

QUALITAS TECHNOLOGY LIMITED
Rehm's International Partner for the United Kingdom

MIG/MAG PULSE WELDING **MEGAPULS 300 – 500**

REHM – Setting the pace in welding and cutting today



MEGAPULS

MIG/MAG pulse welding





The digital REHM micro processor technology combined with our innovative system and welding process technology are mega-strong pulses allowing you to do your welding jobs even more easily and more professionally. The new generation of high-performance and totally digital pulsed MIG welding units ensures high operating dependability at high power and perfect reproducibility of the welding results. Individual jobs can be flexibly programmed at any time. As a result, the welding results aren't just outstanding, they're also exactly reproducible.

■ **Maximum efficiency thanks to virtually spatter-free welding**

The lightning fast dynamic arc reaction and exact digital arc length control reduce welding spatter to an absolute minimum.

■ **Perfect reproducibility and highest accuracy of the digital current source**

The arc properties during ignition and welding can be exactly set and digitally programmed in the memory for up to 63 application-specific jobs, guaranteeing repeatability of the highest quality every time.

■ **Automatic ignition, welding and crater filling programs for all materials**

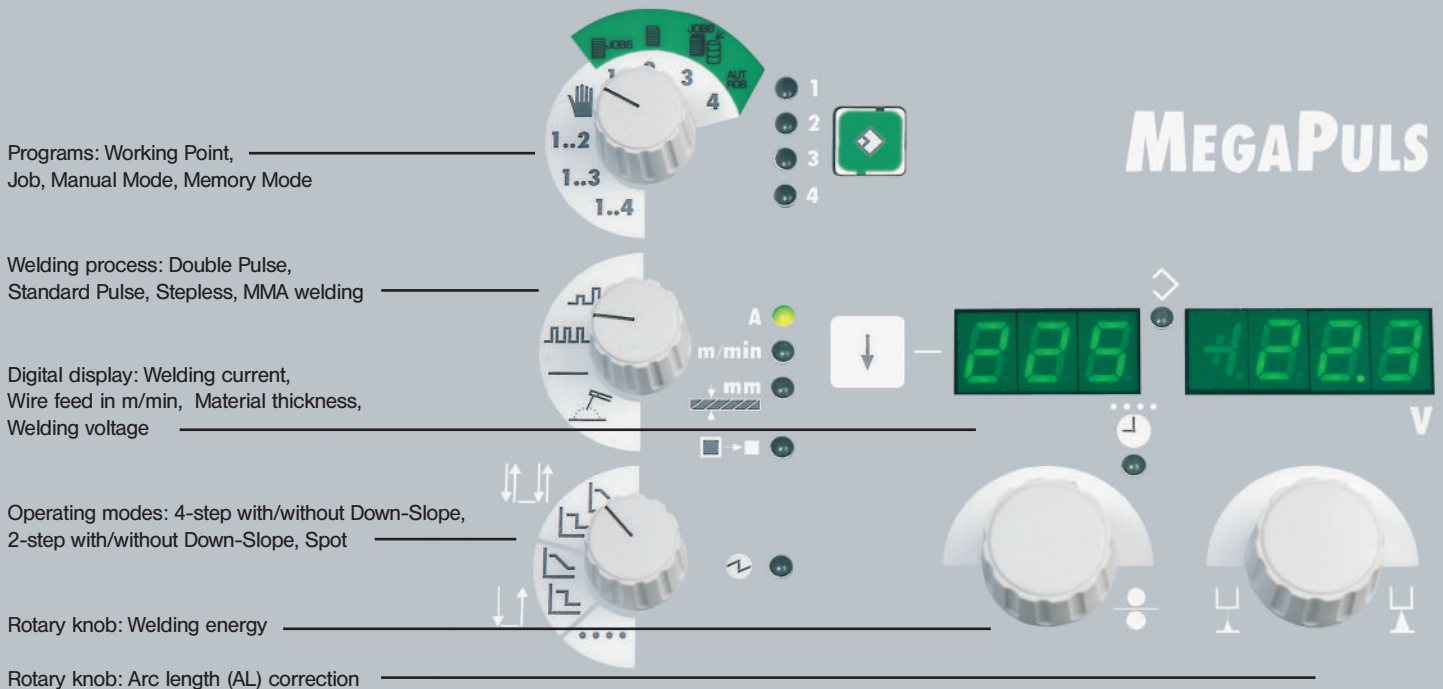
The automatic ignition, welding and crater filling programs and individual pulse wave form, available for all materials, ensure optimum ignition, virtually spatter-free welding and minimum heat input. These programs can also be switched on in every operating mode for an optimum weld end.

■ **The right synergic welding characteristic for every material**

The synergic welding characteristic adjusted to the material can be individually selected, both for conventional and for pulse-I or pulse-II welding. Each synergic welding characteristic can be programmed with mere 10 points. Technically experienced users can of course apply their skills entirely with the restrictions imposed by the equipment.

MEGAPULS

Very easy to operate



■ Controlled droplet transfer

For exact control of root access, weld overlapping and heat generation, REHM has integrated the "Double Pulse" as a standard feature. The pulse imposition means for you complete control over the droplet transfer phase and the process. Without manual intervention, more energy is generated during the droplet transfer phase, less energy in the cooling phase, and for every pulse only a droplet of filler metal. The result is a weld which is close to the quality of TIG, requiring no finishing.

■ Automatic compensation of the hose assemblies length

All voltage-dependent values of the synergy welding characteristics are automatically corrected, so different lengths (1.4 m, 5 m, 10 m and 15 m) of the intermediate hose assemblies are automatically compensated.

■ Virtually no difference in performance, even with mains voltage variations

The MEGAPULS welding units are absolutely impervious to mains voltage fluctuations and hence ideally suited for operation with mobile generators, long mains supply cable and varying mains supply.

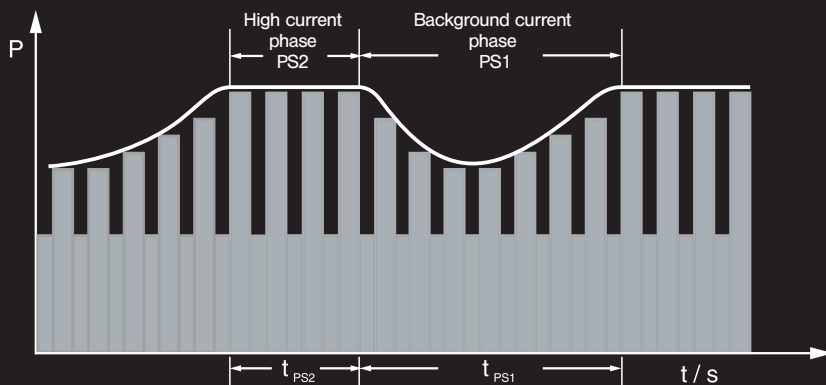
■ Very easy to operate

Thanks to one-knob control with the welding energy as the leading variable, the MEGAPULS is very easy to operate. Just let the unit suggest the optimum parameter setting, and production of top-quality welds begins.

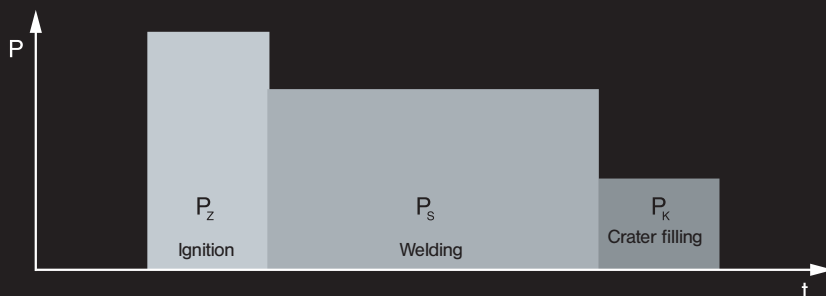
■ The synergic control that provides the welding process with optimum values at all times

The unit is ready to start welding immediately after setting of the operating mode and selection of the synergic characteristic. You can leave everything to the control system except handling of the torch. All process-specific data from the start sequence and the stationary welding process to the final down-slope are already contained in the synergic control.

MIG/ MAG double pulse welding:
Greatly improved performance due to the slope of the transition between pulses.



In the 2-step mode the subroutines are time-controlled. In the 4-step mode, they can be initiated with the torch trigger.



You also have the flexibility to select the optimum combination of parameters based on the following:

Selecting the characteristic

- Material type
- Gas
- Wire diameter

Selecting the process

- Double pulse
- Pulse
- Normal
- Stick electrode

Selecting the mode

- 4-step with/without Down-Slope
- 2-step with/without Down-Slope
- Spot-welding

You can read off at a glance:

- the operating mode and welding characteristic
- the current set/actual values for welding current and welding voltage

■ A MEGA power PULSE for unlimited applications!

The entire REHM welding know how for

- innovative MIG/MAG pulsed arc welding
- conventional MIG/MAG welding
- MIG brazing
- MMA welding

is concentrated in the new MEGAPULS 300/400/500 equipment family.

You can, with the flexible MEGAPULS family, join all standard welding materials

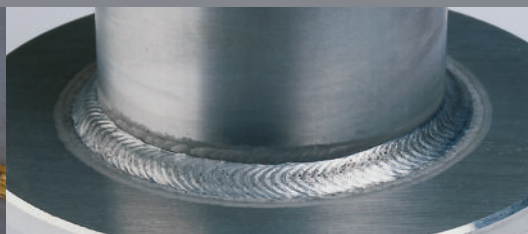
- from classic metal steel
- stainless steels
- and aluminium
- to galvanised sheets

in previously unmatched quality. With a variety of useful optional extras, the range of possible uses can be widened even further.

MIG pulsed brazing of thin sheets



MIG double pulse welding of aluminium



MIG pulsed welding of stainless steels



MEGAPULS

Innovative welding torch variants



Innovative welding torch variants:

Planetary drive Push-Pull System

With aid of the modern technology, wire feeding has been revolutionised. The planetary feed using skew axis drive rollers eliminates the deformation of soft Aluminium or Flux cored wires. The controlled oscillation in the feed hose significantly reduces the liner friction, thereby reducing feed problems right up to the contact tip. These attributes are well proven in practice and assist perfect welding under the most difficult of feeding conditions.

Synergic welding torch (S welding torch)

An additional control on the welding torch enables the operator to adjust either the welding power or the arc length during welding. This selection of the parameter to be adjusted is set up on the main control panel.

MIG/MAG welding torch, REHM Alu Special

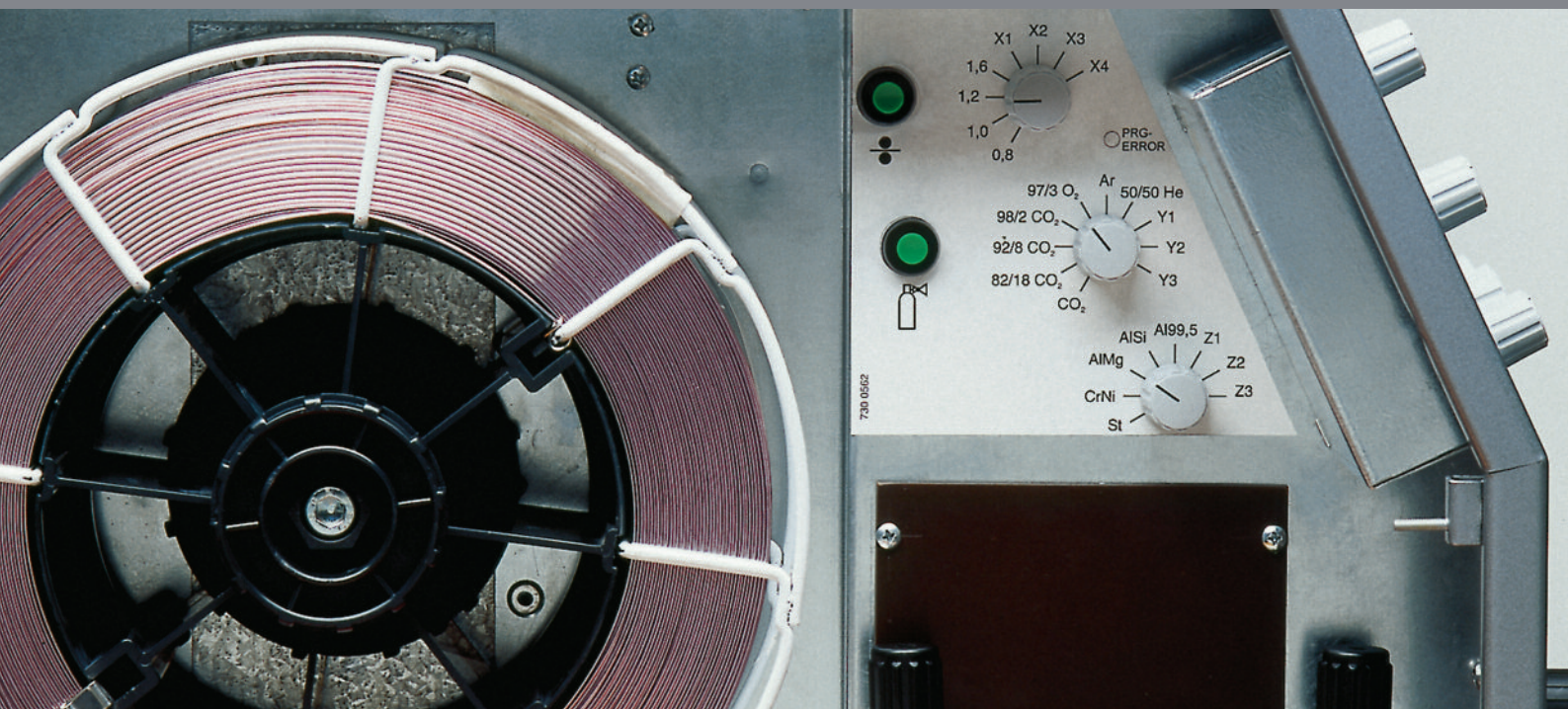
For the welding of Aluminium based workpieces REHM has the perfect torch, which has a specially designed shielding gas passage with protective cover. The torch has widespread recognition in general welding practice.

REHMtronik welding torch (Rt welding torch)

An additional torch button enables the operator to select any one of four prestored working points, which can be accessed either before or during the welding operation.

Tipptronik

Using a standard welding torch, you can weld anything at four pre-selected working points. To change to the next setting simply "touch" the trigger during the welding operation.



Constant wire feed

The unit is attached to a swivel support, 15 kg spools are used as standard:

- a 4-roll drive for smooth wire feed even when using long torch hose assemblies
- constant wire feed thanks to continuous contact pressure of the wire feed rolls

Working with twinfeeder version

If required, the MEGAPULS can be equipped with two separate wire feeders. This permits flexible operation with different gases and materials and without changing the torch, wire spool or gas, for example: Joints of stainless steel using the MIG brazing and MIG pulsed welding processes.

MEGAPULS is available in the power classes:

- air-cooled: 300 A: REHM MEGAPULS 300
400 A: REHM MEGAPULS 400
- water-cooled: 300 A: REHM MEGAPULS 300
400 A: REHM MEGAPULS 400
500 A: REHM MEGAPULS 500

Working radius of action:

The radius of action of the MEGAPULS can be widened by intermediate hose assemblies, all equipped with quick-action closures:

	Order no. water-c.	Order no. air-c.
■ 1.4 m long	750 0270	750 0265
■ 5.0 m long	750 0271	750 0266
■ 10.0 m long	750 0272	750 0267
■ 15.0 m long	750 0273	750 0268

TECHNICAL DATA

Type		300 L/W	400 L/W	500 W
Setting range, continuous	[A]	10-300	10-400	10-500
Duty cycle at I max. (10 min)	[%]	80	60	45
Welding current at 100 % duty cycle at 40 °C	[A]	270	310	350
No-load voltage	[V]	75	75	75
Mains connection	[V]	3/PE 400 V	3/PE 400 V	3/PE 400 V
Continuous power at 100 % duty cycle	[kVA]	12.2	15.6	19.1
Fuses (delayed action)	[A]	20	25	35
Power factor	[cos phi]	0.98	0.98	0.98
Insulation class		H	H	H
Torch cooling		L=air-cooled W=watercooled	L=air-cooled W=watercooled	watercooled
Degree of protection		IP 23	IP 23	IP 23
Wire diameter steel and stainless steel	[ø mm]	0.8/1.0	0.8/1.0/1.2	0.8/1.0/1.2/1.6
Wire diameter aluminium	[ø mm]	1.0/1.2	1.0/1.2	1.0/1.2/1.6
Sound level acc. to DIN 45635	[db (A) 1 m]	≤ 68	≤ 68	≤ 68
Weight of current source	[kg]	150	165	175
Weight of wire feed box	[kg]	25	25	25
Dimensions of current source (LxBxH)	[mm]	820 x 440 x 975	820 x 440 x 975	820 x 440 x 975
Dimensions of wire feed box (LxBxH)	[mm]	390 x 235 x 590	390 x 235 x 590	390 x 235 x 590
Order No.		130 6007 / 130 6005	130 6507 / 130 6505	130 7005

REHM welding technology – all about us!

THE REHM PERFORMANCE PROGRAM

- **REHM MIG/MAG inert gas welding equipment**
SYNERGIC.PRO² gas- and water-cooled to 450 A
SYNERGIC.PRO² water-cooled to 500-600 A
MEGA.ARC stepless regulation to 450 A
RP REHM Professional to 560 A
PANTHER 200 PULS impulse welding equipment with 200 A
MEGAPULS impulse welding equipment to 500 A
- **REHM TIG Tungsten Inert Gas welding equipment**
TIGER, portable 100 KHz inverter
INVERTIG.PRO TIG welding equipment
- **REHM MMA Electrode technology**
TIGER and BOOSTER 100 KHz inverters
- **REHM plasma cutting equipment**
- **Welding accessories and additional materials**
- **Welding smoke extraction fans**
- **Welding rotary table**
- **Technical welding consultation**
- **Torch repair**
- **Service**

Design, development and production – all under one roof – in our Uhingen works. Thanks to this central organisation and our commitment to the future new discoveries can flow quickly into production. The wishes and requirements of our customers are still the basis for our advanced product development. Numerous patents and awards demonstrate the precision and quality of our products. Closeness to our customers and competence are the principles on which we place priority in consultancy, training and service.

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