

**TIG DT300P**

DC Pulsed TIG Welding Machine

NEW**D** Digital Inverter
Welding Machine
SERIES

DC Pulsed TIG Welding Machine full of the Technologies

- Compact Size and Light Weight
- Instantaneous Arc Starts and Stable Arc
- User Friendly Operations
- Cope with Dust and Sudden Rain



DAIHEN Corporation

TRUE DIGITAL

OTC Advanced DIGITAL

In order to meet such various demands as "High Quality and Efficiency", "Portability", "Customize Welding or Sequencing", OTC combined its inverter control technology to pioneer a Digital Advanced DC Pulsed TIG Welding Machine.

INVERTER DT300P

Digital DC Pulsed TIG Welding Machine



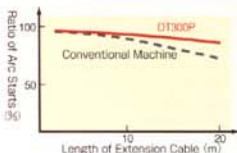
It's New!

Improved weldability and reduced size and weight by 80kHz high speed Soft Switching.

Newly developed high-speed soft switching control, using reliable IGBT technology, for 80kHz high speed switching (Output Frequency).

It's New!

Improvement of Instantaneous Arc Starts.

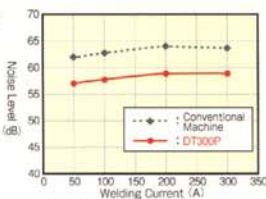


By increasing control response speed, starting current waveform is accurately controlled. Even when 4 Amps output or long extension cable, reliable arc start is achieved without meltdown.

It's New!

Silent arc sound makes working place and workers comfortable.

High Speed (80kHz) Inverter Control of Soft Switching Control offers the current waveform like a DC waveform, causing the level of noise drops 5dB on average in the full current range.



It's Great!

By easy and variety pulse functions, high quality welding of many workpieces is achieved.

Low speed Pulse (~20Hz)

Uniform and beautiful bead appearance is obtained by heat input controlling. Excellent feature for use in different plate thickness or materials having gaps.

■ Stainless pipe "T" type Joint



Thickness of Plate: 2mm, Welding Current: 150A, Pulse Frequency: 10Hz

■ Titanium Alloy Butt Welding



Thickness of Plate: 2mm, Welding Current: 120A, Pulse Frequency: 5Hz

High speed Pulse (20~500Hz)

Convergence of arc in low current and efficiency of corner welding and fillet welding of thin plate is substantially improved.

■ Corner Welding of Copper



Thickness of Plate: 0.3mm, Welding Current: 50A, Pulse Frequency: 100Hz

■ Stainless edge joint



Thickness of Plate: 0.3mm, Welding Current: 10A, Pulse Frequency: 500Hz

More efficient combination with DC stick welding

The first layer is a uniform penetration bead by pulsed TIG welding. Second layer the efficient welding is possible by DC stick welding (2.6~5mm electrode).

From the second layer the efficient welding is possible by stick welding.
First layer is a high quality TIG welding



AL TIG Welding

“Stable Compact and Light Weight”, “Welding Data Control”,
“Advanced Technology and digital control technology,

New Design

Touch Panel control type for user friendly operation and layout

New Touch Panel control based with One Key Operations and LED indications.

(Digital Meter easily read in dark places)

Digital Display of current and voltage while welding, along with the average current or voltage when welding is complete. Digital Diagnostic Display or error codes for troubleshooting.

(Welding condition memory function)

Welding memory play back function of welding conditions by one touch control. Repeatability of welding conditions and for TIG welding efficiency.

(Function Key)

Front Panel control functions instead of setting switches inside welding power source, so operators can easily set the special functions through the user friendly Touch Control Panel.

- Pulse width Regulation
- Crater Repetition feature
Conventional crater repetition welding stop by raising torch changed to new crater repetition function that can stop welding by torch switch.
- Key Lock Function (Only TIG welding)
- The others



(Easy to set the conditions by Dial)

Setting is accurate by 1 Amp with repeatability.

(Welding Waveform Indication)

Easy set up of the Welding waveform by touch panel with LED indications of present setting at a glance.

(Variety Welding Functions)

All welding functions for TIG welding can be set and confirmed by one button, realizes high quality welding.

(Start type choice)

Standard Lift Start without high frequency start. Possible to use in a welding environment sensitive to noise.

User-friendly Design

High Reliability Dust prevention and saving power

The structure of the case that is considered to prevent from dust and water. Moreover, cooling fan auto stop function saves electric power of waiting period.

High Expandability Quality control of welding condition and connection with automatic machines

Possible to equip communication board (CAN) of high expandability as option. Easy to connect with personal computers, automatic machines.

Development OTC New Double Operation Technology

It follows Double Operation Type of OTC original and welding power source does all settings. In addition to conventional analog remote controller, digital remote controller of high performance can do almost all settings about welding conditions at hand.



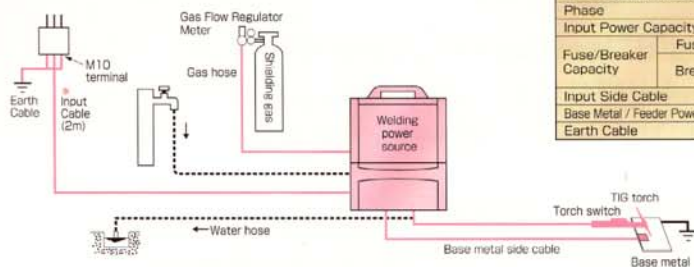
Analog Remote Controller
Part number : K5048B00



Digital Remote Controller
Type : E-2452

● Connection Diagram

Colors indicate standard composition



* 2m Input Cable is attached to Welding Power Source

■ Input Power Capacity and Cable Specifications

Item	Model name	DT-300P	
Power Source Voltage	V	400 ± 15%	
Phase		3 phase	Single phase
Input Power Capacity	kVA	more than 12	more than 9
Fuse/Breaker Capacity	Fuse	A 50	
	Breaker	A 50	
Input Side Cable	mm ²	more than 4	
Base Metal / Feeder Power Cable	mm ²	more than 38	
Earth Cable	mm ²	more than 4	

● Standard composition

Model	DT300P	
Welding power source	DT-300P	
Welding torch	Air-cooled	Water-cooled
	AWD-26	AWD-18
Base metal side power cable (3m)	BKPD1-3803	
Gas hose	BKGF-0603	
Water hose	For tap water	BBDW-3001
	For water tank	BBPU-3002

● Standard Accessories

Model	DT300P	
Welding power source	DT-300P	
Cable plug	1	
Welding torch	AWD-26	AWD-18
	Torch switch	1 (4 or 8m)
Band	2	2

● Standard specifications

Welding power source type	DT-300P (Standard, CE-Marking)	
Rated input voltage	V 400 ± 15%	
Phase	3 phase Single phase	
Rated input	kVA TIG-11 (9kW), Stick-12 (10kW) TIG-9 (7kW), Stick-8 (6kW)	
Rated duty cycle	%	
Rated output current	A TIG-4~300, Stick-10~250 TIG-4~250, Stick-10~180	
Rated load voltage	V TIG-22, Stick-30 TIG-20, Stick-27.2	
Max. No-load voltage	V 58	
Initial crater filler current	A TIG-4~300, Stick-10~250 TIG-4~250, Stick-10~180	
Pulsed current	A TIG-4~300, Stick-10~250 TIG-4~250, Stick-10~180	
Base current	A TIG-4~300, Stick-10~250 TIG-4~250, Stick-10~180	
Gas pre-flow	Sec 0~20	
Gas post-flow	Sec 0~30	
Up-slope	Sec 0~10	
Down-slope	Sec 0~10	
Pulsed frequency	Hz 0.1~500	
Pulse width	%	
Crater filler control	50 (Possible to change by FunctionKey5~95%)	
Arc spot	Sec. [On] [Off] [Repeat] change type 0.1~1.0	
The number of job memory	30	
Dimensions (W×D×H)	mm 250×640×370 (except for handle)	
Weight	kg 30	
Start type	High frequency start/Touch start	
Welding torch type	AWD-26	AWD-18
	Rated current	A 200 (DC), 160 (AC)
Rated duty cycle	%	
Cooling method	Air-cooled Water-cooled	
Electrode size	mm (0.5), (1.0), (1.6), (2.0), 2.4, (3.2), (4.0) *	
Cable length	m 4 or 8	

* Option is necessary to use Tungsten electrode except for 2.4.

● Welding torch



* About combinations of the other torches, please inquire of the nearest our distributor.

Option

■ Remote Control

Convenient in the operation apart from welding power source.

Analog remote control	Part number
	K5048B00

● Digital remote control

(Need the following 3 pieces set)

Digital remote control	Part number
	F-2452
Control Cable (10m)	BKCAN-0410
Control Cable (20m)	BKCAN-0420
CAN Communication Board	K5422B00

■ Torch adapter

Necessary to connect the conventional torch to welding power source.

	Part number
For air-cooled AW-26	BBAWD-2601
For air-cooled AW-17	BBAWD-1701
For water-cooled AW-18	BBAWD-1801

■ Torch extension cable

Conventional extension cable is usable for AW type torch and AWD type torch, but above-mentioned torch adapter is needed for AW torch.

Type	For 4m	For 11m	For 16m
Air-cooled AWD(D)-26	BAWH-2004	BAWH-2011	BAWH-2016
Air-cooled AWD(D)-17	BAWH-1504	BAWH-1511	BAWH-1516
Water-cooled AWD(D)-18	BAWS-3004	BAWS-3011	BAWS-3016

■ Wheel kit Part number : K5416B

This is convenient for the works, in which the power source is moved frequently. The rubber feet are attached originally.

In accordance with DAIHEN's policy to make continuing improvements, design and/or specifications are subject to change without notice and without any obligation on the part of manufacturer.

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