



TECHNICAL BULLETIN

ISSUE: 8/93-8

SUPERCEDES: 7/88-1

1.2.10

METALLISATION SERIES 'V' 200 AND 300 ENERGIZERS

The Metallisation Energizer Series V is an ergonomically designed Electric Arc Spraying Supply and Control System.

It has been specially designed specifically for metal spraying and its benefits will be felt when used in conjunction with any of the Metallisation Arcspray Range of Pistols.

This single unit houses the electric and pneumatic control and monitoring functions and carries a removable wire dispensing system which is covered to protect against dust and can use either standard reels or MIG welding wire reels.

The Energizer Series V incorporates many useful and novel features including:-

- The continuously variable spraying current which is controlled by the airflow to the pistol motor (and which is a measure of material throughput) is infinitely variable up to its full nominal rating at 100% duty cycle.
- The Energizer can also be supplied for use with the Metallisation 528E Electric Drive Pistol and 'S' Type Controller
- The 3-Phase Special Power Transformer and Variable Inductance Choke, are designed to provide optimum arc characteristics and stability for any currently specified arc sprayed coating.
- The 3-Phase Switched Voltage Control gives finely stepped control over voltage and provides for reliable control under arduous conditions. This feature allows selection of the spraying voltage for all material or material combinations maintaining coating quality with the most robust circuitry.
- The Atomising Airflow to the Pistol Spray Head is continuously variable allowing control over the coating texture and the coating structure
- The purpose built Wire Dispensing System ensures that the wire follows the optimum line to the pistol and reduces dust contamination of the wire.
- As protection for both the equipment and the operator, electrical, thermal and air pressure cut-outs are provided.
- Full fan assisted cooling is provided for the transformers and diodes.
- Illuminated switches and displays provide easy monitoring of the equipment operation and give self-diagnosis of faults
- Colour coding on both the ammeter and voltmeter indicate regions where operation is inadvisable



TECHNICAL BULLETIN

1.2.10

- Two fixed and two castoring wheels are provided which ease handling and improve the units mobility
- All the supplies from the Energizer to the Spraying Pistol e.g. power cables, air hoses, control cables etc., issue near ground level as an aid to pistol handling.

SPECIFICATION - SERIES V

Spraying Current:	V200	:	0-200A @ 100% Duty Cycle
	V300	:	0-300A @ 100% Duty Cycle
Voltage		:	0-45V d.c. (nominal with infinitely variable control whilst spraying)
Motor Air		:	12cfm @ 80 psi (0.34m ³ /min @ 5.5 bar)
Atomising Air		:	30cfm @ 80 psi (0.85m ³ /min @ 5.5 bar)
Output Fusing		:	350A HRC per phase
Input Voltage a.c./ Output Voltage d.c. ratio		:	8.85:1

Input Requirements:

Electricity		:	380/440 V, 3 Phase, 40/60 Hz (for other input voltages, consult your Metallisation Distributor/Agent)
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Note: The Energizer Series V must be connected to a switch fuse or socket protected by V200 : 20A/Phase fusing, S300 : 30A fusing. It must be earthed

Compressed Air		:	Minimum requirements are: 45cfm @ 80psi (1.27m ³ /min @ 5.5 bar)
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Displays

Current		:	0-300 Amp analogue (V200) 0-400 Amp analogue (V300)
Voltage		:	0-50 Volts analogue
Atomising Air		:	0-140 psi (0-10 bar) analogue
Motor Air		:	0-140 psi (0.10 bar) analogue
Switches		:	Illuminated push switches and indicator lamps



TECHNICAL BULLETIN

1.2.10

General

Dimensions	:	Width	:	21.5	in	(540mm)
		Length	:	34	in	(865mm)
		Height	:	33	in	(840mm)
Weight	:	V300	:	305	Kg	
		V200	:	240	Kg	
Power Rating	:		:	8.5	KVA (V200)	
			:	12	KVA (V300)	
Power Factor	:		:	0.85	LAG	
Auxillary Circuits	:		:	110V and 24V	a.c.	
Pressure Switch Setting	:		:	30	psi (2.0 bar)	
Tropicalisation	:		:	Standard		