Panasonic

TIG WELDING SYSTEMS

DC/AC-DC TIG Welding Systems

High Performance

TIG Equipment for TOP Quality Welding

Panasonic Corporation

Panasonic Corporation is one of the largest electronic product manufacturers in the world comprising of over 505 Companies and a turnover of over USD 77 billion (Approx.). It manufactures and markets a wide range of products under the Panasonic brand to enhance and enrich lifestyles around the world.

Panasonic Welding Systems

As a leader in the welding industry, Panasonic Smart Factory Solutions, has been developing products to help realise rationalisation, energy saving and quality optimisation in welding operations. In the joining and processing field Panasonic Welding Systems Co. Ltd., offers total solutions in equipment, techniques, and software to its customers around the globe by leveraging its digital technology, based on the welding and laser technology accumulated over the years.

World-Class Welding Quality at Your Doorstep

- Panasonic Smart Factory Solutions India has set-up its state-of-the-art manufacturing facility in Jhajjar, Haryana, India. So our globally proven range of welding equipment including MMAW, MIG/MAG, TIG, Plasma Cutting, Welding Accessories and Welding Robots are now available at your doorstep.
- Assured commitment to long-term product support in terms of Sales, Service and Spares.
- All-India Sales and Service network.

RoHS
Restriction of Hazardous Substances

www.panasonic.com/in/welding

300TSP

The World's Most Preferred and Reliable

Thyristor Controlled DC Pulse TIG Welding Machine

High Performance

Machine for Top Quality Welding

DC TIG | DC Manual

Key Features of 300TSP

- **DC Pulse TIG/DC TIG welding**
- **Successful arc start even at low current**
  Panasonic's unique IC and thyristor technology for current control ensures that the ratio of successful instantaneous arc starts is very high across the range of low to high currents.
- **Consistently stable output**
  Unique current control ensures stable welding current even when the external factors such as input voltage, ambient temperature and arc length change.
  300 TSP delivers stable output even when a torch with 20m cable is used.
- **Consistent and stable arc for perfect weld even in at high Speed**
  The low ripple factor of output current translates into greater current stability, thus delivering consistently high quality welds even at high speeds, e.g., butt welding of 0.3mm stainless steel at speed of 3.5m/min.
- **Advantages of the Panasonic's DC pulse TIG welding**
  - Excellent weld quality.
  - Uniform weld beads.
  - Elimination of defects due to even fusion depth.
  - Consistently high performance for all-position welding boards with different thicknesses.
- **DC manual arc welding**
  - High quality welding can be achieved in welding of mild steel, stainless steel, high strength steel, Cr-Mo steel, etc.

Technical Specifications

Technical Specification	Unit	300TSP
Rated Input Voltage	Volts.	415, ±10%
Phase/ Freq.	No./Hz	3ph / 50-60
Input KVA@ 60% duty cycle	KVA/KW	16.5/11.5
Rated Output Current	Amps	5-300
Rated Voltage Range	Volts.	16-20
Rated duty cycle	%	60
Ingress Protection	Class	IP21S
Insulation	Class	H
Weight	Kg	136

Ordering Information	Model
Power Source	YC-300TSPHJE
TIG Torch (Air cooled)	YC-30TS2
TIG Torch (Water cooled)	YC-30TSW2

300WP5

The World's Most Preferred and Reliable

Thyristor Controlled AC/DC Pulse TIG Welding Machine

High Performance

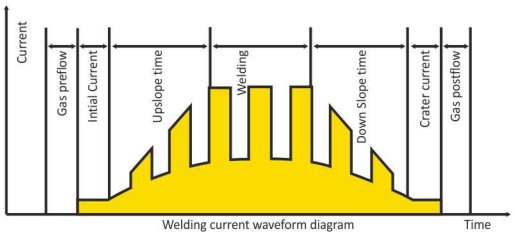
With Multi Process Capability for AC/DC TIG Welding

DC TIG | DC Manual | AC TIG | AC Manual

Suitable for Stainless Steel, Brass, Red Copper, Titanium, Mild Steel, Aluminum and Magnesium

Key Features of 300WP5

- **WP5 is designed to provide 9 functions**
  - DC Pulse TIG welding
  - DC TIG welding
  - DC Manual arc welding
  - AC Pulse TIG welding
  - AC TIG welding
  - AC Manual arc welding
  - DC TIG spot welding
  - Automatic Filler wire TIG welding
  - Robotic and automatic welding power units
- **Pulse waveform control**
  WP5 offers a waveform control function that enables change of welding current at intervals shown below.
  A chain of effective controls over the welding process covering gas pre-flow, initial current adjustment, DC current, up slope/down slope, and crater to ensure excellent weld quality at every stage from weld start to finish.



- **Stable AC square wave**
  Controlled with advanced swing reactor, the new WP5 offers stable AC square wave output, effectively improving arc stability and ensuring high quality welding.
- **Flexible cleaning width**
  WP5 welding machine can freely adjust the cleaning width depending on the material and shape of the welding seam, and effectively minimize wastage of the tungsten electrode when welding with high current to achieve high quality welding of aluminium.

Technical Specifications

Technical Specification	Unit	300WP5
Rated Input Voltage	Volts.	415, ±10%
Phase/ Freq.	No./Hz	3ph / 50-60
Input KVA@ 60% duty cycle	KVA/KW	20/13.3
Rated Output Current	Amps	5-315
Rated Voltage Range	Volts.	10.2-22.6
Rated duty cycle	%	35
Ingress Protection	Class	IP21S
Insulation	Class	H
Weight	Kg	193

Ordering Information	Model
Power Source	YC-300WP5HJE
TIG Torch (Air cooled)	YC-30TS2
TIG Torch (Water cooled)	YC-30TSW2

400TX3

The World's Most Preferred and Reliable

IGBT- Controlled DC PULSE TIG Welding Machine

Superior Cost-Effective

Performance for DC Pulse TIG Welding

DC TIG **DC Manual**

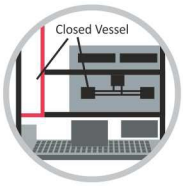
Ideal for Various Applications

- Petrochemical plants
- Power Generation
- Pressure Vessel Manufacturing
- Stainless Steel Product Manufacturing

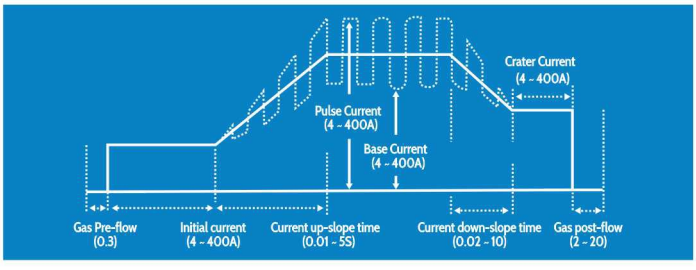
Key Features of 400TX3

- **Higher weld stability**
  High power IGBT components in the main circuit ensure smooth output wave-form resulting in greater arc stability even at 4A output current.
- **Spot welding functionality**
  During argon spot welding, TX3 offers pre-setting of spot current and time.
- **Excellent manual welding performance**
  Stepless regulation of arc force current reduces issues of stick adhesion, arc break and excessive spatter during welding.
- **Reliability even in rugged environments**
  Dust-proof and superior water-proof design for greater endurance.
  More efficient cooling.
  Complies with IP23 enclosure class.
- **Easy-to-assemble connectors**
  Remote operation is possible.

- **Compatible with TIG Mate**
  In conjunction with TIG Mate, automatic TIG welding is possible.
- **Unique design of three layer and four room dust-free structure.**



- **Superior wave-form control to meet diverse welding needs**



- **Superior wave-form control to meet diverse welding needs**
  - Middle frequency pulse control (10-500Hz).
  - Good arc stiffness and concentration.
  - Welding of heat-sensitive metals such as titanium and stainless-steel, and ultra-thin plates.
  - Low and mid-frequency pulse control (0.5-30Hz).
  - For all-position welding of mid/thin plates and pipes made of various metals (except aluminum, magnesium and their alloys).
  - Stepless adjustment of pulse current, frequency, width and base current.
  - Initial current control and crater current control improves bead quality during arc start and crater stages.
- **Greater safety features**
  The possibility of electric shocks due to moisture or working in cramped spaces or contact with metal surfaces etc. is greatly reduced.

Important Safety Features

- Electric shock prevention switch.
- Over-voltage and under-voltage protection.
- Overheating protection.
- Single-phasing protection.

Technical Specifications

Model		Unit	YC-400TX
Input Voltage		-	415 +, -10%
Power Control Method		-	IGBT Inverter Type
Input Power Frequency		Hz	50
Rated Input Capacity		kVA/kW	13.9/13.2
Rated Output Current		A	400
Rated Output Voltage		V	26
Rated Duty Cycle		%	60
Rated Output Voltage at no Load		V	Anti-electric Shock [ON]:13, [OFF]:73
Output Current Range	TIG	A	4~400
	Manual Arc Welding	A	20~400
Output Voltage Range	TIG	V	10.2~26
	Manual Arc Welding	V	20.8~36
Crater Current		A	4~400
Pulse Current		A	4~400
Pulse Current		A	4~400
Up Slope Time		S	0 or 0.1~5
Pre-Flow Time		S	0 or 0.2~10
Post-Flow Time		S	0.3
Spot Welding Time		S	2~20
Spot Welding Time		S	0.2~5
Pulse Frequency	Low Frequency	Hz	0.5~30
	Mid Frequency		10~500
Pulse Width		%	5~95
Control Mode for Crater Current		-	Three Control Modes for Crater, i.e. "YES", "NO" and "REPEAT"
Arc Starting Mode		-	High-Frequency Arc Starting
Enclosure Protection Class		-	Ip23
Insulation Class		-	H
Cooling Mode		-	Air Cooled
Dimension (W X D X H)		mm	327 X 555 X 602
Mass		Kg	43

Note:

1. For YC-400TX3, Optional parts are needed if machine is connected with water cooled torch.

Accessory name	Mode	Quantity
Filter	CJX30101-02	1
Additional device	CJM30101	1

Ordering Information	Model
Power source	YC-400TX3DJE
TIG torch (Air cooled)	YC-30TS2
TIG torch (Water cooled)	YC-30TSW2

2. YC-400TX3HGW (Chinese) is Water Cooling specification.
3. For YC-400TX3, Optional parts (Model TSMYU059) are needed if the machine is connected with automatic filler wire feeder and automatic special purpose machine.

300WY4

The World's Most Preferred and Reliable

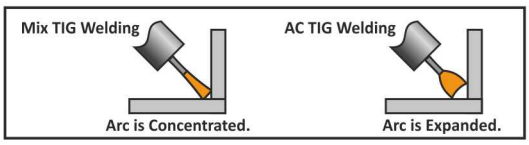
Inverter Controlled AC/DC Pulse TIG Welding Machine

High Quality

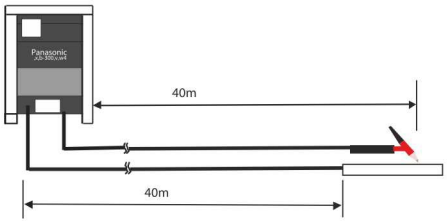
Welding for a Variety of Materials

Key Features of 300WY4

- Advanced model ensures high quality welding
- Welding modes for various materials
  - MIX Mode, AC Standard / Soft / Hard Mode are available
- Selectable AC output frequency enables welding of different varieties of Aluminium
  - Ideal for welding hard Aluminium (No.6000 and 7000 of JIS) and Aluminium Bronze
  - Possible to weld thin plates, thick plates and Aluminium Alloys
- Welding modes for a wide range of job requirements
- Mix TIG Welding
  - The concentrated arc is ideal for lap welding of thin aluminium plates.



  - Combination of AC and DC TIG allows deep penetration and significantly reduces electrode consumption.
- All Panasonic welding equipments are RoHS compliant.
- **Extension cable up to 40m (one way)**



- **Cleaning Width Function offers multiple benefits:**
  - When the base metal surface is dirty.
  - When the base metal oxidation coating is thick.
  - For welding of aluminum alloys.
  - For welding of surface processing aluminum, e.g., alumite
- Cleaning width and pulse can be easily modified.
- **Standard accessories**
  - Gas hose: 3m ■ Glass tube fuse:1 (5A)
  - Cooling water filter: 1 ■ Operation Manual: 1
- Faster service support across India.

Technical Specifications

Technical Specifications		Unit	YC-300WY4
Rated Input Voltage		V	415
Phase			Three Phase
Input Voltage Fluctuation Tolerance			Rated Input Voltage ± 10%
Rated Frequency		Hz	50/60 (in common.)
Rated Input		kVA	10.5
		kW	9.5
No Load Voltage	DC Stick	V	Voltage reducing "ON" : 14
			Voltage reducing "OFF" : 63
D.C. Output Current	TIG	A	4~300
	Stick	A	4~250
A.C. Output Current	MIX TIG	A	10-300
	A.C. Std. TIG	A	10-300
	A.C. Hard TIG	V	20~300
	A.C. Soft TIG	V	10~200
Rated D.C. Output	TIG	V	10.2~22
Voltage	Stick	V	20~30
Rated A.C. Output	Mix TIG	V	10.4~21
Voltage	A.C. Std. TIG	V	10.8~22
	A.C. Hard TIG	V	10.8~22
	A.C. Soft TIG	V	10.4~18
A.C. Std. Mix Initial Crater Current			A10~300
D.C. Initial Crater Current		A	4~300
A.C. Soft Initial Crater Current		A	10~200
A.C. Hard Initial Crater Current			A20~300
Rated Duty Cycle		%	40
Gas Pre Flow Time		S	0.3
Gas Post Flow Time		S	2~20
Up Slope Time		S	0 or 0.1~5 N.B 1)
Down Slope Time		S	0 or 0.2~10 N.B 1)
Pulse Frequency	Middle Pulse	Hz	10~500
	Low Pulse	Hz	0.5~25
Pulse Width		%	15~85
Cleaning Width			A.C. Std TIG, Mix TIG, A.C. Soft TIG, A.C. Hard TIG
Mix TIG Frequency		Hz	0.5-10
Crater Control Process			"ON" "OFF" "REPEAT"
Outside Dimension		mm	380 (W) X 530 (D) X 730 (H)
Mass		Kg	74

Panasonic reserves the right to alter the specifications without notice.

Panasonic

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