

THE RESULT COUNTS

**REHM PULSTECHNIK - SIMPLY THE BEST**



## ■ WHY PULSE?

### MEGA.PULS FOCUS 230 A - 530 A — INNOVATIVE CAMPAIGN PULSE TECHNOLOGY

International competitors perceive the opportunity to compete against German and European companies.

What can small and medium-sized companies do against this background? How can we further increase the edge that we have gained due to our competitiveness?

**In our view the answer to this question is very clear.**

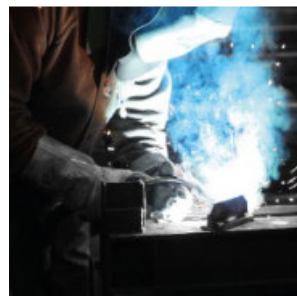
New production processes that result in sustainable increased production with higher quality, and at the same time conserve resources and are less harmful to health. The controlled material transition REHM pulse welding processes are distinguished by the many possibilities they offer, which can achieve permanent, optimum results in a very short time. Basically, there are six welding processes available depending on the objective of the task.

## ■ FOR THE SAKE OF GOOD HEALTH!

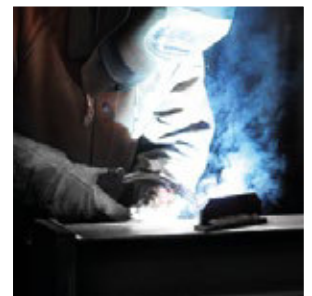
### PEOPLE WHO PULSE LIVE BETTER!

The welding gas load from conventional welding processes results in significant costs to protect the health of the employee.

As proven by the Institut für Schweißtechnik und Fügetechnik, (Institute of welding and joining technology) RWTH Aachen, the **REHM Focus Puls** generates **up to 70% less welding gas** than conventional welding processes.



CONVENTIONAL ARC



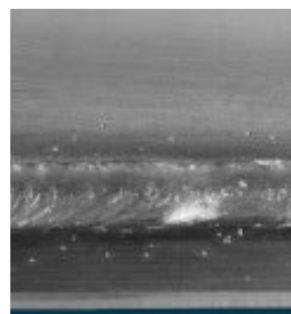
REHM FOCUS PULS

## ■ YOU GAIN TIME!

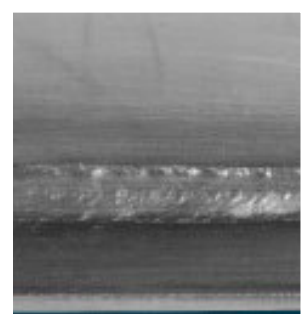
### EARN MONEY BY PULSING

The term "rework" should already make anyone think. Completed work should be finished, not reworked. Preventable costs are incurred due to working hours, abrasives, as well as a considerable dust load on the operation. REHM PULSE welding processes are low-spatter, enabling rework to be significantly reduced.

Statements by the operations manager of Euroroll:  
**"We now weld with a cleanliness that can usually only be achieved with TIG technology. The elimination of rework has almost doubled throughput."**



CONVENTIONAL ARC



REHM FOCUS PULS



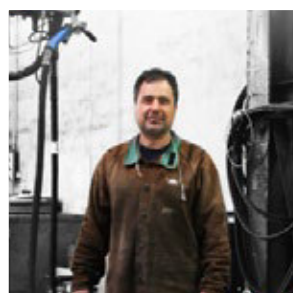
## ■ IMPROVE COMPETITIVENESS

### PULSE LEADS TO SUCCESS

Productivity is a measure of competitiveness. But so is investment in new technologies. With REHM PULS welding processes and the REHM amortization calculator you can determine the cost per metre of welding wire very quickly. At the same time you are given a forecast on the potential for improvement in your production.

Sustainable results achieved at Stahlbau Süssen:  
**Cost per metre of welding wire reduced from € 4.55 to € 3.65.**

Mr. Acibak, welder at Stahlbau Süssen:  
**“With REHM FOCUS.PULS I work faster, cleaner and safer”.**



Mr. Acibak - Stahlbau Süssen



REHM PULSE TECHNOLOGY

## ■ MAKES YOU MORE FLEXIBLE

### PULSE FOR EVERY JOB

REHM PULS welding processes are designed for all common materials and gases. This naturally increases flexibility and the range of your production.

Ms Güngörmetz, operations manager, Klose GmbH:  
**“We can process all materials. Therefore we are able to make a competitive offer very quickly.”**



Ms. Güngörmetz, Klose GmbH



REHM PULSE TECHNOLOGY

## ■ THE NEW REHM MACHINE PROGRAM UNBEATABLE IN TERMS OF PERFORMANCE, VARIATION AND PRICE.

The power classes are finely graded in 50 A increments. This means that at REHM you can find exactly the power class that suits your application.

Power class	230 A	280 A	330 A	380 A	430 A	480 A	530 A
Gas cooled	X	X	X	X	X	X	–
Water cooling	X	X	X	X	X	X	X
Compact	X	X	X	X	X	X	–
With wire feeder	X	X	X	X	X	X	X
Operation in the machine	X	X	X	X	X	X	X
Operation in the wire feeder	X	X	X	X	X	X	X

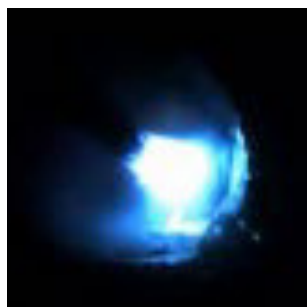
## ■ YOURS IS INCLUDED, GUARANTEED!

THE MOST HOMOGENOUS AND BROADEST PULSE PROGRAM IN THE WORLD!

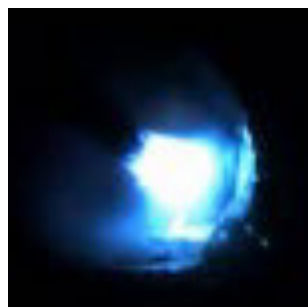


## SIMPLY THE BEST - REHM WELDING PROCESSES

With six welding processes for the most diverse applications the MEGA.PULS FOCUS is not only the all-rounder par excellence – but also the specialist when everything depends on results. The systems offer a highly efficient welding process that can be quickly and easily integrated into any productions process without the need for additional hardware or special knowledge. You and your company become even more flexible and efficient.



FOCUS.PULS Fe



FOCUS.PULS CrNi



FOCUS.ARC



POWER.PULS UI



POWER.PULS II



POWER.ARC

You can find videos on this topic  
on our  
You tube channel under:



YouTube

[www.youtube.com/user/rehmonline](http://www.youtube.com/user/rehmonline)

## ■ DIE REHM WELDING PROCESSES STANDARD IN ALL MEGA.PULS FOCUS - SYSTEMS ... AT NO EXTRA COST!

Material thickness in mm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Steel	POWER.ARC			FOCUS.PULS UI Fe											
CrNi	POWER.PULS II					FOCUS.ARC									
Alu	POWER.PULS II								FOCUS.PULS UI CrNi						

## SYSTEMS WITH MORE VALUE - SIMPLY THE BEST!



## ■ SIMPLY THE BEST - REHM PULSE TECHNOLOGY RIGHT FOR EVERYTHING

Weather steel construction, bridge construction, container construction or the processing of thin sheet. REHM have the right system.

### ■ STEEL, BRIDGE OR CONTAINER CONSTRUCTION

With REHM pulse technology you work with

- up to 30% greater deposition rate
- up to 30% less heat input
- up to 70% less weld smoke emission
- significantly reduced rework
- a verifiable saving of approximately € 2.00 per kilogram of welded wire.
- The systems are easy to operate



To the value-added machine. **Page 7**



### ■ METAL CONSTRUCTION

REHM pulse technology places you that  
 decisive step in front

- Significantly reduced rework
- Versatile use for all common materials
- Certified processes including WPS welding instructions
- 179 synergic characteristic curves
- The systems are easy to operate



For maximum flexibility. **Page 8**



### ■ SHEET METAL PROCESSING STEEL, STAINLESS STEEL OF ALUMINIUM

With REHM pulse technology

- Easy control of heat input
- Versatile use for all common materials
- High gap bridging capability
- The systems are easy to operate



To the sheet metal professionals. **Page 9**



## ■ THE VALUE-ADDED MACHINE

### WHAT CAN YOU EXPECT FORM THE REHM MEGA.PULS FOCUS AND THE FOCUS.PLUS WELDING PROCESS?

- A healthier situation in the workplace and the environment
- Higher productivity through the increased deposition rate
- Increased cost-effectiveness through the reduction of rework
- Increased quality through safety when welding
- Less distortion through reduced heat input
- Optically attractive weld seams through double-pulsing
- Very easy operation

#### REHM POTENTIAL ANALYSIS THROUGH THE USE OF FOCUS.PULS

ACTUAL SITUATION		POTENTIAL THROUGH THE USE OF FOCUS.PLUS	
Current cost situation		Cost situation determined using MEGA.PULS FOCUS	
Dimension A (mm)	<b>6.0 mm</b>	Dimension A (mm)	<b>6.0 mm</b>
Energy from the mains supply (kVA)	<b>12.3 kVA</b>	Energy from the mains supply (kVA)	<b>12.3 kVA</b>
Rework per day (minutes)	<b>45 min</b>	Rework per day (minutes)	<b>15 min</b>
Cost of welding hours	<b>€40,549.00</b>	Cost of welding hours	<b>€32,439.20</b>
Rework cost	<b>€3,801.50</b>	Rework cost	<b>€1,267.20</b>
Energy cost	<b>€1,496.30</b>	Energy cost	<b>€1,197.00</b>
Cost for inert gas	<b>€973.20</b>	Cost for inert gas	<b>€778.50</b>
Cost per metre of welding join	<b>€4.04</b>	Cost per metre of welding join	<b>€3.17</b>
Total cost	<b>€51,500.00</b>	Total cost	<b>€40,362.00</b>
Production of environmentally harmful CO <sub>2</sub>	<b>4,680 kg</b>	Production of environmentally harmful CO <sub>2</sub>	<b>3,744 kg</b>

Example: Steel construction with 4,500 kg of welded wire

**WE WILL HELP YOU TO DETERMINE YOUR SAVING POTENTIAL.**  
 PLEASE CONTACT US

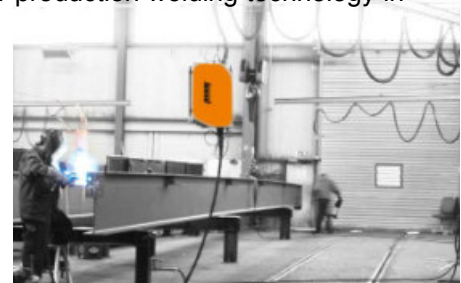
The spray arc process, still commonly used in steel, machine, bridge and container construction is a production process unchanged for 50 years. It time to modernise welding

- Bring about transparency in your production processes
- Discover the potential for improvement and achieve competitiveness

### WHEN WILL YOU START WORKING WITH THE MOST MODERN TECHNOLOGY?

The REHM process analysis enables you to determine the potential in your production welding technology in a very short time.

With conventional welding the deposition rate is limited by the heat input. Any more is not possible!  
**The Rehm FOCUS.PULS welding process uses an extremely short impulse arc, which enables up to 30% more deposition rate with the same heat input. This advantage can be used to significantly increase productivity.**



## ■ ADAPTABILITY IS IN DEMAND IN METAL CONSTRUCTION FOR THE HIGHEST POSSIBLE FLEXIBILITY

### WHAT CAN YOU EXPECT FROM MEGA.PULS FOCUS WITH OVER 170 SYNERGIC CHARACTERISTIC CURVES?

- A healthier situation in the workplace and the environment due to reduced weld gas generation
- Versatility and flexibility: Characteristic curves for FE, CrNi, AlMg, AlSi, CuSi, CuAl8 are included in the standard package at no extra cost.
- Increased cost-effectiveness through the reduction of rework
- Safety: The REHM manual with approximately 180 welding instructions is available for the MEGA.PULS FOCUS
- Less distortion through reduced heat input
- Optically attractive weld seams through double-pulsing
- Very easy operation

Because you never know what your customer will expect from you tomorrow. With the MEGA.PULS FOCUS you are best equipped for all common materials and the most varied demands.



### ■ STAINLESS STEEL

Faster than TIG

#### THE BENEFITS

- Higher productivity
- Reduced heat input
- Consumption of filler material reduced by 10%.



POWER.PULS II



CONVENTIONAL ARC

### ■ STEEL

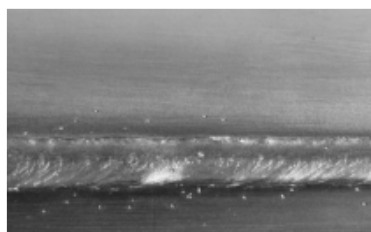
Cost reduction

#### THE BENEFITS

- Reduced spatter
- Less rework
- Reduced consumption of abrasives
- Reduced dust load



POWER.PULS II



CONVENTIONAL ARC

### ■ ALU

Faster than TIG

#### THE BENEFITS

- Reduced spatter
- Clean, smooth surfaces
- Modelable weld seam appearance



POWER.PULS II



POWER.PULS II double pulse



## ■ FOR SHEET METAL PROFESSIONALS

FE, CrNi, AlMg, AlSi, CuSi, CuAl8

### WHAT CAN YOU EXPECT FORM THE REHM MEGA.PULS FOCUS AT SHEET THICKNESSES OF 2mm?

- Increased cost-effectiveness through the reduction of rework
- Versatility and flexibility. Characteristic curves for FE, CrNi, AlMg, AlSi, CuSi, CuAl8 are included in the standard package.
- Very easy operation
- High process reliability through the easy saving and retrieval of previously determined settings
- High gap bridging capability through the finely adjustable heat input

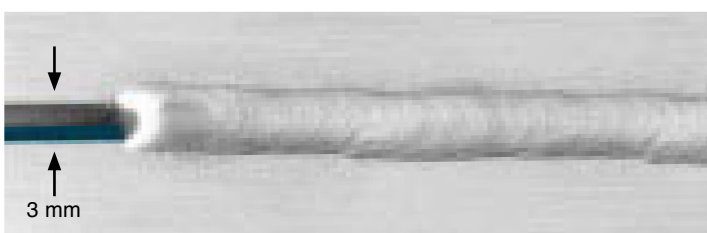


## ■ FURTHER APPLICATIONS

Besides the tasks that you have performed with conventional welding processes until now, the MEGA.PULS FOCUS also offers a whole host of new possibilities that broaden its range of services.



TIG brazing and soldering



Gap bridging

## ■ SHEET METAL

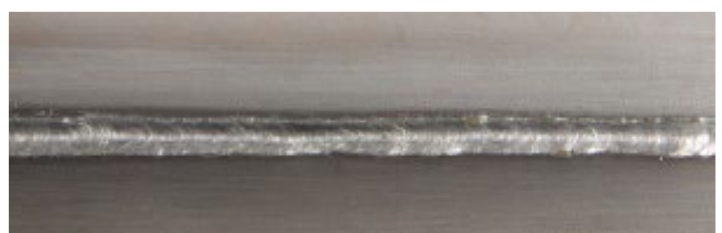
Faster than TIG



Aluminium from 1.0 mm



CrNi from 1.0 mm



Fe from 1.0 mm

## ■ FOR PERFECT WELDING RESULTS

### ■ FOCUS.PULS

Absolutely fast and efficient

The new FOCUS.PULS pulse arc is unsurpassed worldwide in regards to deposition rate and the resulting welding speed. In conjunction with UI arc length regulation the result is revolutionary.



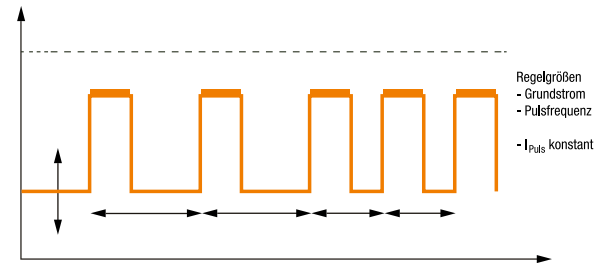
**Every day the low-energy but highly efficient pulse arc gives you the choice of:**

- Weld just as fast as with your current spray arc, but with 30% less arc power and therefore 30% lower energy costs.
- Weld up to 30% faster without higher energy requirements compared to your current spray arc process.

**BUT WHICHEVER WAY YOU LOOK AT IT - WITH MEGA.PULS FOCUS YOU ARE ALWAYS ON THE WINNING SIDE**

### ■ POWER.PULS II THE SPECIALIST FOR ALUMINIUM AND CrNi

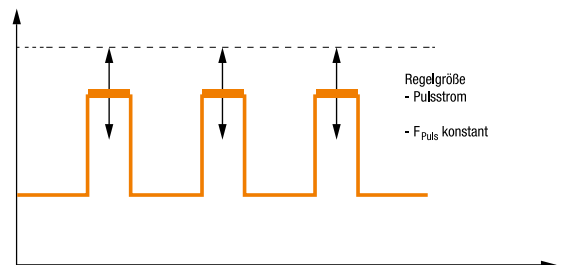
This directionally stable pulse arc is frequency controlled for aluminium and also CrNi: A universal arc with a wide range of applications. The drop frequency regulation provides for the very best flow behaviour and safe edge zone wetting.



The II control

### ■ FOCUS.PULS UI THE SPECIALIST FOR STEEL AND CrNi

This directionally stable pulse arc with its perfect and ultra-fast control with variable drop volume is the universal arc for welding steel. It is the very best arc for steel welds with a high deposition rate.



The UI control

### ■ SINGLE LAYER SEAM



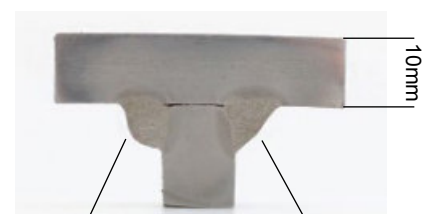
Focus.Puls

### ■ FOUR-LAYER SEAM



Focus.Puls

### ■ OVERHEAD SEAM



Conventional

Focus.Puls

## VALUES THAT IMPRESS

TECHNICAL DATA		MEGA.PULS FOCUS SERIES						
Type		230	280	330	380	430	480	530
Setting range	[A]	10-230	10-280	10-330	10-380	10-430	10-480	10-530
Duty cycle (ED) at I-Max	%	60%	60%	60%	60%	60%	60%	50%
Weld current at 100% ED	[A]	180	220	260	310	340	370	390
Open-circuit voltage	[V]	78V						
Mains connection	[V]	3 x 400V						
Power consumption at I Max	[kVa]	8.1	10.8	13.8	17.2	21.0	25.1	29.5
Power factor	[cos phi]	0.92						
Fuse	[A]	16 A			32 A			
Protection type		IP 23						
Machine weight, gas-cooled version	[kg]	125		128		131		
Machine weight, water-cooled version	[kg]	129		132		135		
Weight, wire feeder	[kg]	26						
Machine dimensions L x B x H	[mm]	1030 x 605 x 845						
Wire feeder dimensions L x B x H	[mm]	630 x 310 x 500						

**MEGA.PULS FOCUS**  
 Operation from below

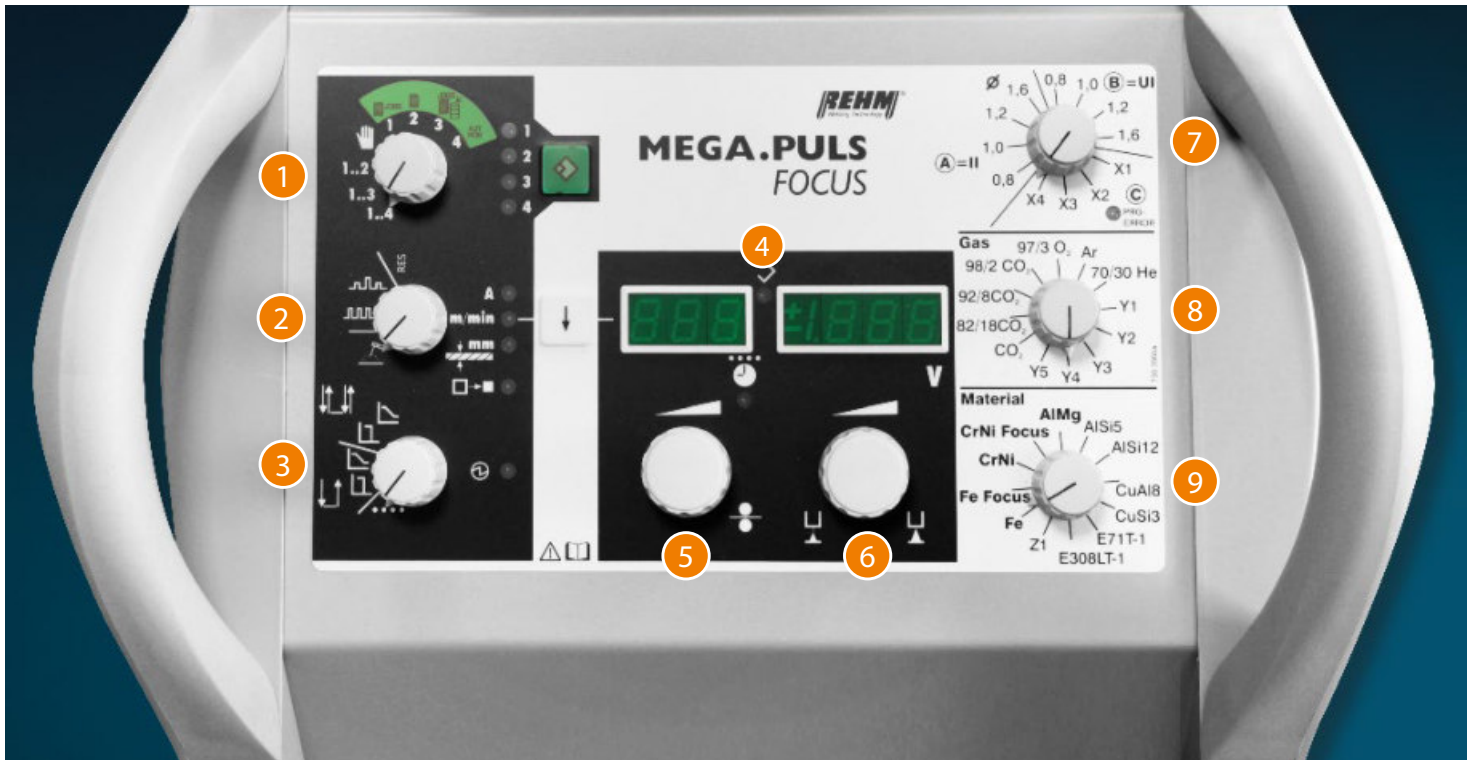
**MEGA.PULS FOCUS**  
 Operation from above

**MEGA.PULS FOCUS**  
 Compact



## ■ IF YOU KNOW ONE, YOU KNOW THEM ALL!

Whether 230 A or 530 A, compact or with a wire feeder, the REHM operating concept is the same on all models. It is also typical of REHM to place this perfectly harmonised operating interface on both the lower section of the machine and also on the upper section of the machine on the wire feeder.



### 1. Program

- Management and selection of working spots/jobs

### 2. Welding process

- Double pulse
- Pulsing
- Conventional
- E hand / joints

### 3. Operating mode

- 4 cycle with/without down slope
- 2 cycle with/without down slope
- Spots

### 4. Digital display

- Welding current
- Wire feed m/min
- Material thickness
- Welding voltage

### 5. Controller

- Welding energy

### 6. Controller

- Arc correction (LBL)

### 7. Selector switch

- Wire diameter
- II/UI-controller

### 8. Selector switch

- Inert gas

### 9. Selector switch

- Additional materials



# ■ ACCESSORIES



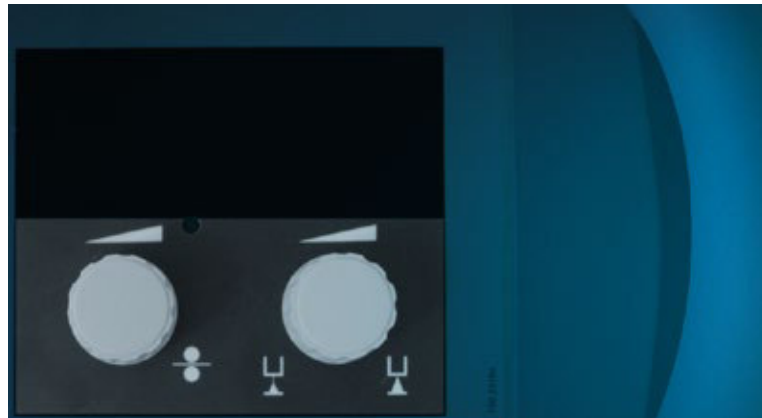
VARIANTS **MEGA.PULS FOCUS**



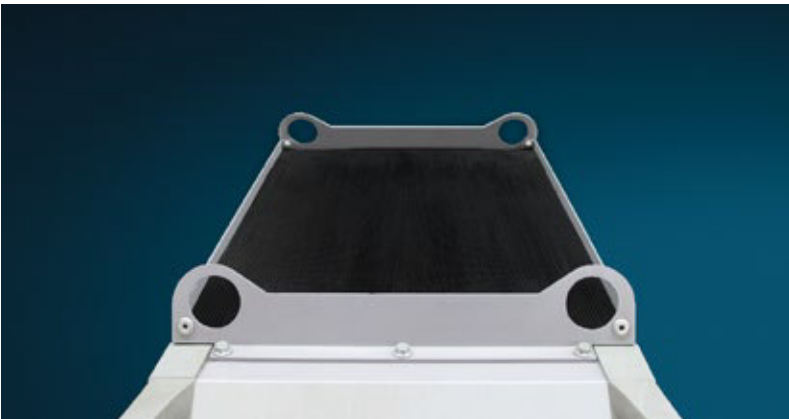
AIR FILTER ATTACHMENT



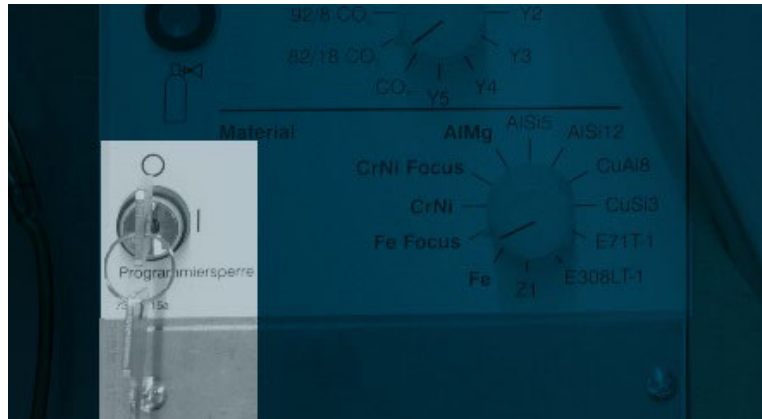
OPERATING PANEL COVER



ENERGY AND VOLTAGE REGULATOR AM CASE



CRANE LIFTING LUGS



LOCKABLE SWITCH



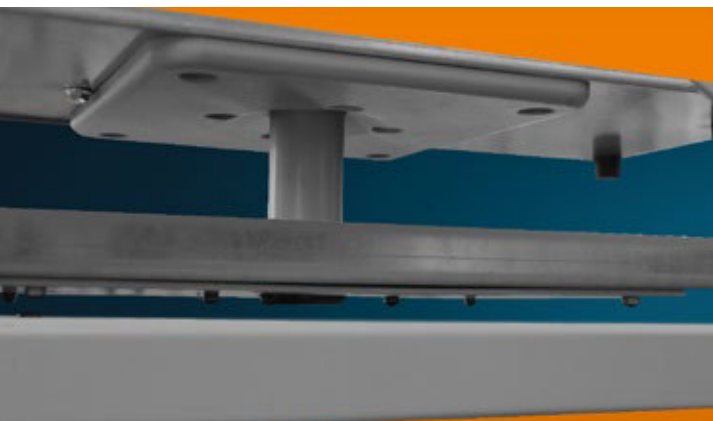
## ■ ACCESSORIES



CASE SUSPENSION



TORCH AND HOSE PACK BRACKET



CASE HOLDER



CARRIAGE FOR THE WIRE FEEDER

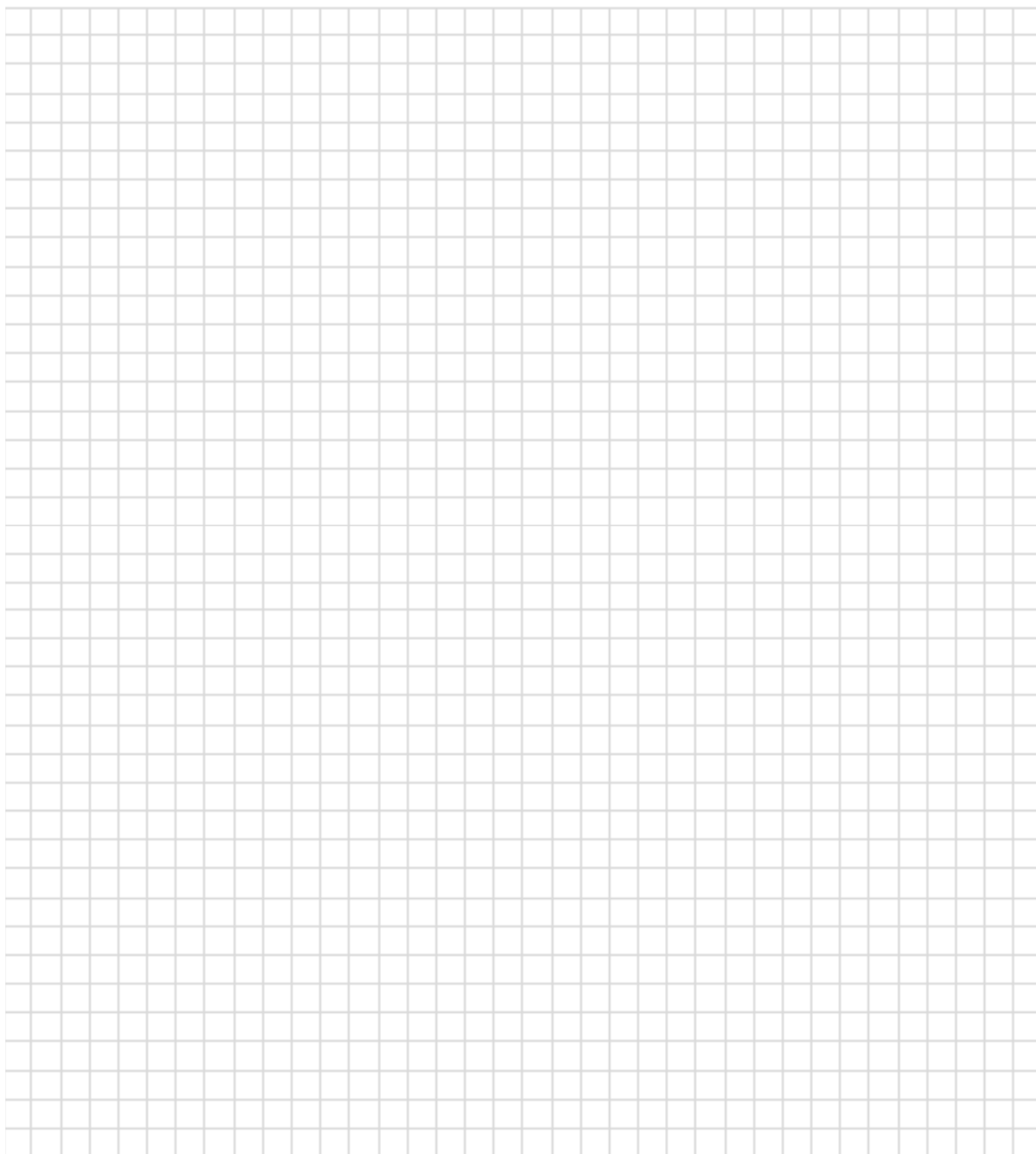


■ **YOURS IS INCLUDED,  
GUARANTEED!**

THE MOST HOMOGENEOUS AND BROAD-  
EST PULSE PROGRAM IN THE WORLD!



## ■ NOTES



# REHM – THE BENCHMARK FOR MODERN WELDING

## THE REHM PRODUCT RANGE

- **REHM ITG/MAG inert gas-welding equipment:**
  - SYNERGIC.PRO<sup>2</sup> gas and water cooled to 450 A
  - SYNERGIC.PRO<sup>2</sup> water cooled 500 A to 600 A
  - MEGA.ARC<sup>2</sup> infinitely variable to 450 A
  - PANTHER 202 PULS pulse welding equipment with 200 A
  - MEGA.PULS<sup>®</sup> FOCUS pulse welding equipment to 530 A
- **REHM TIG inert gas-welding equipment:**
  - TIGER<sup>®</sup> 170 to 210, single phase
  - TIGER<sup>®</sup> HIGH/ULTRA 180 to 230 DC + AC/DC, single phase
  - INVERTIG.PRO<sup>®</sup> and INVERTIG.PRO<sup>®</sup> digital 240 A to 450 A, three-phase
  - INVERTIG.PRO<sup>®</sup> COMPACT and INVERTIG.PRO<sup>®</sup> COMPACT *digital* 240 A to 450 A, three-phase
- **REHM hand-held arc welding equipment:**
  - BOOSTER<sup>®</sup> 140, BOOSTER.PRO 170 and 210, single phase
  - BOOSTER.PRO 250 and 320, three-phase
- **Welding turntables**
- **REHM Plasma cutting systems**
- **Welding accessories and consumables**
- **Welding gas extraction**
- **Technical welding advice**
- **Torch repairs**
- **Service**

WEEE-Reg.No. DE 42214869



REHM Uchingen

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