

STC-205Di



Quick Specs



Light industrial Application:

Installation and set-up
Repair and maintenance
Thin sheet metal fabrication workshops
Chemical and process industry

Process:

DC TIG (GTAW)
Plasma Cutting
Stick (SMAW)

Input Power: 230V, 1-Phase

Amperage Range: TIG: 5-200A
PAC: 20-50A/MMA: 10-160A

Rated Output at 40°C (104°F):

TIG: 200A at 18V @60% Duty Cycle
PAC: 50A at 100V @60% Duty Cycle
MMA: 160A at 26.4V @60% Duty Cycle

Weight : 36KG

For TIG, Plasma and Stick Welding

A combo machine for arc welding and plasma cutting

TC-205Di is the ideal DC TIG welding and Air Plasma Cutting solution for installation, repair and maintenance applications.

TC-205Di built base on the PROTIG system, offers precise and efficient TIG welding process with full DC pulse TIG functions what ever you need. Accurate and refined HF ignition and the necessary control, power and work capacity to reliably complete a variety of professional welding tasks.

TC-205Di also comes with a 50A@60 heavy duty cycle plasma cutting power source. What you need for any metal welding or cutting works, you just get this combo machine and it's all you needs.

Easy operation and full functions: From the control panel allowing fast adjustment of all necessary controls for DC TIG welding with either HF or contact ignition. It's also very convenient to store or call out the welding parameters from the memory channels.

Specialist Features

Precision Arc Performance:

• Pulse control:

Built in pulsing functions help minimize heat input on thin materials, and provide for a faster freezing weld puddle for uphill welding on curved surfaces such as process piping. The TIG pulse also helps moderate filler metal deposition for consistent bead appearance.

• High-frequency TIG starting:

Makes it easy to establish an arc under a variety of conditions. Enhances quality by minimizing the potential for weld contamination created by tungsten inclusions in the weld.

• Refined arc ignition from 5A (optional 3A).

• Pilot Arc for superior arc performance and easy start.

• HF or Non-HF Arc ignition: reliable plasma arc initiation without high frequency.

• Continuous Output Control: focus the arc for different material thickness.

• Rapid Arc Restrike: fast cutting through gaps, even expanded metal.

• Powerful with heavy duty: 50A @60%.

• Hot Start Function reliably ignites the electrode and melts perfectly to ensure the best quality even at the start of the seam.

• Arc Force makes it easier to weld large-drop melting electrode types at low current strengths with a short arc in particular.

• Fast Spot Arc system simply controls the spot arc parameter and offers a stable arc.

• 4T Trigger Hold allows to hold the present current by user until press the trigger again.

• Fast, precise, clean arc ignition and arc ending.

• 10 channels memory capacity



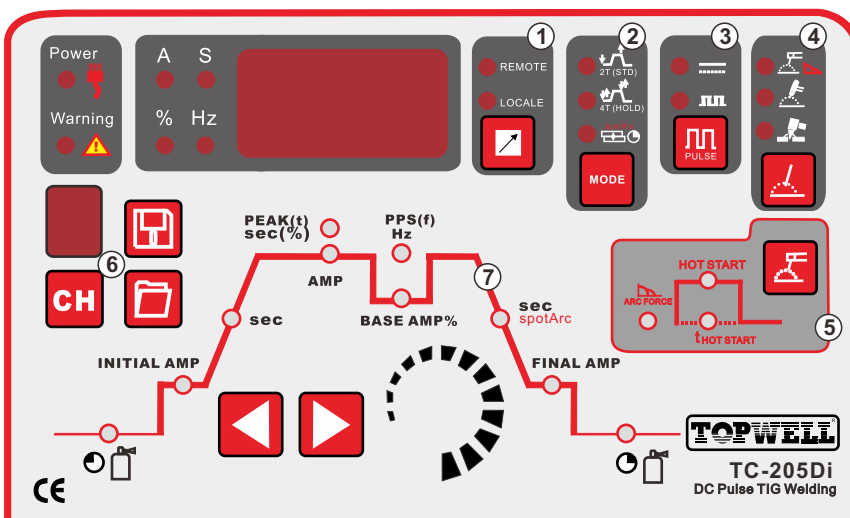
Outstanding Quality:

- Newly designed using the latest power electronic technology for improved reliability.
- CE Certified.

Technical specifications

Item No	STC-205Di
Rated Input Voltage	1PH ~ 230V +15%
Max. Load Power Capacity	TIG: 4.5KVA MMA: 5.6KVA PAC: 6.3KVA
Rated Duty Cycle (40oC)	60%
	TIG: 200A/18V MMA: 160A/26.4V PAC: 50A/100V
	100%
	TIG: 160A/16.4V MMA: 130A/25.2V PAC: 40A/96V
Welding Current/Voltage Range	TIG: 5A/10.2V~200A/18V MMA: 10A/20.4V~160A/26.4V PAC: 20A/88A~50A/100V
Open Circuit Voltage	MMA: 70V~80V ; PAC: 260V~290V
Power Factor	0.73
Efficiency	80%
TIG Pulse Frequency	0.2Hz~50Hz
TIG Pulse Width (Ratio)	1~100%
TIG Arc-starting Current	10A~160A
TIG Crater-filling Current	5A~200A
TIG Current Up-slope Time	0.1S~10S
TIG Current Down-slop Time	0.1S~15S
TIG Pre-Gas Time	0.1S~5S
TIG Flow-Gas Time	0.1S~15S
TIG Spot Arc Time	0.1S~10S
MMA Arc Force	10A~100A
MMA Hot Start Time	10A~160A
MMA Hot Start Current	2S
PAC Required Air Pressure	0.3~0.5MPa
PAC Gas Pro-flow/Retard Time	1S~10S
PAC Max.Cutting Thickness	18
Dimension (LxWxH)	410X190X305mm
Weight (KG)	15KG

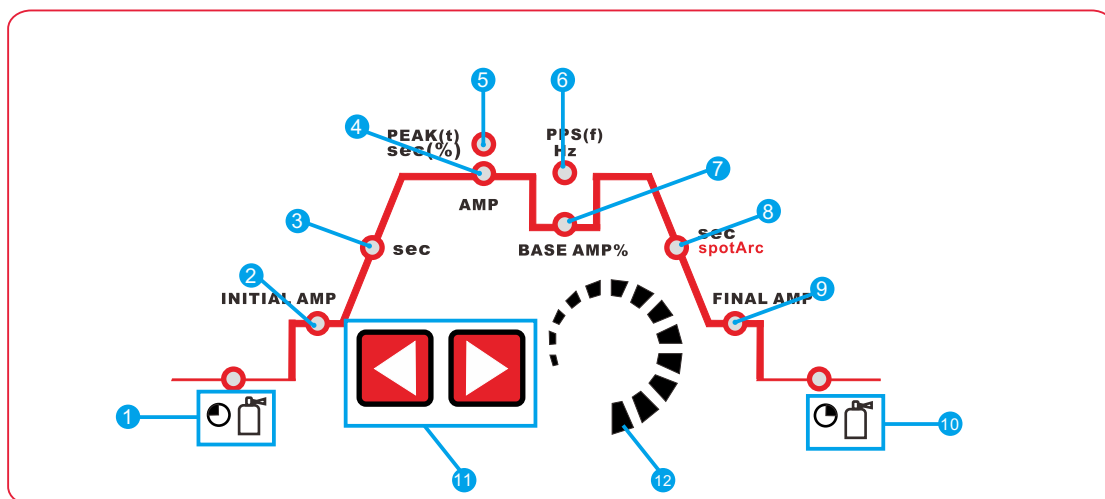
General View of Control Panel



Control Panel Parameter Values

- 1.Remote:** used for foot pedal or Remote torch.
Local: adjusted Currents by face panel.
- 2.2T/4T holding mode**
Spot Welding mode selection
- 3.Pulse ON/OFF selection.**
- 4.Process selection.**
- 5.ARC FORCE**
HOT START
- 6.Memory with capacity of 10 sets parameters.**
- 7.Function sequence (see next chapter)**

General View of Control Panel(Continued)

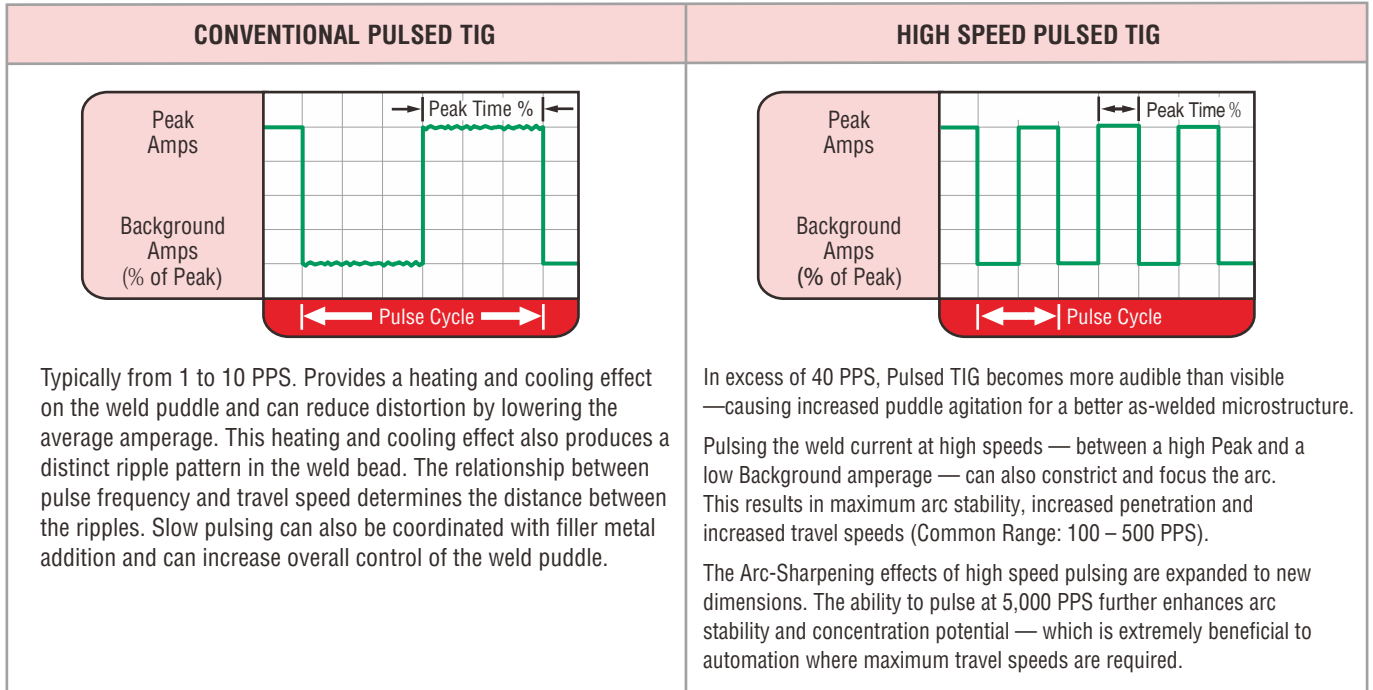


Item	Symbol	Description	
1		Gas pre-flow time (TIG) Absolute setting range 0.1 s to 5.0 s (0.1 s increments).	
2	INITIAL AMP	Ignition current (TIG) Percentage of the main current. Setting	
3	sec	Up-slope time (TIG) Setting ranges: 0.00 s to 20.0 s (0.1 s increments). The up-slope time can be set separately for non-latched and latched.	
4	AMP	Main current (TIG) / pulse current I min to I max (1 A increments)	Main current (MMA) I min to I max (1 A increments)
5	PEAK(t) sec(%)	Pulse time Pulse time setting range: 0.01 s to 9.99 s (0.01 s increments)	
		TIG pulses The pulse time applies to the main current phase (AMP) for pulses.	TIG AC Special The pulse time applies to the AC phase for AC special.
6	PPS(f) Hz	Pulse break time Pulse break setting range: 0.01 s to 9.99 s (0.01 s increments)	
		TIG pulses The pulse break time applies to the secondary current phase (AMP%)	TIG AC Special The pulse break time applies to the DC phase with AC special.
7	BASE AMP%	Secondary current (TIG) / pulse pause current Setting range 1 % to 100 % (1 % increments). Percentage of the main current.	
8	sec spotArc	Down-slope time (TIG) 0.00 s to 20.0 s (0.1 s increments). The down-slope time can be set separately for non-latched and latched.	
9	FINAL AMP	End-crater current (TIG) Setting range 1 % to 100 % (1 % increments). Percentage of the main current.	
10		Gas post-flow time (TIG) Setting ranges: 0.1 s to 20.0 s (0.1 s increments).	
11		Select welding parameters button This button is used to select the welding parameters depending on the welding process and operating mode used.	
12		Select welding parameters button This button is used to select the welding parameters depending on the welding process and operating mode used.	

DC TIG-Pulse

High Speed DC TIG-Pulse Controls

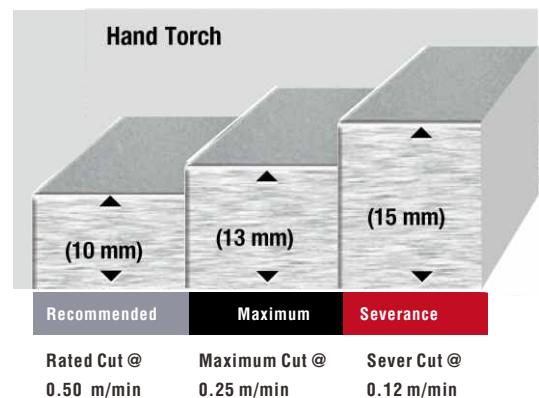
- **PPS Pulses per second (Hz):** DC = 0.1 – 5,000 PPS / AC = 0.1 – 500 PPS
- **% ON – % Peak Time:** 5 - 95% (Controls the amount of time during each pulse cycle at the PEAK amperage.)
- **Background Amps:** 5 – 99% (Sets the low-pulse amperage value as a % of the Peak Amps.)



CUT PERFORMANCE - MILD STEEL



Big cutting power in a small package - the industry's most portable and powerful 40-amp plasma cutter offers 10mm. mild steel cutting. The unit offers easy connection to 115V or 230V input with Auto-Line technology and MVP Adapters.





Accessories

For Standard accessories



TIG torch: TIG-26
 Gas connector:M16
 Cable length 4M
 5-pin control coupler



Electrode holder with cable 2M
Earth clamp with cable 2M



Plasma torch: HT-50CB
 Current: 50 Amp
 Duty Cycle: 60%
 Gas: AIR
 Gas Pressure: 4.5-5.0 Bar
 Gas Flow: 120 LPM
 Ignition: HF
 Post Flow: 50 sec.recommended
 Standard Length: 6M

For Optional accessories



Argon/CO2 gas regular with heater
 For gas:Ar/MAG(Ar80% CO2 20%)
 High pressure gauge:280kg/4000Psi
 Flow:0-30LPM
 Inlet pressure(P1):Ar/MAG:14.8MPa
 Adjust the pressure(P2);0.3MPa
 Meter mode:OUT type
 Inlet thread:CGA580
 Outlet thread:M12-1.0RH
 Weight:0.8kg



TIG torch: TIG-26
 Gas connector:M16
 Cable length 4M
 5-pin control coupler



Trolley:WT-100



Water-cooling unit: WC-100
 Operating Voltage:230V 50/60Hz
 Rated Power:260W
 Cooling Power:1.5KW(1L/MIN)
 Tank Volume:6.5L



Foot Pedal
 Model No.:FX-390B
 Serial No.:12D36
 Input Voltage: + 15V
 Output Voltage:0-13V



Plasma torch: PT-60
 Current: 60 Amp
 Duty Cycle: 60%
 Gas: AIR/N2
 Ignition: Without HF
 Standard Length: 6M



Hand-hold Remote Controller for TIG torch
 Dimensions: 110x27x30mm
 Material: ABS
 Weight: 30g
 Resistance: 10K / 0.5W