

MIDI MIG 300 AC / DC

Multifunction welding machine

**Especially suitable
for the welding
of thin aluminium
sheets < 1 mm**

MIG/MAG AC impulse welding with converter

The advanced alternating current pulse technology enables a new dimension in inert gas welding and brazing of heat sensitive materials like aluminium, stainless steel and other heat sensitive alloys. The alternating current MIG welding process (MIG-AC) offers special advantages in thin sheet-steel welding.

MIDI MIG 300 AC/DC
(water-cooled)



**Optionally also with
external
wire feed unit DV 39**

Wire Feed Unit DV 39
Dimensions: 650 x 290 x 400 mm
Weight: 14 kg

Standard equipment:

- Gas cooling / water cooling
- MIG welding torch 3 m
- Pressure reducer, ground cable 5 m
- Gas hose 1,5 m, Basket coil holder
- Polyamide core 2 x 4 for 4 m

Special characteristics:

- Brazing with low spatter of hot-dip galvanized and electrogalvanized sheets
- Avoidance of strong deformation due to the very good heat regulation caused by the negative basic current rate
- Very good gap bridging
- Reduced penetration depth at higher deposition rate
- Radical reduce of weld spatters and enhanced separation of penetration bead
- Outstanding welding quality with maximum reproducibility and setting accuracy
- Suitable for manual and mechanized welding
- Dual pulse processes (shingling)
- Maximum process safety due to the ELMA-Tech control system of static and dynamic characteristic via virtual machine
- Display single knob operation and clearly indication of process parameters
- Access to welding parameters from the integrated welding data base with storage of up to 99 customized welding programs
- Standard machine with USB interface for data storage and transfer (cloning)

Fields of application

Special vehicle and machine construction | plant, container, machines and steel engineering | automotive and supply industry | industrial facilities | pipeline constr. and mounting | repair and maintenance, reworking | aerospace | railway vehicles | shipbuilding, offshore

Technical Information

MIDI MIG 300 AC/DC

Every machine of the ELMA-MIDI generation has access to an integrated data base that practically contains all the characteristics of up-to-date welding processes including required welding parameters.

The multifunction knob allows the machine to be adjusted easily and speedily to specific welding tasks like the welding or MIG-brazing of different materials like steel, aluminum, magnesium or galvanized sheets.

Technical characteristics:

Welding Capacity

Setting range from	10 A / 14,5 V
(infinitely variable) to	300 A / 29 V
Max. pulse current	800 A
No-load voltage approx.	85 V DC

Connection data

Supply voltage	3x400 V, 50 Hz
Fusing (delayed action)	16 A

Protection type	IP 23
Dimensions	670 x 325 x 700 mm (G) 935 x 325 x 700 mm (W)
Weight	60 kg (G) / 78 kg (W)

MIG AC process

The MIG AC process regulates the separation of penetration bead by switching over periodically the negative and positive polarity and low or high energy phases. During the positive energy phase the bead is removed from the wire end that was preheated before in the negative energy phase and is transferred to the workpiece without spatter.

TECHNOLOGY CONCEPT
ELMAARC**VISION**



MIDI MIG 300 AC/DC
(gas-cooled)

Welding processes:

- **MIG AC impulse welding**
- **MIG DC impulse welding**
- **MIG / MAG welding**
- **DUAL pulse welding**
- **MIG brazing**

Additionally, the MIDI MIG 300 AC/DC machines offers all MIDI MIG DC programs with the same weld or braze characteristics.

Technical changes reserved.

