

FULLDIGITAL PULSE MAG/MIG AUTOMATIC WELDING MACHINES
SALES PROMOTIONAL MATERIAL: YD-400GT3

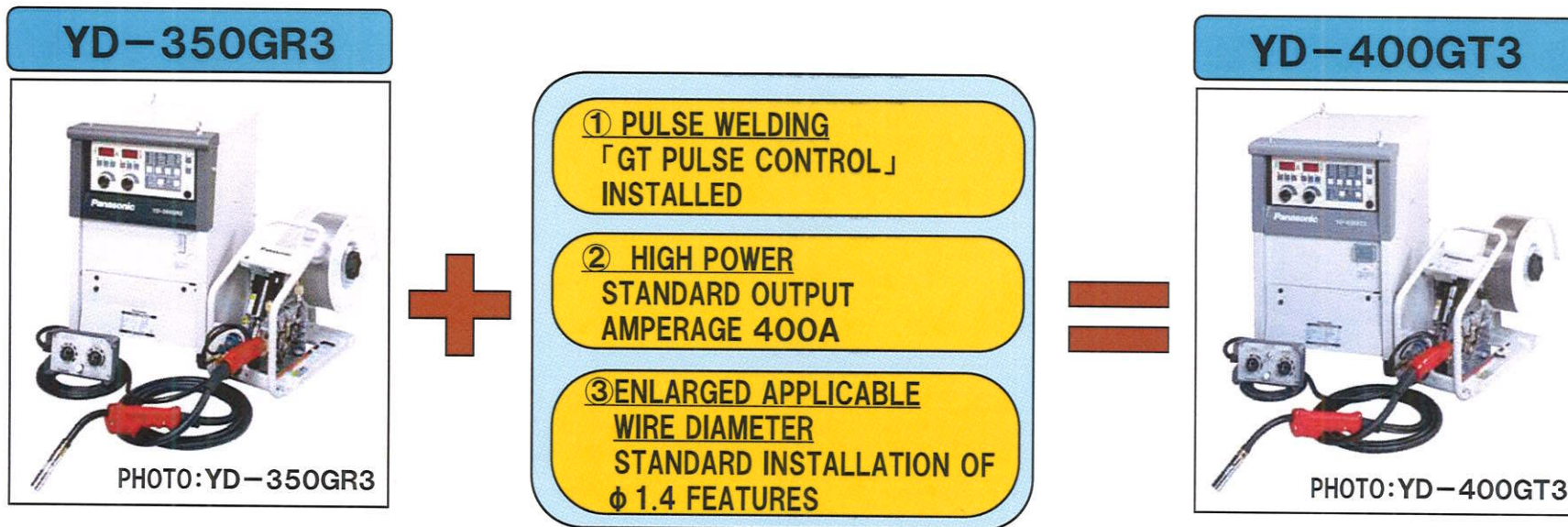


PANASONIC WELDING SYSTEMS CO., LTD.

PRODUCT CONCEPT

FULL DIGITAL IS NOW BY YOUR SIDE MORE THAN EVER!

We have integrated the pulse welding and the better Functions to our easy to use and high quality GR3.



400GT3 is a full digital pulse welding machine that can offer high customer satisfaction for experienced and non experienced operators.

PRODUCT FEATURES

RATED OUTPUT
(ONE UP WELDING)

**ENVIRONMENTAL
RESPONSIVENESS**
(CARE WITH THE GLOBAL
ENVIRONMENT)

GT PULSE CONTROL
(HIGH QUALITY WELDING)

SOLID STRUCTURE
(NO WELDING SITE
PREFERENCE)

**MULTIPLE
WELDING FEATURES**
(WIDE RANG OF
WELDING WORKS)

REMOTE CONTROL
-CABLE LESS
(HIGH MOBILITY)

EASY OPERATION
(TOUCH PANEL + REMOTE
CONTROL)

**WIRE FEEDING
QUALITY**
(ENCODER FEEDBACK)



PHOTO: YD-400GT3

PRODUCT FEATURES

1. 400A of the amperage output rating allow better welding quality.
2. GT pulse control delivers high grade welding.
3. There are numerous features applicable to wide range of welding situations.
4. A touch panel and remote control allow an easy performance.
5. High precision of the wire feeding quality is available with encoder feed back.
6. A cable less remote control ensures the mobility.
7. The machine with the solid structure can be operated at any work site.
8. We care about the global environment.

PRODUCT FEATURE 1

400A OF THE AMPERAGE OUTPUT RATING ALLOW BETTER WELDING QUALITY.

CONCERN ABOUT USAGE RATE

The usage rate of 350A machine (270A/100%) is not enough but 500A one is over capacity...



CAN MANUFACTURING & PLANT INDUSTRIES



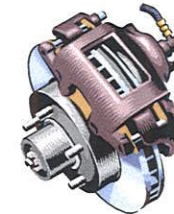
400GT3 can solve your problem!

- The welding current of 310A is rated at **100%** of its usage.
- It is capable of one step higher usage rate.

CONCERN ABOUT THE SPEED

We need a higher amperage for the high speed welding performance to increase our production efficiency...

AUTOMOTIVE & PLATE INDUSTRIES



400GT3 can solve your problem!

- The standard output is **400A, 50A** higher than conventional models.
- It is capable of one step higher usage rate.

Our high power 400GT3 beats down other conventional models and will support customers who are willing to improve the operating efficiency.

PRODUCT FEATURE 2

GT PULSE CONTROL DELIVERS HIGH GARDE WELDING.

We have developed new 「GT pulse control」 that had put 3 popular conventional pulse controls together into one and furthermore, it has added renewed digital arithmetical elements. CPU detects welding output power and creates optimum arc suitable to the welding conditions. As a result, we have attained image stabilization and spatter reduction.

PULSE CONTROL METHOD

- ① HYBRID PULSE CONTROL
- ② SOFT PULSE CONTROL
- ③ HARD PULSE CONTROL



IN SYNC FEATURE WITH ARC

- ① HIGH SPEED RESPONSE
- ② LOW SPEED RESPONSE
- ③ DELAYING RESPONSE



GT PULSE CONTROL

- EFFECT 1: IMAGE STABILIZATION
- EFFECT 2: UNDERCUT CONTROL
- EFFECT 3: SPATTER REDUCTION

Start image

DROPLET TRANSFER [STEEL•PULSEMAG•140A]

Start image

DROPLET TRANSFER [SUS•PULSE MIG•130A]

PRODUCT FEATURE 2 (BEAD ASPECT)

「GT PULSE CONTROL」 CAN EASILY MAINTAIN HIGH GRADE WELDING.

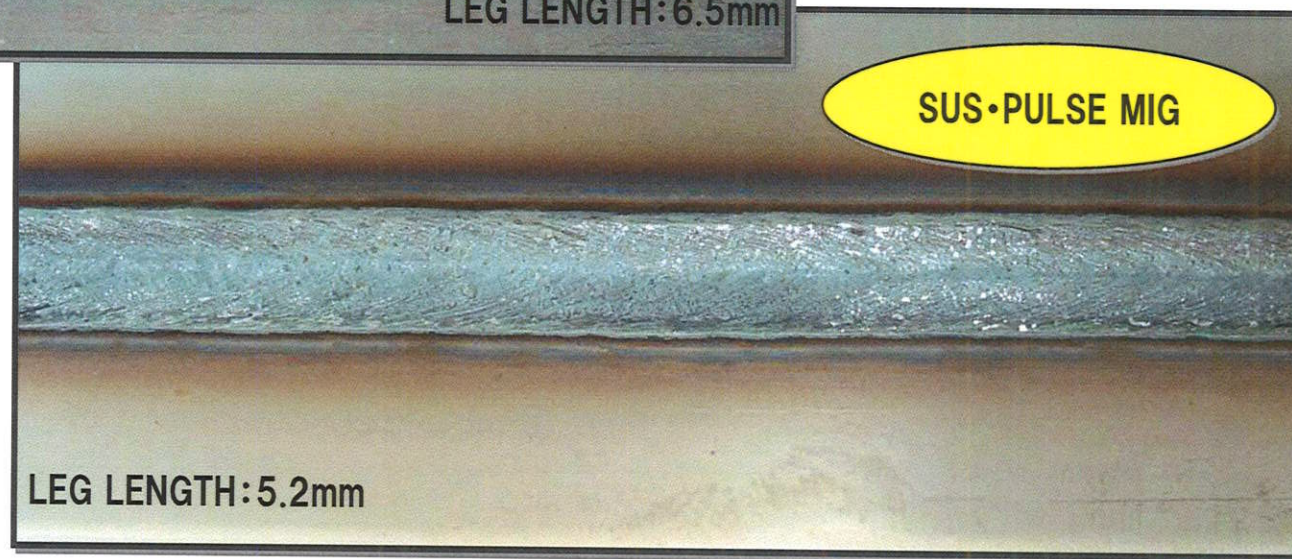


MILD STEEL・PULSE MAG WELDING METHOD

- WELDING CONDITIONS: 200A 25.2V
- SPEED: 50cm/min
- WIRE BUMPS: 15mm
- WIRE MATERIAL: SOFT STEEL SOLID
 $\phi 1.2$
- BASE MATERIAL: SOFT STEEL 4.5t
 (BLACK SCALE)
- SHIELD GAS: Ar80%+CO₂
- JOINT SHAPE: HORIZONTAL FILLET

SUS・PULSE MIG WELDING METHOD

- WELDING CONDITIONS: 160A 20.2V
- SPEED: 50cm/min
- WIRE BUMPS: 15mm
- WIRE MATERIAL: SUS308 $\phi 1.2$
- BASE MATERIAL: SUS304 3.0t
- SHIELD GAS: Ar98%+O₂
- JOINT SHAPE: HORIZONTAL FILLET



PRODUCT FEATURE 3

NUMEROUS ADAPTABLE WELDING FEATURES TO WIDE RANGE OF SITUATIONS

○:INSTALLED (◎:NEWLY INSTALLED)
×:NIL

WIRE MATERIAL	WIRE TYPE	SHEILD GAS	WIRE DIAMETER	EXISTING PRODUCT (YD-350AE2)		YD-400GT3	
				NO PULSE	MOUNTED PULSE	NO PULSE	MOUNTED PULSE
MILD STEEL	SOLD	CO ₂	0.9	○	—	○	—
			1.0	○	—	○	—
			1.2	○	—	○	—
			1.4	×	—	◎	—
		MAG	0.9	○	○	○	○
			1.0	○	○	○	○
			1.2	○	○	○	○
			1.4	×	×	◎	◎
	FCW	CO ₂	1.2	×	—	◎	—
			1.4	×	—	◎	—
		MAG	1.2	×	—	◎	—
SUS	SOLID	MIG	0.9	○	○	○	○
			1.0	○	○	○	○
			1.2	○	○	○	○
	FCW	CO2	0.9	×	—	◎	—
			1.2	×	—	◎	—
		MAG	1.2	×	—	◎	—
NUMBER OF ARC CHARATERISTICS				15		24	

Built in *Φ 1.4 wire characteristic features for the first time in the industry.

Based on a pulse welding machine (used in Japan) with 50A rated output current. (as of 10/10/2007)

PRODUCT FEATURE 4

USER FRIENDLY TOUCH PANEL AND REMOTE CONTROL

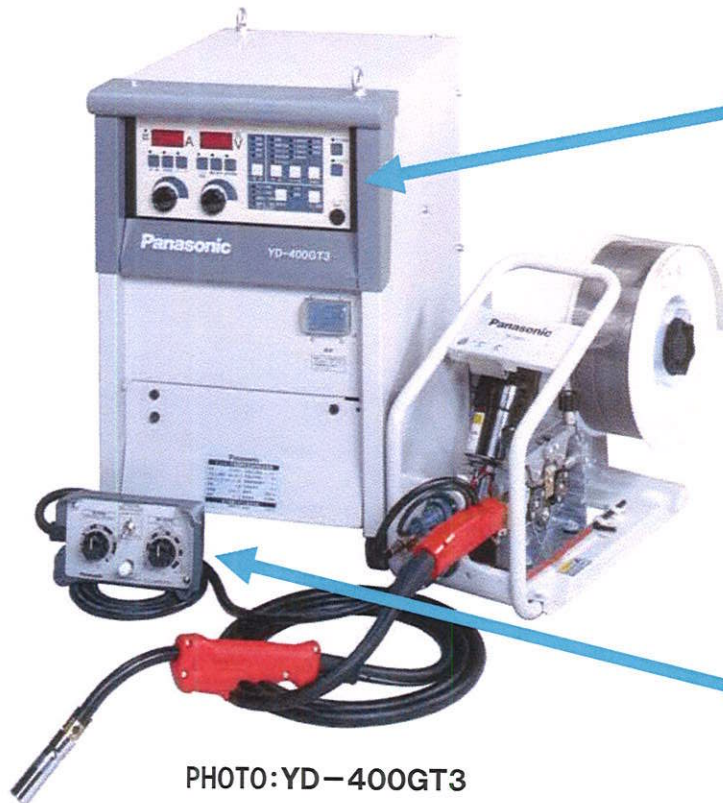


PHOTO: YD-400GT3

TOUCH PANEL

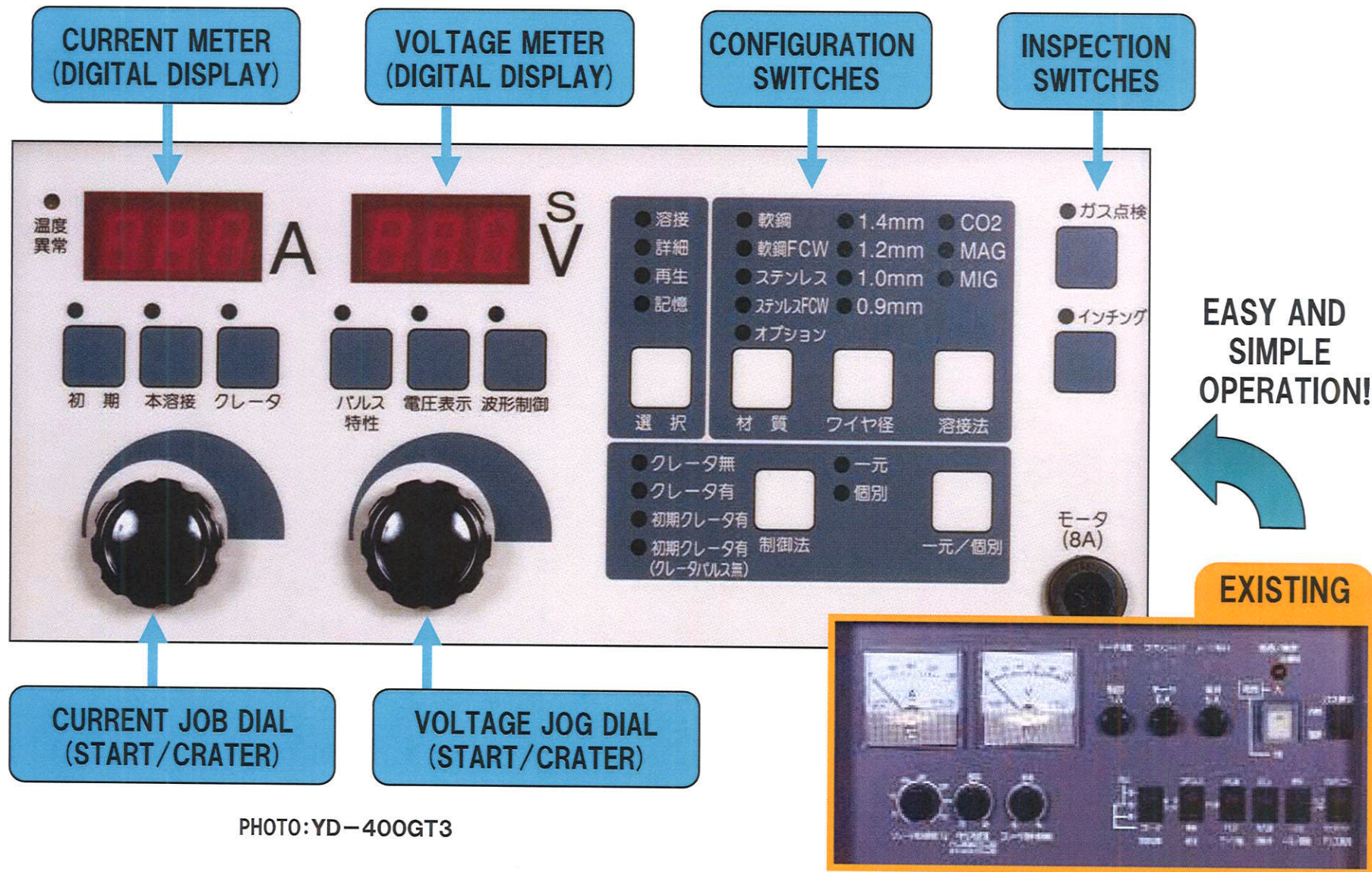
- 【OPERATION】**
- ◆ INITIAL ADJUSTMENT FOR THE CRATER WELDING CONDITIONS
 - ◆ VARIOUS SETTINGS (WIRE DIAMETER • MATERIAL, SHIELD GAS)
- 【FEATURES】**
- CURRENT AND VOLTAGE JOG DIALS
 - DIGITAL METER AND LED
 - EASY TO SEE DISPLAY CHARACTERS AND SWITCHES

REMOTE CONTROL

- 【OPERATION】**
- ◆ BASIC WELDING CONDITION ADJUSTMENT
 - ◆ WIRE INCHING, PULSE ON/OFF
- 【FEATURES】**
- SAME TYPE OF EXISTING REMOTE CONTROL

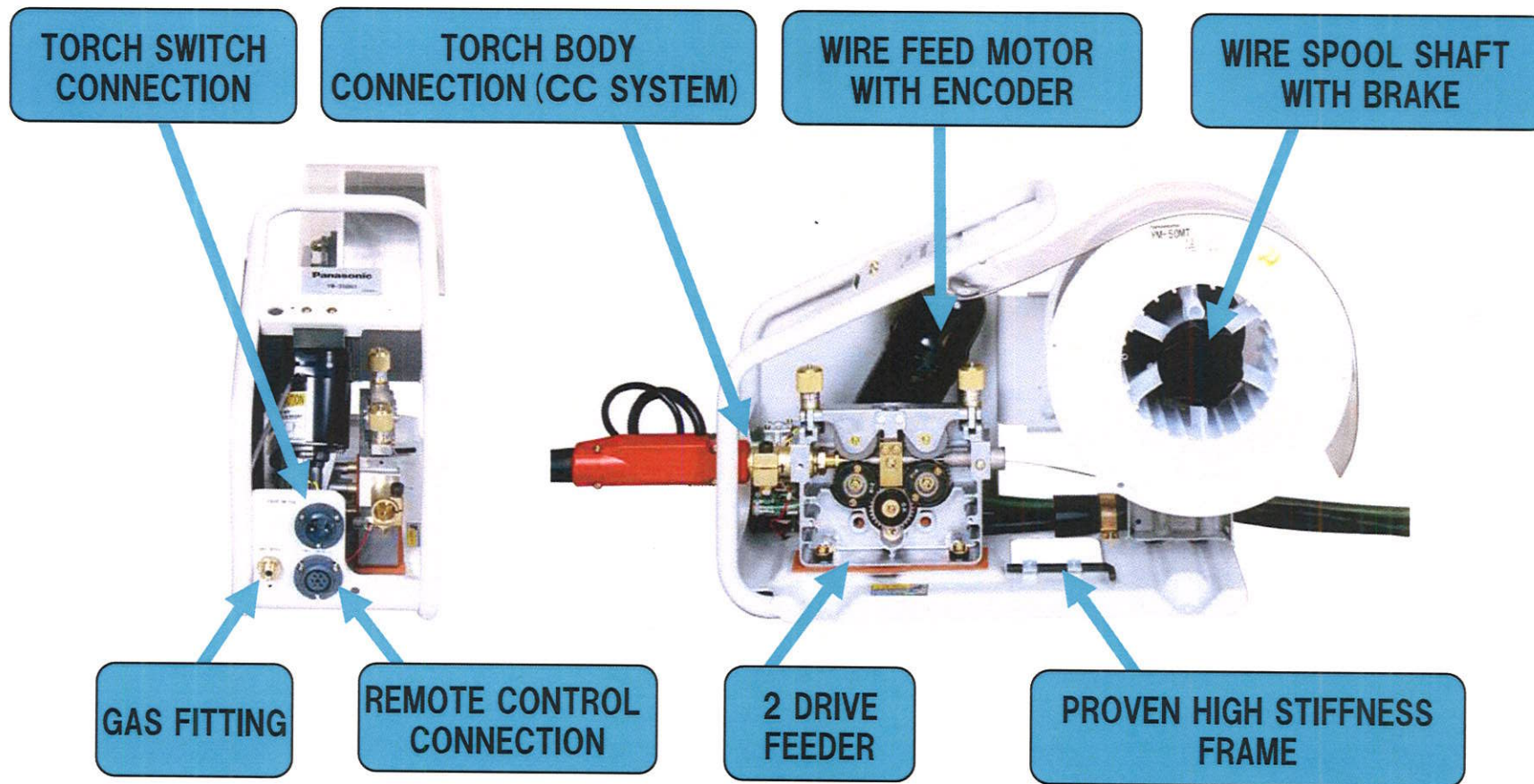
Touch panel meters and switches are user friendly set up, the same as conventional model layout.

PRODUCT FEATURE 4 (TOUCH PANEL)



PRODUCT FEATURE 5

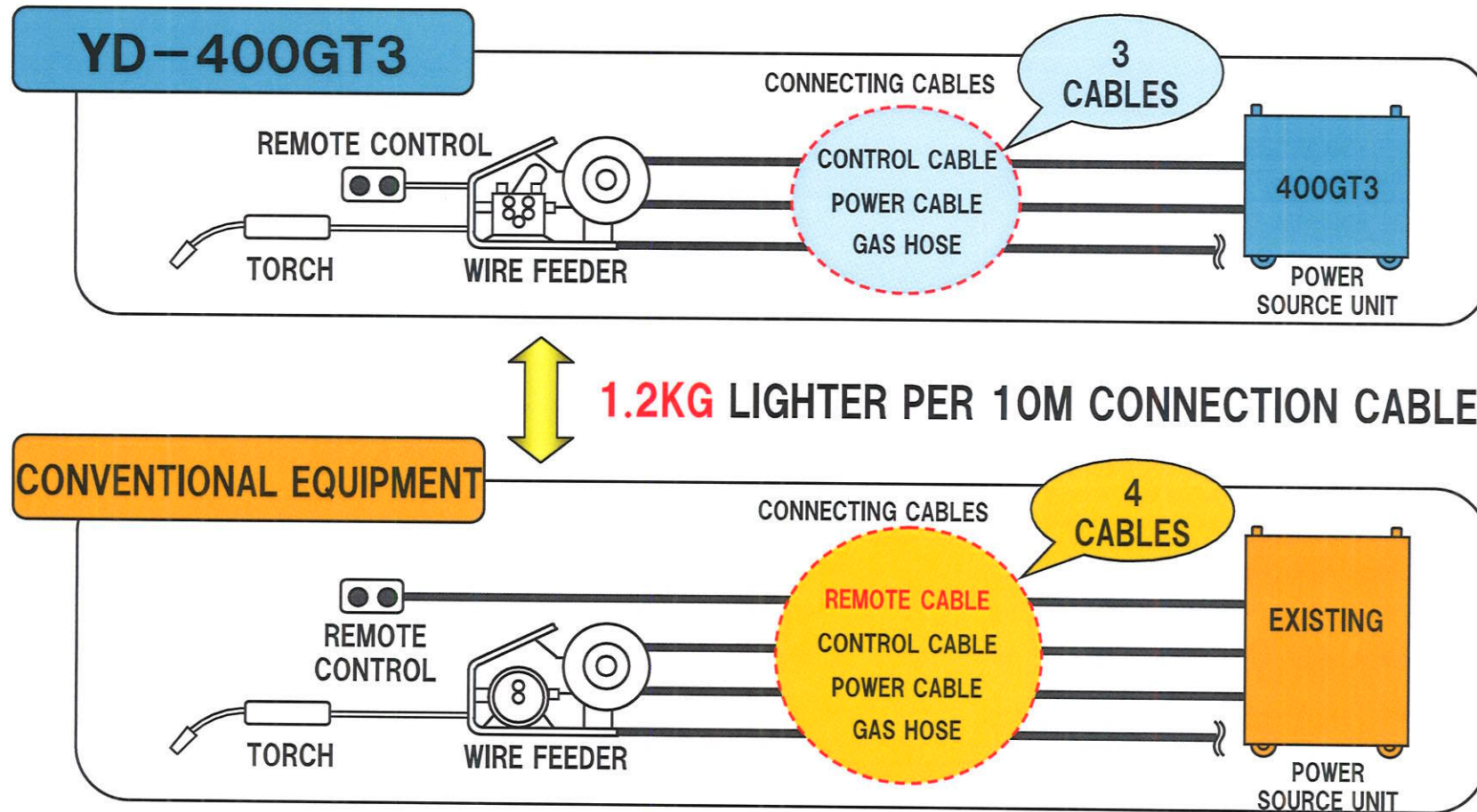
HIGH PRECISION AND EFFICIENCY WIRE FEEDING



The feed unit can provide even and stable wire feed.

PRODUCT FEATURE 6

MANEUVRABLE CABLE LESS REMOTE CONTROLLER



The cable less remote control reduces burden on the mobility and disconnection fault.

PRODUCT FEATURE 7

NON SITE SPECIFIC SOILD STRUCTURE

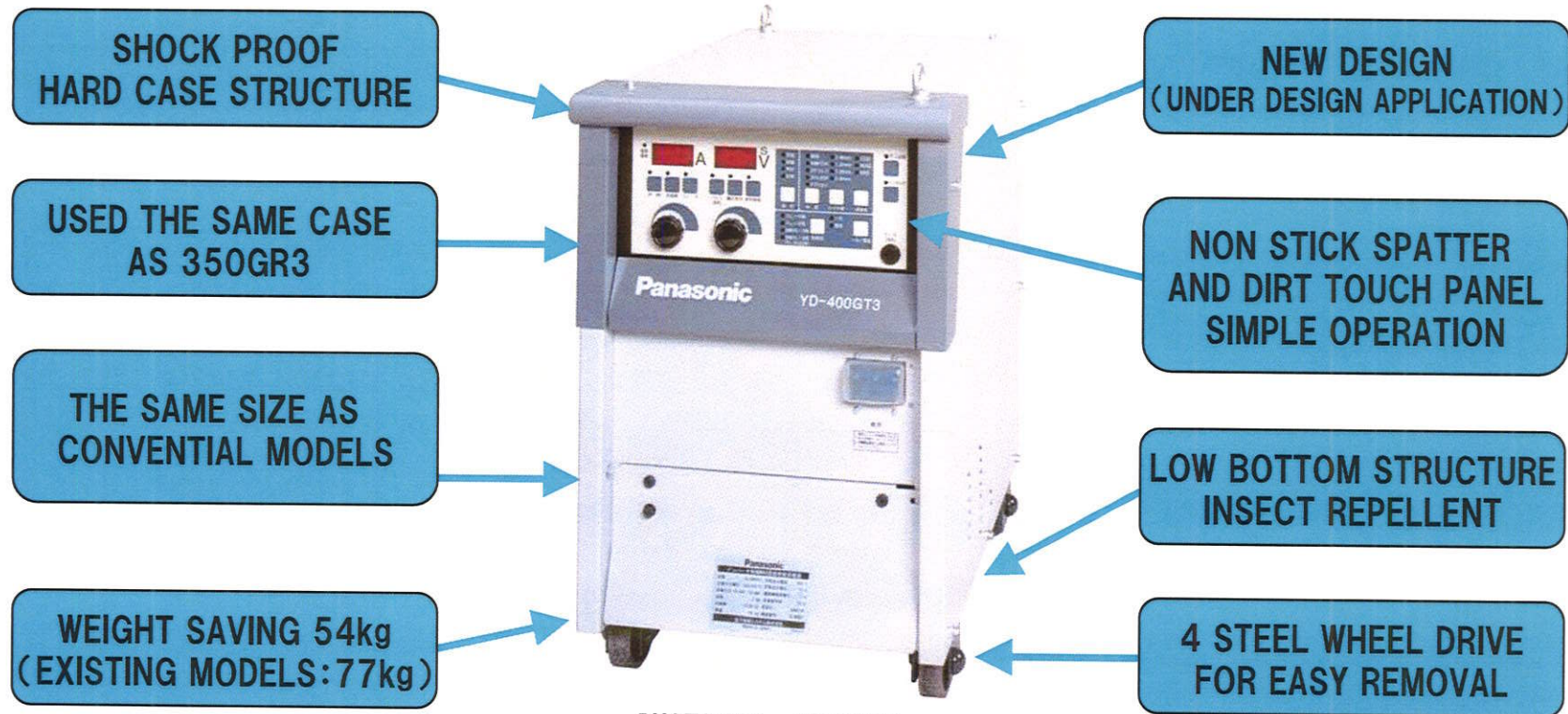


PHOTO: YD-400GT3

A control part is separated from the main circuit inside of the case.
It has enhanced the abilities of stiffness, dirt protection
and maintenance.

EQUIPMENT CONFIGURATION (1/3)

① POWER SOURCE UNIT
YD-400GT3



② WIRE FEEDER
YW-40DG1



③ REMOTE CONTROLLER
YD-40GTR1



④ TORCH
(CHOICE OF 2 TYPES)



⑤ GAS REGULATOR
YX-25AD1



⑥ OPTION

① POWER SOURCE UNIT		YD-400GT3
INPUT VOLTAGE, FREQUENCY	—	3 LAYERS 200/220V, 50/60Hz COMMON USE
RATED INPUT	—	20kVA (18kW)
OUTPUT CURRENT	A	30~400
OUTPUT VOLTAGE	V	12~38
RATED DUTY CYCLE	%	60
EXTERNAL DIMENSIONS	mm	380×540×640 (WIDTH×DEPTH×HEIGHT)
WEIGHT	kg	54

② WIRE FEEDER						
MODEL NUMBER	PURPOSE	DRIVE	SPOOL SHAFT	APPLICABLE WIRE DIAMETER (mm)	WEIGHT (kg)	REMARKS
YW-40DG1	MILD STEEL STAINLESS	2 DRIVE	WITH BRAKES	0.9/1.2	12.5	CONTROL: 1.8m POWER: 1.8m GAS: 4.8m

- Wire diameters 1.0/1.4mm is available with an optional feed roller.
- A power cable is 60sq. In case of frequent usage of high current, 「YW-50DG1」 with 80sq wide power cable is suitable.

EQUIPMENT CONFIGURATION (2/3)

① POWER SOURCE
YD-400GT3



② WIRE FEEDER
YW-40DG1



③ REMOTO CONTOL
YD-40GTR1



④ WELDING TORCH
SELECTION (2 TYPES)



⑤ GAS REGULATOR
YX-25AD1



⑥ OPTION

③ REMOTE CONTROLLER

MODEL NUMBER	CABLE LENGTH
YD-40GTR1	2.0m

④ WELDING TORCH

MODEL NO.	CURRENT RATING	LENGTH	APPLICABLE CABLE DIAMETER (mm)	USAGE RATE (%)
YT-35CSG4	350A	3m	(0.9)、(1.0)、1.2、(1.4)	PULSE MAG:20、CO ₂ :45、MAG:35
YT-50CSG4	500A	3m	(1.2)、1.4、(1.6)	PULSE MAG:20 (350A)、CO ₂ :40、MAG:35

- Optional parts are required for the above wire diameters mentioned as ().
- Dedicated resin liners are required for stainless welding. Please replace to R tip as well. Please refer to optional parts for stainless application.

⑤ GAS REGULATOR

MODEL NUMBER	REMARKS
YX-25AD1	CO ₂ /MAG/MIG

EQUIPMENT CONFIGURATION (3/3)

① POWER SOURCE UNIT
YD-400GT3



② WIRE FEEDER
YW-40DG1



③ REMOTE CONTROLLER
YD-40GTR1



④ TORCH
CHOICE OF 2 TYPES



⑤ GAS REGULATOR
YX-25AD1



⑥ OPTION

⑥ OPTIONS (CONNECTING CABLES)

MODEL NUMBER	CABLE LENGTH	REMARKS	
YV-610GR3A	10m	350A USAGE RATE 60%	<div>Note when you select connecting cables</div> <div>Please do not hook up connecting cables for extension.</div> <div>Please use the appropriate cable length for the use environment.</div>
YV-615GR3A	15m		
YV-620GR3A	20m		
YV-810GR3A	10m	500A USAGE RATE 50%	
YV-815GR3A	15m		
YV-820GR3A	20m		

- Kit contents – power cable X1, control cable X1, gas hose X1
- Please ask for other lengths than the above.

⑥ OPTIONS (PARTS FOR STENLESS SOLED SEPARATELY:RASIN LINERS)

WIRE MATERIAL	SOLID/FCW	SOLID	SOLID/FCW
DIAMETER	0.9	1.0	1.2
(R TIP)	TET00959	TET01068	TET12003
YT-35CSG4	TDT01005	TDT01005	TDT12008
YT-50CSG4	—	—	TDT12008

RATED SPECIFICATION

POWER SOURCE UNIT		YD-400GT3
RATED INPUT VOLTAGE	V	AC200※1 (FLUCTUANT CAPACITY:180~242)
NUMBER OF PHASE	—	3
RATED FREQUENCY	Hz	50/60 SHARED
RATED INPUT	kVA	20
	kW	18
MAX. UNLOADED VOLTAGE	V	DC 77
RATED OUTPUT CURRENT	A	DC 400
RATED OUTPUT VOLTAGE	V	DC 38
RATED DUTY CYCLE	%	60
OUTPUT CURRENT ADJUSTMENT RANGE	A	DC 30~400
OUTPUT VOLTAGE ADJUSTMENT RANGE	V	DC 12~38
CONTROL SYSTEM	—	IGBT INVERTER SYSTEM
MEMORY FUNCTION	—	9ch RECORD/REPLAY
WELDING METHOD	—	CO ₂ /MAG/MIG/PULSE MAG/PULSE MIG
WAVEFORM CONTROL FUNCTION	—	DIGITAL SETTING[-7(Low)~0(STD)~7(HIGH)]
SEQUENCE FUNCTION	—	MAIN WELDING/MAIN WELDING~CRATER START~MAIN WELDING~CRATER START~MAIN WELDING~CRATER (NON PULSE)
APPLICABLE WELDING GAS	—	CO ₂ (100%)/MAG(80※2:20※3)/STAINLESS MIG(98※2:2※4)
APPLICABLE WIRE DIAMETER	mm	0.9/1.0/1.2/1.4
APPLICABLE WIRE MATERIAL	—	MILD STEEL SOLID/MILD STEEL FCW※5・※6/ STAINLESS SOLID ※7/STAINLESS FCW※5・※8
PREFLOW TIME	S	0.0~5.0 (ADJUSTABLE PER 0.1)
AFTERFLOW TIME	S	0.0~5.0 (ADJUSTABLE PER 0.1)
INPUT CURRENT TERMINAL	—	TERMINAL BLOCK (3 LAYERS M5 BOLT)
OUTPUT TERMINAL	—	COPPER PLATE TERMINAL (M8 BOLT)
EXTERNAL DIMENSIONS	mm	380×540※9×640
WEIGHT	kg	54

WIRE FEEDER		YW-40DG1
CONNECTABLE TORCH	CC ATTACHMENT JUG CONNECTING SYSTEM	
RATED CURRENT	400A	
APPLICABLE CABLES	SOLID WIRE AND FCW	
APPLICABLE WIRE DIAMETER	0.9/1.2mm※10	
WIRE DRIVE MODE	2 DRIVE	
SPOOL SHAFT	WITH BRAKES	
WIRE COVER	NIL	
CABLE HOSE LENGTH	CONTROL/POWER CABLE:1.8m, GAS HOSE:4.8m	
WEIGHT	12.5kg	

※1 : APPLICABLE TO NOMINAL VOLTAGE 200/220V

※2 : Ar=ARGON GAS

※3 : CO₂=CARBON DIOXIDE GAS

※4 : O₂=OXYGEN

※5 : FCW=FLUX CORED WIRE

※6 : 1.2/1.4mm ONLY

※7 : 0.9/1.0/1.2mm ONLY

※8 : 1.2mm ONLY, CO₂(100%)=0.9mm APPLICABLE

※9 : INPUT CURRENT TERMINAL COVER AT THE REAR SURFACE IS NOT INCLUDED.

※10 : A 1.0/1.4mm FEED ROLLER IS OPTIONAL.

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