

## KR2 Series

The World's Most Preferred and Reliable Fully Thyristorised MIG/MAG Welding System



Over 500,000 KR Series Machines Sold Globally

### Key Features of KR2 Series

- ▶ Six phase thyristorised system gives ripple-free DC output for superior quality welding.
- ▶ Synergic mode (Unified mode) is available for easy setting of current and voltage.
- ▶ Fresh tip treatment and burn-back time control are adjustable.
- ▶ Secondary short circuit protection is a standard function.
- ▶ Arc sensitivity is selectable by changing the tap of the reactor.
- ▶ Crater current and crater voltage controls on front panel.
- ▶ Crater selection switch, gas check switch, Solid/FCW selection switch, wire diameter selection switch are available on the front panel.
- ▶ Works on 50/60 Hz frequency in power supply.

### Wire Feeder Available in Various Lengths

Wire feeder available in standard interconnection cable length of 1.8 mtrs. (5/10/15 and 20 mtrs. - Optional)

### KR2 Series Wire Feeder and Torch

- ▶ Printed circuit wire feeder motor for better resolution and accuracy.
- ▶ Cable-less remote controller mounted on wire feeder as well as lightweight cables enable better mobility.
- ▶ Maximum wire feed speed up to 20.1m/min.
- ▶ Standard 2-Roll Drive and optional 4-Roll Drive available.
- ▶ Ergonomically designed MIG torches reduces fatigue.
- ▶ Lightweight, durable and long lasting.

### Pana & Euro Connector Torch Available

High Performance Pana & Euro Connector MIG Torch available.



Pana Connector  
(Standard)



Euro Connector  
(Optional)

Technical Specifications	Unit	250KR2	400KR2	500KR2
<b>INPUT</b>				
Rated Input Voltage	Volts	415, +10%, -10%	415, +10%, -10%	415, +10%, -10%
Phase / Freq.	No./Hz	3ph/50-60	3ph/50-60	3ph/50-60
Max. Input KVA @ 415 Vac:				
@60% Duty Cycle	KVA/KW	9.5/7.9	21/19	31.9/28.1
<b>OUTPUT</b>				
Rated Current Range	Amps	50-250	60-400	60-500
Rated Output Voltage	Volts	15-27	16-39	16-45
Welding Current:				
@60% Duty Cycle	Amps	250	400	500
@100% Duty Cycle	Amps	194	310	387
<b>GENERAL</b>				
Conformance to International Standards		All Machines are Manufactured as per Std. IEC 60974-1:2000/GB 15579.1:2004		
Applicable Shielding Gas		CO <sub>2</sub> /CO <sub>2</sub> +Ar		
Insulation	Class	H		
Cooling	Type	Forced Air Cooling		
Dimensions	mm	675 X 376 X 747	675 X 436 X 762	675 X 436 X 762
Weight	Kg	94	149	158
<b>WIRE FEEDER</b>				
Rated Welding Current	Amps	250	400	500
Applicable Wire Diameter	mm	0.8, 1.0, 1.2	0.8, 1.0, 1.2	1.2, 1.6
Weight	Kg	10.5	10.5	10.5
Wire feeder available in standard interconnection cable length of 1.8 mtrs. (5/10/15 and 20 mtrs.- Optional)				
<b>WELDING TORCH</b>				
Rated Welding Current	Amps	350	400	500
Applicable Wire Diameter	mm	0.8, 1.0, 1.2	0.8, 1.0, 1.2	1.2, 1.6
Cable Length	Meter	3	3	3
Weight (Incl. Cable)	Kg	2.8	2.8	3.6
<b>ORDERING INFORMATION</b>				
Power Source		YD-250KR2DJF	YD-400KR2DJF	YD-500KR2DJF
Wire Feeder		YW-25KB3DAE	YW-40KB3DAS	YW-50KB3DAN
Welding Torch		YT-35CS4DA1	YT-40CS4DAF	YT-50CS4DAF

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## 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.



**Range of Welding Equipment: MMAW | MIG/MAG | TIG | Plasma Cutting | Welding Accessories | Welding Robots**  
**Panasonic has set-up its own state-of-the-art welding equipment manufacturing facility at Jhajjar near Gurugram, Haryana, India.**

### PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.

(Division Company: Panasonic Smart Factory Solutions India)

**Head Office :** 12th Floor, Ambience Tower, Ambience Island, NH-8, Gurugram - 122002, Haryana, India.  
**Phone: +91-124-4871300**

**Factory :** Village Bid Dadri, Tehsil and District: Jhajjar - 124103, Haryana, India.

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 **+91-9729900200**

## RX1 Series

The World's Most Preferred and Reliable  
Digital + Inverter IGBT- Controlled  
MIG/MAG Welding Machine

Remote  
Management  
Controller (optional)  
for Locking Welding  
Parameters



### Fine Adjustment of Arc Characteristics

#### Key Features of RX1 Series

- Inverter-based digital wave control GMAW and FCAW welding outfit.
- Higher efficiency and higher power factor results in greater power saving.
- Designed to work even under high ambient temperatures up to 50°C.
- Lightweight and compact MIG/MAG/FCAW welding outfit.
- Unique design of three layer and four room dust-free structure.
- RX1 Series is manufactured as per Std. IEC 60974-1:2000/GB 15579.1:2004.
- Fresh tip treatment and burn-back time control are adjustable.
- Works on 50/60 Hz frequency in power supply.
- Equipped with Synergic Mode (Unitary Function) in which welding voltage is set based on the welding current value automatically. The voltage can be adjusted finely to fit the best current values.
- Digitally controlled waveform enables superior arc characteristics.

#### Important Safety Features

- Over-voltage and under-voltage protection.
- Overheating protection.
- Single-phasing protection.
- Protective 8 Amps fuse for protection of wire feed motor.

#### Pana & Euro Connector Torch Available

High Performance Pana & Euro Connector MIG Torch available.



**Pana Connector**  
(Standard)



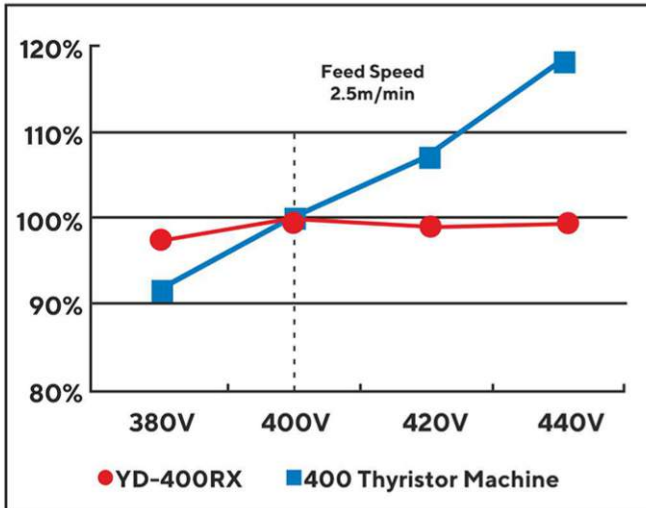
**Euro Connector**  
(Optional)

#### Wire Feeder Available in Various Lengths

Wire feeder available in standard interconnection cable length of 1.8 mtrs. (5/10/15 and 20 mtrs. - Optional)

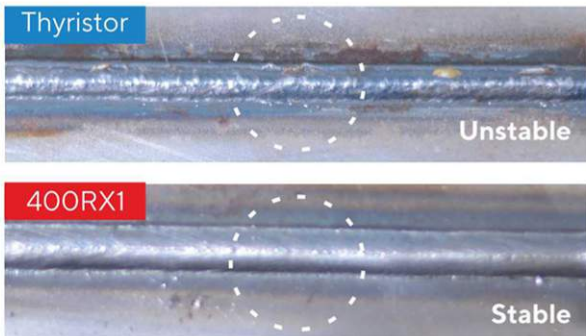
## The Digital Inverter Advantage

### High Quality Welding

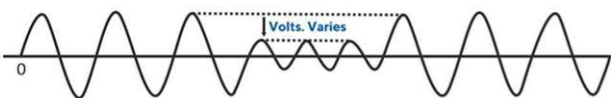


*Input voltage and wire consumption*

The wire feed remains constant over a wide range of input voltage variations resulting in higher quality of welding.



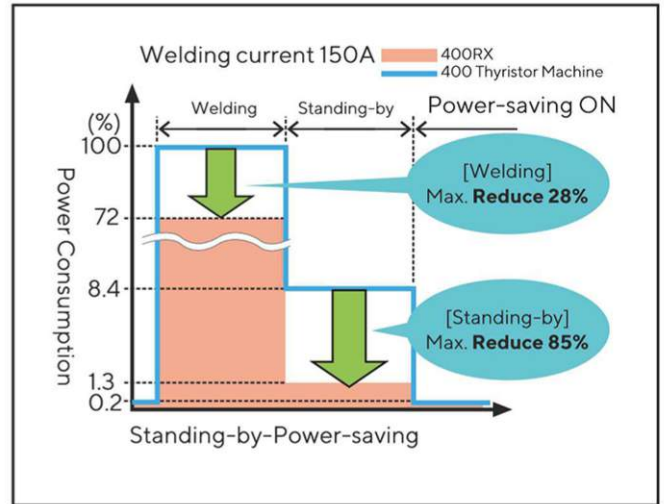
*Welding seam comparison as input voltage varies*



*Input voltage waveform*

The welding seam is more uniform as compared to thyristor-controlled welding even during variation of input voltage.

### Higher Energy Savings



- More energy saving than conventional machines.
- High-speed CPU ensure more stable wire feed & intensive arc, thus improves the capability of energy saving.

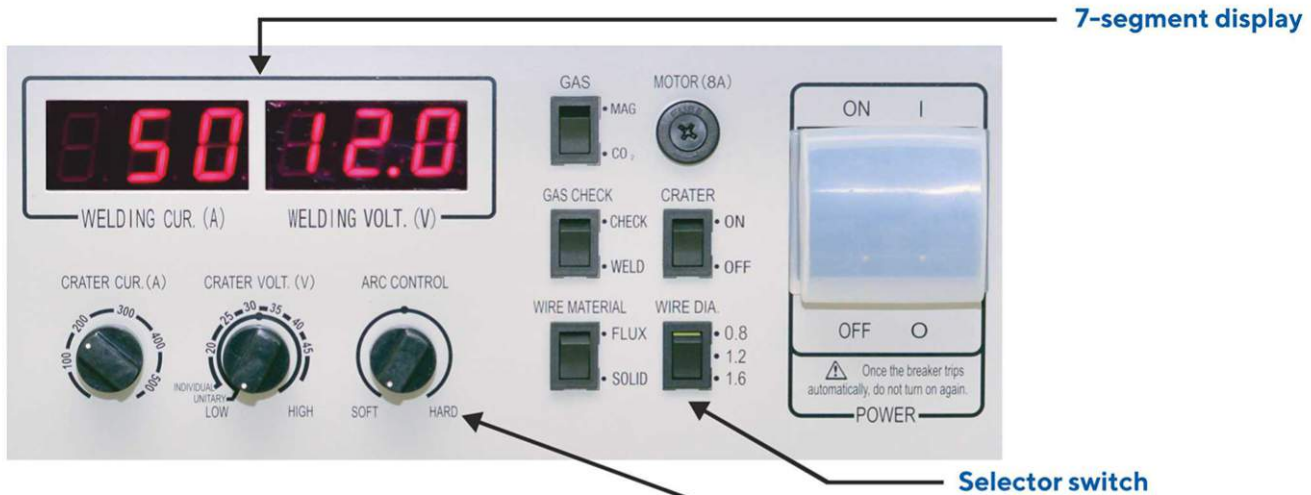
#### At No-load

- When welding stops, the power supplied to the transformer is cut, so it costs no energy at no load state.
- Energy-saving circuit is activated 7 minutes after the end of welding.

#### Ideal for Diverse Industries

- Automotive
- Shipbuilding & Offshore
- Heavy Construction Equipment
- Railways
- Repair & Maintenance
- General Fabrication
- Civil/Project Construction
- Process Industry

## High Reliability and Easy Operation



- Designed for high temperature and humidity resistance.
- Can work even under high ambient temperature of 50°C.
- Extremely easy operation.

**Arc control offers soft setting to reduce spatter and hard setting to ensure more stable arc in high speed welding.**

### Other Significant Features

- Digital display of current and voltage control.
- Equipped with Synergic mode (Unitary function) in which welding voltage is set based on the welding current value automatically. The voltage can be adjusted finely to fit the best current values.
- Low power consumption than conventional machines.
- Power factor > 0.9
- Crater voltage and crater current adjustment through front panel.
- Arc force adjustment for better arc characteristics.
- Digitally controlled waveform enables superior arc characteristics.
- Gas check, wire diameter selection and gas selection switch on the front panel.

### Wire Feeder and Torch Features

- Printed circuit wire feeder motor for better resolution and accuracy
- Cable-less remote controller mounted on wire feeder as well as lightweight cables enable better mobility.
- Maximum wire feed speed up to 20.1m/min.
- Standard 2-Roll Drive and optional 4-Roll Drive available.
- Ergonomically designed MIG torches reduces fatigue.
- Lightweight, durable and long lasting.



### Remote Management Controller (Optional)

With this device these parameters can be set & locked:

- Limit welding current
- Set users' password
- Lock welding parameters
- Display wire feed speed
- Set gas pre-flow and post-flow time
- Set Burnback time
- Penetration depth control
- Recalibrate current and voltage meter



### Enclosed Wire Feeder also available (Optional)

- Dust preventive and Rain water preventive (IP23)
- Operator Safety
- Euro/Pana Connector
- Brake Spool Shaft
- Outdoor and Indoor performance

**Ideal for fabrication in dusty area**



Technical Specifications	Unit	YD-250RX1	YD-400RX1	YD-500RX1
<b>INPUT</b>				
Voltage	Volts.	415,+15%, -20%	415, +10%, -20%	415, +10%, -20%
Phase/Freq.	No./Hz	3ph/50-60	3ph/50-60	3ph/50-60
Max. Input KVA@415VAC				
@60% Duty Cycle	KVA/KW	8/7.7	16.2/15.6	
@100% Duty Cycle	KVA/KW			23.1/22.2
<b>OUTPUT</b>				
Rated Current Range	Amps	50-250	50-400	60-550
Rated Output Range	Volts	12-26.5	16.5-35.5	17-41.5
Welding Current:				
@60% Duty Cycle	Amps	250	400	
@100% Duty Cycle	Amps	193	310	500
<b>GENERAL</b>				
Power Control Method		IGBT Inverter Controlled	IGBT Inverter Controlled	IGBT Inverter Controlled
Ingress Protection	Class	IP 21S	IP 23	IP 23
Insulation	Type		H	
Cooling			Forced air cooling	
Power Factor			> 0.9	
Operating Temperature	Degree C		-10 to 50	
Dimensions (LxBxH)	mm	545x380x570	545x380x570	545x380x635
Weight	Kg	44	52	60
<b>WIRE FEEDER</b>				
Rated Welding Current	Amps	250	400	500
Applicable wire diameter	mm	0.8, 1.0	0.8, 1.0, 1.2	1.2, 1.6
Weight	Kg	10	10.5	10.5
Wire Feed Speed	Meter/ Minute	5-20.1	5.3-20.1	5.3-20.1
Duty Cycle	%		60	
Wire feeder available in standard interconnection cable length of 1.8 mtrs. (5/10/15 and 20 mtrs.- Optional)				
<b>WELDING TORCH</b>				
Rated welding current	Amps	350	400	500
Applicable Wire Diameter	mm	0.8, 1.0, 1.2	0.8, 1.0, 1.2	1.2, 1.6
Cable Length	Meter		3	
Weight (Incl. Cable)	Kg	2.8	2.8	3.6
<b>ORDERING INFORMATION</b>				
Power Source	-	YD-250RX1DJE	YD-400RX1DJK	YD-500RX1DJE
Wire Feeder	-	YW-25KB3DTE	YW-40KB3DAL	YW-50KB3DRO
Welding Torch	-	YT-35CS4DA1	YT-40CS4DAF	YT-50CS4DAF
Remote Management Controller	-		TSMYU290	
<b>FOR STAINLESS STEEL MIG/MAG WELDING FOLLOWING CONFIGURATION</b>				
Power Source	-	YD-250RX1DJS - Stainless steel welding model, 0.8 mm/1.0 mm dia wire Solid SS wire & Solid MS wire	YD-400RX1DJS - Stainless steel welding model, 0.8 mm/1.2 mm dia wire Solid SS wire, Solid MS wire, FCAW	YD-500RX1DJS - Stainless steel welding model, 1.2 mm dia wire solid SS, 1.2 mm/1.6 mm solid MS wire & FCAW
Wire Feeder	-	YW-25KB3DTE	YW-40KBA3DAE	YW-50KBA3DRO
Welding Torch	-	YT-35CS4DA1	YT-40CS4DAF	YT-50CS4DAF

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- ▶ 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.
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Technical Specifications	YD-350FR2	YD-500FR2	YD-630FR2	
Control method	-	Digital IGBT Control		
Rated input voltage Number of phases	-	AC380-415V* (Acceptable variation: 290 to 470)		
Input power frequency	Hz	50 / 60		
Rated input capacity	kVA/kW	13.5 / 13.0	23.3 / 22.4	31.8 / 30.4
Output characteristics	-	CV (Constant Voltage characteristics) / CC (Constant Current characteristics)		
Rated output current	A	350	500	630
Rated output voltage	V	31.5	39	44
Rated duty cycle	%	60	100	100
Rated output no-load voltage	V	70		69
Output current range	A	40-430 (Resistive load output capability)	60-550 (Resistive load output capability)	60-630 (Resistive load output capability)
Output voltage range	V	16-35.5 (Resistive load output capability)	17-41.5 (Resistive load output capability)	17-44 (Resistive load output capability)
Welding method	-	Digital IGBT control		
Enclosure protection class	-	IP23S		IP21S
Insulation class	-	155°C (Reactor 200°C)		
Cooling method	-	Forced air cooling		
Applicable welding wire diameter	mm	Solid MS 0.8 / 1.0 / 1.2	Solid MS 1.0 / 1.2 / 1.6	Solid MS 1.2 / 1.6
	mm	Flux core MS 1.0 / 1.2	Flux core MS 1.2 / 1.4 / 1.6	Flux core MS 1.2 / 1.4
Sequence	-	Welding / welding-cracter / spot welding / Initial-welding-cracter		Welding / welding-crater / spot welding
Shielding gas	-	CO <sub>2</sub> welding CO <sub>2</sub> :100%; MAG welding Ar: 80%, CO <sub>2</sub> : 20%		
Gas pre-flow time	s	0.2		
Gas post-flow time	s	0.5		0.2
Spot welding time	s	0.3-10 Continuous adjustment		
Dimensions (W x D x H)	mm	372 x 575 x 632		372 x 615 x 745
Weight	kg	54	60	76.5
Wire Feeder		YW-35KB3	YW-50KM3	YW-60KC2 YW-60KCW2 (Water Cooled)
Welding Gun		YT-35CS4	YT-50CS4	YT-50CS4 YT-60ICCW (Water Cooled)
Gas Regulator		YX-25CDIHAH		

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#### Power Supply equipment and connecting cables

Welding power source		YD-350FR2	YD-500FR2	YD-630FR2
Power supply capacity	General power supply	20kVA or more	35kVA or more	45kVA or more
	Generator	More than twice 15 kVA	More than twice 24 kVA	More than twice 31.8 kVA
Input protection (distribution box)	Fuse	32A	50A	125A
	Circuit breaker	50A	63A	125A
Cable	Welding power input side	6mm <sup>2</sup> or more	10mm <sup>2</sup> or more	10mm <sup>2</sup> or more
	Welding power output side	35mm <sup>2</sup> or more	70mm <sup>2</sup> or more	95mm <sup>2</sup> or more
	Ground wire	Ground wire is equal to or greater than the welding power source input side.		

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# Panasonic

## YD-350/500/630FR2

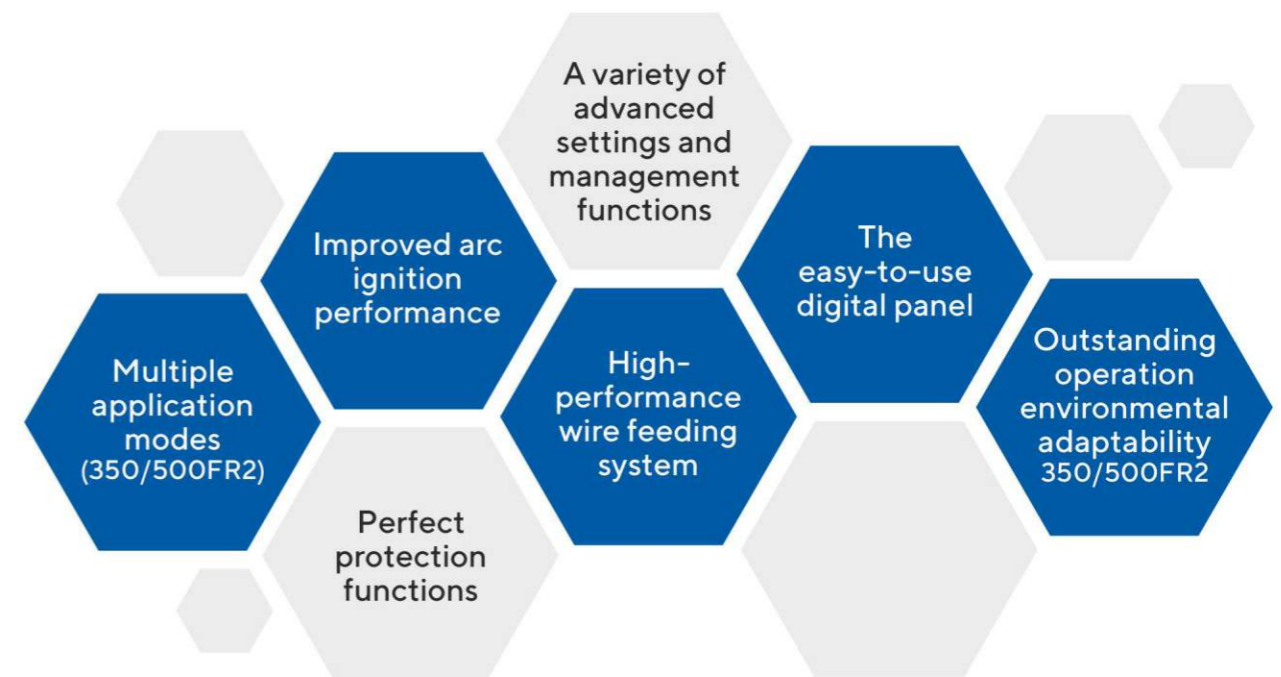
Digital Inverter CO<sub>2</sub> / MAG and SMAW / Gouging\*  
(\*Gouging in case of 630FR2 only)

### CC/CV DC Inverter



High Welding performance with even 40 m extension cable

- ▶ CO<sub>2</sub> / MAG Welding
- ▶ Shield metal arc welding / Gouging
- ▶ Standard mode / Fast mode for thin plate
- ▶ Current limiting function / SPM interface

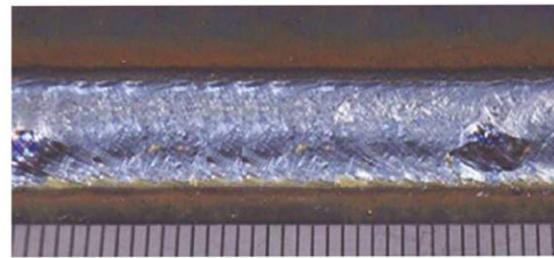


# High-performance, multifunctional and general-purpose CO<sub>2</sub>/MAG welding machine

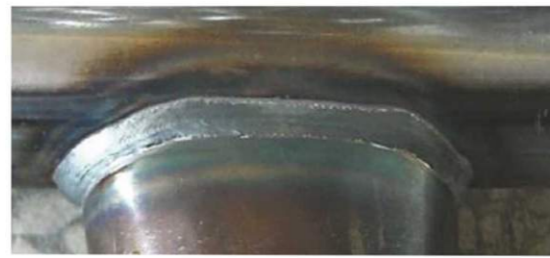
## Multiple application modes (350/500FR2)

### Standard Mode (factory default mode)

This mode is suitable for general welding applications. You can fine tune the welding parameters as you wish according to the welding process requirement and operating habits. The unitary adjustment method enables the welding voltage to match the preset welding current.



Mild steel / Fillet  
2.3mm thickness, Current 110A  
Voltage 17.2V, Welding speed 30cm/min  
Gas: CO<sub>2</sub>

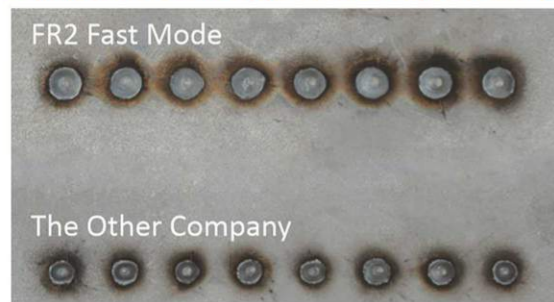


Mild steel / intersecting wire welding  
Thickness 1.5mm, Current 95A, Voltage 17V  
Welding speed 50cm/min  
Gas (80% Ar + 20% CO<sub>2</sub>)

### Fast Mode

The welding expert mode is designed for fast spot welding and short bead welding, offering rapid arc start and fast welding functions with high efficiency. Once the welding gun switch is pressed, arc starts; released, arc stops.

#### Comparison on the appearance of spot welding



Mild steel / spot welding  
Thickness 3mm, current 160A  
Unified voltage  
Spot welding time: 0.6 seconds

#### Gap Welding



Mild steel / fillet  
Thickness 2mm, current 110A  
Unified voltage  
Clearance 3mm, welding speed 50cm/min

### Stick welding function (SMAW)

- On the detailed menu, you can set the machine to "Manual Welding" mode, suitable for all kinds of acid and alkaline electrodes (The maximum diameter is 5mm).
- This mode is excellent choice for long-distance welding operations, maintenance and other applications.
- The arc force and arc ignition current are adjustable.

### Improved arc ignition performance

By optimizing welding control method and data, the cold arc start performance is greatly improved, leveraging the success rate of cold and hot arc ignition up to 90% and 100% respectively.

### High-performance wire feeding system

Thanks to IVF, a patented technology, wire feeding system is able to provide powerful and stable feeding force. Even connecting 40m extension cable, the wire feeder can supply the normal feeding force, fitting to the industries requiring long distance operation.



The powerful wire feeder is capable of long distance welding

IVF (Induction Voltage Feedback) control, a unique Panasonic patented technology, enables wire feeding system with ordinary printed circuit motor to provide high feeding capability.

### The easy-to-use digital panel

- High-brightness seven-segment digital display shows parameters including preset current and voltage, actual welding current and voltage, error code, wire feed speed and time etc.
- By using touch buttons, parameter and functions can be set conveniently.



### Outstanding operation environmental adaptability 350/500FR2

- The allowable mains fluctuation range reaches  $\pm 25\%$ .
- Dust-proof design for PC Boards and power components.
- The enclosure protection class as high as IP23S.

### Perfect protection functions

- Lightning Protection
- Phase Lack Protection
- Output Short Circuit Protection
- Overheat Protection
- Over-voltage and Under-voltage Protection

### A variety of advanced settings and management functions

- The display on current or wire feed speed is selectable (350/500FR2).
- The upper and lower limits of current and voltage (percentage) can be set. Once the actual values exceed the preset ones, the machine outputs an alarm signal, realizing welding quality monitoring.
- Current and voltage display compensation function can adjust the current and voltage display errors.
- You can use the storage and recall functions to store and recall 9 sets of welding conditions on the operation panel and 3 sets on the wire feeder.



## Rated Specifications

Item		YD-350FD2	YD-500FD2
Power control method	-	IGBT inverter type	
Rated input voltage	-	3-phase AC 380 V	
Rated input frequency	Hz	50/60	
Rated input	kVA/kW	17.6/13.5	29.9/23.9
Output characteristic	-	CV(Constant Voltage)	
Rated output current	A	DC 350	DC 500
Rated output voltage	V	31.5	39
Rated duty cycle	%	60	
Rated output no-load voltage	V	DC 80	
Output current adjustable range	A	DC 40~430	DC 60~500
Output voltage adjustable range	V	16~35.5	17~39
Method of welding	-	Individual / Unitary	
Enclosure protection class	-	IP23S	
Insulation grade	-	Main transformer 155°C (F class), Reactor 200°C	
Applicable wire size (diameter)	-	Soft/Hard Aluminum 1.2/1.6	
Memory	-	100 channels of welding parameters can be stored and recalled.	
Sequence	-	Welding/ Welding-crater/Initial-welding-crater/Tack welding	
Shielding gas	-	MIG Aluminum Ar: 99.99%	
Gas check time	-	60 s (Max)	
Pre-flow time	-	0 s - 5.0 s continuous (0.1 s Increment)	
Post-flow time	-	0 s - 5.0 s continuous (0.1 s Increment)	
Tack welding time	-	0.3 s - 10.0 s continuous (0.1 s Increment)	
Cooling liquid tank volume	L	9	
Cooling method/ circulation type	-	Circulating cooling/Pump forced circulation	
Cooling capacity	kW	1.5 (Tested at flow rate of 1L/min)	
Cooling liquid max hydraulic head	m	20	
Dimension	mm	1200 x 570 x 1060	1200 x 570 x 1060
Mass	kg	124	133

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## 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.
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**Range of Welding Equipment: MMAW | MIG/MAG | TIG | Plasma Cutting | Welding Accessories | Welding Robots**  
**Panasonic has set-up its own state-of-the-art welding equipment manufacturing facility at Jhajjar near Gurugram, Haryana, India.**

### PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.

(Division Company: Panasonic Smart Factory Solutions India)

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# Panasonic

## YD-350/500FD2

Full Digital Pulse MIG/MAG Welding Machine



**The Specialized models for aluminium MIG welding**

High performance-price ratio

# Recommended application industries: construction aluminum formworks, aluminum alloy furniture and pallets etc.

## The high-quality aluminum MIG welding of both thin and middle thick aluminum plate

- Thanks to quad-core processor and integrated software control algorithm, the optimum pulse waveform control has been achieved, make welding arc more stable.
- By taking use of the built-in specialist database of 1.2 and 1.6 welding wires, the machine is suitable for the welding of thin and thick aluminum plate.

## The wire feeder motor equipped with the high-precision encoder

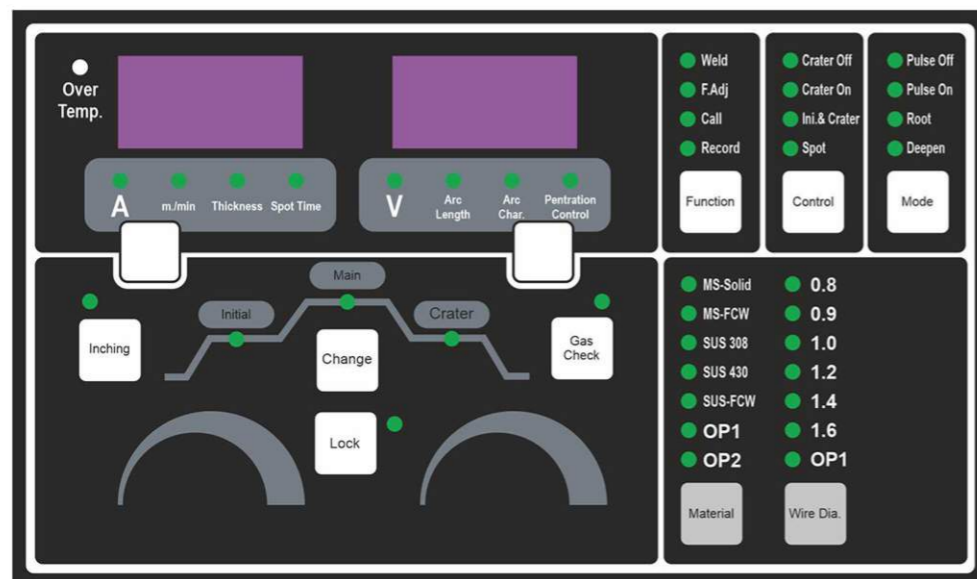
- The motor equipped with digital encoder provides the precise wire feeding, powerful feeding force and high anti-inference ability, ensuring stable welding.
- The enclosed structure can significantly prevent the contamination of the dust.
- The damping shaft offers proper braking capability.
- The 4-roll mechanism enables the wire feeder to give you powerful and stable wire feeding performance.



## The instant and stable arc ignition

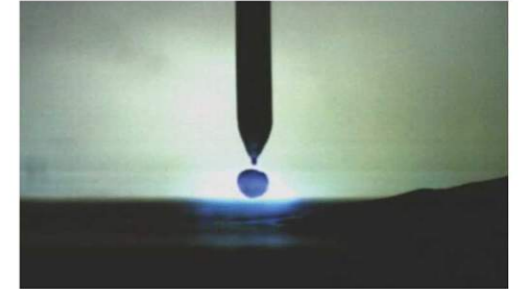
- Thanks to the motor equipped with full-digital encoder and unique arc start control technology, the instant arc ignition is realizable.
- The control on the shape of the molten ball at the tip of welding wire paves the way for the next successful arc ignition.

## The user-friendly operation interface



## The various welding modes optimized for aluminum welding

- The single pulse welding mode is suitable for medium and thick aluminum materials and the dual-pulse mode for thin plate and vertical welding.
- The arc-length control technology can change the arc thermal output.
- The requirement for a variety of aluminum alloys can be widely satisfied.
- According to the special aluminium alloy materials, the specific arc software packages can be customized.



## Abundant arc characteristics help you to realized high-quality welding for aluminum

Material	Shielding Gas	Control Mode	Wire Diameter (mm)
Aluminum-magnesium	MIG	Pulse OFF (DC)	1.2
			1.6
		Pulse ON (DC.P)	1.2
			1.6
Aluminum-silicon	MIG	Pulse OFF (DC)	1.2
			1.6
		Pulse ON (DC.P)	1.2
			1.6
Other Materials	Custom-tailor Development		

## Convenient and practical management functions

- 100 groups of welding conditions can be stored and recalled.
- The upper and lower limits on welding current can be set, avoiding the operation against preset parameters.

## Optional wire-draw welding gun

The wire-draw welding gun can improve the wire feeding stability and greatly expand the operational area. (The special wire feeder should be equipped. The maximum length of the cable is 10m.)

**POWER SOURCE**

Item	Units	YD-350GL5	YD-500GL5
Control method	-	Digital IGBT control	
Rated input/No. of phases	-	3-phase AC 415 V, -27%, +10% (304 V - 456 V)	
Input power frequency	Hz	50/60	
Rated input capacity	KVA/KW	17.6/13.5	29.9/23.9
Output characteristics	-	CV (Constant voltage characteristics)	
Rated output current	A	Pulse OFF: DC 350 / Pulse ON: DC 350	Pulse OFF: DC 500 / Pulse ON: DC 400
Rated output voltage	V	31.5	39
Rated duty cycle	%	60	
Rated output no-load voltage	V	DC 80	
Output current range	A	Pulse OFF: DC 40-430 / Pulse ON: DC 40-350	Pulse OFF: DC 60-500 / Pulse ON: DC 60-400
Output voltage range	V	Pulse OFF: 16-35.5 / Pulse ON: 16-31.5	Pulse OFF: 17-39 / Pulse ON: 17-34
Welding method	-	Individual/Unitary	
Enclosure protection class	-	IP23S	
Insulation class	-	Main transformer 155°C (Inductor 200°C)	
EMC classification	-	A Grade	
Cooling method	-	Forced air cooling	
Application welding wire type	-	Solid / Flux cored	
Applicable welding wire diameter	mm	Solid core 0.8 / 1.0 / 1.2 / 1.4 / 1.6	
	mm	Flux cored mild steel 1.2 / 1.4 / 1.6	
	mm	Flux cored stainless steel 1.2	
Welding wire material	-	Mild steel, Mild steel flux cored, Stainless steel, Stainless steel flux cored	
Memory	-	channels can be called, welding parameters recordable	
Sequence	-	Welding/welding-crater/initial-weldingcrater/spot welding	
Shielding gas	-	CO <sub>2</sub> welding CO <sub>2</sub> : 100%	
	-	MAG welding Ar: 80%, CO <sub>2</sub> : 20%	
	-	MIG welding Ar: 98%, CO <sub>2</sub> : 2%	
Gas check time	-	60 sec (longest gas check time)	
Pre-flow time	-	0 sec- 5 sec continuous adjustment (0.1 sec incremental)	
After-flow time	-	0 sec- 5 sec continuous adjustment (0.1 sec incremental)	
Overall dimensions	mm	682 X 380 X 612 (LWH)	762 X 380 X 612 (LWH)
Mass	Kg	68	75
Ordering code	-	YD-350GL5DJE	YD-500GL5HGJ

**WIRE FEEDER**

Item	Units	YW-50DG	YW-50DG
Rated welding current	A	500	
Welding wire type	-	Mild steel solid core and flux cored wire; stainless steel solid and flux cored welding wire	
Wire feed speed range	-	2.5 to 20.1 metre/min	
Cable length	metre	1.8 metre (Standard); 5 metre, 10 metre, 15 metre (Optional)	
Drive method	-	4 Roll 2 drive	
Ordering code	-	YW-50DGDNG	

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PSFSIN / YD-350GL5/022023

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# Panasonic

## YD-350/500GL5

Full Digital Controlled Pulse MIG/MAG Welding Machine



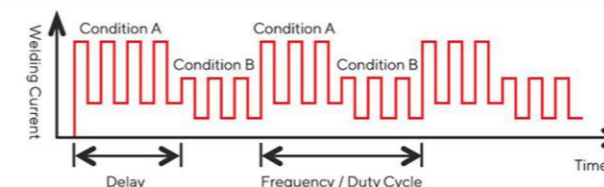
MILD STEEL  
STAINLESS STEEL

- IBC  
Ini Arc & BBK Control
- ALC  
Arc Length Consistence
- Root  
Root Welding
- HL-Pulse  
High & low pulse
- S-Pulse  
Stainless steel pulse
- Welding process Software

High grade welding method & process software

### HL-Pulse Pulse Control Technology

Namely dual pulse, alternate energy output, reduced heat input, improved appearance Digital

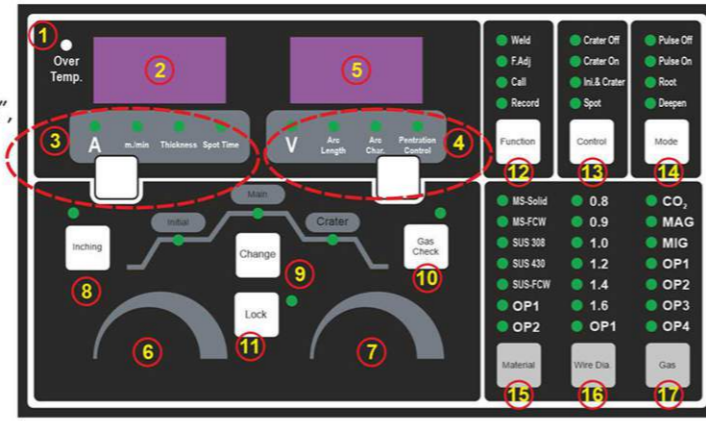


HL-Pulse MIG/MAG is capable of producing TIG like welds. Exceptionally good-looking, shiny and clean. It has all the same benefits as single pulse MIG/MAG welding. But it also provides slightly better heat control and makes the fish scale-like welds happen without weaving movements.

[www.panasonic.com/in/business/introduction.html](http://www.panasonic.com/in/business/introduction.html)



- ① Temp. abnormal indicator
- ② Current display, 7-segment LED
- ③ Setting: "Current", "Wire feed speed", "Plate thickness", "Spot welding time" function select
- ④ Setting: "Voltage", "Arc length", "Arc characteristics", "Penetration control" function select
- ⑤ Voltage display, 7-segment LED
- ⑥ Jog-dial
- ⑦ Jog-dial
- ⑧ Manual Wire Feeding Button
- ⑨ Switching Button
- ⑩ Gas Check Button
- ⑪ Lock Button
- ⑫ Mode Select Button
- ⑬ Welding Control
- ⑭ Welding Method
- ⑮ Material
- ⑯ Wire Diameter
- ⑰ Shielding Gas

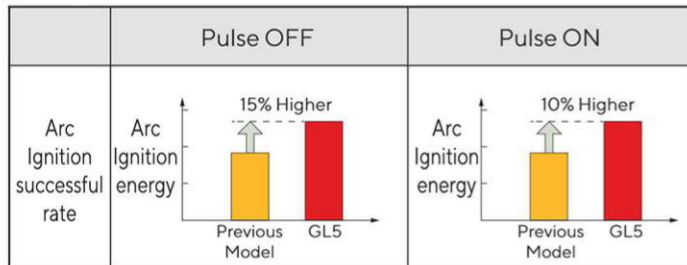


## Welding Method and Process Software

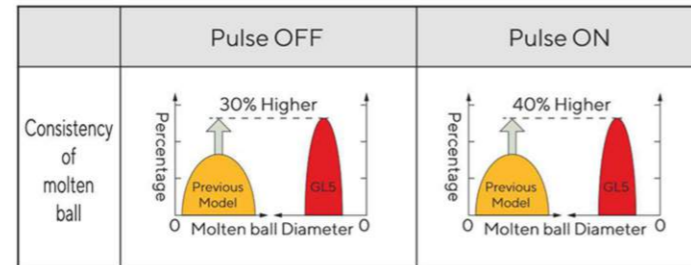
### IBC (IniArc and BBK Control, the arc ignition and burn-back control)

The arc ignition adopts asynchronous curved surface acceleration control. The arc start energy is dynamically adjusted, which can quickly establish and stabilize the molten pool and improve the successful rate of arc ignition. Burn-back control utilizes controllable braking ball cancelling technology to improve the consistency of molten ball size. At the same time, the arc ignition and burn-back time are shortened, speeding up the welding cycle and improving production efficiency.

#### Arc Ignition Control

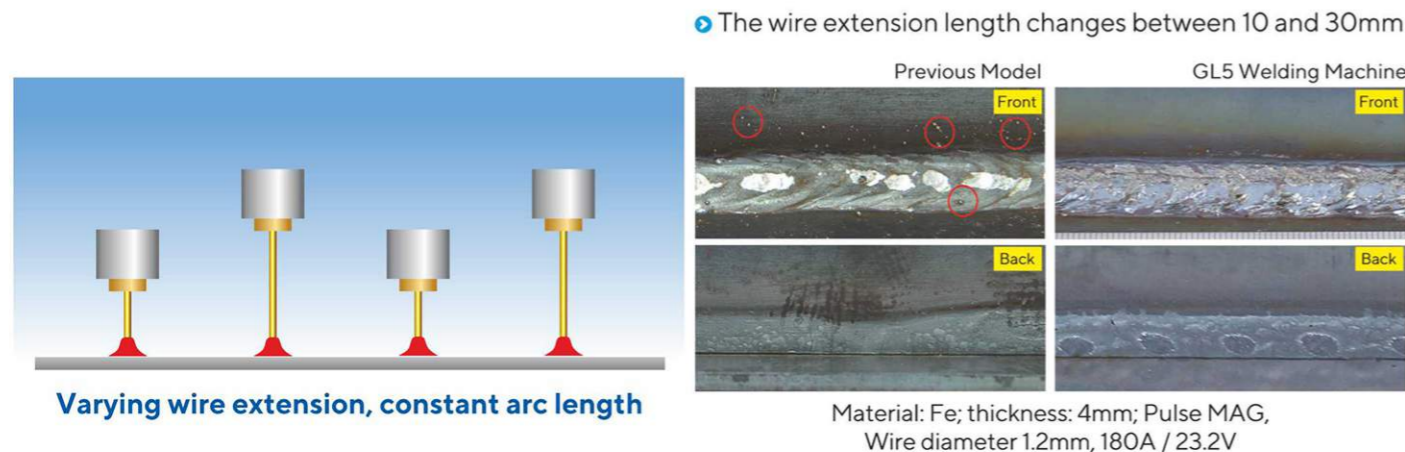


#### Burn-back Control



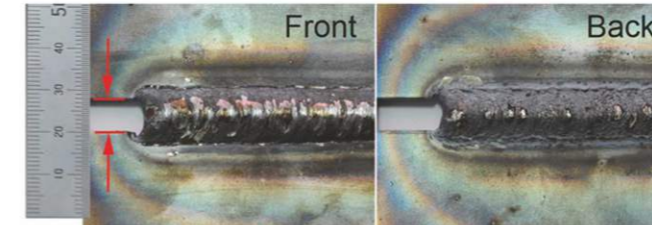
### Pulse constant arc length control **ALC** (Arc Length Consistency)

During the welding process, the pulse parameters are dynamically adjusted to keep constant arc length even when external disturbances occur (such as a changing wire extension length). As a result, the dynamic characteristics and arc stability are enhanced significantly. The uniform pulse frequency makes the welding sound softer, which greatly reduces the noise generated by welding. The strictly control on the one pulse one droplet transfer improves the welding quality and reduces the welding defects.



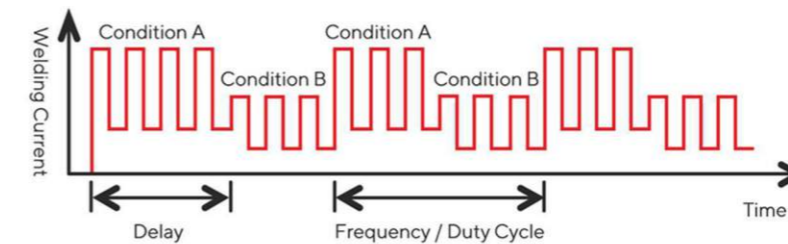
### Root (Root welding)

Root is a short circuit transfer method with low heat input. The precise waveform control makes the arc more stable, heat input lower and droplet transfer more uniform, thereby the arc bridging ability is greatly improved. This function is especially suitable for large gap welding, the root pass of the bevelled work piece and vertical upward welding. For backing welding, the amount of root cleanness can be greatly reduced; even clean-up process can be totally omitted. The appearance of penetrated back weld is smooth and even. The weaving movement can be reduced or even unnecessary for vertical upward welding.



### HL-Pulse (Dual pulse)

HL-Pulse is also called dual pulse, overlying low frequency pulse on high frequency pulse. The fast welding is enabled during high pulse cycle and heat input is reduced during low pulse. The adjustable alternating heat input makes the fish scale-like welds happen without weaving movements. This function is commonly used for welding of thin stainless steel plates.



## Wire Feeder Types

### Standard Type Wire Feeder



### S-Pulse (SUS pulse)

S-Pulse function takes full use of various stainless steel welding data. According to the difference in welding characteristics of three and four series stainless steel materials, the special welding data can be automatically retrieved, realizing smooth droplet transfer followed by stable welding with light spatter, as a result the beautiful appearance achieves.



### Box Type Wire Feeder (Optional)

- Dust preventive and Rain water preventive
- Operator Safety
- Outdoor and Indoor performance

