ador
peace of mind™

CHAMP PULSE 500

INVERTER BASED MULTIPROCESS PULSED MIG WELDER

3 Phase | CC | CV | MMA | DC TIG | MIG/MAG

CHAMP PULSE 500

Key Attributes

- CHAMP PULSE 500 outfit is an inverter-based system with advanced IGBT protection mechanism.
- The equipment supports different welding process modes: SMAW, GTAW, GMAW, PULSE MIG with single and double pulse mode along with preprogrammed synergic data.
- Front panel comes with G-LCD and digital encoder which makes it user friendly.
- Built in various protection features allows it to work in the harsh environment.
- Machine can be used for manual as well as automatic welding application.
- With its different welding modes, the machine is suitable for welding with different materials like MS / SS / AL / FCAW / CORTEN STEEL / Al+Mg / Al+Si / DCu.
- The system consists of Power Source, Suitable wire feeder, Gas cooled MIG torch and interconnecting cables and control cables between wire feeder and power source.
- Alternatively, the system can be provided with Power Source, Suitable wire feeder, Water cooling unit, Water cooled MIG torch and interconnecting cables and control cables between wire feeder and power source.
- CE Marking: The CE marking signifies the manufacturer's declaration of conformity to applicable European directives and standards.

Protection

- The equipment is provided with following protections:
- **Under Voltage:** TRIP LED (Red) glows if supply voltage goes low (< 340VAC.)
- **Over Voltage:** TRIP LED (Red) glows if supply voltage goes high (>470 VAC).
- **Over Temperature:** TRIP LED (Red) glows if the temperature of the main power components is over the Safety limits
- **Single phasing protection:** If any one of the three phases (R, Y, and B) is absent, welding will stop, and TRIP LED (Red) will glow
- **Motor overload Protection:** If during welding Err 005 occurs then it indicates that motor gets overloaded. So, to remove this error just restart the machine.
- Welding current would not be available when TRIP LED (Red) glows.

CHAMP PULSE 500

Salient features

- Inverter based advanced digitally controlled SMAW, GTAW, GMAW and SINGLE/TWIN PULSE MIG welding outfit.
- Synergic mode of operation for single point control that allows Automatic parameter selection (Synergic) in MMA, TIG, MIG and Pulse MIG mode.
- Advanced digital control algorithms enable superior arc characteristics.
- Digital control of inverter for spatter less MIG welding application.
- Fine Arc length control in Pulse Mig and MIG welding mode for different types of welding application.
- Excellent arc force and hot start control in MMA mode for low current application.
- Twin pulse mode in Pulse Mig for low heat input.
- Digital pulse feedback from feeding motor for accurate control of wire speed.
- Graphical-LCD for displaying machine's settings along with dual 7 segments LED display for actual current and voltage display.
- Wire Feeder with digital console for remote parameter setting.
- Facility to store 100 welding programs (weld parameter) for easy save and recall operation.
- Addition of synergic program externally for a particular wire using USB facility.
- Calibration mode - measure welding circuit resistance and inductance for enhanced accuracy - recommended after changing torch or interconnection cable.

Parameter Setting Specifications In Different Welding Modes

Parameter	Value (MMA)	Value (TIG)	Unit
Welding Current	15-500	15-500	Amps
Arc Force	0-100	NA	%
Hot Start	0-100	NA	%

Parameter	Value (Hi-Root)	Unit
Gas Pre Flow Time	0-10	Sec.
Inductance	0-40	%
Welding Current	30-215	Amps
Welding Voltage	10.0-44.0	Volts
Crater Current	30-500	Amps
Crater Voltage	10.0-44.0	Volts
Burn Back Time	0.01-5.0	SEC
Post Flow	0-10	SEC

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Parameter Setting Specifications In Different Welding Modes

Parameter	Value (MIG)	Value (Pulsed MIG)	Unit
Gas Pre Flow Time	0-10	0-10	Sec.
Inductance	0-40	NA	%
Welding Current	30-500	30-500	Amps
Welding Voltage	10.0-44.0	10.0-44.0	Volts
Crater Current	30-500	30-500	Amps
Crater Voltage	10.0 -44.0	10.0-44.0	Volts
Burn Back Time	0.01-5.0	0.01-5.0	Sec.
Post Flow	0 TO 10	0-10	Sec.
Arc Length	NA	(-40) - (+40)	%
Twin Pulse Frequency	NA	1.0-10.0	Hz
Twin Pulse Duty	NA	10-90%	%
Twin Pulse Current Ratio	NA	0-200%	%

Technical Specifications

Parameter	Champ Pulse 500	Unit
Input Suply Voltage	415 +15% -10%; 3; 50/60	VAC; NO.; HZ
Input Power @ 415v Supply In MMA/TIG/Pulse MIG Mode	20 KVA @ 100% Duty Cycle 30KVA @ 60% Duty Cycle	KVA
Input Power @ 415v Supply In MIG Mode	17.5 KVA @ 100% Duty Cycle 25.5KVA @ 60% Duty Cycle	KVA
Input Current @ 415v Supply In MMA/TIG/Pulse MIG Mode	28 AMPS @ 60% Duty Cycle 41 AMPS @ 100% Duty Cycle	Amps
Input Current @ 415v Supply In MIG Mode	24 AMPS @ 60% Duty Cycle 35 AMPS @ 100% Duty Cycle	Amps
Efficiency	Upto 85	%
Power Factor	0.90 Max.	COS Ø
Open Circuit Voltage @ 415v Input Supply	72V(+/-5V)	V DC
Welding Current Range	15-500 IN MMA / TIG Mode 30 - 500 IN MIG / PULSED MIG Mode 30 - 215 IN HI-ROOT Mode	A
Welding Current (40°c) Duty Cycle	387 @ 100% Duty Cycle 500 @ 60% Duty Cycle	A
Wire Feeder In (MIG / PULSED MIG)	Provided With Digital Front Panel Control For Setting Wire Speed, Current & Voltage/Arc Length	-

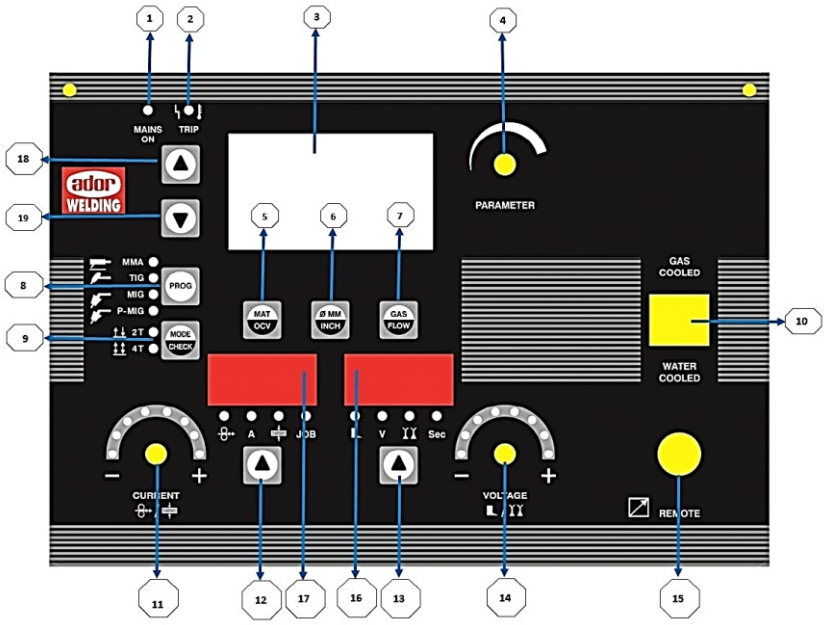
CHAMP PULSE 500

Technical Specifications

Parameter	Champ Pulse 500	Unit
Inbuilt VRD (Voltage Reduction Device) Unit	OCV Reduces to 8-10V in MMA Mode When Machine Is In No Load Condition	-
Protections	1) Over Voltage Undervoltage / Single-phasing / Over Temperature / Over current Protections 2) MMA/ TIG/ MIG/ Pulse MIG/ 2t / 4t / Gas Cooled /Water Cooled Selection Switch 3) Menu Key for Selection of Synergic Program is provided. 4) Wire Speed/ Current/ Plate Thickness Selection Switch. 5) Up/down Switches to Set the Pre Flow/ Post Flow/burn Back 6) 3 Encoders To Set Current, Set Voltage & Additional Parameters. 7) Wire Feeder Connector 8) Remote Connector 9) Stud Type Output Connectors 10) Mains On 'green' Color Indication Led. 11) Trip 'red' Color Led for Indication of Machine is Under Protection Mode. 12) Encoder For Selected Parameter Value Increment / Decrement. 13) Usb Port is Provided for Load Program of Particular Wire Externally.	-
Program Storage Facility	100 Jobs.	-
Cooling	Forced Air	Type
Class Of Insulation	H	Class
Degree Of Protection	IP23(S)	-
Auxiliary Power Supply for Water Cooling Unit	240 V / 300 VA	VAC / VA
Dimensions (Power Source+Trolley) LxWxH	1147 X 574 X 904	MM
Total Weight Of Gas Cooled Outfit (Power Source + Trolley)	89	KG
Colour	Post Office Red	

CHAMP PULSE 500

Front Panel Display



1. **Mains on indication:** This LED (Green) will glow when machine is turned on.
2. **Trip Indication:** When any of the trip condition such as Over Voltage, Under Voltage, Thermal Error Occurs this LED will glow.
3. **Graphical LCD:** Displays the current settings of the machine. Parameters set by user for particular job. E.g. set welding current, voltage, material, etc. depending upon the mode selected by PROG key.
4. **Parameter Knob:**
   - In MMA mode, OCV will appear after pressing parameter knob.
   - In MIG/P-MIG mode by pressing this encoder user will enter into parameter edit, save and recall mode. It is used for setting selected parameters. By rotating knob clockwise (++) or anticlockwise (--) user can change the selected parameter.
   - In MIG/P-MIG mode, after selection of specific program using menu key, for selection of this program press parameter knob.
5. **Left Key:**
   - In MMA and TIG modes, switch to select diferent welding material e.g. SS, MS, AL etc in synergic mode.
   - In Mig and Pulse Mig mode, Used for moving cursor left while setting OTP while USB file reading.
6. **Menu key:**
   - In MMA and TIG modes, switch to select diameter of feeding wire in P-MIG/MIG and electrode size in MMA mode.
   - In Mig and Pulse Mig mode, it is used as menu key. For first press, goes into menu page for selecting particular program (E.g. MS 0.8 ArCo2). And for second press came out of Menu mode.
7. **Right Key:** In Mig and Pulse Mig mode, Used for moving cursor right while setting OTP while USB file reading.
8. **Program selection:** Switch to select between MIG mode, TIG mode, MMA mode and Pulse MIG mode as indicated by left hand side led indication.
9. **Mode selection:** Key to select between 2T and 4T mode in TIG, MIG and Pulse MIG mode.
10. **Cooling Mode selection:** Switch to select between gas cooled or water cooled mode.

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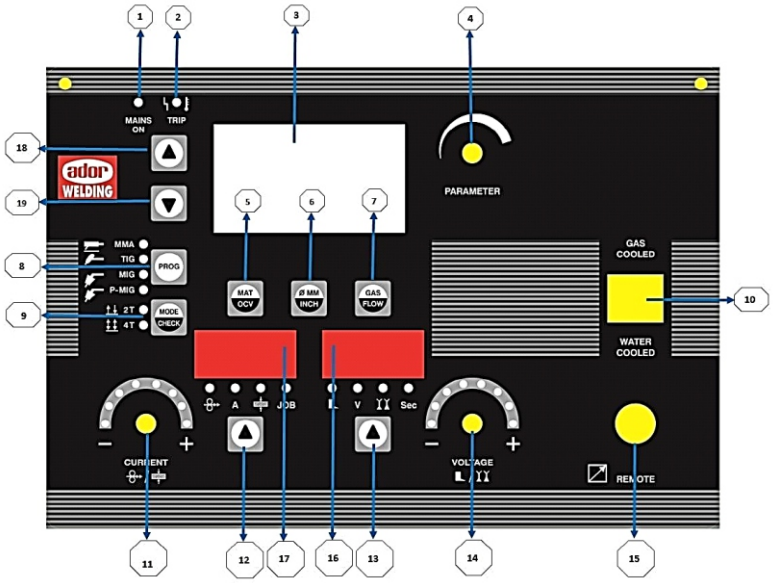
Front Panel Display



11. **Set Current Knob:** To set welding current, wire feeding speed, material thickness or Job as selected by switch no 12.
12. **Select parameter:** Welding current, wire feeding speed, material thickness or Job, which is to be set using set current knob.
13. **Select parameter:** Welding voltage, arc length, arc force, hot start, which is set using set Voltage knob.
14. **Set Voltage Knob:** To set welding voltage and arc length, Inductance as selected by switch no 13 in and welding process selected.
15. **Connector for Remote control:** Reserved for future scope.
16. **Seven segment displays:** To display parameter value selected by switch no 13.
17. **Seven segment displays:** To display parameter value selected by switch no 12.
18. **Up Key:** To select the parameter in MIG and P-Mig mode after pressing the Parameter Knob 4.
19. **Down Key:** To select the parameter in MIG and P-Mig mode after pressing the Parameter Knob 4.
20. **USB Port:** Used for Reading text file containing program for particular wire from pen-drive.

PULSEFEED 40 SFG/ SFW

4 ROLL CLOSED WIRE FEEDER FOR CHAMP PULSE 500

PULSEFEED 40 SFG

PULSEFEED 40 SFW

Salient Features

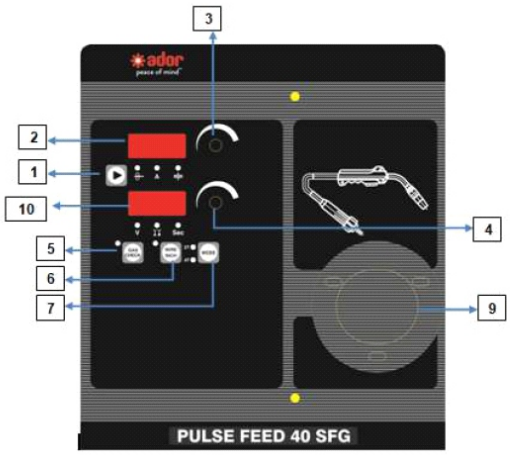
- Powered by 42 V DC High Torque Permanent Magnet type DC Motor with tacho-generator / pulse encoder feedback
- Heavy duty reduction gearbox for smooth and reliable operation
- Quick changeover mechanism allows quick replacement of wire drive rollers
- Wire feeder with digital control and display unit makes it ideal for operations
- Multiple functions and settings are provided
- Quick replacement of wire spool
- Light weight, compact and portable for easy handling.

Technical Specifications – Wire Feeder

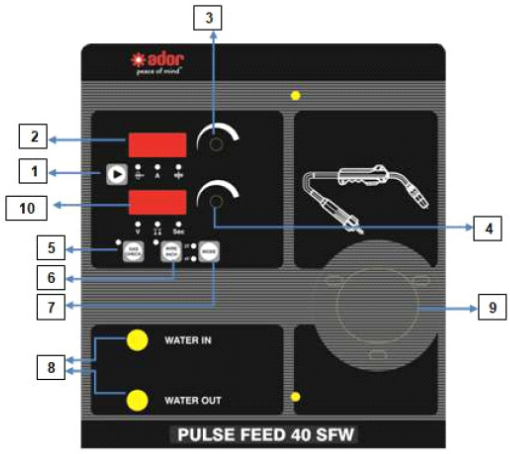
Parameter	Value	Unit
Normal Input Supply Voltage	44	Volts Ac
Rated Power	80	Watts
Wire Drive Motor	4 Roll Drive Unit With Encoder F/b	-
Feed Mechanism	4 Roll	-
Suitable For Wire Diameter	Solid Wire: 0.8, 0.9, 1.0, 1.2, 1.6 Flux Cored Wire: 1.2, 1.6 Aluminium Wire: 1.0, 1.2, 1.6	Mm
Wire Feed Speed	1.0 - 24.0	Meters / Minute
Wire Spool Diameter	300	MM
Suitable For Wire Spool Capacity	15 / 18	KG
Torch End Connection Adaptor	Euro	-
External Dimension (lx W X H)	697 X 285 X 511	MM
Dual Seven-segment Display And Encoder For Setting Welding Parameters.	-	-
Weight (Without Wire Spool & Without Interconnection Cable)	19	KG

PULSEFEED 40 SFG/ SFW

Wire Feeder Display & Settings



Gas Cooled System Wire Feeder
Pulse Feed 40 SFG



Water Cooled System Wire Feeder
Pulse Feed 40 SFW

1. Parameter setting: On pressing the KEY 1, a) Wire feeding speed, b) Welding current, c) Material thickness can be set by rotating the ENCODER 3. The set parameters are indicated by the 7-segment Display 1 (indicated by 2 in the figure).
2. 7-segment Display 1 ((indicated by 2 in the figure) : Displays the parameters selected by KEY 1 and can be changed by the ENCODER 3.
3. Encoder for Parameter setting (ENCODER 3) : Sets Wire feeding speed, Welding current, material thickness as selected by KEY 1. Value of selected parameter is displayed in 7-segment Display 1 ((indicated by 2 in the figure)
4. Voltage / Arc Length setting ENCODER 4: To set welding voltage or Arc length, whichever is selected in the Power source display panel.
5. GAS check KEY 5: To check the flow of gas without carrying out welding.
6. Wire Inch KEY 6: To rotate the wire feeder motor when welding is off.
7. Mode selection KEY 7: To select between 2T and 4T mode in TIG, MIG and Pulse MIG mode.
8. Water In and Water Out connections (indicated by 8 in the figure): Connectors for water circulation water in and water out connection to welding torch (in case of systems with Water cooling Unit and Water cooled MIG Torch)
9. Welding Torch Euro connection (indicated by 9 in the figure)
10 Seven Segments Display-2 (indicated by 10 in the figure): To display the parameters set in the Power source display panel and can be varied by the Voltage / Arc Length setting ENCODER 4.

WARRANTY DETAILS

12 months from the date of commissioning. ADOR WELDING LIMITED warrants that all new items and accessories sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications. Any wear part of the WIRE FEEDER is not covered under warranty.

In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.

Backed by dedicated customer care package.

MIG TORCH – 500 AMPS

GAS COOLED / WATER COOLED

Gas Cooled MIG Torch
HIPRO 502 C (E)

Salient Features-HIPRO 502 C (E)

- Self-cooled welding torch.
- Ergonomic handle.
- Mechanical switch.
- Wire liners for all materials and dimensions.
- Contact tips for long life.

Water Cooled MIG Torch
TW 500 (WE)

Salient Features-HIPRO 502 C (E)

- Water cooled welding torch.
- Ergonomic handle.
- Mechanical switch.
- Wire liners for all materials and dimensions.
- Contact tips for long life.

Parameter Setting

Parameter	Hipro 502 C (E)	Hipro TW 500 (WE)	Unit
Max. Current @ 60% Duty Cycle	500 (with Co2 Gas) 450 (with Mixed Gas)	500 (with Co2 Gas) 450 (with Mixed Gas)	Amp
Torch Cable Length	3, 4, 4.5	3, 4, 4.5	Meters
Torch Cable Type	Co-axial	Co-axial	-
Torch Adapter	Euro		Eurotype
Torch Cooling	Gas Cooled	Water Cooled	Type
Suitable For Wire Size Diameter	0.8, 1.0, 1.2, 1.6	0.8, 1.0, 1.2, 1.6	Mm

WATER COOLING UNIT

Parameter Setting

Parameter	WCU-302	Unit
Input Supply	230 V, 1, 50/60	Volts Ac, No., Hz
Max Motor Power	220	W
Max Pump Pressure	2.5	Bar
Max Pump Flow Rate	10	L/min
Tank Capacity	12	L
Connector Size	1/4 ² BSP, 19 TPI	In/Out
Dimensions (LxWxH)	695x310x285	MM
Weight	18	KG

WARRANTY DETAILS

6 months from the date of commissioning. ADOR WELDING LIMITED warrants that all new items and accessories sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications. Any wear part of the MIG Torches is not covered under warranty.

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