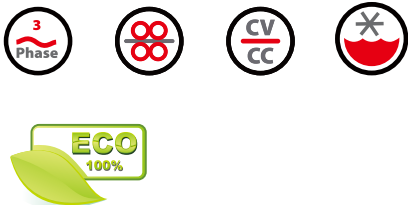


# ALUMIG-500CP

Top welding performance for industrial MIG/MAG welding



## TOP Features:

### Quick Specs

- ◆ **Processes:**  
MIG/MAG, Flux-Cored,  
Pulse MIG,  
Double Pulse MIG,  
MMA(Stick)
- ◆ **Input Power:**  
ALUMIG-500CP:  
340-460V/3-PH/50-60Hz
- ◆ **Rated Output at 40°C (104°F):**  
ALUMIG-500CP: 500A/39V/60%
- ◆ **Applications:**  
Metal fabrication workshops  
Shipyards and offshore industry  
Chemical and process industry  
Steel structure workshops

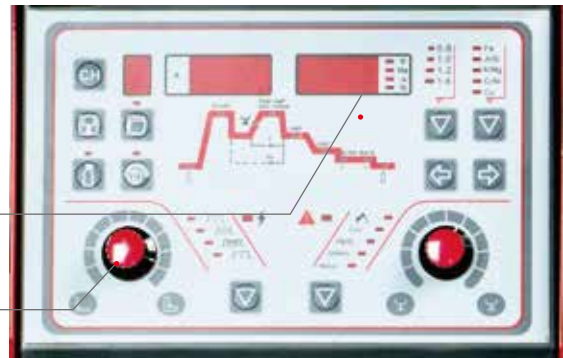
- ✓ **Full IGBT Modules Structure** greatly improve its reliability and productivity.
- ✓ **Multi-Process capable** – Welds MIG, flux-cored, stick, pulsed MIG, and advanced process of Pulse-On-Pulse.
- ✓ **Pulse MIG** – Cost savings, better quality, improved productivity and easier operation.
- ✓ **Aluminum Pulse Process** – Welds 4XXX (AlSi wires) and 5XXX (AlMg wires) series aluminum for superior quality welding.
- ✓ **Double Pulse** – Delivers a stacked dime appearance when welding aluminum.
- ✓ **Dynamic control** – Set arc control to crisp or soft depending on your preference and application.
- ✓ **Synergic control** – Set weld procedures with one control, simple and easy to operate.
- ✓ **Synergic MIG** provides communication between power source, feeder and gun. As wire speed increases or decreases, the arc voltage also increases or decreases to maintain a constant welding arc.
- ✓ **Special Trigger Hold (S4T)** allows to hold the preset Initial Current by user until get a successful Arc Start on Aluminumplate.
- ✓ **Featured Wave-form control system:** Maintains a stable, smooth arc for short arc welding on steel. Improved penetration on thicker aluminum sections.
- ✓ **Burn Back function.**
- ✓ **Fast, precise, clean arc ignition and arc ending.**
- ✓ **10 channels memory capacity.**

## Synergy MIG

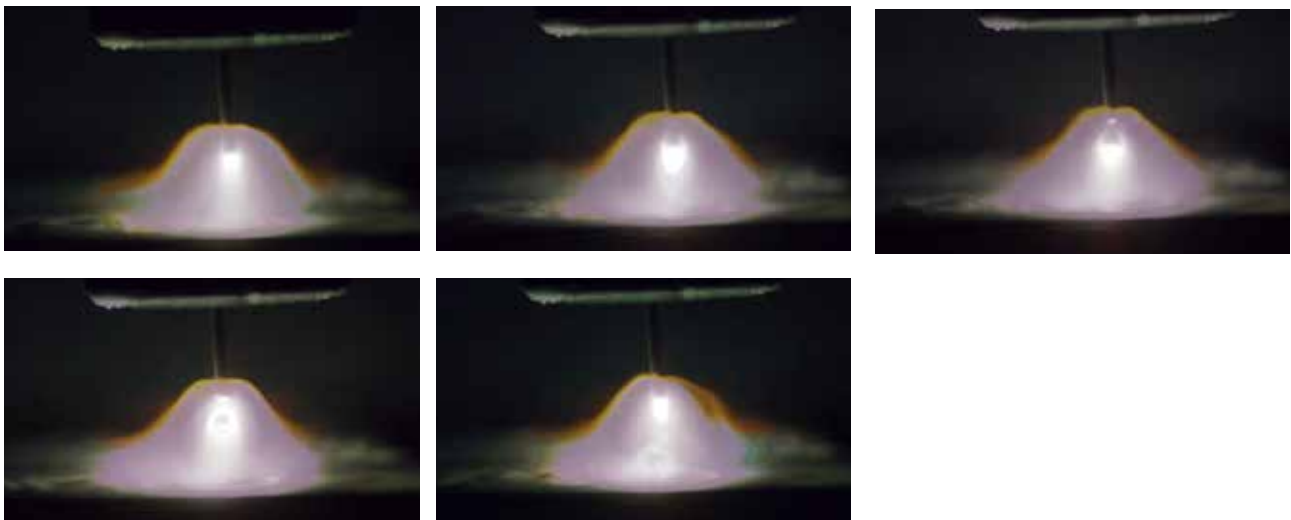
The synergic operation of the machine makes it easy to use, even for the beginning welder. Simply set wire type and diameter, then choose a wire speed. Now you're off to weld! As wire speed increases/decreases, the arc voltage also increases/decreases to maintain a constant welding arc.

2. Voltage is automatically set.

1. Use one knob to set procedures.



## Pulse MIG



The Pulsed MIG process works by forming one droplet of molten metal at the end of the electrode per pulse. Then, just the right amount of current is added to push that one droplet across the arc and into the puddle. The transfer of these droplets occurs through the arc, one droplet per pulse.

### Advantage:

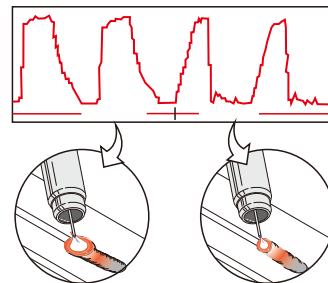
- ◆ Absent or very low levels of spatter.
- ◆ More resistant to lack of fusion defects than other modes of GMAW metal transfer.
- ◆ Excellent weld bead appearance.
- ◆ Reduced levels of heat induced distortion.
- ◆ Ability to weld out-of-position.
- ◆ Lower hydrogen deposit.
- ◆ Reduces the tendency for arc blow.
- ◆ Lends itself to robotic and hard automation applications.

## Double Pulse MIG

Using Waveform Control Technology, the welding machine alternates between high and low energy pulses. This combination of high and low pulses produces the "rippled" bead appearance. The high energy pulses provide a hotter arc (longer arc duration), which improves cleaning action at the base material. The low energy pulses allow the weld puddle to cool, which controls the heat input for good penetration.

## Advantage:

- ◆ Minimal distortion, even when gap conditions and wire placement vary.
- ◆ Outstanding control of arc characteristics, making it easier to produce excellent welds.
- ◆ Rippled bead appearance requires no weaving to produce a uniform bead.
- ◆ Controls the arc length and heat input together for excellent penetration profile.
- ◆ Controls the arc heat, making it ideal for welding thinner materials.



## Technical Specifications

Item No	ALUMIG-500CP
Rated Input Voltage	3PH ~ 400V ±15%
Max. Load Power Capacity	26.99KVA
Rated Duty Cycle(40°C) 60%	MIG: 500A/39V
	MMA: 500A/40V
100%	MIG: 350A/31.5V
	MMA:350A/34V
Welding Current/Voltage Range	MIG: 10A/14.5V~500A/39V
	MMA:10A/20.4V~500A/40V
Open Circuit Voltage	70V~80V
Power Factor	0.85
Efficiency	85%
Pre-Gas Time	0.1-15S
Flow-Gas Time	0.1-15S
Wire-feed Mechanism	4 Rollers
Wire-feed Speed Range	0~25m/ min
Wire Spool Capacity	300mm (15kg)
Filler Wires Ø (mm) Fe, Ss:	0.6~1.6 mm
FLUX CORED:	0.8~1.6 mm
Al:	1.0~1.6 mm
Dimension	960X420X1400mm
Weight	80KG

### Water-cooling Unit:WC-150

Operating Voltage	230V 50/60Hz
Rated Power	260W
Cooling Power	1.5KW(1L/MIN)
Maximum Pressure	0.3MPA/60HZ
Recommended Cooling Liquid	20%~40% ethanol/water
Tank Volume	6.5L

# Accessories

## Standard accessories

**MIG-501D**



Gas nozzle



Contact tip



Contact tip holder



Gas diffuser



Earth clamp

### Technical data (EN 60 974-7):

Rating:	550A/575A CO <sub>2</sub>
Duty cycle 60%	500A/525A mixed gas
	M21 (DIN EN ISO 14175)
Duty cycle:	100%
Wire Size	1.0 –1.6mm

## Optional accessories

**BINZEL MB EVO PRO 501D**



### Technical data (EN 60 974-7):

Rating:	550A/575A CO <sub>2</sub>
Duty cycle 60%	500A/525A mixed gas
	M21 (DIN EN ISO 14175)
Duty cycle:	100%
Wire Size	1.0 –1.6mm



Argon gas regular  
or CO<sub>2</sub> gas regular with heater