

ENGINE DRIVEN GENERATOR WELDER



MINE SPEC 600

RazorWeld

The UNIMIG Mine Spec 600 is a powerful Multifunction Diesel Generator/Welder designed for the Mining and Construction Industries. The MS 600 delivers value for money with high duty cycle performance of 500amps @ 60% duty cycle, 20kVA auxiliary AC power with both 240V and 415V outlets and the latest safety features. Your investment and reliability is guaranteed with Perkins 404D-22T Turbo diesel engine, Stamford generator and Yunda DC welding inverter.

Welding Performance

The advanced technology Yunda DC inverter delivers superior welding performance with easy arc striking, smooth arc characteristics, low spatter and excellent weld appearance. Reliability is assured with all printed circuit boards potted in resin and encapsulated to prevent exposure to harmful environments.

The UNIMIG MS 600 features five process modes and is supplied with digital volt/amp meters.

- MMA
- MMA Cellulosic
- Air Arc Gouging
- DC TIG
- MIG / Constant Voltage Wire

MMA is optimised for General Purpose and Low Hydrogen MMA electrode welding.

MMA Cellulosic is optimised for Cellulosic MMA electrode welding.

Hot Start and Arc Force can be adjusted whilst welding in either MMA or MMA Cellulosic modes.

Air Arc Gouging is optimised to run up to 8mm carbon rods and Strike and Re Strike performance is enhanced by optimising waveform design and VRD response time.

DC TIG welding with Lift Arc ignition and gas solenoid valve for optimal control and minimal gas loss. Constant Voltage Wire is optimised with adjustable inductance for running flux cored wires.

MIG welding with the unique RWS wire feeder, makes it possible to weld Pulse MIG, Double Pulse MIG, Synergic MIG, Manual MIG and MMA from wire feeder.

 STICK DC	AMPERAGE RANGE	30-600 AMPS		
	DUTY CYCLE X	60%	60%	100%
	RATED CURRENT	600A	500A	450A
	RATED VOLTAGE	34V	40V	40V
	OCV	80V		

 TIG DC	AMPERAGE RANGE	30-600 AMPS	
	DUTY CYCLE X	60%	100%
	RATED CURRENT	600A	500A
	RATED VOLTAGE	34V	30V
	OCV	80V	

 MIG DC	VOLTAGE RANGE	14-50VOLTS	
	DUTY CYCLE X	60%	100%
	RATED CURRENT	500A	400A
	RATED VOLTAGE	39V	34V
	OCV	80V	

Mine Specification Safety Features

- Emergency engine stop button located at eye level to quickly shut MS600 down in case of emergency.
- VRD Voltage Reduction Device lowers the voltage in CC MMA and CC air arc gouging modes to below 12 volts in less than 300 milliseconds.
- Output at welding terminals controlled by electronic contactor, that can be switched on or off.
- Stainless steel enclosure
- Lockable dual pole battery isolation selector for safer maintenance, **note: can only be locked in off position.**
- RCD protection for auxiliary AC power outlets.
- Auxiliary AC power with two 240 Volt single phase and one 415Volt IP66 rated outlets can also be isolated electrically by switching off circuit breakers behind bolted panel.
- Weight with fuel/oil/coolant 700Kgs
- AC All wiring looms are encased in conduit with rubber boots fitted to avoid mechanical wear and damage.
- Optional Drip tray / Roll cage can be supplied that will contain all liquids used in engine.
- IP23 case enclosure.



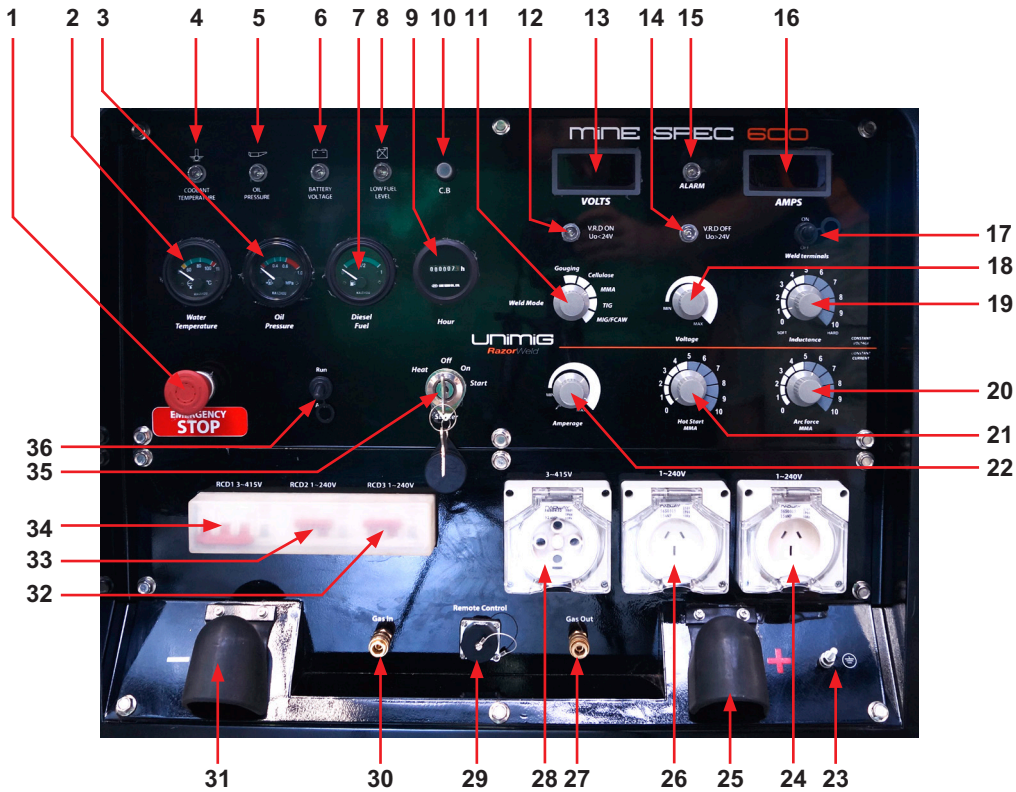
Engine is warranted separately by the manufacturer

ENGINE DRIVEN GENERATOR WELDER

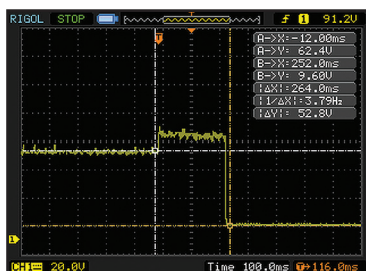
MINE SPEC 600



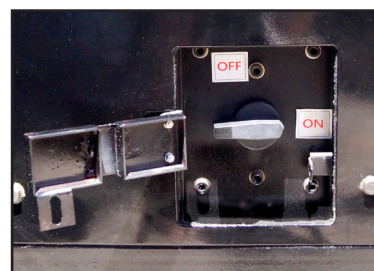
Razorweld™



- | | | | |
|----|-------------------------------------|----|--|
| 1 | Emergency stop button | 19 | Inductance control dial |
| 2 | Water temperature gauge | 20 | Arc force selector dial (MMA) |
| 3 | Oil pressure gauge | 21 | Hot start selector dial (MMA) |
| 4 | Coolant temperature warning light | 22 | Amperage control dial |
| 5 | Oil pressure warning light | 23 | Earth connection |
| 6 | Battery voltage warning light | 24 | 240 Volt single phase outlet - 15amp |
| 7 | Diesel fuel gauge | 25 | Positive welding output terminal |
| 8 | Low fuel level warning light | 26 | 240 Volt single phase outlet - 15amp |
| 9 | Engine hours gauge | 27 | Quick connector gas out (TIG welding) |
| 10 | Resettable circuit breaker (engine) | 28 | 415 Volt three phase outlet - 32amp |
| 11 | Weld mode selector switch | 29 | Remote control connector |
| 12 | V.R.D on light | 30 | Quick connector gas in (TIG welding) |
| 13 | Volt meter | 31 | Negative welding output terminal |
| 14 | V.R.D off light | 32 | Resettable circuit breaker (240 volts) |
| 15 | Warning alarm | 33 | Resettable circuit breaker (240 volts) |
| 16 | Amp meter | 34 | Resettable circuit breaker (415 volts) |
| 17 | Weld terminals ON/OFF switch | 35 | Ignition switch |
| 18 | Voltage output control dial | 36 | Run / Idle switch |



VRD Voltage Reduction Device lowers the voltage in CC MMA and CC air arc gouging modes to below 12 volts in less than 300 milliseconds.



Lockable dual pole battery isolation selector for safer maintenance
note: can only be locked in off position.

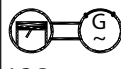
ENGINE DRIVEN GENERATOR WELDER

MINE SPEC 600



Generator Performance

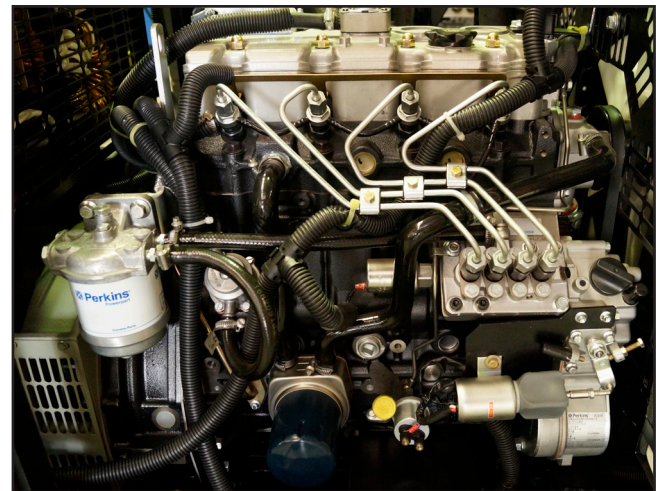
20KVA of auxiliary AC power with two 240 Volt single phase and one 415Volt three phase. IP66 rated outlets allows the operator flexibility to run multiple welding power sources or electric power tools simultaneously.

 AC Generator	Frequency	60Hz	
		1~	3~
	PEAK KW	9 KW	22 KW
	RATED KW	7.2 KW	20 KW
	RATED VOLTAGE	240V	415V
	RATED CURRENT	15A x 2	28A

WELDING AMPERES	TOTAL POWER	1 ~ /240V AMPERES	3 ~ /415V AMPERES
600A	0 W	0 A	0 A
500A	1500W	6.25A	2 A
400A	3000W	12.5A	4.0A
300A	9000W	13A x 2	12.5A
200A	13800W	15A x 2	19.2A
100A	17000W	15A x 2	23.6A
0A	20000W	15A x 2	28A



RCD protection for all high voltage circuits




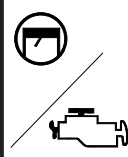
AC All wiring looms are encased in conduit with rubber boots fitted to avoid mechanical wear and damage.

Perkins Engine Features

Engine Features

- Fuel, oil pressure, engine temperature gauges and hour meter.
- 43 horsepower, liquid-cooled, 4 cylinder Perkins engine, includes automatic engine idler for greater fuel economy and reduced noise
- 52 litre fuel tank for 8 hours running at maximum RPM.
- Sound rating no load 76dBA @ 7 metres, loaded 81dBA @ 7 metres

 Fuel Economy	500A or 20KW	6.7LPH
	400A	5.2LPH
	300A	3.8LPH
	200A	3.0LPH
	100A	2.3LPH
	NO LOAD RUN	1.6LPH

 Diesel Engine	MODEL	PERKINS 404D-22T
	ENGINE SPEC.	GP71222
	RATED OUTPUT	32KW / 1800RPM
	DISPLACEMENT	2.216L
	CYLINDERS	4
	FUEL CAPACITY	52L
	RATED SPEED	1800RPM
	IDLE SPEED	1250RPM