

Panasonic
ideas for life

Full Digital CO₂/MAG Welding Machine

350GR3

Bangkok Welding
(Thailand)

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Flexible welding performance and easy operation
Bringing Full Digital closer to you!



350GR3

Panasonic pursues "Only one" welding.

Full Digital Controlled Welding Machine

FULL DIGITAL



Fusion of high grade welding of Full Digital control and simple operability of conventional analog welding machines

Comfort

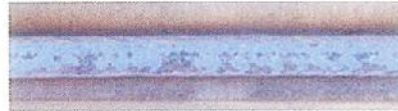
- GR3 realized smooth and comfortable arc by fine control of Full Digital technology. It provides fine and stable arc by wide current range from 30A to 350A. GR3's high quality adjustment function enables fine adjustment of penetration and realizes ideal welding waveforms.

Stability on low current area (50A-120A)
(characteristic feature of Full Digital control)



Fillet weld (mild steel, 1.0mmt)
{ Welding current : 80A, Welding voltage : 18V }
{ Wire dia. : 1.2mm, Shielded gas : CO₂ }

Improved weldability of stainless steel

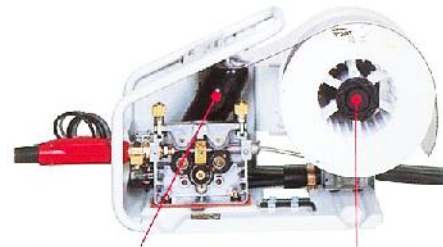


Fillet weld (stainless steel, 9.0mmt)
{ Welding current : 250A, Welding voltage : 24.2V }
{ Wire dia. : 1.2mm, Shielded gas : Ar + 2%O₂ }

- GR3 enables quick and instantaneous arc start by starting technology in a short period of time and FTT control, which reduces the ball on the end of the welding wire at the end of the weld.

Repeatability

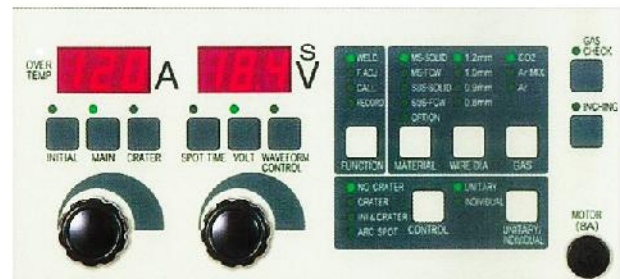
- Wire feed motor with encoder realizes accurate wire feeding and maintains stable wire feed performance.
- GR3's set value of wire feed speed is maintained even if the primary input voltage fluctuates or the ambient temperature is changed. This allows high quality welding and makes the bead appearance straight.
- GR3 re-creates the welding conditions precisely at anytime and anywhere.



Encoder motor Wire spool shaft with brake

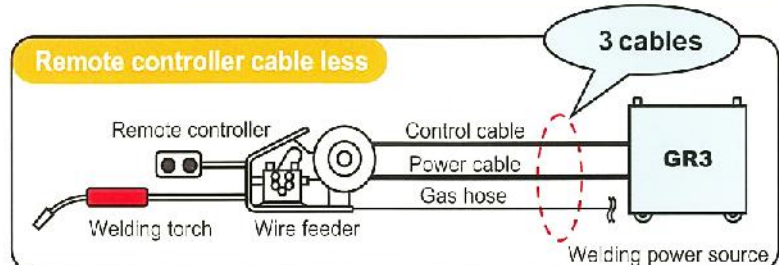
Operability

- GR3's touch panel enables easy operation. The layout of front panel is similar to conventional machines. Therefore the operator need not hustle to get used to.
- GR3 adopted same type of remote controller as conventional analog welding machines equipped.



Mobility

- GR3 has no remote controller cable between wire feeder and welding power source. This contributes to improve the working efficiency by decreasing a load on transportation. The cable is connected with wire feeder.



Friendly to the earth

- GR3 has Energy-saving function as a standard equipment. The circuit starts about 7 minutes after when the torch switch is turned off and reduces the standby energy.

- To preserve the earth environment, Matsushita Welding Systems Co., Ltd. has adopted lead free solder for the production of printed circuit boards of all her products. Also we are striving to comply with RoHS Directives.



Other useful functions

1. Welding condition memory function

- GR3 can save and load the welding conditions precisely. This function is helpful to manage the welding conditions and will reduce the set up time. 9 schedules can be stored.

2. Leg length control function

- This function compensates unstable tip-to-work distance. 350GR3 keeps bead width constant.

3. Abundant welding condition table

- GR3 series have abundant welding condition tables. 11 kinds of tables are equipped on 350GR3.

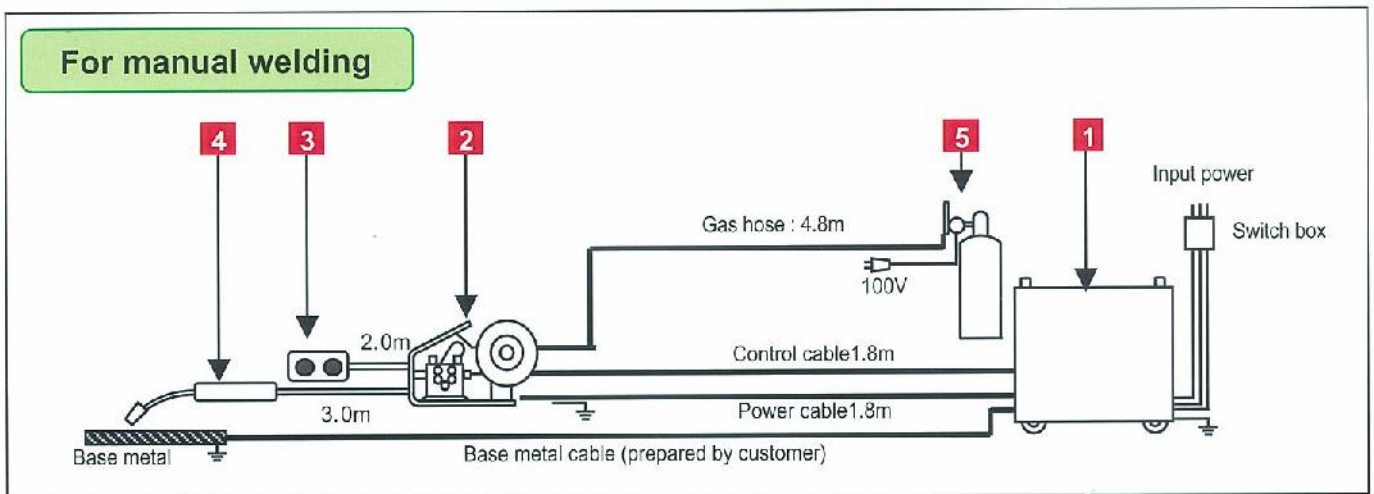
4. Robust chassis and compact design

- GR3 improved durability, dust resistance and maintenance simplicity by separating control part and main circuit in the body.

<Table for 350GR3>

Wire diameter	Mild steel		Stainless steel	
	Solid	FCW	Solid	FCW
0.8 mm	○		○	
0.9 mm	○		○	○
1.0 mm	○		○	
1.2 mm	○	○	○	○

Composition of equipment



350GR3

1 Welding power source

YD-350GR3Y**

*Model number of power source differs by input voltage and specifications.

2 Wire feeder

YW-35DG1

*YW-35GD1 is standard model. Model number of wire feeder differs by specifications.

3 Remote controller

YD-35GRR1

4 Welding torch

Model	Rated current	Cable length	Applicable wire dia.(mm)	Duty cycle (%)
YT-18CS3	180A	3m	0.8	40(CO ₂)/20(MAG)
YT-20CS3	200A	3m	0.9/(1.0)/(1.2)	50(CO ₂)/25(MAG)
YT-35CS3	350A	3m	(0.9)/(1.0)/1.2	70(CO ₂)/35(MAG)
YT-35CE3	350A	3m	(0.9)/(1.0)/1.2	30(CO ₂)/20(MAG)
YT-35CSM3	350A	4.5m	(0.9)/(1.0)/1.2	70(CO ₂)/35(MAG)
YT-35CEM3	350A	4.5m	(0.9)/(1.0)/1.2	30(CO ₂)/20(MAG)
YT-35CSL3	350A	6m	1.2	70(CO ₂)/35(MAG)

*Optional parts are required in case of using the wire marked "()".

5 Gas regulator

Model	Applicable welding method
YX-25AD1	CO ₂ /MAG/MIG
YX-20CH1	CO ₂ /MAG
YX-25CC1	CO ₂

6 Option (Connection cable)


Model	Cable dia.	Cable Length	Duty cycle	Note
YV-610GR3A	60mm ²	10m	60% at 350A or less	Connection cables can not be connected with other connection cables for extension. Please choose most suitable length.
YV-615GR3A		15m		
YV-620GR3A		20m		
YV-305GR3A	38mm ²	5m	50% at 250A or less	
YV-310GR3A		10m		
YV-315GR3A		15m		
YV-320GR3A		20m		

(Connection cable includes a power cable, a control cable and a gas hose.)

(Note) Model numbers and specifications are subject to change without notice. Please ask sales staff about the detailed specification and configuration.

Rated specifications

Welding power source

Model		YD-350GR3Y**
		
Number of phase	-	3
Rated frequency	Hz	50/60
Rated input	kVA	17
	kW	16
Rated output current	A	DC350
Rated output voltage	V	DC36
Rated duty cycle	%	60
Adjustable range of output current	A	DC30 - 350
Adjustable range of output voltage	V	DC12 - 36
Control method	-	IGBT inverter
Memory function	-	9 ch
Adjustable welding wire diameter	mm	0.8 / 0.9 / 1.0 / 1.2
Preflow time	S	0.0 - 5.0 (adjustable by 0.1 sec.)
Postflow time	S	0.0 - 5.0 (adjustable by 0.1 sec.)
Arc spot time	S	0.3 - 10.0 (adjustable by 0.1 sec.)
Dimensions (W) x (D) x (H)	mm	380 x 540* x 640
Weight	kg	45

*Input terminal cover is not included.



We provide the products friendly to the environment.

Aiming for the earth-friendly company, Matsushita Welding Systems Co., Ltd. has been promoting to disuse hazardous substances to the products as the company policy.

Safety precautions ● Before attempting to use any welding product always read the manual to ensure correct use.

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