

Metallisation

Thermal spray equipment and consumables



Equipment Specification

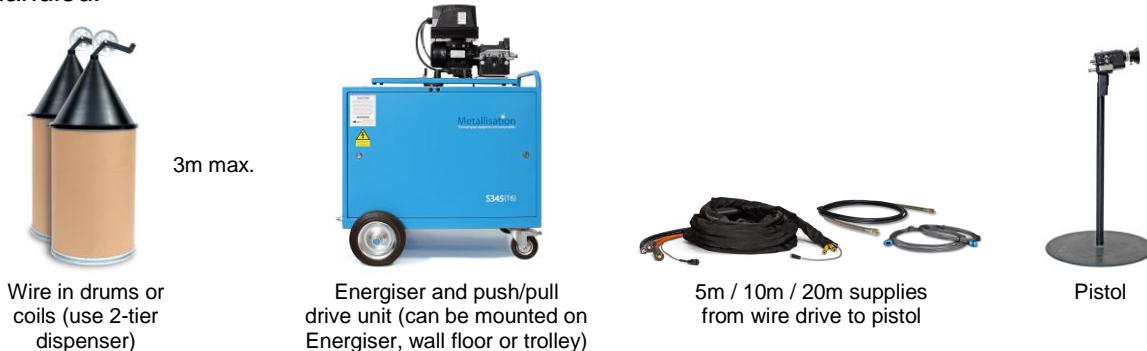
ARC145/S345(16)-CL Arc Spray System

TYPICAL SYSTEM CONFIGURATIONS

Pictured below is a range of typical system configurations. Variations of these configurations may be possible. Contact Metallisation to discuss your specific application requirements.

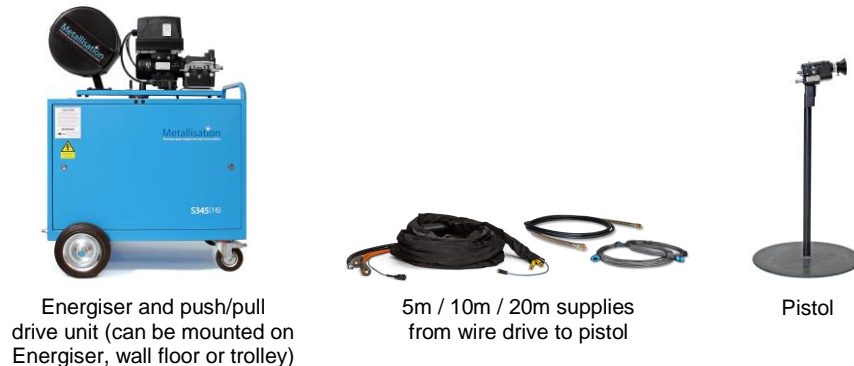
STANDARD CONFIGURATION – PUSH/PULL WITH WIRE IN DRUMS

Most commonly used for in-house or on-site anti-corrosion applications where drums can easily be handled.



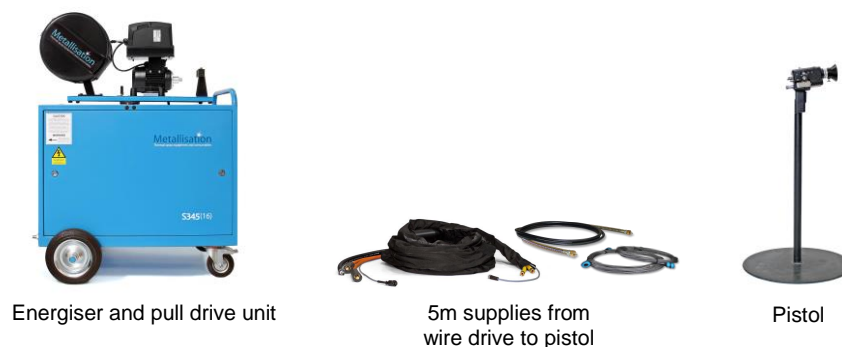
STANDARD CONFIGURATION – PUSH/PULL WITH WIRE ON MIG REELS

Most commonly used for on-site anti-corrosion applications where loading of the smaller MIG reels is more feasible than using drum material.



STANDARD CONFIGURATION – PULL WITH WIRE ON MIG REELS

Most commonly used in engineering workshops where a compact footprint is useful and a 5m supplies package length is sufficient. Pull only is suitable for most applications but for heavy usage, a 5m push/pull setup is recommended.



EXTENDED CONFIGURATION – PUSH/PULL WITH WIRE ON MIG REELS

Most commonly used in hard to reach areas such as boilers/vessels where access for the energiser is limited. Hardboard reel variant can also be offered on the trolley.



Energiser



Extension Supplies



Push/pull drive unit and MIG reels on power extension trolley with quick release connections



Supplies from wire drive to pistol



Pistol

EXTENDED CONFIGURATION – PUSH/PULL WITH WIRE IN DRUMS

Most commonly used for very long access applications where there is a benefit to remotely site the energiser away from the spraying area and maintain the benefit of having wire in drums.



Energiser



Wire in drums or coils (use 2-tier wire dispenser)
3m max. wire to drive



Push/pull drive unit on power extension trolley with quick release connections



Supplies from wire drive to pistol



Pistol

TYPICAL EXTENDED SUPPLIES CONFIGURATION

Extended supplies	Pistol supplies	Total Max
10m	5/10/20m	50m
20m		
30m		
40m	10m	

Note: Maximum total supplies pack length is 50m. This can be a combination of 30+20 or 40+10

INTRODUCTION

The following specification covers the standard range of ARC145/S345(16)-CL Arcspray systems. For the specific offer, please refer to a detailed quotation and cross-reference the part numbers for each piece of equipment.

Our desire for continuous improvement, alongside customer feedback has led to the development of our latest range of ARC145 systems. The systems combine the best elements of our proven ARC140 system and our more recently released ARC150 system.

The ARC145 pistol utilises our latest design of contact tips and air-concentrator. The head design, along with the contact tips improves cooling to the arc area, resulting in longer contact tip life and more reliable operation when spraying for extended periods of time. The improved airflow and more efficient arc also allow the system to produce a finer coating without compromising deposit efficiency. The new tips, manufactured from a hard wearing, copper alloy are quick and easy to change. The new material, along with improved cooling help to enhance tip life considerably and reduce downtime and running costs.

The ARC145 pistol also includes other enhancements such as measuring the spray voltage at the pistol (assisting diagnostics and simplifying setup) and more simple, robust pushbuttons. A small amount of weight is taken out of the pistol compared to the ARC140 and a more robust control cable connection is also introduced. Reversible (twice the life) V-rollers complete the ARC145 pistols new features and ensure the most reliable wire feed possible.

The reversible V-rollers also feature on the new ARC145 wire drive unit which utilises the proven technology from the ARC150 spray systems. A larger motor, inverter and independent tension drive unit gives the very best in reliable and repeatable wire feeding.

The new drive unit and pistol are still joined with our patented 'Synchrodrive' principle. The flexible drive cable in 5m, 10m, and 20m lengths, combined with the V-rollers and more positive drive unit ensure the ultimate performance and reliability of wire feeding. The ARC145 system has been extensively tested with a range of coating wires and proven to give excellent performance over 20m feed lengths with the most challenging, cored engineering wires.

The energiser range includes the latest enhancements introduced to our range at the start of 2016.

- The latest version of PLC is fitted ensuring long future proofing and support.
- Digital gauges offering both scale and numeric displays.
- MCB's are fitted to the incoming power supply as additional protection if the correct fusing is not fitted to the electrical supply.
- New Data Kit option giving the possibility of remote monitoring and logging of certain energiser data at a customer's HMI via a Siemens S7-1200 series CPU.

The system is designed for demanding engineering and anti-corrosion applications and is our most flexible arc spray machine. Suited to hand held or robotic mounting, it is as happy spraying 1.6mm engineering wires onto shafts as it is spraying 2.5mm corrosion coatings onto steel fabrications. The system has undergone a rigorous design, engineering and testing program to bring you a high quality, medium capacity but flexible system that will aid you to maximise production, efficiency and productivity in your thermal spray operations.

SAFETY: The equipment quoted will produce levels of noise, ultra violet light and dust that will require safety measures to be taken by those using the equipment. It may use pressurised gases. Careful consideration should also be given to the positioning of this equipment. It is the responsibility of the user to ensure that all appropriate measures are taken to ensure safe operation in accordance with local requirements. Metallisation will be pleased to advise as appropriate.

BENEFITS

GENERAL BENEFITS

- ✦ 350A spray capacity – suitable for many engineering coating requirements and small corrosion protection jobs.
- ✦ Contact tube and tip design gives finer coating finish and optimises reliability due to better heat dissipation at the contact tips.
- ✦ Fine coating finish minimises post-processing when fine paint finishes required.
- ✦ Push/Pull system for a more stable arc ensuring quality coatings with consistent operation.
- ✦ Patented Flexible Drive system (Synchronised) with new, larger core for added strength under greater duty.
- ✦ 5 to 20 metre supplies packages from the wire to the pistol for spraying accessibility.
- ✦ New, higher powered, sealed / lubed for life inverter drive gear-motor.
- ✦ New, heavy duty push drive unit with independent, quantifiable tension adjustment.
- ✦ Air-cooled cables reduce pistol supply weight and operator fatigue and give good manoeuvrability.
- ✦ Suitable for 1.6mm, 2.0mm, 2.3mm and 2.5mm wires.
- ✦ V-shaped feed rollers are easy to change and are reversible for longer life from a single roller.
- ✦ Easy to maintain, less than 2 minutes to change contact tips that do not require adjustment.
- ✦ Spray voltage measured at the pistol for improved diagnostics and setup.
- ✦ Choice of coating textures.
- ✦ When wire drive is energiser mounted, the drive unit can rotate through 180° to follow the operator whilst spraying.
- ✦ Power extension trolley with several length options designed to allow the energiser to be sited away from the spray job.
- ✦ Quick release power, air and control couplings allow quick assembly / disassembly of package.

S345(16)-CL ENERGISER

- ✦ Closed loop current control - easy setup / reliable spray rate / over-current protection.
- ✦ Easy setup – set the spray current before starting to spray.
- ✦ IP65 rated digital displays showing scale and numerical values.
- ✦ PLC control for improved reliability and ease of maintenance / fault finding with program supplied on a Micro SD Card in case the PLC needs reprogramming.
- ✦ 350 Amp continuous operation at 100% duty cycle.
- ✦ Easy access energiser panels & external fuse bank for reduced Mean Time to Repair (MTTR).
- ✦ 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.
- ✦ Optional remote interface kit to enable remote operation and inclusion in a remote e-stop circuit.

ARC145 PISTOL

Part No.	Description
ARC145-CG16	Arcspray145 Pistol for 1.6mm wires
ARC145-CG20	Arcspray145 Pistol for 2.0mm wires
ARC145-CG23	Arcspray145 Pistol for 2.3mm wires
ARC145-CG25	Arcspray145 Pistol for 2.5mm wires



The pistol has been designed to give consistent throughputs with high coating quality at 350A. It is a lightweight, heavy-duty unit with robust but compact construction.



Contact Tube & Tips



Drive Rollers

TECHNICAL OVERVIEW

- New, longer contact tube and tip arrangement – improved coating quality and reliability due to optimised heat dissipation.
- Contact tips accessible and easily changed without dis-assembling the spray head (see above).
- New pushbutton design for easy operation and maintenance.
- Standard 1.6, 2.0, 2.3 and 2.5mm wire size.
- Profiled drive rollers suitable for 1.6/2.0mm and 2.3/2.5mm wires. Rollers have 2 grooves and can be reversed for long life operation (see above).
- Ceramic nozzle replaced with air concentrator for optimum coating finish.
- Weight optimisation within various areas of the pistol.
- Spray voltage measured at the pistol for improved reliability and diagnostics with long supplies packs.
- The wire drive unit utilises intermeshed hardened 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.
- Closed arc for improved spray conditions and efficiency.

TECHNICAL DATA

Description	Characteristics
Maximum Current	350 Amps
Weight	2.1 Kgs
Weight – at a held height of 1.2 M	5.4 Kgs (at 1.2m high inc cables and hoses)
Width (with cables)	102mm
Length	275mm
Height	240mm

TYPICAL PERFORMANCE FIGURES FOR THE ARC145 PISTOL

Material	Wire Diameter	Throughput (kg/hr @ 350A)	Coverage m ² /kg/100μ
Metallisation Wire 02E Zinc	2.0mm 2.3mm	36.0	0.82
Metallisation Wire 01E/17E/25E/28E Aluminium & Alloys	2.0mm 2.3mm	8.5	2.88
Metallisation Wire 21E Zinc/Aluminium 85/15	2.0mm 2.3mm	31.0	1.00
Metallisation Wire 05E Copper	1.6mm	15(@300A)	0.91
Metallisation Wire 30E,35E,45E, 55E,57E,60E 65E,80E,84E Steels	1.6mm	13.6(@300A)	1.02
Metallisation Wire 75E Nickel Aluminium	1.6mm	16.4(@300A)	1.09
Metallisation Wire 10E Aluminium Bronze	1.6mm	13.6(@300A)	1.37
Metallisation Wire 15E Phosphor Bronze	1.6mm	19(@300A)	0.91
Metallisation Wire 70E/71E Monel	1.6mm	17.2(@300A)	1.02
Metallisation Cored Wire 103T FeCrB	1.6mm	14.4(@300A)	1.18

Throughput is assumed to be independent of wire diameter.

All data provided is an approximation and is offered as guidance only as performance can vary depending on application and parameters.

TOOLKIT

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



SUPPLIES PACKAGE

Part No.	Description
PISTOL SUPPLIES PACKS (between energiser/trolley and pistol)	
SUP145-5M	Arcspray 145, 5m supplies package for electric drive, S245/345
SUP145-10M	Arcspray 145, 10m supplies package for electric drive, S245/345
SUP145-20M	Arcspray 145, 20m supplies package for electric drive, S245/345
EXTENSION SUPPLIES PACKS (between energiser and trolley)	
SUP145-10EX	10m Supplies pack for power extension trolley (ARC145-PET)
SUP145-20EX	20m Supplies pack for power extension trolley (ARC145-PET)
SUP145-30EX	30m Supplies pack for power extension trolley (ARC145-PET)
SUP145-40EX	40m Supplies pack for power extension trolley (ARC145-PET)*
SUP145-EX-CLA	ARC145 Cable Lead Adaptor for connection without Trolley

* only to be used with 10m pistol supplies pack

ENERGISER / TROLLEY TO PISTOL SUPPLIES PACKAGE INCLUDES



Power, Air and
Control Cables



Flexible
Drive Cable



Wire Conduits

TECHNICAL OVERVIEW

- 5 to 20 metre supplies packages for integration to S345(16) Energiser.
- Heavy duty flexible drive for robust power transfer but with lightweight spring for optimised weight.
- Steel reinforced conduits for extended service life.
- Lightweight air-cooled conductor cables reduce the operator supported weight & fatigue.
- 'Torpedo' shaped manifold design gives less chance of snagging for reliability in harsh spray environments.
- Robust, hard wearing supplies pack cover.
- Power cables fitted with twist and lock connectors into the energiser. Air hoses fitted with quick release fittings into the energiser.

EXTENSION SUPPLIES INCLUDES



Power cables, air hose and control cable

TECHNICAL OVERVIEW

- ✦ Lengths and configurations as shown in the tables on pages 3 and 8.
- ✦ Supplied with all fittings appropriate to connect to S345(16) Energiser and Power Extension Trolley.
- ✦ Quick release power, air and control couplings allow quick assembly / disassembly of package.
- ✦ Robust supplies pack covers only supplied on the 10 and 20m standard extensions due to packaging heavy power cables in one bundle.
- ✦ It is possible to use an extension supplies package without an extension trolley. The connections between the supplies will all fit apart from the control cables. If using the extension supplies package without a trolley, part number SUP145-EX-CLA must be used.

ENERGISER

Part No.	Description
S345(16)-PLC	S345(16) ARC145 Energizer with closed loop current control
S345FV(16)-PLC	S345(16) ARC145 Energizer with closed loop current control (200v-220v Fixed Voltage)
S345D(16)-PLC	S345(16) ARC145 Energizer with closed loop current control (220v-380v-440v Dual Voltage)
PLC-E/STOP-K	Remote operation E-Stop kit for PLC energisers



This energiser has been specifically designed for those users who are likely to spray a varying range of materials. Ideally suited for the Anti-corrosion industry and General Engineering Workshop.

TECHNICAL OVERVIEW

- ✦ Closed Loop Current Control – easy setup / reliable spray rate / over-current protection.
- ✦ PLC control for improved reliability and ease of maintenance / fault finding.
- ✦ 350 Amp continuous operation (100% duty cycle).
- ✦ Specifically designed to suit only Arc spraying.
- ✦ Large 'Site Capable' wheels and rigid handle offers portability on site and in workshop.
- ✦ New digital panel meters:
 - Easy to read with scale and numerical display.
 - Higher accuracy than traditional gauges.
 - Warning alert status (ammeter turns red if overcurrent).
 - Wide viewing angle with high contrast for ease of viewing inside or out.
 - IP65 rated and Gorilla glass screens.
- ✦ Sealed electrical control circuit - reduces dust ingress for added reliability.
- ✦ Easy access energiser panels & external fuse bank for reduced Mean Time to Repair (MTTR). Shake-proof terminals minimise risk of loose control connections.
- ✦ Switched output voltage control.
- ✦ 220V/380V/415V input supply options available (hard wired).
- ✦ Remote operation E-stop kit allows energiser to be started/stopped remotely via a pendant or interfaced into an automation E-stop circuit. It comes with a plug that can be wired as required.

- ✦ Latest version of Siemens Logo PLC:
 - SD card allows easy program updates.
 - RJ45 communications available (see page 16 for more details).
- ✦ Air regulators with 'lock-off' potential.
- ✦ Digital air pressure switches with display for easy setting and diagnostics.
- ✦ Input voltage MCB's to provide additional electrical protection (used in-conjunction with customers own supply/fusing).

S345(16) ENERGISER SPECIFICATION

Description	Characteristics
Input Power Requirements	380/415V 3 phase 50/60hz
Optional Input Power	200/220V 3 phase 50/60hz
Fusing Required	26A @ 460 Vac 29A @ 415 Vac 31A @ 380 Vac 55A @ 220 Vac 60A @ 200 Vac
Max Power Consumption	21 KVA (46Vdc/350A output)
Typical Power Consumption	12 KVA (Zinc 26Vdc/350A output) 16 KVA (Aluminium 35Vdc/350A output)
Duty	0-350 AMPS @ 100% Duty Cycle
Output Voltage	0-49Vdc (nominal) Switched High/Low & 1 - 5
Air Requirements	1.5m ³ /min @ 5 bar (53cfm @ 72.5 psi)
Weight	245 Kgs
Dimensions (W x L x H)	670mm x 900mm x 876mm

WIRE DRIVE AND DISPENSE

Part No.	Description
ARC145-DDA-MIG	ARC145 Pull Only Drive Unit Assy for MIG Dispensing
ARC145-DUAEV-16-MIG	ARC145 Drive unit for MIG Dispensing (1.6/2.0mm)
ARC145-DUAEV-16-DRUM	ARC145 Drive unit for Drum/Cones Dispensing (1.6/2.0mm)
ARC145-DUAEV-23-MIG	ARC145 Drive unit for MIG Dispensing (2.3/2.5mm)
ARC145-DUAEV-23-DRUM	ARC145 Drive unit for Drum/Cones Dispensing (2.3/2.5mm)
21252	Wire Dispensing Cone with Adjustable Reeling Pulley and Frame
6274/5	Clamp Blocks (Pair) 1/2"
7144	1/2" Dia Ptfе Tubing (Supplied by the meter)

DRIVE UNITS



ARC145-DUAEV-16-MIG



ARC145-DUAEV-16-DRUM



ARC145-DDA-MIG

TECHNICAL OVERVIEW

- Heavy duty (0.55kW) electric inverter drive motor for smooth wire control at higher duty.
- Drive unit with independently adjustable wire tension for easy setup.
- Profiled drive rollers suitable for 1.6/2.0mm or 2.3/2.5mm wires. Rollers have 2 grooves and can be reversed for long life operation. Easy to changeover for cleaning/replacement.
- Push/pull mechanism positively drives the wire at the dispenser and also at the pistol via the heavy duty flexible drive, ensuring constant speed at the drive unit and pistol.
- Allows complete use of all the wire (unlike push only systems).



The Metallisation wire dispensing cone offers the ability to conveniently dispense anti-corrosion wires from production packs (drums). The wire is neatly guided to a dispense point, then over the pulley to give a free passage of wire from the drum to pistol. Benefits include:

- Suitable for dispensing Zinc, Aluminium and Zinc/Aluminium wire.
- Specifically designed to suit Arcspraying with each drum being individually insulated from each other.
- Variable position clamp assembly allows the clamp to be rotated to give the smoothest wire transfer path from the drum to the pistol.
- Drums available in 250 Kg for Zinc, 200kg for Zinc/Aluminium and 60Kg for Aluminium.

NON POWERED EXTENSION TROLLEY

Part No.	Description
2006-NPET	Non Powered Extension Trolley



TECHNICAL OVERVIEW

- Allows movement of the drive unit and wire dispense around the site independently of the energiser (maximum 3.5m from the energiser unless a drive motor/inverter extension lead is used).
- Braked castors.

POWER EXTENSION TROLLEY

Part No.	Description
ARC145-PET	ARC145 powered extension trolley for ARC145 systems



TECHNICAL OVERVIEW

- As the NPET trolley but designed to allow the energiser to be sited further away from the spray job, offering greater access to the work area and protecting the energiser from the harsh site environment
- Quick release power, air and control couplings to allow quick assembly/disassembly of the spraying system.

POWER DRUM TROLLEY

Part No.	Description
ARC145-PDT-1.6	ARC145 Powered Drum Trolley for ARC145 Systems using 1.6mm / 2.0mm wires
ARC145-PDT-2.3	ARC145 Powered Drum Trolley for ARC145 Systems using 2.3mm / 2.5mm wires



TECHNICAL OVERVIEW

- Designed to allow the energiser to be sited further away from the spray job, offering greater access to the work area and protecting the energiser from the harsh site environment.
- Quick release power, air and control couplings to allow quick assembly/disassembly of the spraying system.
- Enables drums to be easily moved around the work-site.

TYPICAL CONFIGURATION

Most commonly used where it is an advantage to spray from drums but keep the energiser remotely located, e.g. wind towers where the energiser can be kept outside the spray booth and the drums and drive unit can be taken directly to the end of the tower. This enables the full length (up to 20m) of supplies to be used to spray down the tower internals.



Energiser



Extension
Supplies



Power drum trolley



Supplies from
wire drive to pistol



Pistol

ARC140-PDT image shown

OPTIONAL ACCESSORIES

ARCBEAM

Part No.	Description
ARCBEAM(145)1.6	Arcbeam System Kit for ARC145 using 1.6mm or 2.0mm wires
ARCBEAM(145)2.3	Arcbeam System Kit for ARC145 using 2.3mm or 2.5mm wires

TECHNICAL OVERVIEW

- Reduces Arcspray footprint by forming a cone of compressed air outside the spray stream.
- Finer Coatings.
- Improved Deposit efficiency when spraying onto small components (less overspray).
- Less apparent porosity.
- Increased hardness due to higher oxide content.



TECHNICAL DATA

Description.	Characteristic
Maximum Current	350 Amps
Compressed Air	0.7m3 / min @ 3.5 Bar

ARC EXTENSIONS

Part No.	Description
ARC145-EXT-150-XX	Arcspray 145 Extension Deflector XXmm Wires 150mm Long
ARC145-EXT-500-XX	Arcspray 145 Extension Deflector XXmm Wires 500mm Long
ARC145-EXT-1000-XX	Arcspray 145 Extension Deflector XXmm Wires 1000mm Long
ARC145-EXT-1500-XX	Arcspray 145 Extension Deflector XXmm Wires 1500mm Long

XX = Wire Sizes available (1.6mm, 2.0mm, 2.3mm, 2.5mm)

1.6mm, 2.0mm, 2.3mm and 2.5mm versions of the above are available for zinc, zinc/aluminium and aluminium wires (p/n as above with -16, -20, -23 or -25 suffix). Engineering wires can only be sprayed with 1.6mm extension.

TECHNICAL OVERVIEW

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



TECHNICAL DATA

Description.	Characteristic
Maximum Current	300 Amps
Compressed Air	0.7m ³ / min @ 4.5 Bar

HOSES FOR EXTENSIONS / ARCBEAMS

Part No.	Description
21601/6	3/8" QR Air Hose x 6Mtr
21601/11	3/8" QR Air Hose x 11Mtr
21601/21	3/8" QR Air Hose x 21Mtr

TECHNICAL OVERVIEW

- Air hoses with quick release connections to connect the accessories to the auxiliary air supply on the energiser.
- Lengths supplied to suit our standard 10m and 20m supplies packs.

REMOTE OPERATION AND PENDANTS

Part No.	Description
PLC-REMOTE	Remote operation plug & cable for PLC energisers (E-Stop kit reqd if not fitted.)
PLC-REMOTE-K	Remote operation plug & cable for PLC energisers + E-Stop kit
PLC-PENDANT	Remote operation pendant for PLC energisers (E-Stop kit reqd if not fitted)
PLC-PENDANT-K	Remote operation pendant for PLC energisers + E-Stop kit



Also comes with 10m control cable to connect to energiser (can be longer on request).

TECHNICAL OVERVIEW

- The 'REMOTE' items consist of a 10m cable and pre-wired plug to connect to the energiser. The other end is free to allow connection to customer automation/robot etc.
- The 'PENDANT' consist of a remote operation pendant to start/stop the system and also have an E-stop button for safe operation.
- Allows remote operation of the system for when pistol is mounted to a robot or manipulator.
- Connects into energiser in a dedicated socket on the rear of the energiser. If remote connection is made, the pistol cannot be operated from the pistol buttons and there is no need to remove the pistol control cable from the front of the energiser.

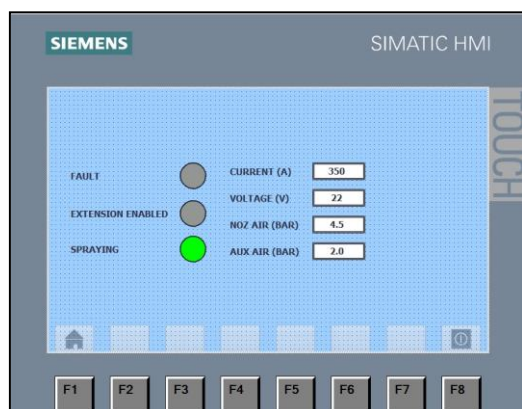
DATA KIT FOR (16) SERIES ENERGISERS

Part No.	Description
DATA(16)-K	Data Kit for (16) Series Energizers

The data kit gives the option for the customer to integrate our equipment into their Siemens PLC network via S7_Connection.



The values from the energiser will be written to specified registers in the customer's PLC, and the screenshot below is an example of an HMI screen that can be designed to monitor these values:



The following data is available:

- Extension Enabled
- Spray OK and Reset Required indication
- Current
- Voltage
- Nozzle Air Pressure
- Auxiliary Air Pressure

PACKAGED SYSTEMS

Our most commonly supplied systems are now being offered as a package with one part number.

Part No.	Description
ARC145/S345-XXYYM	ARC145/S345 System, MIG wire dispense
ARC145/S345-XXYYD	ARC145/S345 System, Drum wire dispense

XX = Wire Sizes available (1.6mm, 2.0mm, 2.3mm, 2.5mm)

YY = Supplies lengths available (5m, 10m 20m)

An example is offered below:

Example Part No.	Description
ARC145/S345-2310D	ARC145/S345 System, 2.3mm, 10m supplies, Drum dispense

MIG SYSTEM CONSISTS OF:

- 1 x Pistol (wire size as indicated).
- 1 x Supplies package (length as indicated).
- 1 x S345(16)-PLC Energiser.
- 1 x ARC145-DUAEV-MIG dispenser and drive unit.
- 1 x Toolkit.

DRUM SYSTEM CONSISTS OF:

- 1 x Pistol (wire size as indicated).
- 1 x Supplies package (length as indicated).
- 1 x S345(16)-PLC Energiser.
- 1 x ARC145-DUAEV-DRUM dispenser and drive unit.
- 2 x 21252 wire dispensing cones.
- 2 x 6274/5 clamp blocks.
- 2 x 2m lengths of 7144 PTFE conduit.
- 1 x Toolkit.

Pull only systems are also available:

Part No.	Description
ARC145/S345-1605-DDA	ARC145/S345-DDA System, 1.6mm, 5m supplies, MIG dispense

USEFUL INFORMATION

MATERIAL USAGE

The table below shows approximate material throughput and coverage assuming a spray rate of 350A with 2.3mm diameter material.

MATERIAL	THROUGHPUT KG/HR @ 350 Amps	COVERAGE (KG/M ² /100μ)
Metallisation Wire 02E Zinc	36.0	1.22
Metallisation Wire 01E/17E/25E/28E Aluminium & Alloys	8.5	0.35
Metallisation Wire 21E Zinc/Aluminium 85/15	31.0	1.00

TIME TO SPRAY

The table below shows the approximate time it would take to spray a given area with 100 μm coating thickness.

MATERIAL	AREA (m ² @100μ)	TIME
Metallisation Wire 02E Zinc	1	2 mins
	10	20 mins
	100	3 hrs 20 mins
Metallisation Wire 01E/17E/25E/28E Aluminium & Alloys	1	2.5 mins
	10	25 mins
	100	4 hrs 10 mins
Metallisation Wire 021E Zinc/Aluminium 85/15	1	2 mins
	10	20 mins
	100	3 hrs 20 mins

For thicker or thinner coatings, the spraying time varies in proportion to the thickness. For example, it takes approximately 2 minutes to spray a 1m² area of zinc at 100μ. It would take 4 minutes to spray the same area at 200μ.

The given times are approximate 'gun-on' spray times and do not make any allowance for stoppages, wire changes, part manipulation etc.

Note: The information given above is intended for guidance purpose only. Material usage and time taken will depend on a number of factors, these including the quality of the prepared substrate and the shape and size of the job.

Metallisation

Thermal spray equipment and consumables

Metallisation Ltd

Peartree Lane
Dudley
West Midlands
DY2 0XH
United Kingdom

Tel: +44 (0)1384 252464

Fax: +44 (0)1384 237196

Email: sales@metallisation.com

Website: www.metallisation.com

