

WELDPRO SW-V02

Der WeldPro SW-V02 basiert auf dem erfolgreichen Kombischweißgerät SW-V01, in ihm sind die Funktionen Widerstandsschweißen, Impuls-WIG Schweißen und hochpräzises kontinuierliches Schweißen kombiniert. Mit der zusätzlichen Funktion „Aluminium“ wird nun auch das Schweißen von Aluminium im Gleichstrom ermöglicht, damit kann das Schweißgerät für nahezu alle Anwendungen eingesetzt werden. Der WeldPro SW-V02 ist eine kostengünstige und zeitsparende Alternative zur Inanspruchnahme von Laserzentren. Durch seine leichte Bedienbarkeit und hohe Leistung bietet der WeldPro SW-V02 Lösungsmöglichkeiten für fast alle Anwendungsfälle im Formen- und Werkzeugbau.

4 Funktionen

1. Aluminium-Schweißen

Mit dem WIG-Aluminium Modus ist es möglich präzise Auftragsschweißungen an Aluminium Formen und Kupfer-Beryllium Kernen durchzuführen.

2. Automatische Schweißparameterwahl

Schweißstrom und Schweißzeit werden durch Auswahl des Schweißbereichs und der Form sowie Stärke der Schweißzusätze automatisch eingestellt und angezeigt.

3. Datenspeicher-Modus

Mit dem SAVE-Modus können die Daten für die Schweißjobs, die der Bediener individuell eingestellt hat, unter USER 1-2-3 gespeichert und wieder abgerufen werden.

4. WIG-Modus mit Intervallschaltung

Wird ein größerer Bereich geschweißt, erlaubt die Intervallschaltung mit einstellbaren Schweiß- und Pausenzeiten ein automatisches Pulsen, bis zum Dauerlichtbogen.

Universell einsetzbar

Sicheres Widerstandsschweißen und präzises WIG-Schweißen

Die Invertersteuerung ermöglicht eine exakte und reproduzierbare Einstellung von Schweißstrom und Schweißzeit. Im Widerstands-Modus kann der Schweißstrom von 30 A bis 750 A und die Schweißzeit von 1 ms bis 30 ms eingestellt werden. Im WIG-Modus kann der Schweißstrom von 2 A bis 250 A und die Schweißzeit 1 ms bis 600 ms eingestellt werden.

Anwendungsbereiche

Spritzgießformen, Druckgussformen, Presswerkzeuge, Glasformen, Blaswerkzeuge, Gummiformen, usw.

Verschiedene Einsatzzwecke

Bereiche von Trennfugen, stoßbelastete Gleitkanten, Punktanbindungen, Tunnelanschnitte, Reparatur von Auswerferöffnungen, dünnen Kanten, Beseitigen von Poren und Lunkern nach konventionellem WIG-Schweißen, Maßzugaben bei Werkzeugänderungen.

Verschiedene Arten von Bearbeitung nach dem Schweißen möglich

Nach dem Schweißen sind verschiedene Bearbeitungsarten möglich z. B.: Funkenerosionsbearbeitung, Schleifen, Fräsen, Sandstrahlen, Beschichtungen ebenso Wärmebehandlung und Nitrierung.

The WeldPro SW-V02 is based on the successful multi-function welder SW-V01. Resistance welding, pulsed TIG welding and ultra-precise continuous TIG welding are combined in one machine. With the new function "Aluminium" it is now also possible to weld aluminium in direct current mode and the welder can be used for nearly all applications. The WeldPro SW-V02 is a real cost-saving alternative for utilisation of laser welding shops. Due to the easy-to-use characteristics and high welder output the WeldPro SW-V02 gives room for solutions for nearly all applications in mould- and toolmaking.

4 functions

1. Aluminium welding

The TIG aluminium mode gives the possible for ultra-precise built-up welding on aluminium moulds or copper beryllium inserts.

2. Automatic welding navigation

Welding current and welding time are automatically set by the welding area, shape diameter of the welding material.

3. Data memory mode

With the SAVE mode data of the welding conditions, fixed by the operator, can be stored under USER 1-2-3 and recalled.

4. Continuous TIG mode

When a large area has to be welded, the continuous interval set-up with adjustable weld- and pause times allows automatic pulsation up to a permanent arc.

All-purpose usage

Assured resistance welding and precise TIG welding

The inverter control allows a precise and reproducible setting of the welding current and welding time. For the resistance mode the welding current can be set from 30 A to 750 A and the welding time from 1 msec to 30 msec. For the TIG mode the welding current can be set from 2 A to 250 A and the welding time from 1 msec to 600 msec.

Field of applications

Injection moulding, die casting, press moulding, blow moulding, rubber moulding etc.

Diverse purposes

Areas of parting lines, impact loaded slide edges, pin-gate areas, tunnel gate areas, repair of ejector-holes, thin edge areas, smoothing pinholes and shrink holes after conventional TIG welding, size allowance within mould alterations

Various kinds of processing after welding are possible

After welding different kinds of processing are possible, like EDM (Electrical discharge machining), grinding, milling, sand blasting, coating as well as heat treatment and nitriding.

WELDPRO SW-V02

Technische Daten / technical data	Widerstandsschweißen resistance welding	WIG-Schweißen TIG-welding
Eingangsspannung / input voltage	Einphasenwechselstrom 220/230 V; 50/60 Hz / single phase AC 200/230 V; 50/60 Hz	
Nenneingangsleistung / rated current	10,4 kVA (Spitzenwert) 6,3 kVA / 10,4 kVA (peak value) 6,3 kVA	
max. Leerlaufspannung / max. voltage of no-load	ca. 76 V / approx. 76 V	
Ausgangsstrom / output current	30 - 750 A	2,5 - 250 A
Impulsdauer / welding time	1 - 30 ms	1 - 600 ms
Pulsfrequenz / repetition periode	400 ms	0,1 - 0,2 ms
Gas-Vorströmzeit / pre gas flow	0,30 sec	
Gas-Nachströmzeit / post gas flow	1 - 5 sec	
Steuerung / control methode	Invertersteuerung / inverter methode	
Kühlung / cooling methode	Luftkühlung (Ventilator) / forced air cooling	
Abmessung / dimension	204 x 425 x 390 mm	
Gewicht / weight	23 kg	



Lieferumfang / extent of supply	Nr. / No.
Steuergerät / power unit	694001
Handstück, drehbar / hand tool, turnable	696002
WIG-Brenner mit 1,6 mm Sannzange / TIG-Welding torch with collet of 1.6 mm	697002K
Erdungsplatte / earthing pad	697003
Fußschalter / foot switch	697004
Werkzeugkasten / tool box	697005
Gaszuleitung / gas hose	697015
Schere / scissors	697011
3 Wolframelektroden / tungsten electrodes Ø 1.6 mm	697031K/16
Elektrodenhalter / electrode holder Ø 2 mm	695021
Elektrodenhalter / electrode holder Ø 3 mm	695022
Elektrodenhalter / electrode holder Ø 5 mm	695023
Elektrode (zyl.) / electrode cylinder Ø 3 x 50 mm	695032
Elektrode (spitz) / electrode ball Ø 3 x 50 mm	695041
Folie 1.2344 / plate 1.2344 0,1 x 5 mm	695403
Folie 1.2083 / plate 1.2083 0,1 x 5 mm	695405
Folie 1.2083 / plate 1.2083 0,2 x 5mm	695455
Stahlwollmatte 1.2083 / compressed steel wool 1.2083	695502
20 verschiedene WIG Schweißzusätze various TIG filler metal	-



Nr. / No.	Stk. / pc
694	

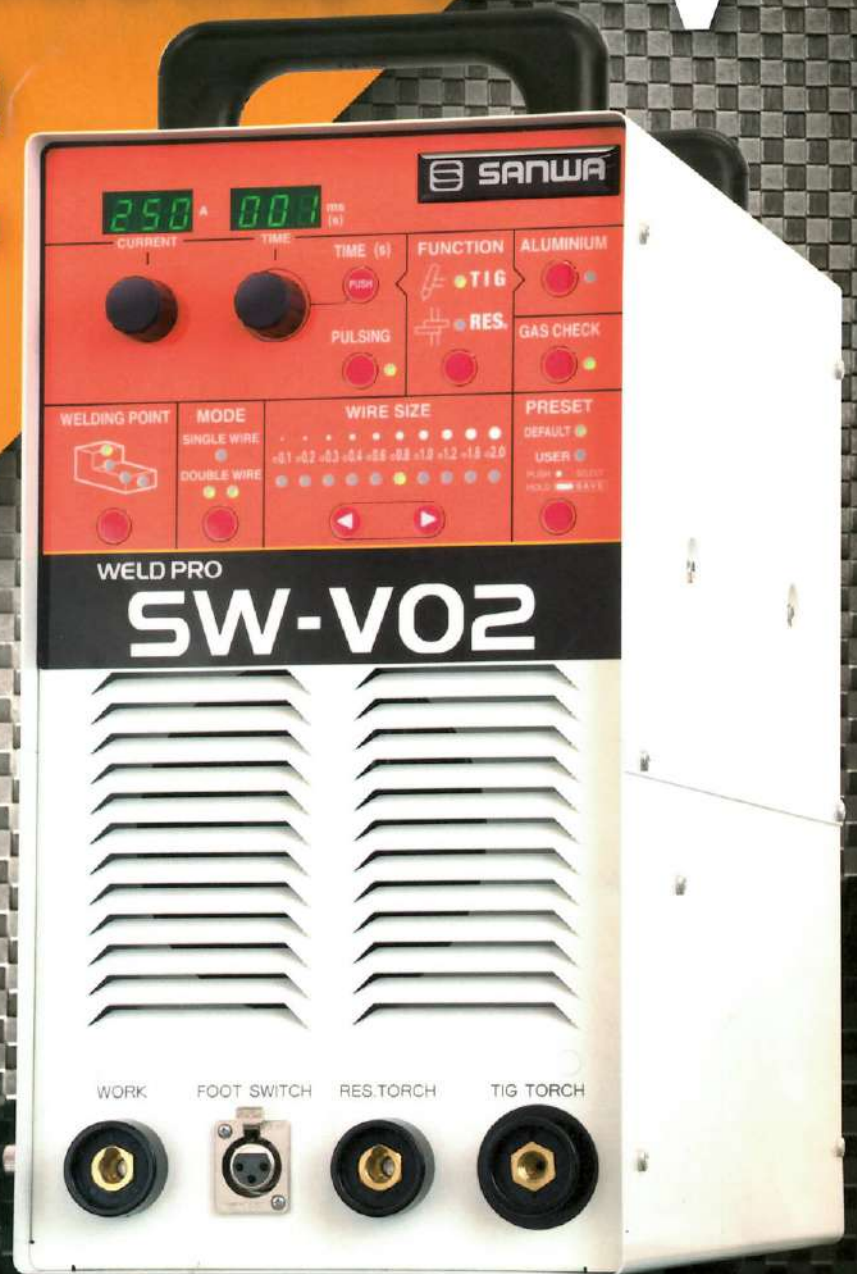
SANWA

Ultra-precision Mold
Padding Welder

WELD PRO SW-V02

The Mission of V

Ever-Advancing
Evolution



SANWA SHOKO CO.,LTD.

WELD PRO

Ultra-precision Mold
Padding Welder

SW-V02

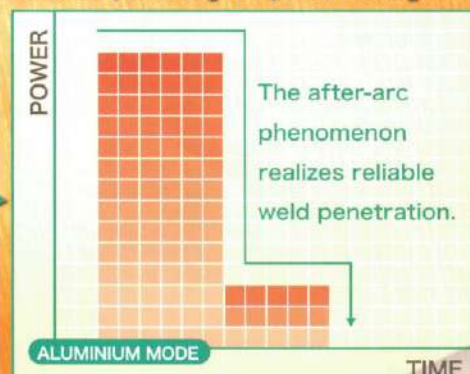
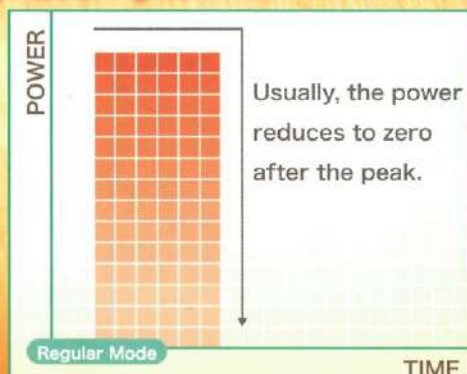
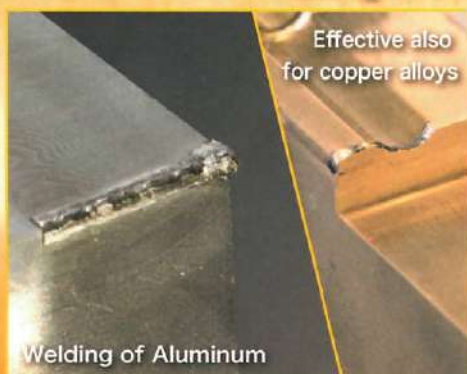
Advanced Welding Navigation

that leads ultra-high precision welding to a higher dimension

ALUMINIUM MODE

Making the impossible possible

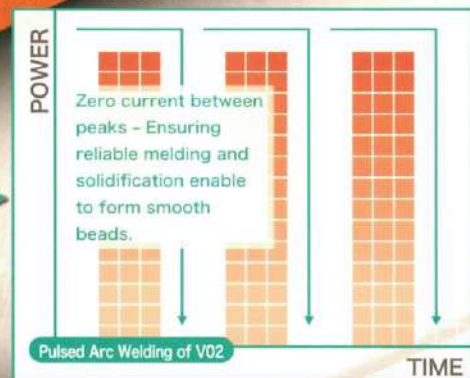
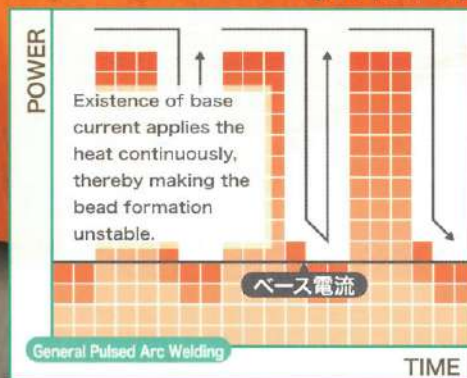
Considering the characteristics of aluminum where rapid heat diffusion is generated, more reliable weld penetration has been achieved by activating precision inverter control to slightly generate the after-arc phenomenon (remaining heat) after melting.



PULSING

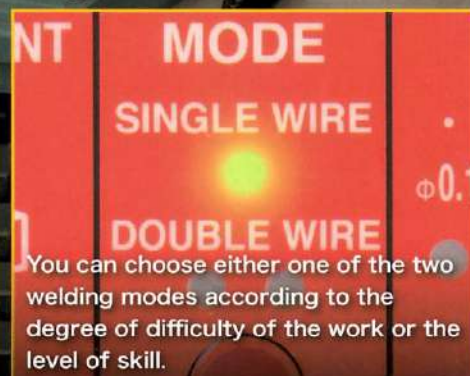
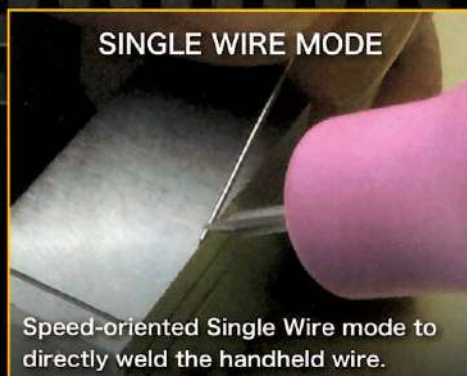
Achieving the zero base current, thereby ensuring stable welding for longer distance.

For general pulsed arc welding, the base current exists between peaks, and continued heating causes shrinkage and deformation. With our Model V02, smooth, even beads can be formed by reducing the peak-to-peak current to zero.



SINGLE・DOUBLE WIRE

Two setting modes selectable according to welding methods



TIG Welding + Resistance Welding

High performance welder
Responding to skills of experienced welder, while supporting beginners

The WELD PRO SW-V Series models have evolved where the functions of TIG welding that enables ultra-high precision and resistance welding that is convenient for tentative fixing and simple repair are integrated into one welding machine. The series models feature the more user-friendly Weld Navigation that leads precision welding to a higher dimension, and the Aluminium Mode that enables precision welding of aluminum

that is currently assumed to be difficult. Furthermore, the varieties of functions that assist the various scenes of welding support beginning welders, and high-level performance that has been accumulated after each version upgrade responds to the skills of experienced welders. Why don't you physically feel the sophistication and the evolution that open up a new era in ultra precision padding welding machines?



FUNCTION

Combined use of TIG & RES.



TIG welding and resistance welding are integrated into a single chassis, which enables covering tentative fixing work up to finish work with a single V02 machine.

WELDING POINT

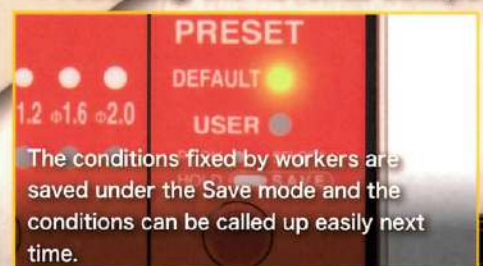
Easy calling up of the adequate setup



Adequate welding setups (current and time) corresponding to two vertexes, depth side corners, three vertexes, and flat surfaces are stored.

PRESET

Presetting the favorite setups



The conditions fixed by workers are saved under the Save mode and the conditions can be called up easily next time.

WIRE SIZE

From ultra-fine welding material to buildup welding

Use of $\phi 0.1$ mm wire size



Use of $\phi 0.4$ mm wire size



Use of $\phi 2.0$ mm wire size



WIRE SIZE

$\phi 0.1$ $\phi 0.2$ $\phi 0.3$ $\phi 0.4$ $\phi 0.6$ $\phi 0.8$ $\phi 1.0$ $\phi 1.2$ $\phi 1.6$ $\phi 2.0$

You can choose a wire size from $\phi 0.1$ mm to $\phi 2.0$ mm, thereby handling a broad range of ultrafine pinpoint welding up to buildup welding of wide flat surfaces.

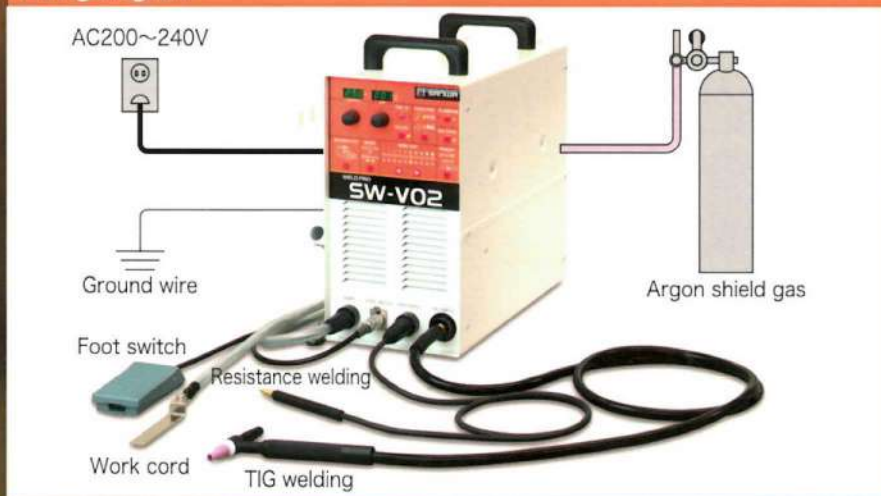


Configuration

1. Tool box
2. Foot switch
3. Gas hose
4. Output cord for resistance welding : for $\phi 13\text{mm}$
Hand piece for resistance welding : for $\phi 2 / 3\text{mm}$
5. Output cord for resistance welding : for $\phi 18\text{mm}$ 用
Output cord for resistance welding : for $\phi 5\text{mm}$ 用
6. Silver tungsten electrode for resistance welding
7. Torch cord for TIG welding
8. Tungsten electrode for TIG welding $\phi 1.6\text{mm}$
9. Work cord
10. Metal cutter
11. Aramid gloves

- ※ A gas pressure adjuster shall be attached to products for domestic use only.
- ※ Either 4 or 5 shall be attached as standard configuration.

Wiring diagram



Broad Application Range

- Plastic mold ■ Die casting mold ■ Press mold ■ Glass mold
- Blow mold ■ Rubber mold ■ Copper alloy mold etc...

Diverse Purposes

- Parting line part, slide edge areas where shocks are applied
- Pin-gate areas, tunnel-gate areas
- Repair of ejector-holes, thin edge areas
- Smoothing pinholes and surface depressions after argon welding
- Padding after electric discharge machining, nitriding, and tuffride processing

Welding Materials

	Wire 5m								Hardness HRC
	$\phi 1.6$	$\phi 1.2$	$\phi 0.8$	$\phi 0.6$	$\phi 0.4$	$\phi 0.3$	$\phi 0.2$	$\phi 0.1$	
NAK-80	●	●	●	●	●	●	●	●	40~42
NAK-55	●	●	●	●	●	●	●	●	40~42
HPM-50	●	●	●	●	●	●	●	●	40~42
HPM-38	●	●	●	●	●	●	●	●	52~55
HPM-2	●	●	●	●	●	●	●	●	28~31
STAVAX	●	●	●	●	●	●	●	●	52~55
RIGOR	●	●	●	●	●	●	●	●	52~55
IMPAX	●	●	●	●	●	●	●	●	30~33
NICKEL	●	●	●	●	●	●	●	●	15~20
S50C(5m)	●	●	●	●	●	●	●	●	28~32
SKD-61	●	●	●	●	●	●	●	●	40~42
ORVAR	●	●	●	●	●	●	●	●	40~42
QRO-90	●	●	●	●	●	●	●	●	50~53
MAS-1	●	●	●	●	●	●	●	●	28~30
SKD-11	●	●	●	●	●	●	●	●	55~57
SKD-51	●	●	●	●	●	●	●	●	60~62
SVERKER	●	●	●	●	●	●	●	●	55~57
Nitriding	●	●	●	●	●	●	●	●	18~20
Copper Alloy	●	●	●	●	●	●	●	●	---
Aluminum1000	●	●	●	●	●	●	●	●	---
Aluminum5000	●	●	●	●	●	●	●	●	---

Specifications

	Resistance welding	TIG welding
Input Voltage	Single Phase AC200~240V 50/60Hz	
Rated Output Current	10.4 kVA(Peak value)	2.8 kVA(Average value)
Maximum Voltage of No-Load	-----	approx.76V
Output Current	30~750 A	2~250 A
Welding Time	1~30ms	1~600ms
Repetition Period	400ms	0.1~2.0s
Applicable Wire Size	$\phi 0.1 \sim 2.0\text{mm}$	
Control Method	Inverter Method	
Cooling Method	Forced air cooling	
Dimensions	W 204 X D 425 X H 390 (mm)	
Weight	23.8kg	

●The design and specifications are subject to change without prior notice for product improvement.

⚠ Safety Remarks

The operation, maintenance, and inspection of this product must only be conducted by a specialist thoroughly familiar with the product.

NOVAPAX

Kunststofftechnik Steiner GmbH & Co. KG
Schätzelbergstraße 8-10 · D-12099 Berlin
Tel: +49/(0)30/70 19 14-0 · Germany
info@novapax.com · www.novapax.com

NOVAPAX HELLAS

Alkiviadou 51st., 185 32 Piraeus
Greece
Tel. 0030 210 4112589
Fax. 0030 210 4137529
E-mail: info@novapax.gr
Website: www.novapax.gr