ELMATECH
Welding & Spraying

Issued 02/03

MIDI MIG 300 AC / DC
Multi-purpose welding system

MIDI MIG 300 AC/DC (water-cooled)

MIG/MAG AC PULSED ARC WELDING WITH INVERTER

Advanced AC pulse technology that opens new dimensions in gas-shielded arc welding of heat-sensitive materials like aluminium, stainless steel and heat-sensitive alloys.

- Low-spatter soldering of hot-dip galvanised and electrolytically galvanised sheet metal
- Avoidance of severe warping due to excellent heat control using the negative base current component
- Excellent gap bridging capacity and reduced weld penetration with higher gun feed rate
- Minimal spatter formation and improved droplet separation
- Outstanding welding quality with maximum reproducibility and setting accuracy
- Can be used for manual and mechanical welding
- DUAL-pulse process (scaling)
- Maximum process reliability thanks to the ELMA-Tech static/dynamic control system
- Display with single-button operation and clear presentation of process parameters
- Retrieval of welding parameters from the integrated welding database and storage of up to 99 customised welding programs
- USB interface for data storage and transfer (cloning) as standard

MIDI MIG 300 AC/DC (WATER-COOLED)

DV 39 wire feeder
Dimensions: 650 x 290 x 400 mm
Weight: 14 kg

APPLICATIONS

Special-purpose vehicles and mechanical engineering | Aerospace | Shipbuilding, Offshore

Automotive and supplier industry | Plant, container, machinery and steel construction | Rail vehicles

Maintenance, rework and repairs | Industrial plants, pipeline construction and assembly

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MIDI MIG 300 AC / DC
Technical information

Machines from the ELMA-MIDI generation are all equipped with a database as standard, which contains practically all welding properties for every current welding method and process type, including all the necessary welding parameters. Operators can set their machine for specific tasks by means of single-button control in next to no time at all.

Examples here include welding a wide variety of materials such as steel, aluminium, magnesium or surface-coated sheet metal.

MIG AC Verfahren

The MIG AC process controls the droplet transition by periodically switching between negative and positive polarity, as well as low and high energy phases. During the positive energy phase, a droplet detaches from the wire end, which is pre-heated in the negative energy phase, and transfers to the workpiece without spattering.

TECHNICAL INFORMATION

Welding performance

Setting range from (infinitely variable) to max. pulse current	10 A / 14,5 V - 300 A / 29 V - 800 A
Open circuit voltage (approximately)	85 V DC

Connection data

Mains voltage	3x400 V, 50 Hz
Fuse (slow-blow)	16 A
Protection class	IP 23
Dimensions	670 x 325 x 700 mm (G) 935 x 325 x 700 mm (W)
Weight	IP 23
Insulation class	F
Cooling method	S
Bottle holder	Up to 20 l (4 m3 mixed gas)
Welding torch	ML 15 ZA with 3 m hose set
Workpiece cable	3 m workpiece gun

STANDARD EQUIPMENT

- Gas cooling / water cooling
- MIG welding torch (3 m)
- Pressure reducers, earth lead (5 m)
- 1.5 m gas hose, basket coil carrier r
- Polyamide core 2 x 4 for 4 m

WELDING PROCESSES

- MIG AC pulsed arc welding
- MIG DC pulsed arc welding
- MIG / MAG welding
- DUAL-pulse welding
- MIG-soldering

The MIDI MIG 300 AC/DC machines alos have all the programs of the MIDI MIG DC machines with the same welding properties.

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