

# ENGINE DRIVEN WELDER TS 2X280 EVO MULTI4

The images are for reference

## WELDING PROCESS



SMAW Shielded Metal Arc welding (STICK)



Gas Tungsten Arc Welding (TIG)



GMAW Gas Metal Arc Welding (MIG)



FCAW Flux Cored Arc Welding (FLUX CORED)



## FEATURES

- D.C. Arc welding source multi-process
- Two independent welding output, each 250A
- Single output 500A
- VRD function
- Digital setting of welding parameters
- Arc force and multi-process parameters setting
- Digital Ammeter and Voltmeter: presetting of welding parameters
- A.C. generator, single-phase and three-phase also available while welding
- Digital engine control and management module
- Auto-Idle
- Bunded base
- Base with forklift pockets
- Canopy suitable for stacking up max 2 machines
- Single point lifting eye
- Large access for engine maintenance
- Meets EC directives for noise and safety



water cooled



diesel



electric starter

## ENGINE 3000 RPM

### 4 STROKE, DIRECT INJECTION

Model	KUBOTA V1505
Stand-by net power	25.5 kW (34.5 HP)
PRP net power	/
COP net power	/
Cylinder / Displacement	4/ 1498 cm <sup>3</sup> (1.5 l)
Bore / Stroke	77 / 78.4 (mm)
Compression ratio	24 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
<b>FUEL CONSUMPTION</b>	
110 % (Stand-by power)	7.6 l/h
100 % of PRP	6.5 l/h
75 % of PRP	4.7 l/h
50 % of PRP	3.3 l/h
<b>COOLING SYSTEM</b>	
Total system cap. - only engine	5.4 l
Fan air flow	90m <sup>3</sup> /min
<b>LUBRIFICATION SYSTEM</b>	
Total oil system capacity	/
Oil capacity in sump	6 l
Oil consumption at full load	/
<b>EXHAUST SYSTEM</b>	
Maximum exhaust gas flow	320 m <sup>3</sup> /h

Max. exhaust gas temp.	480 °C
Maximum back pressure	10.7 kPa (0.107 bar)
External diameter exhaust pipe	/
<b>ELECTRICAL SYSTEM</b>	
Starter motor power	1.4 kW
Battery charging alternator cap.	40 A
Cold start	-15°C
<b>AIR FILTER</b>	
Combustion air flow	1.95 m <sup>3</sup> /min.
<b>HEAT REJECTED AT FULL LOAD</b>	
To exhaust system	24 kW
To water and oil	27.2 kW
Radiated to room	3 kW
To charge cooler	/

# WELDING

## C.C. WELDING (CONSTANT CURRENT)

SMAW (STICK)	DUAL	SINGLE
Current range	20A ÷ 250A	40A ÷ 500A
Type of regulation	continue	
Duty cycle	250A / 30V - 60% 230A / 29.2V - 100%	480A / 31V - 60% 440A / 34V - 100%
Open circuit voltage	70 Vcc (75 Vcc peak)	
Arc force control	Yes	

## C.V. WELDING (CONSTANT VOLTAGE)

SMAW (STICK)	DUAL	SINGLE
Current range	20A ÷ 250A	20A ÷ 500A
Welding voltage	15 V - 45 V	
Type of regulation	continue	
Duty cycle	250 A / 26.5V - 60% 230 A / 25.5V - 100%	480 A / 31V - 60% 440 A / 36V - 100%

## C.C. WELDING (CONSTANT CURRENT)

GTAW (TIG)	DUAL	SINGLE
Current range	20A ÷ 250A / 20V	40A ÷ 500A / 30V
Type of regulation	continue	
Duty cycle	250A / 20V - 60% 230A / 19.2V - 100%	480A / 29.2V - 60% 440A / 27.6V - 100%
Open circuit voltage	70 Vcc (75 Vcc peak)	
Arc force control	Yes	

## SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT	≥ 250A	200A	150A	100A	0A
POW. IN THREE PHASE 400V	0 kVA	6 kVA	11 kVA	15 kVA	15 kVA
POW. IN SINGLE PHASE 230V	0 kVA	4 kVA	7 kVA	7 kVA	7 kVA
POW. IN SINGLE PHASE 115V	0 kVA	4 kVA	5 kVA	5 kVA	5 kVA



# GENERATION

## A.C. GENERATION

### ALTERNATOR ASYNCHRONOUS THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS

Insulation class	H
Frequency	50 Hz

## AUXILIARY GENERATION

### OUTPUT 1

Type of source	Three-phase
Frequency	50Hz
Power kVA (Power kW) Max	15 kVA (15 kW)
Cos φ	0.8 ÷ 1
Voltage	400 V
Current	21.6 A

### OUTPUT 2

Type of source	Single-Phase
Frequency	50 Hz
Power kVA (Power kW) Max	7 kVA (7 kW)
Cos φ	0.8 ÷ 1
Voltage	230 V
Current	30.4 A

### OUTPUT 3

Type of source	Single-Phase
Frequency	50Hz
Power kVA (Power kW) Max	5 kVA (5 kW)
Cos φ	0.8 ÷ 1
Voltage	115 V
Current	43.5 A

### OUTPUT 4

Type of source	/
Frequency	/
Power kVA (Power kW) Max	/
Cos φ	/
Voltage	/
Current	/

## GENERAL SPECIFICATIONS

Fuel tank capacity	60 l
Starter battery	12V - 80Ah
Fuel consumption (welding 60%)	4.6 l/h
Running time (welding 60%)	13 h

IP protection degree	IP 23
Acoustic power LwA (pressure LpA)	98 dB(A) (73 dB(A) @ 7 m)
Max. ambient temperature	/

## AVAILABLE SOCKET COMBINATIONS

	VERSION		
	400/230/115V	400/230V	AUSTRALIA
1x400V 32A 3P+N+T CEE	•		
1x230V 16A 2P+T CEE	•		
1x115V 16A 2P+T CEE	•		
1x400V 32A 3P+N+T AUS			•
2x230V 15A 2P+T AUS			•
1x400V 32A 3P+N+T CEE		•	
2x230V 16A 2P+T CEE		•	

# CONTROL PANEL

## ENGINE

- Controller RGK420SA
- Thermal circuit breaker for motor protection: 1x30A
- Thermal circuit breaker for motor protection: 1x5A
- Acoustic signal
- Emergency stop button
- Auto-idle switch

RGK420SA CONTROLLER FEATURES	
Operating modes	<ul style="list-style-type: none"> <li>• MAN - REMOTE</li> </ul>
Display	<ul style="list-style-type: none"> <li>• Backlit display, LCD</li> <li>• Buttons: START ▼ - ▲</li> <li>• Key</li> </ul>
Generator measurements	<ul style="list-style-type: none"> <li>• Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3</li> <li>• Frequency Hz</li> </ul>
Engine measurements	<ul style="list-style-type: none"> <li>• Fuel level</li> <li>• Engine revs</li> <li>• Hour meter</li> <li>• Battery voltage</li> </ul>
Generator protections	<ul style="list-style-type: none"> <li>• Overvoltage</li> <li>• Under tension</li> <li>• Overfrequency</li> <li>• Underfrequency</li> </ul>

Motor protections	<ul style="list-style-type: none"> <li>• Overspeed</li> <li>• Low speed</li> <li>• High temperature</li> <li>• Low oil pressure</li> <li>• Low fuel pre-alarm</li> <li>• Low fuel level</li> <li>• Battery voltage</li> <li>• Inefficient battery</li> <li>• Battery charge alternator fault</li> <li>• Emergency stop</li> <li>• Failure to start</li> <li>• Failure to stop</li> <li>• Maintenance</li> </ul>
Features	<ul style="list-style-type: none"> <li>• Operator interface with symbols, codes and texts</li> <li>• Panel or PC programming</li> <li>• External start and stop</li> <li>• Programmable inputs and outputs</li> <li>• Operating temperature: -30 °C - +70 °C</li> <li>• NFC interface for wireless programming</li> </ul>

## GENERATION (VERS. 400V / 230V / 115V)

- Earth leakage circuit breaker 30 mA
- Thermal circuit breakers for sockets 230V e 115V
- Output sockets: 1x 400V 32A 3P+N+T CEE  
1x 230V 16A 2P+T CEE  
1x 115V 16A 2P+T CEE
- Earth terminal (PE)

## CONTROL PANEL MULTI4

MULTI4 CONTROLLER FEATURES	
Rotary switch for welding process	<ul style="list-style-type: none"> <li>• Stick (SMAW)</li> <li>• Stick contact</li> <li>• Mig/Flux Cored (GMAW)</li> <li>• Mig/Flux Cored contact</li> <li>• Tig lift arc (GTAW)</li> <li>• Tig pulse</li> </ul>
Encoder for current - voltage welding control	
Multifunctional encoder	<ul style="list-style-type: none"> <li>• Arc force control (Stick)</li> <li>• Hot start voltage setting (Mig)</li> <li>• Turn-off time arc control (Tig scratch)</li> <li>• Switching frequency setting (Tig pulsed)</li> </ul>
2x Display (4 Digit)	<ul style="list-style-type: none"> <li>• Current and voltage during the welding process</li> <li>• DISPLAY 1: Set the welding current and the voltage</li> <li>• DISPLAY 2: Settings controlled by the multifunction encoder</li> </ul>
LED VRD	<ul style="list-style-type: none"> <li>• Show if VRD is enabled</li> </ul>
LED AV	<ul style="list-style-type: none"> <li>• Kind of value shown on display 1</li> </ul>
LED % - s - Hz - V - A	<ul style="list-style-type: none"> <li>• Kind of value shown on display 2</li> </ul>
Button SET	<ul style="list-style-type: none"> <li>• Shows and saves the program</li> </ul>
BUTTON WS1 - WS2 - WS3	<ul style="list-style-type: none"> <li>• Recall a welding program saved previously, up to 3 programs can be stored for each welding process</li> </ul>
BUTTON WS3	<ul style="list-style-type: none"> <li>• Access to the secondary parameters for welding</li> </ul>
LED Button	<ul style="list-style-type: none"> <li>• Signal for storing and program recall</li> </ul>





# WEIGHT - DIMENSIONS ACCESSORIES

TS 2x280 EVO LUL14

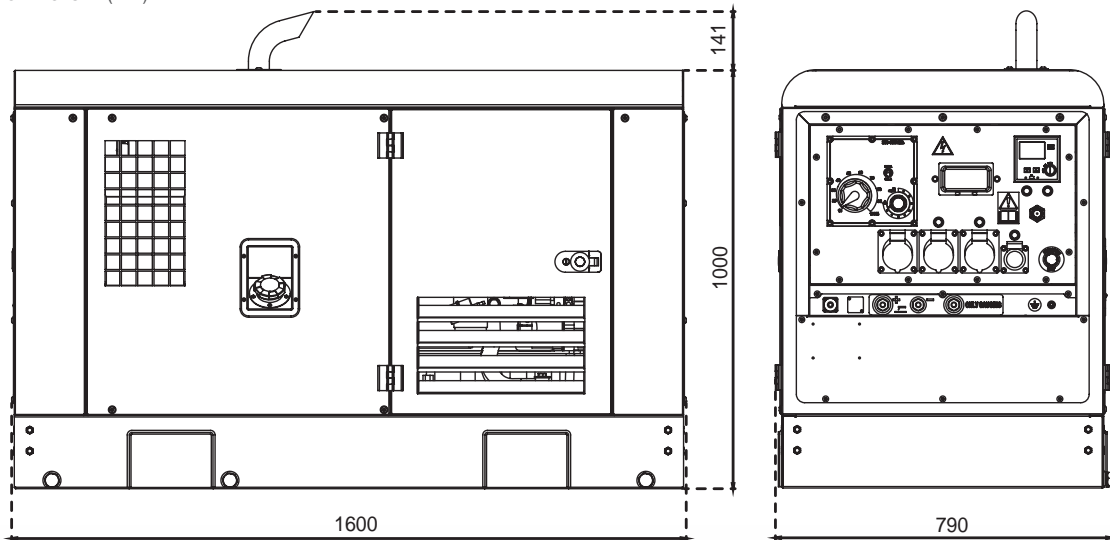


**DRY WEIGHT:**  
• 700 Kg

The welding machine pictured may include optional accessories.



**DIMENSION PICTURE (mm)**



## ⊕ OPTIONS ON REQUEST

- Remote control: RCE
- Welding cables (20+15 m, 50 mm<sup>2</sup>)
- Wirefeeder WF4
- Earthing kit
- Remote control extension cable
- Welding kit (mask, gloves, etc.)
- Road trailer with joint ball
- Road trailer with joint eyelet
- Site tow 2 wheels
- Site tow 4 wheels, 2 steering
- Panel cover
- Spark arrestor

## ☀ VERSION ON REQUEST

• /

## 📄 FACTORY INSTALLATION OPTIONS

- Gauges - water temperature and oil pressure

## GENERAL INFORMATIONS

EC Directives and Standards Compliance  
 2006/42 / EC (Machinery Directive)  
 2014/35 / EU (Low Voltage Directive)  
 2014/30 / EU (EMC Directive)  
 2000/14 / EC (Directive Acoustic Emission for machines for use outdoors)  
 ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets)



ISO 9001:2015 - Cert. 0192

### WARRANTY

All devices are covered by the manufacturer's warranty.

**Specifications subject to change without notice. For further information please contact the sales department.**

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