

# PROTIG-250Di

Refined TIG welding for industrial applications



## Quick Specs

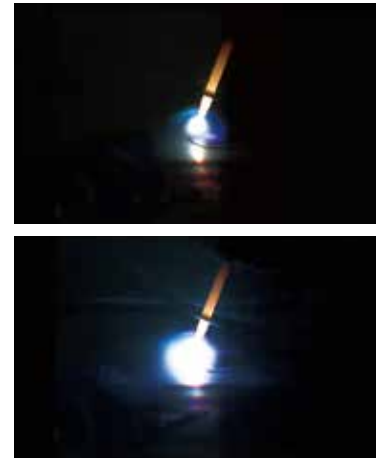
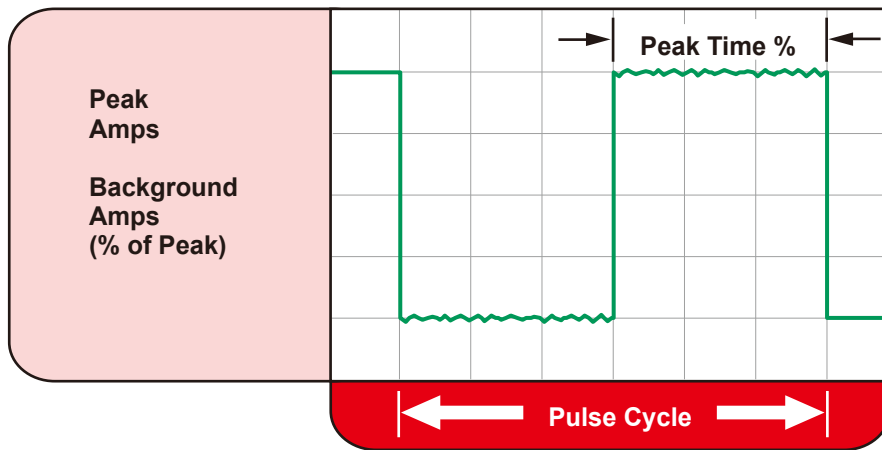
- ◆ **Processes:**
  - DC TIG
  - MMA(Stick)
- ◆ **Input Power:**
  - 200-240V/1-PH/50-60Hz
- ◆ **Rated Output at 40°C (104°F):**
  - 250Di: 250A at 20V @60% Duty Cycle
- ◆ **Applications:**
  - Metal Fabrication
  - Maintenance and Repair
  - Auto Body
  - Light Industrial

## TOP Features:

- ✓ **Refined arc ignition from 3A.**
- ✓ **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.
- ✓ **Fast Spot Arc system** simply controls the spot arc parameter and offers a stable arc.
- ✓ **Pre-gas and post-gas adjustment**
- ✓ **4T Trigger Hold** allows to hold the present current by user until press the trigger again.
- ✓ **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, precise, clean arc ignition and arc ending.**
- ✓ **10 channels memory capacity**

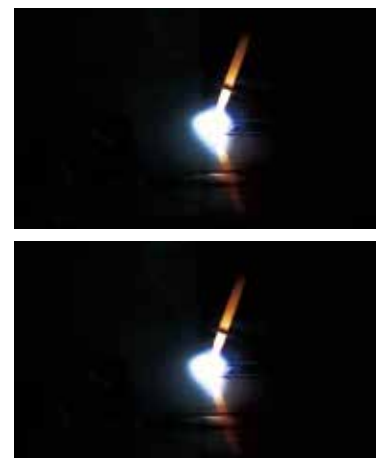
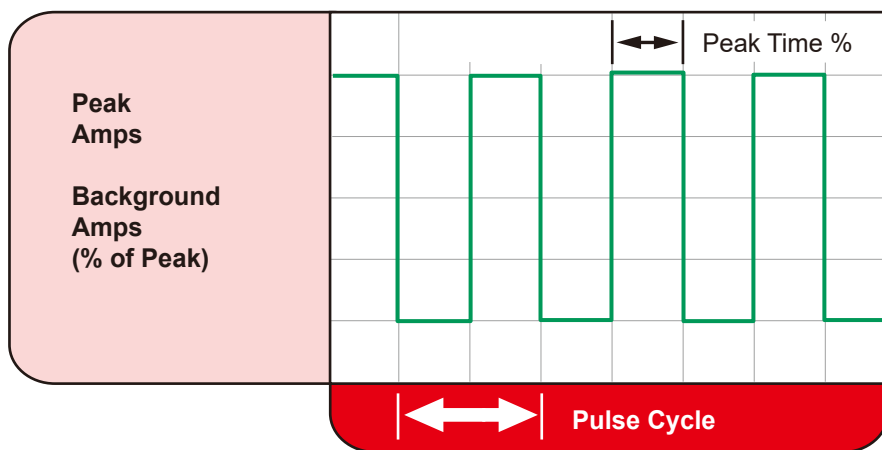
# Pulse TIG

## ◆ Conventional Pulsed TIG



Typically from 0.2 to 10 PPS. Provides a heating and cooling effect on the weld puddle and can reduce distortion by lowering the average amperage. This heating and cooling effect also produces a distinct ripple pattern in the weld bead. The relationship between pulse frequency and travel speed determines the distance between the ripples. Slow pulsing can also be coordinated with filler metal addition and can increase overall control of the weld puddle.

## ◆ High Speed Pulsed TIG



In excess of 40 PPS, Pulsed TIG becomes more audible than visible—causing increased puddle agitation for a better as-welded microstructure. Pulsing the weld current at high speeds — between a high Peak and a low Background amperage — can also constrict and focus the arc. This results in maximum arc stability, increased penetration and increased travel speeds.

## Technical Specifications

Item No	PROTIG-250Di	
Rated Input Voltage	1PH ~ 230V ±15%	
Max. Load Power Capacity	TIG: 7.81 KVA	
	MMA: 5.63KVA	
Rated Duty Cycle(40°C) 60%	TIG: 250A/20V	
	MMA: 200A/28V	
100%	TIG: 200A/18V	
	MMA: 160A/26.4V	
Welding Current/Voltage Range	TIG: 3A/10.1V~250A/20V	
	MMA: 20A/20.8V~200A/28V	
Open Circuit Voltage	70V~80V	
Power Factor	0.8	
Efficiency	80%	
TIG	Peak Current	0.2Hz~200Hz
	Pulse Frequency	1~100%
	Arc-starting Current	5A~250A
	Crater-filling Current	5A~250A
	Current Up-slope Time	0.1S~15S
	Current Down-slop Time	0.1S~15S
	Pre-Gas Time	0.1S~15S
	Flow-Gas Time	0.1S~15S
	Spot Arc Time	0.1S~10S
	MMA	Arc Force
Hot Start Time		0.1~3S
Hot Start Current		10A~200A
Dimension (LxWxH)	410x190x305mm	
Weight (KG)	15KG	

### Water-cooling Unit: WC-100 (optional)

Operating Voltage	230V 50/60Hz
Rated Power	260W
Cooling Power	1.5KW(1L/MIN)
Maximum Pressure	0.3MPA/60HZ
Recommended Cooling Liquid	20%~40% ethanol/water
Tank Volume	6.5L

## Accessories

### Standard accessories

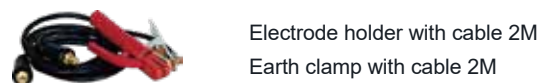
TIG-26



Technical data (EN 60 974-7):

Type of cooling:	Gas cooled
Rating:	180A DC
	150A AC
Duty cycle:	35%
Tungsten electrodes:	Ø 0.5–4 mm

#### Consumables:



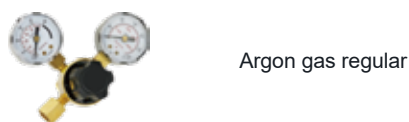
### Optional accessories

BINZEL ABITIG © GRIP 26



Technical data (EN 60 974-7):

Type of cooling:	air cooled
Rating:	180A DC
	130A AC
Duty cycle:	35%
Tungsten electrodes:	Ø 0.5–4.0 mm



Argon gas regular



Trolley: WT-100



Water-cooling unit: WC-100



Foot Pedal