

Panasonic
ideas for life

Bangkok **Welding**
(Thailand)

IGBT-controlled AC/DC TIG welding machine

YC-300WY4

High-end models achievable for high
quality welding of a variety of materials

WY4



Panasonic pursues **Only one** in welding

High quality machine for a variety of materials

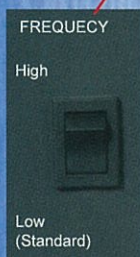
WY4



Application can be expanded to various aluminum by changing over AC output frequency



■ Convenient operation panel



It was preset at standard side in the factory.

High side

Concentrated arc is obtained with "high" AC output frequency. Effective for welding of hard aluminum such as No.6000 and No.7000 and aluminum bronze.



Aluminum bronze



7000 series aluminum alloy

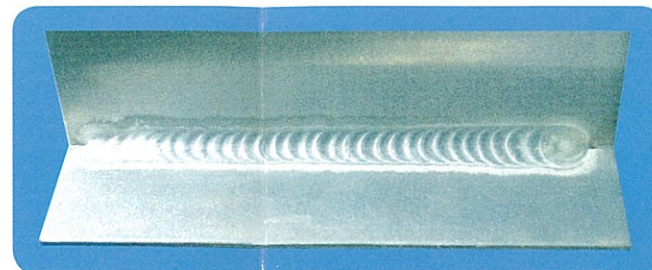
Low side

Effective for wide application from thin plate to various aluminum alloys with "low" AC output frequency.

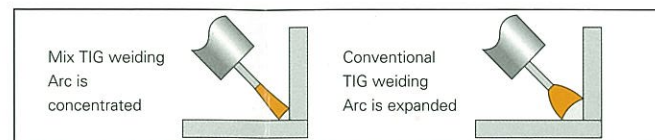
Various work can be treated with various welding modes

■ Mix TIG welding (Aluminum)

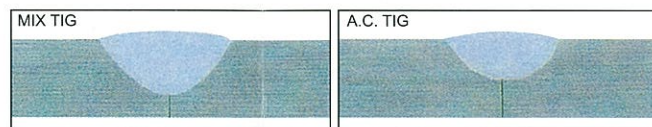
If current mixed of both direct and alternating current is used in TIG welding, the method is called MIX TIG welding.



- As concentration of arc is excellent, welding is performed effectively for fillet (overlapping) joint welding for thin aluminum plates.



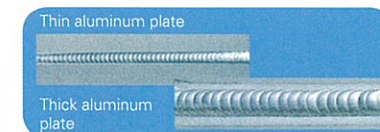
- Since DC TIG gets in AC TIG, deep penetration is achieved.



- Electrode consumption is significantly reduced.

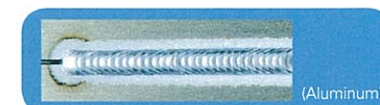


■ AC standard TIG welding



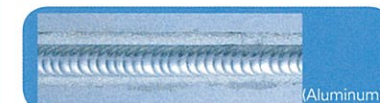
- Handles various forms of works from thin plates to thick ones.

■ AC hard TIG welding



- Concentrated arc can be obtained
- Effective for welding of thin plates gap joint

■ AC soft TIG welding



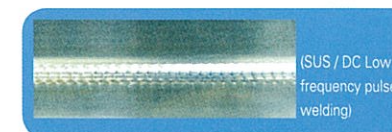
- Low arc noise with soft arc

■ Optimum mode of applications

Item	Thin plate butt welding	Thin plate fillet welding	Thick plate butt welding	Thick plate fillet welding	Different thicknesses	Flanged plated	filler rod
MIX TIG	○	○	○	○	○	○	○
AC standard TIG	○	○	○	○	○	○	○
AC hard TIG	○	○	○	○	○	○	○
AC soft TIG	○	△	○*	○*	△	○	○

※ There is output limitation

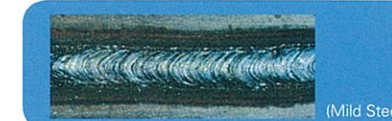
■ DC TIG welding



- Choose arc starting mode based on the applications
- Multiple spot welding
- ※ EP=electrode positive

- Continuous welding
- ※ EN=electrode negative

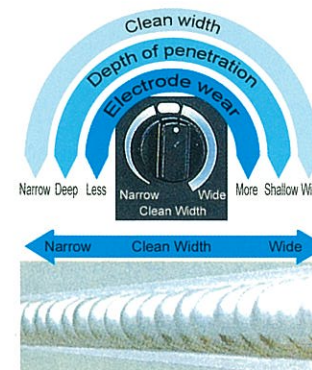
■ DC manual welding



- Precisely controls arc conditions for AC/DC manual welding of stainless-steel, special steel such as Cr-Mo steel by means of refined electronics techniques so that optimum dynamic characteristics can be obtained.

Versatile function for many application

Cleaning width is controlled



Enhanced pulse control

- Switch between pulse "Yes" & "No"

	Low pulse	Spread arc, suitable for all position welding with different thickness plates
Yes	Middle pulse	Concentrated arc, suitable for high-speed welding with thin plates
No	Regular welding	Soft arc, suitable for both of thin and thick plates.

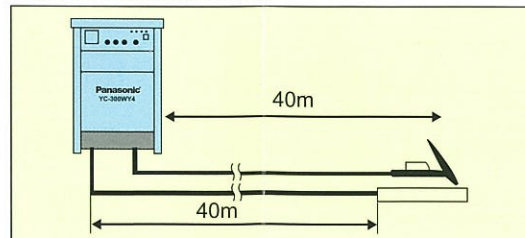
- Adjustment of pulse width and frequency.

- Mix TIG welding

Many features for welding conditions

■ The cable can be extended to 40m long

※ Depending on welding current, thickness of cable, rolling way of cable, base material, arc length.



■ Excellent design

- Crater control
- Adjustment of slop-up/down time
- Adjustment of pre-flow & after-flow time
- Anti-shock prevention
- Measuring function for cooling water
- Terminal of output signal

■ Error detection function:

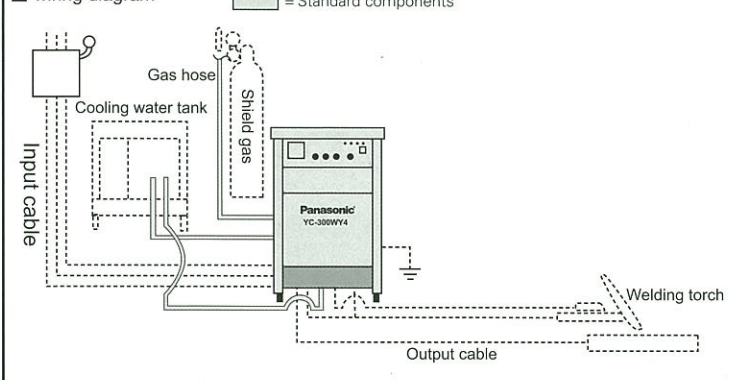
- Input voltage error
- Cooling water shortage
- Abnormal temperature
- Input side over current
- Output side over voltage

Specifications

Item		Type	YC-300WY
Rated input voltage		V	380
Phase			Three phase
Input voltage fluctuation tolerance			Rated input voltage $\pm 10\%$
Rated frequency		Hz	50/60 (in common.)
Rated input		kVA/kW	10.5 / 9.0
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	A	20-300
	A.C. SOFT TIG	A	10-200
Rated D.C output voltage	TIG	V	10.2-22
	STICK	V	20-30
Rated A.C output voltage	MIX TIG	V	10.4-21
	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		A	10-300
D.C. INITIAL. CRATER current		A	4-300
A.C. SOFT. INITIAL. CRATER current		A	10-200
A.C. HARD. INITIAL. CRATER current		A	20-300
Rated duty cycle		%	40
Gas preflow time		s	0.3
Gas preflow time		s	2-20
Ups lope time		s	0 or 0.1-5 N.B 1)
Downs lope 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) \times 530(D) \times 730(H)
Mass		kg	74

N.B.1) Where upslope and downslope time are to be 0 second, use the slope "SW1" switch mounted in PC board TSMPA013. The switch is set to "ON" position at shipment.

wiring diagram



Power supply equipment and connecting cables

		YC-300WY4
Power	Power supply	3-phase AC 380V $\pm 10\%$
	Engine generator	20KVA or more
Plant capacity	Fuse	30A
	No breaker	50A
Input protective devices	Input power cable	6mm ² or more
	Output power cable	35mm ² or more
	Ground wire	14mm ² or more

Safety precautions

- Please instal this product in the room with no combustibel.
- before attempting to use any welding product, always read the manual to ensure correct use.

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