

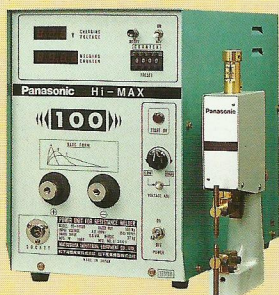
Panasonic

HI-MAX

CAPACITOR DISCHARGE TYPE RESISTANCE WELDER

A CLEAN WELD ON THE SPOT WITH A MINIMUM OF POWER CONSUMPTION

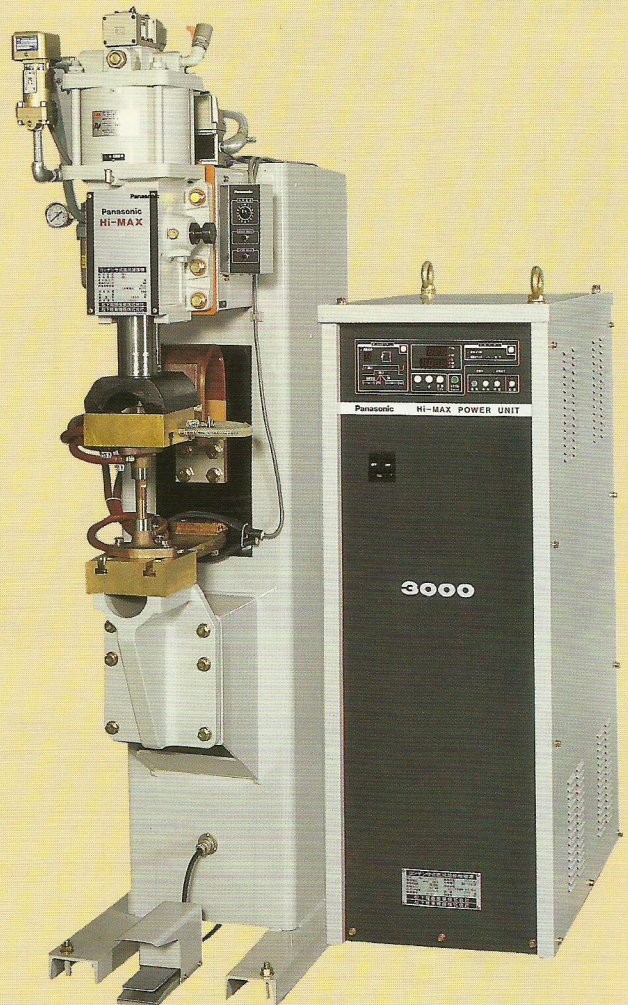
Designed to replace conventional methods of joining metal parts, this is an innovative piece of welding equipment. Panasonic's exclusive electronic control is ingeniously combined with a special electrolytic capacitor and a welding transformer so that the electric energy built up in the capacitor is released in a moment (about 3/1000 second). The resulting heat is utilized to fuse the parts together. The machine is outstanding in performance, cutting labor requirements and cost drastically. It is a versatile tool for any business that aspires to keep growing and remain competitive.



YG-101SPF



YG-508SPF-3

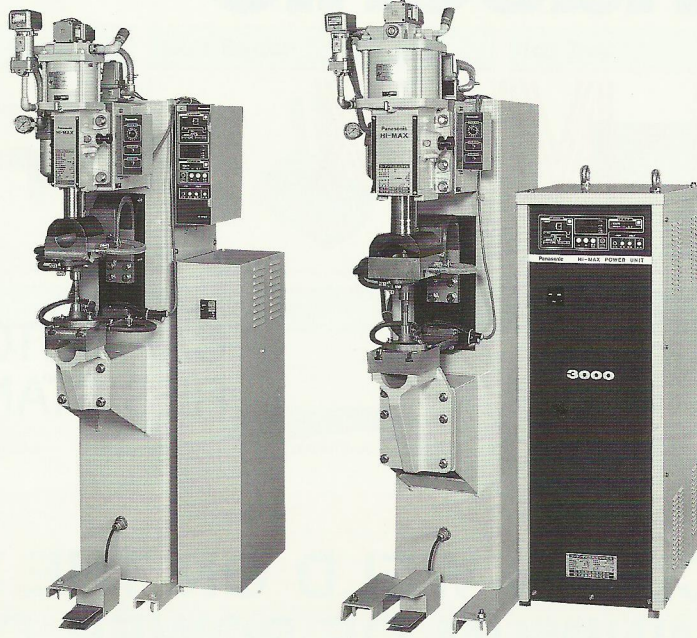


YG-C00EJ1

HIGH SPEED "HI-MAX" WELDER SERIES

FEATURES

1. Can double the repeat welding speed compared with that of conventional capacitor discharge models.
2. Recently developed welding capacitors have virtually unlimited service life.
3. Designed for repetitive and fast cycling operations
4. Equipped with the ability to adjust and dress electrodes.
5. Digital setting used throughout to simplify operation.
6. Supplied with monitor for charging voltage
7. Compact and integrated configuration.



YG-A50EJ1

YG-C00EJ1

MODELS AND RATINGS

Model	Method	Input	Rated Input	Output	Capacity of Capacitor	Electrode Max. Pressure	Stroke	Electrode Size	Throat Dimensions	Cooling water
		Phase/Hz	kVA	Ws	μ F	kN	mm	Dia. x length mm	(WxD) mm	lit/min
YG-A50 EJ1	ES1	1 ϕ 50/60Hz	4.5	1500	13440	4.9	20:60	ϕ 16x50 Taper 1/5	200x400	2 or more
	Projection								175x300	
	EC1								Spot/Projection	
YG-C00 EJ1	ES1	1 ϕ 50/60Hz	7	3000	26880	9.8	20:80	ϕ 20x50 Taper 1/5	200x425	3 or more
	Projection								200x300	
	EC1								Spot/Projection	

DIMENSIONS AND WELDING CAPACITIES

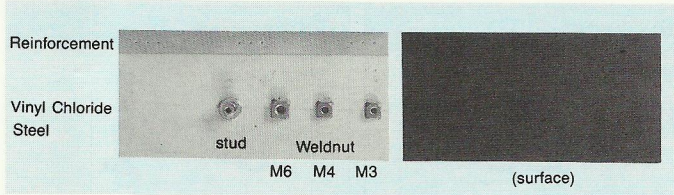
Model	Dimensions (mm)			Weight (Kg)	Capacity by material (mm x pcs)		
	Width	Depth	Height		Aluminum	Brass	Mild Steel Stainless stell
YG-A50 EJ1	600	880	1650	300	1.2x2	1.2x2	1.2x2
EC1							
YG-C00 EJ1	561	1013	1780	550	1.5x2	1.6x2	1.6x2
ES1							
EC1							
power source	410	682	1150	230			

HIGH SPEED Hi-MAX PERFORMANCE IN SERIES WELDING SYSTEM

Today's consumer is placing increasing emphasis on the final surface appearance of finished metal products along with lower costs. Increasingly, pre-coated and/or finished steels are being selected. This places increasing demand on the welding process to assist the manufacturer in delivering a strong but blemish free final product.

Acceptable performance with standard A.C. welders can be difficult, if not possible, in some cases. The high speed Hi-MAX series process has been developed to satisfy the needs of resistance welding customers requiring welds that need little or no post processing and at production rates compatible with today's production requirements.

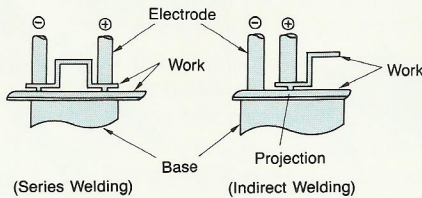
(Example)



FEATURES

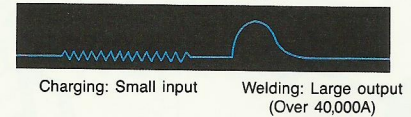
1. Single-side insulated material can be welded.

Because of series energization, steel plates insulated on one side such as vinyl chloride steel plate and embossed color steel plate can be directly presented to projection welding without surface treatment and finished beautifully without leaving heat marks. Likewise, stainless steel plate and plated steel can be finished beautifully, without any obvious heat mark, hit mark or distortion, as a result of being welded without passing current to the surface side and the extremely low heat input of the high-speed Hi-MAX series process.



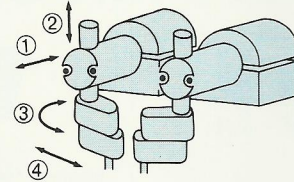
2. Small input and large output.

Example of 3000WS type

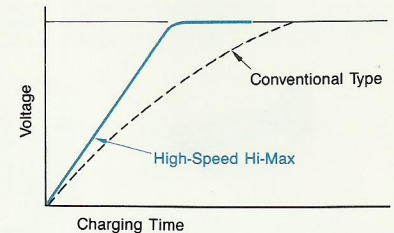


3. The electrode can be freely adjusted in position on four axes.

The right and left electrode positions can be quickly changed to front and rear electrodes. With this arrangement, set up time between jobs can be minimized and production output increase.



4. Short charging time (1/2 compared with conventional type)



Models and Ratings

Model	Input	Rated Input	Output	Charge Voltage	Electrode Max. Pressure	Stroke	Throat Dimensions	Welding Speed	Cooling water	Air Pressure
	Phase/Hz	kVA	Ws	V	kN	mm	(WxD) mm	times/min	lit/min	kg/cm ²
YG-1508CPA2T12 (Spot/Projection)	1φ 50/60Hz	6	500 1000 1500	60~485	2.0	20/60	200x620	60	2	5
YG-3008CPA2T12 (Spot/Projection)		10	500 1500 3000	60~485	4.9	20/60	200x620	45	3	5

DIMENSIONS

Model	W	D	H	Weight
	mm	mm	mm	kg
YG-1508CPA2T12	600	1210	1740	350
YG-3008CPA2T12 (main unit)	560	1210	1710	570
(power source)	400	580	1215	230

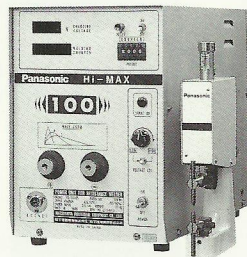
WELDING CAPACITY (Example)

Material	1500WS	3000WS
	Vinyl chloride steel plate	0.8 ~ 1.6mmt
Color steel plate	1.2 ~ 1.6 mmt	
Plated steel plate	0.6 ~ 1.6 mmt	0.6 ~ 2.3 mmt
Stainless steel	0.8 ~ 1.2 mmt	0.8 ~ 2.0 mmt

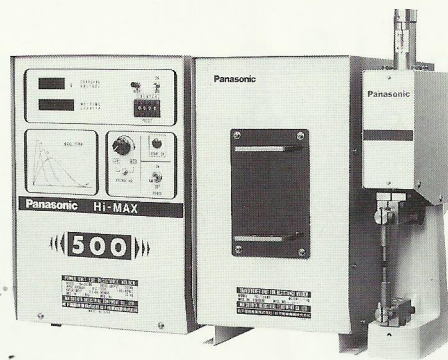
<p>Example of projection size</p> <p>We will recommend 2 or 3 points of projection weldings to increase weld strength.</p>	$D\phi = (A' \times 1.2)$ $H = (A' \times 0.4)$ $B' = A' + (A' \times 1.5)$
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This is only for your reference. Please send us welding sample piece for testing.

Hi-MAX MICRO SERIES (TABLE TOP TYPE)



□ 100Ws Model YG-101SPF



□ 500Ws Model YG-501SPF

FEATURES

1. High Speed Welding

Model Rating Range	YG-101SPF		YG-501SPF	
	100 Ws	50 Ws	100 Ws	50 Ws
Continuous	60 times/min	120 times/min	60 times/min	120 times/min
Short-time	150 times/min	150 times/min	100 times/min	120 times/min

*Short-time rating means welding 150 times/min for 5 minutes use and rest for 5minutes.

2. Six Output Waveform Selection

- Guide-line for selection

Tap 1	Wire Rod / Projection
Tap 2	Copper Alloy, Aluminum / Spot
Tap 3	Steel, Stainless Steel / Spot

3. Built-in Pre-set Counter and Weld Number Counter

4. High-performance Pressurization Head

5. Digital Voltage Indication

6. Finish Charging Indicator (Lamp)

7. Start Signal ON Confirmation (Buzzer)

5 axes Adjustable



OPTION

- Twin Head Type (100Ws only) for Series and/or Indirect Welding



- Air Press Type YG-101SPA



MODELS AND RATINGS

Model	Input Phase/Hz	Rated Input kVA	Capacity Ws	Charge Voltage V	Electrode Max. Pressure kN	Stroke mm	Throat dimensions (WxD) mm	Electrode size mm	Weight kg	Welding capacity* mm x pcs
YG-101SPF/101SPA	1φ 50/60Hz	0.6	100	Low (70~270)	0.15	13	35x105	φ6x56	41	0.3x2
YG-501SPF/501SPA		3.0	500	High (260~460)	0.49	20	85x120	φ8x30ℓ Taper 1/10	102	0.5x2

*Welding capacity is for Steel, Stainless Steel, or Brass.

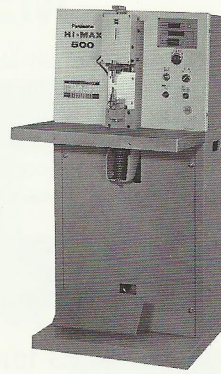
DIMENSIONS (): Air Press Type

Model		W (mm)	D (mm)	H (mm)	Weight
YG-101SPF (SPA)	Power Source	222 (372)	470	340	37 } 40.8 3.8
	Welding Head	40 (51)	165	281 (350)	
YG-501SPF (SPA)	Power Source	272 (422)	424	393	40 } 99 50 9
	Transformer	223	420	394	
	Welding Head	70	232	455 (523)	

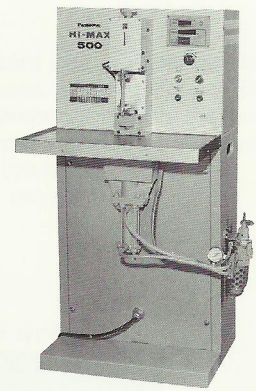
CONSOLE TYPE Hi-MAX

FEATURES

- Digital Setting of Charging Voltage
- Built-in Pre-set Counter
- Welding Current Run Confirmation Buzzer



YG-508SPF-3
Foot Press Type

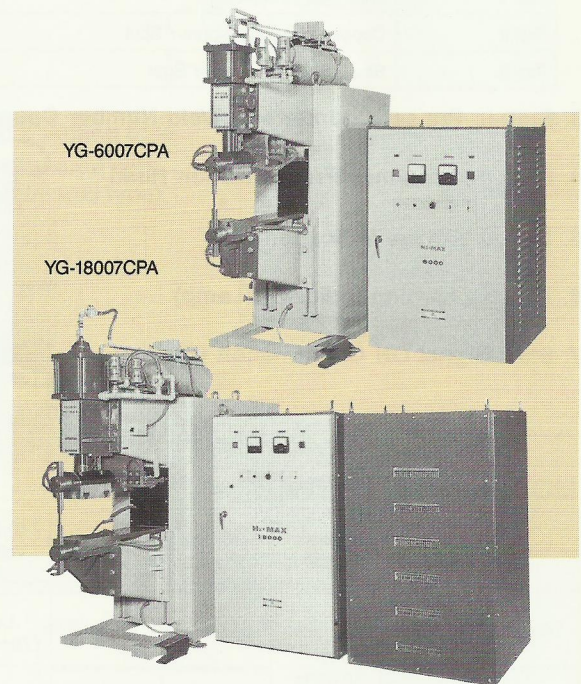


YG-508SPA-3
Air Press Type

MODELS AND RATINGS

Model	Input	Rated Input	Output	Capacity of Capacitor	Max. Pressure	Stroke	Electrode dia. x length	Throat Dimensions (WxD)	Welding Capacity Aluminum	WxDxH	Weight
	Phase/Hz	kVA	Ws	μ F	kN	mm	mm	mm	mm	mm	kg
YG-508SPF-3 (Foot Press Type)	1 ϕ 50/60 Hz	1	500	9120	0.44	15	ϕ 8x30 Taper 1/10	80x80	Max. 0.5	550x680x1165	135
YG-508SPA-3 (Air Press Type)										700x680x1165	

LARGE TYPE Hi-MAX



DIMENSIONS

Model		WxDxH (mm)	Weight (kg)
YG-4507	SPA2	780x1250x1820 854x800x1252	1000 300 } 1300
	JPA2		
	CPA2		
YG-6007	SPA2	780x1250x1820 854x800x1252	1100 350 } 1450
	JPA2		
	CPA2		
YG-18007	JPA2	800x1570x2090 950x925x1500 950x925x1500	3100 500 450 } 4050
	CPA2		
	Capacitor		

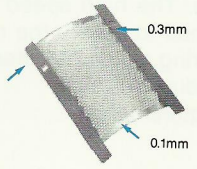
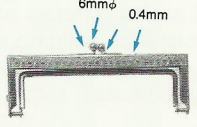
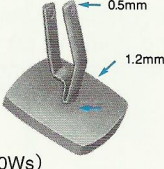

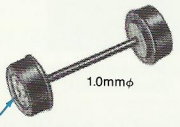
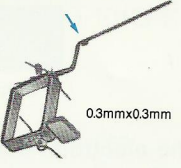
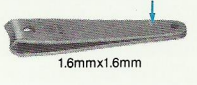
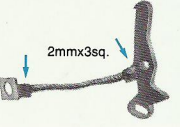
MODELS AND RATINGS

Model	Input	Rated Input	Output	Capacity of Capacitor	Electrode Max. Pressure	Stroke	Electrode size dia. x length	Throat Dimensions	Welding Capacity Aluminum
	Phase/Hz	kVA	Ws	μ F	kN	mm	mm	(WxD) mm	mm x pcs
YG-4507 SPA2 (Spot) JPA2 (Projection) CPA2 (Spot/Projection)	1 ϕ	9	4500	82080	9.8	20/80	ϕ 20x60 Taper 1/5	200x700 200x300 170x410	2.0x2
								200x700 200x300 170x410	2.3x2
YG-6007 SPA2 (Spot) JPA2 (Projection) CPA2 (Spot/Projection)	50/60 Hz	12	6000	109440				200x700 200x300 170x410	2.3x2
YG-18007 JPA2 (Projection) CPA2 (Spot/Projection)	3 ϕ 50/60 Hz	30	18000	328320	19.6	100	ϕ 25x80 Taper 1/5	200x700 200x300 170x430	3.2x2

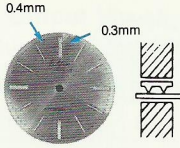
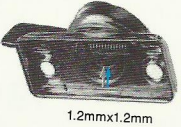

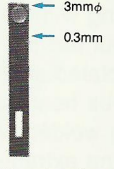
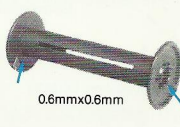
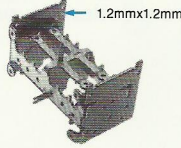
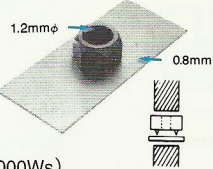
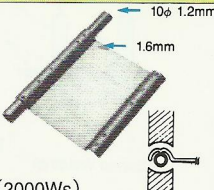
(Note) 8000Ws and 12000Ws Type are also available.

WIDE APPLICATION OF HI-MAX WELDER

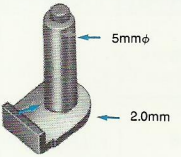
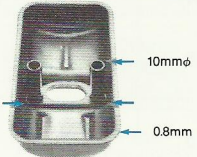
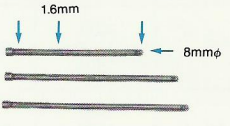
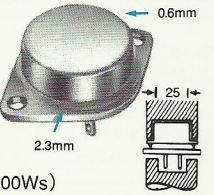
SPOT WELDING

<p>Shaver Blade</p>  <p>Stainless Steel (100Ws)</p>	<p>Handbag Clasp</p>  <p>Brass (500Ws)</p>	<p>Cuff Button</p>  <p>Brass (500Ws)</p>	<p>Ice Tray</p>  <p>Aluminum (500Ws)</p>
<p>Toy Parts</p>  <p>Steel (500Ws)</p>	<p>Instrument Parts</p>  <p>Phosphor Bronze (500Ws)</p>	<p>Nail Clipper</p>  <p>Steel (3000Ws)</p>	<p>Copper Wire</p>  <p>Twisted Copper Wire and Brass (300Ws)</p>

PROJECTION WELDING

<p>Clock Face</p>  <p>Brass (1000Ws)</p>	<p>Window Lock</p>  <p>Stainless Steel (1500Ws)</p>	<p>Can Handle</p>  <p>Tin Plate (1500Ws)</p>	<p>Contact</p>  <p>Silver Contact and Phosphor Bronze (1500Ws)</p>
<p>Film Spool</p>  <p>Steel (3000Ws)</p>	<p>Variable Conductor</p>  <p>Steel (3000Ws)</p>	<p>Weldnut</p>  <p>Steel (3000Ws)</p>	<p>Chair Parts</p>  <p>Steel (2000Ws)</p>

RING PROJECTION WELDING

<p>Relay Parts</p>  <p>Steel (1500Ws)</p>	<p>Automobile Parts</p>  <p>Steel (300Ws)</p>	<p>Automobile Push Rod</p>  <p>Steel (3000Ws)</p>	<p>Diode</p>  <p>Steel (8000Ws)</p>
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⚠ Safety precautions ● Before attempting to use any of welding product. Always read the manual thoroughly to ensure correct use.

Matsushita Welding System Co., Ltd.
Overseas Department

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