PRODUCT PRESENTATION

PHOENIX 300 CAR EXPERT PULS

MIG/MAG

- HIGHLIGHTS
- AREA OF APPLICATION
- SYSTEM OVERVIEW
- CONTROL
- WELD TYPES
- TECHNICAL DATA

MIG MAG STANDARD

MIG BRAZING

MIG MAG IMPULS

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HIGHLIGHTS

PHOENIX 300 CAR EXPERT PULS

MIG/MAG

Simply error-free welding with the shortest possible repair times

- Extremely easy to operate
  - Welding process/material type
  - Wire electrode diameter,
  - panel thickness
  - Select weld type/program

  and start welding straight away
- Pre-defined, programmed welding parameters for specific manufacturers, make time-consuming searches in tables and setting work a thing of the past, can be retrieved directly at the place of work on the torch
- Operation ideally matched to the demands of vehicle bodywork repair

All the welding processes you need in one machine

- MAG welding, MIG brazing and MIG welding
  with important advantages for bodywork repairs
  - high resistance to corrosion
  - low distortion
  - high joint strength
  - reduced finishing work

Future-proofed

- Software update option for
  new characteristics from specific manufacturers, for example, and programs for
  - new welding tasks
  - new materials
  - new vehicle types

Quality assurance with EWM Q-DOC 9000 software

- Recording, monitoring, printing and documentation of your welding data
- Description and control of the welding data recorded

Simple and ergonomic handling

- Practical accessories: Trolly with mounting for the gas cylinder, drawer module for accessories, torch holder, set-down tray for tools, and more

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Applications

- **Welding and brazing**
  from classic car restoration to vehicle construction right through to accident repairs on cars and HGVs

Materials

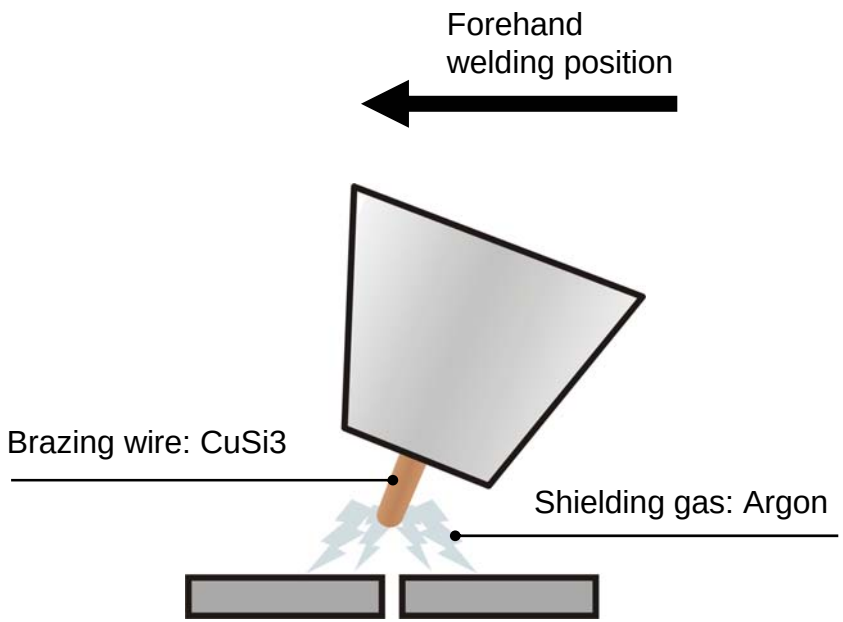
- **MAG welding**
  - on bodywork panels of 0.8 to 5.0 mm
- **MIG brazing**
  - on bodywork panels of 0.8 to 3.0 mm
- **MIG welding**
  - on aluminium of 1.0 to 5.0 mm

MIG soldering

- **MIG soldering is a brazing process using an arc and a shielding gas covering.**

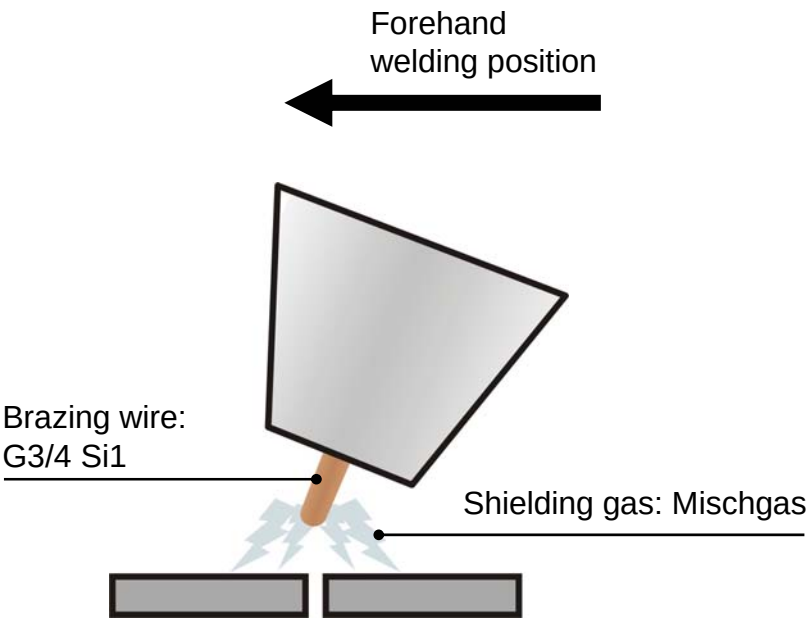
Advantages of MIG soldering

- **High resistance to corrosion**
  thanks to lower zinc burn-off for coated panels in the welding zone area (zinc melts at 420°C and evaporates at 906°C
- **High seam strength**
  by using CuSi3 brazing wire and argon shielding gas
- **Lower distortion**
  thanks to reduced heat feeding and low melting temperature
- **Less finishing work**
  thanks to simple weld dressing



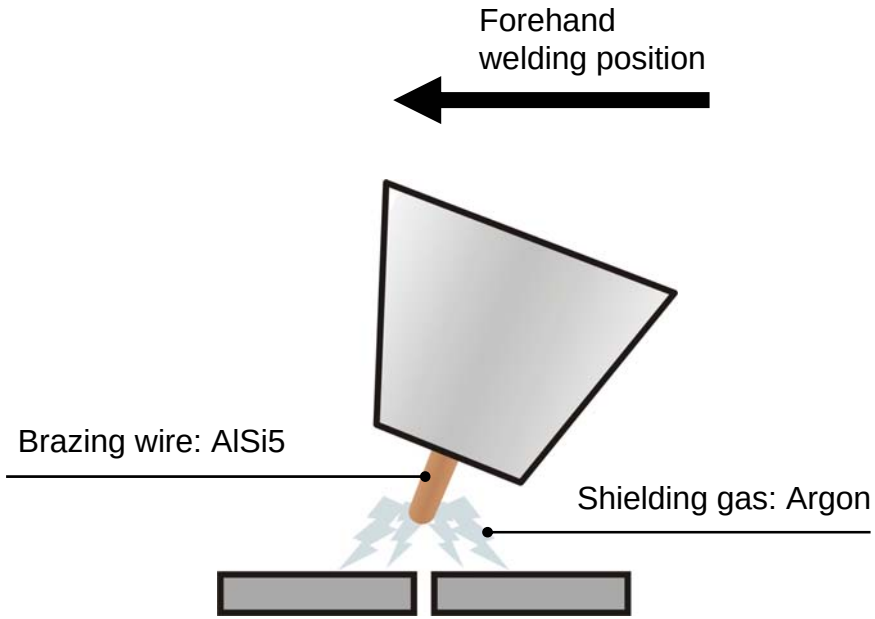
Materials suitable for soldering:
Steel plate, uncoated
Steel plate, coated
(zinc-plated, phosphorised, aluminium-coated)

MAG welding



Materials suitable for soldering:
Steel plate, uncoated

MIG welding



Materials suitable for soldering:
aluminium, AlMg, AlSi

SYSTEM OVERVIEW

PHOENIX 300 CAR EXPERT PULS

MIG/MAG

PHOENIX 300
CAR EXPERT PULS

Compact welding machine

Tool rest

Mounting for
lever tool

TROLLY 75

Transport vehicle

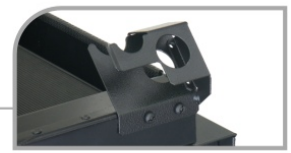
Workpiece lead

Pressure reducer

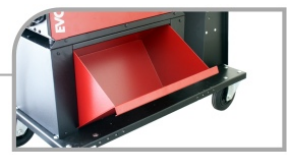
Gas tube

CAR CONTROL

MIG welding torch



Torch holder



Console with
tool drawer

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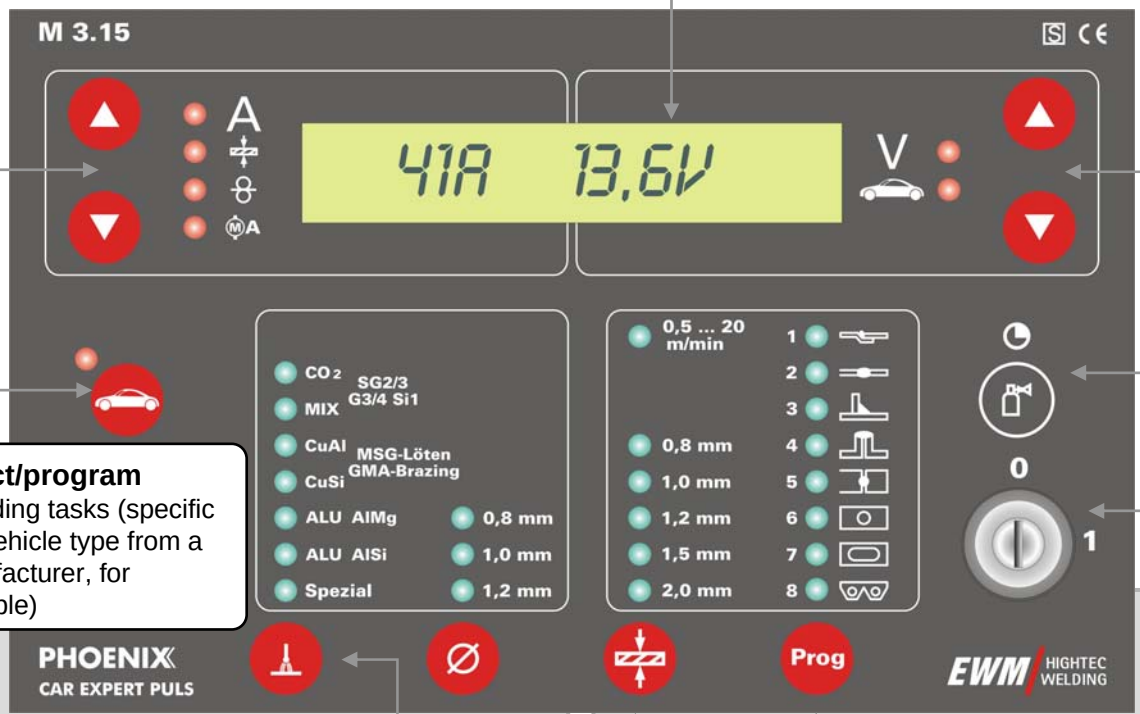
Extremely simple to operate

Display options
- Welding current
- Wire speed
- Material thickness
- Wire feed motor current

Welding parameters display

Display options
- Welding voltage
- Program no./ vehicle manufacturer



Gas post-flow time, wire burn-back

Operating interface lock

Select/program
8 welding tasks (specific to a vehicle type from a manufacturer, for example)

Select the welding task/ application

Material/gas type

Wire electrode diameter

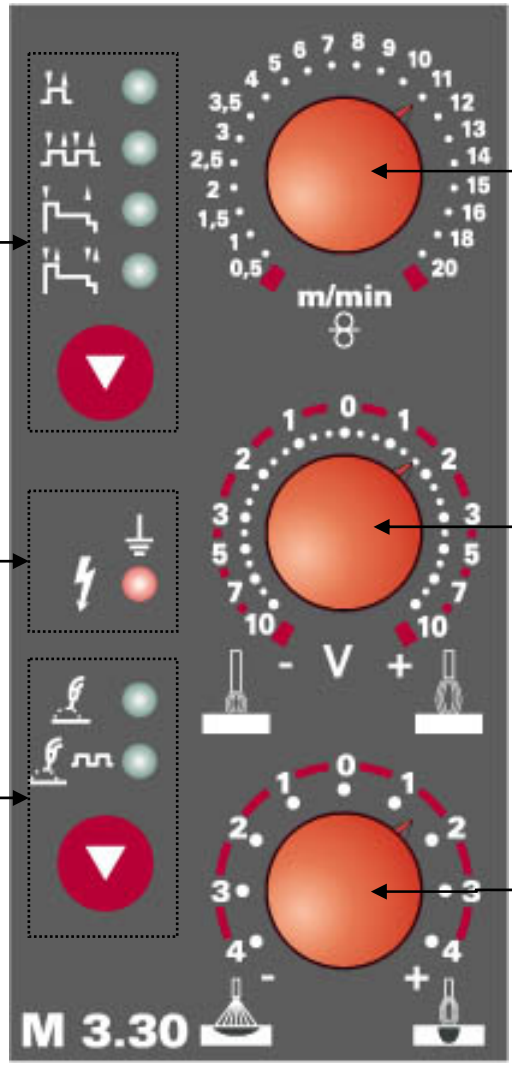
Bodywork plate thickness

Weld type/program

1 Lap weld	2 Butt joint	3 Fillet weld
4 Raised-edge weld	5 Tack welding	6 Plug welding
7 Extended plug welding	8 Fillet weld for tie rod	

0,5 ... 20 m/min conventional setting

Conventional setting



Operation mode:
- Non-latched
- Latched
- Non-latched special
- Latched special

Device to sense welding current in the protective earth conductor by IEC 60974-5

MIG/ MAG welding mode:
- Standard welding
- Impulse welding

Wire feed speed
(Welding energy)

Arc length correction

Dynamics (arc characteristic)

MIG welding torch „CAR CONTROL“

WELD TYPES

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MIG/MAG

Replaced part, (side panel, rocker panel, column)

Replaced part, (side panel, rocker panel, column)

Door hinges, fixing parts

Floor area, structural areas

Body shell

Replaced part on the body shell

Replaced part on the body shell

Reshaping of deformed panels

1	Lap weld	
2	Butt joint	
3	Fillet weld	
4	Raised-edge weld	
5	Tack welding	
6	Plug welding	
7	Extended plug welding	
8	Fillet weld for tie rod	

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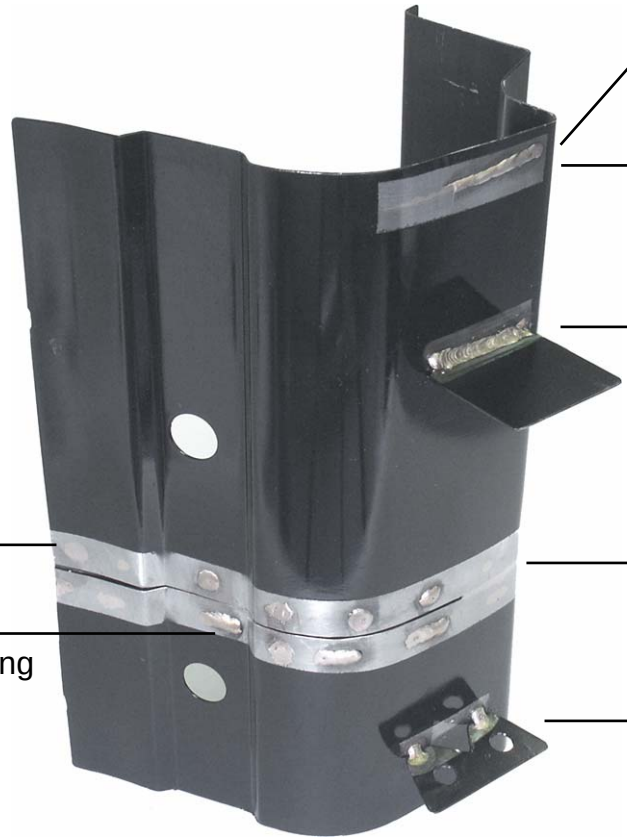
Example: Rocker panel, outer panel



Tack welding — 5

Butt joint — 2

Fillet weld — 3

6 — Plug welding

7 — Extended plug welding

Lap weld — 1

Fillet weld for tie rod — 8

PHOENIX 300 CAR EXPERT PULS

MIG/MAG

Technical data			
Welding Machine		PHOENIX 300 CAR EXPERT PULS	
Setting range Welding current		5 A-300 A	
Welding voltage		14,3 V-29,0 V	
Duty cycle (dc) at ambient temperature		20 °C	40 °C
30 % dc		-	300 A
35 % dc		300 A	-
60 % dc		230 A	220 A
100 % dc		190 A	170 A
Open circuit voltage		103 V	
Mains voltage* (tolerances)		3 x 400 V (-25 % – +20 %)	
		3 x 415 V (-25 % – +15 %)	
Mains frequency		50/60 Hz	
Mains fuse (safety fuse, slow-blow)		3 x 16 A	
Max. connected load		13 kVA	
Recommended generator rating		17,5 kVA	
Cos φ /efficiency		0,99/89 %	
Wire-feed speed		0,5 m/min - 20 m/min	
Drive		4 rollers, Ø37 mm	
Standard WF roller fitting		0,8 - 1,0 mm (steel and aluminium)	
Torch connection		Euro-central	
Dimensions L x W x H [mm]		605 x 335 x 520	
Weight approx.		42,5 kg	
Transport vehicle		**TROLLY 75**	
Dimensions L x W x H [mm]		980 x 505 x 990	
Weight approx.		34 kg	
General data			
Ambient temperature		-10 °C to +40 °C	
Standards	IEC 60974, EN 60974, EN 50199	for arc welding machines	
Symbols	Protection classification IP 23	for increased protection, e.g. for open-air welding	
	S - safety sign	welding with increased electrical hazard, e.g. in boilers	
	CE mark	conforms to EC Directives:	EMC Directive (89/336/EEC)
			Low Voltage Directive (72/23/EEC)

* Further mains voltages, e.g. 3 x 230 V, 460 V, 500 V, 575 V are possible using the MULTIVOLT 70-500 multi-voltage module.