



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

THE NEW STEPLESS MIG/MAG-GENERATION **MEGA.ARC**



Stepless regulation – for highly professional and flexible implementation

Extremely wide and flexible range

The stepless regulation and the broad range of accessories makes the MEGA.ARC the ideal MIG/MAG welding unit for the most diverse spectrum of uses in both trade and industry. Thanks to the comprehensive range of units, the REHM series is able to cope with the toughest tasks in construction and shipyard work.





Futuristic SMC® technology. Now! Exclusive to the **MEGA.ARC**

Intelligent control. Simple to set up and perfect welding every time.

MEGA.ARC and the unique SMC® technology enable welding perfection. SMC® sets futuristic trends and not only fulfils customer expectations, it exceeds them. The new, revolutionary technology achieves the greatest possible added value for the user.

SMC® focuses on essentials and combines four basic functions necessary to fulfil the quality requirements of the REHM MEGA.ARC.

MEGA.ARC – You benefit:

- **Simple to use**
You concentrate on welding – SMC® does the rest
- **Highest duty cycle**
Ideal for the most demanding industrial use
- **Endless power**
Extremely powerful and designed to meet your greatest demands
- **Revolutionary SMC® control technology**
For greater efficiency and quality control
- **Tried and tested SDI® technology**
For greater weld quality and precision
- **Wide range of remote control options**
The right solution for every kind of situation
- **Automation interface fitted as standard**
For mechanised production whenever you need it
- **Job-saving function**
Ensures absolute repeatability for every job
- **Wide range of machines and wire feed units**
For the varying types of use, for example, shipyards

All in one – for perfect welding results

SMC® from REHM is based on the intelligent interaction of databases, digital wire feed regulation, choke and control interface. This completely new and super-coordinated machine control

concept built in a stepless unit ensures excellent welding results and makes operation simple and extremely safe.

Precise regulation of the arc length
The arc length is not only controlled by measuring the arc voltage and the welding current, but also by digitally capturing the wire feed rate.

SDI®
STEPLESS DYNAMIC INDUCTION

Stepless Dynamic Induction

The stepless, electronic welding choke with rapid regulation function ensure excellent ignition properties and an extremely stable arc.

- Optimally stabilised arc during ignition and welding phases
- Minimised formation of spatters in mixed arc situations
- Considerably less post-welding work
- Optimal adaptation of welding characteristics to the welding conditions, for example when welding out of position



RSC®

Realtime Speed Control

As a result of realtime monitoring and extremely precise regulation of the wire feed rate with a digital sensor, RSC® guarantees constant wire feeding.

- Faster and more efficient balancing of arc length changes
- Constant wire feed speeds



Digital regulation of droplet transfer

During the entire ignition and arc process, the droplet transfer is constantly monitored and regulated digitally, as with modern pulse power sources.

Setting welding parameters – simple and safe

Setting the correct welding parameters is a simple and safe process, thanks to the integrated welding parameter database and ease of operation.

Constant arc length

The integrated microprocessor rapidly and efficiently balances changes and maintains a consistently constant arc length.

CCM

Characteristic Curve Memory

CCM is the integrated welding parameter database combining the concentrated practical knowledge of expert welders.

- Automatic setting of optimal welding parameters in accordance with the material thickness, wire diameter and voltage level
- Constant comparison of actual values with process specifications during welding



RMI

REHM Machine Interface

The consistently logical structure of the operating interface shows all possible selections at a glance.

- Child's play
- Rapid and safe setting of correct welding parameters
- Guaranteed no faulty operation

Universal application



With the MEGA.ARC REHM closes the MIG/MAG shielded arc welding gap between conventional step-switched MIG/MAG power sources and modern pulse power sources. The MEGA.ARC family of welding units is robust and easy to operate just like a step-switched unit – but can be steplessly regulated just like a pulse power source.

The stepless remote control offers you greater benefits in terms of spatial independence and reproducibility of welds.

- Regulation of welding energy from the torch using thumb-wheel potentiometer or 2-way switch potentiometer during welding.
- Energy regulation via the MIG Plus 2 hand-held remote control
- Reduction of energy during the welding process is possible in order to counteract the rise in material temperature
- Remote regulation makes it ideal for scaffold and tank work
- Ready for simple mechanisation, as standard

The units of the MEGA.ARC range are especially robust, well thought-out and thus particularly suitable for tough industrial use when welding thick or thin sheets of steel, stainless steel or aluminium.

The high duty cycle of the MEGA.ARC range corresponds to the professional requirements of trade and industry as well as mechanised production situations.

Industry-suitable and ergonomic construction

The robust construction and the use of power components that have been tried and tested under tough working conditions means that the MEGA.ARC range is particularly suitable for use in demanding industrial production areas. The operator interface is clear and functional.

Integrated automation interface

The 17-pin remote control socket fitted as standard has an interface with start/stop and current flow signals as well as analogue inputs for energy and wire correction for implementing mechanisation.

Perfect power performance

The transistored, steplessly regulated MEGA.ARC power sources with clocked power modules ensure, in conjunction with the tried and tested REHM transistor parts, that all areas of implementation have a high-performance power supply.

MEGA.ARC 250-4 – 450-4 WS



Digital operating convenience with RMI

The operator is using the clearly laid out digital buttons and knobs to set the individual functions of the MEGA.ARC. The 7-segment displays, fitted as standard, for welding current and voltage with Hold function are both self-explanatory and easy to read. This makes the MEGA.ARC ideal for certified production of quality controlled normed parts. A valuable aid to rapid setting of energy values, is the display with weldable material thicknesses.

Even wire feeding

The electronically regulated 4-roller wire feed unit feeds the wire evenly and precisely at all times. The automatic burn back function ensures that the wire does not stick on to the work piece or on the contact tip.

Stable arc

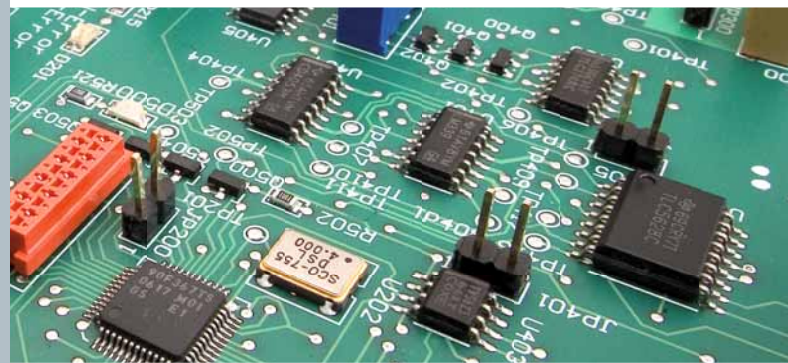
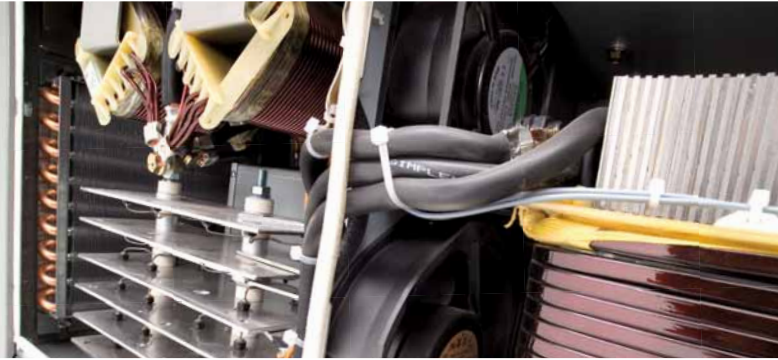
Permanent monitoring of the mains voltage and the smoothing of fluctuations ensures a stable, even arc and thus optimal welding results.

Easy to manoeuvre

The units have large, free moving wheels which enable them to be easily manoeuvred and transported. They are obviously also suitable for crane or forklift transportation.

Low noise emissions

The optimal housing form and standby switches on fans and water pumps reduce the noise produced by the MEGA.ARC to a minimum.



Feed Cases to suit a wide range of applications



There are three different types of separate feed cases available for the MEGA.ARC range: The standard feed case as well as the mobile CONSTRUCTION and SHIPYARD cases.

MEGA.ARC STANDARD

The feed cases are generously dimensioned for wire spools of 300 mm size. All operating elements are integrated into the feed case.

MEGA.ARC CONSTRUCTION

MEGA.ARC CONSTRUCTION

Specially designed for construction use with a robust, strengthened metal housing. The plastic wire spool retainer has space for a 300 mm spool. The feed case has integrated operating elements for welding energy, either correction or SDI®, gas test and wire feeding.

CONSTRUCTION / SHIPYARD



MEGA.ARC SHIPYARD

MEGA.ARC SHIPYARD

Specially designed for shipyard use with a robust, strengthened metal housing with compact dimensions. The wire spool retainer is made of steel sheet and is designed for 200 mm spools. The feed case has integrated operating elements for welding energy, either wire speed correction or SDI®, gas test and wire feeding.



MEGA.ARC – The program



Gas-cooled units

- **MEGA.ARC 250-4**
Gas-cooled, compact unit with 4-roller drive, 0.8 mm feed rollers
- **MEGA.ARC 300-4**
Gas-cooled, compact unit with 4-roller drive, 1.0 mm feed rollers
- **MEGA.ARC 350-4 S**
Gas-cooled unit with 4-roller drive, 1.2 mm feed rollers
- **MEGA.ARC 350-4 S CONSTRUCTION**
Gas-cooled unit with 4-roller drive and CONSTRUCTION feed case, feed rollers 1.2 mm
- **MEGA.ARC 350-4 S SHIPYARD**
Gas-cooled unit with 4-roller drive and SHIPYARD feed case, 1.2 mm feed rollers

Water-cooled units

- **MEGA.ARC 350-4 WS**
Water-cooled unit with 4-roller drive, 1.2 mm feed rollers
- **MEGA.ARC 450-4 WS**
Water-cooled unit with 4-roller drive, 1.2 mm feed rollers
- **MEGA.ARC 350-4 WS CONSTRUCTION**
Water-cooled unit with 4-roller drive and CONSTRUCTION feed case, 1.2 mm feed rollers
- **MEGA.ARC 450-4 WS CONSTRUCTION**
Water-cooled unit with 4-roller drive and CONSTRUCTION feed case, 1.2 mm feed rollers
- **MEGA.ARC 350-4 WS SHIPYARD**
Water-cooled unit with 4-roller drive and SHIPYARD feed case, 1.2 mm feed rollers
- **MEGA.ARC 450-4 WS SHIPYARD**
Water-cooled unit with 4-roller drive and SHIPYARD feed case, 1.2 mm feed rollers

User oriented operation



REHM Jobmanager

The optional REHM Jobmanager increases your efficiency and archives welding parameters once they have been set. A protective function to prevent the welding parameters from being modified unintentionally ensures reproducibility and contributes towards consistent quality.

The Jobmanager enables you to rapidly switch between various welding parameters without the time-consuming menu calling method and without employing very expensive torches. The simple operation, the large buttons and mobility enable switching within a short period of time. When making a small series of changes using just 10 different settings per hour, it is possible to save approximately 10 seconds per change. This adds up to approximately 13 minutes in an 8-hour day, or 43 hours in an average year (200 working days).

Our equipment options

Our accessories range meets all requirements.

- Air pre-filter
- Tool-set
- Hosepack holder
- Trolley lifting lugs
- Carriage for wire feed case
- Push-Pull torch
- CONSTRUCTION and SHIPYARD feed case
- and many others

TECHNICAL DATA MEGA.ARC

Type		MEGA.ARC 250-4	MEGA.ARC 300-4	MEGA.ARC 350-4 S	MEGA.ARC 350-4 WS	MEGA.ARC 450-4 WS
Setting Range Continuous	[A]	25 – 250	25 – 300	25 – 350	25 – 350	25 – 450
Duty Cycle at 40 °C and I _{max} Ambient temperature	[%]	50	50	50	50	50
Welding Current at 100 % duty cycle (40 °C)	[A]	180	220	250	250	320
Open Circuit Voltage	[V]	68	68	68	68	68
Mains Connection	[V]	3 x 400	3 x 400	3 x 400	3 x 400	3 x 400
Continuous power at 100 % duty cycle	[kVA]	5,8	7,6	9,2	9,2	13,4
Fuses (delayed action)	[A]	16	32	32	32	32
Efficiency	[cos phi]	0,98	0,98	0,98	0,98	0,98
Insulation Class		H	H	H	H	H
Cooling Type		AF	AF	AF	AF	AF
Torch cooling		Gas	Gas	Gas	Wasser	Wasser
Protection Type		IP 23	IP 23	IP 23	IP 23	IP 23
Weight (with wire feeder)	[kg]	120	124	170	173	176
Dimensions LxWxH (with wire feeder)	[mm]	1030 x 605 x 845			1030 x 605 x 845 (1030 x 605 x 1410)	

S = with separate wire feed housing, W = water-cooled

We reserve the right to make technical changes. Additional equipment for the machines is available at an additional cost. All units carry the CE and S mark and meet the EN 60 974-1 standard.

REHM – Setting the pace in welding and cutting

The REHM range

- **REHM MIG/MAG inert gas welding units**
SYNERGIC.PRO² gas- and water-cooled to 450 A
SYNERGIC.PRO² water-cooled 500 A to 600 A
MEGA.ARC stepless regulation to 450 A
RP REHM Professional to 560 A
PANTHER 200 PULS pulse welding unit with 200 A
MEGAPULS pulse welding units to 500 A
- **REHM TIG inert gas welding units**
TIGER, portable 100 KHz inverter
INVERTIG.PRO TIG welding unit
- **REHM MMA inverter technology**
TIGER and BOOSTER.PRO 100 KHz electrode inverter
- **REHM plasma cutting units**
- **Welding accessories and additional materials**
- **Welding smoke extraction fans**
- **Welding rotary tables and positioners**
- **Technical welding consultation**
- **Torch repair**
- **Machine Service**

REHM WELDING TECHNOLOGY – German Engineering and Production at its best

Development, construction and production – all under one roof – in our factory in Uhingen. Thanks to this central organisation and our forward-thinking policies, new discoveries can be rapidly incorporated into our production. The wishes and requirements of our customers form the basis for our innovative product development. A multitude of patents and awards represent the precision and quality of our products. Customer proximity and competence are the principles which take highest priority in our consultation, training and service.

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