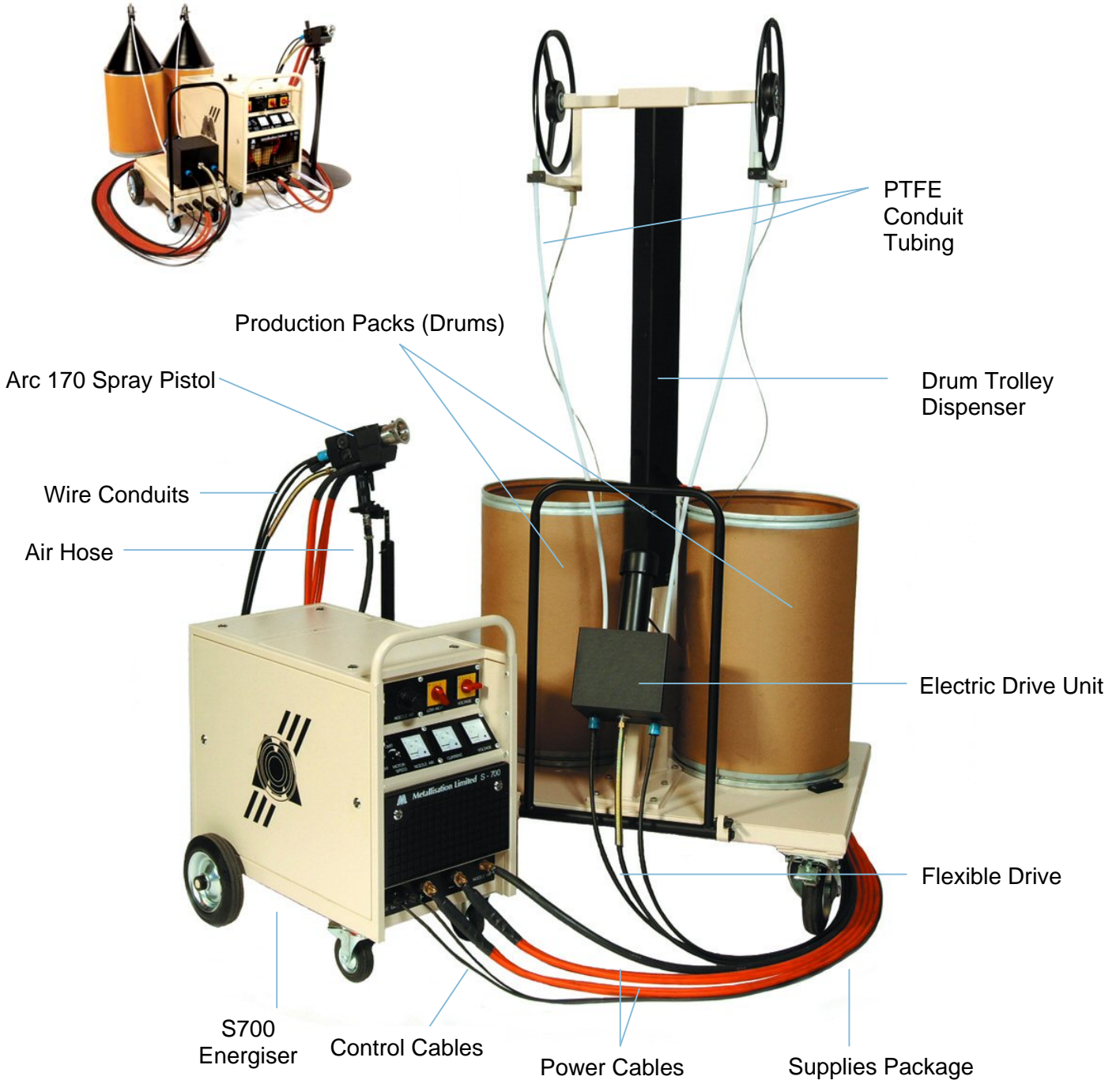


Equipment Specification

Arc 170 Spray System (Drum Dispense).



Equipment Specification

Arc 170 Spray System (Mig Reel Dispense)



Equipment Specification

Arc 170 Spraying



170 system spraying from drums with 10m supplies

170 system spraying from MIG reels with 10m from energiser to site trolley and 10m from site trolley to pistol



1 GENERAL

The following specification covers the standard range of ARC170 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

2.1 NEW S700 ENERGISER

- 700 Amp continuous operation
- Large 'Site Capable' wheels and rigid handle offers excellent portability on site and in workshop
- Sealed electrical control circuit - reduces dust ingress for added reliability
- Overcurrent limit protection – protects all parts of spray system from over-current
- Clear displays and large controls give ease of operation.
- Easy access energiser panels & external fuse bank for reduced Mean Time to Repair (MTTR).
- Simple design for ease of maintenance
- New wire dispense packaging options allow drive unit to be compactly mounted on the energiser or separately on the floor or site capable trolleys
- When wire drive is energiser mounted, the drive unit can rotate through 180° to follow the operator whilst spraying

2.2 NEW 'POWER EXTENSION TROLLEY'

- Power extension trolley designed to allow the energiser to be sited away from the spray job
- 10m extension supplies package as standard, 20m maximum available for certain applications
- Large 'Site Capable' wheels and rigid handle offers excellent portability on site
- Quick release power, air and control couplings allow quick assembly / disassembly of package



2.3 GENERAL BENEFITS

- High throughputs of Zinc, Aluminium and Zinc / Aluminium 85/15 – reduces spraying time.
- 700 amps continuous operation – reduces spraying time
- Large wires for greater efficiencies.
- Push Pull system for a more stable arc ensuring quality coatings with consistent operation.
- Patented Flexible Drive system (Synchronised).
- Pistol to Dispenser length available as 10m as standard.
- Pistol to Energiser length available as 10m or 20m as standard.
- DC motor drive sealed/lubed for life – greater reliability.
- Variable wire speed control – gives variable spray rates.
- Soft start for smooth start-ups - reduces electrical loading on components.
- Suitable for anticorrosion wires 3.17mm (1/8”) to 4.76mm (3/16”).
- Easy to maintain, less than 3 minutes to change contact tubes and nozzles.
- Choice of coating textures.
- Low running costs as compared with gas systems.
- Steel reinforced conduits for extended service life.
- Multiple wire dispensing methods to suit all site requirements.

3 ARC170 PISTOL

Part No	Description
ARC170-CG32	Arc700 Pistol for 3.17mm (1/8") wires
ARC170-CG316	Arc700 Pistol for 4.76mm (3/16") wires



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

3.1 TECHNICAL OVERVIEW:

- For spraying Anti-corrosion coatings on large surface areas in the spray shop and onsite environment.
- Spreader Air Jets to allow a wider spray pattern for large surface areas
- Simple to operate.
- 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.
- Closed arc for improved spray conditions and coating quality.

3.1.1 Technical data:

Description	Characteristics
Maximum Current	700 Amps
Weight	3.4 Kgs
Weight – at a held height of 1.2 M	10 Kgs – inc Cables and Hoses
Width	110mm
Length	275mm
Height	350mm

3.1.2 Typical performance figures for the ARC170 pistol:

MATERIAL	WIRE SIZE	THROUGHPUT KG/HR @ 700 Amps	DEPOSIT EFFICIENCY % @ 700 Amps
Metallisation Wire 01E Aluminium	4.76mm (3/16")	24	66
Metallisation Wire 02E Zinc	4.76mm (3/16")	92	68
Metallisation Wire 21E Zinc/Aluminium 85/15	4.76mm (3/16")	75	80

MATERIAL	WIRE SIZE	THROUGHPUT KG/HR @ 700 Amps	DEPOSIT EFFICIENCY % @ 700 Amps
Metallisation Wire 01E Aluminium	3.17mm (1/8")	21	78
Metallisation Wire 02E Zinc	3.17mm (1/8")	72	70
Metallisation Wire 21E Zinc/Aluminium 85/15	3.17mm (1/8")	70	80

3.1.3 Deposit Efficiencies at Lower Spray Rates

MATERIAL	WIRE SIZE	THROUGHPUT KG/HR @ 350 Amps	DEPOSIT EFFICIENCY % @ 350 Amps
Metallisation Wire 01E Aluminium	4.76mm (3/16")	13	72
Metallisation Wire 02E Zinc	4.76mm (3/16")	51	69
Metallisation Wire 21E Zinc/Aluminium 85/15	4.76mm (3/16")	41	79

4 SUPPLIES PACKAGE

Part No	Description
SUP170-10M	10M Supplies Package 3.17mm (1/8") & 4.76mm (3/16") wires
SUP06-EXT10H	10M PET supplies, high power

4.1 STANDARD SUPPLIES PACKAGE INCLUDES:



Power cables
2 off



Air hose
1 off



Pair of Wire Conduits



Control cable
1 off



Flexible Drive
1 off

4.1.1 Technical overview:

- 10 meter supplies package available as standard, Optional 10m extension.
- Supplied with all fittings appropriate to connect to 170 Pistol and S700 Energiser.
- Steel reinforced conduits for extended service life.
- Supplies Package Extension increases the distance to 20m for Air, Power and Control cables only (Pistol to Energiser not Wire Dispense).

4.2 10M POWER PET SUPPLIES, HIGH POWER INCLUDES:



Power cables
2 off



Air hose
1 off



Control cable
1 off

4.2.1 Technical overview:

- 10m Power Extension Trolley (PET) supplies package available as standard
- Up to 20m available for certain applications (check with Metallisation)
- Supplied with all fittings appropriate to connect to S700 Energiser and High Power Extension Trolley
- Quick release power, air and control couplings allow quick assembly / disassembly of package

5 ENERGISER

Part No	Description
2226	S700 Energiser



The S700 Energiser has been specifically designed for those users who wish to spray large areas at high throughputs of anticorrosion materials.

5.1 TECHNICAL OVERVIEW:

- 700 Amp continuous operation (100% duty cycle)
- Large 'Site Capable' wheels and rigid handle offers excellent portability on site and in workshop
- Sealed electrical control circuit - reduces dust ingress for added reliability
- Overcurrent limit protection – protects all parts of spray system from over-current
- Clear displays and large controls give ease of operation.
- Easy access energiser panels & external fuse bank for reduced Mean Time to Repair (MTTR).
- Simple design for ease of maintenance



5.1.1 Energiser Specification:

Description	Characteristics
Power Requirements	380/440V 50-60Hz 3 Phase
Fusing Required	45A/Phase (415V input & 35Vdc output)
Max Power Consumption	25 KW @ max 35Vdc
Duty	0-700 Amps @ 100% Duty Cycle
Output Voltage @ 440 Supply Voltage	0-50Vdc (nominal) Switched High/Low & 1 - 5
Air Requirements	1.25 m ³ /min @ 4.5bar (44cfm @ 65psi)
Weight	282 Kgs
Width	665mm
Length	900mm
Height	913mm

6 WIRE DRIVE UNIT

Part No	Description
ARC170-EDA32	ARC170 Electric Push / Pull Wire Drive Unit 3.17mm (1/8") wire
ARC170-EDA316	ARC170 Electric Push / Pull Wire Drive Unit 4.76mm (3/16") wire



Drive units shown already fitted to Drive Support Plates (not included with drive unit)

The ARC170 wire drive unit is a push/pull system. With a drive mechanism that operates through an electric DC drive motor with a flexible drive cable up to the pistol. This unit is fitted with a 1m flying lead and a 5m-extension cable.

6.1 TECHNICAL OVERVIEW:

- Electric DC Drive Motor, Thyristor Controlled, for smooth wire feed
- Push / Pull mechanism positively drives the wire to the pistol
- Ease of loading and unloading of wires, using "Quick Fit" couplings on Conduits
- Rigid construction
- Simple design for ease of maintenance
- Easily adjustable wire tensioners for a consistent feed of different wire sizes and materials
- Different sized drive rollers for 3.17mm and 4.76mm materials

7 WIRE DISPENSE

7.1 WIRE DISPENSING TROLLEY:

Part No	Description
ARC170-DT	Arc170 Drum Trolley

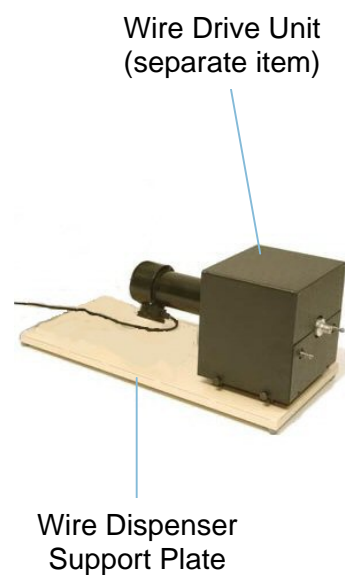


7.1.1 Technical overview:

- Suitable for dispensing 3.17mm (1/8"), 4.76mm (3/16") Zinc and Zinc/Aluminium
- Specifically designed to suit Arcspraying with the each drum being individually insulated from each other
- Fitted Pulley to ensure a smooth wire feed to the pistol
- Large 'Site Capable' wheels
- Mounting provided for Wire Drive Unit
- Includes vinyl dust covers for drums (Not Shown)
- Rigid construction
- Ease of loading and unloading of the wire
- Drums available in 250 Kg for Zinc and Zinc/Aluminium

7.2 WIRE DISPENSING CONES (PULLEY):

Part No	Description
21254	Wire Dispensing Cones
2006-DSP	Wire Dispenser Support Plate

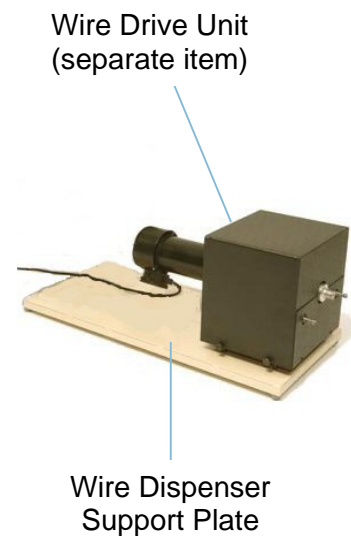


7.2.1 Technical overview:

- Suitable for dispensing 3.17mm Zinc and Zinc/Aluminium.
- Specifically designed to suit Arcspraying with the each drum being individually insulated from each other.
- Fitted Pulley to ensure a smooth wire feed to the pistol.
- Rigid construction
- Ease of loading and unloading of the wire.
- To be used with wire dispenser support plate and wire drive unit
- Part number 2006-DSP designed to pivot when energiser mounted, allowing 180° of rotation for increased spraying range and flexibility.

7.3 TWO TIER WIRE DISPENSER:

Part No	Description
2006-2T	Arc170 2 tier wire coil dispenser (Includes ARC170-DSP)
2006-DSP	Wire Dispenser Support Plate

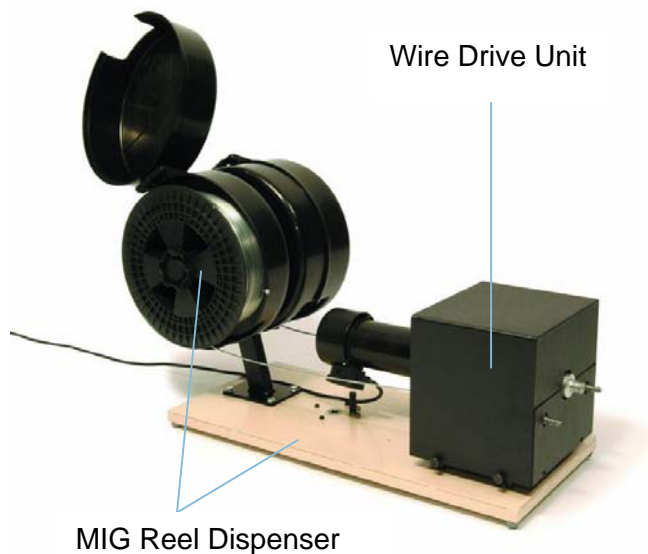


7.3.1 Technical Overview:

- Specifically designed to suit Arcspraying with the each coil being individually insulated from each other
- Zinc, Aluminium and Zinc/ Aluminium available in Coil for 2.3mm and 3.17mm(1/8")
- Variable brake tension to ensure wire does not uncoil
- Designed to ensure a smooth wire feed to the pistol
- Dust Cover included
- Lower tier swings out for Ease of loading and unloading of the Coils.
- Castors fitted to the bottom of the dispenser
- Part number 2006-2T includes drive support plate
- Part number 2006-DSP offered for users who already have their own wire dispensers
- Part number 2006-DSP designed to pivot when energiser mounted, allowing 180° of rotation for increased spraying range and flexibility.

7.4 MIG REEL WIRE DISPENSER:

Part No	Description
2006-MIG	Wire Dispenser MIG ID Spools



The wire is dispensed in MIG Reels and is shown with the wire drive unit fitted and one dust cover open.

7.4.1 Technical overview:

- Specifically designed to suit Arcspraying with the MIG reels being individually insulated from each other.
- Variable brake tension to ensure wire does not uncoil.
- MIG reel dust cover to ensure more consistent spraying.
- Zinc, Aluminium and Zinc/ Aluminium available on MIG for 2.3mm and 3.17mm(1/8”).
- Designed to ensure a smooth wire feed to the pistol.
- Designed to pivot allowing 180° of rotation for increased spraying range and flexibility.

7.5 HIGH POWER EXTENSION TROLLEY

Part No	Description
2006-PETH	High power extension trolley



Front view



With MIG Dispenser Fitted



Rear view

7.5.1 Technical overview

- Power extension trolley designed to allow the energiser to be sited away from the spray job
- Large 'Site Capable' wheels and rigid handle offers excellent portability on site
- Quick release power, air and control couplings allow quick assembly / disassembly of package
- Drive support plate bolts to trolley

8 TOOL KIT AND ACCESSORIES

8.1 TOOL KIT:

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

8.2 ACCESSORIES:

Part No	Description
ARC170-CK32	Arc170 4.76mm (3/16") to 3.17mm (1/8") Conversion Kit
ARC170-CK316	Arc170 3.17mm (1/8") to 4.76mm (3/16") Conversion Kit

- Conversion Kits include all required Driver Rollers, Nozzle, Aircap, Contact Tubes and Wire conduits