

Model: ZYROD-500P

500A TIG + ARC Welding Machine with Pulse Function

Introduction

The **ZYROD-500P** is a digital inverter DC TIG + ARC welding machine, powered by advanced IGBT power devices and three-phase 415V AC supply. It is designed for high-performance welding across a wide range of metals including **carbon steel, stainless steel, alloy steel, copper, titanium, and titanium alloys.**

Its versatile design makes it suitable for **shipbuilding, pressure vessels, locomotives, automotive manufacturing, oil and chemical construction, steel structures, aerospace, decoration, and advertising fabrication.** With precise control, energy efficiency, and compact portability, ZYROD-500P is the perfect tool for industrial and workshop needs.



Technical Specifications-

Parameter	ZYROD-500P
No-load Voltage	68 V
Manual Welding Voltage	20.4 – 40 V
Argon Arc Welding Voltage	10.4 – 30 V
Rated Welding Current	500 A
Voltage Regulation Range	10 – 500 A
Duty Cycle (TIG)	35% @ 500A, 60% @ 380A, 100% @ 295A
Duty Cycle (MMA)	35% @ 500A, 60% @ 380A, 100% @ 295A
Phase	3 Phase
Frequency	50/60 Hz
Supply Voltage	415 V
Rated Output Current (TIG)	29 A
Rated Output Current (MMA)	38 A
Max. Input Current (TIG)	17.2 A
Max. Input Current (MMA)	22.5 A
Rated Input Capacity	27 KVA
Efficiency	≥85%
Insulation Class	H
Enclosure Protection	IP21S
Weight	25.5 kg
Dimensions (L×W×H)	560 × 260 × 430 mm

Packing List-

- TIG Torch - Gas Cooled/Water Cooled (Optional)
- Electrode Holder with Cable- 2.5 mtr
- Earth Clamp with Cable- 2.5mtr
- Argon Regulator with Flow Meter
- Welding Helmet
- Gas Hose Pipe – 2mtr.
- Water Circulation Unit with pump (Optional)

Key Features

- Switchable between TIG (argon arc) and MMA (manual arc) welding.
- Pulse TIG for deeper, cleaner welds with less oxidation.
- 2-step / 4-step and repeat welding modes.
- Adjustable arc force, hot start, and thrust current.
- Foot pedal and remote control interface supported.
- VRD (Voltage Reduction Device) for enhanced operator safety.
- Stable arc, low spatter, and high ignition reliability.
- Peak current and inner loop control for stable output under load.
- Compact, lightweight design with high portability.
- Single knob adjustment and digital display for ease of use.

Applications

- Stainless steel fabrication
- Pressure vessels and pipeline welding
- Automotive & vehicle repair
- Aerospace & shipbuilding
- Construction and structural welding
- General repair and maintenance workshops