Metallisation
Thermal spray equipment and consumables

Equipment Specification

140E Arc Spray System

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1 GENERAL

The following specification covers the standard range of 140E Arcspray system. For the specific offer, please refer to the attached quotation and cross-reference the part numbers for each piece of equipment.

2 BENEFITS

- Integrated energiser, wire dispenser and drive unit saves shop floor space.
- NEW sealed/lubed for life inverter motor.
- Air-cooled cables reduce pistol supply weight and operator fatigue.
- Good pistol manoeuvrability.
- Variable wire speed control for accurate spray settings.
- Soft start for smooth start ups reducing electrical loading on components.
- Suitable for engineering wires, steels, copper and bronzes.
- Easy to maintain, less than 3 minutes to change contact tubes and nozzles.
- Lightweight and good balance for ease of handling.
- Uses 1.6mm and 2mm wire sizes without changing feed rollers.
- Choice of coating textures.
- Low running costs as compared with gas systems.
- Safety interlocks.
- Steel reinforced conduits for extended service life.
- Pull system (at pistol) for a more stable arc ensuring quality coatings with consistent operation.

3 ARC140 PISTOL

The Pistol has been designed to give consistent throughputs with high coating quality. It is a lightweight, heavy-duty unit with robust but compact construction.

Available Supplies Package:

Part No	Description
ARC140F-EV16	Arc140 Pistol for inbuilt Energiser 1.6mm

Technical overview:

- Primarily for spraying Engineering coatings and mould tool applications in the workshop environment.
- Standard 1.6mm wire size, 2.0mm available
- No requirement to change feed rollers when changing wire sizes.
- Quality coating.
- CG (constant geometry head) ensuring smooth feed, repeatable wire alignment and no adjustment of contact tubes required.
- The Wire Drive Unit utilises intermeshed steel wormshaft and bronze wormwheels, being driven by a lightweight, flexible drive.
- Lightweight air-cooled conductor cables are fitted; which reduces the operator supported weight and further improves the overall balance of the Pistol.
- Pull system (at pistol) for a more stable arc ensuring quality coatings with consistent operation.
- Closed arc for improved spray conditions and efficiency.

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Technical data:

Description	Characteristics
Maximum Current	350 Amps
Weight – at a held height of 1.2 M	4.5 Kgs – inc Cables and Hoses
Width	102mm
Length	457mm
Height	229mm

Typical performance figures for the ARC140 pistol:

MATERIAL	WIRE SIZE	THROUGHPUT KG/HR @ 250 Amps
Metallisation Wire 051E Copper	1.6mm	12.5
Metallisation Wire 06E Nickel	1.6mm	11.3
Metallisation Wire 10E Aluminium Bronze	1.6mm	11.3
Metallisation Wire 15E Phosphor Bronze	1.6mm	15.8
Metallisation Wire 30E,35E,45E, 55E,57E,60E 65E,80E,84E Steels	1.6mm	11.3
Metallisation Wire 75E Nickel Aluminium	1.6mm	13.6
Metallisation Wire 70E,71E Monel	1.6mm	14.3

4 Supplies Package

Available Supplies Package:

Part No	Description
SUP140-DDAEV	5M Supplies Package

Power, Air and Control Cables

Flexible Drive Cable

Wire Conduits

Technical overview:

- 5 meter supplies package for integration to S250 Energiser.
- Protective cover supplied for protection in a workshop environment.
- Supplied with all fittings appropriate to connect to 140 Pistol and S250 Energiser.
- Steel reinforced conduits for extended service life.
- Lightweight air-cooled conductor cables thereby reducing the operator supported weight and fatigue.

5 ENERGISER

The S250 Energiser has been specifically designed for those users who are likely to spray a varying range of materials without the need for high throughputs. Ideally suited for the General Engineering Workshop and Mould making industries.

Available Energisers:

Part No	Description
2220I-DDAEV	S250 Energiser with integrated drive

Technical overview:

- Specifically designed to suit only Arcspraying.
- Clear displays and large controls give ease of operation.
- Rigid construction & castor mounted offers workshop portability.
- Simple design for ease of maintenance
- Inbuilt inverter motor for wire feed

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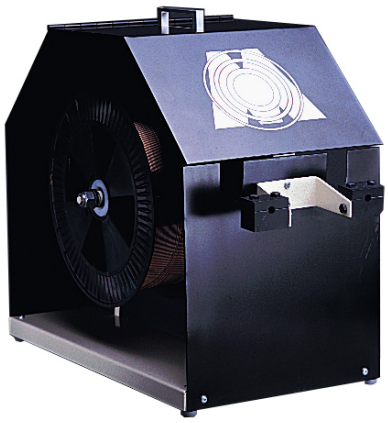
Energiser Specification:

Description	Characteristics
Power Requirements	380/440V 50-60Hz 3 Phase
Power Option	220/380/440V 50-60Hz 3 Phase
Fusing Required	20A/Phase (415V input)
Max Power Consumption	11.8 KWH
Duty	0-250 Amps @ 100% Duty Cycle
Output Voltage	0-45Vdc (nominal) Switched High/ Low & 1 - 5
Air Requirements	1.27m^3/min @ 5.5bar (45cfm @ 80psi)
Weight	210 Kgs
Width	560mm
Length	1015mm
Height	1000mm

6 WIRE DISPENSE



The wire is dispensed in two forms for the ARC140E Arcspray system, from Standard Spools or Mig Reels; both these systems use a wire dispenser mounted on the rear of the energiser.

Available wire dispensers:

Part No	Description
2398	Wire Dispenser 300mm ID Spools
2398MIG	Wire Dispenser MIG Reels

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Technical overview:

- Specifically designed to suit Arcspraying with the reels / spools being individually insulated from each other.
- Variable brake tension to ensure wire does not uncoil.
- Designed to ensure a smooth wire feed to the pistol.
- Rigid construction
- Ease of loading and unloading of Spools/Reels.

7 TOOL KIT

Appropriate hand tools are supplied with the Arcspray system along with an operating manual and pistol case.

8 OPTIONS

The Arcspray 140E system can also use a variety of optional extras these include the following items

8.1 Arc Beam

Available Arc Beam:

Part No	Description
ARCBEAM(140)	Arcbeam for 1.6mm ARC140 Pistol

Technical overview:

- Reduces Arcspray footprint.
- Finer Coatings
- Improved Deposit efficiency when spraying onto small components.
- Less apparent porosity.
- Improved hardness.

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Technical data:

Description	Characteristics
Maximum Current	350 Amps
Compressed Air	0.7m^3 / min @ 3.5 Bar

8.2 Arc Extensions

Available Arc Extensions:

Part No	Description
ARC140EX500	Arcspray deflector extension 1.6mm, 500mm Long
ARC140EX1000	Arcspray deflector extension 1.6mm, 1000mm Long
ARC140EX1500	Arcspray deflector extension 1.6mm, 1500mm Long

Technical overview:

- Suitable for internal bores (min Diameter 75mm) or recesses.
- Variable deflected spray from 0 to 75 Degrees
- Rigid construction

Technical data:

Description	Characteristics
Maximum Current	200 Amps
Compressed Air	0.6m^3 / min @ 4.5 Bar