



**SUVARCHALA**  
MACHINES PVT LTD

# LUMINA 400

**INDUSTRIAL HEAVY DUTY DIGITAL WELDER  
(MIG/MAG WELDING TIG WELDING SMAW/ARC/STICK WELDING)**



**All Type of welding, Plasma Cutting & Laser Cutting Machines Available**

21, Third Floor, Adishwar Gold, Nr. Galaxy Business Mall, S.P. Ring Road, Nikol, Ahmedabad - 382350

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# TECHNICAL SPECIFICATIONS

## Input Specifications

Input Supply: 330 - 500VAC, 3Ph, 50/60Hz  
Input @ 400A / 36V: 17.8KVA / 22.7HP, 25A@415V  
Input @ 310A / 32V: 12.5KVA / 15.8HP, 17.3A@415V  
Input @ 250A / 30V: 9.3KVA / 11.8HP, 13A@415V

## Mechanical Specifications

(Power source with wheels)  
Dimensions (LxWxH): 650x345x600mm  
Weight: 50KG  
Power Source + Wire-feeder + Trolley  
Dimensions: 1010 x 600 x 1400mm  
Weight: 70kg

## Output Specifications

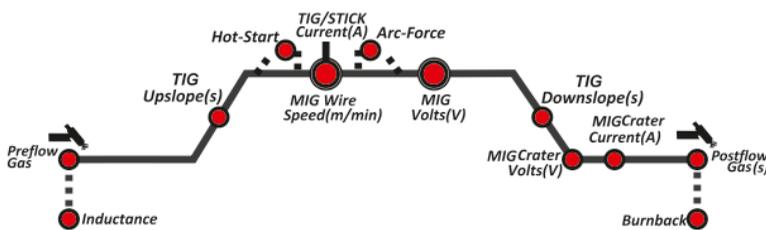
Output Current Range: 10A to 400A  
Duty Cycle @ 60%: 400A / 36V  
Duty Cycle @ 100%: 310A / 32V  
Open Circuit Voltage(OCV): 70V

## MIG Cycle Parameters

Inductance: -8 to +8  
Prewlow Gas: 0-25secs  
MIG Speed: 0.8-22m/min  
MIG Voltage: 14-42V  
Crater Current: 0.8-22m/min  
Crater Voltage: 14-42V  
Burnback: 0.1-5sec  
Slow-Start-Level: 10-90%

## Protection Features

OT - Over Temperature (when internal temperature more than  $P_{70}$ )  
SP - Phase loss protection (when any phase is not present)  
UV/OV - Input supply protection (when supply is <330V or >500VAC)  
OC - Over Current (when over current flows through IGBT)

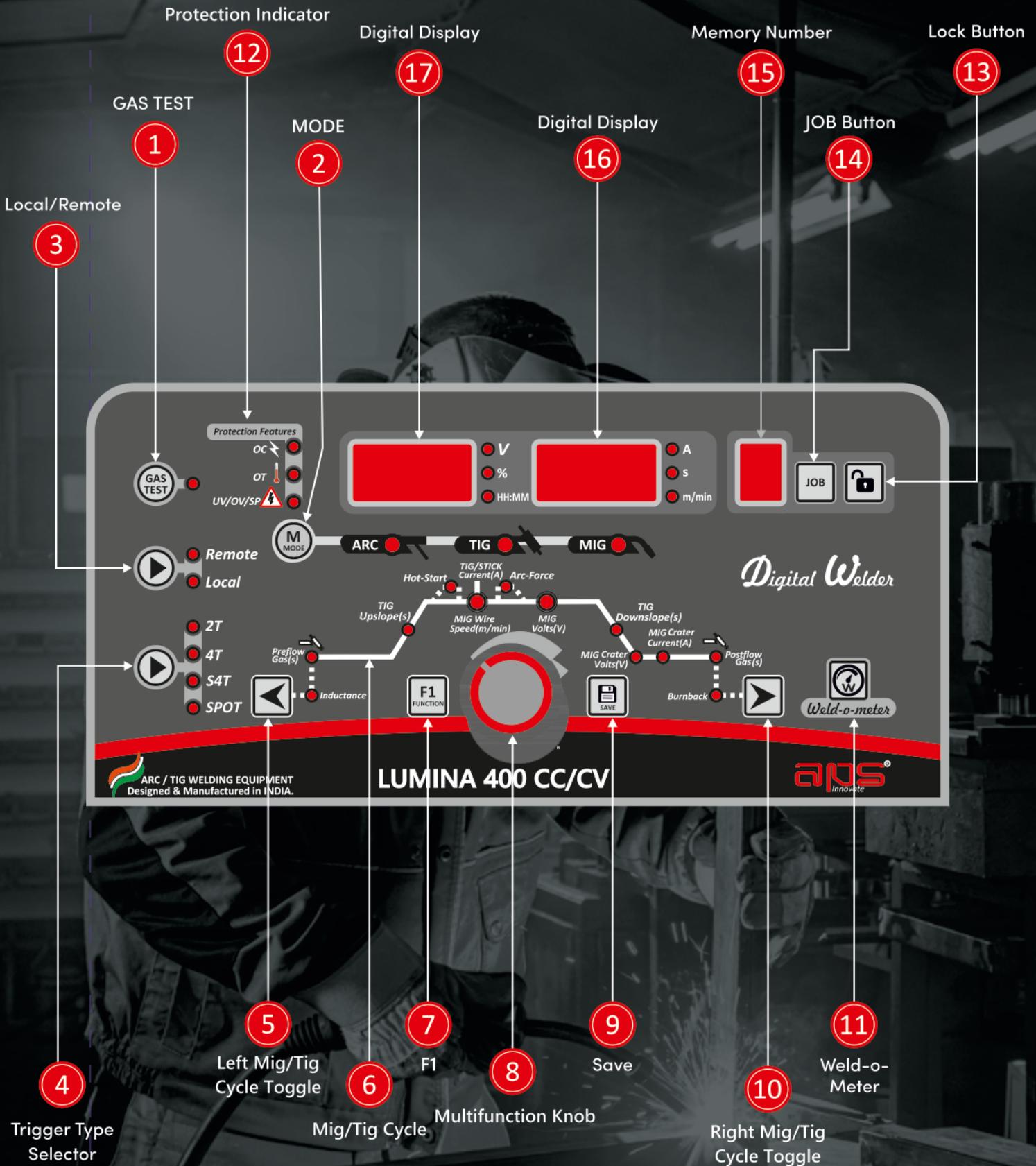


A Complete MIG Cycle with all parameters adjustable precisely using a single knob. All thanks to our "DigiCon Technology". Every parameter being set is visible on the display to the user making the interface very simple and user friendly.

Its no secret that power components like IGBTs, Diodes and Rectifiers need to be operated reliably in harsh environments. That's why APS takes extra measures in designing its products, by isolating these components completely with steel compartments, we ensure their reliability when operating in extreme environments.



# Front Panel Description



## Front Panel Description

1. **GAS TEST:** Check and set the gas flow rate without welding. This has an auto shut of after 10 sec.
2. **MODE:** Toggle button to select welding process of ARC, TIG, MIG.
3. **Local/Remote:** Toggle button to select Amp control using Panel or Remote.
4. **Trigger Type Selector:** Toggle button for select 2T, 4T, S4T, Spot mode of torch trigger operation.
5. **LeftMIG/TIG Cycle Toggle:**MIG/TIG cycle parameter toggle to the left.
6. **MIG/TIG Cycle:**MIG/TIG cycle with adjustable parameter indicator.
7. **F1:** Funtion button to set, remote selection, spot timer, Slow-Start Level and automation functions.
8. **Multifunction Knob:** Encoder to set parameters.
9. **Save:** Save button to return to save parameter.
10. **RightMIG/TIG Cycle Toggle:**MIG/TIG cycle parameter toggle to the right.
11. **Weld-o-meter:** Used for checking actual welding hours. Track welder productivity.
12. **Protection Indicators:** Fault/Protection indicators.
13. **Lock Button:** Lock button to Lock an unlock the Panel using a 3 digit digital password.
14. **JOB Button:** 10 programmable memories to store welding parameter for ready reference and usage.
15. **Memory Number:** Memory number indication to select the storage location.
16. **Digital Display:** Digital display to show Current (A), Time (s) and speed (m/min).
17. **Digital Display:** Digital display to show Voltage (V), Percentage (%), Weld-o-meter time (HH:MM).

An Ergonomic digital front panel enhances ease of operator and ensures a fatigue free operation for hours together. An easy to understand operating panel helps the welder to learn quickly and adapt to the machine. Gone are the days when the welder has to adjust and tune himself according to the machine, the LUMINA series makes sure that the welder is able to quickly set the machine and concentrate his core job "WELDING". LUMINA has also ensured welder comfort by with AUTO STOP feeder mechanism that stops feeding wire when not welding.



# The Complete MIG Welding Package

## Specifications of Wire Feeder

Wire Diameter (mm): 0.8-1.6mm

Wire Drive Motor Type: PMDC

Drive System Type: 2/4 Roll

Wire Speed Control: Linear Supply 0 to 20V

Dimensions(LxWxH): 635x240x450mm

Weight: 12 KG



- » **Weld-O-Meter**  
Record welding arc timer and view it on display. Ensure productivity.
- » **Storage Programs**  
Upto 10 Storage programs for easy recalling of parameters.
- » **IN-Built HF Unit**  
High frequency non touch start feature
- » **IP-23 Rated All Steel Enclosure**  
Suitable for outdoor and tough industrial environments.
- » **VRD for welder safety**  
Reduces Open Circuit Voltage to ensure welder safety.
- » **Fan -On-Demand**  
FOD reduces power consumption and dust ingress.
- » **Foot-Pedal / Remote**  
Improves welder ease by giving complete control  
Option to select Peak Current or Base Current via remote.
- » **Heavy Output Terminals**  
Lug type / Euro heavy duty rated terminals.



IGBT  
Module

3  
PHASE

CC

DC

FOD

Weld-O-Meter

LOCK



A) Lumina 400 power source with wire-feeder with interconnecting cable 5 meter and 50sqmm N36-ER45 MIG Torch, Earthing Clamp set 3 meter with 50 sqmm cable Preheater, Co2 regulator, Flowmeter.



B) Welding machine trolley with swivel support for wirefeeder. Welder accessories and tools storage bay and cylinder holding facility.

## ACCESSORIES AND PACKAGES



1) Electrode Holder 400A with 3 meter 50sqmm cable

2) Electrode Holder 400A with 3 meter 35sqmm cable



3) Earthing Clamp 400A with 3 meter 70sqmm cable

4) Earthing Clamp 400A with 3 meter 35sqmm cable



5) Interconnecting Cable 5 meter 50sqmm.

6) Interconnecting Cable 10 meter 50sqmm.

7) Interconnecting Cable 15 meter 50sqmm.



### MIG Welding (Gun)

1) N24-ER25

2) N36-ER45

For Torch consumable refer to TORCH Catalog.



### Wire Feed Unit

1) Wire Feed Unit - WFSSJ11

2) Plastic Spool Cover - PSC-WFSSJ11



### Gas Accessories

1) CO2 Regulator - AREGSSDG-CO2

2) Co2 Preheater - APREHEATER-230VAC

3) Gas Flow Meter - AGASFLOWMTR



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