

# INDUSTRIAL HEAVY DUTY DIGITAL WELDER

**DigiCon**  
Inside

**aps**<sup>®</sup>  
Innovate



## **APOLLO 400**

GTAW / TIG / Pulse TIG Welding  
SMAW / ARC / Stick Welding

# 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  
Cooler power consumption: 0.4HP (Peak)

## Mechanical Specifications

(Power source with wheels)  
Dimensions (LxWxH): 650x345x600mm  
Weight: 49.5KG  
  
(Power source + cooling unit + trolley)  
Dimensions (LxWxH): 1090x450x1050mm  
Weight: 95.8KG

## Output Specifications

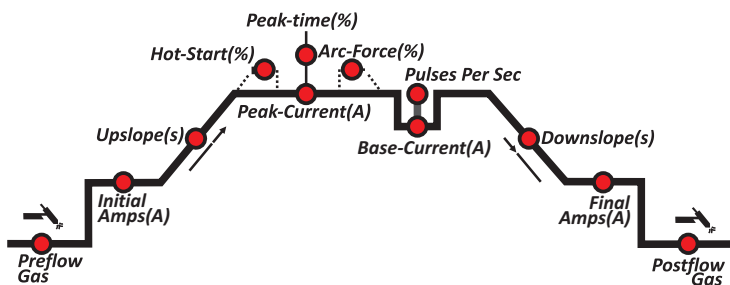
Output Current Range: 10A to 400A  
Duty Cycle @ 60%: 400A / 36V  
Duty Cycle @ 100%: 310A / 32V  
Open Circuit Voltage (OCV): 75V – 95V DC  
**Cooling unit:**  
Tank Capacity: 50Litre  
Cooling type: Forced Air on Radiator  
Heat Exchange: Radiator with copper tubing  
Flow switch contact: Normally open  
(Close when coolant flow)

## TIG Cycle Parameters

Preflow Gas time: 0–25secs  
Postflow Gas time: 0–25secs  
Initial Amps: 10A–400A  
Final Amps: 10A–400A  
Upslope time: 0–25secs  
Downslope time: 0–25secs  
Peak Current: 10A–400A  
Base Current: 10A–400A  
Pulse Frequency: 0 to 50 Hz  
Peak time: 10%–90%

## Protection Features

OT - Over Temperature (when internal temperature more than 70°C)  
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)  
FL - External Fault (for connecting PLC/Torch cooling unit fault signal)

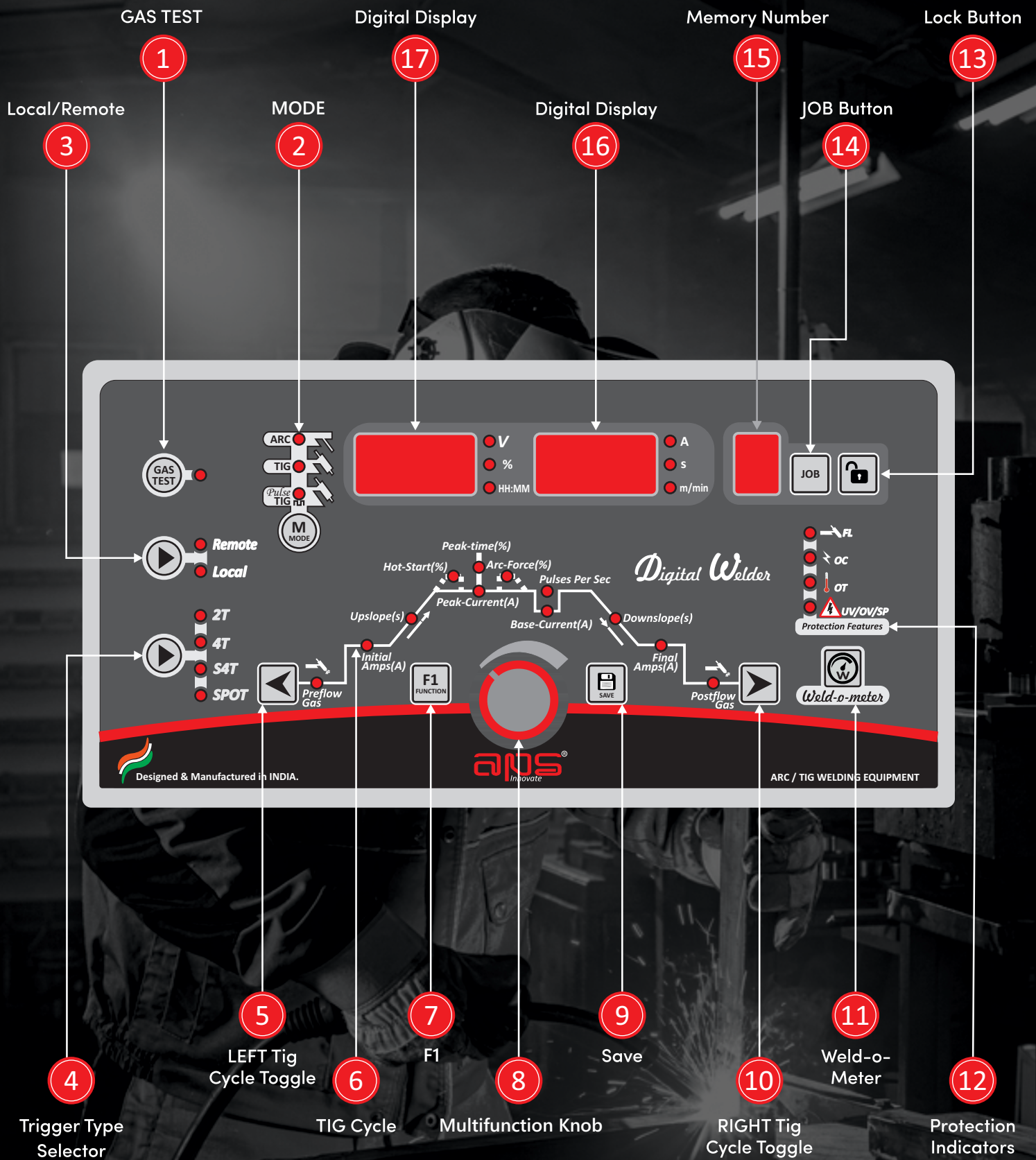


A Complete TIG Cycle with all parameters adjustable precisely using a single knob. All thanks to our **“DigiCon Technology”**. Every parameter being set is visible on the display to the user making the interface very simple and user friendly.

It's 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, Pulse-TIG.
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. **LEFT Tig cycle Toggle:** Tig cycle parameter toggle to the left.
6. **TIG Cycle:** Tig cycle with adjustable parameter indicator.
7. **F1:** Function button to set, remote selection, spot timer and automation functions.
8. **Multifunction Knob:** Encoder to set parameters.
9. **Save:** Save button to return to save parameter.
10. **RIGHT Tig cycle Toggle:** 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 APOLLO series makes sure that the welder is able to quickly set the machine and concentrate his core job "WELDING". APOLLO has also ensured welder comfort by the 4T, S4T and Spot trigger control.



# The Complete TIG Welding Package

Gas cylinder trolley with EASY-LOAD system has a special tilting base for loading cylinder by a single person, without any assistance. No lifting required, just TILT and PUSH.

## » Weld-O-Meter

Record welding arc timer and view it on display. Ensure productivity.

## » Torch Coolant protection

Flow switch indication to protect TIG Torch from damaging due to lack of coolant flow.

## » Storage Programs

Upto 10 Storage programs for easy recalling of parameters.

## » Ergonomic Trolley

Gas cylinder trolley with EASY-LOAD system  
Complete welding setup in one trolley for easy mobility.

## » IN-Built HF Unit

High frequency non touch start feature

## » Spot / Tack Timer

Set timer for Tacks and ensure even looking tacks.

## » 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





1) Apollo 400 Digital Pulse Tig Power Source

Order Code: APS-A400



2) Apollo 400 Digital Pulse Tig Power Source

Order Code: APS-A400-WC50FS

## ACCESSORIES AND PACKAGES



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

Order Code: AEH400A3M50SQ

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

Order Code: AEH400A3M355Q



3) Earthing Clamp 400A with 3 meter 50sqmm cable

Order Code: AEC400A3M50SQ

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

Order Code: AEC400A3M355Q



5) TIG Welding Torch Water/Liquid Cooled 400Amp

Order Code: AWC4004M (4mtr) / AWC4008M (8mtr)

6) TIG Welding Torch Gas Cooled

Order Code: AGC2004M (4mtr) / AGC2008M (8mtr)

7) TIG Welding Torch Gas Cooled

Order Code: AGC3004M (4mtr) / AGC3008M (8mtr)

8) TIG Welding Torch Water/Liquid Cooled 400Amp

Order Code: AWP18-4M(4mtr)/AWP18-8M (8mtr)

9) TIG Welding Torch Gas Cooled

Order Code: AWP26-4M(4mtr)/AWP26-8M (8mtr)



10) Argon Regulator Single Stage Double Gauge

Order Code: AREGSSDG-ARG

11) Gas Flow Meter

Order Code: AGASFLOWMTR



12) TIG Torch Cooling unit WC50FS  
Stainless steel Pump, Inbuilt Flow-Switch with indication and Fault output for TIG torch protection

Order Code: APS-WC50FS

AUTHORISED DEALER :